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Poverty-level Annuitization Requirements in Social Security Proposals Incorporating Personal Retirement Accounts

In the current discussions of Social Security reform, voluntary personal retirement accounts have been proposed. Recent research and debate have focused on several aspects of these accounts, including how such accounts would affect aggregate saving, system finances, and benefit levels. Little attention, however, has been paid to policies that would govern the distribution of account balances. This analysis considers such policies with respect to the annuitization of account balances at retirement using the Social Security Administration's Modeling Income in the New Term (MINT) model and a modified version of a recent legislative proposal to evaluate the effects of partial annuitization requirements.

Summary

A number of recent Social Security reform proposals incorporate voluntary personal retirement accounts. Typically, these personal accounts allow workers, in effect, to exchange part of their future traditional benefits under Social Security for investment accounts that generate market returns. Many aspects of personal accounts have been debated and researched in recent years, including how such accounts would affect aggregate saving, system finances, and benefit levels. However, the focus of the research to date has been on the accumulation phase of personal account proposals, with relatively little attention paid to policies that would govern the distribution of account balances. Distribution policies, which are considered in this analysis, have important implications regarding income security in retirement and the ability of retirees to accumulate assets or pass along inheritances.

Some personal account proposals mandate that accumulated personal account balances be annuitized at retirement. Mandatory annuitization is designed to ensure that account holders do not draw down their balances too quickly, thereby risking impoverishment or becoming a burden to means-tested government antipoverty programs. Requirements to annuitize, however, also have notable drawbacks. First, they limit the prospects for asset accumulation or inheritances, which is one reason proponents support personal accounts. Second, mandatory annuitization could lead to demands for exclusion by individuals with shorter life expectancies. Such persons might prefer immediate access to account balances instead of to an annuity based on average life expectancy.

One attempt to address both goals of account access and income security is mandatory annuitization to a specified minimum threshold. For example, if the minimum threshold is the official poverty line, individuals would be required to annuitize their holdings such that the sum of the account annuity and the traditional Social Security benefit equals 100 percent of the poverty threshold in place at the time. (Access to remaining account balances would be unrestricted.) Because the poverty line is adjusted for price growth over time, successive retirement cohorts would be guaranteed a minimum income whose purchasing power remained constant. Alternatively, the minimum threshold could be set at a fixed percentage of the average annual wage. Because wages tend to outpace prices, such an alternative minimum would guarantee successive cohorts of retirees minimum income levels that increased in real terms and were reflective of improvements in the nation's standard of living that occur over time.

This analysis uses the Social Security Administration's Modeling Income in the New Term (MINT) model and a modified version of a recent legislative proposal (introduced by Senator Lindsey Graham) to evaluate the

effects of partial annuitization requirements. The analysis presents the following findings:

- Under a requirement to annuitize to the poverty threshold, account balances after annuitization are substantial. In 2061 (when individuals would have spent a full lifetime under the new program), postannuitization balances equal 27.4 percent of all other financial assets held by retirees.
- Under a requirement to annuitize to a threshold equal to roughly one-quarter of the average annual wage, annuities are decidedly higher, but postannuitization balances fall sharply. In 2061, these balances would equal 10.6 percent of other financial assets.
- Nonannuitized account balances under either threshold are large relative to other financial assets for some economically vulnerable groups, including minorities and those with less than 12 years of education. However, this is partly due to the low level of financial assets held by these groups.

In sum, these results indicate the relative trade-offs between a guaranteed income and asset accumulation under a Social Security proposal incorporating personal retirement accounts.

Introduction

In discussions of Social Security reform proposals incorporating personal accounts, much attention is given to the accumulation phase of the accounts; less attention, however, is paid to the distribution phase in which amassed account assets are drawn down. An important element of this distribution is the rules regarding annuitization of account assets.[1]

Personal account distribution policies contend with two conflicting goals: guaranteeing an adequate stream of income for beneficiaries and giving individuals greater discretion over their retirement income, particularly having the option to leave part of their account balance as a bequest. A common fear is that individuals granted access to account balances would spend them down too quickly. Such individuals might then qualify for, and as a result place a greater burden on, means-tested anti-poverty programs. Even in cases where means-tested programs were not accessed, early depletion of account balances could lead to abrupt changes in living standards and dependence on family members for support. In addition, concerns over an adequate stream of income extend to income received by survivors: married persons who spend down their account balances too quickly could leave their spouses little in the way of retirement security, whereas the purchase of a joint and survivor annuity would provide an income stream to the surviving spouse. For these reasons, some policymakers favor mandatory annuitization of personal account balances at retirement.

Although mandating full annuitization of account assets would address income security concerns, it would neglect the goal of asset accumulation. Such accumulations could be important to providing substantial bequests, a point often emphasized by proponents of personal retirement accounts. In addition, some research indicates that asset levels (as opposed to just income streams) can be beneficial in terms of nonfinancial outlooks and behaviors.[2] Further, fears regarding the imprudent spend-down of assets may be overstated. After examining withdrawals from 401(k) accounts, which resemble Social Security personal accounts in important respects, Munnell and colleagues (2002) argued that "the evidence suggests that a reluctance to spend down lump sums may be as likely—if not more likely—as a tendency to squander accumulated pension assets," which is in part based on their conclusion that "the desire to leave a bequest is widespread." If so, remaining lump sums are as likely to be saved as to be drawn down.

A final issue about mandatory annuitization concerns individuals with relatively short life expectancies. Such individuals might seek exemptions from mandatory annuity purchases. Account holders who are in poor health, disabled, or otherwise faced with shorter life expectancies could argue that mandatory annuitization of account assets constitutes unreasonable redistribution of assets from individuals with known shorter life expectancies to those who are longer-lived.[3] Political pressure might bring about an exemption process, similar to eligibility for Social Security's disability program, which could be cumbersome, potentially divisive, and costly to administer.

One suggestion to balance competing goals associated with account distribution has been to require annuitization of a portion of the personal account balance, such that the combined assets of the traditional Social Security benefit and personal account annuity payment would equal the poverty threshold established by the government. Any remaining account assets would be unrestricted and could be paid out as a lump sum upon retirement or drawn down through a process of scheduled withdrawals. This option would give retirees greater freedom with their assets and the opportunity to leave an inheritance and would still protect many from having low income in retirement.[4]

It is important to note that, under poverty-level annuitization proposals, many persons who must partially or fully annuitize are not poor. Individuals may derive income from sources such as savings, an employer pension, or employment. For reasons of simplicity, proposals do not take these non–Social Security sources of income into account in determining whether individuals must partially or fully annuitize their account balances. Thus, in effect, these proposals require annuitization among a more general segment of the population than among just the relatively small group of retirees in poverty. At the same time, some individuals could fully annuitize their account balances yet still not have sufficient income to draw themselves above the poverty line.[5] Thus, poverty-level annuitization requirements would minimize the incidence of poverty but not eliminate it.

In addition, although mandatory annuitization rules would place limits on lump-sum withdrawals from personal accounts postretirement, they do not affect the inheritability of account assets resulting from death before retirement, nor do they affect the equalizing transfer of account funds between spouses in the event of divorce. Preretirement bequests and divorce-induced account transfers can have significant impacts on account balances.

The impact of a poverty-level annuitization rule can best be seen in the context of a comprehensive reform proposal. This analysis examines a number of key questions surrounding a poverty-level annuitization requirement (and an alternate requirement based on average annual wages) using the basic structure of a reform proposal of Senator Lindsey Graham (R-SC) as an illustrative vehicle. However, the proposal is modified in several ways as noted for simplicity or to illustrate alternate policies.[6] Several other reform proposals, including those from the President's 2001 Commission to Strengthen Social Security, from Rep. Nick Smith (R-MI), and from Reps. Jim Kolbe (R-AZ) and Charlie Stenholm (D-TX), incorporate similar minimum income annuitization requirements that are based upon the poverty threshold.

This analysis provides estimates of the number and type of people who would be required to annuitize part, all, or none of their account balances at retirement and the size of nonannuitized account balances remaining after satisfying the requirement. As such, it assists policymakers in assessing whether poverty-level annuitization requirements adequately address the competing goals associated with personal account distributions.

Methodology

MINT Model

Projections in this report are based on results from the Office of Policy's microsimulation model, MINT (Modeling Income in the Near Term). The MINT model matches individual responses from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP) with Social Security earnings records to create a large, comprehensive, and detailed database of individual earnings and demographic information.[7] The matched data are used to project a person's future earnings, marital status changes, disability incidence, date of retirement, Social Security benefit amount, and other retirement income. MINT is limited in that it does not provide information on child recipients of Social Security benefits. In addition, MINT does not include a full range of tax information.

The MINT model projects the impact of Social Security policy changes on retirement income and poverty statistics onto a sample population composed of 151,000 individuals born during the period of 1926 to 1965. The projections of this analysis use MINT data for 41,000 individuals born in the baby-boom years between 1946 and 1960. Because the population of the MINT model is based upon a sample of the overall population whose earnings and other characteristics are then projected into the future, MINT projections necessarily entail a margin of error. Sampling error depends upon the size of the MINT population (or subgroup of the population) and the size of the actual population to which the projection is applied, and projection error depends on whether future trends are consistent with those incorporated into the MINT model. In addition, earnings patterns for MINT individuals are projected into the future, introducing a second element of uncertainty. For these reasons, small differences in projection results should be viewed with caution.

This analysis simulates a poverty-level annuitization requirement in 2022 and 2061, designed to capture the effects of the requirement on individuals who have spent part or all of their working lives under a Social Security reform proposal. The 2022 analysis is termed "in transition," since retired individuals would have held accounts only part of their lives and the long-run changes to the traditional benefit formula would not have taken full effect. Analysis in 2061 is termed "full implementation," because retirees at that time would have spent their full working lives under the proposal and changes in provisions regarding traditional benefits would have been in effect long enough to have had a significant impact.

Modeling fully implemented provisions requires extensions of the MINT model that involve certain trade-offs. The full implementation method uses individuals born between 1946 and 1960 to simulate individuals born roughly 35 to 40 years later and retiring in the period from 2040 to 2060. In effect, the birth cohorts from 1946 to 1960 are transported forward in time to serve as proxies for individuals born between 1985 and 1999. Full implementation analysis is conducted on a cross section of simulated individuals aged 62 to 76 in 2061.

The full implementation method adjusts the earnings, pension income, and asset income of the birth cohorts between 1946 and 1960 to match those projected for the birth cohorts from 1985 to 1999.[8] Annuity prices for personal accounts are based on unisex life expectancies determined by a simulated person's birth year and year of retirement.[9] However, most other individual data are unchanged. A 3 percent real discount rate is used to calculate the annuity price to reflect typical yields of Treasury bonds.

The full implementation method transplants the baby-boom cohorts into the future and thus fails to reflect changes to a variety of economic and demographic factors that could take place during the period from 2022 to 2061. It assumes that individuals in the birth cohorts between 1985 and 1999 will have the same work histories, marital histories, and life spans as those of the sample population of the MINT model born between 1946 and 1960. Moreover, the method assumes that differences within the population that are based on sex, race, education, and income will be unchanged from differences within the earlier cohorts. Thus, although it is judged that the gains from including full implementation analysis outweigh the limitations that are inherent in such an approach, the full implementation results should not be held to be as reliable as the partial implementation results for 2022.

Illustrative Reform Proposal

The Graham proposal would allow workers to choose one of three options. Option 1 would include a personal retirement account and three changes to traditional Social Security benefits: price indexing of future benefits, an enhanced benefit for low earners, and a more generous benefit for widows and widowers.[10] Option 2 would include the changes to traditional benefits that are in Option 1 but would not include personal accounts. Option 3 would provide currently scheduled Social Security benefits, contingent upon additional individual payroll tax contributions. The Social Security Administration's Office of the Chief Actuary (OCACT) projected universal participation in Option 1. This analysis also adopts this assumption, and references to the Graham proposal refer to Option 1.

The Graham proposal would establish voluntary personal accounts into which workers could contribute 4 percentage points of the 12.4 percent Social Security payroll tax, up to an annual maximum of $1,300.[11] Account participants would agree to an offset to their traditional benefits that is based upon the amount they contribute to their personal account.[12] In addition, those who earn less than $32,500 in a given year would contribute $101 voluntarily and receive a government match of up to $150, following OCACT's assumptions. These voluntary contributions would not be counted in the offset.

Workers could allocate their account contributions between index funds of stocks and corporate and government bonds. Consistent with OCACT's projections, this analysis assumes that individuals would invest 60 percent of account contributions in stocks (returning 6.5 percent after inflation) and 40 percent in Treasury bonds (returning 3 percent after inflation).[13] Results presented herein are based upon the expected returns projected by OCACT. Given the variability of market returns, higher or lower realized returns would be likely in practice and would affect the results of this analysis.

The finances of the Social Security program would be restored to sustainable solvency through the price indexing of future benefits, which would reduce the growth of benefits paid to future cohorts of beneficiaries relative to those scheduled under current law. Specifically, average benefits paid to new cohorts of retirees in the future would rise annually by the rate of inflation rather than by the rate of wage growth used in the current benefit schedule.

Under the Graham proposal, account holders would be required to annuitize their holdings or to make programmed account withdrawals to produce a total defined monthly benefit (that is, traditional Social Security benefits plus a personal account benefit) in excess of the poverty threshold in place at the time. For illustrative purposes, this analysis assumes that the poverty threshold requirement is met through annuitization. Once this poverty threshold requirement was met, remaining account assets would be unrestricted and could be withdrawn as a lump sum or drawn down over time. Either option allows for the possibility, though not the certainty, of a bequest at the individual's death.

This analysis assumes that each person, regardless of marital status, purchases an inflation-indexed annuity such that the combination of the annuity payment and the individual's traditional Social Security benefit equals the poverty threshold for a single person aged 65 and older in the year of annuitization.[14] Annuities for couples married at retirement also include a joint and two-thirds survivor annuity component.[15]

No real interest is ascribed to the remaining account balance between the time of annuitization and the year of analysis, nor are withdrawals deducted from the account. Thus, nonannuitized account balances reported herein represent the inflation-adjusted value of the remaining account balance at the time annuitization took place, which in most cases would be before the measurement years of 2022 and 2061.[16] The principal exception to this rule would be widows or widowers, who could inherit the balances of spouses who die postretirement.[17] For this reason, lump-sum values reported for widows may overstate to some degree what would be available, if individuals in practice would withdraw assets from their accounts at a rate higher than investment returns would replenish them.

Poverty Threshold and Alternate Baselines

The poverty threshold is calculated by the Census Bureau as a measure of need. If family income (composed of a variety of employment and interest incomes and government transfer payments) is below the appropriate threshold, then members of the family are considered poor.[18] The official poverty threshold varies by family size, but for purposes of the Graham proposal, the threshold for a single individual aged 65 or older applies. The poverty threshold is adjusted annually by the rate of inflation using the consumer price index for all urban consumers (CPI-U), thereby maintaining its purchasing power in real terms. For this reason, the poverty-level annuitization requirement in the Graham proposal is referred to as the price- or inflation-indexed poverty threshold baseline. The poverty threshold in 2003 for a single individual aged 65 or older was $8,825; adjusted to constant 2004 dollars using the CPI projections from Social Security's Board of Trustees, the 2004 value would be $9,083.[19]

Although inflation-indexing of the poverty threshold maintains its value in real terms, the poverty threshold would decline over time relative to the average wage, as wages generally rise faster than prices. For example, based on projections from the Trustees, the poverty threshold in 2004 ($9,083) is 24 percent of the average annual wage, but by 2061, it will be only 13 percent of the average wage. There is evidence that the public's intuitive view of the income level required to "get along" rises in real terms over time.[20] For this reason, an alternate baseline is also explored, one that pegs the minimum threshold at the ratio of the poverty threshold to average wages in 2004 (that is, 24 percent). In other words, under the alternate baseline, individuals would be required to annuitize their holdings such that the sum of the account annuity and the traditional Social Security benefit equaled about one-quarter of the average annual wage at the time. The alternate baseline is referred to as the wage-indexed annuitization threshold.

In Box 1, information is presented on the size of each baseline in constant 2004 dollars and relative to the average annual wage. In constant dollars, the poverty threshold does not change over time, but it declines relative to average wages. The wage-indexed threshold increases in constant-dollar terms (from $9,083 in 2004 to $16,879 in 2061), but this threshold is flat relative to average annual wages (at 24 percent).

Results

Annuitization in Transition to Personal Accounts

Initial estimates are produced for individuals aged 62 to 76 in 2022. As these individuals would have spent only part of their working lifetimes working under the reform proposal, estimates for 2022 are referred to as "in transition."[21] Assuming universal participation in personal accounts, roughly 33.5 million people aged 62 to 76 would receive a personal account distribution of some form in 2022, either as a lump sum or as an annuity payment.

In Tables 1 and 2, results are summarized for the Graham proposal in 2022 for requirements to annuitize to the inflation-indexed poverty threshold and wage-indexed annuitization threshold. All dollar figures are in constant 2004 dollars.

Under the inflation-indexed poverty annuitization baseline, 38 percent of individuals in 2022 would

Box 1.
Comparison of two baselines: Inflation-indexed poverty threshold and wage-indexed annuitization threshold

Baseline	2004	2022	2061
	In constant 2004 dollars		
Inflation-indexed poverty threshold	9,083	9,083	9,083
Wage-indexed annuitization threshold	9,083	11,016	16,879
	As a percentage of the average wage at the time		
Inflation-indexed poverty threshold	24	20	13
Wage-indexed annuitization threshold	24	24	24

SOURCE: Authors' calculations.

Table 1.
Graham plan option 1 in 2022 requiring annuitization to inflation-indexed poverty threshold: Percentage of personal account recipients required to annuitize with remaining lump sum, by recipient characteristics

Characteristic	All recipients: Percentage of account assets annuitized	All recipients: Remaining balance as a percentage increase in financial assets [a]	Full annuitizers as a percentage of all recipients	Partial annuitizers: As a percentage of all recipients	Partial annuitizers: Percentage of account assets annuitized	Partial annuitizers: Remaining balance: Value in constant 2004 dollars	Partial annuitizers: Remaining balance: As a percentage increase in financial assets	Nonannuitizers: As a percentage of all recipients	Nonannuitizers: Remaining balance: Value in constant 2004 dollars	Nonannuitizers: Remaining balance: As a percentage increase in financial assets	Partial annuitizers and nonannuitizers: remaining balance as a percentage increase in financial assets
Total	35.5	4.1	38	9	50.6	10,740	4.1	53	17,513	5.5	5.4
Sex											
Male	24.9	4.9	26	6	50.3	11,211	4.0	68	17,983	6.0	5.8
Female	46.1	3.4	48	11	50.8	10,506	4.2	41	16,863	4.9	4.8
Race and ethnicity											
White, non-Hispanic	33.0	3.8	35	9	50.7	10,923	3.7	57	17,606	5.1	4.9
Black, non-Hispanic	39.1	10.4	42	10	47.5	10,394	12.5	48	16,494	15.3	14.9
Hispanic	49.7	7.4	53	9	51.8	9,847	7.2	38	17,004	11.3	10.6
Asian	44.9	2.7	50	7	52.2	10,418	4.0	44	18,406	3.4	3.5
Native American	42.6	6.2	43	10	59.8	9,411	3.0	47	19,618	12.3	9.6
Age											
62–65	41.8	5.0	44	12	51.9	12,459	4.5	43	24,915	7.0	6.5
66–69	31.9	4.6	35	8	48.6	10,698	5.1	56	18,688	6.1	6.0
70–72	30.8	3.0	35	6	48.7	8,072	2.3	59	12,408	4.0	3.9
73–76	30.9	2.3	35	5	48.1	6,349	3.3	59	8,813	3.0	3.0
Marital status											
Married	33.5	4.3	38	7	50.1	9,814	4.9	56	17,472	5.8	5.7
Widowed	43.9	3.1	39	18	47.3	13,891	3.3	42	19,521	4.3	4.0
Divorced	38.0	4.2	39	9	53.6	8,534	4.5	53	16,363	5.6	5.5
Never married	35.2	4.9	35	9	51.9	9,640	6.7	56	17,618	5.7	5.7
Beneficiary type											
Retired worker	33.0	4.6	34	8	50.1	10,785	5.5	58	17,849	5.9	5.9
Dually entitled spouse	81.7	0.6	76	8	59.1	5,104	1.2	15	7,572	1.6	1.4
Dually entitled widow(er)	41.5	2.6	29	23	48.0	13,283	2.7	48	15,887	3.0	2.9
Widow(er) only	78.6	1.8	52	30	49.2	8,572	3.6	19	8,604	2.9	3.3
Spouse only	95.2	0.2	92	1	81.0	1,093	0.1	6	3,600	0.7	0.6
Education											
College graduate	28.8	2.4	30	7	46.6	11,928	1.8	63	18,147	3.1	3.0
High school graduate	36.5	6.5	38	10	51.6	10,515	6.8	52	17,225	9.4	9.1
Less than 12 years	57.0	11.9	62	9	52.8	9,415	19.1	29	16,504	24.1	23.2
Individual income quintile											
Highest	24.1	1.9	22	7	47.4	14,190	1.4	71	21,376	2.4	2.3
Fourth	29.2	5.4	28	8	49.6	13,116	5.5	64	18,326	7.7	7.4
Third	29.7	9.0	29	9	52.5	10,301	7.7	62	16,340	13.8	12.9
Second	39.0	13.6	37	11	47.7	9,403	13.8	51	14,584	29.2	25.7
Lowest	84.1	7.5	82	7	59.0	6,897	40.9	10	10,558	92.2	66.3

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

a. Nonannuitized balances are represented here as a percentage increase of net financial assets for all individuals, including those required to fully annuitize, at the time of retirement.

Table 2.
Graham plan option 1 in 2022 requiring annuitization to wage-indexed threshold: Percentage of personal account recipients required to annuitize with remaining lump sum, by recipient characteristics

	All recipients			Partial annuitizers				Nonannuitizers			Partial annuitizers and non-annuitizers: remaining balance as a percentage increase in financial assets
						Remaining balance			Remaining balance		
Characteristic	Percentage of account assets annuitized	Remaining balance as a percentage increase in financial assets [a]	Full annuitizers as a percentage of all recipients	As a percentage of all recipients	Percentage of account assets annuitized	Value in constant 2004 dollars	As a percentage increase in financial assets	As a percentage of all recipients	Value in constant 2004 dollars	As a percentage increase in financial assets	
Total	46.0	3.4	48	8	50.4	11,215	3.8	44	17,564	5.1	5.0
Sex											
Male	33.9	4.3	34	7	50.1	11,561	4.1	59	17,902	5.6	5.4
Female	58.1	2.6	59	9	50.6	10,981	3.6	31	17,029	4.6	4.4
Race and ethnicity											
White, non-Hispanic	43.2	3.2	45	8	50.6	11,356	3.6	47	17,674	4.8	4.6
Black, non-Hispanic	52.2	8.3	54	8	49.5	10,951	11.7	38	16,465	14.1	13.7
Hispanic	61.4	5.7	64	8	51.4	10,056	5.9	28	16,916	10.5	9.4
Asian	54.3	2.3	57	8	48.1	10,749	1.7	35	18,363	3.4	3.0
Native American	51.5	5.2	53	10	44.2	16,503	12.3	37	18,977	11.1	11.3
Age											
62–65	56.4	3.7	58	11	52.0	12,827	4.3	31	25,514	6.1	5.7
66–69	41.0	4.0	45	9	47.3	11,461	4.3	46	19,308	5.9	5.7
70–72	36.6	2.7	42	6	54.0	8,541	2.5	52	12,684	3.9	3.8
73–76	35.4	2.1	41	5	44.5	7,311	2.5	54	8,980	3.0	3.0
Marital status											
Married	44.3	3.6	48	6	51.6	10,113	4.2	46	17,541	5.4	5.3
Widowed	53.4	2.7	48	18	43.8	13,864	3.1	34	19,624	4.0	3.7
Divorced	47.9	3.5	49	7	51.9	9,825	4.6	43	16,415	5.1	5.1
Never married	46.7	4.0	46	9	46.3	10,654	9.3	45	17,496	4.8	5.1
Beneficiary type											
Retired worker	43.5	3.9	44	8	50.2	10,946	4.6	48	17,800	5.4	5.3
Dually entitled spouse	93.6	0.2	92	3	51.8	6,138	1.1	6	6,843	1.1	1.1
Dually entitled widow(er)	52.2	2.3	36	25	54.8	13,367	2.6	39	15,575	2.8	2.7
Widow(er) only	86.6	1.4	61	28	39.6	7,672	5.8	11	10,063	2.2	3.7
Spouse only	97.0	0.1	96	0	17.7	7,003	2.0	4	3,244	0.9	1.0
Education											
College graduate	36.5	2.1	37	7	49.0	11,831	1.7	55	18,240	3.0	2.9
High school graduate	48.3	5.3	49	9	51.0	10,950	6.5	42	17,239	9.0	8.6
Less than 12 years	69.5	8.5	73	7	49.1	11,499	16.3	20	16,006	21.6	20.4
Individual income quintile											
Highest	30.3	1.2	28	8	50.1	13,523	0.8	65	21,402	1.7	1.6
Fourth	37.5	3.3	35	8	48.5	13,184	3.1	57	18,126	5.0	4.8
Third	40.3	5.4	39	9	49.3	11,396	6.6	52	16,011	8.6	8.3
Second	56.8	8.2	53	11	50.7	9,698	9.8	36	13,852	16.2	15.1
Lowest	96.0	7.4	94	4	61.4	5,355	21.6	3	7,817	42.8	34.9

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

a. Nonannuitized balances are represented here as a percentage increase of net financial assets for all individuals, including those required to fully annuitize, at the time of retirement.

annuitize their entire account balance, and 9 percent would be required to partially annuitize their account (Table 1). Roughly half of individuals would not face any annuitization requirement. Individuals required to annuitize part of their account would have an average remaining account balance of $10,740, and those subject to no annuitization requirement would have an average remaining account balance of $17,513. Overall, 36 percent of total account balances in 2022 would be required to be annuitized; the remaining 64 percent would be available for scheduled or lump-sum withdrawals (Table 1).

As would be expected, income has the most direct effect on whether an individual would be required to partially or fully annuitize.[22] Under the inflation-indexed poverty-threshold annuitization requirement in 2022, 29 percent of account holders in the middle income quintile would fully annuitize their balances. Among account holders in the lowest income quintile, 82 percent of individuals would be required to fully annuitize their account balances (Table 1).

Nevertheless, a significant number of lower-wage individuals could accumulate assets. Among account holders in the bottom quintile, 17 percent would either partially annuitize or not annuitize at all and would have an average remaining account balance of roughly $9,100. Among second-quintile individuals, 62 percent would not be subject to a full annuitization requirement, and the average remaining account balance would be roughly $13,700.

It is interesting that 22 percent of individuals in the highest income quintile would face a full annuitization requirement in 2022 (Table 1).[23] Some high-income individuals have nonwage sources of income such as pensions and investment income but have relatively low Social Security benefits.

Results are remarkably uniform in 2022 for marital status. Under a requirement to annuitize to the inflation-indexed poverty threshold, widowed, divorced, or never-married beneficiaries would have nearly the same likelihood to be required to annuitize all or part of their personal account as would married beneficiaries: 39 percent of widow(er)s, 39 percent of divorced individuals, and 35 percent of never-married individuals compared with 38 percent of married individuals (Table 1).[24]

Nonannuitizing widow(er)s would have the largest lump sums available of any group, in part because they would often be the beneficiaries of personal account bequests from their deceased spouses. It should be noted, however, that this analysis assumes that lump sums were neither spent down nor invested. This could result in an overestimation of the reported lump sums inherited by widow(er)s if their former spouses had drawn down their remaining account balances at a rate higher than investment returns would replenish them.

Under a wage-indexed annuitization threshold, the share of individuals required to annuitize increases. Almost half of all individuals would be required to fully annuitize, with an additional 8 percent required to partially annuitize (Table 2). Overall, 46 percent of total account balances in 2022 would be annuitized to meet the wage-indexed annuitization baseline compared with the 36 percent of assets annuitized to meet the inflation-indexed poverty threshold. In the bottom income quintile, 94 percent of individuals would be required to annuitize their entire account balances (Table 2).

Annuitization in Full Implementation of Personal Accounts

By 2061, all workers in the sample would have been eligible to participate in personal accounts throughout their working careers. Assuming universal participation, roughly 40 million individuals aged 62 to 76 in 2061 would receive benefits derived from personal retirement accounts. In Tables 3 and 4, results are presented for personal account recipients required to annuitize to the inflation-indexed and wage-indexed baselines, respectively.

Total benefits, defined as traditional Social Security benefits plus the payments available from a fully annuitized account, would rise substantially in real terms by 2061, but the poverty threshold would not. For that reason, the percentage of individuals required to fully annuitize their account balances to reach the inflation-indexed poverty threshold would fall significantly relative to 2022. In 2022, as shown in Table 1, 38 percent of beneficiaries would be required to annuitize their entire personal account, leaving no balance available for possible bequests. In 2061, the share of individuals required to fully annuitize their accounts would drop to 18 percent (Table 3).

At the same time, the percentage of individuals required to annuitize part of their balance would increase significantly compared with results for 2022. For instance, in 2022, only 9 percent of individuals would be required to partially annuitize their personal account balance to reach the inflation-indexed poverty threshold (Table 1); in 2061, 62 percent of individuals would be required to partially annuitize (Table 3).

This increase in the mandates for partial annuitization stems largely from the relative roles of personal account benefits and traditional benefits that change as the reform proposal matures. Over time, the role of the personal account in total benefit provision would grow

Table 3.
Graham plan option 1 in 2061 requiring annuitization to inflation-indexed threshold: Percentage of personal account recipients required to annuitize with remaining lump sum, by recipient characteristics

	All recipients			Partial annuitizers				Nonannuitizers			Partial annuitizers and non-annuitizers: remaining balance as a percentage increase in financial assets
						Remaining balance			Remaining balance		
Characteristic	Percentage of account assets annuitized	Remaining balance as a percentage increase in financial assets [a]	Full annuitizers as a percentage of all recipients	As a percentage of all recipients	Percentage of account assets annuitized	Value in constant 2004 dollars	As a percentage increase in financial assets	As a percentage of all recipients	Value in constant 2004 dollars	As a percentage increase in financial assets	
Total	41.9	27.4	18	62	48.0	102,592	31.1	20	192,986	29.2	30.4
Sex											
Male	34.3	31.3	13	58	46.2	107,582	35.2	30	196,144	31.8	33.5
Female	50.9	23.9	22	66	49.8	98,939	28.5	11	186,029	24.6	27.4
Race and ethnicity											
White, non-Hispanic	40.7	25.7	15	64	48.0	104,332	28.3	21	195,760	28.1	28.2
Black, non-Hispanic	45.4	74.0	22	64	46.5	103,925	91.9	13	179,544	75.0	86.8
Hispanic	49.9	48.5	35	53	49.0	90,817	61.2	12	187,338	57.9	60.1
Asian	45.6	14.9	36	45	48.7	82,744	18.8	19	163,142	15.8	17.3
Native American	51.9	40.8	20	67	51.1	98,360	39.9	13	185,590	128.6	49.0
Age											
62–65	42.4	25.2	19	67	44.9	100,513	31.9	14	191,883	20.2	27.3
66–69	41.3	28.5	17	64	47.8	106,253	32.0	19	201,137	29.7	31.1
70–72	41.5	27.6	17	60	50.1	103,608	29.6	23	197,070	32.1	30.6
73–76	42.8	27.9	20	58	50.1	98,810	30.6	22	181,201	35.0	32.3
Marital status											
Married	39.3	26.2	21	57	47.4	90,718	29.0	23	190,332	31.3	30.0
Widowed	48.7	31.6	8	84	48.5	162,948	33.6	8	296,943	26.7	32.4
Divorced	49.5	27.4	16	67	51.5	85,668	32.2	18	173,902	25.8	29.6
Never married	40.0	28.0	18	64	45.6	92,694	39.8	18	181,588	20.1	29.6
Beneficiary type											
Retired worker	40.2	29.7	14	63	47.7	100,016	33.6	22	192,302	29.9	32.0
Dually entitled spouse	70.5	6.3	46	49	56.7	45,473	9.4	4	89,383	14.7	9.9
Dually entitled widow(er)	45.3	30.3	5	82	46.0	158,875	32.7	12	266,452	24.8	30.7
Widow(er) only	56.1	31.8	7	82	49.2	172,578	32.9	11	250,166	28.1	32.0
Spouse only	89.7	3.9	84	11	63.8	58,762	13.0	5	26,082	6.6	11.4
Education											
College graduate	37.8	14.5	16	54	51.8	97,555	14.0	31	187,806	18.2	15.9
High school graduate	42.8	45.9	16	68	46.5	106,471	49.1	16	199,682	56.0	51.0
Less than 12 years	53.8	87.0	39	52	48.4	86,076	106.6	9	172,176	209.5	122.0
Individual income quintile											
Highest	33.6	10.7	8	54	53.9	115,107	9.5	38	205,696	13.5	11.4
Fourth	36.3	34.3	11	62	46.3	119,317	32.1	27	198,263	54.4	38.7
Third	37.4	60.7	13	66	43.2	114,324	58.8	21	192,859	115.8	71.0
Second	46.2	97.3	16	73	44.3	99,597	107.3	10	165,075	304.2	122.4
Lowest	75.3	101.3	45	52	63.2	52,792	184.7	3	104,320	452.5	196.8

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

a. Nonannuitized balances are represented here as a percentage increase of net financial assets for all individuals, including those required to fully annuitize, at the time of retirement.

relative to the defined benefits provided by the traditional Social Security program. Relatively lower traditional benefits under the proposal would place a greater demand on account balances to satisfy the poverty requirements. Consequently, a larger share of individuals would be required to annuitize at least partially.

Nevertheless, although more individuals would be required to at least partially annuitize, larger personal account balances would enable more individuals to retain a portion of their account balance after retirement. As stated above, the percentage of individuals required to fully annuitize would fall by more than half from 2022 to 2061 (from 38 percent to 18 percent of total recipients). Thus, in 2061, 82 percent of recipients would have at least some account balance remaining following annuitization (Table 3) compared with only 62 percent in 2022 (Table 1). The average remaining balance for those required to partially annuitize is projected to grow from $10,740 in 2022 (Table 1) to roughly $102,592 in 2061 (Table 3). Among individuals in 2061 not subject to annuitization, average lump sums available for scheduled withdrawals or inheritances would rise to $192,986 (Table 3) from $17,513 in 2022 (Table 1).

As in 2022, income is the most important determinant of whether an individual would be required to partially or fully annuitize. To meet the inflation-indexed poverty threshold in 2061, 45 percent of the bottom income quintile in 2061 would be required to fully annuitize their personal account assets, relative to 13 percent of individuals in the middle quintile and only 8 percent in the top quintile (Table 3). However, in 2061, 52 percent of the bottom quintile would be required to annuitize only part of their account, and 3 percent of the bottom quintile would have no annuitization requirement.

Annuitization requirements by marital status in full implementation would differ significantly relative to results under partial implementation. Under the inflation-indexed poverty threshold in 2022, widow(er)s would be about as likely as married individuals to be required to fully annuitize their account balances. In 2061, by contrast, widow(er)s would fully annuitize their account assets at less than half the rate of married individuals, 8 percent of widow(er)s versus 21 percent of married individuals (Table 3). Moreover, widow(er)s would have by far the largest lump sums available postannuitization in 2061, with an average of $162,948 available to the 84 percent of widow(er)s required to partially annuitize and $296,943 available for the 8 percent of widow(er)s not subject to any annuitization requirement (Table 3). Again, since widow(er)s' lump sums can include balances from their spouses' accounts, widow(er)s' totals may be overstated somewhat.[25]

Results in 2061 under the wage-indexed annuitization threshold are significantly different from those under the inflation-indexed poverty threshold. This outcome is not surprising, considering the wage-indexed threshold in 2061 is equal to 186 percent of the inflation-indexed threshold under current law.

Under the wage-indexed annuitization baseline, the share of those required to fully annuitize rises over time, and nearly all recipients in 2061 would at least partially annuitize their account balances. In 2022, 48 percent of beneficiaries would be required to annuitize their entire personal account under the wage-indexed baseline (Table 2). In 2061, the share of individuals required to fully annuitize their accounts would increase to 58 percent (Table 4), as would the share of partial annuitizers: to 39 percent from 8 percent in 2022. The proportion of recipients not required to annuitize would drop from 44 percent to only 2 percent in 2061 (Table 4).

Although a smaller share of recipients receive lump sums over time under wage-indexed annuitization, the lump sums themselves still grow. For those who must partially annuitize, the average lump sum would be $87,449 in 2061 (Table 4) compared with $11,215 in 2022 (Table 2).

Nonannuitized account balances would not be widely available to lower-income individuals under a wage-indexed annuitization threshold. In 2061, only 6 percent of those in the lowest income quintile and 36 percent of those in the second quintile would have any remaining balance after satisfying the annuitization requirement, with less than 1 percent in the two lowest quintiles escaping annuitization entirely.

Impact on Total Asset Holding

Advocates for personal retirement accounts often cite their potential to build wealth for individuals under the Social Security program.[26] The following section calculates the size of personal account distributions available under the inflation-indexed and wage-indexed annuitization threshold requirements relative to individuals' net financial asset holdings. Financial assets include bank account balances, 401(k) balances, certificates of deposit, and mutual funds but exclude housing wealth and defined benefit pensions. These figures provide a measure of the potential of a reform proposal for asset accumulation that incorporates personal retirement accounts, consistent with requirements to annuitize to a given baseline. The MINT model contains information on individuals' asset holdings, which allows the model to compute the effect of lump-sum payments from personal account balances on asset accumulation.

Table 4.
Graham plan option 1 in 2061 requiring annuitization to wage-indexed threshold: Percentage of personal account recipients required to annuitize with remaining lump sum, by recipient characteristics

	All recipients			Partial annuitizers				Nonannuitizers			
						Remaining balance			Remaining balance		
Characteristic	Percentage of account assets annuitized	Remaining balance as a percentage increase in financial assets [a]	Full annuitizers as a percentage of all recipients	As a percentage of all recipients	Percentage of account assets annuitized	Value in constant 2004 dollars	As a percentage increase in financial assets	As a percentage of all recipients	Value in constant 2004 dollars	As a percentage increase in financial assets	Partial annuitizers and nonannuitizers: remaining balance as a percentage increase in financial assets
Total	80.2	10.6	58	39	60.4	87,449	17.8	2	208,169	23.8	18.4
Sex											
Male	73.9	13.4	49	47	57.9	89,524	19.3	4	212,160	23.8	20.0
Female	87.7	8.0	67	32	65.1	84,892	16.2	1	191,909	23.6	16.4
Race and ethnicity											
White, non-Hispanic	79.1	10.1	55	42	59.7	89,030	16.9	3	211,490	22.8	17.4
Black, non-Hispanic	84.9	24.8	64	34	64.7	81,000	49.1	1	186,984	77.3	50.7
Hispanic	86.7	15.4	73	26	64.5	80,132	28.8	1	194,008	102.7	30.5
Asian	80.8	5.8	69	27	60.5	76,170	9.7	3	189,538	15.7	10.6
Native American	85.9	13.7	63	35	66.5	76,823	32.3	2	176,442	504.7	35.7
Age											
62–65	88.9	5.9	68	32	70.4	68,273	10.0	0	215,179	203.6	10.1
66–69	80.5	10.7	58	40	60.7	89,892	18.4	2	211,118	23.2	18.8
70–72	76.2	12.3	55	42	56.0	95,256	21.1	3	217,241	21.3	21.1
73–76	75.3	13.1	54	42	55.6	90,543	22.6	4	199,152	26.4	23.1
Marital status											
Married	78.7	9.5	62	35	59.2	81,643	18.5	3	212,278	24.1	19.3
Widowed	83.3	15.7	35	65	62.1	120,971	18.8	1	270,744	24.5	18.9
Divorced	85.0	9.1	61	37	65.0	68,046	15.5	2	176,687	21.9	16.1
Never married	80.4	9.2	61	37	62.0	73,442	12.8	1	191,793	22.4	13.3
Beneficiary type											
Retired worker	79.1	11.1	56	41	60.0	82,660	17.8	3	207,921	23.1	18.4
Dually entitled spouse	99.1	0.3	96	4	82.7	30,483	10.3	0	.	.	10.3
Dually entitled widow(er)	83.8	14.7	32	66	64.8	116,504	17.1	1	186,649	47.4	17.4
Widow(er) only	88.4	21.4	29	68	67.1	155,149	23.1	3	256,927	49.9	24.1
Spouse only	99.8	0.5	97	3	74.2	33,787	14.3	0	.	.	14.3
Education											
College graduate	73.6	6.7	52	43	54.8	93,908	10.3	4	215,190	16.7	11.1
High school graduate	82.7	16.3	59	40	63.0	85,039	28.8	2	201,891	57.0	30.1
Less than 12 years	88.9	25.4	77	22	66.5	74,442	69.4	1	165,750	233.5	73.9
Individual income quintile											
Highest	67.6	5.6	41	52	51.3	112,585	7.8	7	224,898	14.8	8.7
Fourth	76.0	14.8	45	53	58.4	95,009	26.0	2	218,374	64.0	27.5
Third	80.1	22.3	50	48	62.5	82,322	46.5	1	199,523	189.1	48.9
Second	89.6	23.8	64	36	72.9	59,469	89.6	b	146,261	329.3	94.2
Lowest	98.2	12.2	94	6	72.7	52,589	220.3	b	121,134	1,537.6	262.3

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

a. Nonannuitized balances are represented here as a percentage increase of net financial assets for all individuals, including those required to fully annuitize, at the time of retirement.

b. Less than 1 percent.

It should be noted that disbursing account balances as lump sums involves proportionate reductions in the income produced by the account. In other words, individuals who chose to partially annuitize their accounts and withdraw a lump sum would receive lower monthly benefit payments than had they fully annuitized their accounts. This is illustrated in Box 2. For example, in 2061, full annuitization would yield a personal account annuity with an average monthly value of $771. Under the partial annuitization requirements of the inflation-indexed and wage-indexed baselines that figure would fall to $298 and $586, respectively.

Some analysts examine *social security wealth*, which is defined as the sum of discounted lifetime benefits that an individual could expect to receive from the program.[27] Under this definition, allowing nonannuitized withdrawals under a personal account proposal would not change the average social security wealth held by individuals. Instead, it would alter its form from an income stream paid over time to a lump-sum asset paid at one time. However, although the total amount of social security wealth would not be changed, partial annuitization would alter the distribution of this wealth. Specifically, exempting some portion of the account balance from annuitization would tend to favor individuals with shorter life spans and disfavor those with longer life spans.

That said, there is evidence that individuals value lump sums more highly than they do income streams that from social security's point of view would be actuarially equivalent.[28] In addition, as noted earlier, there is evidence that asset holding can be beneficial in nonfinancial outlooks and behaviors. For these reasons, there may be qualitative differences between assets and income, even if they can be discounted to the same sum of social security wealth.

In Table 5, estimates are provided from the MINT model of net financial assets held by individuals of various categories under current law for Social Security in 2004, applied to 2022 and 2061. In 2004, the average individual aged 62 to 76 held net financial assets of $115,546. The middle income quintile held net financial assets of $79,599. To give a measure of proportion, this amount equals roughly 2.3 years of earnings at the average wage in 2004.

In Tables 1 through 4, nonannuitized account balances in constant 2004 dollars under the Graham proposal are presented, assuming both an inflation-indexed poverty threshold (Tables 1 and 3) and a hypothetical wage-indexed annuitization threshold (Tables 2 and 4). Nonannuitized balances are represented here as a percentage increase of net financial assets for all individuals, including those required to fully annuitize, at the time of retirement.[29]

In 2022 under the inflation-indexed annuitization requirement, nonannuitized account balances would equal roughly a 4 percent increase of net financial assets for all individuals (Table 1). Nonannuitized assets would be relatively largest among those with lowest earnings. This is partly due to the features of the Graham proposal (progressive funding of the personal account and government matches to voluntary additional contributions by low earners) and partly due to the relatively small asset holdings by lower-income individuals. Nonannuitized account balances would equal an increase of 8 percent of net financial assets for all individuals in the lowest income quintile and 14 percent for individuals in the second quintile (Table 1).[30] When limiting to only those individuals not required to fully annuitize, increases in net financial assets would be 66 percent for the lowest quintile and about 26 percent for the second quintile (Table 1).

In 2061, the effects of personal account balances on individual asset holdings would be significantly larger under the inflation-indexed poverty threshold. Among all individuals, including those required to fully annuitize their accounts, nonannuitized account balances would increase net financial assets by 27 percent. Restricting to individuals eligible for a lump-sum distribution, net financial assets would increase by 30 percent (Table 3).

For individuals in the bottom two income quintiles, net financial assets after satisfying the inflation-indexed poverty threshold annuitization requirement would roughly double in 2061 (Table 3). Individuals in traditionally lower-earning groups would see similar increases in assets. Blacks, Hispanics, and Native Americans could expect increases in net financial assets of 74 percent, 49 percent, and 41 percent, respectively (Table 3).

Box 2.
Monthly annuity amounts under alternative annuitization rules (in constant 2004 dollars)

Type of annuitization	2022	2061
Full annuitization	79	771
Partial annuitization		
To inflation-indexed poverty threshold	28	298
To wage-indexed annuitization threshold	36	586

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

Under a requirement to annuitize to a wage-indexed annuitization threshold, opportunities for asset accumulation would be far more limited. To illustrate, under the inflation-indexed poverty baseline, nonannuitized account balances in 2022 would equal 4 percent of net financial assets, growing to 27 percent in 2061 (Tables 1 and 3). Under the wage-indexed annuitization baseline, nonannuitized account balances would constitute 3 percent of net financial assets in 2022 and increase only to just less than 11 percent of assets in 2061 (Tables 2 and 4). Under the wage-indexed baseline in 2022, almost three-quarters of individuals in the bottom two income quintiles would be required to fully annuitize their personal account balances (Table 2). In 2061, 79 percent of individuals in the bottom two income quintiles would fully annuitize their account balances (Table 4).

This difference in annuitization between the baselines arises because of two factors. First, under a wage-indexed annuitization threshold, the real income level to which accounts must be annuitized can be significantly higher than it can be under the inflation-indexed poverty threshold. Second, under the Graham proposal, average traditional Social Security benefits would remain roughly constant in real terms over the long run, and the wage-indexed annuitization threshold would increase at the rate of wage growth. Income derived from personal accounts would continue to grow in real terms and, therefore, would play an increasing role over time relative to traditional Social Security benefits. It should be noted, however, that this outcome is specific to the growth rate of traditional benefits in the proposal being illustrated. Other proposals could incorporate different levels of traditional benefit growth, which would affect the outcomes here.

Lower-income individuals could see large increases in their net financial assets under a requirement to annuitize to the inflation-indexed poverty threshold, although asset accumulation would involve a roughly proportionate reduction in their monthly Social Security benefits. Under a wage-indexed annuitization threshold, most lower-income individuals would be required to fully annuitize their account balances, leaving few remaining nonannuitized account assets.

Table 5.
Average net financial assets of individuals aged 62 to 76 (in constant 2004 dollars)

Characteristic	2004	2022	2061
Total	115,546	251,348	371,843
Sex			
Male	124,838	262,104	382,465
Female	107,992	242,230	362,869
Race and ethnicity			
White, non-Hispanic	131,893	286,143	423,237
Black, non-Hispanic	35,277	85,712	122,829
Hispanic	37,407	98,961	145,676
Asian	98,985	322,369	460,962
Native American	56,235	166,365	219,796
Marital status			
Married	117,592	241,769	361,700
Widowed	120,134	346,034	508,881
Divorced	104,553	223,282	320,042
Never married	95,267	220,568	327,681
Education			
College graduate	245,278	514,471	756,391
High school graduate	100,842	153,607	227,512
Less than 12 years	33,068	47,324	69,571
Individual income quintile			
Highest	310,274	859,174	1,318,876
Fourth	138,598	236,359	372,344
Third	79,599	123,089	191,246
Second	38,024	62,717	92,830
Lowest	11,198	21,185	30,023

SOURCE: Modeling Income in the New Term (MINT) model, March 2004.

Conclusion

Mandatory annuitization of personal retirement account balances to a given poverty threshold is proposed by some as a means to reduce poverty among Social Security beneficiaries, while still allowing individuals to accumulate financial assets. This analysis examined requirements to annuitize to the current inflation-indexed poverty threshold and to a hypothetical wage-indexed annuitization threshold, using a reform proposal from Sen. Lindsey Graham (R-SC) as an illustrative vehicle.

When annuitizing to the inflation-indexed poverty threshold, individuals could accumulate significant financial assets. However, asset accumulation would come at the cost of proportional reductions in the income stream produced by a personal account. Asset accumulation under a fully implemented proposal could be significant, particularly for some lower-wage individuals with relatively low existing asset holdings. At the same time, however, many other lower-wage individuals would be required to fully annuitize their account balances to reach the poverty threshold.

Under a wage-indexed annuitization threshold, opportunities for asset accumulation would be significantly more limited than under the inflation-indexed poverty threshold, and most lower-income individuals would be precluded from withdrawing any account assets in nonannuitized form.

The contrasting effects of the inflation-indexed and wage-indexed annuitization thresholds reveal that the trade-off facing policymakers designing personal account payout policies is not between asset accumulation and a real minimum income level in retirement. Both these goals can be satisfied relatively easily, as wage growth tends to increase absolute levels of income over time. Instead, the trade-off is between asset accumulation and maintenance of a relative minimum income level in retirement, such as a given percentage of the average wage. Such a minimum replacement rate becomes no easier to attain over time, because it rises with wage growth rather than with inflation.

Notes

[1] These are not the only important decisions associated with payout policies. For a general discussion of personal account payout policies, see Brown (2000) and Liebman (2002).

[2] See, for instance, Michael Sherraden (2001), Benjamin E. Youngdahl Professor of Social Development, director of the Center for Social Development, testimony before the President's Commission to Strengthen Social Security. Sherraden cited evidence from experimental individual development accounts that asset-holding has substantial positive effects on long-term health and marital stability, even when controlling for income, race, and education.

[3] Some private annuity products offer protection to survivors of persons with relatively short life expectancies. For information on cash refund and period certain annuities, see Uccello and colleagues (2003).

[4] This analysis does not measure the effect of poverty-level annuitization (relative to possible alternatives) on participation in means-tested programs, such as the Supplemental Security Income (SSI) program. Under poverty-level annuitization proposals, the SSI program, in determining eligibility, might treat personal account annuities in a manner similar to traditional Social Security benefits or other unearned income and treat remaining account balances similar to other financial assets.

[5] Under a policy that requires annuitization up to the poverty level, some beneficiaries would remain below the poverty level—those beneficiaries whose combined sources of assets from traditional Social Security benefits, an entirely annuitized personal account, and other income were short of the poverty threshold.

[6] Provisions of the Graham proposal are based upon a memorandum by Chris Chaplain and Alice Wade (2003) to the Chief Actuary of the Social Security Administration, p. 2.

[7] The Survey of Income and Program Participation (SIPP) is a panel survey that measures responses from the same individuals over a period of time. The current MINT (Modeling Income in the Near Term) model uses SIPP data from 1990 to 1993 and includes approximately 150,000 respondents born between 1926 and 1965. However, because earlier birth cohorts have already retired and later cohorts have less complete earnings histories at the time of projection, analysis is generally confined to individuals born between 1946 and 1960.

[8] Specifically, earnings, pension income, and asset income are increased by the rate of annual wage growth.

[9] Although annuity prices are based on projected life expectancies for the birth cohorts between 1985 and 1999, it is not feasible to generally adjust life expectancy in the version of the MINT model used for this analysis. Thus, annuity amounts are unbiased for these birth cohorts, but underlying MINT data (for example, whether an individual in the MINT data is simulated to be alive in a given year) reflect original life expectancy projections.

[10] Beginning in 2009, average initial benefits would rise by the rate of inflation rather than by the rate of wage growth as under current law. Following retirement, inflation adjustments to benefits would continue without change.

[11] For projections in this analysis, universal participation in personal accounts is assumed. The annual contribution limit would be increased annually at the rate of wage growth. Account participants could invest their contributions in a narrow range of broadly diversified stock and bond index funds. Annual administrative costs for the accounts were projected to equal 0.3 percent of assets in an account, producing a projected net annual return of 4.8 percent after inflation.

[12] Account holders would give up traditional Social Security benefits in an amount equal to their account contributions compounded at a real annual interest rate of 2.7 percent. At retirement, this notional lump "shadow account" balance would be annuitized, producing a monthly offset to traditional Social Security benefits. So long as the personal account produced returns in excess of the 2.7 percent "offset interest rate," the individual would receive higher total retirement benefits by virtue of holding the account.

[13] The proposal provides that once a personal account balance reached $10,000, workers could move their account to a private fund. This analysis assumes that all workers maintain the stated investment within the government's administrative framework.

[14] In the case of married couples, the purchase of two annuities up to the single poverty level may provide a total defined benefit that significantly exceeds the poverty threshold for couples. This results from the poverty threshold for a couple aged 65 and older being only 26 percent higher than that for a single individual. However, this approach also makes it less likely that one or both spouses would fall below the poverty threshold in the event of divorce or widowhood following retirement.

[15] For example, if a husband's traditional Social Security benefit is $1,000 short of the poverty threshold for a single person aged 65 and older, he would be required to purchase a joint and survivor annuity that provided him with $1,000. Such an annuity would be more expensive than a single life annuity that provided $1,000, but the joint and survivor annuity would have the advantage of providing his widow a two-thirds survivor annuity upon his death (in this example, equal to $667 in inflation-adjusted terms).

[16] Generally, annuitization (and access to accounts) occurs at the MINT-projected age of Social Security benefit receipt (but not earlier than age 62). The disabled have access at the normal retirement age, which ranges from 65 to 67 (depending on the year of analysis and the birth cohort). The average age at the time of account access is 63.

[17] An additional exception is for divorce postretirement, which would require the splitting of account balances between spouses. Postretirement divorce would alter the distribution of balances but not the total within the sample population.

[18] For background on the poverty threshold, see the Web site of the Census Bureau, "Poverty: How the Census Bureau Measures Poverty," at http://www.census.gov/hhes/poverty/povdef.html.

[19] The source for the figure of $9,083 is the U.S. Census Bureau's poverty threshold of $8,628 for 2002, adjusted to constant 2004 dollars using the actuaries's estimates in 2002 of consumer price index growth for 2003 and 2004.

[20] See, for instance, Vaughan (1993).

[21] Individuals aged 74 to 76 in 2022 would have been precluded from direct participation in a personal account, because the Graham proposal makes accounts available only to those aged 54 and younger by the end of 2003. Some of these individuals, though, may have inherited a personal account balance from a younger spouse who was eligible to participate. Individuals who are older than 76 years of age are not part of the sample for this analysis.

[22] Income in the MINT model is defined as the sum of Social Security income, pension income, earnings, Supplemental Security Income, and asset income, according to current law.

[23] Under the wage-indexed baseline, 28 percent of individuals in the highest quintile would fully annuitize.

[24] This uniformity continues even as requirements increase. At a wage-indexed annuitization threshold, 49 percent of divorced and 46 percent of never-married individuals would be required to fully annuitize compared with 48 percent of married and widowed beneficiaries.

[25] These results also hold for annuitization to the wage-indexed annuitization threshold, where only 35 percent of widows in 2061 would fully annuitize in contrast to more than 60 percent of individuals who are married, divorced, or never married.

[26] See, for instance, President's Commission to Strengthen Social Security (2001).

[27] The notion of social security wealth was introduced by Feldstein (1974).

[28] In other words, these individuals would implicitly discount future benefit streams using a higher interest rate than what is paid on the Social Security trust fund. For findings on individual discount rates by age, see Samwick (1997).

[29] These net financial assets could change if some individuals increase or decrease their private savings in response to the Graham plan. This analysis, however, does not incorporate such changes in economic behavior.

[30] This counterintuitive result can come about because individuals in the lowest income quintile often have low labor force participation and thus would have small personal retirement account balances.

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