Modeling Behavioral Responses to Eliminating the Retirement Earnings Test

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The retirement earnings test (RET) is an often-misunderstood aspect of the Social Security program. Proposed RET reforms meant to encourage working at older ages could also cause earlier benefit claiming. We use Modeling Income in the Near Term data to analyze the complete repeal of the earnings test for beneficiaries aged 60 or older, first assuming no behavioral responses to repeal and secondly assuming changes to benefit claiming and workforce participation behaviors. We find that beneficiaries affected by RET repeal would generally receive significantly higher benefits when they are younger than the full retirement age (FRA), and somewhat lower benefits after reaching FRA. RET repeal would not significantly change individuals' lifetime benefits and we find no significant changes in the overall poverty rate under either scenario. We find that assumed behavioral responses—particularly the benefit claiming change—have a bigger effect on lifetime benefits than the RET policy change itself.

Introduction

The retirement earnings test (RET) is an often-misunderstood aspect of the Social Security program. Individuals who claim retirement benefits before they have reached full retirement age (FRA) and continue working may have some or all of their monthly Social Security benefits withheld if they earn more than the RET thresholds. Beneficiaries generally understand this aspect of the RET and it usually acts as a disincentive to work at older ages. Less understood is the fact that any benefits withheld under the RET are credited back once the beneficiary attains FRA, resulting in a permanent monthly increase in benefits. Policymakers have suggested reforming the RET to encourage continued workforce participation among older workers. However, changes to the RET could also cause early benefit claiming. Indeed, the literature suggests that eliminating the RET would likely result in three behaviors among older workers: increased earnings, longer labor force participation, and earlier benefit claiming. It is important for policymakers to understand how those effects could offset one another for the beneficiary population as a whole.

We fill a gap in the existing literature by using recent research to make assumptions about how beneficiaries' work and claiming behavior may respond to changing incentives. We model complete repeal of the RET and compare it to benefits scheduled to be paid under current law, first assuming no behavioral responses and secondly assuming changes to earnings, labor force participation, and claiming behavior. We base these assumptions on evidence of how individuals responded to the 2000 legislation that eliminated the earnings test for beneficiaries between FRA and age 70.

This article describes the RET, including its legislative history and the estimated number of beneficiaries it currently affects. The article then compiles evidence from the literature showing how the RET has historically affected older workers' earnings, labor force participation, and claiming behavior. Lastly, it includes distributional analysis for Social Security beneficiaries

Selected Abbreviations

FRA	full retirement age
MINT	Modeling Income in the Near Term
RET	retirement earnings test
SSA	Social Security Administration

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aged 60 or older based on projections from the Modeling Income in the Near Term, version 6 (MINT6) model to show the effects of RET repeal under static and behavioral-response assumptions.

Description of the RET

The earnings test applies to beneficiaries who are younger than their FRAs—the ages at which they become eligible for unreduced retirement benefits. For every month before FRA that a beneficiary receives benefits, regardless of work status, the monthly benefit amount is subject to early retirement reduction factors, resulting in a lower benefit. The earliest eligibility age for retirement benefits is 62, and the FRA varies from 65 to 67 depending on the worker's year of birth.[1] The RET applies to individuals who are receiving Social Security retirement benefits (either as a retired-worker or an auxiliary beneficiary), working, and younger than their FRA.[2] Some individuals have part of their benefit withheld; those with higher earnings may have their entire benefit withheld.[3]

In 2013, if a beneficiary who remains younger than FRA throughout the year works and earns more than $15,120 (or $1,260 per month), then $1 in benefits is withheld for every $2 in earnings above the limit.[4] Table 1 shows how the RET affects two hypothetical beneficiaries in the first year they receive benefits with an equal starting monthly benefit amount and different monthly earnings.[5]

In the year during which an individual reaches FRA, he or she is subject to a separate earnings test, which applies only in the months prior to attaining FRA. This second earnings test threshold is higher and the offset is smaller.[6] If a beneficiary reaches FRA in 2013 and earns more than $40,080 (or $3,340 per month), then $1 in benefits is withheld for every $3 in earnings above the limit.[7] The earnings test no longer applies beginning with the month a beneficiary reaches FRA, at which point one can have unlimited earnings and still receive his or her full monthly benefit. Both earnings test limits automatically increase each year as determined by the change in the average wage index.[8]

The less well-understood aspect of the RET is that benefits are only temporarily withheld from the beneficiary.[9] As noted previously, early retirement reduction factors reduce benefit amounts for each month before the beneficiary reaches FRA, regardless of earnings. When a beneficiary reaches FRA, any benefits that were withheld under the RET are restored through a permanent increase in the monthly benefit for the retired-worker and any auxiliary beneficiaries. At FRA, the beneficiary is credited for the months in which the RET fully or partially affected benefits, and those months are subtracted from the number of early retirement reduction factors. That measure—the number of months credited to the beneficiary at FRA—is called an adjustment to reduction factors.[10] Table 2 shows how those adjustments can permanently increase monthly benefits at FRA for a hypothetical beneficiary who started receiving benefits at age 63, whose FRA is 66, and whose earnings exceeded the RET limit in 10 of the months before he or she reached FRA.

The RET also affects a retired worker's auxiliary beneficiaries, such as a spouse or child. For example, consider a spouse receiving a $500 monthly benefit based on the record of the hypothetical beneficiaries in Table 1. Beneficiary A's withheld amount ($1,870) is applied to the total family benefit of $1,500 ($1,000 worker benefit plus $500 spouse benefit), so neither the retired-worker beneficiary nor the spouse would receive a benefit for that month. Because a partial benefit is payable to Beneficiary B, the amount received by each beneficiary on the record is reduced by the withheld amount in proportion to his or her original benefit amounts. For auxiliary beneficiaries receiving a benefit based on their own records in addition

Table 1.
Illustrative effects of the RET for two hypothetical beneficiaries in the first year they receive benefits: 2013 (in dollars)

Factor	Beneficiary A	Beneficiary B
Monthly benefit amount before earnings test	1,000	1,000
Monthly earnings	5,000	2,500
Monthly RET limit	1,260	1,260
Earnings in excess of RET threshold	3,740	1,240
Amount of monthly benefits withheld	1,870	620
Monthly benefit paid	0	380

SOURCE: Authors' calculations based on SSA (2012b).

Table 2.
Illustrative effects of the RET credit for benefits withheld prior to FRA when a hypothetical beneficiary reaches FRA

Factor	At age 63	At FRA
Monthly benefit amount before earnings test	1,000	1,000
Number of months RET applied	…	10
Early retirement reduction factors	36	26
Early retirement reduction (%)	20.0	14.4
Monthly benefit ($)	800	856

SOURCE: Authors' calculations based on SSA (2003).

NOTES: Hypothetical beneficiary started receiving benefits at age 63, beneficiary's FRA is 66, and beneficiary's earnings exceeded the RET limit in 10 of the months between age 63 and the attainment of FRA.

… = not applicable.

to their spouses' records (that is, for dually entitled beneficiaries), their *own* worker benefit can also be subject to the RET based on their *own* earnings if they are younger than FRA.[11]

Legislative History

The RET provision of the original Social Security Act of 1935 required full retirement from gainful employment as a condition to receive benefits. The intent of the provision, which was enacted during the Great Depression, was to remove older workers from the labor force to make room for unemployed younger workers. That provision was consistent with the social-insurance nature of retirement benefits: Benefits would only replace earnings that were lost because of old age (DeWitt 1999).

The RET has been revised numerous times since 1935.[12] The 1939 Amendments to the Social Security Act defined retirement (and thus, eligibility for benefits) as receiving less than $15 a month from jobs covered by Social Security (DeWitt 2000). The 1950 Amendments increased the monthly earnings threshold and eliminated the RET for individuals aged 75 or older.[13] The 1954 Amendments eliminated the earnings test for individuals aged 72 or older and instituted an annual earnings limit in addition to the monthly earnings limit. The 1960 Amendments introduced the partial benefit offset ($1 withheld for every $2 over the limit). The 1972 Amendments indexed the annual exempt earnings amount to average wages. The 1977 Amendments eliminated the earnings test for individuals aged 70 or older (although the change did not take effect until 1983) and created the second RET used in the year a beneficiary attains FRA. The 1983 and 1996 Amendments liberalized the second RET by increasing the benefit offset ($1 for every $3 over the limit) and exempt earnings amount. The last change to the RET occurred in 2000, when the Senior Citizens Freedom to Work Act eliminated the earnings test for beneficiaries once they attained FRA.

Beneficiaries Affected by the RET

As shown in Table 3, among all retired-worker beneficiaries who either were younger than FRA or attained FRA in 2008, at least 5 percent were subject to the RET.[14] Among those with any earnings, about 15 percent were subject to the RET.[15] In 2008, about 37 percent of retired-worker beneficiaries who were younger than FRA throughout the year had some earnings. The substantial majority of those working beneficiaries earned less than the RET earnings limit that year ($13,560). For retired-worker beneficiaries who attained FRA in 2008, almost 94 percent of those with earnings earned less than their RET limit of $36,120.

Although the RET directly affects about 5 percent of retired-worker beneficiaries each year, its effect on auxiliary benefits increases its impact on the beneficiary population as a whole. Based on the SSA's Master Beneficiary Record 10 percent sample, the agency's Office of Quality Performance calculates that about 500,000 beneficiaries in all were affected by the RET in 2009; and of those, about 22 percent had their entire benefit withheld.

Literature Review

In addition to affecting benefits, the RET affects workforce participation and benefit-claiming behavior. Some older individuals who have started receiving benefits may reduce their earnings, while others may continue working and delay claiming benefits. The

Table 3.
Retired-worker beneficiaries with earnings, 2008

Earnings ($)	Younger than FRA throughout 2008		Attains FRA in 2008	
	Number	Percent	Number	Percent
Total with earnings	1,038,500	100.0	396,000	100.0
1–4,999	387,500	37.3	132,700	33.5
5,000–9,999	237,200	22.8	76,200	19.2
10,000–14,999	222,000	21.4	67,900	17.2
15,000–19,999	80,100	7.7	44,500	11.2
20,000–24,999	44,400	4.3	24,000	6.1
25,000–29,999	20,000	1.9	14,900	3.8
30,000–34,999	13,300	1.3	10,300	2.6
35,000–39,999	7,500	0.7	5,300	1.3
40,000–44,999	4,300	0.4	3,200	0.8
45,000–49,999	4,600	0.4	3,200	0.8
50,000–54,999	1,800	0.2	2,100	0.5
55,000–59,999	2,300	0.2	1,600	0.4
60,000–64,999	1,500	0.1	1,200	0.3
65,000–69,999	1,300	0.1	1,000	0.3
70,000–74,999	800	0.1	600	0.2
75,000–79,999	1,000	0.1	500	0.1
80,000–84,999	1,500	0.1	800	0.2
85,000–89,999	600	0.1	500	0.1
90,000–99,999	800	0.1	1,400	0.4
100,000 or more	6,000	0.6	4,100	1.0
Total beneficiaries	2,818,900	100.0	1,135,000	100.0
No earnings	1,780,400	63.2	739,000	65.1
Any earnings	1,038,500	36.8	396,000	34.9

SOURCE: SSA, Office of Research, Evaluation, and Statistics: Continuous Work History 1 percent sample—2009 Active File and 2008 Employee and Employer File.

NOTE: Earnings test amount for beneficiaries younger than FRA throughout 2008 was $13,560 annually ($1,130 monthly). Earnings test amount for beneficiaries attaining FRA during 2008 was $36,120 annually ($3,010 monthly).

RET can also distort the effect of other proposed Social Security reforms.[16] By itself, the RET is complicated, and the behavioral responses it produces increase the complexity. For those reasons, some policymakers have suggested liberalizing it (for example, by increasing the benefit offset rate or the earnings exempt amount) or eliminating it entirely.[17] Individuals might respond to such changes by working longer and earning more, or by claiming benefits earlier. It is important to examine how workers have responded to past changes to the RET to understand how future changes might help or hurt beneficiaries' retirement security.

Earnings Effects

One of the main rationales for liberalizing or eliminating the RET is to encourage older workers to stay in the labor force longer and earn more, and thereby increase their retirement income. There is evidence that some workers limit their earnings to avoid the RET. Friedberg (1998) examined the period between 1978 and 1990, when the earnings test changed three times, and found

> "a substantial number of workers with earnings clustered just at the earnings exempt amount. The clustering demonstrates that the earnings test leads some beneficiaries to hold down their labor supply. The clustering moves when the exempt amount moves, and disappears when the earnings test is eliminated. Therefore, many beneficiaries are reacting promptly and flexibly to the earnings test rules."

Many other studies have found similar clustering just under the RET exempt amount (for example, Haider and Loughran 2008, Friedberg 2000, Reimers

and Honig 1996, Leonesio 1990, and Burtless and Moffitt 1985), which suggests that beneficiaries work less than they would without the constraint of the earnings test. Table 3 shows a similar pattern.

As Friedberg (1998) noted, the clustering of earnings below the exempt amount moves as the limit increases. More recent empirical studies have shown a similar response to the 2000 legislation that removed the RET for beneficiaries at FRA.[18] Haider and Loughran (2008), using Current Population Survey data, estimated that working men aged 66–69 increased their earnings by 16 percent because they worked more hours per week after the RET repeal. Similarly, Figinski (2012) looked at beneficiaries aged 66–69 following the 2000 legislation, and found that men increased their earnings by about 20 percent, while female worker beneficiaries increased their earnings by 18 percent; meanwhile, female spousal beneficiaries did not have greater earnings. Song and Manchester (2007b) found that annual earnings increased by 10–19 percent among workers turning age 65 and by 4–10 percent among workers aged 65–69. Engelhardt and Kumar (2007) studied workers' hours and found that those at FRA or older increased their hours by 12 percent to 17 percent, with the effects concentrated among men with a high school degree and no postsecondary education.

Those behavioral responses depend on workers' earnings relative to the RET limit. Friedberg (1999) modeled the effect of removing the RET at ages 70–71 on working men in four earnings groups. She found that those with earnings below the RET exempt amount were projected not to change their earnings; those with earnings between 90 percent and 110 percent of the RET limit were projected to increase their earnings 50 percent; those with earnings between the exempt amount and the "breakeven point" (the amount at which all Social Security benefits are withheld because of the RET) were projected to increase their earnings 18 percent; and those with earnings above the breakeven point were projected to decrease their earnings 4 percent.

An earlier study (Honig and Reimers 1989) examined similar groupings and found similar patterns. Those groups' differing responses make sense given the RET's incentives. Workers in the first group are unaffected by the current-law RET and thus would not be expected to respond to changes. Workers in the second group have the most to gain (in the short term) from changes, while workers in the third group stand to gain somewhat less. Workers in the fourth, highest-earning group would receive Social Security benefits if the RET were repealed, so they could work less and still have more total income (earnings plus benefits).

More recent studies have also found that earnings changes were concentrated among workers with earnings near or above the threshold. Studying the effects of the RET repeal for beneficiaries older than FRA, Haider and Loughran (2008) estimated earnings growth of about 30 percentage points among men aged 69 with earnings just below the threshold. Song and Manchester (2007b) and Friedberg and Webb (2009) found that the earnings response was greatest among those whose earnings were near or above the RET threshold.

In addition to income level, age affects the magnitude of the response to changes to the RET. Haider and Loughran (2008) compared the effects of the 1983 elimination of the RET for people aged 70–71 with those of the 2000 elimination of the RET for beneficiaries beginning at FRA. They found no change in hours worked in response to the 1983 change and a robust response to the 2000 change, suggesting that younger workers are more likely to alter their work patterns in response to policy changes. The authors hypothesized that younger workers could more easily increase their labor supply.

Studies found little evidence of aggregate changes in earnings because of changes to the RET before the 2000 legislation (Gruber and Orszag 2000; Leonesio 1990), which is likely due to two factors: (1) the relatively small group of people whose behavior might change in response to RET changes—namely, working beneficiaries with earnings near the exempt amount—and (2) offsetting effects of changes to the RET, as some workers respond by increasing their earnings and others by decreasing earnings. However, analyses that examined the effects of the 2000 legislation did find some aggregate earnings effects. For example, Haider and Loughran (2008) used a combination of survey and administrative data to analyze the effects of the 2000 repeal of the RET at FRA. Their research showed a "consistent and substantial" response to RET changes, and estimated that at least 4.8 percent of workers in the affected age group adjusted their earnings.

Labor Force Participation Effects

The earnings test can also affect the labor force participation rate, which is the ratio of workers to the total number of people in a given age group. Researchers found that workers did not significantly extend their careers or return to work in response to legislation that

liberalized the RET prior to 2000 (for example, Engelhardt and Kumar 2007, Gruber and Orszag 2000, and Leonesio 1990).[19] However, analysts found evidence of workers extending their labor force participation in response to the 2000 legislation that repealed the RET for beneficiaries at FRA, with some even returning to the workforce. Friedberg and Webb (2009), using the Health and Retirement Study, found that employment increased by 3.5 percentage points at age 65, by about 2 percentage points at ages 66–69, and by about 1 percentage point among younger workers. They also found some people aged 66–69 returning to work, nearly doubling their participation rate from less than 1 percent in the late 1990s to 1.7 percent in 2000. Song and Manchester (2007b) found that workforce participation among those aged 65–69 increased between 0.8 and 2.0 percentage points after the 2000 legislation. Figinski (2012) found that female worker beneficiaries and men aged 66–69 increased their labor force participation after the 2000 legislation by 1.3 percentage points and 2.0 percentage points, respectively; female spousal beneficiaries' labor force participation did not change.

In general, any labor supply effects have been concentrated among current workers. Friedberg and Webb (2009) show that very few older workers return to work after a year out of the labor force. The employment effect of the 2000 legislation is concentrated among those already in the labor force (Song and Manchester 2007b; Haider and Loughran 2008). Those studies also show that the employment effect increases in the years following a policy change, likely because workers have had time to learn about the policy change and adjust their career plans.

Benefit Claiming Effects

The earnings test discourages workers from claiming benefits before FRA by temporarily withholding some or all of the benefits from affected beneficiaries. Eliminating or liberalizing the RET would therefore increase the incentives for early claiming. As noted earlier, claiming benefits before FRA permanently lowers benefits through early retirement reduction factors, regardless of whether the beneficiary continues to work. For some beneficiaries, the early retirement reduction could affect their own retirement security as well as that of auxiliaries who receive benefits based on their records. One study projected that eliminating the RET for beneficiaries younger than FRA could lead to greater poverty, particularly among widows who would claim benefits earlier (Anzick and Weaver 2000).

Research has examined how previous changes to the RET affected the timing of Social Security benefit claiming. There is evidence that the 2000 repeal of the RET at FRA led beneficiaries to claim benefits earlier than they would have without the repeal.[20] Song and Manchester (2007b) showed that benefit claims increased between 3 and 7 percentage points for those reaching age 65, and between 2 and 5 percentage points for those aged 65–69. It is important to note that very few beneficiaries claimed benefits after age 65. Before 2000, only 10 percent of those aged 65–69 had not yet claimed Social Security benefits, which means that a 2 to 5 percentage point increase represents a 20 percent to 50 percent change in benefit receipt among this group. Other studies found similar increases in benefit claiming (Song 2003/2004; Mastrobuoni 2006).

Benefit claiming in response to the 2000 RET legislation varied by sex and benefit type. Song and Manchester (2007a) showed that men are more likely to claim earlier in response to RET changes than are women. The authors found that at age 65, men increased their claiming rate by about 4 percentage points, while women increased their claiming rate by about 2 percentage points. Figinski (2012) found that among women between FRA and age 69, worker beneficiaries increased their claim rate by 2.8 percentage points, while spousal beneficiaries increased their claim rate by about 5 percentage points.

Table 4 summarizes the findings from several of the empirical studies described above. Those findings provide the basis for the behavioral-response assumptions used in our simulations.

Simulating Repeal of the RET

Two studies from the Urban Institute have examined the question of how beneficiaries might fare if the RET were eliminated. Ratcliffe and others (2003) found that eliminating the RET would increase the total income of those aged 62–64, mostly because of accelerated claiming of Social Security benefits. Those increases are concentrated among workers with high lifetime earnings, because those individuals are most likely to be affected by eliminating the RET. Although they did not simulate long-term effects, the authors hypothesized that earlier claiming of Social Security benefits could increase elderly poverty in the long run, particularly among widows. In general, the authors found that the Social Security claiming effects dominated the results. Similarly, Berk, Favreault, and Ratcliffe (2002) found that eliminating the RET resulted in higher total income for individuals who were younger than FRA,

Table 4.
Summary of findings from selected empirical studies on effects of the 2000 elimination of the RET for beneficiaries starting at FRA

Study	Dataset(s)	Period(s)	Behavioral effects on—		
			Earnings	Labor force participation	Claiming benefits
Engelhardt and Kumar (2007)	Health and Retirement Study (HRS)	1996–2004 waves	12–17% increase (in hours worked) among men	No evidence of increased labor force participation	Not examined
Figinski (2012)	SSA 2004 Benefit and Earnings Public Use File (BEPUF)	1951–2003 (for beneficiaries in 2004)	20% increase among men; 19% increase among female worker beneficiaries; no change among female spousal beneficiaries	1.3 percentage point increase for men; 2.0 percentage point increase for female worker beneficiaries; no change for female spousal beneficiaries	2.8 percentage points for female worker beneficiaries; 5.0 percentage points for female spousal beneficiaries
Friedberg and Webb (2009)	HRS; March Current Population Survey (CPS)	1992–2005; 1992–2004	Not examined	Increases of 3.5 percentage points at age 65, 2.0 percentage points at ages 66–69, and 1.0 percentage point at younger ages	Not examined
Haider and Loughran (2008)	March CPS; SSA New Beneficiary Data System (NBDS); 2004 BEPUF	1975–2004; 1951–1999 (for new beneficiaries in 1980–1981); 1951–2003 (for beneficiaries in 2004)	16% increase among men aged 66–69; 30% increase among men aged 69 with earnings just below limit	Not examined	Not examined
Song and Manchester (2007b)	SSA Continuous Work History Sample (CWHS)	1996–2003	Among those close to limit, 10–19% increase among those turning age 65 and 4–10% increase among ages 65–69	No effect at age 65; 0.8–2.0 percentage point increase at ages 65–69	3–7 percentage point increases at age 65; 2–5 percentage point increases at ages 65–69

SOURCES: Cited studies.

and lower income for beneficiaries at FRA or older, due to earlier benefit claiming. The larger the assumed claiming changes, the greater the loss of income. The authors found increases in the poverty rate of about 0.1 percentage point, with never-married and divorced individuals and spouse-only beneficiaries disproportionately likely to become poor under such a policy.

Methodology

We simulate the effects of eliminating the earnings test for retired-worker beneficiaries and their spouses and survivors aged 62 or older starting in 2012, using SSA's MINT6 model.[21] The MINT6 model is based on 2001 and 2004 Survey of Income and Program Participation panel data matched to Social Security administrative data. We compare the benefits under each reform option with the benefits scheduled to be paid under current law ("scheduled benefits") and project the results for Social Security beneficiaries aged 60 or older in 2050.[22] We chose 2050 to ensure that most beneficiaries in our analysis would have claimed benefits after 2012 and therefore would be subject to the RET repeal for the entire time they receive benefits.

Policymakers generally propose RET changes to provide incentives for individuals to change their behavior. Therefore, we compare the results of a static simulation (in which beneficiaries do not change their behavior in response to the policy change) to a behavioral-response simulation (in which we assume certain behavior changes). As discussed in the literature review, individuals have changed their earnings, labor force participation, and benefit claiming behavior in response to past changes in the RET. From the findings of that literature, we make one complete set of research-based assumptions about how individuals may change their behavior in response to eliminating the RET entirely. We use the same basic framework as the simulation by Berk, Favreault, and Ratcliffe (2002), who used MINT, version 3, to model RET elimination and incorporated behavioral response assumptions. However, we base our assumptions on more recent empirical studies analyzing the effects of the 2000 RET repeal at FRA, which were unavailable to Berk, Favreault, and Ratcliffe.

Earnings Response Assumptions

As discussed earlier, Song and Manchester (2007b), Haider and Loughran (2008), Figinski (2012), and Engelhardt and Kumar (2007) have found that some workers increased their earnings in response to changes to the RET. Taking a rough average of those findings, we assume a 15 percent increase in earnings starting in 2012. We apply that increase to nondisabled beneficiaries aged 62–66[23] with earnings near or above the RET threshold (specifically, between 90 percent and 200 percent of the earnings limit; individuals with earnings of twice the limit would have their entire benefit withheld under current law). We adjust affected beneficiaries' earnings each year through FRA, at which point we no longer apply a change to their earnings. Nonbeneficiaries and beneficiaries with earnings below and well above the limit would not have any reason to constrain their earnings under current law, so we would not expect them to change their earnings in response to reforms.

Labor Force Participation Assumptions

Recent studies have suggested that the labor force participation rate increased between 1.0 and 3.5 percentage points among beneficiaries aged 65–69 following the 2000 legislation that eliminated the RET at FRA (Friedberg and Webb 2009; Song and Manchester 2007b; Figinski 2012). We take a rough average of those findings (2.0 percentage points) and adjust for the differences between labor force participation among the older affected group in 2000 and that of the group aged 62–66 who would be affected by a full RET repeal. Reflecting that adjustment, we assume a 3.0 percentage point increase in the labor force participation rate among those aged 62–66 starting in 2012.[24] We assume that all changes in labor force participation will be concentrated among nondisabled Social Security beneficiaries who have stopped working.[25] We randomly select individuals who meet those criteria and assign one additional year of work at the end of their careers.[26] That additional year's earnings are assumed to equal the previous year's.

Benefit Claiming Assumptions

Recent studies have found that benefit claims increased 2–5 percentage points for individuals aged 65–69 following the 2000 legislation repealing the RET for beneficiaries at FRA (Song and Manchester 2007b; Song 2003/2004; Figinski 2012). Song and Manchester found that 10 percent of individuals in that age group had not claimed benefits, resulting in a 20 percent to 50 percent increase in claiming among nonbeneficiaries. Taking the average of those estimates, we change the claiming year for 35 percent of individuals aged 62–66 who have not yet claimed benefits, starting in 2012.[27] We concentrate the changes among nondisabled workers with earnings above the current-law RET limit. We assume that affected individuals start benefits one year earlier than they would under current law. Table 5 broadly summarizes the behavioral responses we assume for individuals in the MINT6 model by beneficiary status and earnings level.

Results

We first examine the proportion of current-law beneficiaries aged 60 or older who would be affected by RET repeal in 2050, under both our static and behavioral-response assumptions. In the static simulation (the policy change alone, with no behavioral response), 29 percent of those beneficiaries would be affected: 3 percent would have higher benefits and 26 percent would have lower benefits (Table 6).[28] Among beneficiaries younger than FRA, 16 percent would have higher benefits, because they would no longer have benefits withheld because of the RET. No beneficiaries younger than FRA would have lower benefits in the static simulation. Among beneficiaries at FRA or older in 2050, 33 percent would have lower benefits, because they would no longer receive adjustments to reduction

Table 5.
Assumed behavioral responses to an RET repeal, by beneficiary status and earnings level

Status	Earnings level	Assumption
	Earnings responses	
Beneficiary	No earnings	No change
	Earnings below threshold	CHANGE (only if within 10% of threshold)
	Earnings above threshold	CHANGE (up to 200% of threshold)
Nonbeneficiary	Any	No change
	Labor force participation responses	
Beneficiary	No earnings	CHANGE
	Earnings below threshold	No change (already working)
	Earnings above threshold	No change (already working)
Nonbeneficiary	Any	No change
	Benefit claiming responses	
Beneficiary	Any	No change (already claimed)
Nonbeneficiary	No earnings	No change
	Earnings below threshold	No change
	Earnings above threshold	CHANGE

SOURCE: Authors' assumptions based on earlier research.

NOTE: Individuals are assumed to be nondisabled and aged 62–66.

Table 6.
Percentage of beneficiaries aged 60 or older affected by RET elimination, by beneficiary characteristics: Static and behavioral-response simulations, 2050

	RET repeal alone (static)			RET repeal plus behavioral response		
Characteristic	Lower benefit	Higher benefit	Total affected	Lower benefit	Higher benefit	Total affected
Overall	26	3	29	34	5	39
Age						
Younger than FRA	0	16	16	6	18	24
FRA or older	33	0	33	40	2	42
Individual income quintile						
$118,629 or more	37	5	42	44	5	49
$63,323–$118,628	33	6	39	42	6	48
$38,865–$63,322	26	4	30	34	5	39
$23,280–$38,864	22	1	23	29	3	32
$0–$23,279	15	1	16	19	5	24
Benefit type						
Retired worker	33	4	37	41	7	48
Dual, spousal and worker	24	4	28	30	6	36
Spousal only	7	3	10	7	10	17
Dual, survivor and worker	26	1	27	34	2	36
Survivor only	14	2	16	20	7	27
Retired disabled	3	0	3	4	0	4
Disabled worker	1	0	1	0	1	1

SOURCE: Authors' calculations using MINT6 data.

NOTE: "Affected" is defined as having a benefit that differs by 1 percent or more from current law in the analysis year.

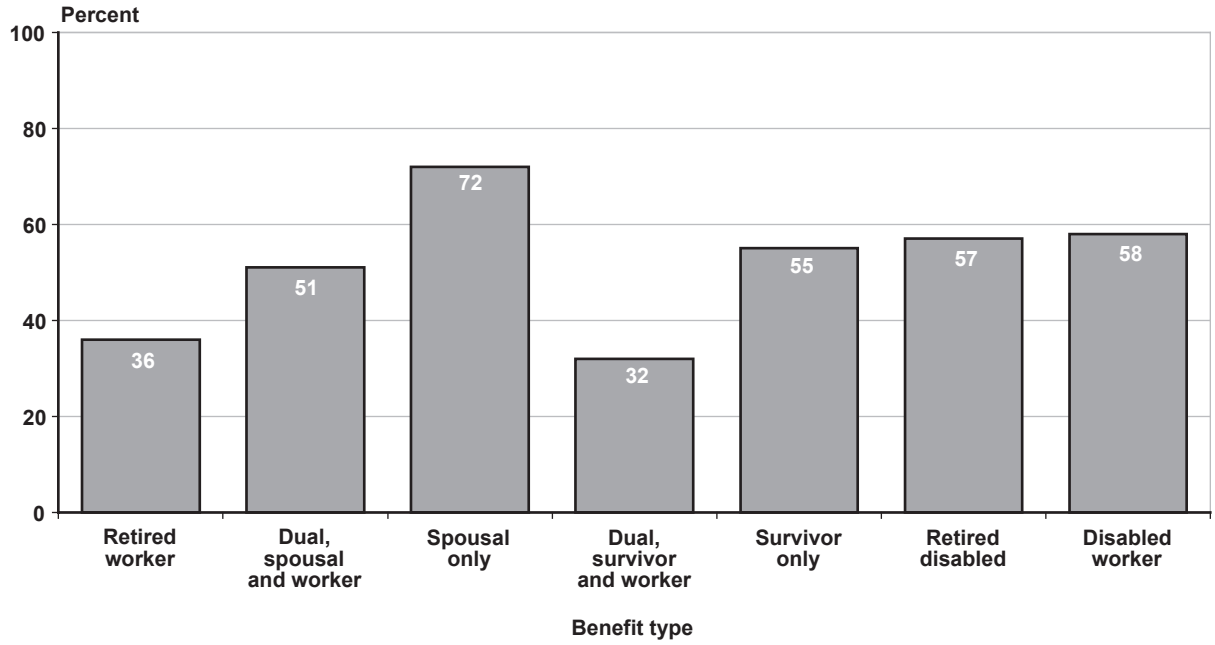
factors at FRA if the RET were repealed (as illustrated in Table 2). No beneficiaries at FRA or older would have higher benefits.

In the behavioral-response simulation, a greater proportion of beneficiaries—about 39 percent—would be affected by the RET repeal: 5 percent would have higher benefits and 34 percent would have lower benefits (Table 6). Among beneficiaries younger than FRA, 18 percent would have higher benefits, which is about the same proportion seen under our static scenario. However, about 6 percent of beneficiaries younger than FRA would receive lower benefits because they would respond to the RET elimination by claiming benefits one year earlier than under current law, thereby subjecting them to additional early retirement reduction factors. Similarly, among beneficiaries at FRA or older in 2050, about 40 percent would receive lower benefits in the behavioral-response scenario. However, unlike those in the static scenario, about 2 percent of beneficiaries older than FRA in 2050 would receive higher benefits, having responded to RET repeal by accruing higher earnings or an additional year of work to factor into their benefit calculation.

Because individuals with the highest incomes are more likely to be subject to the RET, those beneficiaries are most likely to be affected if the RET were repealed.[29] In our static scenario, 42 percent of beneficiaries in the highest individual income quintile would be affected in 2050, while 16 percent in the lowest quintile would be affected. When we incorporate our behavioral-response assumptions, a similar pattern emerges: 49 percent of beneficiaries in the highest quintile and 24 percent in the lowest quintile would be affected.

Individuals receiving benefits based entirely or partially on their own earnings records are more likely to be affected by RET repeal. Assuming no behavioral response, 37 percent of retired-worker beneficiaries, 28 percent of dual spousal and worker beneficiaries, and 27 percent of dual survivor and worker beneficiaries are affected; including behavioral responses increases those shares. Smaller proportions of spousal- and survivor-only beneficiaries are affected under both scenarios. Because those beneficiaries would be more concentrated in the lower individual income quintiles (Chart 1), fewer of them would be affected by RET repeal based on their own earnings. Disabled-worker benefits are not subject to the RET; therefore, most disabled beneficiaries would not be affected by its elimination.[30] However, disabled beneficiaries could be affected if they also receive auxiliary benefits as an aged spouse or survivor. For example, up to 4 percent

Chart 1.
Percentage of beneficiaries aged 60 or older who are in the two lowest individual income quintiles, by benefit type, 2050



SOURCE: Authors' calculations using MINT6.

of retired disabled beneficiaries would receive a lower benefit under RET elimination.[31]

Table 7 shows the distribution of beneficiaries according to their benefit changes under RET elimination. In both simulations, most of the affected beneficiaries have their benefits reduced by 1–9 percent. However, when behavioral responses are included, twice as many beneficiaries have their benefits reduced by 10–19 percent, reflecting the effects of claiming benefits earlier. Both scenarios result in a small percentage with benefit increases of at least 20 percent. Two percent of beneficiaries have their benefits increase by 1–9 percent when behavioral responses are included, which shows the effect of the additional year of work or increased earnings.

Because RET repeal would affect less than one-half of beneficiaries, we examine the median benefit changes among affected beneficiaries in Table 8. We define "affected" as having a benefit that differs by 1 percent or more from current law in the analysis year. For many of the changes we model, a change in one year means a change in all subsequent years.[32] In the static simulation, when affected beneficiaries are younger than FRA—and therefore receiving higher benefits under RET repeal than under current law—the median benefit increase is 71 percent. When affected beneficiaries are FRA or older—and therefore typically receiving lower benefits than under current law—the median benefit reduction is 6 percent. A small number of beneficiaries at FRA or older have higher benefits under RET repeal with no behavioral response; for those beneficiaries, benefits are based mostly on the earnings of a spouse, and the median increase is 12 percent.

In the behavioral-response simulation, however, some beneficiaries younger than FRA receive lower benefits in 2050 (as shown in Table 6); the median benefit reduction among this group is 7 percent (Table 8). Among beneficiaries younger then FRA who receive higher benefits, the median increase is 50 percent. At FRA or older, the median reduction in benefits among affected beneficiaries is 7 percent. The larger benefit reductions in the behavioral-response scenario result from the assumption that some beneficiaries claim benefits earlier than they would under current law.

Beneficiaries in the highest individual income quintiles would have the largest benefit increases under RET repeal (Table 8). The median benefit increase for this group is 100 percent assuming no behavioral response and 71 percent with the behavioral responses included. That pattern persists across the income scale: The higher the income quintile, the greater the benefit increase. All earnings above the RET thresholds are subject to withholding, so beneficiaries with higher earnings have higher withholdings (and thus a greater increase in benefits under RET repeal). However, the benefit reductions are consistent across all quintiles under both scenarios. The percentage value of one adjustment to reduction factors is consistent for all beneficiaries. Regardless of the amount of benefits withheld, an adjustment to reduction factors is given for any month that benefits were subject to the RET.

Tables 6 through 8 show the effects of RET repeal among individuals who are beneficiaries under current law in 2050. However, some beneficiaries subject to the RET would have their entire benefit withheld because their earnings were more than twice the lower earnings limits (when younger than FRA) or three times the higher earnings limit (in the year they attain FRA) under current law; obviously, such beneficiaries would predominantly fall in the higher income quintiles. With the RET eliminated, many of those beneficiaries would now receive benefits. As Table 9 shows, almost 281,000 individuals younger than FRA in 2050 would become beneficiaries if the RET were repealed (a 1.8 percent increase over current law), assuming

Table 7.
Percentage distribution of beneficiaries aged 60 or older by change in benefits resulting from RET elimination: Static and behavioral-response simulations, 2050

	Decline			No	Increase		
Simulation	≥20%	10–19%	1–9%	change	1–9%	10–19%	≥20%
RET repeal alone (static)	a	5	21	70	a	a	2
RET repeal plus behavioral response	1	10	23	61	2	a	3

SOURCE: Authors' calculations using MINT6 data.

NOTE: Rounded components of percentage distributions do not necessarily sum to 100.

a. Less than 0.5%.

Table 8.
Median percent change in benefits from scheduled benefits for beneficiaries aged 60 or older affected by RET elimination, by beneficiary characteristics: Static and behavioral-response simulations, 2050

	RET repeal alone (static)		RET repeal plus behavioral response	
Characteristic	Lower benefit	Higher benefit	Lower benefit	Higher benefit
Overall	-6	71	-7	20
Age				
Younger than FRA	a	71	-7	50
FRA or older	-6	12	-7	2
Individual income quintile				
$118,629 or more	-6	100	-7	71
$63,323–$118,628	-6	71	-7	50
$38,865–$63,322	-5	50	-7	23
$23,280–$38,864	-5	29	-7	2
$0–$23,279	-6	12	-7	2
Benefit type				
Retired worker	-6	71	-8	23
Dual, spousal and worker	-4	12	-6	6
Spousal only	-6	a	-6	9
Dual, survivor and worker	-5	33	-7	2
Survivor only	-6	a	-7	3
Retired disabled	-5	a	-7	a
Disabled worker	a	a	a	a

SOURCE: Authors' calculations using MINT6 data.

NOTE: "Affected" is defined as having a benefit that differs by 1 percent or more from current law in the analysis year.

a. Insufficient sample size.

Table 9.
Increase in number of beneficiaries aged 60 or older resulting from RET elimination, by beneficiary characteristics: Static and behavioral-response simulations, 2050

	RET repeal alone (static)		RET repeal plus behavioral response	
Characteristic	Number	Percent	Number	Percent
Overall	280,723	0.3	2,665,569	3.6
Age				
Younger than FRA	280,723	1.8	2,435,014	14.4
FRA or older	0	0.0	230,555	0.4
Individual income quintile				
$118,629 or more	83,727	0.5	1,119,100	7.1
$63,323–$118,628	107,089	0.7	677,020	5.2
$38,865–$63,322	77,637	0.5	409,440	2.8
$23,280–$38,864	6,839	a	148,730	1.0
$0–$23,279	5,430	a	218,276	1.5

SOURCE: Authors' calculations using MINT6 data.

NOTE: Totals do not necessarily equal the sum of rounded components.

a. Less than 0.05%.

no behavioral response. With behavioral responses assumed, over 2.4 million beneficiaries younger than FRA would be added in 2050 (a 14.4 percent increase compared with current law). Some would be individuals who previously delayed claiming benefits because of the RET and who now start benefits a year earlier, becoming beneficiaries in 2050. Individuals who increase their earnings or add one more year of work could, along with their auxiliaries, also become eligible for Social Security benefits earlier than under current law.

Disproportionate shares of new beneficiaries populate the higher income quintiles in both RET repeal simulations, particularly so in the behavioral-response scenario. Over 1 million individuals in the highest income quintile who would claim benefits later in the static simulation now claim benefits a year earlier. In 2050, among affected beneficiaries in the highest individual income quintile, the median age for starting benefits decreases from 65 under the static approach to 64 under the behavioral-response simulation.

Under either scenario, eliminating the RET would have no effect on overall poverty by 2050 (Table 10). As noted previously, eliminating the RET generally does not affect lower-income beneficiaries, who are more likely to have incomes near the poverty level. Among beneficiaries at FRA or older, the poverty rate would increase slightly under the static scenario. Among beneficiaries younger than FRA, the poverty rate would decrease slightly when behavioral responses are included. Poverty rates decline because some beneficiaries are assumed to have greater income from earnings or additional benefits for claiming a year earlier. Retired-worker beneficiaries would have a slightly higher poverty rate without behavior changes, because this group is most likely to be affected by eliminating the RET (see Table 6). In general, poverty will decline under current law by 2050 because the poverty threshold is indexed to prices, and over time, wage growth is expected to outpace price growth.[33]

To show projected changes in poverty that are more comparable to current rates, we analyze wage-indexed poverty rates in Table 11. Overall, the wage-indexed poverty rate increases 0.2 percentage points under both scenarios compared with current law. As with the traditional poverty rate shown in Table 10, the

Table 10.
Poverty rate effects of RET elimination for beneficiaries aged 60 or older, by beneficiary characteristics: Static and behavioral-response simulations, 2050

Characteristic	Projected poverty rate under current law	Poverty rate effect (percentage point change)	
		RET repeal alone (static)	RET repeal plus behavioral response
Overall	1.9	0.0	0.0
Age			
Younger than FRA	2.9	0.0	-0.1
FRA or older	1.6	+0.1	0.0
Individual income quintile			
$118,629 or more	0.0	0.0	0.0
$63,323–$118,628	0.0	0.0	0.0
$38,865–$63,322	0.0	0.0	0.0
$23,280–$38,864	0.0	0.0	0.0
$0–$23,279	9.4	+0.2	+0.1
Benefit type			
Retired worker	1.8	+0.1	0.0
Dual, spousal and worker	0.5	0.0	0.0
Spousal only	5.1	0.0	0.0
Dual, survivor and worker	0.5	0.0	0.0
Survivor only	7.0	0.0	0.0
Retired disabled	2.7	0.0	0.0
Disabled worker	4.3	0.0	0.0

SOURCE: Authors' calculations using MINT6 data.

Table 11.
Wage-indexed poverty rate effects of RET elimination for beneficiaries aged 60 or older, by beneficiary characteristics: Static and behavioral-response simulations, 2050

Characteristic	Projected wage-indexed poverty rate under current law	Wage-indexed poverty rate effect (percentage point change)	
		RET repeal alone (static)	RET repeal plus behavioral response
Overall	6.7	+0.2	+0.2
Age			
Younger than FRA	8.4	0.0	-0.3
FRA or older	6.4	+0.2	+0.3
Individual income quintile			
$118,629 or more	0.0	0.0	0.0
$63,323–$118,628	0.0	0.0	0.0
$38,865–$63,322	0.0	0.0	0.0
$23,280–$38,864	0.0	0.0	0.0
$0–$23,279	34.0	+0.8	+1.0
Benefit type			
Retired worker	6.0	+0.2	+0.3
Dual, spousal and worker	2.2	0.0	0.0
Spousal only	10.5	0.0	0.0
Dual, survivor and worker	4.9	+0.2	+0.3
Survivor only	19.6	0.0	+0.3
Retired disabled	11.3	0.0	0.0
Disabled worker	12.9	0.0	0.0

SOURCE: Authors' calculations using MINT6 data.

wage-indexed poverty rate decreases for beneficiaries younger than FRA after the RET repeal when behavioral responses are included. The wage-indexed poverty rate increases slightly among beneficiaries at FRA or older under both scenarios because they no longer receive adjustments to their reduction factors. Wage-indexed poverty also increases among retired-worker beneficiaries (who are more likely to be affected by RET repeal) and among survivor-only and dually entitled survivor beneficiaries when behavioral responses are included. Survivor beneficiaries are older than other beneficiary groups, and therefore are more likely to receive reduced benefits after reaching FRA (because of eliminated adjustments to reduction factors) than they are to receive increased benefits before FRA.[34]

Despite changes in individual benefits in a given year, the early retirement reduction factors and adjustments at FRA are roughly actuarially fair, so beneficiaries affected by the RET under current law should have similar lifetime benefits if the RET is eliminated. We examine that assumption with the benefit/tax ratio, which compares the lifetime value of Social Security benefits received with the lifetime value of taxes paid (Leimer 1995). As Chart 2 shows, the median lifetime benefit/tax ratio in the static repeal scenario would be comparable to scheduled benefits, although slightly lower for some cohorts. In the behavioral-response scenario, the median lifetime benefit/tax ratio is lower for all cohorts because we assume that some beneficiaries start benefits earlier, which leads to lower monthly benefits for life for both the retired workers and their auxiliaries. Our assumptions about continuing labor force participation do not offset that effect because one additional year of earnings produces low marginal returns (Reznik, Weaver, and Biggs 2009). Chart 2 shows that RET repeal itself would not change the lifetime value of Social Security benefits as much as the possible behavioral responses to the repeal.

Discussion

We simulate the elimination of the RET under both static and behavioral-response assumptions and analyze the impact on beneficiaries aged 60 or older in 2050. We find that more beneficiaries are affected when we include behavioral responses for earnings, labor force participation, and benefit claiming. We also find that benefit reductions are larger and benefit

Chart 2.
Median lifetime Social Security benefit/tax ratio for beneficiaries aged 60 or older

SOURCE: Authors' calculations using MINT6 data.

increases are smaller in the behavioral-response simulation. The increase in the number of beneficiaries in 2050 is much larger when behavioral responses are included, driven by individuals starting benefits earlier than they would under current law. Earlier claiming also results in a slightly lower median lifetime benefit tax/ratio compared with scheduled benefits.

The behavioral responses—particularly the benefit claiming change—have a bigger effect on lifetime benefits than the RET policy change itself. Absent the behavioral responses, Chart 2 shows that eliminating the RET produces almost no difference from current law over the median beneficiary's lifetime.[35] Without the earnings test, beneficiaries would receive a higher benefit before FRA and a lower benefit beginning at FRA. Those changes offset each other in the long run. However, accounting for behavioral responses lowers the lifetime/benefit tax ratio by about one-half of one percentage point compared to current law. The changes in claiming age are more important than the changes in earnings or labor force participation, because the claiming decision automatically lowers the Social Security benefit through additional early retirement reduction factors, while the earning and work decisions may or may not impact benefits. (However, those decisions will impact income temporarily for those who do change their work behavior.) Claiming earlier may negatively affect some individual beneficiaries, but as noted earlier, median lifetime benefits would not be significantly lower than current-law benefits.

In general, our overall findings closely match those of the previous Urban Institute studies. Like Berk, Favreault, and Ratcliffe (2002), we find benefit (and therefore, total income) increases for individuals younger than FRA, and benefit (and therefore, total income) decreases for beneficiaries at FRA or older when behavioral responses are assumed. In addition, like Ratcliffe and others (2003), we find that beneficiaries with higher lifetime earnings are more likely to start benefits earlier, resulting in higher total income.

We find lower poverty rates than earlier studies did. Anzick and Weaver (2000) projected that a complete repeal of the RET would increase the poverty rate by 0.4 to 1.9 percentage points, depending on the benefit-claiming assumptions used.[36] However, their simulation assumed that all beneficiaries were equally likely to claim earlier, including those without earnings or who earned less than the earnings test threshold, and that all early claiming would occur at age 62.[37] We assumed that people with earnings well below the threshold would have no incentive to claim earlier if the RET were repealed; those individuals

are more likely to be near poverty. In addition, we assumed beneficiaries would claim one year earlier instead of claiming at the earliest eligibility age (62). Like Anzick and Weaver, we find a disproportionately higher poverty rate increase among survivor beneficiaries using our wage-indexed poverty measure, although their estimate (3.7 percentage points) is much higher than ours (0.3 percentage points in the behavioral-response scenario). Using the standard poverty measure, we did not find higher poverty rates among survivor beneficiaries.

However, our overall poverty findings do match closely with those in Berk, Favreault, and Ratcliffe (2002), who found a 0.1 percentage point increase in poverty in 2022. Although they found poverty increases to be most pronounced for spousal-only beneficiaries, we found that wage-indexed poverty would increase for retired-worker and survivor beneficiaries when behavioral responses were included. Retired workers are more likely to be subject to the RET because of their higher earnings. Survivor beneficiaries are older than other types of beneficiaries, so a greater proportion of survivors are older than FRA and thus would have lower benefits under RET repeal.

We use more modest benefit-claiming assumptions than Berk, Favreault, and Ratcliffe (2002) and Ratcliffe and others (2003). Yet, like those authors, we find that benefit-claiming behavior is an important factor in the distributional analysis. Because Social Security benefits account for a significant share of income among the aged,[38] the benefit-claiming decision plays a crucial role in the retirement security of retired-worker beneficiaries and their spouses. Ratcliffe and others (2003) note that earlier benefit claiming reduces the net present value of benefits. Similarly, we find that our behavioral-response assumptions slightly reduce the median lifetime benefit/tax ratio.

Limitations

We used a number of simplifying assumptions in order to project behavioral responses to possible changes to the RET. First, we assumed that we could directly apply the experiences of older people (primarily aged 65–69) to the younger group (aged 62–66) who would be affected by the options we analyze. There are differences between those two groups, and reasons to believe their responses to RET changes would also differ.

We used empirical evidence from the partial repeal of the RET in 2000 to make predictions about responses to future changes (assumed to begin in 2012). Some behavioral changes seen since 2000 are unrelated to RET changes. For example, individuals are now more likely to defer claiming retired-worker benefits, which is consistent with increased labor force participation at older ages (Muldoon and Kopcke 2008) and the gradual increase in the FRA that began in 2000.

We also assumed uniform responses in each behavioral dimension: that all earlier claimers started benefits one year earlier; that all individuals who extended their labor force participation worked for one additional year; and that all individuals who increased their earnings did so by a fixed percentage until reaching FRA. Individuals' actual responses would be more varied—perhaps collecting benefits a few months earlier or working for a few months longer.

Solvency Effects

Repealing the RET would have a minimal impact on Social Security's long-term solvency because affected individuals' short-run benefit increases would be offset by long-run benefit reductions. SSA's Office of the Chief Actuary estimated that eliminating the RET starting in 2012 would improve the long-range Social Security actuarial balance by an estimated 0.01 percent of taxable payroll.[39] The Chief Actuary assumed, as we did, that some beneficiaries would no longer have their benefits withheld, some individuals would apply for benefits earlier, and some individuals currently subject to the RET would increase their earnings (Chaplain and Nickerson 2010). Those beneficiaries who no longer have their benefits withheld will not receive adjustments to reduction factors at FRA—increasing their benefits before FRA (and increasing short-run program costs),[40] but reducing their benefits beginning at FRA (and reducing long-run program costs). In addition, individuals who apply for benefits earlier will receive more early retirement reduction factors, which will permanently lower their monthly benefits.

Conclusion

Because the RET is a confusing aspect of the Social Security program, it is important to understand how its elimination may affect beneficiaries. We have presented distributional analysis showing both static and behavioral responses to RET repeal, highlighting how behavioral responses could affect benefits in the future. In our behavioral-response simulation, we model three distinct responses to RET

repeal—including earnings, labor force participation, and benefit claiming—and incorporate empirical findings from the latest research. Although eliminating the RET would have little effect on lifetime benefits and system solvency in the long run, we find that individual beneficiaries' behavior could affect their own retirement security and that of their family members. As such, this research highlights the importance of combining distributional analysis with potential behavioral responses when analyzing the impact of Social Security reforms on beneficiaries.

Notes

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[1] For the complete FRA chart, see http://www.socialsecurity.gov/retire2/agereduction.htm.

[2] Auxiliary retirement beneficiaries include spouses, children, and aged survivors. For more information on auxiliary benefits, see http://www.socialsecurity.gov/retire2/yourspouse.htm, http://www.socialsecurity.gov/retire2/yourchildren.htm, and http://www.socialsecurity.gov/survivorplan/onyourown2.htm, respectively.

[3] Any earnings, even those earned after benefits have begun, are incorporated into the benefit calculation through an automatic process each year and may result in higher benefits. For more information, see SSA (2013).

[4] As opposed to the annual earnings test, the monthly earnings test only applies in certain years, for example in the first year of benefit receipt. For RET exempt amounts from 1975 to 1999, see http://www.socialsecurity.gov/OACT/COLA/rteahistory.html. For exempt amounts for 2000 and later, see http://www.socialsecurity.gov/OACT/COLA/rtea.html.

[5] For more detailed examples of how the RET works, see Nuschler and Shelton (2010).

[6] For example, if Beneficiary A in Table 1 turned age 66 in February and earned $5,000 in January, his or her benefit for January would be reduced by only $553, instead of by $1,870.

[7] A special earnings test applies for individuals who retire midyear. For more information, see http://www.socialsecurity.gov/retire2/rule.htm.

[8] These increases are effective only in years where there is a cost-of-living-adjustment (COLA). For more information on the national average wage index, see http://www.socialsecurity.gov/OACT/COLA/AWI.html and for more information on the COLA, see http://www.socialsecurity.gov/cola/2011/factsheet.htm.

[9] Exceptions include spouses and survivors who receive benefits because they have minor or disabled children in their care. Although they too are subject to the earnings test if they work, they do not receive credit at FRA for the months that their benefits were fully or partially withheld. For more information, see SSA (2013).

[10] For the month shown in Table 1, both beneficiaries would receive one adjustment to reduction factors at FRA (even though Beneficiary B received a partial benefit payment for that month).

[11] For more detailed examples of how the RET works for auxiliary beneficiaries, see Nuschler and Shelton (2010).

[12] For the complete history of RET changes, see SSA (2012a, Table 2.A29).

[13] This change allowed newly covered self-employed workers to eventually receive a benefit. The self-employed tended to not retire from employment, so this provision was included to enable those workers, who had been contributing payroll taxes to the system, to receive a benefit (DeWitt 2000).

[14] To estimate this number, we included any beneficiary younger than FRA with earnings of $15,000 or more and any beneficiary attaining FRA with earnings of $40,000 or more, divided by the total number of beneficiaries in those age groups.

[15] To estimate this number, we included any beneficiary younger than FRA with earnings of $15,000 or more and any beneficiary attaining FRA with earnings of $40,000 or more, divided by the total number of beneficiaries with earnings in those age groups.

[16] The RET can either amplify the effects of a policy change that reduces benefits or appear to create a benefit increase relative to current law, depending on an individual's age relative to FRA. The reverse is true for reforms that increase benefits. For more information, see Haltzel and others (2007, Appendix C).

[17] Increasing the offset rate was proposed in a bill sponsored by Senator Lloyd Bentsen (D-TX) in 1989. For more information, see http://thomas.loc.gov/cgi-bin/query/z?c101:S.1192:. The Contract with America Advancement Act of 1996 instituted ad hoc increases in the earnings exempt amount for beneficiaries at FRA or older (DeWitt 1999). Several bills have been introduced in Congress to eliminate the RET, including the Social Security Earnings Limit Repeal Act of 2001 (http://thomas.loc.gov/cgi-bin/query/z?c107:H.R.1731:), and the Social Security Guarantee Plus Act of 2001 (http://thomas.loc.gov/cgi-bin/query/z?c107:H.R.3497:).

[18] When the British and Canadian public pension systems abolished their retirement earnings tests, workers there also increased earnings in response to the change. In the United Kingdom, affected beneficiaries increased their hours worked by about 20 percent (Disney and Smith 2002). In

Canada, workers were more likely to work full time for a full year rather than a partial year (Baker and Benjamin 1999).

[19] Similarly, studies on the British and Canadian repeal of retirement earnings tests did not find any increase in labor force participation (Disney and Smith 2002; Baker and Benjamin 1999).

[20] Research on the earnings test repeal in Canada also found a large increase in benefit claiming (Baker and Benjamin 1999). There is no actuarial adjustment for delayed claiming in Canada. However, research on the earnings test repeal in the United Kingdom (which has a relatively generous actuarial adjustment for delayed claiming) found no increase in claiming (Disney and Smith 2002).

[21] One limitation of the MINT model is that Social Security benefit calculations are done on an annual basis; therefore, we analyze only the RET used for those younger than FRA and omit the separate RET used in the year a beneficiary attains FRA.

[22] In the MINT6 model, work, marriage, retirement, and death are projected for real and imputed individuals based on real earnings, marital histories, and education levels. For more information, see http://www.socialsecurity.gov/retirementpolicy/projection-methodology.html.

[23] Although a small number of aged survivor beneficiaries are affected by the RET at ages 60 and 61, we assume no change in their behavior.

[24] The aggregate labor force participation and benefit claiming response could vary by year, but to simplify, we apply the same assumptions to each year.

[25] We assume an individual with earnings above four times the amount needed for one Social Security quarterly credit in one year and less than that amount in the following year has stopped working. In 2013, a worker receives one credit for each $1,160 of earnings.

[26] The additional year of work immediately follows the last year of each randomly selected worker's career. This is consistent with the literature, which shows that if a person has not worked in the previous year, he or she is very unlikely to return to work (Friedberg and Webb 2009).

[27] We only apply this response to those individuals whose current-law start age is greater than 62 and who are fully insured for retirement benefits. For more information on insured status, see http://www.socialsecurity.gov/OACT/ProgData/insured.html.

[28] To be considered affected, the difference from scheduled benefits must be equal to or greater than 1 percent. We consider those with differences of less than 1 percent to be unaffected.

[29] We sorted beneficiaries by individual income quintile because the RET is based upon beneficiaries' earnings in a given year. Individual income was the closest proxy.

[30] Disabled beneficiaries must be unable to engage in substantial gainful activity. For more information, see http://www.socialsecurity.gov/OACT/COLA/sga.html.

[31] Retired disabled beneficiaries are individuals who previously received disability benefits but were converted to retirement benefits at FRA.

[32] For example, if a beneficiary's claiming age has been changed, that beneficiary will likely be affected every year thereafter because the early retirement reduction is a permanent reduction. In addition, if a beneficiary was subject to the RET under current law, he or she is likely to be affected by eliminating the RET in all future years, because benefits are no longer withheld before FRA and because the adjustments to reduction factors permanently affect benefit amounts after FRA.

[33] For more information on poverty projections, see http://www.socialsecurity.gov/retirementpolicy/projections/poverty-decline.html.

[34] For 2050, MINT6 projects the median age of survivor and worker beneficiaries and survivor-only beneficiaries will be 83 and 80, respectively. In comparison, the median age of retired workers is projected to be 73.

[35] We define the median beneficiary as the individual with the median benefit/tax ratio.

[36] Anzick and Weaver did not include the 2000 repeal of the RET for beneficiaries aged 65–69 in their simulation, so it was based on a larger population than our analysis. They also acknowledge other possible sources of upward bias in their poverty estimates, including the fact that they do not assume any changes to labor force participation and they do not fully account for the interaction between Social Security and Supplemental Security Income.

[37] The authors used four sets of assumptions: a worst-case scenario in which all Social Security beneficiaries claim at age 62, a best-case scenario in which claiming behavior is unchanged, and two intermediate scenarios in which the poverty population increases by 20 percent and by 50 percent of the worst-case scenario's increase.

[38] Social Security accounted for 37 percent of aggregate income among units (which comprise either a married couple living together or a person who does not live with a spouse) aged 65 or older in 2010 (SSA 2012c, 16).

[39] Other research suggests that the long-term savings from full RET repeal would be significantly higher. Mastrobuoni (2006) finds that the 2000 repeal of the RET above FRA created trust fund savings starting in 2006, and argues that full repeal would save more money and produce larger increases in labor supply and contributions to the trust funds.

[40] The Chief Actuary estimates that the program cost for the first 5 years after repeal would be $59.6 billion.

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