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FEDERAL PENSIONS

Relationship Between Retiree Pensions and Final Salaries

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The Honorable Ted Stevens
Chairman, Committee on Appropriations
United States Senate

Dear Mr. Chairman:

Federal spending on pensions for retired civilian employees of the federal government represents a significant share of the budget. In fiscal year 1996, excluding interest on the public debt, civilian employee pension benefits (i.e., civil service retirement and disability) was the seventh largest mandatory spending program, with nearly $40 billion in payments to 2.3 million retirees and survivor annuitants. Although current employees finance a portion of these benefits through the contributions they make, the federal government pays most pension costs, as do states and localities and private sector employers. Thus, it is important for policymakers to understand how key features of federal retirement policy—set in statute—affect pension costs.

At your request, we are responding to a series of questions about federal and nonfederal retirement programs. This report addresses the part of your request that concerns pension costs and retirement policy. As agreed with your office, our objectives were to (1) determine the number of federal retirees, if any, whose pensions have come to exceed the final salaries that they earned while working; (2) explain why these retirees' pensions came to exceed their final salaries; and (3) determine the difference, if any, in these retirees' pension amounts if current cost-of-living-adjustment (COLA) policy—that is, the COLA policy enacted in 1984, which established the formula and schedule used today by the Office of Personnel Management (OPM)—had been in effect without interruption since 1962, and also determine any difference in the number of retirees whose pensions would have exceeded their final salaries.[1]

We collected data for the Civil Service Retirement System (CSRS) and the Federal Employees Retirement System (FERS) general employees, as well as for all former Members of Congress who were retired and still living as of October 1, 1995, using a computerized personnel database and case file information maintained by OPM. Although the preliminary results for Members appear to be about the same as the results for general employees, as agreed with your office, we are reporting the results for general employees in this letter, and we will report on Members

[1]The COLA policies we refer to in this report were set by various federal statutes.

separately. We used a number of different approaches to meet our objectives, including simulation and statistical analyses of a randomly selected, projectable sample of CSRS retirees. The sample and techniques that we used are described in greater detail in the Scope and Methodology section of this report.

Background

CSRS and FERS are the two largest retirement programs for federal civilian employees. At the beginning of fiscal year 1995, these programs covered about 2.8 million federal employees, or 90 percent of the current civilian workforce. OPM administers CSRS and FERS. CSRS and FERS pension benefits are financed partly by federal agency and employee contributions and partly by other government payments to the Civil Service Retirement and Disability Fund.[2]

Although CSRS and FERS both provide pensions, the programs are designed differently. CSRS was established in 1920 and predates the Social Security system by 15 years. When the Social Security system was established, Congress decided that employees in CSRS would not be covered by Social Security through their federal employment. CSRS is a stand-alone pension program that provides an annuity determined by a formula as well as disability and survivor benefits.[3] The program was closed to new entrants after December 31, 1983, and, according to OPM actuaries, is estimated to end in about 2070, when all covered employees and survivor annuitants are expected to have died. FERS was implemented in 1987 and generally covers those employees who first entered federal service after 1983 as well as those who transferred from CSRS to FERS. The primary impetus for the new program was the Social Security Amendments of 1983, which required that all federal employees hired after December 1983 be covered by Social Security.[4] FERS is a three-tiered retirement program that includes Social

[2]The Department of the Treasury also makes annual payments that are to cover interest on unfunded liabilities, payments for spouse equity, as well as amortization payments to finance supplemental liabilities for FERS.

[3]If a survivor annuity benefit is chosen, pensions may be reduced by as much as 10 percent. Pensions are reduced to provide for spousal benefits or insurable interest benefits (i.e., a person designated by the retiree as expecting to receive some financial benefit from the continuance of the life of the retiree), but not for children's benefits. Children's benefits are provided by law and do not need to be elected by an employee or retiree. If a spousal survivor annuity is chosen and the spouse predeceases the retiree, the annuity reduction is eliminated upon notification to OPM. At the time of retirement, CSRS pensions may also be reduced for other reasons, including reductions for age and unpaid deposits. FERS pensions may be reduced for age.

[4]After December 31, 1983, certain rehires participating in CSRS before 1984 could elect to either stay in that plan under special rules that integrate CSRS and Social Security or transfer to FERS. For a more detailed discussion of the transition from CSRS to FERS, see Federal Retirement: Federal and Private Sector Retirement Program Benefits Vary (GAO/GGD-97-40, Apr. 7, 1997).

Security and a Thrift Savings Plan —in addition to a basic pension. Like CSRS, FERS provides disability and survivor benefits.

A distinctive feature of CSRS and FERS pensions is the annual COLAs they are to provide. COLAs are post-retirement increases in pension amounts that generally are given on either an ad hoc or automatic basis to offset increases in living costs due to inflation. Congress enacted the first automatic COLA for CSRS annuitants in 1962 (effective January 1963). At that time, the automatic adjustment was viewed as a way of controlling pension costs, because prior ad hoc adjustments had been criticized as being unrelated to price increases and subject to political manipulation.

Although COLAs generally have been provided on an automatic basis since 1962, COLA policies have been modified numerous times over the years. As shown in table 1, the changes made during the 1960s and 1970s were intended to enhance pension purchasing power with respect to inflation as measured by the consumer price index (CPI), but some of the changes made during the 1980s had the effect of reducing purchasing power.[5] Table 1 is based on information in the Congressional Research Service (CRS) Report for Congress, 94-834 EPW, updated March 13, 1996.

[5]The CPI is compiled by the Bureau of Labor Statistics and is intended to measure the average change in the prices paid by urban consumers for a fixed market basket of goods and services. It is calculated monthly for two population groups, one consisting only of wage earners and clerical workers and the other consisting of all urban families. The wage earner index—CPI-W—is the index used for federal COLA purposes. Because it is a national average, it affects retirees differently, depending on whether they live in areas where the CPI-W differs from the national average. Also, because the CPI is a statistical average, it may not reflect an individual's experience, particularly an individual whose expenditures differ greatly from the "average" consumer's. Moreover, whether the CPI accurately estimates inflation is currently being debated. In a 1996 report, the Advisory Commission to Study the Consumer Price Index concluded that the CPI overstates inflation. The Commission recommended that the market basket on which the CPI depends be updated more frequently than is currently done and that adjustments be made to correct any bias in the estimates.

Table 1: Major Changes Made to COLA Policy Since Automatic Adjustments Began

Year	Public law	Description
1962	P.L. 87-793	Provided the first automatic adjustments whenever the CPI in a given year exceeded the CPI for the year of the last adjustment by 3 percent or more. This was later modified to provide for adjustments whenever the CPI rose 3 percentage points or more above the CPI in the month of the last adjustment and remained at or above this level for 3 consecutive months.
1969	P.L. 91-93	Added an extra 1 percent to the adjustment—known as a kicker—to offset the erosion in pension benefits due to the time lag between increases in living costs and benefit adjustments.
1976	P.L. 94-440	Repealed the kicker because it had been found to overcompensate for inflation. However, Congress replaced the kicker with semiannual COLAs as another way to address the time lag.
1981	P.L. 97-35	Replaced semiannual COLAs with annual COLAs based on the change in the CPI from December to December and payable in March of the following year, thereby saving money by having benefits held constant for longer periods.
1982	P.L. 97-253	Added a restriction in certain cases to ensure that pensions would not exceed the current maximum pay for a General Schedule (GS) 15 federal employee.
1983	P.L. 98-270 (enacted in 1984)	Established the formula upon which COLAs currently are based and made COLAs effective in December of the current year and payable in January of the following year.[a]
1984	P.L. 98-369	Specified that COLAs were to be payable in checks issued the first business day of the month following the month for which they are scheduled or effective.
1985	P.L. 99-177	Suspended COLAs for fiscal year 1986 and for all subsequent years in which specified deficit reduction targets would not otherwise be met.
1986	P.L. 99-509	Reinstated COLAs for programs that had been subject to the suspension under P.L. 99-177 for calendar years 1987-1991.[b]
1993	P.L. 103-66	Changed the effective dates for COLAs from December to March for fiscal years 1994 through 1996.[c]

[a]This formula and schedule are the same as those used for Social Security COLAs, which were established for that program in P.L. 98-21. This law also eliminated the COLAs scheduled for May 1984 and June 1985. Instead, COLAs were scheduled for December 1984, payable in January 1, 1985, checks.

[b]The Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 (P.L. 100-119) permanently exempted federal pension COLAs from suspension under P.L. 99-177.

[c]The COLAs were in checks payable the first business day of April rather than January. This law did not change the CPI measuring period.

Source: CRS.

One of these changes provides especially relevant background for considering the relationship between current pensions and final salaries and requires a more complete discussion. As noted in table 1, P.L. 97-253 (the Omnibus Budget Reconciliation Act of 1982) restricted COLAs in relation to final salaries in certain cases. Under this restriction, a pension may not be increased by a COLA to an amount that exceeds the greater of the current maximum pay for a GS-15 federal employee or the final pay of the employee (or high-3 average pay, if greater), increased by the overall annual average percentage adjustments (compounded) in rates of pay of the general schedule for the period beginning on the retiree's annuity starting date and ending on the effective date of the adjustment. In effect, the statute requires that a retiree's pension is to be capped at an amount not to exceed the maximum pay of a general schedule employee (i.e., GS-15) or an amount that represents the value of the retiree's final or average pay, adjusted for the general schedule pay adjustments that had been provided since the annuitant retired. According to OPM's policy handbook, because the cap applies to COLA increases to pensions, in no instance would a pension already exceeding the cap be reduced.[6]

As noted earlier, under current policy—enacted in 1984—COLAs for CSRS and FERS retirees are based on increases in living costs as measured by the CPI-W between the third quarter (July through September) of the current calendar year and the third quarter of the previous year. Although the COLA formula and schedule are the same for FERS and CSRS, FERS COLAs are limited if inflation is over 2 percent. If inflation is between 2.0 and 3.0 percent, the FERS COLA is 2.0 percent; if inflation is 3.0 percent or more, the COLA is the CPI minus 1 percent. If, however, inflation is less than 2 percent, FERS COLAs are to be fully adjusted for inflation. Also, CSRS benefits are to be fully indexed from the time of retirement, and FERS pensions are to be indexed beginning at age 62 for regular retirees.[7]

Results in Brief

An estimated 459,000 (or about 27 percent) of the 1.7 million retirees who were on the federal pension rolls as of October 1, 1995, were receiving pensions that had come to exceed their final salaries when these salaries were not adjusted for inflation. However, when their salaries were adjusted for inflation—i.e., expressed in constant dollars—no retiree was

[6]Under CSRS, initial annuities are also capped. As described in greater detail later in this report, with certain exceptions, the maximum initial annuity that a retiree can receive under CSRS is 80 percent of his or her high-3 average salary.

[7]The first FERS COLA was effective in December 1988 and payable in January 1989. FERS participants of any age who retired on disability are to receive COLAs after their first year of disability.

receiving a pension that was larger than his or her final salary. As a general rule, using constant dollars provides a more meaningful way to compare monetary values across time, because the use of constant dollars corrects for the effects of inflation or deflation.

Although no retiree's pension exceeded his or her final salary in constant dollar terms, our analysis confirmed that three factors played an important role in explaining why the retirees' pensions came to exceed their unadjusted final salaries—the number and size of COLAs that retirees received, the number of years that they had been retired, and the number of years of their federal service. The first two factors in combination reflect retirement policies that are intended to maintain most or all of a pension's purchasing power. Although the COLAs that the sample retirees received caused their pensions to increase at rates that generally were to equal inflation during retirement, their unadjusted final salaries remained the same. Thus, the longer the annuitants had been retired, the more COLAs they would have received and the more likely their pensions would have come to exceed their unadjusted final salaries. Also, because COLAs were to be automatic and inflation continued throughout the period we reviewed, the number of COLAs that the sample retirees would have received was highly correlated with the number of years that they had been retired. The third factor—a retiree's years of federal service—also contributed, because years of service is a major component in determining the amount of a retiree's initial pension. Specifically, the sample retirees with many years of service would have received initial pensions that came closer to the amounts of their final salaries than the retirees with fewer years of service, other factors being equal. Smaller beginning differences between initial pensions and final salaries, in turn, would have caused the pensions of the first group of retirees to have exceeded their unadjusted salaries sooner than the second group's pensions.

Our analysis of the effects that COLA policies have had on retiree pensions suggests that the policies have played an important role in maintaining the purchasing power of retiree pensions since automatic COLAs began. It also suggests that the effects COLA policies actually have had on retiree pension amounts cannot be summarized easily because of the numerous changes that have been made in COLA policies over the past 35 years. COLA policy changes have affected individual retirees differently, depending on when their retirements began. For example, because the effects of COLAs and COLA policy changes compound over time, the COLA policies of the late 1960s and 1970s, which overcompensated for inflation, will continue to affect the pensions of those retirees who receive them as long as they are

alive, just as the suspensions of some COLAs in the 1980s will continue to be reflected in the pensions of anyone who retired before the suspensions occurred.

If current COLA policy—that is, the policy that was enacted in 1984—had been in effect without interruption since automatic COLAs began in 1962, the pensions of some of the sample retirees would have been smaller than the pensions that they actually received, and the pensions of other retirees would have been larger. Our comparison of the effects of current and historical COLA policy (as shown in table 1) on pension amounts suggests that, other factors being equal, a majority of those who retired before 1970 would have received smaller pensions had current COLA policy been continuously in effect during their retirement, and about 90 percent of those who retired after 1970 would have received larger pensions. The changes that would have occurred in the sample retirees' pension amounts under current policy were enough to cause about a three percentage point (3.0) increase in the number of retirees whose pensions would have come to exceed their unadjusted final salaries.

Scope and Methodology

To respond to your request, we used a computerized personnel database of CSRS and FERS retirees and case file information maintained by OPM. At the time of our analysis, the latest available data were for living CSRS and FERS annuitants who were retired as of October 1, 1995. The database and case files provided much of the information that we needed for our analysis, including the retirees' initial and 1995 pensions, retirement dates, high-3 average salaries, service histories, survivor benefits, and other retirement-related information. However, the database did not have information on retirees' final salaries, which we needed in order to compare their final salaries to their 1995 annuities. The database did have information on "high-3" average salaries, which are used in calculating initial pensions. Thus, we compared the retirees' high-3 average salaries to their 1995 pensions to identify a set of retirees whose pensions were most likely to have exceeded their final salaries. From this group, we selected a random sample of 400 from among the 524,435 CSRS retired general employees whose annuities exceeded their high-3 average salaries and all 105 FERS retired general employees for whom the database reported annuities exceeding their high-3 average salaries.[8] We reviewed the selected retirees' case files to verify that those we had selected had 1995 pensions that, in fact, exceeded their unadjusted final salaries.

[8]We did not sample from the 66 CSRS annuitants whose high-3 average salaries were listed as zero in the database.

From our review of the sample of 400 CSRS annuitants, we identified 348 whose 1995 pensions exceeded their final salaries. We identified and removed from our sample 50 with pensions below their final salaries, 1 whose case file did not have the data we needed for our analysis, and another whose case file was not available for our review. From our case file review of the 105 FERS annuitants, we identified and removed 104 that did not match our criterion (i.e., did not have a 1995 annuity that exceeded the retiree's final salary). The remaining case had a pension that exceeded the final salary. However, the pension combined both FERS and CSRS benefits. This retiree had transferred from CSRS to FERS and thus was receiving benefits that were neither wholly FERS nor wholly CSRS. Consequently, we included this individual in our estimates of the number of retirees who had annuities that exceed their final salaries, but excluded this individual from our regression analysis.

We weighted the CSRS sample results to estimate the number of retired general employees in the population whose pensions had come to exceed both their final salaries and high-3 average salaries. In making these estimates, we assumed that the small number of FERS and CSRS cases for which data were not available were similar to the cases that we had reviewed. The sample results thus estimate the total number of general employees whose pensions exceed both their final salaries and their high-3 average salaries. As the final salary is generally included in the three highest salaries that are averaged, these employees are described as having pensions that exceed their "final salaries" in the remainder of the report. We also adjusted the retirees' final salaries for inflation, using the 1995 CPI-W, and made a second estimate of the number of retirees whose 1995 pensions exceeded their final salaries, expressed in constant dollar terms.

To understand why retiree pensions could come to exceed unadjusted final salaries as much as they did, we used regression analysis to model the relationship between key retirement policy variables and the extent to which the pensions of the sample retirees exceeded their unadjusted final salaries. Regression is a statistical technique that can be used to measure the relationship between a dependent variable and a set of independent (i.e., explanatory) variables and isolate their independent effects. This analysis was based on the subsample of 348 CSRS employees whose 1995 pensions exceeded their final salaries. This subsample did not include the single FERS annuitant whose pension exceeded the final salary, the two sampled cases with missing information, nor the 50 sampled cases whose

1995 pensions did not exceed their final salaries.[9] We used the percentage by which the retirees' pensions exceeded final salaries as the dependent variable in the model, because our sample did not include retirees whose pensions were below their high-3 average salaries.[10] We selected retirement variables to use as independent variables because they were (1) required to be used for computing pension benefits (e.g., years of service); or (2) known to affect pension amounts for some or all retirees (e.g., COLAs and the selection of spousal survivor benefits).[11] Although variables representing changes in a retiree's personal circumstances (e.g., marriage, death of a spouse, or divorce) that would have changed his or her pension over the period of retirement were not included in the final regression model, we reviewed the retirees' case files to determine what effects these changes may have had on individual sample retirees. We found that these changes in personal circumstances could cause an individual retiree's pension to fluctuate (e.g., increase and/or decrease) during his or her retirement depending on whether survivor's benefits were being deducted.

To compare the effects of current and historical COLA policy on retirees' pensions, we reviewed federal retirement-related documents and identified the historical changes in COLA policy since the inception of automatic COLAs in 1962.[12] Using this information, we calculated the pensions that the sample of 398 retirees would have received each year from 1962 through 1995 had current COLA policy been in effect without interruption. We compared these results to the pensions that they would have received under actual COLA policy, absent other changes that might have affected their pensions (e.g., adjustments due to death of a spouse when survivor benefits had been chosen). We then compared the resulting numbers to assess the probability that the change, if any, in the number of retirees whose 1995 pensions had exceeded their unadjusted final salaries was statistically significant, that is, unlikely to be due to sampling error.

[9]Our regression estimates are not applicable to the larger population of all retirees, because no FERS participants and no retirees with 1995 pensions lower than their high-3 average salaries were included in the analysis.

[10]More than two-thirds of all annuitants retired in 1995 received pensions that were below their high-3 average salaries.

[11]It is important to note that the model's parameter estimates of the effects of the retirement policy variables are for those retirees whose 1995 pensions had come to exceed their final salaries. Had all retirees been used, the parameter estimates could have been different because the analysis would have examined instances in which retirees' 1995 pensions had not come to exceed their final salaries.

[12]Payment of COLAs specified by the current COLA policy enacted in 1984 has been interrupted several times since then, as shown in table 1. Our simulations of current COLA policy did not include these interruptions.

To illustrate the effects that the different COLA policies could have had on pensions during the sample annuitants' retirements, we simulated the effects of current and actual policy on pension amounts for three different retirement periods. To simplify the analysis, our simulation of the impacts of current COLA policy implemented without interruption since 1984 was not adjusted to reflect the actual effective dates of COLAs, the actual pay dates, "lookback" payments or adjustments, or prorated to reflect the month an employee retired.[13] We selected 1961 to 1995, 1968 to 1995, and 1981 to 1995 to show the cumulative effects that the COLAs of the 1960s and 1970s, which overcompensated for inflation, and the suspensions of COLAs in the 1980s could have had for different periods of retirement. We used the average initial pension for the sample annuitants who had retired in the first year of each of the three periods for our starting pension amounts (e.g., the average initial pension of those annuitants who retired in 1961).

Our analysis had several limitations. As agreed with your office, we did not independently verify the accuracy of OPM's database. However, we did verify the accuracy of the data for the cases used in our analysis. Also, the number of retirees whose pensions had come to exceed their final unadjusted salaries could be somewhat higher than we estimated for two reasons. As noted, we used high-3 average salary to identify a population that we believed would be most likely to have pensions that had come to exceed final salaries, because OPM's computerized database did not include final salary information. Thus, our estimates do not include those retirees whose pensions were lower than their high-3 salaries but whose pensions were higher than their final salaries. Also, the annuity amounts contained in the case files already had survivor benefit reductions, if any, taken. Thus, retirees who selected survivor benefits would have had higher initial pensions than the pensions reported in OPM's files. However, we could not take this reduction into account, because the automated data file did not identify those retirees who had selected this benefit. On the basis of our examination of the data and our knowledge of the key retirement policy variables used in our analysis, we believe that any such underestimate would have been small.

We requested comments on a draft of this report from the Director of OPM, and those comments are discussed at the end of this letter. We did our

[13]The lookback adjustment, or comparative annuity computation, was established by P.L. 93-136 and applied to retirees whose immediate annuities commenced on or after July 2, 1973, and before January 20, 1981. Under this COLA provision, a retiree was assured that his or her annuity would be no less than it would have been if the annuity had commenced on the effective date of the COLA and had included the increase payable on that date. P.L. 96-499 eliminated the lookback adjustment and, instead, provided for the proration of a retiree's initial COLA increase.

review from December 1995 to July 1997 in Washington, D.C., according to generally accepted government auditing standards.

Some Retirees' Pensions Exceeded Their Unadjusted Final Salaries

As of 1995, 1.7 million retirees who were covered by the CSRS and/or FERS pension plans were on the federal retirement rolls.[14] Our estimate of the number of these retirees whose 1995 pensions exceeded their final salaries differed, depending on whether we adjusted the retirees' final salaries for inflation. When we did not adjust the salaries for inflation, about 459,000, or 27 percent, of the total general employee retirees received pensions that in nominal dollars exceeded their final salaries. However, when we adjusted the final salaries for inflation, no retiree received a pension that exceeded his or her final salary.

As a general rule, using constant—rather than nominal—dollars is more meaningful for examining dollar values across time, because constant dollars correct for the effects of inflation or deflation. Constant dollars are especially appropriate for comparing current pensions and final salaries, because the number of years that the annuitants in our sample had been retired averaged 22 years and ranged from 8 to 42 years. Table 2 compares the 1995 pensions and the nominal and inflation-adjusted final salaries for three illustrative retirees in our sample. The illustrative pensions shown in the table are the average amounts received by those sample annuitants who had retired in the years 1961, 1968, or 1981.

Table 2: a Comparison of the 1995 Pensions and Final Salaries Presented in Nominal and Constant Dollar Terms for the Average Annuitants Who Retired in 3 Selected Years.

		Nominal dollar terms		Constant dollar terms	
Retirement year	1995 pension	Final salary	1995 pension as a percent of final salary	Final salary	1995 pension as a percent of final salary
1961	$21,102	$ 7,290	289	$36,291	58
1968	$22,211	$10,175	218	$43,580	51
1981	$24,064	$21,594	111	$35,372	68

Source: GAO analysis of OPM data.

[14]About 97 percent were CSRS retirees. Of the approximately 12,000 FERS annuitants added to the retirement rolls in fiscal year 1995, about 30 percent had prior CSRS service.

Three Factors Help Explain Why Pensions Can Come to Exceed Unadjusted Final Salaries

Three factors help to explain why some retirees' pensions came to exceed their final salaries when their salaries were not adjusted for the effects of inflation—the number and size of COLAs that retirees received, the number of years that they had been retired, and their number of years of federal service. Two factors—the number and size of the COLAs that the retirees had received and the number of years that they had been retired—contributed because they helped to cause the retirees' pension amounts to increase over time. The third factor—years of federal service—contributed because years of service was used in computing the retirees' initial pensions. Our regression model showed that the value of the COLAs that the sample retirees received, as determined by the number and size of COLAs and the length of employees' retirement, together with their years of federal service, explained about 82 percent of the variation in the percentage by which the retirees' pensions exceeded their unadjusted final salaries. The important role that COLAs and length of service played is a predictable consequence of pension policies that are designed to reward employee service and maintain the purchasing power of pensions.

During retirement, the retirees' pensions increased because the COLAs that the retirees were to receive increased in number. The amount of the increase each year fluctuated according to changes in the CPI-W. In contrast, unadjusted final salaries remained unchanged. Thus, the longer the annuitants had been retired, the more COLAs they received and the more likely it was that their pensions exceeded their unadjusted final salaries. In fact, the average annuitant in our sample had been retired about 22 years and had received 26 COLAs. The 4 percent who had retired before 1963 had received 36 COLAs.

Generally, the likelihood that a retiree's pension exceeded his or her unadjusted final salary increased when the annuitant had been retired during periods of high inflation, because larger COLAs were given during these periods.[15] Our model showed that, on average, a 1 percentage point increase in the total value of the COLAs that a retiree had received would result in a 0.5 percentage point increase in the amount by which the retiree's pension exceeded his or her final salary, other factors being equal.[16] In particular, more than 90 percent of the retirees in our sample

[15]As noted, although CSRS and FERS COLA policies differ from each other and from COLA policies of the past, these differences do not affect whether a pension would come to exceed an unadjusted final salary, but rather, when.

[16]In considering these and the other regression results in this report, it is important to recognize that the results can be applied only to those retirees whose 1995 pensions had come to exceed their unadjusted final salaries.

had been retired during all or part of the 1969 through 1980 period when the most frequent and largest COLAs were given. Over this 12-year period, pensions increased by 166 percent in nominal terms. Appendix I provides a summary of COLA history since automatic COLAs were enacted in 1962.

The number of years of federal service also contributed to the explanation of why some retirees' pensions exceeded their unadjusted final salaries, because years of service is included in determining the percentage of high-3 average salary that a retiree ultimately will receive as his or her initial pension. For example, under CSRS, an employee who had 41 years, 11 months of service at retirement would have been entitled to receive 80 percent of his or her high-3 average salary—the maximum percentage allowed—while an employee who had worked 30 years would have been entitled to receive 56.25 percent.[17] As a result, the longer a retiree had worked for the federal government, the closer the retiree's initial pension would have been to his or her unadjusted final salary. Nineteen (5 percent) of the retirees in our sample had worked 40 years or more for the federal government, and another 288 (83 percent) had worked 20 to 39 years. The remaining 41 (12 percent) worked 5 to 19 years.[18] Our model showed that on average, a 1-year increase in a retiree's federal service time would result in about a 3.7 percentage point increase in the percentage by which the retiree's pension had exceeded his or her final salary, other factors being equal.

A final factor—whether a retiree had chosen a survivor's annuity benefit—helped to explain why some retirees' pensions had come to exceed their unadjusted final salaries as much as they did. As noted in the background section of this report, an employee who chooses a survivor annuity benefit can have his or her basic annuity reduced by as much as 10 percent. As a consequence, if two retirees retired in the same year and had the same final salaries and years of service, but only one had chosen a survivor annuity benefit, the retiree who elected not to take the benefit would have had a pension that exceeded his or her unadjusted final salary sooner than the retiree who had chosen the survivor benefit.[19] An

[17]CSRS retirees may receive additional service credit for unused sick leave, which would allow them to exceed the 80-percent rule. In contrast, FERS does not have a maximum percentage base. The formula used to calculate initial annuities under FERS provides a lower annuity than the one used under CSRS. Thus, it is unlikely that someone who has government service solely under the FERS pension plan would receive as much as the maximum percentage base allowed under CSRS.

[18]The vast majority (76 percent) of these annuitants retired under disability.

[19]Also, retirees who had chosen a survivor's annuity benefit and who became divorced or whose spouses died during their retirement would have exceeded their final salaries sooner than they otherwise would have because their pensions were increased due to a change of marital status.

employee who chose a survivor annuity benefit would have reduced the initial pension and thus increased the gap between the initial annuity and the final salary. Of the CSRS retirees in our sample, 48 percent were not having survivor benefits deducted from their pensions.

Some Retirees' Pensions Would Have Been Smaller, Others Larger, Had Current Policy Been in Effect Without Interruption

Had current COLA policy—that is, the COLA policy enacted in 1984, which established the formula and schedule used today by OPM—been in effect without interruption since 1962, some sample retirees' pensions would have been smaller than the pensions that they actually received, and other retirees' pensions would have been larger. Our simulations suggest that other factors being equal, the majority of those who retired before 1970 would have received smaller pensions, while about 90 percent of those who retired after 1970 would have received larger ones.[20] If current policy had been in effect for all retirees in the sample, the number of retirees whose pensions would have exceeded their unadjusted final salaries would have increased by about 3 percentage points.

The Effects of COLA Policies Would Have Differed, Depending on When Annuitants Retired

The following examples compare the pensions that retirees would have received under current versus actual COLA policy by simulating the effects that changes in COLA policy would have had on pension amounts, other factors being equal. The examples cover three different periods—1961 to 1995, 1968 to 1995, and 1981 to 1995—and show how the impacts would have varied, depending on the period of retirement.[21] In considering the meaning of the figures, it is important to recognize that the trend lines refer to current versus historical CSRS COLA policy. FERS lines were not presented because, as stated earlier in this report, none of the FERS retirees received an annuity that was based solely on his or her FERS participation.

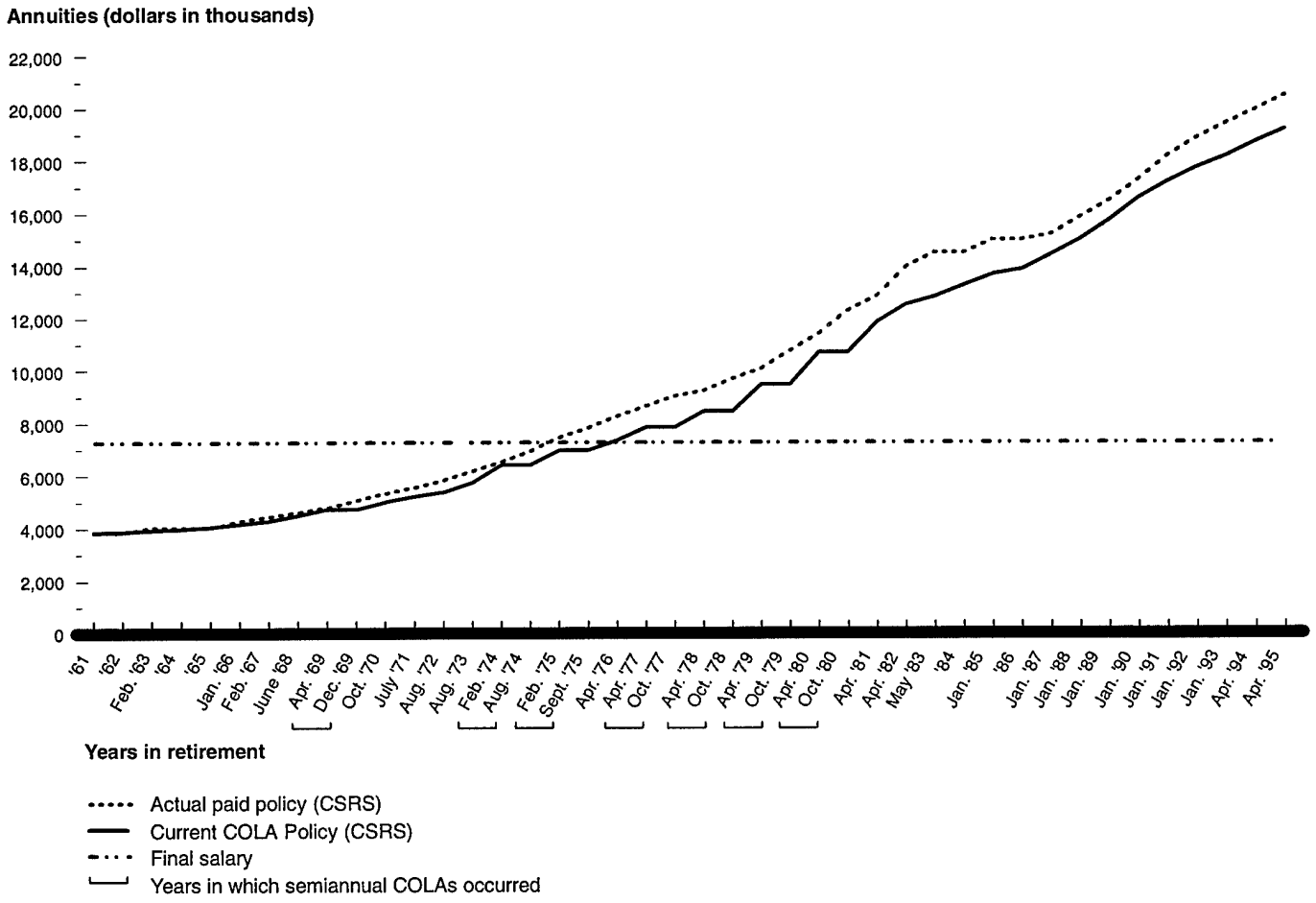
Figure 1 shows the relative effects of current and actual policy for a CSRS participant who retired in 1961. As the figure shows, if the current policy had been in effect without interruption, the retiree's pension would have been smaller over the period. Our analysis showed that by 1995 the retiree's pension would have been 6.3 percent smaller than it was under the actual COLA policy. However, as the gap shown between the 1995 pension and the unadjusted final salary amount makes clear, such a

[20]The margin of error is plus or minus 5 percent with a 95-percent confidence interval.

[21]As stated in the scope and methodology section of this report, we used the average initial pension for the sample annuitants who retired in the first year of each period as the starting pension amount for all three figures. However, the amount that we used for the beginning pension did not matter because, in percentage terms, the impacts would have been the same for any beginning annuity that we selected.

reduction would not have been nearly enough to have caused the retiree's pension to fall below his or her final unadjusted salary.

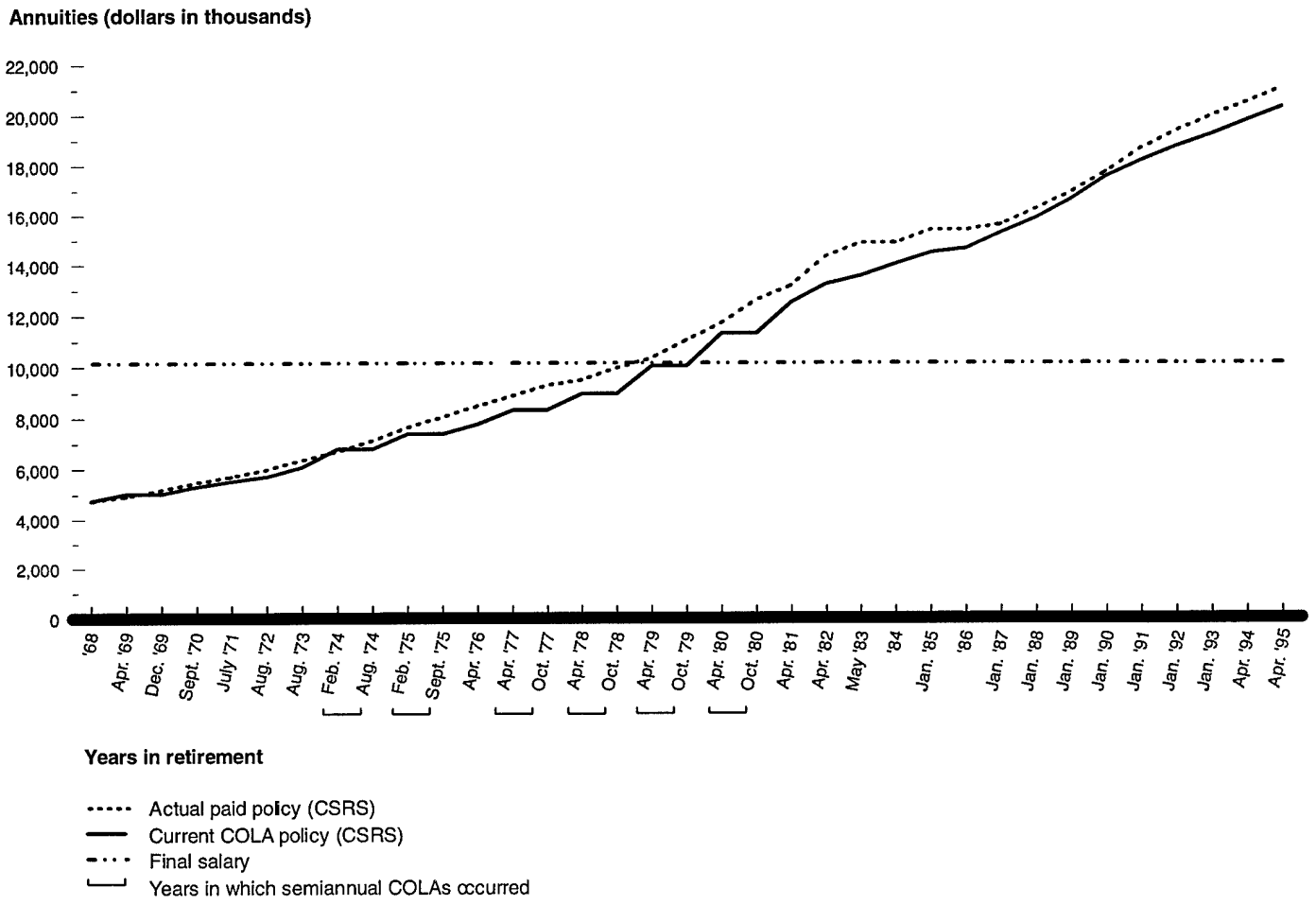
Figure 1: Comparison of the Effects of Actual COLA Policy and Current COLA Policy, Had It Been in Effect for the Average Sampled CSRS Employee Who Retired in 1961



Source: GAO analysis of OPM data.

Figure 2 shows similar results for an annuitant who retired in 1968. In this example, our analysis showed that the retiree's pension would have been 3.5 percent smaller if current policy had been in effect without interruption. The reduction in this annuitant's pension is less proportionally than the reduction in the pension of the annuitant who had been retired since 1961 (shown in fig. 1), primarily because of the difference in the number of the COLAs that were received and, to a lesser extent, the shorter period of compounding. Again, the reduction would not have been large enough to cause the retiree's 1995 pension to fall below his or her unadjusted final salary.

Figure 2: Comparison of the Effects of Actual COLA Policy and Current COLA Policy, Had It Been in Effect for the Average Sampled CSRS Employee Who Retired in 1968

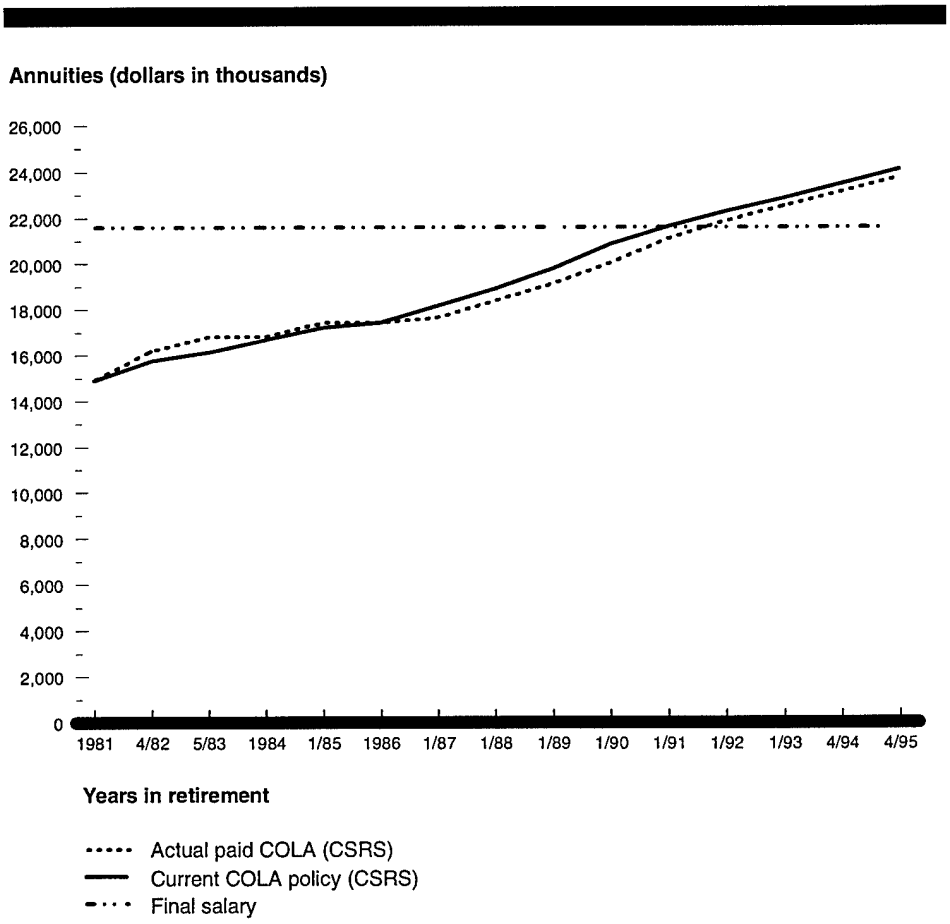


Source: GAO analysis of OPM data.

The third example (fig. 3) shows the results for an annuitant who retired in 1981. The retiree's pension would have been larger if current policy had been in effect without interruption. As the figure shows, under actual policy, the retiree did not receive a COLA in 1984 or 1986, which caused this retiree's pension to fall somewhat short of the pension that he or she would have received had current policy been in effect. Because the effects

of these suspensions continued to be reflected in the pension amounts that the retiree received in subsequent years, by 1995 the retiree's pension would have been 1.4 percent larger under current, compared to historical, COLA policy.

Figure 3: Comparison of the Effects of Actual COLA Policy and Current COLA Policy, Had It Been in Effect for the Average Sampled CSRS Employee Who Retired in 1981



Source: GAO analysis of OPM data.

The Percentage of Retirees Whose Pensions Exceeded Their Unadjusted Salaries Would Have Been Higher If Current Policy Had Been in Effect

The increases in the pensions of some sample retirees, if current policy had been in effect the entire time, would have been enough to cause an increase of 3.0 percentage points in the number of retirees whose pensions exceeded their unadjusted final salaries. When we estimated what the sample retirees' pensions would have been if current policy had been in effect without interruption, we found that about 29 percent of retirees would have had annuities that exceeded their unadjusted final salaries, compared to about 26 percent under the actual policy simulation.[22] Although the difference was quite small, it was statistically significant.[23]

The two estimates differed by about 3 percentage points in part because the effects of COLAs on pension amounts are cumulative and compound. In particular, the suspensions of COLAs during 1980s tended to offset the COLA policies of the 1960s and 1970s that overcompensated for inflation.

Observations

Our analysis of the effects that COLA policies have had on retiree pensions shows that the policies have played an important role in maintaining the purchasing power of retiree pensions since automatic COLAs began. Although COLA policies of the 1960s and 1970s overcompensated for the effects of inflation as measured by the CPI, COLA policies of the 1980s sometimes under-compensated. And, although current COLA policy would have tracked the CPI more closely had it been applied over the period we reviewed compared with some past COLA policies, the numerous changes that have been made in COLA policies over the past 35 years did not cause any retiree's pension to exceed his or her final salary when the salaries were adjusted for inflation.

Our analysis also shows that the effects that COLA policies actually have on retiree pension amounts cannot be summarized easily. Generalization is difficult, in part because no one COLA policy has ever been implemented for a sustained period. For example, although the current underlying policy

[22]Since legislative changes made after 1984 did not permanently affect the COLA formula or schedule, we did not include them in our analysis of current COLA policy. However, these changes were included in our actual COLA policy analysis. Thus, because our simulation of COLA policies used the initial annuity as the starting point for adding COLAs, our simulation did not include any adjustments (e.g., loss of survivor's annuity benefit due to spouse's death) to annuities subsequent to the calculation of the initial annuity. When these adjustments are considered by using the annuity received in 1995, the percentage of those retirees exceeding their final salaries is 27 percent.

[23]Of the 398 sample cases for which data were available, 38 had pensions that were below their final salaries under actual COLA policy but above their final salaries under current COLA policy. None of the sample retirees whose pensions were above their final salaries under actual COLA policy had pensions below their final salaries under current COLA policy. The estimate that about 3 percent more of the pensions would have exceeded final salaries under current COLA policy compared to actual COLA policy is surrounded by a 95-percent confidence interval that extends from about 2 to 4 percent.

has been in effect since 1984, Congress has modified this policy several times for limited periods to help reduce the deficit. Also, the effects of many individual COLAs and COLA policy changes are cumulative and compound over time. As a consequence, COLA policy changes have affected individual retirees differently, depending on when they retired. In particular, the effects of the COLA policies of the 1960s and 1970s that overcompensated for inflation will continue to have an effect on retiree pensions for as long as those who received them are alive, just as not receiving scheduled COLAs in 1984 and the suspension of COLAs in 1986 will continue to be reflected in the pensions of anyone who retired before these years.

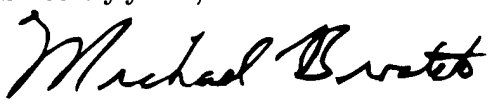
Agency Comments and Our Evaluation

We received oral comments on a draft of this report from OPM on July 16, 1997. OPM officials who provided comments included Federal Retirement Benefits Specialists from the Retirement Policy Division and a Program Analyst from the Retirement and Insurance Service. These officials generally concurred with the information and conclusions presented in our report. In particular, they agreed that using constant dollars, rather than nominal dollars, is a more meaningful way to compare retiree pensions to final salaries and that the statutory factors that are designed to maintain pension purchasing power and reward employees with longer service play a major role in determining whether pensions come to exceed nominal final salaries. These officials also provided a number of technical and clarifying comments, which we incorporated into this report where appropriate.

We are sending copies of this report to the Ranking Minority Member of your Committee and the Chairmen and Ranking Minority Members of the Subcommittee on International Security, Proliferation, and Federal Services, Senate Committee on Governmental Affairs; and to the Subcommittee on Civil Service, House Committee on Government Reform and Oversight. Copies of this report are also being sent to the Director of OPM and other parties interested in federal retirement matters and will be made available to others upon request.

Major contributors to this report are listed in appendix II. If you have any questions, please call me at (202) 512-9039.

Sincerely yours,



Michael Brostek
Associate Director, Federal Management
and Workforce Issues

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Abbreviations

COLA	cost-of-living adjustment
CPI	consumer price index
CPI-W	wage earner index
CRS	Congressional Research Service
CSRS	Civil Service Retirement System
FERS	Federal Employees Retirement System
OPM	Office of Personnel Management

Summary of COLA History Since Automatic COLAS Were Enacted in 1962

Measuring period	Effective date[a]	Date paid[b]	CSRS COLA	FERS COLA[c]
*	1/63	2/63	5.0	-
**	12/65	1/66	6.1	-
**	1/67	2/67	3.9	-
**	5/68	6/68	3.9	-
**	3/69	4/69	3.9	-
**	11/69	12/69	5.0	-
**	8/70	9/70	5.6	-
**	6/71	7/71	4.5	-
**	7/72	8/72	4.8	-
**	7/73	8/73	6.1	-
**	1/74	2/74	5.5	-
**	7/74	8/74	6.3	-
**	1/75	2/75	7.3	-
**	8/75	9/75	5.1	-
**	3/76	4/76	5.4	-
June-December 1976	3/77	4/77	4.8	-
December-June 1976/77	9/77	10/77	4.3	-
June-December 1977	3/78	4/78	2.4	-
December-June 1977/78	9/78	10/78	4.9	-
June-December 1978	3/79	4/79	3.9	-
December-June 1978/79	9/79	10/79	6.9	-
June-December 1979	3/80	4/80	6.0	-
December-June 1979/80	9/80	10/80	7.7	-
June-December 1980	3/81	4/81	4.4	-
Dec. 1980-Dec. 1981	3/82	4/82	8.7	-
Dec. 1981-Dec. 1982	4/83	5/83	3.9[d]	-
3rd qtr. 1984-3rd qtr. 1983[e]	12/84	1/85	3.5	-
3rd qtr. 1985-3rd qtr. 1984	12/85	1/86	0.0	-
3rd qtr. 1986-3rd qtr. 1985	12/86	1/87	1.3	-
3rd qtr. 1987-3rd qtr. 1986	12/87	1/88	4.2	-
3rd qtr. 1988-3rd qtr. 1987	12/88	1/89	4.0	3.0
3rd qtr. 1989-3rd qtr. 1988	12/89	1/90	4.7	3.7
3rd qtr. 1990-3rd qtr. 1989	12/90	1/91	5.4	4.4
3rd qtr. 1991-3rd qtr. 1990	12/91	1/92	3.7	2.7
3rd qtr. 1992-3rd qtr. 1991	12/92	1/93	3.0	2.0
3rd qtr. 1993-3rd qtr. 1992	3/94	4/94	2.6	2.0

(continued)

Measuring period	Effective date[a]	Date paid[b]	CSRS COLA	FERS COLA[c]
3rd qtr. 1994-3rd qtr. 1993	3/95	4/95	2.8	2.0
3rd qtr. 1995-3rd qtr. 1994	3/96	4/96	2.6	2.0

Legend

* = Adjustments made whenever the CPI in a year exceeded the CPI in the base year by 3 percent or more.

** = Adjustments made whenever the CPI in a month rose by at least 3 percent over the month of the last adjustment and remained at or above that level for 3 consecutive months.

[a]The "effective date" column indicates the month the COLA went into effect.

[b]The "date paid" column indicates the month the retiree received the COLA.

[c]All disability retirees (and survivors) and nondisability retirees age 62 or over. (The first FERS COLA was effective in December 1988 and payable in January 1989.)

[d]The COLA rate was 3.3 percent for nondisabled retirees under age 62.

[e]Due to a change in the adjustment period, no COLA paid in 1984.

Sources: OPM and CRS.

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Acknowledgement

In addition to those named above, Jerry T. Sandau, Social Science Analyst, GGD, contributed through his development of the regression analysis results presented in this report.

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