What Is the Effective Social Security Tax on Additional Years of Work?

Abstract - *The U.S. Social Security retired worker benefit calculation is based on the average of the highest 35 years of each individual's earnings; thus, payroll taxes for people with flat or declining earnings can effectively become a pure tax near the end of their working careers. Individuals who still have zero or low–earning years being factored into their high–35 calculation face much lower (even negative) effective tax rates if they work additional years. In this paper, administrative earnings data are used to measure the distribution of effective payroll tax rates across and within age, sex, and lifetime earnings groups. The estimates are somewhat sensitive to assumptions about discounting, controlling for differential mortality, and whether to focus on all earners or just earners at the end of their primary careers. A budget–neutral change in tax and benefit formulas is shown to significantly flatten the pattern of effective tax rates.*

INTRODUCTION

In the U.S., Social Security system retirement benefits are based on the average of the highest 35 years of earnings during an individual's working life. This "high–35" approach—especially when combined with wage–indexing of lifetime earnings and a progressive benefit formula—can lead to a situation where additional years of earnings at the end of a career do not improve benefit outcomes. In that situation, the Social Security payroll tax becomes a pure tax on labor for older workers, because there is no increase in future benefits that will (even partially) offset the statutory payroll tax. In this paper, administrative earnings records are used to assess the extent to which effective tax rates increase across and within groups for those around retirement age, how sensitive those conclusions are to various input assumptions and estimation procedures, and the implications of a budget–neutral change to benefit and tax formulas intended to mitigate rising effective tax rates for older workers.

The effective tax on an additional year of work is measured as the gap between the payroll tax paid and the change in the present value of benefits—that gap is then divided by the level of earnings to compute the effective tax rate. The change in the present value of benefits involves two sets of inputs: the first is the change in the individual's Primary Insurance

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Amount (PIA), which is used to calculate Social Security benefits at any given claim age, and the second is the present value discount factor (PVDF), which adjusts the stream of future benefits for survival probability and the time value of money. The change in PIA can be computed directly from the administrative data, but computing the value for the PVDF requires assumptions about mortality and discount rates.

In general, the analysis here shows that the high–35 effect is evident in the data—effective tax rates rise noticeably between ages 55 and 65, because more and more workers face benefit levels that do not rise as they continue earning. This pattern holds for both men and women, across lifetime earnings quintiles, and across both total and "career" worker populations. For men, the highest average effective tax rates are observed for earners in the middle lifetime earnings quintile, who are less likely to see big increases in their PIA from working another year. Males with low lifetime earnings in the data see the largest increases in PIA at each age, but that effect is offset to some extent by their higher mortality rates. For women, effective tax rates rise uniformly across lifetime earnings groups, and are generally negative for low earners.

The differences in means across age, income, and gender groups are modest relative to the tremendous heterogeneity within groups, however. If an individual in any group already has 35 years working at or near their lifetime (wage–indexed) average, their PIA will be little affected if they work another year, and the Social Security tax will approach a pure tax because there is no offsetting future benefit. That is indeed the case for a subset of workers in every group, and the change in effective tax rates by age for the highest taxed (for example, the 75th or 90th percentiles of effective tax rates) is somewhat larger than for the rest of the population within that age, earnings, and gender group.

The estimated levels of effective tax rates and the magnitude of the increase between ages 55 and 65 are somewhat sensitive to the specific population being studied and at least two key assumptions. Effective tax rates are generally lower for those estimated to still be in "career" jobs, where the end of a "career" is identified by a sudden and significant drop in earnings. This makes sense, because older workers who have left career jobs are even less likely to replace a year in their high–35 formula. In terms of assumptions, the lower is the discount rate used to compute the PVDFs, the lower are effective tax rates at any given age, but the steeper is the increase in effective tax rates across age groups. Also, adjusting for predictable differences in survival eliminates a noticeable share of the difference in average effective tax rates across lifetime earnings groups, because lifetime low earners have higher mortality rates. If low lifetime earners work another year, they are more likely to noticeably increase their PIA, but they are also less likely to actually receive the benefit.

The data used here are not well suited for a direct test of the hypothesis that differences in effective tax rates affect labor market exit behavior at older ages—one would need information about important individual control variables like health status, pension benefit formulas, or retiree health insurance provisions. However, the data do indicate that after controlling for lifetime earnings and gender, the effective tax rates for those who exit the (career) labor market in the next year are higher than the effective tax rates for those who do not. There are many possible competing explanations for that pattern, and the observation deserves more attention using data that is better suited to evaluating whether changes in effective tax rates actually do affect labor–force exits.

The data and methods developed for this paper are useful for getting a sense of how various proposed changes to the Social Security tax and benefit system would affect the distribution of effective tax rates across and within groups. One often–mentioned policy change is increasing the number of years in the benefit computation formula from 35 to 40. This has the effect of lowering the average effective tax rates at all ages by shifting the increase in effective tax rates to higher ages. People may not see the change in computation years as an advantage, however, because it means their benefits will generally be lower at any given claim age. That is particularly true for people who already have fewer than 35 years of earnings.

One suggested approach for offsetting the negative impact on benefit levels would be to pair the change in benefit computation years with a change in payroll taxes for people over a certain age (see, for example, Goda, Shoven, and Slavov (2006) or Butrica, Johnson, Smith, and Steuerle (2006)). The specific proposal considered here pairs an increase in benefit computation years from 35 to 40 with elimination of the employee share of the payroll tax for people age 62 and older (62 is the Early Eligibility Age (EEA) for retiree benefits). That would be an administratively feasible way to lower and flatten the age slope of effective tax rates, whereas introducing a direct link between years worked and payroll taxes would require new reporting and validation systems. From a budgetary perspective the two changes are basically offsetting in the long run because the budgetary savings from raising computation years would match the loss in payroll tax revenues. The data suggest that this fairly simple and budget–neutral change could have a significant impact on effective tax rates for workers nearing retirement.

DATA AND METHODS

The goal of this paper is to measure differences in effective tax rates across and within age, sex, and lifetime earnings groups. There are tradeoffs associated with choosing a data set for this type of analysis. Given the focus, the choice here is to use a large administrative data set with uncapped longitudinal earnings records from a fairly narrow birth cohort for which the actual data are complete through age 65. One drawback is that using the administrative data limits the demographic information somewhat, which makes it infeasible to directly assess how auxiliary benefits would affect the conclusions.

The calculation of effective tax rates is based on the earnings information for each person in the data set, combined with assumptions about mortality and discounting. One of the goals of this paper is to show how patterns of effective tax rates are sensitive to these assumptions, so the calculations are done using two approaches to mortality (with and without adjustments for differential mortality) and alternative values for the discount rate. Although the effective tax rate is a well–defined concept, the exact estimates are fairly sensitive to the details used in the computations.

Data

The data used in this paper are taken from the Continuous Work History Survey (CWHS) data system maintained by the Social Security Administration (SSA). The CWHS sampling frame is a one percent random sample of every Social Security Number (SSN) ever issued. The data sets are constructed by combining information from several SSA reporting systems that have been linked to the CWHS sample: the Summary and Detailed Earnings Record files (SER and DER), the Master Beneficiary File (MBF), and the core demographics file (Numident). The information from the various files is used to construct a longitudinal data record with each person's total earnings, Social Security beneficiary status, and basic demographics (birth, death, and sex).

The population being studied is the 1935–39 birth cohort, for which the

CWHS data files are available through age 65 (earnings and benefit data are complete through 2004). The sample used in the effective tax rate calculations below includes only those who worked at least eight of the ten years between ages 45 and 54, counting only years where earnings are above the limit for at least one quarter of coverage. This restriction on the number of years worked helps to mitigate the potential problem of excluding auxiliary benefits (benefits based on spousal or survivor status) because the sample is comprised of people who will generally be eligible for at least some benefit on their own record. The sample sizes are 39,403 males and 27,885 females. The effective tax rate sample also drops those who transition onto the Disability Insurance (DI) program and those who die while working, but the results are insensitive to those exclusions.

The earnings data is used to construct a concept of "retirement" from career employment that is consistent with survey–based labor force exits, because the primary focus here is on the effective tax rates at the end of career jobs (as opposed to the effective rates on any earnings at older ages). A person is said to retire if their earnings (adjusted for the National Average Wage Index) fall below 25 percent of their lifetime peak earnings (the average between ages 45 and 54) and stays there for at least two years. Using that definition, about 22 percent of the male sample and 24 percent of the female sample is not retired by age 65. That observation, and the observed spikes in retirement hazards at ages 62 and 65, are consistent with survey–based retirement patterns for this cohort.

Computing Effective Tax Rates

The approach here to computing effective tax rates builds on a long literature (Feldstein and Samwick, 1992; Armour and Pitts, 2004; Cushing, 2005; and Goda, 2006). The effective tax rate (ETR) for person i at age a is given by

$$ETR_{ia} = \left[\frac{PayrollTax_{ia} - \Delta PIA_{ia} PVDF_{asq}(r)}{Earnings_{ia}} \right].$$

The payroll tax is the entire 12.4 percent OASDI tax rate multiplied by the lesser of actual earnings or the taxable maximum in that year. The measure of earnings in the denominator is the CWHS reported value grossed up by the employer share of payroll taxes.

The change in PIA term in the numerator is based on the individual's own earnings history. At any given age, it is solved for as the PIA computed using earnings through that age (assuming no future earnings) less the PIA computed through age – 1 (again assuming no future earnings). There is no attempt to project earnings ahead one year and compute the potential effective tax rate. This is the benefit of using the complete longitudinal record: the actual change in PIAs can be observed. The only uncertainty about the PIA from the individual's perspective is the exact value for the wage indexing series that will be used to compute the PIA. That index is tied to the value of the national average wage index when the individual reaches age 60.

The final term in the numerator is the present value discount factor (PVDF), which depends on the individual's age (a), sex (s), and lifetime earnings quintile (q), as well as the assumed discount rate (r) and benefit claim age (C). In particular,

$$PVDF_{asq}(r) = \sum_{t=C}^{T} {}_a\Pi_t^{sq} \lambda_C (1+r)^{-(t-a)},$$

where ${}_a\Pi_t$ is the probability a person age a will survive through age t, which varies with sex (s) and lifetime earnings quintile (q).[1] The λ_C term is the actuarial

[1] Lifetime earnings quintiles are based on earnings through age 54, adjusted for the national Average Wage Index used by Social Security for benefit computations.

adjustment applied to the Social Security benefit at each possible claim age (62, 63, 64, and 65). For this cohort, the actuarial adjustment is six and two–thirds percent per year for each age before 65 (thus, a 62–year–old claimant would receive 80 percent of PIA).

Note that the expression for the PVDF assumes a value for claim age (*C*), which is specified in the calculations below as the value that maximizes the present value of the stream of benefits for each person at the given age. The value for *C* is allowed to vary in the calculations across age, sex, discount rate (base case equals 3.0 percent real) and earnings quintiles (through the differential mortality effect). Although Social Security is close to actuarially fair—which means the PVDFs will not vary significantly with claim age—it still makes sense that a marginal calculation should assume the highest possible benefit effect, which is consistent with maximizing the present value of benefits across claim ages.[2]

Mortality–Odds Ratios

The last methodological issue is the treatment of mortality differentials. Most studies of effective tax rates are based on standard mortality tables without adjustment for predictable differences across lifetime earnings groups.[3] This omission could be fairly significant for near–retirees because differences in life expectancy (and, thus, the probability a person will actually receive a given benefit stream) are known to vary systematically across groups. In particular, effective tax rates for low earners will be biased down and effective tax rates for high earners will be biased up if mortality differentials are ignored. Low earners will, in reality, receive benefits for fewer years than high earners, and ignoring that differential makes low (high) earners seem better (worse) off than what can be expected to happen in practice.

There are a number of ways to model mortality differentials, but the exercise here requires a very simplistic approach because the only real information in the administrative data file is about earnings and gender. A recent paper by Cristia (2007) shows "mortality–odds ratios" across lifetime earnings quintiles for both men and women, which can be used to adjust the mean survival probabilities from standard life tables (see Table 1). Those ratios are applied in the base–case calculations, and the effect of turning off the differentials is considered in the sensitivity analysis.

ESTIMATED EFFECTIVE TAX RATES

The estimates of effective tax rates presented in this section generally confirm the suspicion that the high–35 formula causes effective tax rates to rise for a large segment of the working population near the end of their working careers. There

TABLE 1
MORTALITY–ODDS RATIOS BY LIFETIME EARNINGS QUINTILES

	Age Group	
	50 to 64	65 to 84
Men		
Bottom Quintile	1.62	1.05
Second Quintile	1.07	1.08
Third Quintile	0.94	1.08
Fourth Quintile	0.73	0.94
Top Quintile	0.64	0.85
Women		
Bottom Quintile	1.30	0.99
Second Quintile	1.01	1.03
Third Quintile	0.94	1.02
Fourth Quintile	0.90	1.04
Top Quintile	0.81	0.95

Source: Cristia (forthcoming).

[2] In fact, benefit claim ages do vary systematically with life expectancy as one would expect, though the correlation is far from perfect. See Coile, Diamond, Gruber, and Jousten (2002).

[3] One notable exception is Armour and Pitts (2004).

are also marked differences across and within age, sex, and lifetime earnings groups. However, conclusions about the patterns of effective tax rates across and within groups are somewhat sensitive to the exact methodology used in the calculations—notably assumptions about mortality and discounting. Also, when looking at average effective tax rates, it matters whether one focuses on all older workers or just those who are still earning at something like a typical career level.

Base–Case Patterns of Effective Tax Rates

Applying the methodology described in the last section generates a pattern of effective tax rates that is consistent with the premise of this paper: the high–35 effect shows up in the data for individuals between ages 55 and 65 (see Figure 1). Effective tax rates rise with age, which, because tax rates are constant, suggests that the marginal impact on benefits from working additional years falls with age. The effect of the first–order decision about sampling also comes through clearly: the increase in effective tax rates is steeper if all earners, rather than just pre–retiree earners, are considered. When looking at moments of effective tax rates, it is important to decide whether to focus on all earners or just those who are still earning at levels consistent with not having yet retired. The "all earners" sample has progressively higher effective tax rates as they age, because "retirees" are less likely to replace a lower–earning year in the AIME calculation. However, using either sample, the rise in effective rates at ages 55 to 65 is consistent with the high–35 effect.

Focusing now on just the pre–retirement subset of the sample at each age, differences in the distributions of effective tax rates (that is, the percentiles of effective tax rates within groups) across ages also underscore the importance of the high–35 effect (see Figure 2A for men, and Figure 2B for women). For men, there is a steady upward trend by age in effective tax rates at almost every percentile because they are much less likely to have

Figure 1. Average Effective Tax Rate on Earnings from Working an Additional Year

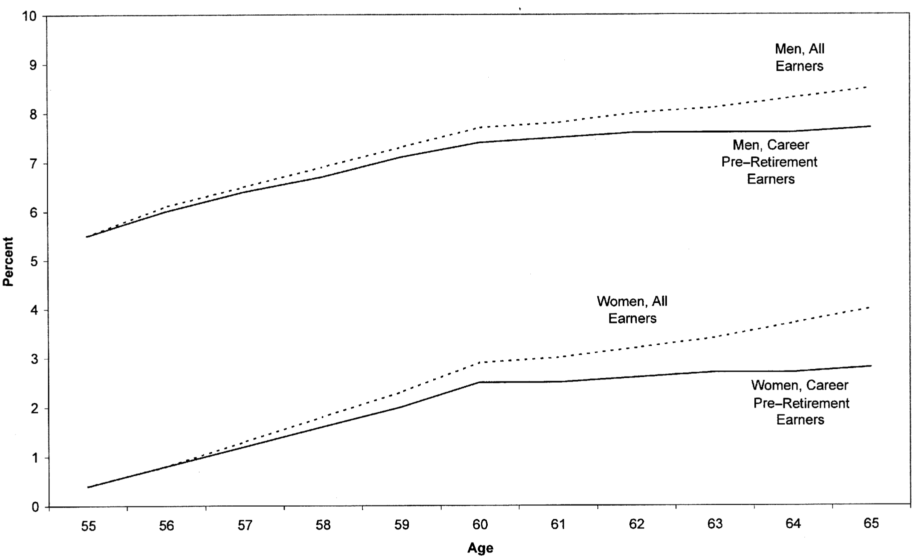


Figure 2A. Effective Tax Rate on Earnings from Working an Additional Year (Men, Pre–Retirement Career Earners)

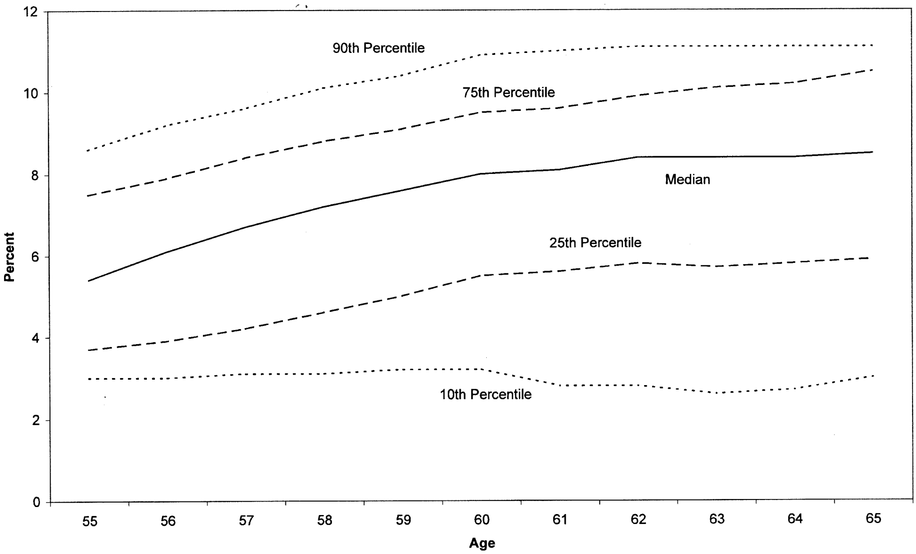
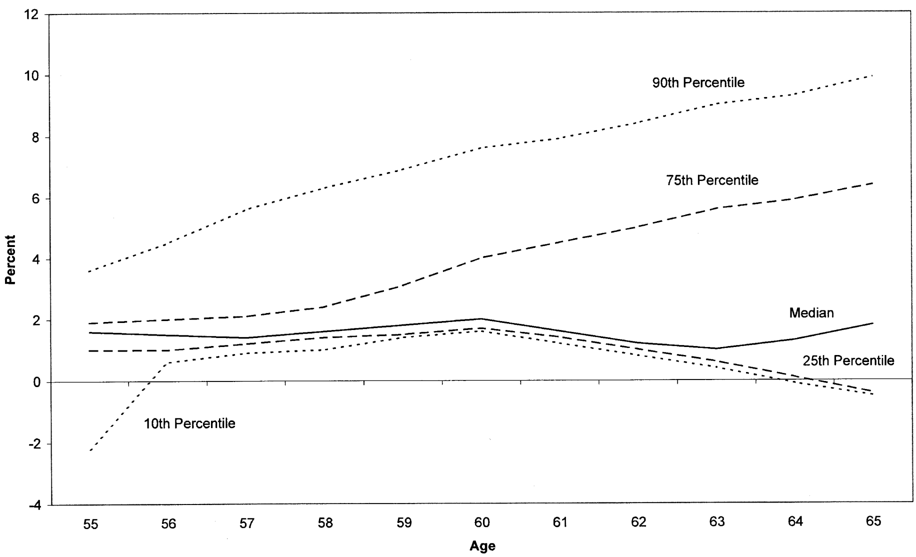


Figure 2B. Effective Tax Rate on Earnings from Working an Additional Year (Women, Pre–Retirement Career Earners)



zero or low–earning years in their AIME calculation. The distribution for women is very different because a noticeable fraction (the top percentiles) have earnings patterns that are comparable to those of men, but the bottom half of the effective tax rate distribution (where the high–35 effect is inoperative) has very different patterns. The other striking observation is that for both men and women there is significant heterogeneity in effective tax rates at every age.

The increase in effective tax rates by age also holds across lifetime earnings quintiles (see Figure 3A for men, and Figure 3B for women). For men, effective tax rates at any given age have an inverted U–shape across lifetime earnings quintiles, whereas for women the effective tax rates increase monotonically with lifetime earnings. This difference is traceable to differences in the change in PIA terms in the numerator of the effective tax rate calculations (see Figure 4A for men, and Figure 4B for women). The incremental effect on PIA is declining for all lifetime earnings groups (which is the driving force behind increasing effective tax rates) but the highest lifetime earners are actually experiencing less deterioration as they age. This is probably due to steeper lifetime earnings profiles, which implies that (relatively) low–earning years are still being replaced in the AIME calculation.

Sensitivity Analysis

Estimates of effective tax rates in this literature are sometimes presented without qualification, but in fact a few important assumptions are required to make the calculations. One assumption is the choice of discount rate for the PVDF calculation; considering a range of discount factors from 1.0 to 5.0 percent (3.0 percent is the base case) affects both the level and age pattern of estimated effective tax rates (see Figure 5). Lowering the discount rate decreases the effective tax rate at any given age, because the value of any positive change in PIA is not discounted as heavily. The lower discount rate is also associated with much steeper increases in effective tax rates across age groups, however, because the effect of a given change in PIA is magnified (refer back to Figure 4). This adds an interesting perspective to the discussion of Social Security tax and benefit policy because discounting of future benefits for the time value of money is obviously subjective.

The other term in the PVDF calculation—survival probability—is also an important assumption that affects conclusions about distributional outcomes. The base–case estimates presented here use the mortality–odds ratios from Cristia (2007) to adjust survival probabilities for observable differences across lifetime earnings groups. The effect of adjusting for differential mortality shows up as a narrowing of the gap between effective tax rates across lifetime earnings groups (see Figure 6). Without adjusting for differential mortality, one might infer gaps in effective tax rates across groups that are much too large. In a sense, this is just another way of stating that differential mortality makes the Social Security system less progressive than one might infer by simply looking at the benefit formula (see Congressional Budget Office (2006)).

Differences in Effective Tax Rates Between Retirees and Non–Retirees

The data used here to estimate effective tax rates are not particularly well suited for evaluating whether or not the rise in effective tax rates for near–retirees has any impact on labor–force participation at older ages, because there is no individual information about other variables that affect retirement like health status, pension plan provisions, or retiree health insurance. Lacking information on those

Figure 3A. Average Effective Tax Rate on Earnings from Working an Additional Year (Men, Pre–Retirement Career Earners, by Lifetime Earnings)

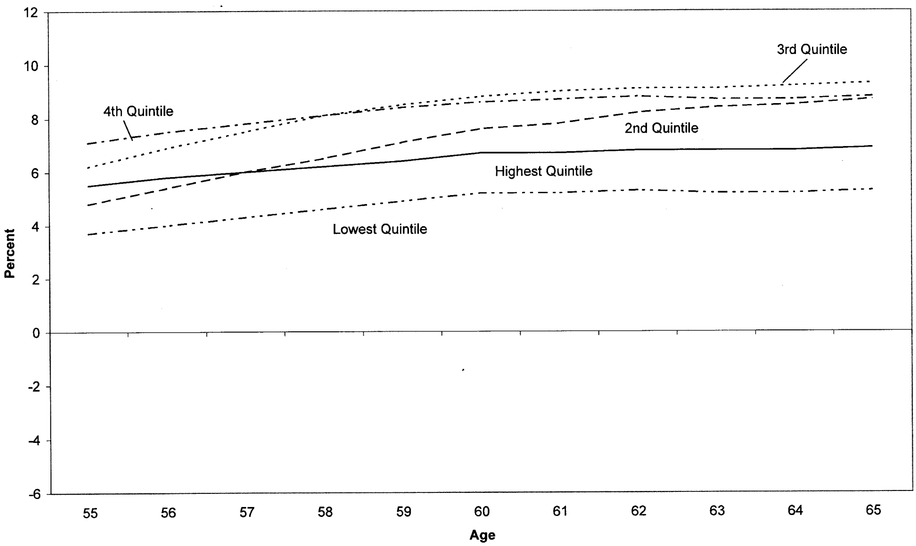


Figure 3B. Average Effective Tax Rate on Earnings from Working an Additional Year (Women, Pre–Retirement Career Earners, by Lifetime Earnings)

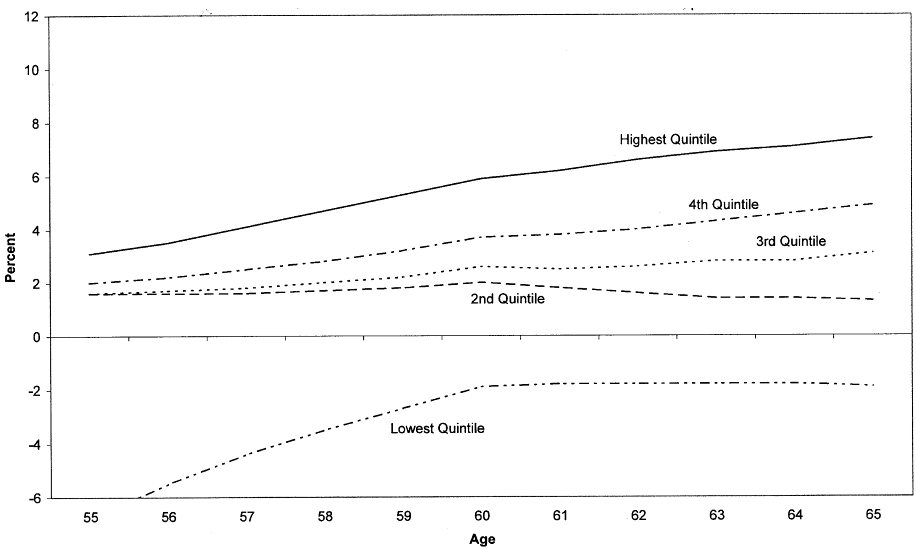


Figure 4A. Average Percent Change in PIA from Working an Additional Year (Men, Pre–Retirement Career Earners, by Lifetime Earnings)

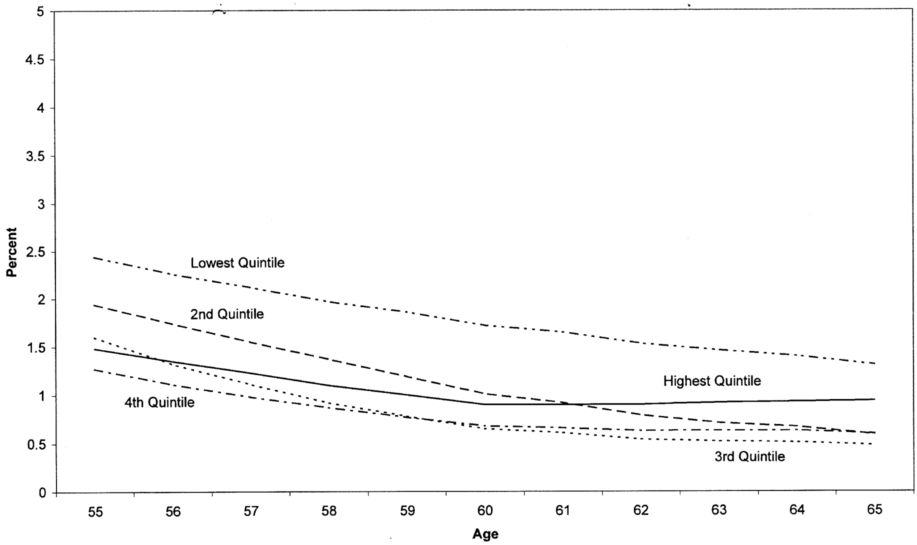


Figure 4B. Average Percent Change in PIA from Working an Additional Year (Women, Pre–Retirement Career Earners, by Lifetime Earnings)

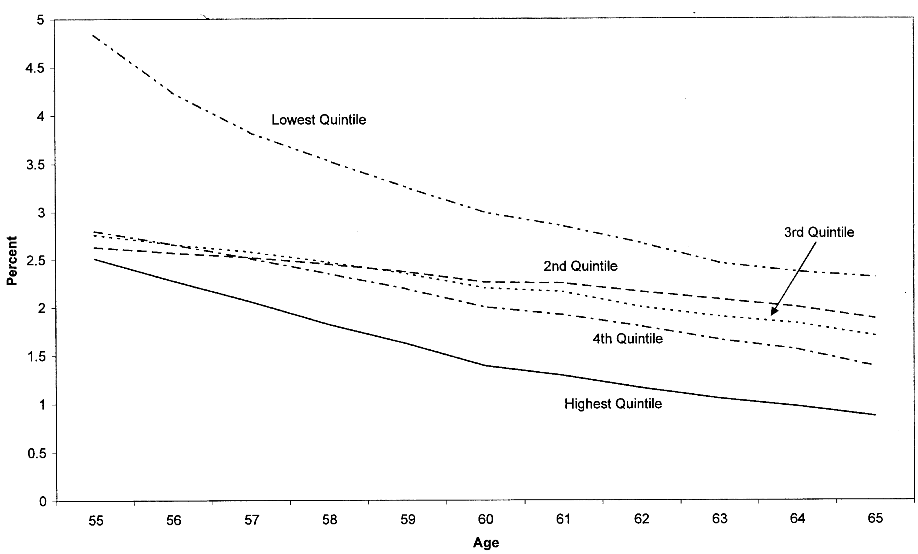


Figure 5. Effect of Discount Rates on Estimated Average Effective Tax Rates (Men, Pre–Retirement Career Earners)

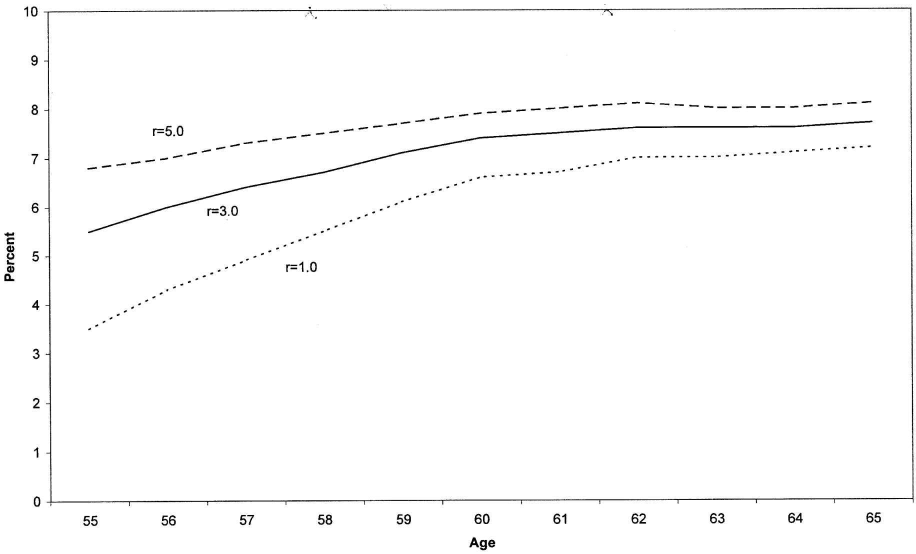
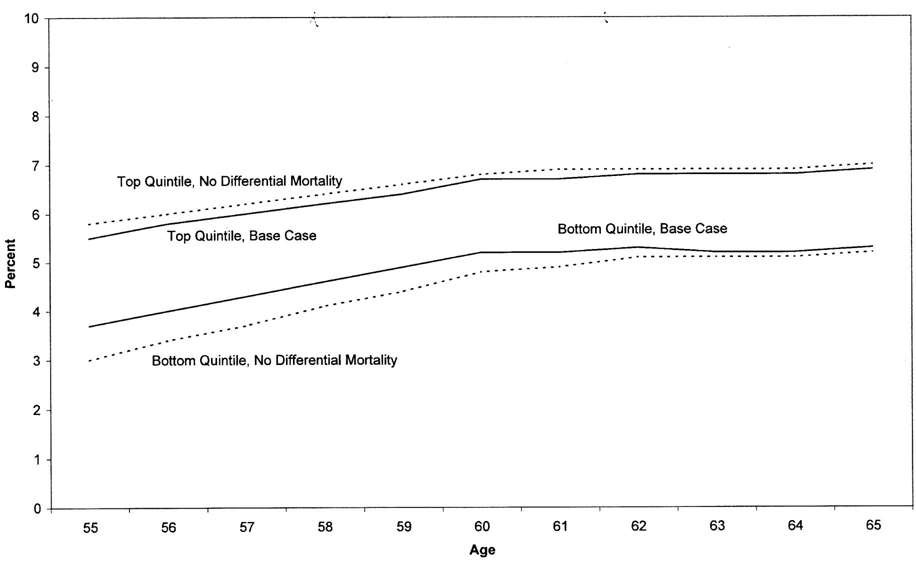


Figure 6. Effect of Differential Mortality on Estimated Average Effective Tax Rates (Men, Pre–Retirement Career Earners)



other control variables, one cannot implement a direct test of how effective tax rates affect retirement decisions. Other studies that use other data to look carefully at the incentive effects of Social Security (for example, Coile and Gruber (2004)) find that the statistical significance of measures like annual effective tax rates for predicting retirement is generally weak, but more forward–looking measures that consider the differential benefit of retiring at any future age (not just next year) are useful for predicting behavior. However, the magnitude of labor–supply response to the incentives remains relatively small when compared to factors like health shocks.[4]

The administrative data used here seem generally consistent with the idea that work disincentives built into the Social Security benefit formula might be affecting labor–market exit. The evidence for that comes from comparing the effective tax rates (by age, sex, and lifetime earnings quintile) for those who retire in the next year with those who do not (see Table 2). For virtually every age, sex, and lifetime earnings group, the effective tax rates faced by retirees are higher than for non–retirees. The differences are modest for many of the groups, and there are a number of possible explanations for the differences—especially the fact that those facing higher effective tax rates may also have defined–benefit pensions and/or retiree–health insurance.

THE EFFECT OF A BUDGET–NEUTRAL BENEFIT AND TAX CHANGE

The focus of this paper is on quantifying the extent to which effective tax rates rise for older workers using the best available earnings data, controlling for differential mortality, and distinguishing pre–retirees from other older workers. But this is not the first paper to speculate that the Social Security benefit formula can lead to rising effective tax rates at older ages, or even the first to show that the high–35 effect is operative using actual earnings data. These observations about effective tax rates have led some Social Security analysts to recommend changes in tax and/or benefit policy to mitigate the high–35 effect (see, for example, Goda, Shoven, and Slavov (2006) or Butrica, Johnson, Smith, and Steuerle (2006)). The specific policy considered here raises the AIME computation years from 35 to 40 while simultaneously eliminating the employee share of the payroll tax at the Social Security Early Eligibility Age (currently 62).

The budgetary effects of the two policies are estimated using the Congressional Budget Office Long–Term (CBOLT) simulation model (see Figure 7). The effect of switching from 35 to 40 years in the benefit computation formula is estimated to shrink the gap between outlays and revenues by roughly 0.2 percent of GDP. Although this policy would fall far short of eliminating the Social Security long–run deficit, the effect is not insignificant and, thus, the suggestion to raise AIME computation years has been part of the Social Security debate for many years.

The effect of eliminating the own share of payroll taxes for people 62 and older also has the effect of moving the gap between revenues and outlays by 0.2 percent of GDP in the long run, but in the opposite direction. In the long run, the effect of making both changes is estimated to be virtually zero from the budgetary perspective. There is an increase in the short–run funding gap, however, because it takes time for the AIME calculation years change to affect overall outlays (as opposed to just out-

[4] Song and Manchester (2007) do find very strong effects from changing the retirement earnings test, which may be more comparable to the sort of policy change considered below.

TABLE 2
EFFECTIVE TAX RATES ON EARNINGS FROM WORKING AN ADDITIONAL YEAR, RETIREES VERSUS NON–RETIREES
(By Quintile of Lifetime Earnings)

	Lowest Quintile		Second Quintile		Third Quintile		Fourth Quintile		Fifth Quintile	
Age	Retirees	Non–Retirees	Retirees	Non–Retirees	Retirees	Non–Retirees	Retirees	Non–Retirees	Retirees	Non–Retirees
					Men					
55	3.7	3.7	4.9	4.8	6.8	6.2	7.6	7.1	6.4	5.5
56	4.1	4.0	5.6	5.4	7.4	6.9	8.2	7.5	6.6	5.7
57	4.3	4.3	6.5	6.0	8.1	7.5	8.4	7.8	6.9	5.9
58	4.6	4.6	7.3	6.5	8.7	8.0	8.7	8.1	7.1	6.2
59	5.3	4.8	7.7	7.0	8.9	8.4	8.9	8.3	7.3	6.4
60	5.0	5.2	8.2	7.6	9.2	8.8	9.3	8.5	7.6	6.6
61	6.1	5.1	8.4	7.7	9.6	8.9	9.4	8.5	8.2	6.6
62	6.4	5.0	9.0	8.0	9.9	8.9	9.6	8.5	8.5	6.5
63	6.1	5.1	9.4	8.3	9.8	9.0	9.7	8.6	8.1	6.6
64	6.0	5.1	9.3	8.4	9.8	9.1	9.4	8.6	8.0	6.7
65	6.1	5.2	9.5	8.5	9.7	9.2	9.4	8.7	8.2	6.7
					Women					
55	–7.6	–6.7	1.7	1.6	1.7	1.6	2.0	2.0	4.0	3.0
56	–7.5	–5.4	1.6	1.6	1.7	1.7	2.5	2.2	4.1	3.5
57	–6.4	–4.3	1.7	1.6	1.9	1.8	3.0	2.5	4.5	4.1
58	–4.1	–3.5	1.8	1.7	2.1	2.0	3.2	2.8	5.5	4.7
59	–3.2	–2.6	1.8	1.8	2.4	2.2	3.6	3.2	5.8	5.2
60	–2.6	–1.8	2.3	2.0	2.9	2.6	3.8	3.7	6.6	5.9
61	–2.2	–1.8	2.0	1.8	2.8	2.5	4.4	3.7	7.0	6.1
62	–2.0	–1.8	2.0	1.5	3.2	2.5	4.6	3.9	7.4	6.3
63	–2.3	–1.7	1.6	1.4	3.3	2.7	5.0	4.2	7.8	6.7
64	–2.1	–1.8	1.8	1.3	3.1	2.7	5.6	4.4	7.4	7.0
65	–2.3	–1.8	1.6	1.2	3.8	3.0	6.1	4.7	8.3	7.2

Figure 7. Gap Between OASDI Outlays and Revenues as a Percent of GDP

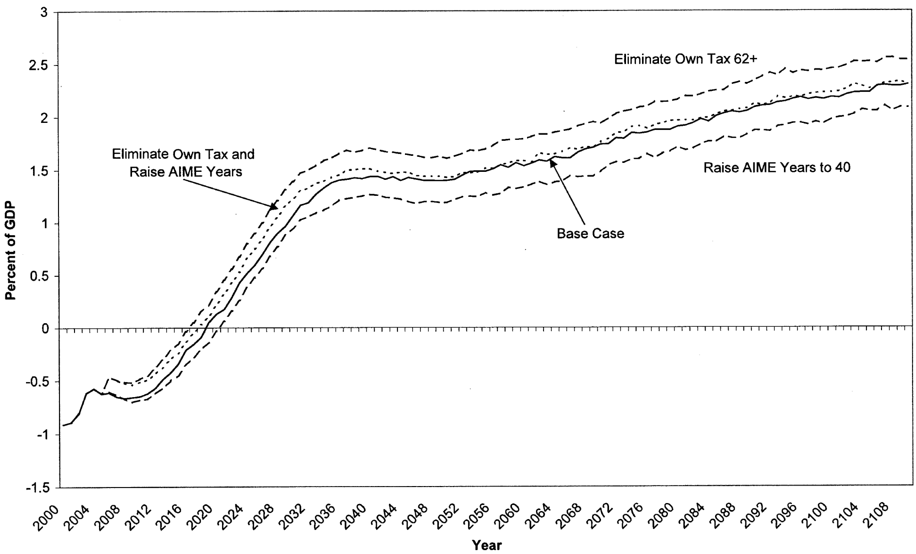
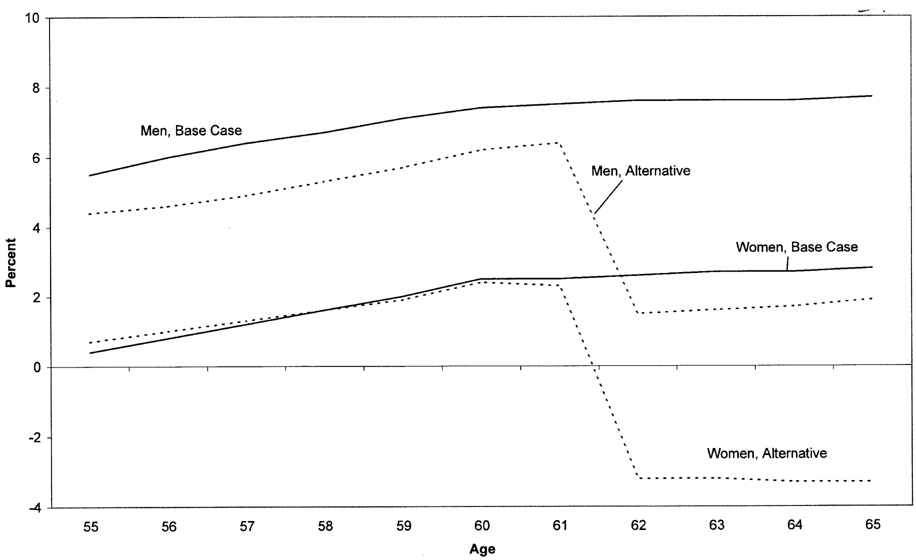


Figure 8. Average Effective Tax Rate on Earnings from Working an Additional Year—Effect of Raising AIME Computation Years and Eliminating Own OASDI Tax for 62+



lays for new beneficiaries). On the other hand, if the payroll tax elimination does encourage longer careers, revenues inside and outside of Social Security would rise, and that could offset some or all of the decreased revenues.

The impact on effective tax rates from simultaneously changing the benefit computation years and eliminating own–taxes for workers 62 and older is dramatic (see Figure 8). For both men and women the estimated effective tax rates would be lower at age 62 than they are at age 55—not only is the increase by age removed, eliminating the own–tax completely could arguably go too far by actually lowering effective tax rates as age increases. Focusing on the men, for whom the high–35 effect is much stronger at the mean, the average effective tax rate would fall to around 2.0 percent at age 62. Distributional analysis (for example, in Figure 2A and 2B) would show that some workers would still face higher effective tax rates, but the drop is significant enough to push the entire distribution of effective rates at age 62 below the distribution at age 55.

The fact that the distribution of effective rates and average effective tax rates might tell slightly different stories about the impact of payroll tax forgiveness at older ages suggests the policy is not perfectly targeted. In particular, if the policy goal is to eliminate rising effective tax rates for every worker, a more focused approach would, for example, reduce taxes for people after they have achieved 35 (or 40) years of earning and paying taxes (Goda, Shoven, and Slavov (2006)). However, such an approach would impose new reporting and validation requirements on SSA and employers. The approach described here is more administratively feasible because the own–portion of the payroll tax could be refunded on the Form 1040, just like overpayments for two–job holders who earn above the taxable maximum.

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