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WHAT IF THE BABY BOOMERS HAD PERSONAL  
RETIREMENT ACCOUNTS? AN ANALYSIS OF  
RETIREMENT SECURITY FOR AMERICANS AGE  
40-58

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# WHAT IF THE BABY BOOMERS HAD PERSONAL RETIREMENT ACCOUNTS? AN ANALYSIS OF RETIREMENT SECURITY FOR AMERICANS AGE 40-58

*KIRK A. JOHNSON, PH.D.*

On December 16, 2004, President George W. Bush hosted a summit to discuss the future of Social Security and to press for reform that would allow younger workers to divert part of their payroll taxes into their own personal retirement accounts (PRAs). During the summit, former Representative Tim Penny (D-MN) made an interesting comment about PRAs, “[I]f we had saved these [Social Security] surpluses honestly in personal accounts over the last 20 years, we’d be well on the way to fixing this problem by now.”<sup>1</sup>

That sentiment gives rise to an interesting simulation exercise. What if there had been PRAs in the recent past? What would it mean to the future retirement security of Americans? Would such change, as the President predicted in his most recent State of the Union address, “make the system a better deal for younger workers”?<sup>2</sup>

This simulation seeks to analyze what would have happened if PRAs had been available for the baby boomers, the large cohort of Americans, whose oldest members are now in their late 50s. What would have happened if in 1964—when the first baby boomers entered the workforce—

President Lyndon B. Johnson had declared an “ownership society” as part of the “Great Society”? This ongoing research comes to the following preliminary conclusions:

1. **Currently, most baby boomers will rely on Social Security for the bulk of their retirement income.** Social Security has been deemed part of the “three-legged stool,”<sup>3</sup> in which Social Security, private pensions, and savings may be considered the three legs of retirement income. In truth, it is an unbalanced stool in which Social Security represents the bulk of retirement income for baby boomers. For the average baby-boomer family, Social Security represents almost 63 percent of its net worth.<sup>4</sup>
2. **Under this sample PRA plan, baby boomers would have been far less dependent on traditional Social Security payments for their retirement.** This simulation shows that under the described PRA plan, the average baby-boomer family could have built a PRA equal to nearly \$400,000 by retirement. Under that scenario, traditional Social Security would

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1. White House, “President Discusses Budget, Tax Relief at White House Conference,” Washington, D.C., December 16, 2004, at [www.whitehouse.gov/news/releases/2004/12/20041216-2.html](http://www.whitehouse.gov/news/releases/2004/12/20041216-2.html) (January 31, 2005).
  2. President George W. Bush, State of the Union Address, February 2, 2005, at [www.whitehouse.gov/stateoftheunion/2005/index.html](http://www.whitehouse.gov/stateoftheunion/2005/index.html) (February 3, 2005).
  3. The “three-legged stool” reference is attributed to former Metropolitan Life Insurance actuary Reinhard A. Hohaus. Larry DeWitt, “Research Note #1: Origins of the Three-Legged Stool Metaphor for Social Security,” Social Security Administration, May 1996, at [www.ssa.gov/history/stool.html](http://www.ssa.gov/history/stool.html) (January 25, 2005).
  4. This simulation assumes that Social Security benefit payments are treated as an asset.

account only for roughly 26 percent of that family's net worth.

3. **This simulation shows that baby boomers would have generally seen a sizable increase in their retirement security if they had PRAs throughout their working lives.** The average baby-boomer family would have seen its retirement security—defined as traditional Social Security plus PRAs—increase significantly. This would happen despite the simulation's assumption that the PRA plan would reduce a worker's traditional Social Security benefits to half of current law benefits.

Indeed, PRAs have a remarkable potential to increase the retirement security of Americans. This simulation analysis of the baby boomers shows that, with very few exceptions, millions of Americans with low and moderate incomes could use PRAs in conjunction with traditional Social Security to secure their retirement income. For instance:

- PRAs would have increased retirement security by some 30 percent for baby boomers;
- PRAs would have substantially increased the net worth of the baby boomers, especially among low-wealth families;
- Virtually all of the boomers would have been better off with PRAs; and
- The gain in retirement security would be between \$41,000 and \$214,000 at age 65, in inflation-adjusted 2001 dollars.

## BACKGROUND

Social Security reform has become a central policy issue for the second term of the Bush Administration, with the President vowing to spend his political capital to modernize the government-run pension system. This drive for reform is coming at a time when the baby boomers, the largest generation alive in America today,<sup>5</sup> will begin reaching retirement age in just a few years.

The research in this paper poses a novel question. What would the baby boomers' retirement security be if they had had personal retirement accounts? How would that have likely changed

their retirement security and their wealth holdings generally?

With PRAs, Social Security would then become a two-part system. Part A would consist of traditional Social Security benefits. The only difference would be that under PRAs, Part A Social Security would equal only half of scheduled current law benefits. Part B would be the account value for the PRAs.

## METHODOLOGY: BABY BOOMER WEALTH ANALYSIS

First, this analysis must ascertain the likely financial well-being of the baby-boom generation by looking at the distribution of wealth across the baby-boom population. The baby boomers as a group are close enough to retirement age that their likely wealth holdings at age 65 can be estimated. This analysis also seeks to estimate what the value of their PRAs could have been, using the actual rates of return observed in the recent past.

In this analysis, "wealth" is operationally defined as encompassing three major categories: private net worth, Part A Social Security wealth, and Part B personal retirement account value. (See the Technical Appendix for a more detailed explanation of the methodology.)

**Private Net Worth.** Typical discussions of wealth focus almost exclusively on this topic. Net worth is defined as the sum of assets (e.g., personal savings, real estate, investment and retirement accounts, and future pension claims) minus any liabilities (e.g., mortgages, credit card balances, and other secured and unsecured loans). This simulation assumes that, between the stock of current wealth and the flow of new money into accounts, the real inflation-adjusted growth rate would equal a conservative 5 percent per year. Net worth is evaluated upon attainment of age 65. The Federal Reserve Bank's triennial Survey of Consumer Finance (SCF) is used to generate figures for these families, and the 2001 data are used for this analysis.<sup>6</sup>

**Part A Social Security Wealth.** Social Security payments may be considered as a kind of wealth

5. The baby-boom generation is typically defined as those born between 1946 and 1964. In 2004, the 78 million baby boomers were between the ages of 40 and 58.

6. See Federal Reserve Board of Governors, "2001 Survey of Consumer Finances," updated April 29, 2004, at [www.federalreserve.gov/pubs/oss/oss2/2001/scf2001home.html](http://www.federalreserve.gov/pubs/oss/oss2/2001/scf2001home.html) (January 25, 2005).

holding.<sup>7</sup> If Congress does not change current law (and sufficient funds exist to pay these future beneficiaries), a person's Social Security wealth equals the total of Social Security payments over the individual's estimated life expectancy after retirement, including survivor's benefits.

In order to gauge Social Security payments, something must be known about a worker's earnings history. The SCF data have only limited information regarding the wages, salaries, and self-employment earnings in the file. However, census data<sup>8</sup> can be used to construct a somewhat predictable earnings profile for a worker's entire career. This profile can then be used to estimate the worker's (and spouse's) Social Security benefits.<sup>9</sup>

#### **Part B Personal Retirement Account Value.**

The final category is the value of a Part B PRA account at age 65. The simulated PRA is funded via a sliding-scale payroll tax, which varies between 2.5 percent and 7 percent of earnings depending on the worker's earnings level.<sup>10</sup> The PRA is funded in this manner up to the value of the Social Security wage base, which for 2005 is \$90,000 per worker. A worker earning \$90,000 or more would have \$2,250 deposited into his or her PRA for the year.

The account is invested in a portfolio equally divided between large company stocks and bonds. Actual rates of return are used where historical data exist. Otherwise, the simulation assumes a nominal rate of return (net of administrative fees)

of 7.7 percent (a 4.7 percent real rate of return plus the assumed 3.0 percent inflation rate). At age 65, the value of the account is deflated to 2001 dollars, in order to be consistent with the other parts of the analysis.

The simulation compares two scenarios. First, current law Social Security wealth (i.e., the value of all Social Security payments over the estimated life expectancy of the individual) is compared against estimated non-Social Security wealth for the family. Then, the value of PRAs is added. The assumed trade-off in this simulation is that Social Security is split into a Part A traditional benefit, which is reduced to 50 percent of scheduled current law benefits, and the Part B personal retirement account.

## **DISAGGREGATED RESULTS**

The following sections answer three basic questions: First, what will the net worth of the baby boomers at age 65 likely be? Second, under current law, what will the Social Security benefits likely be for this group? What proportion of net worth would Social Security comprise, if it were an asset? Third, what would be the net effect of PRAs, if they had existed in 1964 when the first baby boomers entered the workforce?

**Net Worth.** Because the baby-boom generation is a large one—more than 70 million individuals born during the course of 18 years—calculating the net worth of the entire generation is not necessarily an easy endeavor. Using data from the Federal Reserve,<sup>11</sup> the baby boomers' net worth (defined

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7. The notion of "Social Security wealth" traces its origins back to at least the 1970s. The Congressional Budget Office notes that Social Security wealth is "a measure that summarizes the value of future Social Security benefits less the value of future payroll taxes." Congressional Budget Office, "Social Security and Private Saving: A Review of the Empirical Evidence," *CBO Memorandum*, July 1998, p. 3, at [www.cbo.gov/ftpdocs/7xx/doc731/ssprisav.pdf](http://www.cbo.gov/ftpdocs/7xx/doc731/ssprisav.pdf) (January 25, 2005). This notion is simplified somewhat for purposes of this paper by evaluating the present value of Social Security at age 65, which more or less obviates the need to subtract future payroll taxes.
  8. U.S. Bureau of the Census, Census 2000 Supplementary Survey. The survey data are available at University of Minnesota, Social Sciences Data Services, "Census 2000 Supplementary Survey (C2SS) Microdata Sample," revised November 23, 2004, at [dsr.lib.umn.edu/datadesc/c2ss-ipums.html](http://dsr.lib.umn.edu/datadesc/c2ss-ipums.html) (January 26, 2005).
  9. The earnings data that the SCF uses are based on tax return information. Consequently, no husband/wife earnings split information is available. Therefore, this analysis assumes a roughly 65/35 earnings split between husbands and wives, as often reported in the empirical literature. See Anne E. Winkler, "Earnings of Husbands and Wives in Dual-Earner Families," *Monthly Labor Review*, April 1998, p. 47. Social Security benefits are estimated individually and summed for the couple.
  10. This methodology was used in previous research. See William W. Beach, Alfredo B. Goyburu, Ralph A. Rector, David C. John, Kirk A. Johnson, and Thomas Bingel, "Peace of Mind in Retirement: Making Future Generations Better Off by Fixing Social Security," Heritage Foundation *Center for Data Analysis Report* No. 04-06, September 10, 2004, p. 45, at [www.heritage.org/Research/SocialSecurity/CDA04-06.cfm](http://www.heritage.org/Research/SocialSecurity/CDA04-06.cfm).

broadly as total assets minus total liabilities) was calculated. Older baby boomers would be expected to have a higher net worth than those who are younger, and the data and calculations confirm this.

In order to adequately compare the net worth of the boomers, all baby-boomer families are evaluated at age 65. Net worth for the boomers at age 65 will likely be much larger than it currently is, so the simulated net worth is conservatively grown at a real rate of 5 percent per year,<sup>12</sup> which encompasses not only the appreciation of assets but also the net paydown of privately held debt. Obviously, this methodology cannot be used if the baby-boomer family has a negative net worth. Fortunately, this problem affects only a very small fraction of the baby-boom population.

The baby boomers are then subdivided into 10 deciles, or equal groupings, on the basis of net worth. Deciles are chosen so that a distributional analysis may be conducted for boomers at various wealth and income levels (since income and wealth are generally correlated with each other). Therefore, the bottom 10 percent of families in terms of net worth comprise the first decile, the next lowest 10 percent comprise the second decile, and so forth. Mean (average) net worth calculations are specified for each of the deciles, and the results of this exercise are in Table 1.

Table 1 shows that most baby boomers will have substantial assets at age 65. The average net worth for baby boomers in the fifth (median) decile is nearly \$278,000. At the same time, there is a sizable group of baby boomers that may have little in net assets at retirement. This analysis shows that some 25 percent of baby boomers may have a net worth at retirement of less than \$50,000, which may not be an adequate safety net in case of emergencies. At the other end of the spectrum, this analysis estimates that perhaps as many as 25 percent of the boomers may have a net worth of over \$1 million at age 65.

**Social Security Wealth.** Earnings from self-employment income and traditional wages and salaries were used to generate a curvilinear lifetime

Table 1		CDA 05-02
<b>Estimated Average Net Worth of the Baby Boomers at Age 65, by Decile</b>		
First Decile		\$20,148
Second Decile		\$44,448
Third Decile		\$96,410
Fourth Decile		\$189,759
Fifth (Median) Decile		\$277,937
Sixth Decile		\$385,199
Seventh Decile		\$558,571
Eighth Decile		\$877,198
Ninth Decile		\$1,477,138
Top Decile		\$6,792,425
<b>Note:</b> Does not include Social Security wealth.		
<b>Source:</b> Calculations based on data from Federal Reserve Board of Governors, "2001 Survey of Consumer Finances," updated April 29, 2004, at <a href="http://www.federalreserve.gov/pubs/loss/loss2/2001/scf2001home.html">www.federalreserve.gov/pubs/loss/loss2/2001/scf2001home.html</a> (January 25, 2005).		

earnings function. This information was then used to calculate the Social Security benefits (the "personal insurance amount") of the individual baby-boomer worker for his or her initial retirement year. This is done for all of the baby boomers who reported positive earnings in the Federal Reserve data. The model's estimated Social Security benefits were compared against calculations using the ANYPIA computer program of the Social Security Administration,<sup>13</sup> which can estimate benefits. In the cases selected for audit, the Heritage Foundation program produced results very close to the ANYPIA calculations.

Under current law, once initial Social Security benefits are set, they are only adjusted annually for inflation. If all baby boomers in the analysis are assumed to attain an age of 65, they are estimated to live for another 16.4 years if male and 19.4 years if female. The sum of these Social Security payments over the baby boomer's lifetime may be termed "Social Security wealth."<sup>14</sup>

11. Federal Reserve Board of Governors, "2001 Survey of Consumer Finances."  
 12. This real return rate of 5 percent was used because it roughly conformed to the future PRA rate of return, while including a small (0.3 percent) premium that includes the net drawdown of debt.  
 13. Social Security Administration, "Social Security Detailed Calculator," updated November 1, 2004, at [www.ssa.gov/OACT/ANYPIA/anypia.html](http://www.ssa.gov/OACT/ANYPIA/anypia.html) (January 25, 2005).

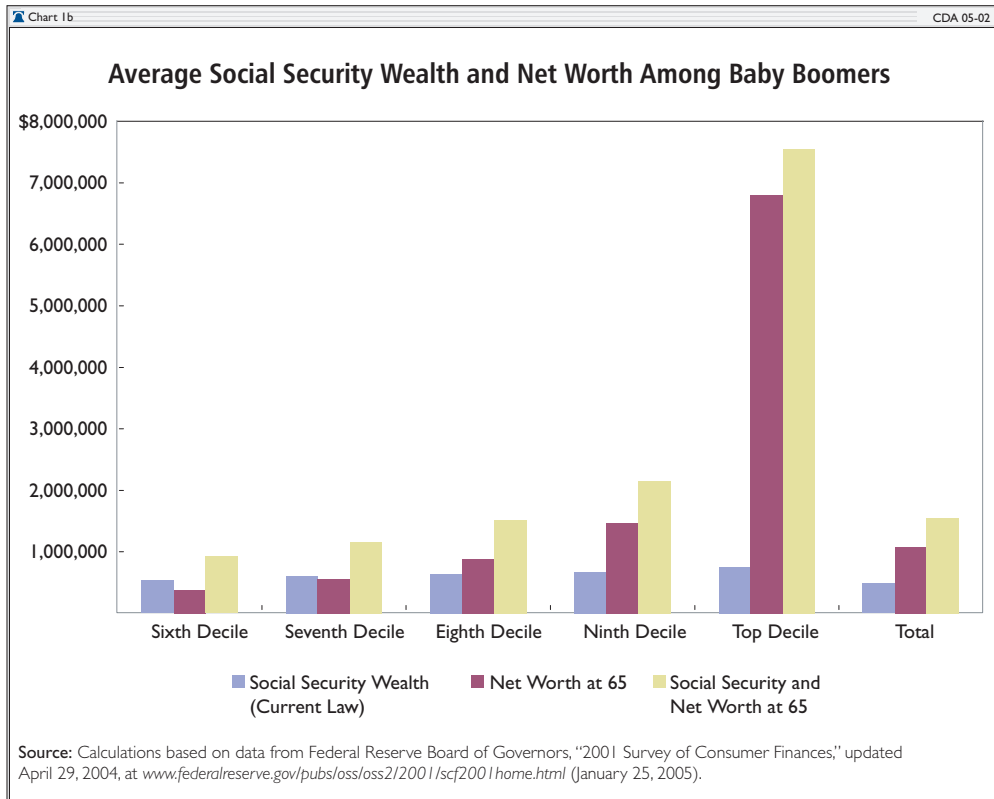
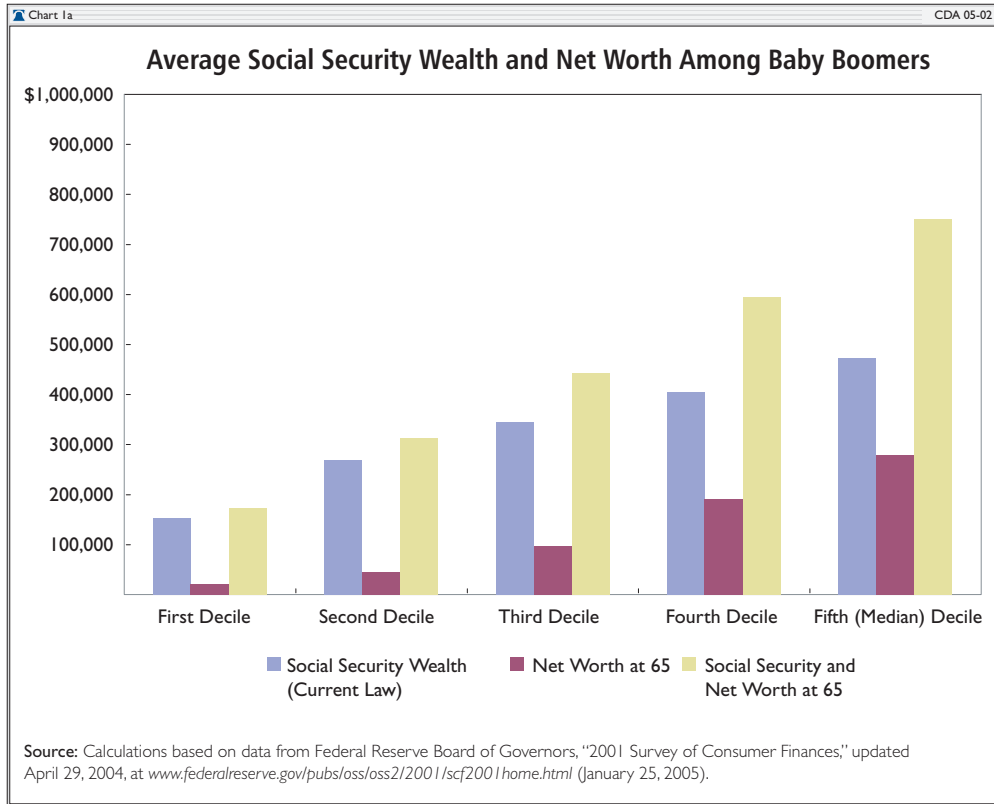


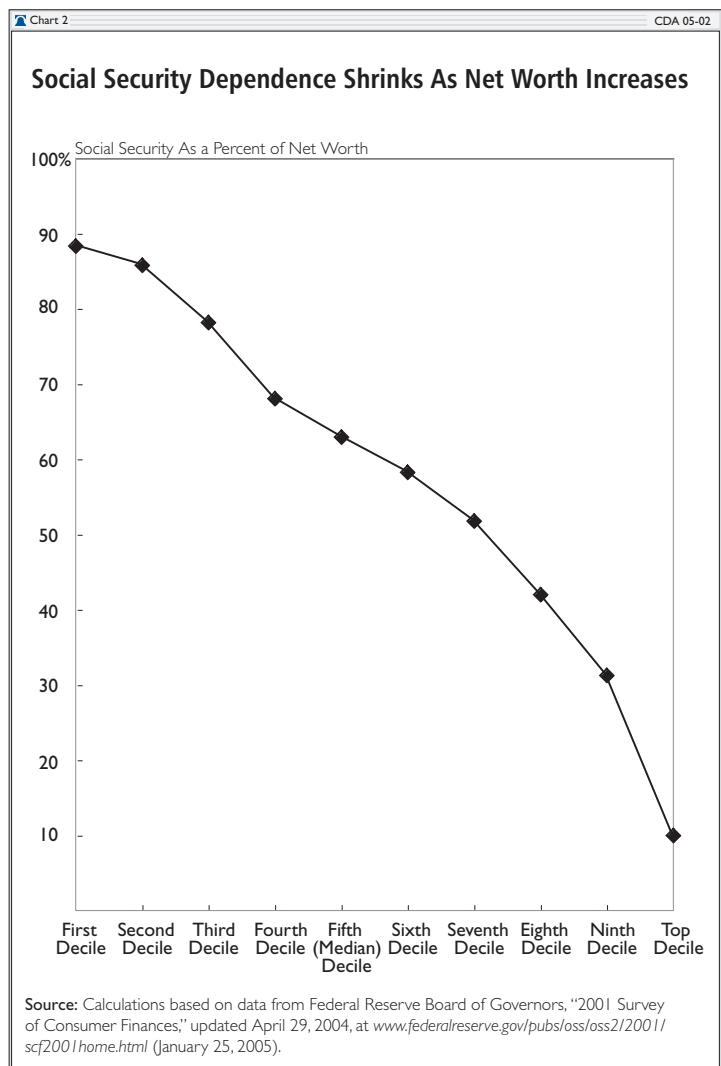
Chart 1a and Chart 1b show averages for Social Security wealth and other net worth. Totaling these averages gives the individual family's estimated net assets at retirement. For most baby boomers, Social Security wealth is greater than other net worth. For the fifth (median) decile, the average Social Security wealth amounts to \$472,000—substantially higher than the nearly \$278,000 in other net worth. Only at the seventh decile does average Social Security wealth approximately equal average other net worth.

Therefore, Social Security will comprise the lion's share of retirement security for most baby boomers. Indeed, Chart 2 shows that Social Security wealth accounts for more than 75 percent of wealth at retirement for the bottom three deciles. Additionally, it represents at least 50 percent of wealth at retirement for more than 70 percent of all baby boomers.

**Effect of Part B Personal Retirement Accounts.** PRAs would be individually owned accounts funded through the current Social Security payroll taxes on a sliding scale. Those workers with the lowest earnings would have 7 percent of their earnings placed into their Part B PRAs, while those at the maximum Social Security wage base would have 2.5 percent of their earnings deposited into their PRAs.<sup>15</sup>

Because the introduction of PRAs would come at a cost in the current system, Social Security benefits would be cut in half under the PRA simulation. Operationally, the same average baby-boomer family would have only a Social Security wealth of \$236,000 in the PRA simulation, instead of \$472,000 under traditional Social Security. Put another way, the sum total of the traditional Social Security (Part A) payments over their lifetimes would be half of scheduled benefits under current law.

This simulation seeks to establish whether or not this PRA system would have made the typical baby boomer better off financially. In other words,



would the private accounts grow enough to offset the 50 percent reduction in benefits?

Critics may disagree with conducting this kind of "what if" analysis, arguing that the point is largely moot given that PRAs do not in fact exist. However, this analysis shows the potential of PRAs, using actual historical rates of return for most of this generation's working lives.

Table 2 shows how much money could have been saved in these PRAs, if they had been available for the baby boomers' entire working lives. The average family in the fifth (median) decile would have accumulated nearly \$400,000 in its PRA. Even workers at the bottom end of the dis-

14. Put another way, this is the present value of the future Social Security benefits with an assumed zero percent interest rate.  
 15. This follows the methodology in Beach *et al.*, "Peace of Mind in Retirement," p. 45. This is an example PRA plan, which does not exactly mimic any legislation currently being considered by Congress.



tribution would have earned a tidy sum: The bottom decile would have amassed nearly \$118,000 by age 65.

This simulation shows that virtually all baby boomers would have been better off under PRAs versus current law Social Security benefits. Chart 3 shows that even after the reduction of current law Social Security benefits, the average baby-boomer family would have gained nearly \$162,000 in additional assets that could be spent at retirement. If that lump sum was used to purchase an annuity at age 66 (the full retirement age for the oldest of the baby boomers), that additional money could be converted into an income stream that would pay out between \$850 and \$1,150 per month, depending on the kind of annuity purchased.<sup>16</sup>

A detailed analysis of the simulation database generated found that some 98 percent of baby boomers would have been better off financially with PRAs than under current law. Those who were not made better off typically had very low earnings. A separate policy solution could be fashioned so that the plan does not worsen the situation of these families.

Clearly, PRAs strengthen retirement security for Americans. If PRAs had been available to baby boomers, they would have experienced about a 30 percent increase in their retirement security, a percentage that fluctuates only slightly across the 10 baby-boomer groups outlined here.

Additionally, PRAs generate a significant amount of wealth, especially for the lower-wealth deciles. Chart 4 shows the percent increase in net worth at age 65 with the advent of the PRA. The bottom three deciles show a more than 50 percent increase in net worth with PRAs, a percentage that understandably tapers off as net worth rises.

**DISCUSSION**

PRAs have a remarkable potential to increase the retirement security of Americans. This simulation of the baby boomers shows that, with very few exceptions, millions of Americans with low and moderate incomes could use PRAs in conjunction with traditional Social Security to secure their retirement income. This analysis concludes the fol-

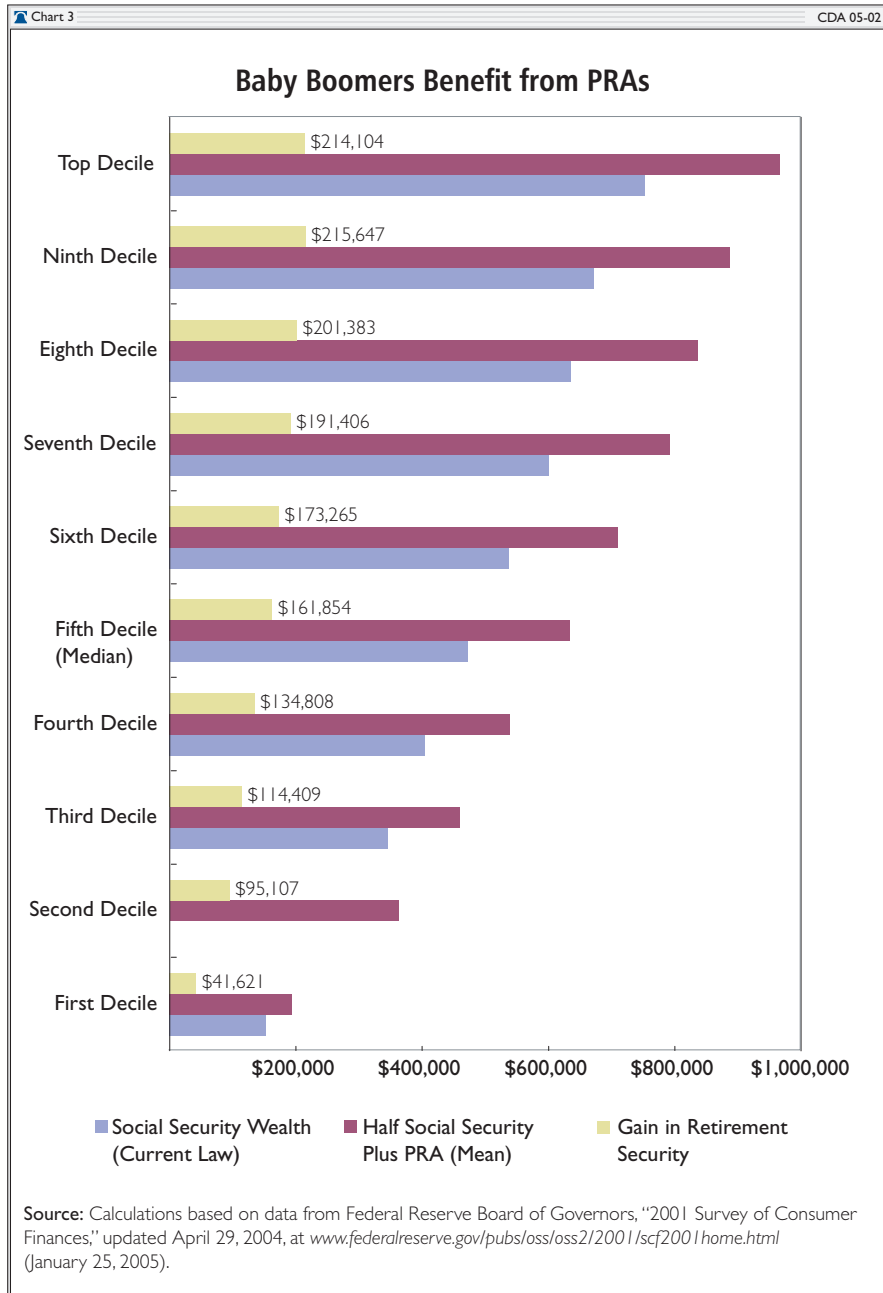
Table 2		CDA 05-02
<b>Estimated PRA Value of the Baby Boomers at Age 65, by Decile</b>		
First Decile		\$117,808
Second Decile		\$228,999
Third Decile		\$286,723
Fourth Decile		\$336,902
Fifth (Median) Decile		\$397,882
Sixth Decile		\$441,729
Seventh Decile		\$491,320
Eighth Decile		\$518,970
Ninth Decile		\$551,529
Top Decile		\$589,871
<b>Note:</b> Does not include Social Security wealth.		
<b>Source:</b> Calculations based on data from Federal Reserve Board of Governors, "2001 Survey of Consumer Finances," updated April 29, 2004, at <a href="http://www.federalreserve.gov/pubs/oss/oss2/2001/scf2001home.html">www.federalreserve.gov/pubs/oss/oss2/2001/scf2001home.html</a> (January 25, 2005).		

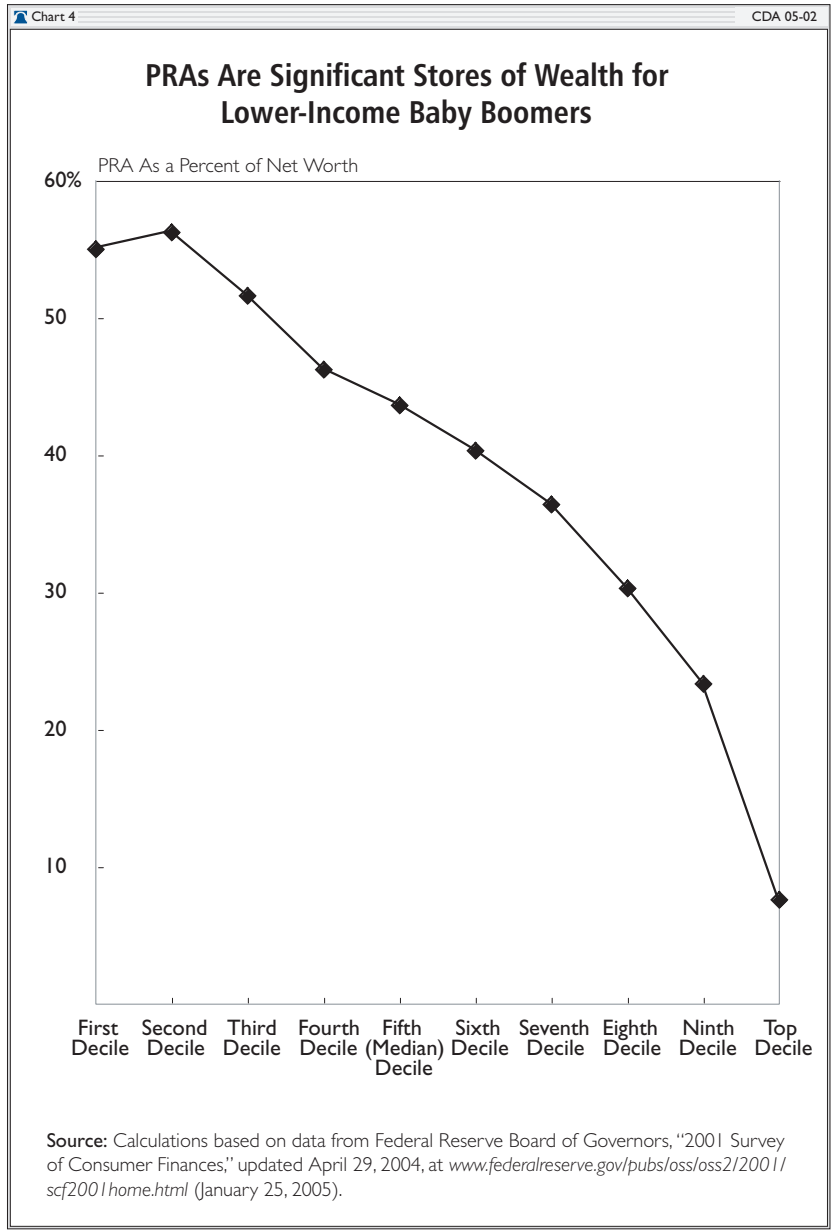
lowing potential benefits of Social Security reform that includes PRAs:

- PRAs would have increased retirement security by some 30 percent for baby boomers;
- PRAs would have substantially increased the net worth of the baby boomers, especially among low-wealth families;
- Virtually all baby boomers would have been better off with PRAs; and
- The gain in retirement security would be between \$41,000 and \$214,000 at age 65.

In most cases, properly structured PRAs would have allowed baby boomers to accumulate wealth in the hundreds of thousands of dollars. This increased wealth would more than compensate for reduced level of Social Security (Part A) retirement benefits. Therefore, PRAs could help millions of American families to build savings and accumulate wealth that they could use during retirement or pass on to future generations. Ultimately, such reform could provide millions of individuals with

16. These estimates are based on Federal Retirement Thrift Investment Board, "Annuity Calculator," at [calc.tsp.gov/annuityCalculators/annuity.cfm](http://calc.tsp.gov/annuityCalculators/annuity.cfm) (January 25, 2005).





the opportunity to attain greater economic security and independence through their own personalized retirement assets.

Sadly, the baby-boom generation is nearing retirement, and only the youngest baby boomers could now benefit from such Social Security reform. Even so, this research underscores the tre-

mendous potential of PRAs for Generation Xers and following generations. Congress owes it to the American people to create such an ownership society this session.

—*Kirk A. Johnson, Ph.D., is Senior Policy Analyst in the Center for Data Analysis at The Heritage Foundation.*

## TECHNICAL APPENDIX

This analysis seeks to ascertain the likely effect of PRAs on the wealth holdings of the baby boomers, the more than 70 million individuals born between 1946 and 1964. This effort included three basic steps.

### Step #1: Calculate Net Worth for Baby Boomers at Age 65.

Net worth is defined as the sum of assets (e.g., personal savings, real estate, investment and retirement accounts, and future pension claims) minus any liabilities (e.g., mortgages, credit card balances, and other secured and unsecured loans). This simulation assumes that, between the stock of current wealth and the flow of new money into accounts, the real inflation-adjusted growth rate would equal a conservative 5 percent per year. Net worth is evaluated upon the attainment of age 65.

The Federal Reserve Bank's triennial Survey of Consumer Finance (SCF)<sup>17</sup> is used to generate net worth figures for these families, and the 2001 data are used for this analysis.<sup>18</sup>

### Step #2: Calculate Social Security Wealth.

Social Security wealth is operationally defined here as the present value of the Social Security retirement and survivorship payments (if applicable) that the individual family would likely receive throughout retirement. In order to gauge Social

Security payments, something must be known about the earnings history of these workers. Since SCF data are used to generate the wealth profile of these families, the SCF is also used for the earnings data. Ideal data would include an entire work history. However, the SCF provides only cross-sectional data on earnings and self-employment income. Nevertheless, census data<sup>19</sup> can be used to construct a somewhat predictable profile of earnings throughout a worker's career.<sup>20</sup> This profile can then be used to calculate the worker's (and spouse's) Social Security benefits.<sup>21</sup> This is done for all of the boomers who reported positive earnings in the Federal Reserve data.<sup>22</sup> The model's estimated Social Security benefits were compared against calculations using the Social Security Administration's ANYPIA computer program,<sup>23</sup> which can estimate benefits. The Heritage program produced results very close to the ANYPIA calculations in the cases selected for audit.

Under current law, once initial Social Security benefits are set, they are only adjusted annually for inflation. If all baby boomers in the analysis are assumed to attain an age of 65,<sup>24</sup> they are estimated to live for another 16.4 years if male and 19.4 years if female.<sup>25</sup>

Social Security is then treated as a kind of store of wealth that is operationally defined as the

17. Federal Reserve Board of Governors, "2001 Survey of Consumer Finances."

18. The 2004 data will not be released until the first quarter of 2006. Field interviews for the survey were conducted through the end of 2004.

19. U.S. Bureau of the Census, Census 2000 Supplementary Survey. These data show that earnings tend to take on a predictable curvilinear shape. That is, earnings tend to increase rapidly in the first several years of an individual's work life before tapering off when the worker reaches his or her 40s. Earnings then decline precipitously after age 50. Similar models have been used before. See Beach *et al.*, "Peace of Mind in Retirement," p. 45.

20. One of the unavoidable deficiencies in this approach is that it does not allow for gaps in employment through a lifetime. Therefore, it is likely that Social Security benefits would tend to be overstated by this model, unless workers are employed through most—if not all—of their prime earning years.

21. The full retirement age is either 66, 67, or something in between for baby boomers. For an age breakdown, see Social Security Administration, "Find Your Retirement Age," at [www.ssa.gov/retirechartred.htm](http://www.ssa.gov/retirechartred.htm) (January 25, 2005). For simplicity, baby boomers are assumed to retire at either age 66 or 67 and not an age in between.

22. A few baby boomers did not have positive earnings because of business losses in that particular year. Without such information, calculating Social Security benefits is not possible.

23. Social Security Administration, "Social Security Detailed Calculator."

24. This is a somewhat strong assumption, although nearly 85 percent of all Americans who reach the age of one will be alive at age 65 according to the CDC's life and survivorship tables. See Robert N. Anderson, "United States Life Tables, 1998," *National Vital Statistics Report*, February 7, 2001, p. 7, Table 1, at [www.cdc.gov/nchs/data/nvsr/nvsr48/nvs48\\_18.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr48/nvs48_18.pdf) (January 26, 2005).

stream of benefit payments paid after retirement, based on life expectancy. Even though the Supreme Court held in *Flemming v. Nestor*<sup>26</sup> that there is no individual right to Social Security payments, economists routinely treat Social Security as a store of wealth in this fashion because of the rational expectation of such benefits. Some may argue that Social Security wealth should be equal to the price of an annuity that would be needed to purchase such a stream of monthly payments. Case-study computations by CDA analysts showed that annuity prices can be approximately equal to or less than the sum of monthly payments when the life expectancies assumed in this paper are used together with a real interest rate assumption of 1.25 percent, which was based on the inflation-adjusted T-bill rate.

### **Step #3: Calculate PRA Value.**

The final category is the value of a Part B personal retirement account at age 65. The PRA is funded via a sliding-scale payroll tax, which varies between 2.5 percent and 7 percent of earnings depending on the earnings level of the individual

worker.<sup>27</sup> The PRA is funded in this manner up to the value of the Social Security wage base, which for 2005 is \$90,000 per worker. A worker earning \$90,000 or more would have \$2,250 deposited into his or her PRA for the year.

The account is invested in a portfolio equally divided between large company stocks and bonds. Given that this simulation estimates the value of the PRA at age 65 for individuals who are relatively close to retirement, the returns to those investments are known for most of their working lives. Actual rates of return were used where the historical data exist, using the Ibbotson guide.<sup>28</sup> An equal portfolio of large company stocks (total return) and government bonds (year end yield) is used for this analysis.

After 2002, the simulation assumes a nominal rate of return (net of administrative fees) of 7.7 percent (a 4.7 percent real rate of return plus the assumed 3.0 percent inflation rate).<sup>29</sup> At age 65, the value of the account is deflated to 2001 dollars in order to be consistent with the other parts of the analysis.

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25. Kenneth D. Kochanek, and Betty L. Smith, "Deaths: Preliminary Data for 2002," *National Vital Statistics Report*, February 11, 2004, p. 25, Table 6, at [www.cdc.gov/nchs/data/nvsr/nvsr52/nvsr52\\_13.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr52/nvsr52_13.pdf) (January 26, 2005). Although life expectancy has been increasing over the past several years, it is unclear if this trend will continue and, if so, by how much. Therefore, the model assumes current life expectancy at age 65.
  26. 57 U.S. 904 (1960).
  27. This methodology was used in previous research. See Beach *et al.*, "Peace of Mind in Retirement," p. 45.
  28. Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation: 2003 Yearbook, Market Results for 1926–2002* (Chicago, Ill.: Ibbotson Associates, 2003), Table 2–6.
  29. This rate of return is comparable to rates of return used elsewhere in the Social Security debate. For example, see President's Commission to Strengthen Social Security, *Strengthening Social Security and Creating Personal Wealth for All Americans*, December 2001, pp. 97–98; Stephen C. Goss, "Appendix II: Comparison of Financial Effects of Advisory Council Plans to Modify the OASDI Program," in *Report of the 1994–1996 Advisory Council on Social Security*, Vol. 1, at [www.ssa.gov/history/reports/adCouncil/report/append2.htm](http://www.ssa.gov/history/reports/adCouncil/report/append2.htm) (January 26, 2005); and Social Security Administration, *2002 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*, March 26, 2002, Table V.B1 and Table V.B2, at [www.ssa.gov/OACT/TR/TR02](http://www.ssa.gov/OACT/TR/TR02) (January 26, 2005). The President's Commission used a 4.6 percent real rate of return net of expenses, while Goss and the SSA assume a 5.0 percent rate of return for their respective mixed portfolios. Subtracting 0.3 percent from the Goss/SSA rate for administrative expenses brings the rate of return to 4.7 percent, the same one used in this analysis.