

# THE SOCIAL SECURITY WINDFALL ELIMINATION AND GOVERNMENT PENSION OFFSET PROVISIONS FOR PUBLIC EMPLOYEES IN THE HEALTH AND RETIREMENT STUDY

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*This article uses Health and Retirement Study data to investigate the effects of Social Security's Windfall Elimination Provision (WEP) and Government Pension Offset (GPO) on Social Security benefits received by households. The provisions reduce benefits for individuals or the dependents of individuals whose work histories include jobs for which they were entitled to a pension and were not subject to Social Security payroll taxes ("noncovered" employment). We find that about 3.5 percent of households are subject to either the WEP or the GPO, and that the provisions reduce the present value of their Social Security benefits by roughly one-fifth. Households affected by both provisions experience benefit reductions of about one-third. Under the WEP, the Social Security benefit reduction is capped at one-half of the amount of the pension from noncovered employment, which substantially reduces the WEP penalty and prevents the WEP adjustment from falling disproportionately on households in the lowest earnings category.*

## Introduction

The Windfall Elimination Provision (WEP), enacted in 1983, reduces Social Security benefit payments to beneficiaries whose work histories include both Social Security–covered and noncovered employment, with the noncovered employment also providing pension coverage. To be affected by the WEP, an individual must have worked in covered employment long enough to qualify for Social Security benefits; must have also worked in noncovered employment, meaning that Federal Insurance Contributions Act (FICA) Social Security payroll taxes were not paid; and, importantly, must have earned a pension in that noncovered job. The WEP reduces the share of preretirement earnings that Social Security benefits replace. For roughly the first \$10,000 in average annual earnings, the WEP reduces the replacement rate from 90 percent to as low as 40 percent, depending on years of coverage under

Social Security; however, the reduction cannot exceed 50 percent of the amount of the pension received from noncovered employment.

A related provision, the Government Pension Offset (GPO), reduces Social Security benefits paid to spouses or survivors when the spouse or survivor earned a pension from a government job that was not covered by Social Security. The GPO reduction is equal to two-thirds of the amount of the pension payment from noncovered government work (SSA 2012).

### Selected Abbreviations

DB	defined benefit
DC	defined contribution
FICA	Federal Insurance Contributions Act
GPO	Government Pension Offset

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### **Selected Abbreviations—Continued**

HRS	Health and Retirement Study
PIA	primary insurance amount
SSA	Social Security Administration
WEP	Windfall Elimination Provision

Although the WEP and the GPO affect only about 3.5 percent of households, the provisions may have a substantial effect on benefits in those households. Our analysis suggests that the present value of lifetime Social Security benefits for affected households is reduced by roughly one-fifth, which amounts to 5–6 percent of their total wealth. For that reason, and because the provisions leave some inequities in place, considerable political pressure has been brought to reduce their impact, with some members of Congress pressing for modifying or eliminating current law. To inform that legislative interest, the Congressional Research Service prepares annual reports on the two provisions (Scott 2013a, 2013b).

Analyzing the effects of the WEP and the GPO requires information on work history in covered employment, work history in noncovered government and nongovernment employment, and pensions from noncovered employment. It also requires household-level data to determine spouse and survivor benefits. Information on household wealth allows us to compare the Social Security and pension benefits of affected households with those of households that are not affected by the provisions, and it reveals where affected households stand in the wealth distribution.<sup>1</sup>

The Health and Retirement Study (HRS) contains all the required information. We estimate the relative importance of two WEP features: (1) the lower replacement rate (from 90 percent to as low as 40 percent up to the first bend point in the benefit calculation formula, described below) and (2) the limit on that reduction to an amount equal to 50 percent of the pension received from noncovered employment. We believe that our analysis provides useful information to policymakers considering changes in the WEP's current design. Similarly, we believe the findings regarding the wealth of households affected by the GPO are also of use to policymakers. Because both provisions affect only households that include a worker who has a pension from noncovered employment, those households typically have higher average

combined pension and Social Security benefit income and higher total wealth than unaffected households.

The remainder of this article is arranged in five sections. The first discusses the WEP and GPO provisions in detail. The second discusses the variables needed to estimate WEP and GPO adjustments with HRS data and the reasons we used a mix of respondent and administrative data. In the third section, we estimate WEP and GPO incidence and analyze the effects of the provisions on Social Security benefits. The fourth section disaggregates the effects of the WEP into the changes that result from its two key features: (1) the reduction in the generosity of the benefit calculation formula and (2) the mitigating effects of adjustments associated with pensions earned in noncovered employment. The fifth section concludes. An appendix summarizes our methods of imputing covered earnings histories and calculating Social Security benefits.

### ***The WEP and GPO Provisions***

To understand how the WEP works, one must have a basic understanding of how Social Security benefits are determined. Benefits are based on a person's highest 35 years of covered earnings. Amounts earned at younger ages are indexed to the year the individual turns age 60; those from subsequent years are not. Indexed covered earnings determine the basic benefit to which a worker is entitled at full retirement age, called the primary insurance amount (PIA). The Social Security benefit formula is designed to be progressive, replacing a decreasing share of earnings at higher earnings levels. In 2013, the PIA replaced 90 percent of the first \$9,492 of average indexed annual earnings, plus 32 percent of average indexed annual earnings between \$9,492 and \$57,216, plus 15 percent of average indexed annual earnings above \$57,216.<sup>2</sup> The indexed earnings levels at which the formula's replacement percentages change are called the "bend points." Each year, the Social Security Administration (SSA) adjusts the bend points according to changes in the national average wage. The actual Social Security benefit payment does not necessarily equal the PIA; the payment amount also depends on when benefits are claimed. Benefits claimed before reaching full retirement age are reduced below the PIA level, and those claimed after the full retirement age are increased above the PIA level.

Congress enacted the WEP to eliminate a perceived unintended windfall for certain beneficiaries

(Government Accountability Office 2007, 6). Years worked in noncovered employment are treated as years of zero earnings for purposes of calculating Social Security benefits. Before the WEP was enacted, some individuals who received relatively high earnings throughout their lifetime—some from covered employment and some from noncovered employment—were treated in SSA’s earnings history calculations as if they were low earners, which entitled them to a higher replacement rate under the progressive Social Security benefit formula.<sup>3</sup>

Because an affected worker’s own benefits are reduced by the WEP, Congress might have decided also to reduce the benefits paid to the worker’s spouse or survivor. Legislators did reduce associated spouse benefits, but opted not to reduce survivor benefits.<sup>4</sup>

Although most noncovered employment consists of government jobs, most government employees are covered by Social Security.<sup>5</sup> “According to the [SSA], as of December 2012, about 1.5 million Social Security beneficiaries were affected by the WEP” (Scott 2013b, 3).

Unlike the WEP, which can apply to any noncovered employment, the GPO applies specifically to government workers.<sup>6</sup> “In December 2011, about 568,000 Social Security beneficiaries (about 1% of all Social Security beneficiaries) had spousal benefits reduced by the GPO” (Scott 2013a, 3).

In the absence of the GPO, the spouse or survivor of a covered worker would be treated more favorably if he or she had worked in noncovered government employment than if he or she had worked only in covered employment (Diamond and Orszag 2003). The differing treatment would stem from dual entitlement provisions that apply when a beneficiary receives benefits based on both one’s own earnings record and that of his or her spouse. If an individual’s own earnings benefit is less than the full spouse benefit (which is roughly equal to one-half of the primary earner’s benefit), dual entitlement “tops up” that individual’s own-earnings benefit to the level of the full spouse benefit. The top-up provision also applies for dual-entitlement survivor benefits (which equal the primary earner’s full benefit). Thus, if not for the GPO, a spouse who earned a government pension from a lifetime of noncovered (and non-FICA taxpaying) work would also be eligible for the full Social Security spouse or survivor benefit, rather than the smaller benefit calculated as a top-up over own-earned benefits (SSA 2012).<sup>7</sup>

### ***WEP and GPO Interactions at the Household Level***

The effects of WEP and GPO adjustments depend on the employment history of each spouse, whether either spouse worked in both the public and private sectors, whether public-sector work was covered by Social Security, and whether noncovered jobs provided pensions. Either spouse, or both, may have worked long enough in a job covered by Social Security to be entitled to benefits, while also having worked in a noncovered job that provided a pension. Alternatively, either spouse may have worked only in one or more jobs covered by Social Security; or, he or she may not have worked long enough to be covered by Social Security, while never working in a noncovered job.

There are eleven possible combinations of paired earnings histories. Each scenario involves a different adjustment to own-work, spouse, or survivor benefits that may or may not be affected by the WEP or the GPO.<sup>8</sup>

For example, in one basic scenario, the husband worked in a noncovered job with a pension and gained entitlement to Social Security benefits from covered employment. The wife, with no substantial earnings in either covered or noncovered employment, is not entitled to Social Security benefits based on her own earnings record. In this case, the husband’s own benefit is adjusted by the WEP, and the amount of the wife’s dual-entitlement top-up is equal to either the spouse benefit (after adjusting the husband’s benefit for the WEP) or the survivor benefit (not adjusted for the WEP).

In a more complicated example, both the husband and wife worked in a noncovered job with a pension, and both also gained entitlement to Social Security benefits from covered employment. For each spouse, own-earnings benefits are first adjusted by the WEP. The wife’s top-up to the spouse benefit based on her husband’s earnings in covered employment starts with one-half of his WEP-adjusted benefit, from which her own benefits are subtracted; then, two-thirds of the pension from her own noncovered work is subtracted from the remainder. If she is widowed, the top-up to her survivor benefit starts with her husband’s full benefit (not adjusted for the WEP), minus her own-work benefits, with two-thirds of the pension from her own noncovered work subtracted from the remainder. The same calculations determine any top-up to a husband’s spouse or survivor benefit based on his wife’s covered earnings.

## ***Pensions from Noncovered Work Limit WEP and GPO Adjustments***

Congress did not go as far as it might have in setting the WEP and GPO adjustments on Social Security benefits. For the WEP, Congress recognized that the progressivity of the benefit formula enabled persons who spend part of their career in noncovered work to receive a proportionately better deal from Social Security. Nevertheless, Congress was unwilling to mechanically reduce basic Social Security benefits just because a person had also worked in noncovered employment.<sup>9</sup> That is, Social Security benefits are not reduced simply because a person who worked in noncovered employment consequently enjoys a higher ratio of Social Security benefits to Social Security taxes paid. Such an individual must also have earned a pension from noncovered work for benefits to be reduced under the WEP. In that instance, the benefit reduction is limited to one-half of the value of the pension from noncovered work. We will show that limiting the WEP adjustment to one-half of the value of a public pension reduces the WEP offset by more than half.

Congress also would not augment the GPO adjustment to reduce spouse or survivor benefits simply because the spouse of an entitled worker had spent significant time in a noncovered job. As with the WEP, the adjustment applies only if the individual also earned a pension from work in noncovered employment.

In sum, Congress enacted the provisions to prevent what was perceived as “double dipping.” If, in addition to working long enough on a covered job to become eligible for Social Security benefits, a person worked and was provided a pension in noncovered employment, that individual’s Social Security benefits (and those due to the individual’s spouse or survivor) were adjusted downward.<sup>10</sup> Similarly, spouse and survivor benefits were adjusted downward for those whose own work was in a job not covered by Social Security, if that individual also earned a pension from noncovered employment.

## ***Opposition to the WEP and the GPO Continues***

Many affected government workers resent WEP and GPO adjustments to their Social Security benefits. Government employee associations lobby Congress to eliminate the adjustments. The potential size of the WEP adjustment underlies this opposition. In 2013, the WEP reduced the share of the first \$9,492 of indexed annual covered earnings that Social Security benefits

replace, from 90 percent to as low as 40 percent. That adjustment reduced the associated benefit from \$8,543 per year to as low as \$3,797 per year, with the maximum reduction amounting to \$4,746. (For the WEP to impose the maximum reduction, the annual pension payment from noncovered work would have to be twice as large as the reduction, or \$9,492—equal the first bend point for indexed earning.)

Under the GPO, the reduction may equal up to two-thirds of the value of the pension in noncovered work and may wipe out the spouse or survivor benefit entirely. For a surviving spouse who spent a lifetime in noncovered employment (for example, as a public school teacher), that may entail a benefit reduction in the tens of thousands of dollars.

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## ***The Data***

Since 1992, the HRS has surveyed a representative sample of Americans aged 51 or older every 2 years. We use data from surveys of the original 1992 HRS cohort and of the Early Boomer cohort, whose members were first interviewed in 2004.<sup>11</sup> The HRS interview provides data on employment history, Social Security coverage, and pension coverage. During the baseline survey, respondents were asked about their current job (or last job if not currently employed), the most recent previous job that lasted 5 or more years, and two additional previous jobs that offered a pension and lasted at least 5 years. In this first interview, respondents were also asked whether they ever worked in government at the federal, state, or local level. In the third survey wave, administered to the original HRS cohort, respondents were asked about work on a job that was not covered by Social Security. In 2004, all respondents were asked additional questions about Social Security coverage, and in 2006, they were asked whether they worked for a federal, state, or local government. Information collected on the start date and end date of jobs allows us to match the period of employment with the type of employer, Social Security coverage, and pension coverage.

We matched HRS data to administrative records provided by SSA that report covered earnings in each year of work spanning the full employment period. Additional records from Form W-2 contain information on total earnings and provide detail for earnings covered by Social Security, from self-employment, and from employment not covered by Social Security (non-FICA earnings). With these data, together with the HRS self-reports, we identify the jobs that were not covered by Social Security.

We match the self-reported dates of government work with the respondent's employment history to confirm whether a particular job was government employment. Each respondent reports the dates for current, last, or previous jobs, as well as the dates worked in various levels of government. We allow an error of plus or minus 3 years on each end of the job report when declaring a job to be a match. A total of 2,168 original HRS cohort respondents and 681 Early Boomer respondents reported ever having government employment, respectively representing 20.3 percent of the 10,703 original HRS respondents and 23.4 percent of the 2,906 Early Boomer respondents who reported ever being employed.

We devoted considerable time to one particular problem. Some respondents apparently do not report that they are, or have been, state or local government employees even though they participate in state or local pension plans. Notable examples include employees of state universities, libraries, and other state or locally funded services, who receive a salary that is not directly paid by a state or local government agency.<sup>12</sup> The status of even some elementary or secondary school teachers may be ambiguous.

In the end, only one-half of the respondents who reported having worked in a job not covered by Social Security also reported that they were government employees.<sup>13</sup> Our approach is to pool information on government and noncovered employment from a number of sources, including self-reports and W-2 records. The adjustments we make for failure to report work as government employment are described more fully in our working paper (Gustman, Steinmeier, and Tabatabai 2013b).

Using matched HRS data and Social Security administrative records, we find that among the 10,703 original HRS cohort respondents who reported ever being employed, 895 (or 8.4 percent) reported ever holding a job that was not covered by Social Security. Of the 2,906 members of the Early Boomer cohort who had ever been employed, 239 (8.2 percent) reported some noncovered employment.

Based on HRS respondents' reports about their employers, we determine whether any reported pension is from covered or from noncovered employment. We calculate pension values for defined benefit (DB) plans based on reported benefits at expected retirement dates, monthly payment amounts for plans in current-pay status, and individual retirement account lump sums or monthly annuities that originated

with pensions and were rolled over at termination. SSA provides a formula for converting the values of defined contribution (DC) pensions and lump-sum pension settlements into a flow. For pensions from current jobs in the baseline period, we used terminal pension values if those jobs were terminated after 1992 for the original HRS cohort and after 2004 for the Early Boomers.

Social Security benefits based on one's own earnings in a covered job are calculated by applying SSA's AnyPIA benefit estimation program to the respondent's covered earnings records. When records are not available from SSA, we impute the full record based on individual and job characteristics, including self-reported earnings and an indicator of government employment (see the appendix for further details on the imputation procedure).

Once the values of benefits based on own earnings are calculated, individual respondents are grouped into households. Own-work, spouse, and survivor benefits are calculated at the household level. For households in which members have some work in both covered and noncovered employment, at least one party is entitled to Social Security benefits, and at least one party has a pension from noncovered work, we calculate the household's WEP and GPO adjustments.

### ***WEP and GPO Effects on Household Social Security Benefits and Wealth***

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We categorize households according to whether they are subject to the WEP, to the GPO, to both provisions, or to neither. As seen in Table 1, of the 7,623 households in the original HRS cohort, 292 (3.8 percent) were subject to either the WEP or the GPO. The comparable figure for the Early Boomer cohort is 3.5 percent (75 of 2,150). Among households subject to at least one of the provisions in the original HRS cohort, 48.3 percent (141 of 292) were subject to both. The figure is 36.0 percent (27 of 75) for the Early Boomer cohort.

For affected households, we calculate the lifetime value of Social Security benefits with and without WEP and GPO adjustments. Social Security benefits from covered employment are calculated by entering the beneficiary's covered earnings history and the expected benefit claiming date into SSA's AnyPIA software. For individuals who also worked in noncovered employment, AnyPIA requires the value of any pension earned. If no pension was earned on the

**Table 1.**  
**Number of households subject to the WEP or the GPO, by cohort**

Cohort	Households with at least one worker subject to—			Households subject to both provisions	Total households
	WEP	GPO	Either provision		
Original HRS (1992)	282	151	292	141	7,623
Early Boomers (2004)	75	28	75	27	2,150

SOURCE: Authors' calculations based on the HRS.

noncovered job, there is no WEP adjustment. If a pension was earned, the AnyPIA program calculates the WEP adjustment, which is limited to one-half of the value of the noncovered pension. The benefits paid to the spouse of a person who is subject to the WEP are reduced to one-half of the WEP-adjusted benefit of the primary earner, with further adjustment possible depending on age at retirement. Survivor benefits are not adjusted for the WEP. The GPO adjustment is calculated by subtracting two-thirds of the value of the noncovered-work pension from the pensioner's spouse or survivor benefit.

Pension plans are central to the WEP and GPO calculations. We determine plan values using respondent reports of expected benefits for DB plans, or of DC plan balances. We then determine whether former public-sector employees who also earned Social Security benefits should have a WEP or GPO adjustment. For purposes of determining WEP and GPO adjustment amounts, pensions are valued on a monthly basis. DB plan values are derived from respondent reports of either current or expected monthly pension benefits, along with monthly annuity payments, individual retirement account balances from rolled-over plans, and lump-sum payouts. DC plan values are based on respondent reports of account values, including rollovers and lump sums. A monthly benefit is computed for DC plans and other balances using a table of actuarial values provided by SSA (2013). These computations also account for the date that Social Security benefits begin.

Our computations require three different key dates: the year in which earnings cease, the year in which Social Security benefits begin, and the year in which pension payments begin. For earnings cessation, we use either the actual date an individual left the labor force or the self-reported date when a respondent expects to stop working. If the expected date of separation is unavailable in the records, we substitute

the year of attainment of age 62 or, if the respondent expected to work past age 69, the year of attaining age 70. For Social Security benefits, we assume that respondents who were current beneficiaries when first interviewed began receiving benefits in the year they attained age 62. For noncurrent beneficiaries, we use the respondent's self-reported expected date of first benefit receipt, again substituting the date of attaining age 62 if the expected date is missing and the date of attaining age 70 for those planning to defer claiming until reaching age 70 or later. For pension payments, we assume that the year of first receipt corresponds with the first year of Social Security benefits receipt. By using those assumptions, we may be unable to capture some instances in which sophisticated claimants "game" the claim process.<sup>14</sup> However, we do not count any pension payments received against the WEP if they are observed before the expected Social Security claiming age, so our data account for instances of gaming in which someone claimed a pension early and did not expect to claim Social Security until later.

### **Value of Adjustments**

The present values of Social Security and pension benefits for members of both the original HRS cohort and the Early Boomer cohort are reported in 1992 dollars. We define WEP adjustments as the reduction in benefits that are due to the WEP adjustment alone. The GPO adjustment is calculated as the total effect of reducing benefits to account for both the WEP and the GPO, less the value of the WEP adjustment. Once we disaggregate the results, care is required in making comparisons between the original HRS sample, with 141 observations in even the smallest cell, and the Early Boomer cohort, where the number of observations falls to 27 for those subject to both the WEP and the GPO. Nevertheless, we do not pool the results for both samples.

Table 2 shows the lifetime average present values of Social Security benefits and WEP and GPO adjustments at the household level for members of both the original HRS cohort and the Early Boomer cohort, in 1992 dollars. In original HRS cohort households affected by either the WEP or the GPO, the average WEP adjustment amounts to \$17,050 in present value. The WEP adjustment for the 141 original HRS cohort households affected by both provisions is \$17,812. Households in the Early Boomer cohort experience considerably larger WEP adjustments, where benefits are reduced by \$22,402 for those affected by either the WEP or the GPO. For the 27 Early Boomer households affected by both provisions, the WEP adjustment reduces benefits by \$34,375.

For the original HRS cohort, among the 292 households affected by either of the provisions, the average GPO adjustment amounts to \$14,101 (beyond the \$17,050 reduction that was due to the WEP). Combining the two adjustments for those households

reduces the present value of Social Security benefits by 24.1 percent, from \$129,386 to \$98,235. For the Early Boomer cohort, among the 76 HRS households affected by either the WEP or the GPO, the GPO adjustment adds \$4,495 to the \$22,402 WEP adjustment, reducing the present value of Social Security benefits by 18.5 percent, from \$145,654 to \$118,757. Among households with at least one government or noncovered employee in the original HRS cohort, the WEP and the GPO together reduce benefits by 2.5 percent (from \$146,740 to \$143,032), and among all households with at least one member having any earnings history, the provisions reduce benefits by 0.9 percent (from \$137,130 to \$135,858). Corresponding figures for the Early Boomer cohort are 1.8 percent (from \$172,182 to \$169,085) and 0.6 percent (from \$161,305 to \$160,283).

Table 3 shows how the WEP and GPO adjustments relate to the present values of lifetime Social Security and pension benefits.<sup>15</sup> The combined effect of the two provisions for all households from the original HRS

**Table 2.**  
**Average lifetime present value of Social Security benefits and WEP and GPO adjustments among affected households, by cohort (in 1992 dollars)**

Benefit and adjustment	Households affected by either the WEP, the GPO, or both		All households with—	
	Total	Households subject to both provisions	Any government or noncovered employment	Any employment history
<b>Original HRS (1992)</b>				
Social Security benefits (unadjusted)	129,386	120,143	146,740	137,130
WEP adjustment	-17,050	-17,812	-2,109	-704
Social Security benefits after WEP adjustment	112,337	102,331	144,631	136,427
GPO adjustment	-14,101	-28,805	-1,600	-569
Social Security benefits after WEP and GPO adjustments	98,235	73,526	143,032	135,858
Number of households	292	141	2,337	7,051
<b>Early Boomers (2004)</b>				
Social Security benefits (unadjusted)	145,654	163,653	172,182	161,305
WEP adjustment	-22,402	-34,375	-2,579	-851
Social Security benefits after WEP adjustment	123,252	129,277	169,602	160,454
GPO adjustment	-4,495	-12,589	-518	-171
Social Security benefits after WEP and GPO adjustments	118,757	116,689	169,085	160,283
Number of households	76	27	660	2,001

SOURCE: Authors' calculations based on the HRS.

NOTE: Values do not necessarily equal the sums of or differences between rounded components.

**Table 3.**  
**Average lifetime present value of Social Security and public pension benefits and WEP and GPO adjustments among affected households, by cohort (in 1992 dollars)**

Benefit and adjustment	Households affected by either the WEP, the GPO, or both		All households with—	
	Total	Households subject to both provisions	Any government or noncovered employment	Any employment history
<b>Original HRS (1992)</b>				
Social Security benefits (unadjusted)	128,348	117,764	146,451	137,461
WEP adjustment	-17,105	-17,941	-2,115	-711
Social Security benefits after WEP adjustment	111,243	99,823	144,336	136,750
Combined WEP and GPO adjustment	-30,596	-45,786	-3,654	-1,257
Social Security benefits after WEP and GPO adjustments	97,752	71,978	142,797	136,204
Public pension benefits	155,401	167,149	39,939	13,568
Social Security benefits after WEP and GPO adjustments plus public pension benefits	253,154	239,127	182,736	149,773
All other pension benefits	52,324	39,543	105,425	83,351
Social Security benefits after WEP and GPO adjustments plus all pension benefits	305,478	278,670	288,161	233,124
All other assets	192,157	196,604	184,616	169,835
Total wealth	497,635	475,274	472,777	402,959
Number of households	289	138	2,313	6,938
<b>Early Boomers (2004)</b>				
Social Security benefits (unadjusted)	145,805	163,653	171,695	161,617
WEP adjustment	-22,352	-34,376	-2,575	-854
Social Security benefits after WEP adjustment	123,453	129,277	169,120	160,763
Combined WEP and GPO adjustment	-26,907	-46,964	-3,100	-1,027
Social Security benefits after WEP and GPO adjustments	118,898	116,689	168,595	160,589
Public pension benefits	138,809	149,622	33,257	11,018
Social Security benefits after WEP and GPO adjustments plus public pension benefits	257,707	266,310	201,853	171,608
All other pension benefits	52,379	28,126	93,286	72,761
Social Security benefits after WEP and GPO adjustments plus all pension benefits	310,086	294,436	295,139	244,369
All other assets	197,027	170,688	205,531	183,062
Total wealth	507,113	465,124	500,670	427,431
Number of households	75	27	651	1,965

SOURCE: Authors' calculations based on the HRS.

NOTES: Values do not necessarily equal the sums of or differences between rounded components.

Households in the top 1 percent and bottom 1 percent of the wealth distribution are omitted.

cohort subject to either the WEP or the GPO totals \$30,596 and reduces their benefits by 23.8 percent (from \$128,348 to \$97,752). The comparable group of Early Boomers absorbs a reduction of \$26,907, or 18.5 percent of their benefits (from \$145,805 to \$118,898). Original HRS cohort households affected by both the WEP and the GPO have a \$45,786 reduction in the present value of benefits, or 38.9 percent of their total Social Security benefits of \$117,764. Those subject to both the WEP and the GPO from the Early Boomer cohort have a 28.7 percent reduction in their benefits (\$46,964 from \$163,653).

These benefit reductions are small compared with the average lifetime public pension benefits of \$155,401 for members of the original HRS cohort affected by either of the two provisions and of \$138,809 for the comparable group of Early Boomers. For members of the original HRS cohort affected by either provision, the adjustment (\$30,596) amounts to 10.0 percent of the combined value of all pension

benefits and adjusted Social Security benefits (\$305,478) and to 6.1 percent of their total wealth (\$497,635). Comparable reductions for members of the Early Boomer cohort amount to 8.7 percent of adjusted Social Security benefits plus total pension wealth (\$26,907 of \$310,086) and to 5.3 percent of total wealth (\$26,907 of \$507,113).

Among households in the original HRS cohort with any government or noncovered employment, or with an employment history of any kind, those reductions represent much smaller fractions of total wealth, respectively amounting to 0.8 percent (\$3,654 of \$472,777) and 0.3 percent (\$1,257 of \$402,959). Comparable reductions for members of the Early Boomer cohort are 0.6 percent (\$3,100 of \$500,670) and 0.2 percent (\$1,027 of \$427,431), respectively.

Table 4 compares total wealth and its components between households subject to the WEP or the GPO and all households. Original HRS cohort households subject to the WEP or the GPO average \$102,454

**Table 4.**  
**Average household wealth by component for all households and those affected by the WEP or the GPO, by cohort (in 1992 dollars)**

Component	Original HRS (1992)		Early Boomers (2004)	
	Affected households	All households	Affected households	All households
Social Security benefits (unadjusted)	128,348	131,956	145,805	156,096
Combined WEP and GPO adjustment	-30,596	-1,183	-26,906	-958
Social Security benefits after WEP and GPO adjustments	97,752	130,773	118,899	155,138
Pension benefits				
Noncovered employment	155,401	12,602	138,808	10,276
Covered employment	52,595	78,483	52,379	68,801
Adjusted Social Security benefits plus all pension benefits	305,748	221,858	257,707	234,215
Net home value	85,008	65,362	105,091	79,771
Other real estate	29,777	24,468	11,659	17,737
Business assets	5,579	19,007	13,066	14,892
Net value of vehicles	13,342	12,224	12,757	10,171
Individual retirement account assets	17,148	15,329	15,024	21,021
Other financial assets	41,032	36,934	39,428	38,931
Total	497,636	395,182	507,113	416,739
Number of households	289	7,470	75	2,107

SOURCE: Authors' calculations based on the HRS.

NOTES: Values do not necessarily equal the sums of or differences between rounded components.

Households in the top 1 percent and bottom 1 percent of the wealth distribution are omitted.

more in total wealth than do all households, and the comparable difference for Early Boomer households is \$90,374. The value of pension benefits plus Social Security benefits among households affected by the WEP or the GPO far exceeds that for all households. These findings indicate that, contrary to previous claims, the adjustments do not fall disproportionately on poor households.

Although the WEP and the GPO reduce the benefits of those who worked in noncovered employment, and those who worked in noncovered employment have lower pension income from work in covered jobs than the average household, the pension from noncovered work dwarfs those differences. The lifetime values of pensions from noncovered jobs are \$155,401 and \$138,808 for original HRS and Early Boomer cohort households, respectively, accounting for most of the difference in total wealth between affected households and all households.

After adjusting for the WEP and GPO provisions, the average lifetime value of Social Security benefits for affected households in the original HRS cohort is 25.3 percent lower than that of all households (\$97,752 versus \$130,773). The entire difference, however, is the result of the offsets alone. For the Early Boomer cohort, average Social Security benefits of affected households are 23.4 percent lower than those of all households (\$118,899 versus \$155,138), but for that cohort, part of the difference is due to lower Social Security earnings. Still, in the absence of the WEP and the GPO, those who worked in noncovered employment would have Social Security benefits relatively similar to those of the entire population.

## ***Disaggregating the WEP Adjustment into Two Component Effects***

Previous studies sought to measure the aggregate value of WEP benefit reductions by analyzing the way the WEP alters the Social Security benefit formula for affected individuals. Those calculations overlooked the WEP adjustment's limitation to one-half of the value of pensions from noncovered work. Ignoring that limit causes the WEP adjustment to be overstated by roughly 150 percent. Moreover, as we have seen, ignoring the role of pensions from noncovered work leads to a misleading picture of where households affected by the WEP or the GPO stand financially. They are not, as some have claimed, among the poorer households.

Table 5 shows how the requirement that pensions must be received from noncovered work before the WEP or GPO is instituted affects the values of the offsets. First, the table presents the unadjusted Social Security benefit value. For the original HRS cohort, the present value of Social Security benefits without a WEP adjustment averages \$76,828. With the WEP adjustment capped at one-half of the value of the pension from noncovered work, the present value of Social Security benefits is \$72,619. So the average WEP adjustment for this cohort amounts to \$4,209. Unadjusted and WEP-adjusted benefit numbers for the Early Boomer cohort are \$81,692 and \$76,892, respectively, so their average WEP adjustment amounts to \$4,800.

By assuming an artificially large pension, we can isolate the size of the WEP adjustment produced by the reduction in the Social Security benefit

**Table 5.**  
**Cost of the WEP adjustment to Social Security benefits for affected households under the actual formula and a counterfactual formula in which the adjustment is not limited to one-half the value of the pension from noncovered employment (average lifetime values in 1992 dollars)**

Cohort	Actual			If the WEP adjustment were not capped at one-half of the pension value			Number of households
	Unadjusted lifetime Social Security benefits	WEP adjustment	WEP-adjusted Social Security benefits	Maximum additional reduction of benefits	Maximum total reduction of benefits	Social Security benefits	
Original HRS (1992)	76,828	-4,209	72,619	-5,924	-10,133	66,695	1,105
Early Boomers (2004)	81,692	-4,800	76,892	-7,676	-12,476	69,216	266

SOURCE: Authors' calculations based on the HRS.

formula's replacement rate from 90 percent to as low as 40 percent for indexed earnings up to the first bend point. This hypothetical scenario allows us to determine the full effect of the formula change without any mitigation from the pension from the noncovered job. If the WEP adjustment were not limited to one-half of the size of the pension, the Social Security benefit for members of the original HRS cohort would drop to \$66,695, a total reduction of \$10,133 from the unadjusted benefit.

Thus, the limitation of the Social Security benefit reduction to one-half of the size of the pension from noncovered employment saves members of the original HRS cohort as much as \$5,924 in WEP penalties, or 58.5 percent of what the penalty would be if not for the treatment of noncovered pensions. For the Early Boomers, the change in the PIA benefit formula alone would reduce benefits by \$12,476, so consideration of the pension from noncovered work reduces their WEP penalty by \$7,676, or by 61.5 percent.

Although pensions mitigate the effect of the WEP adjustment to Social Security benefits, pensions from noncovered employment trigger the GPO adjustment, which mechanically reduces the spouse and survivor benefits of those with a public pension by two-thirds of the value of that pension. Thus, on one hand, consideration of public pensions significantly reduces the WEP's downward adjustment to Social Security benefits for those who worked in noncovered employment; on the other hand, consideration of pensions from noncovered employment is the sole determinant of the GPO downward adjustment in spouse and survivor benefits.

## **Conclusions**

This article investigates the effects of the WEP and the GPO on Social Security benefits received by households. Innovations in this study are central to fully understanding the nature of WEP and GPO adjustments. Unlike previous studies, we take explicit account of pensions earned on jobs not covered by Social Security, a key determinant of the size of WEP and GPO adjustments. Also unlike previous studies, we focus on the household, allowing us to incorporate the full effects of the WEP and the GPO on spouse and survivor benefits and to evaluate their effects on the preretirement assets accumulated by affected families.

Among our specific findings are the following:

- Of 7,623 households in the original HRS cohort, 3.8 percent are subject to either the WEP or the

GPO. The comparable figure for the Early Boomer cohort is 3.5 percent.

- Among original HRS cohort households affected by either provision, the WEP adjustment is \$17,050 and the GPO adjustment is \$14,101, which combine to reduce the present value of Social Security benefits by 24.1 percent among the affected households. For the Early Boomer cohort, the WEP and the GPO combine to reduce the present value of Social Security benefits by 18.5 percent among affected households.
- For members of the original HRS cohort affected by the WEP or the GPO, benefit reductions amount to 10.0 percent of the value of the pension plus Social Security benefits they in fact receive, and to 6.1 percent of their total wealth. Comparable reductions for members of the Early Boomer cohort amount to 8.7 percent of total Social Security plus pension wealth and to 5.3 percent of total wealth.
- By far the largest impact is on households affected by both provisions. Those from the original HRS cohort face a \$45,786 reduction in present-value benefits, or 38.9 percent of their total Social Security benefit. Those subject to the WEP and the GPO from the Early Boomer cohort see their benefit reduced by 28.7 percent.

We also decompose the effects of the WEP adjustment into two components: (1) the reduction that is due to the use of a lower replacement rate up to the first bend point in the PIA formula and (2) the mitigation of that adjustment by the pension. Limiting the reduction in the Social Security benefit to one-half of the size of the pension from noncovered employment reduces the WEP penalty for members of the original HRS cohort by \$5,924 (58.5 percent). For the Early Boomers, the uncapped reduction in the replacement rate would lower benefits by \$12,476, so limiting the adjustment to one-half of the value of the pension from noncovered work reduces the WEP penalty by \$7,676 (61.5 percent).

We also discuss the rationale for the WEP and GPO adjustments to Social Security benefits under current law. The law is designed to address a number of perceived inequities when workers in jobs not covered by Social Security also become eligible for Social Security own-earnings benefits or spouse or survivor benefits.

The law does meet a number of its purposes. However, the limitation of the WEP offset to one-half of the value of the pension mitigates the effects of this

adjustment. This system is most advantageous for individuals who benefit from the progressive Social Security benefit formula, have worked in both covered and noncovered employment, and have become entitled to a Social Security benefit—but who have little or no pension from noncovered work. Those individuals experience only modest WEP and GPO adjustments. Consequently, they enjoy a higher rate of return on the Social Security taxes they paid than do those who worked continuously in covered jobs because the years worked in noncovered employment count as zero-earnings years.

It has been argued that the WEP adjustment disproportionately affects low-wage workers because it is applied only up to the first bend point of average indexed earnings. However, that argument ignores the effect of limiting the WEP adjustment to one-half of the value of the pension earned on the noncovered job. Social Security benefits will be affected only if the individual has earnings high enough to generate a large pension from government or other noncovered employment. Consequently, those who criticize the design of the WEP and the GPO on distributional grounds exaggerate their case. This is not to say, however, that there is no case for redesign.

In addition, the law does not address all potential inequities. The GPO adjustment seems fair when comparing two two-earner households with identical earnings histories. In one, both spouses always worked in covered employment and paid payroll taxes. In the other, the lower-paid spouse worked in noncovered employment and thus did not pay FICA taxes. In the absence of the GPO, that latter household would not have the spouse benefit's top-up reduced by the primary earner's own Social Security benefits, as is standard for dually entitled beneficiaries. That household would therefore receive higher spouse and survivor benefits than the household with covered employment only. On the other hand, the GPO seems to be quite unfair to that latter two-earner household when compared with a one-earner household in which the nonearner receives the full spouse or survivor benefit. In both of these households, the primary earner paid Social Security taxes while the spouse did not. Yet the spouse in the one-earner household will receive full spouse and survivor benefits, and the other will have spouse and survivor benefits reduced or eliminated. At the heart of this problem is the disparate treatment that favors one-earner over two-earner households, regardless of whether the lesser earner in the two-earner household worked in noncovered or only in covered employment.<sup>16</sup>

We close with a number of caveats affecting our estimates of the WEP and GPO adjustments. First, respondents underreport the extent to which they work for a government employer. To partially deal with that underreporting, we count a respondent as working for the government if there is a self-report of having worked for a federal, state, or local government employer, or if the respondent reported working in a noncovered job. But not all jobs that are not covered by Social Security are government jobs. Second, as we explain in our more detailed working paper, we find small inconsistencies in the Social Security records that we use to identify covered and noncovered employment. Third, throughout the analysis, we calculate the WEP and GPO adjustments using respondent self-reports about expected pension values, which we link to noncovered employment. The Government Accountability Office (2007) indicates that affected workers do not always accurately report government pension income to SSA. To the extent that government pensions are underreported to SSA, we overstate the size of the WEP and GPO adjustments. Fourth, we do not account for behavioral responses to the WEP and GPO, as affected respondents and members of their households react to the incentives created by these policies. It is, of course, unclear how many respondents understand these incentives and make their employment and benefit election choices with these incentives in mind.

### ***Appendix: Imputations of Covered Earnings Histories and Calculation of Present-Value Social Security Benefits***

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Our analysis uses records for HRS respondents who gave explicit permission to allow their Social Security earnings records to be matched to the basic survey instrument. We impute benefit amounts for those without a matched earnings record. We calculate Social Security benefits from data on yearly covered earnings for individuals in the 2004 survey year using SSA's AnyPIA program.

To impute the earnings for a respondent without a matched Social Security earnings history,<sup>17</sup> we use a "nearest-neighbor" approach. We run a regression for individuals who have a matched earnings record, with total earnings from the earnings record as the dependent variable. Independent variables are taken from the respondents' reports to the HRS.<sup>18</sup> The nearest neighbor is then selected based on predicted total earnings from a sample that includes individuals both with and without matched earnings records. We then

replace the missing record with the nearest neighbor's entire Social Security record.

We also impute characteristics of the spouses who were absent in the survey by constructing an index based on the spouse's sex, respondent's age, and household earnings and assets. We use that index to sort the data. We then replace the absent spouse's missing record with the nearest neighbor's entire Social Security record, along with other information such as retirement date, entitlement date, values of an index that identifies noncovered employees, and donor spouse's monthly pension amount. We treat the observation for which a value was imputed as if the earnings record and other information had never been missing.

The AnyPIA software requires monthly pension amounts to be entered for respondents with both covered and noncovered jobs. We calculate pension amounts from those jobs and impute the missing values. We convert the defined contribution account balances and the defined benefit plan lump sums to a monthly amount based on the age at which the respondent starts to receive the benefit and the award year (SSA 2013).

We use the estimated PIA to calculate the present value of Social Security benefits and discount that value back to the survey year based on the individual's own earnings record and on his or her spouse and survivor benefits. In calculating and discounting the benefit values, we use a life table and consumer price index and nominal interest rate tables from the *2010 Annual Report of Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Tables V.B1 and V.B2).

## Notes

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<sup>1</sup> The Social Security Administration, Government Accountability Office, and Congressional Research Service have used administrative data to report the number of individuals affected by the WEP and the GPO and the dollar values of those offsets. However, administrative data have not been used to analyze the impact of the provisions at the household level. Without household-level data, it is not possible to analyze how the WEP and GPO interact and how the associated benefit adjustments relate to household pensions and total wealth accumulated by retirement age.

<sup>2</sup> Social Security benefits and the earnings levels used to calculate them are typically expressed as monthly amounts,

but to facilitate the discussion of our analysis later in the article, we use annual values.

<sup>3</sup> A similar problem involving immigrants has not yet been addressed by a policy change. Gustman and Steinmeier (2000) show that certain immigrants who spend fewer years working in the United States (and thus fewer years in covered employment) enjoy a higher rate of return on the payroll taxes they pay than do U.S.-born retirees with comparable earnings histories. For example, comparing households with similar earnings and wealth profiles, the authors find the ratio of Social Security benefits to taxes is 0.855 for U.S.-born households, 0.935 for immigrant households overall, and 1.480 for more recently arrived immigrant households. Indeed, immigrants with high average annual earnings, but only a decade or so of covered employment, enjoy a replacement rate of up to 90 percent on the FICA taxes they pay, despite having similar annual earnings and wealth as U.S.-born beneficiaries. The authors also discuss a simple policy fix for this problem.

<sup>4</sup> For further discussion of the WEP, see SSA (2014). Brown and Weisbenner (2013) thoroughly analyze the incentives created by the WEP's adjustment to the PIA. They do not, however, examine the implications of the limit on the WEP adjustment to one-half of the value of the pension from noncovered employment.

<sup>5</sup> Quoting Brown and Weisbenner (2013), "approximately one fourth of all public employees in the U.S. do not pay Social Security taxes on the earnings from their government job ([Government Accountability Office] 2007). This includes approximately 5.25 million state and local workers, as well as approximately 1 million federal employees hired before 1984 ([General Accounting Office] 2003)."

<sup>6</sup> We will show later that HRS respondents have difficulty in determining whether they work for the government. Therefore, we assume the GPO adjustment applies to any job reported as not covered by Social Security.

<sup>7</sup> Although the GPO addresses one type of inequity, it creates another. Consider two households. Household 1 reflects the traditional model of a family typical of the era when Social Security was established, in that all work is undertaken by a primary earner in covered private-sector employment. By design (with some minor adjustments), a spouse who never worked is entitled to a benefit equal to one-half of the primary earner's benefit, or equal to the full benefit should the primary earner die. In household 2, one spouse works in noncovered employment and earns a pension, while the other works in covered employment. The worker with a pension from noncovered employment may lose spouse and survivor benefits because of the GPO. In both households, the spouse who was not the primary earner paid no FICA payroll taxes, but the spouse in household 2 who worked in noncovered government employment and earned a pension will receive a much smaller spouse or survivor benefit (if any) than the spouse in household 1, who did not work at all.

<sup>8</sup> In the working paper from which this article is adapted, we detail each of the scenarios (Gustman, Steinmeier, and Tabatabai 2013b).

<sup>9</sup> This was partly because of the difficulties of measuring earnings from noncovered employment. Brown and Weisbenner (2013) point out that SSA did not collect data on earnings from noncovered employment before 1978 and therefore the agency could not adjust benefits for noncovered earnings in those years.

<sup>10</sup> Congress tempers the reduction in benefits for those who, despite having worked in noncovered employment, also worked for many years in covered employment. The WEP penalty is reduced if an individual worked in covered employment for more than 20 years and is eliminated if an individual was covered by Social Security for at least 30 years. For persons with between 20 and 30 years in covered employment, the WEP penalty is reduced on a prorated basis.

<sup>11</sup> The original HRS cohort comprises respondents who were born during 1931–1941. Members of the Early Boomer cohort were born during 1948–1953.

<sup>12</sup> It is easy to see why some respondents who work in a publicly supported institution that is part of the state retirement system may correctly note that the job is not covered by Social Security and yet consider the job nongovernment employment. Consider a person who works for a state university and thus does not work directly for the state. Tuition may be at least as important a source of revenue for the university as direct support from the state. In such a case, it is not immediately clear whether researchers should classify the job as government employment, or even whether the respondents themselves should.

<sup>13</sup> Agricultural workers and railroad employees are also not covered by Social Security; however, our sample includes only a few of these individuals.

<sup>14</sup> Depending on the work history, marital status and history, and other circumstances in a household, some claimants can optimize their benefits by adjusting the timing of their retirement, when they claim their pensions, and when they claim their Social Security benefits.

<sup>15</sup> The number of observations in Table 3, unlike those in Table 2, exclude households in the top and bottom 1 percent of wealth holding. As a result, the values in Table 3 differ slightly from the corresponding cells in Table 2.

<sup>16</sup> For studies of the effects of spouse and survivor benefits on redistribution fostered by the Social Security benefit formula, see Gustman and Steinmeier (2001) and Gustman, Steinmeier, and Tabatabai (2013a). Conventional wisdom greatly overstates the redistribution fostered by the progressive benefit formula.

<sup>17</sup> We made separate imputations for married individuals if both were interviewed and for individuals who were divorced, widowed, or never married. We also imputed the

earnings of spouses of divorced respondents for whom we had no information and for widowed individuals.

<sup>18</sup> The covariates we use in imputing earnings include work and earnings characteristics and demographic characteristics. Work and earnings characteristics include annual earnings from current job, tenure on longest and current jobs, total years worked, number of jobs (total and lasting 5 or more years), industry and occupation of current job, union membership, whether a public employee, whether insured for benefits at the normal retirement age, labor force and disability status, and self-employment status in 2004. Demographic characteristics include age; whether U.S.-born; home ownership; and indicators of marital status, including number of marriages and divorces, widowhood, length of longest marriage, and number of children.

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