The Budgetary Treatment of Federal Civilian Agency Pay Raises: A Technical Analysis

Special Study

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THE BUDGETARY TREATMENT OF FEDERAL CIVILIAN AGENCY PAY RAISES: A TECHNICAL ANALYSIS

The Congress of the United States
Congressional Budget Office

NOTES

Unless otherwise noted, all years referred to in this report are fiscal years.

Details in the text, tables, and figures of this report may not add to totals because of rounding.

In tables, BA refers to budget authority, O signifies outlays.

PREFACE

The Congressional Budget Act (Public Law 93-344) requires the Congressional Budget Office (CBO) to submit an annual report on budgetary projections and to assist the House and Senate Committees on the Budget in preparing the Congressional budget resolutions. As part of these responsibilities, CBO periodically issues technical analysis papers that provide background information and documentation on CBO's budget estimates. This paper, the latest in the series, reviews the budgetary treatment of federal civilian agency pay raises and describes how CBO estimates the costs of those pay raises.

The report was written by Charles Essick of the Projections Unit, Budget Analysis Division, under the supervision of Paul N. Van de Water and James L. Blum. The author gratefully acknowledges the assistance of Frank White of the Office of Management and Budget and Fred Hohlweg of the Office of Personnel Management. Valuable comments were provided by David Delquadro, Robert Hartman, and the Projections Unit staff. Francis Pierce edited the report, and David A. Bashore prepared it for publication.

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SUMMARY

This report deals with the treatment of civilian agency pay raises in the federal budget. It addresses two primary topics: the major determinants of federal civilian pay costs, and the model used by CBO to project the cost of civilian agency pay raises.

These topics are important for two reasons. First, federal civilian agency pay raises usually involve a great deal of money. In 1982, for example, the Congress appropriated nearly $1 billion to cover the cost of the 4.8 percent pay adjustment approved for civilian agency workers in that year. Because the actual level of expenditures depends largely on policy decisions made by the President and the Congress, the ramifications of federal pay policy should be made as clear as possible. Second, computing federal pay costs is very complex, largely because of the numerous pay systems maintained by the federal government. Separate salary schedules exist for regular white-collar employees (General Schedule), Foreign Service workers, doctors and nurses, blue-collar employees, uniformed personnel, and top-level federal executives. Because of this complexity, CBO has developed a computerized model for projecting the additional budget authority and outlays required to finance anticipated pay raises for federal workers. This model projects pay raise costs for a five-year period.

MAJOR FACTORS AFFECTING FEDERAL PAY

In drawing up budget estimates to cover federal civilian pay raises in future years, the analyst must consider (1) the effect of policy decisions on the rate of increase in federal pay, and (2) the extent to which pay increases are to be covered by additional funding. Personnel policies such as promotion rates and employment levels do not, as a rule, affect the budget estimates.

Determining the Annual Pay Rate Adjustment

The specific pay rate increase assumed in future years is dependent on the nature of the budget projection or cost estimate required. Sometimes CBO is asked to calculate the cost associated with a comparability pay rate adjustment. The principle of comparability requires federal workers to receive salaries and wages that are comparable to those received by workers serving similar functions in the private sector. As a result, comparability reflects not only the annual change in wages and salaries for certain

private-sector jobs but also other differences in federal and non-federal jobs, such as the gap between federal and private-sector pay caused by past caps on federal salaries. For fiscal year 1983, for example, the Office of Personnel Management (OPM) estimated that a pay adjustment of 18.5 percent would be required to achieve comparability. The catch-up component of this increase (in other words, the adjustment necessary to make up for past pay caps) was over 8 percent.

On other occasions, CBO is asked to prepare pay raise cost estimates under the assumption that federal workers will receive a salary adjustment based on the actual annual change in private-sector pay. This differs from comparability, of course, in that the catch-up adjustment is not included. Moreover, given that private-sector wages and salaries are determined by a wide range of factors affecting labor market conditions, this measure is more than an indicator of annual price changes.

While a number of factors can affect the size of the annual federal pay adjustment, the Congress and the President ultimately decide what the increase will be. Consequently, most CBO pay raise cost estimates involve projecting the level of expenditures resulting from a pay plan proposed by the Administration or the Congress. These estimates allow the budget committees to compare various pay raise proposals as they formulate a budget resolution. In 1983, for example, the Congress and the President chose to use neither comparability nor the annual change in private-sector pay as the basis for a pay rate increase. Rather, an arbitrary increase of 4 percent was approved for most federal employees.

Summary Table 1 shows the pay rate adjustments that would have taken place under the comparability or the private-sector pay change criteria as compared with actual increases over the last five years.

SUMMARY TABLE 1. ALTERNATIVE CRITERIA FOR FEDERAL WHITE-COLLAR PAY RATE INCREASES (In percents)

Effective Date	Comparability Increase	Annual Private-Sector Pay Change	Actual Increase
October 1978	8.40	8.40	5.46
October 1979	10.41	7.41	7.02
October 1980	13.46	9.97	9.10
October 1981	15.12	10.69	4.80
October 1982	18.47	7.85	4.00

Funding the Pay Rate Increase

Federal agencies are often required by the Congress to finance increased pay costs out of existing funds. This process, known as absorption, results in reduced expenditures for other administrative items. While absorption does not lower the total cost of a federal civilian pay raise (unless an agency chooses, as it rarely does, to reduce its staffing to achieve absorption savings), it does affect the amount of additional funding received by the agencies to cover the cost. Summary Table 2 details the absorption rates proposed by the President as well as the rates implicit in actual Congressional appropriation levels for the last five years.

SUMMARY TABLE 2. PAY RAISE ABSORPTION RATES--AVERAGE FOR ALL CIVILIAN AGENCIES (In percents)

Fiscal Year	President's Request	Enacted by the Congress
1978	13	11
1979	32	45
1980	11	31
1981	31	37
1982	42	38

Federal Promotions and Employment Levels

The CBO civilian agency pay raise model assumes that there will be no increase in outlays because of grade and step increases (which amount to promotions) for federal workers. Since 1978 the mean federal grade and step have remained relatively constant, reflecting the fact that as some federal workers are being promoted others are leaving the federal service altogether. For this reason, grade and step increases have virtually no net effect on the annual change in the federal payroll. Similarly, CBO assumes a constant level of employment in its civilian agency pay estimates unless an alternative policy is specified.

THE MODEL

Estimating the cost of prospective pay rate adjustments involves three steps: determining the effective rate of increase in white-collar pay given the existence of a statutory pay ceiling; estimating the first-year cost of a

pay raise for different categories of workers; and projecting multiyear pay raise costs reflecting absorption.

Estimating the Effective Pay Rate Increase

In recent years, the Congress has frequently chosen to limit the maximum salary payable to federal workers by setting a ceiling on federal pay. The first continuing resolution for 1983, for example, capped General Schedule pay at $57,500 and Senior Executive Service pay at $58,500. When a ceiling is in place, employees near or at the ceiling receive only a portion of the annual increase or no increase at all. Consequently, a pay ceiling has the effect of reducing the average rate of increase in the federal payroll to a level lower than the stated increase approved by the Congress.

The effective pay rate increase is calculated in three steps. First, the current-year payroll is estimated by multiplying the number of workers at each grade and step of the white-collar pay schedules by their present salaries. Second, the new white-collar payroll is calculated using the assumed pay rate adjustment and the applicable pay ceiling. Third, the effective pay rate increase is computed as the annual percentage change in the payroll.

Estimating the First-Year Cost of a Pay Adjustment

To estimate the first-year cost of a prospective pay rate increase, the model breaks the civilian agency work force into four groups: General Schedule and related white-collar schedule employees; military personnel employed by civilian agencies; blue-collar workers; and white-collar employees paid out of trust and revolving funds. The model deals with these groups separately because a pay adjustment generates a different pattern of spending for each group.

For General Schedule employees other than those paid out of trust and revolving funds, the increase in budget authority resulting from a pay rate adjustment is estimated by multiplying the effective pay rate increase by the total payroll for that group. The increase in outlays is then calculated by applying a spendout rate to the change in budget authority. The spendout rate is simply the percentage of the additional budget authority expended in a given year. The outlays resulting from a federal pay raise are less than the increase in budget authority because federal workers do not receive their final paychecks for work performed in any fiscal year until the first pay day of the following year.

First-year increases in budget authority and outlays for military employees of civilian agencies (such as uniformed Coast Guard workers) are projected using a methodology similar to the one used for regular white-collar workers. In this case, however, the effective pay rate increase frequently differs from the adjustment going to other civilian agency employees.

White-collar workers paid out of trust and revolving funds are treated separately by the model because a pay rate adjustment for this group increases outlays but not budget authority. This is because the budget authority for these workers is equal to all receipts of the fund from which they are paid.

Increased pay costs for federal blue-collar workers are singled out because, unlike other federal employees, their pay adjustments do not all take effect on the same day. Rather, the date on which blue-collar workers receive their increase varies by local wage area. This reduces the first-year spendout rate for wage board workers to a level lower than the rate for other categories of federal employees.

Calculating Multiyear Expenditures with Absorption

The third component of the model uses the first-year cost figures estimated for each worker category and an assumed level of absorption to produce a five-year projection of the total additional funding necessary to finance a pay rate increase for civilian agency workers. The unabsorbed portion of the pay raise in the first year is calculated by simply multiplying the full cost of the pay increase by the percentage that is not absorbed. In later years, however, absorption applies only to the latest year of a multi-year projection. This approach is consistent with recent Congressional action generally treating absorption as a temporary rather than a permanent funding reduction.

CURRENT PAY ESTIMATES

The report illustrates the results of the pay raise model with three examples. The first is the CBO baseline used by the budget committees in their fiscal 1983 budget deliberations. The second is CBO's estimate of the costs associated with the pay rate adjustments assumed in the First Concurrent Resolution on the Budget for Fiscal Year 1983. The third is CBO's reestimate of the Administration's 1983 Mid-Session Review.

Summary Table 3 shows the changes the budget committees made in the CBO baseline in order to arrive at budget totals for civilian agency pay raises. The 1983 budget resolution assumed civilian pay raises of 4 percent and an annual absorption rate of 50 percent. This contrasts with the baseline pay raise assumptions of 8 percent, 7.6 percent, and 6.4 percent for the 1983 to 1985 period, with no absorption. The reduced rates of pay increase and the assumed absorption would save roughly $2 billion in 1983, $3 billion in 1984, and $4 billion in 1985.

SUMMARY TABLE 3. COMPARISON OF CBO BASELINE PAY ESTIMATES FOR CIVILIAN AGENCIES WITH THOSE OF THE FIRST CONCURRENT RESOLUTION (By fiscal year, in millions of dollars)

	1983	1984	1985
Baseline Outlays	2,413	5,101	7,560
FCR Pay Raise Savings	-1,180	-2,478	-3,501
FCR Absorption Savings	-604	-654	-679
Total FCR Savings	-1,811	-3,188	-4,258
Total Outlay Increase Assumed in FCR	602	1,913	3,302

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CHAPTER I. INTRODUCTION

The Congressional Budget Office (CBO), as part of its ongoing effort to help users of CBO budget estimates better understand and interpret these estimates, publishes periodic reports on its budget methodology. This report concerns the budgetary treatment of federal civilian agency pay raises--in particular, the effect of the policy environment in which pay raise decisions are made, and the model used by CBO to estimate the cost of those pay raises.

Many factors affect the cost of paying federal civilian employees. Principal among these are the process used to determine the annual rate of increase in federal pay, and the decision regarding what portion of the full cost of the adjustment will be financed by appropriations. In both cases, budgetary considerations have begun to play an increasingly important role.

In developing a budget resolution, the Congress often asks CBO to prepare several pay raise cost estimates using different economic and technical assumptions. The model allows these projections to be computed quickly and accurately so that comparisons can be made between the various alternatives.

Chapter II provides background on some of the major factors affecting pay increase projections. Chapter III explains the CBO approach to estimating the cost of pay raises, the data required by the model, its internal logic, and the final projections produced. Chapter IV details a number of current pay estimates obtained from the model.

CHAPTER II. PAY RAISES IN THE FEDERAL BUDGET

This chapter provides background information on some of the major factors affecting federal civilian pay and, therefore, the CBO pay-raise model. The first section discusses the process that determines the annual rate of increase in federal pay. A brief description of the principle of pay comparability and the methodology used to determine comparability is included. The second section describes the process by which federal agencies are required to absorb a portion of the first-year cost of a salary adjustment by reducing other administrative expenditures. Recent Congressional actions regarding pay absorption are also discussed. The third section examines the way CBO presents federal pay in its budget projections. The final section discusses the net budgetary effects of a pay raise for federal civilian workers.

THE PAY RATE ADJUSTMENT MECHANISM

The laws governing the pay of federal civilian employees are intended to ensure salary comparability with workers serving similar functions in the private sector. The principle of comparability, established for white-collar workers by the Federal Pay Comparability Act of 1970 and for blue-collar workers by Public Law 92-392, is designed to attract and retain highly qualified people in government, while at the same time avoiding competition with the private sector that might lead to increased labor costs.1/ Once achieved, pay comparability is to be preserved through appropriate annual salary adjustments.

Different mechanisms are used to determine comparability adjustments for white- and blue-collar workers. The increase in pay rates necessary to achieve and maintain pay comparability for white-collar workers is based on the findings of the annual Professional, Administrative, Technical, and Clerical (PATC) Survey of private-sector pay in approximately 100 job descriptions. Under the comparability legislation, salaries may be adjusted differently for each federal grade, although a single rate of increase has been applied to all grades in most

1. Congressional Research Service, Proposed Federal Pay Reform (Library of Congress, 1980), p. CRS-3.

years.2/ Comparability adjustments for blue-collar workers, on the other hand, are based on local wage surveys in each of 135 local wage areas. These surveys are conducted at various times throughout the year and cover workers in all regular blue-collar pay plans.3/

While there is a general consensus that comparability should govern the federal pay-setting process, there is disagreement as to how comparability should be defined. For example, some critics charge that the current system is flawed because it fails to reflect differences in fringe benefits and job security as factors in setting federal pay levels. These critics also argue that the exclusion of state and local government employees from the annual wage and salary surveys has resulted in an upward bias in the federal pay rates.4/

During its first year in office, the Reagan Administration proposed a comprehensive pay reform plan designed to deal with these concerns. The Administration withdrew this proposal in 1982, however, in order to consider certain Congressional objections and other proposals. According to the President's 1983 budget message, a new proposal should be ready in time for the 1984 budget.5/

Although comparability is the guiding principle in setting federal pay under current law, the President and the Congress have great discretion in determining what the annual adjustment should be. In the event of a national emergency or adverse economic conditions, the President may offer an alternative pay plan based on factors other than comparability, as he has done in each of the last five years.6/ The alternative plan goes into effect

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2. Office of Personnel Management, Annual Report of the President's Pay Agent, 1981 (August 21, 1981), pp. 1-6.

3. Congressional Budget Office, Alternative Approaches to Adjusting Compensation for Federal Blue-Collar Employees (November 1980), pp. 5-17.

4. Congressional Budget Office, Compensation Reform for White-Collar Employees: The Administration's Proposal and Budgetary Options for 1981 (May 1980), pp. 8-15.

5. Budget of the United States Government, Fiscal Year 1983, "Special Analysis I: Civilian Employment in the Executive Branch," p. 9.

6. Federal Pay Comparability Act of 1970, 5 USC 5301(c) (1).

unless either House registers a vote of disapproval. If the Congress rejects the alternative plan without making some provision for limiting federal pay adjustments, the comparability increase automatically takes effect.7/

A list of actual white-collar pay rate increases for the last 11 years appears in Table 1. These adjustments were effective as of the first pay period in October, as provided in the comparability legislation. The October 1978 through October 1982 adjustments took place under the alternative plan provision of the 1970 act, and were applied to both white- and blue-collar employees.

DETERMINING THE PERCENTAGE INCREASE IN PAY RATES

The specific pay rate increase assumed for future years is dependent on the nature of the budget projection or cost estimate required. For some purposes, CBO is asked to assume a pay rate increase based on factors other than comparability--for example, the adjustment requested by the President or assumed in a Congressional budget resolution. On other occasions, the assumed pay rate increase reflects the salary adjustment projected as necessary to maintain comparability.8/ In such cases, the required pay increase is projected by an equation relating the annual percentage change in the PATC survey to the annual change in average hourly earnings, and adding the catch-up percentage needed to compensate for past pay caps.

The following regression equation is used for this purpose (standard errors in parentheses):

(1) $$\Delta\%\ PATC = -1.47 + 1.173\ (\Delta\%\ AHE) \qquad R^2=0.84$$
$$(1.00)\ \ (0.136) \qquad DW=1.93$$

Sample period: 1967-1981 (annual data)

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7. The 1982 Reconciliation Act serves as a good example of the flexibility the Congress has in setting federal pay rates. This act substituted a 4 percent pay raise for the comparability raise in the event that the President's alternative plan for fiscal year 1983 was rejected.

8. Although the methodology described in this report assumes a single pay rate increase for all workers covered by a given salary schedule, the CBO model is capable of handling pay adjustments that vary by grade.

TABLE 1. HISTORICAL FEDERAL WHITE-COLLAR PAY RATE INCREASES (In percents)

Effective Date	Actual	Increases Based on Comparability	
		With Catch-up a/	Without Catch-up
October 1972	5.14	5.14	5.14
October 1973	4.77	4.77	4.77
October 1974	5.48	5.48	5.48
October 1975	5.00	8.66 b/	8.66
October 1976	5.17	5.17 c/	1.62 b/
October 1977	7.03	7.03	7.03
October 1978	5.46	8.40	8.40
October 1979	7.02	10.41 c/	7.41
October 1980	9.10	13.46 c/	9.97
October 1981	4.80	15.12 c/	10.69
October 1982	4.00	18.47 c/	7.85

a. Catch-up increases are those required to compensate for past pay caps.

b. The irregular pattern between 1974 and 1976 results from administrative changes in the PATC survey.

c. Includes catch-up increase.

SOURCE: Office of Personnel Management, White-Collar Pay Systems Division

where:

$\Delta\%$ PATC = Annual percentage change in the Professional, Administrative, Technical, and Clerical Survey

$\Delta\%$ AHE = Annual percentage change (first quarter over first quarter) in average hourly earnings of private nonfarm employees

The existence of a pay ceiling also affects the average pay rate increase received by federal employees. In recent years, the Congress has frequently chosen not to provide top-level federal executives with the annual salary increases approved for other employees. As a result, the

effective rate of increase for the federal work force as a whole turns out to be lower than the stated rate of increase approved by the Congress during the years a pay ceiling is in place.

The 1983 continuing appropriation (H.J. Res. 599), for example, retains the pay ceilings of $57,500 for General Schedule employees and $58,500 for members of the Senior Executive Service. This reduces the effective federal white-collar salary adjustment for fiscal year 1983 from a stated rate of 4.0 percent to an average effective rate of 3.9 percent.

To illustrate the methodology used in estimating comparability pay increases, suppose that the PATC survey showed an 18.5 percent raise as necessary to achieve comparability in October 1982. Given that a 3.9 percent effective increase was actually approved for that year, a 14.1 percent catch-up raise would be required (1.185/1.039 = 1.141).

Assuming that the projected increase in the PATC survey from the first quarter of calendar year 1982 to the first quarter of calendar year 1983 is 8.5 percent, the required comparability increase scheduled to take effect on October 1, 1983, would be 23.8 percent (1.141 x 1.085 = 1.238). The pay rate increases estimated for subsequent years would simply equal the projected annual increase in the PATC survey.

ABSORPTION

Absorption refers to the process by which federal agencies are required to finance a portion of the first-year cost of a pay raise out of existing budget authority. Essentially, the process works in the following manner.

Each year the Office of Management and Budget sends a directive to the heads of all federal executive departments stipulating the level of absorption they must achieve and providing guidance on how increased pay costs may be absorbed. The fiscal year 1982 directive, for example, stated that agencies would be required to absorb a minimum of 50 percent of the increased costs associated with the October 1981 pay adjustment.9/

Agencies are generally required to meet their absorption targets in one of three ways. First, all savings within a given budget account resulting from such factors as lower than anticipated personnel levels and reduced

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9. Office of Management and Budget, Increased Pay Absorption, Bulletin No. 82-4, November 2, 1981, p. 3.

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disbursements for other administrative items are supposed to be used to fund the salary adjustment whenever possible. Second, when the money in a salary account is too low to fund the adjustment, an agency is often directed to use its existing authority to transfer funds from other accounts. Finally, when these measures prove inadequate in meeting absorption targets, the agency may apply to OMB for additional transfer authority between its accounts.

After this process is complete, federal agencies come before the Congress during the spring or summer to request supplemental appropriations to fund the salary adjustment approved for that year. Implicit in the request is the President's absorption percentage for each agency. If, for example, the President's supplemental appropriations request for a particular agency is equal to 80 percent of the full cost of the pay adjustment, the level of absorption assumed in the request is 20 percent. When the appropriations committees review an agency's proposal, they determine what percentage of the full cost of the raise the agency must absorb and, as a result, the amount of additional funding the agency will receive.

In the past, the Congress has generally treated absorption as a temporary rather than a permanent funding reduction.10/ The reasoning behind this approach becomes more clear when one considers that absorption is actually a reduction in an agency's other administrative funding.11/ If the Congress repeatedly treated absorption as permanent, the expense portion of numerous spending accounts could be reduced to very low levels. The rate of decline would depend, of course, on the percentage of the agency's budget targeted for pay, the magnitude of the pay rate adjustments granted over time, and the levels of absorption approved by the Congress.

This year, in a partial departure from past practice, the Congress voted in the budget resolution to require federal agencies to absorb permanently 50 percent of the cost of the October 1981 pay adjustment. The same level of absorption was also applied to the October 1982 through 1984 increases; however, in those cases it is assumed to be temporary.

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10. Under temporary absorption, the savings estimated to result from appropriating less than the full cost of the adjustment are assumed to last for a period of one year. The savings resulting from permanent absorption, on the other hand, are carried in the budget year and all future years.

11. The absorption cut may be made in any number of ways, but the most common method is to reduce expenditures for other administrative items, such as transportation or equipment.

Although the true effect of absorption is to reduce other administrative expenditures, the projected savings of absorption are placed together with increased pay costs in function 920, Allowances. This enables the appropriations committees to obtain ready estimates on the size of the pay supplemental necessary to fund a pay increase, given the level of absorption they wish to impose on federal agencies.

The decision regarding the amount of absorption to be borne by the agency is not based on a systematic process. This is evidenced in the wide variation in absorption rates proposed by the President as well as in those eventually adopted by the Congress, as seen in Table 2.

TABLE 2. HISTORICAL PAY RAISE ABSORPTION RATES--AVERAGE FOR ALL CIVILIAN AGENCIES (In percents)

Fiscal Year	President's Request	Enacted by the Congress
1973	93	88
1974	35	37
1975	32	36
1976	36	53
1977	14	18
1978	13	11
1979	32	45
1980	11	31
1981	31	37
1982	42	38
Average	34	39

THE PRESENTATION OF PAY IN THE BUDGET

The budgetary presentation of civilian agency pay raises is unique. The out-year effects of all projections period pay raises and the first-year cost of the current-year and later-year adjustments are placed in the allowances function, 920. The out-year effects of the current-year increase, however, are displayed in the appropriate salary and expense accounts throughout the budget. The reason for this is that the Congress only appropriates money for specific programs, not for future pay raises or contingencies. This approach is necessary to permit the budget to reflect all future requirements that are independent of past policy decisions. In

addition, Coast Guard employees are assigned to a unique account within the allowances function, since their pay rate increases frequently differ from those going to other civilian agency personnel.12/

Table 3 provides an example of this portrayal, using the projections contained in the First Concurrent Resolution on the Budget for Fiscal Year 1983. These estimates reflect pay rate increases of 4.8 percent in 1982 and 4 percent in 1983-1985, with 50 percent absorption assumed in all years. As shown in the table, the figures for 1982 and 1983 simply represent the first-year cost of the pay rate increases approved for those years. The 1984 and 1985 estimates, however, include not only the first-year cost of the pay rate adjustments assumed for those years, but the out-year effects of the 1983 and later-year adjustments as well.

TABLE 3. PORTRAYAL OF FIRST CONCURRENT RESOLUTION PAY RAISES IN FUNCTION 920 (By fiscal year, in millions of dollars)

		1982	1983	1984	1985
Civilian Agency Pay Raises	BA	826	1,144	2,388	3,680
	O	800	1,179	2,510	3,894
Coast Guard Pay Raises	BA	---	29	58	89
	O	---	27	57	87
Pay Absorption	BA	---	-587	-611	-634
	O	---	-604	-654	-679
Total	BA	826	586	1,835	3,135
	O	800	602	1,913	3,302

NOTE: Out-year effects of the current-year pay raise are distributed to the appropriate salary and expense accounts throughout the budget.

12. Although Coast Guard personnel are compensated in much the same manner as uniformed employees of the Department of Defense, administratively they are part of the Department of Transportation. As a result, CBO places their pay rate adjustment costs in function 920 rather than in function 050.

The CBO portrayal of salary adjustment costs is substantially the same as the approach used by the Office of Management and Budget (OMB). The major difference involves the treatment of the budget authority and outlays associated with pay rate increases for employees paid out of trust fund receipts subject to appropriations bill limitations. OMB shows all such budget authority and outlays in function 920. The new CBO methodology shows pay raise outlays for employees paid out of accounts subject to limitations in function 920 but does not show any change in budget authority, since trust fund budget authority is defined as being equal to trust fund receipts. The CBO and OMB approaches also differ because OMB places all pay raise costs for Coast Guard employees in function 400 (transportation) rather than 920. Comparisons between OMB and CBO estimates are still straightforward, however, given that CBO identifies these workers separately in function 920.13/

NET BUDGETARY EFFECT OF A FEDERAL PAY RAISE

The estimates contained in budget function 920, it must be emphasized, are not equal to the net increase in federal civilian agency pay costs resulting from a pay raise. As stated above, the figures include the effects of an assumed level of absorption. Since absorption is actually a reduction in other expenditures, the net cost of a salary adjustment will be greater than the additional funding provided in function 920.

Moreover, the increased agency costs for those fringe benefits that are affected by changes in federal pay rates (such as retirement benefits and life insurance) are also included in the allowance function. These payments do not represent net budgetary expenditures, however, because a pay raise for federal civilian agency employees does not immediately increase the payments made by the government to life insurance beneficiaries and federal retirees. Rather, the increased agency contributions resulting from a pay adjustment simply represent an intragovernmental transfer of funds. Consequently, the effects of these agency contributions on outlays are completely offset in another part of the budget.

Table 4 presents an example of the net budgetary effect of a civilian agency pay raise under an assumed pay adjustment of 4 percent in all years. When federal workers receive a pay raise, the increases in the civilian agency and defense civilian pay accounts reflect, in part, an increase in the agency contributions to the civil service retirement trust fund. These

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13. CBO is hopeful that these differences will soon be resolved.

contributions are completely offset in budget function 950 (undistributed offsetting receipts), since there is no short-term relationship between federal pay raises and payments to civil service retirees.14/

TABLE 4. NET BUDGETARY EFFECT OF A FEDERAL PAY RAISE (Outlays by fiscal year, in billions of dollars)

	1983	1984	1985
Department of Defense Pay Raise (Function 050)	810	1,820	2,896
Civilian Agency Pay Raise (Function 920)	1,179	2,510	3,894
Employer Share of Civil Service Retirement	-132	-268	-408
Net Outlays	1,857	4,062	6,382

Chapter III provides an explanation of the methodology used to compute the estimates discussed in this chapter. The programmatic assumptions and analytical approach used by CBO in projecting civilian agency pay raise costs are discussed in detail.

14. A pay raise for federal civilian employees also results in a net receipt to the government resulting from higher employee civil service retirement contributions. The higher employee contributions increase the trust fund's budget authority by an amount equal to the higher intragovernmental transfer. The higher employee contribution differs from the higher government contribution, however, in that it constitutes an increase in the revenue of the trust fund.

CHAPTER III. ESTIMATING THE COST OF PAY RATE INCREASES--THE MODEL

The CBO pay-raise model is designed to estimate the increases in budget authority and outlays resulting from prospective pay rate increases for employees of federal civilian agencies. The model consists of three major components. The first component determines the effective pay rate increase, taking into account the fact that workers at or near the pay ceiling receive little or no pay adjustment. The second uses payroll data and the effective pay rate increase to produce a five-year projection of the resulting first-year additions to budget authority and outlays. At this level, a distinction is also drawn between federal white-collar employees, workers paid out of trust and revolving funds, blue-collar employees, and military personnel employed by civilian agencies. The third component provides multiyear estimates reflecting absorption.

ESTIMATING THE EFFECTIVE PAY RATE INCREASE

When federal white-collar workers are granted a pay raise, the actual effect of the increase varies by grade and step because of a pay ceiling that permits some employees to receive only a portion of the increase or no increase at all. The impact of a pay raise on the federal payroll when a pay ceiling is in effect is, therefore, less than the stated increase accepted by the Congress.

Given a limitation on maximum salary, it becomes necessary to compute the effective pay rate increase in order to arrive at an accurate estimate of the total cost of the raise. In computing the effective pay raise for each of five fiscal years, the model uses the following data:

- Current scheduled salaries for white-collar workers by grade and step;
- Number of employees in each grade and step of the white-collar schedules; and
- Anticipated nominal pay rate increases for each of five fiscal years.

The annual effective rate of increase in pay is estimated in three steps. First, the current payroll of federal white-collar employees is estimated by multiplying the number of employees at each level of the General Schedule and related pay systems by their present salaries and summing across all grades and steps.

Second, the salaries for each grade and step are inflated by the stated pay raise for the first year of the projection. If a new salary is less than the ceiling, it is multiplied by the number of employees scheduled to be paid at that rate. If, on the other hand, a new salary is greater than the pay cap, the model substitutes the ceiling rate for the scheduled salary and multiplies this figure by the number of workers to be paid at that level. As in the base-year calculation, the individual payrolls for all cells are summed, producing the new total white-collar payroll under the raise. The process is repeated for subsequent years using the stated pay raises to estimate the resulting anticipated payrolls for each of five fiscal years. Equation (2) represents the methodology.

$$(2) \qquad Q_Y = \sum_I \sum_K E_{I,K} \times (G_{I,K})_{Y-1} \times (1 + P_Y)$$

where:

Q_Y = White-collar payroll in year Y

$E_{I,K}$ = Number of employees by grade (I) and step (K)

$(G_{I,K})_{Y-1}$ = Previous year's salary by grade and step

P_Y = Anticipated pay rate increase in year Y, and where $(G_{I,K})_{Y-1} \times (1 + P_Y) \leq N$, and N is the pay ceiling.

Third, the effective pay rate increase is ascertained by calculating the annual percentage change in the payroll.

An example of these calculations, assuming pay raises of 4 percent in all years, appears in Table 5. As can be seen in the table, the effective pay rate increase gradually diminishes in each succeeding period even though the stated increase remains constant. This is exactly what one would expect in the face of a pay cap that remains fixed over the entire period covered by the estimate.

TABLE 5. STATED AND EFFECTIVE PAY RATE INCREASES

Effective Date	Stated Pay Rate Increase (percent)	Effective Pay Rate Increase (percent)
October 1982	4.0	3.85
October 1983	4.0	3.83
October 1984	4.0	3.79
October 1985	4.0	3.75
October 1986	4.0	3.69

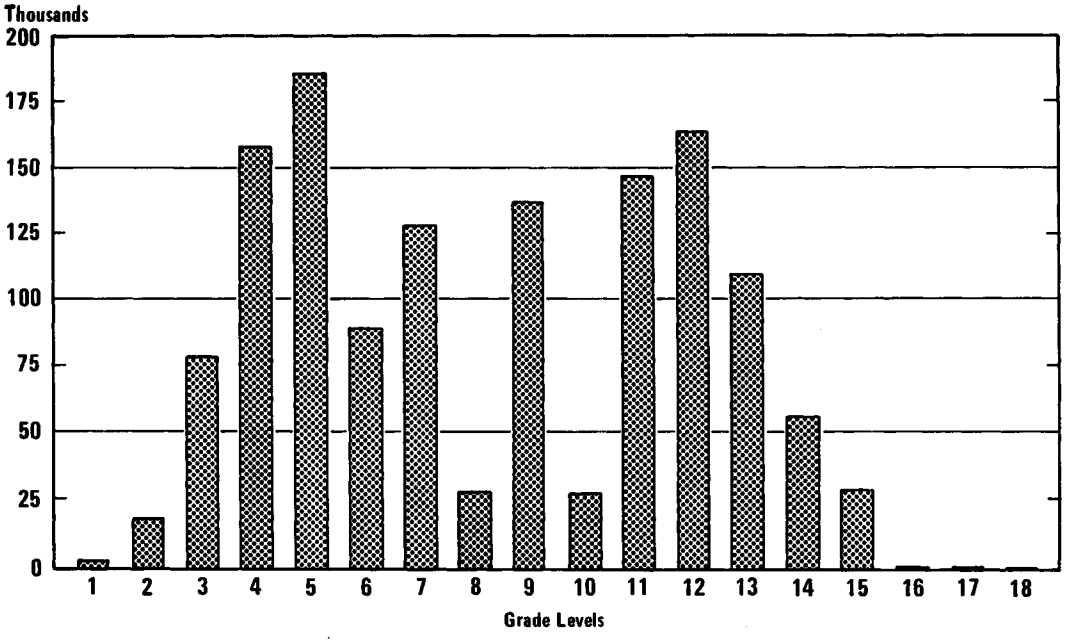
The table illustrates the magnitude of this phenomenon. The effective pay raise percentage falls significantly by 1986 under the assumptions of a fixed GS pay ceiling of $57,500 and a Senior Executive Service pay ceiling of $58,500. This decrease occurs because the ceiling begins to affect more and more people as annual pay raises push a greater number of GS grades and steps toward the maximum payable rate. If, for example, the cap remains in effect through 1983, employees at the GS 15 Step 7 level would be subject to the salary limitation. If the cap remains in place through 1987, the effect would extend all the way down to GS 14 Step 7. This process is further compounded by the fact that there are generally more workers in each cell of the schedule as one moves down in grade from GS 18 to GS 14, as can be seen in Figure 1.

ESTIMATING ADDITIONAL BUDGET AUTHORITY AND OUTLAYS

The second major component of the model uses the effective pay rate increase computed above and payroll data entered by the user to produce a five-year projection of the cost of a raise for all employees of civilian agencies, as well as for distinct worker categories. This component breaks the civilian agency work force into four groups: General Schedule and related white-collar schedule employees (Foreign Service workers, doctors and nurses, and top-level federal executives), military personnel employed by civilian agencies, wage system workers, and white-collar employees paid out of trust and revolving funds. This delineation is essential since a pay raise for each group generates a slightly different pattern of expenditures.

Figure 1.

Distribution of General Schedule and Merit System Employment by Grade, All Areas, March 31,1982



The model makes no special provision for the effects of grade and step increases for federal workers. Contrary to what is commonly believed, the average federal grade and step has not risen significantly in recent years. Since fiscal year 1978, the mean federal grade has risen from 8.12 to 8.26, an increase of only 1.75 percent. Over the same period, the mean step has remained unchanged at 4.79. These statistics indicate that grade and step movements are relatively unimportant in projecting federal civilian pay costs.

White-Collar Workers

For GS employees, other than those paid out of trust and revolving funds, the increase in budget authority associated with the pay raise for the first year of the projection is calculated by multiplying the effective pay

TABLE 6. INCREASE IN BUDGET AUTHORITY FOR SALARIES OF WHITE-COLLAR EMPLOYEES NOT PAID OUT OF TRUST AND REVOLVING FUNDS

Fiscal Year	Payroll Before Increase (millions of dollars)	Effective Pay Rate Increase (percents)	Increase in Budget Authority (millions of dollars)	Payroll After Increase (millions of dollars)
1983	26,414	3.85	1,017	27,431
1984	27,431	3.83	1,051	28,482
1985	28,482	3.79	1,079	29,561
1986	29,561	3.75	1,109	30,670
1987	30,670	3.69	1,132	31,802

raise percentage by the group's current payroll.1/ For the second through the fifth year of the projection, the same methodology is used, but the post-pay rate increase payroll is substituted in the computation.

An example of this process, assuming effective pay rate increases of 3.85, 3.83, 3.79, 3.75, and 3.69 percent in 1983-1987, appears in Table 6. As can be seen in the table, the pay base--or previous year's payroll--grows at an annual rate equal to the pay raise for that year. This figure then serves as a base for calculating the additional cost of the next annual salary adjustment.2/

While federal pay rate increases are effective as of the first pay period of a fiscal year, federal white-collar workers do not receive their final paychecks for work done during a particular fiscal year until the first

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1. The additional budget authority associated with a federal pay rate adjustment in any given year equals the full 12-month cost of the increase.

2. In addition to salaries and wages, the pay base contains premium pay and those benefits that move with pay. These benefits include the agency contributions to civil service retirement, Social Security, FECA, and federal employees' group life insurance. The additional agency benefit expenditures are placed together with increased salary costs in order to reflect the full cost of the pay adjustment.

pay day of the following fiscal year. As a result, CBO estimates that only 96 percent of the new budget authority necessary to fund a pay raise for these workers is actually expended in the year for which the increase is approved. Since the effects of pay rate increases granted prior to the projections period are reflected in the appropriate salary and expense accounts, the first year's increase in outlays is simply equal to 96 percent of the initial increase in budget authority. For the second and later years of the projection, however, the outlay increase equals 96 percent of the additional budget authority financing the pay adjustment in that year, plus the 4 percent in additional budget authority remaining from the previous period's pay rate increase.

An example of the outlay forecasting process is detailed in Table 7. The increase in outlays for 1983 is estimated as 96 percent of the additional budget authority funding the pay rate increase, while the outlay increases for 1984-1987 are calculated as 96 percent of the increase in budget authority plus the 4 percent in additional budget authority not expended during the preceding year.

TABLE 7. INCREASES IN BUDGET AUTHORITY AND OUTLAYS FOR SALARIES OF WHITE-COLLAR WORKERS NOT PAID OUT OF TRUST AND REVOLVING FUNDS (In millions of dollars)

Fiscal Year	Increase in Budget Authority	Increase in Outlays
1983	1,017	976
1984	1,051	1,050
1985	1,079	1,078
1986	1,109	1,108
1987	1,132	1,131

Military Employees of Civilian Agencies

Pay raises for military personnel employed by civilian agencies are estimated separately by CBO. The reason for this distinction is that, while these workers receive the same salary rate adjustments as uniformed personnel in the Department of Defense, they are administratively and budgetarily part of civilian agencies. The Coast Guard and the Public Health Service employ the lion's share of these workers.

The projection methodology used to estimate the budget authority and outlays required to fund five years' worth of anticipated pay raises for this group is identical to that used to estimate pay raise costs for white-collar employees. The only differences are in the size of the payroll and pay rate increases assumed.

An example of the approach used to estimate pay raises for these workers appears in Table 8. Assuming a 1982 payroll of $930 million and pay raises of 4 percent in all years, the increased budget authority and outlays would be projected as shown.

TABLE 8. INCREASES IN BUDGET AUTHORITY AND OUTLAYS FOR SALARIES OF MILITARY EMPLOYEES IN CIVILIAN AGENCIES

Fiscal Year	Payroll Before Increase (millions of dollars)	Effective Pay Rate Increase (percents)	Increase in Budget Authority (millions of dollars)	Increase in Outlays (millions of dollars)	Payroll After Increase (millions of dollars)
1983	930	4.0	37	36	967
1984	967	4.0	39	39	1,006
1985	1,006	4.0	40	40	1,046
1986	1,046	4.0	42	42	1,088
1987	1,088	4.0	44	44	1,132

Blue-Collar Workers

Federal blue-collar employees are the third group for which the model estimates annual pay raise expenditures. These workers are treated separately by the model because of the unique way in which their pay raises affect the budget.

As described earlier, federal blue-collar workers receive pay raises based either on local pay comparability surveys or on a maximum pay rate limit imposed by the Congress.3/ Unlike federal white-collar employees,

3. The Congressionally imposed limit on the adjustment that blue-collar workers may receive is generally tied to the white-collar alternative pay plan proposed by the President. With the exception of the fiscal

not all wage system workers receive their annual comparability or alternative plan pay rate increase at the beginning of the fiscal year. Rather, since the wage surveys are conducted at different times in different areas, and since the law stipulates that comparability or alternative plan pay adjustments be made within a specified period following the local survey, the date on which these increases are granted varies by wage area.4/ Consequently, the pay adjustment is in effect for a greater or lesser part of the year depending on the area. For the nation as a whole, the average increase in budget authority needed to finance blue-collar wage increases in the year in which the pay hike is approved is only 60 percent of the full 12-month cost. The full annualized cost of the raise is applied to the payroll in subsequent years, however, since by that time all workers are receiving the increase as part of their basic salary.

To project the outlays associated with a pay raise for blue-collar employees, the same basic methodology used to forecast GS outlays is used, with two slight modifications--only 60 percent of the annualized outlays are included in the current year because of the lagged timing of the expenditures, and a 93.3 percent spendout rate is applied.

The calculation of a unique blue-collar spendout rate is made necessary by the unusual expenditure pattern of federal wage-system pay. Like federal white-collar workers, blue-collar employees of the federal government do not receive their paychecks for work performed during the last pay period of a fiscal year until the first pay day of the following fiscal year. But unlike their white-collar counterparts, the percentage of blue-collar workers receiving the wage adjustment increases with succeeding pay periods. As a result, the percentage of the first-year cost of the pay rate increase falling into the final pay period and, therefore, expended in the following year is greater for wage-system employees than for white-collar workers.

To calculate the wage-system spendout rate, the full 12-month cost of a wage rate increase is multiplied by 0.04--the percentage of the fiscal year falling in the last two weeks. This figure is divided by the actual first-year

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year 1982 pay raise, which was limited by the 1981 Reconciliation Act, annual appropriations bills have been used to extend the blue-collar pay ceilings.

4. Congressional Budget Office, Alternative Approaches to Adjusting Compensation for Federal Blue Collar Employees (November 1980), pp. 10-17.

budget authority needed to finance the pay rate increase, which, of course, is 60 percent of the annualized cost. The result is then subtracted from one, yielding a spendout rate of 93.3 percent for federal blue-collar pay adjustments. Mathematically, this can be represented as:

$$(3) \qquad S = 1 - (C \times 0.04)/(C \times 0.60) = 0.933$$

where:

S = Wage system spendout rate

C = Full-year cost of a pay rate adjustment for blue-collar employees

The first-year increase in outlays simply equals 93.3 percent of the additional budget authority funding the pay raise for that year. In the later years of the projection, the additional outlays for these employees can be represented as:

$$(4) \qquad \Delta O_Y = \Delta BA_Y \ (0.6) \ (0.933) + \Delta BA_{Y-1} \ (0.6) \ (0.0667)$$

where:

ΔO_Y = Additional wage system outlays in the second through fifth years of the projection

ΔBA_Y = Full-year cost of the pay rate increases approved for the second through fifth years of the projection.

For illustrative purposes, suppose federal blue-collar workers are expected to receive pay adjustments of 4 percent a year in 1983-1987. Because very few wage-system employees are affected by the pay ceiling, virtually all of them receive the full raise, making the calculation of an effective rate unnecessary. Assuming a wage-system payroll of $3,295 million in 1982, CBO would estimate the increases in budget authority and outlays shown in Table 9.

White-Collar Employees Paid Out of Trust and Revolving Funds

Pay raises for white-collar workers paid out of trust and revolving funds are treated separately by CBO since they increase the level of outlays but not the level of budget authority. This stems from the unusual way in which the administrative expenses of these funds are financed.

TABLE 9. INCREASES IN BUDGET AUTHORITY AND OUTLAYS FOR WAGES OF BLUE-COLLAR WORKERS

Fiscal Year	Payroll Before Increase (millions of dollars)	Effective Pay Rate Increase (percents)	Increase in Budget Authority (millions of dollars)	Increase in Outlays (millions of dollars)	Payroll After Increase (millions of dollars)
1983	3,295	4.0	79	74	3,374
1984	3,427	4.0	82	82	3,509
1985	3,564	4.0	86	86	3,650
1986	3,707	4.0	89	89	3,796
1987	3,855	4.0	93	93	3,948

To cover salaries and other administrative costs, the Congress allows agencies such as the Social Security Administration to make payments out of trust fund receipts subject to a legislatively determined limitation. When a pay adjustment is approved, the Congress raises the limitation to a level sufficient to cover the additional expense.5/ But, since the budget authority for trust and revolving funds is defined as all receipts of the fund, a pay raise for these workers affects only the level of outlays.

CBO takes these unique aspects of trust fund finance into account in calculating the annual expenditures associated with a pay rate increase for white-collar employees. The base for the calculations is ascertained by taking the salary portion of the actual limitation for the previous year. This base is then inflated by the anticipated effective pay raise percentage to arrive at an estimate of the annualized expenditures resulting from the raise. As with other white-collar employees, only 96 percent of this amount is spent in the first year of the estimate, while the outyear forecasts include 96 percent of the annual cost plus the 4 percent in unexpended balances from the previous year.

5. The limitation is raised through language contained in the annual supplemental appropriations bill. The same bill provides funding for federal pay raises.

Total Increase in Civilian Agency Pay Raise Expenditures

The annual pay raise expenditures for all worker categories are summed to arrive at the total increased pay costs for each of five years. An example, assuming stated increases of 4 percent for all federal workers in 1983-1987, appears in Table 10.

TABLE 10. TOTAL INCREASES IN BUDGET AUTHORITY AND OUTLAYS FOR CIVILIAN AGENCY PAY (In millions of dollars)

Fiscal Year	White-Collar Employees	Trust-Fund Employees	Blue-Collar Employees	Uniformed Civilians	Grand Total
		Budget Authority			
1983	1,017	0	79	37	1,133
1984	1,051	0	82	39	1,172
1985	1,079	0	86	40	1,205
1986	1,109	0	89	42	1,240
1987	1,132	0	93	44	1,269
		Outlays a/			
1983	976	80	74	36	1,166
1984	1,050	86	82	39	1,257
1985	1,078	88	86	40	1,292
1986	1,108	91	89	42	1,330
1987	1,131	93	93	44	1,361

a. Total outlays exceed budget authority since pay raises for employees paid out of trust and revolving funds do not increase the level of budget authority.

CALCULATING MULTIYEAR BUDGET AUTHORITY AND OUTLAYS WITH ABSORPTION

Projecting the unabsorbed portion of a pay raise in the first year of a multiyear projection simply requires multiplying the increases in budget authority and outlays by the percentage of the raise that is not absorbed. Calculating the increased funding provided to finance pay raises in

subsequent years, however, is complicated by absorption, which applies only to the latest year's funding. This is because absorption is generally assumed to represent a temporary rather than a permanent spending reduction.

Since absorption serves to reduce other administrative expenditures, the total cost of the pay rate increase is generally not affected.6/ The size of the appropriations that agencies receive to cover the cost of a salary adjustment is affected by absorption, however, which explains why absorption savings are reflected in CBO estimates.

Slightly different approaches are used to calculate multiyear outlays with absorption for wage-board and nonwage-board employees. In the case of outlays for nonwage-board workers, the out-year costs are calculated as the sum of three components:

$$(5) \qquad O_Y = \left(0.96 \left(\sum_{i=1}^{Y-1} \Delta BA_Y \right) + 0.04 \left(\sum_{i=1}^{Y-2} \Delta BA_Y \right) \right)$$

$$+ \left(0.04 \times \Delta BA_{Y-1} \times (1 - A) \right)$$

$$+ \left(0.96 \times \Delta BA_Y \times (1 - A) \right)$$

where:

O_Y = Total increase in outlays for all nonwage-board civilian agency workers for each of Y years

$\sum_{i=1}^{Y-1} (\Delta BA_Y)$ = Sum of the increases in budget authority without absorption resulting from pay rate adjustments for nonwage-board employees of civilian agencies in all but the latest year of the projection

$\sum_{i=1}^{Y-2} (\Delta BA_Y)$ = Sum of the increase in budget authority without absorption resulting from pay rate adjustments for nonwage-board employees of civilian agencies in all but the two latest years of the projection

BA_Y = Increase in budget authority in the Yth year of the forecast

A = Absorption rate

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6. Pay-related administrative expenditures can be reduced by absorption if the agency achieves the required savings through layoffs or attrition. But federal agencies generally attempt to reach their savings targets in other ways if possible.

Like the formula used to compute annual outlay increases, the first component calculates outlays from past pay raises as 96 percent of the additional budget authority funding a given salary adjustment, plus the 4 percent in unexpended balances from the previous year's pay raise. This part of the formula differs from the annual methodology, of course, in that all past-year increases for the five-year projections period are included in the estimate. Absorption is ignored in calculating the effect of past-year pay increases.

The second component of the formula is the 4 percent carryover in budget authority from the next to the last year of the projection. This piece of increased pay funding is singled out because it must be adjusted for absorption. While assuming partial absorption of this 4 percent carryover appears to contradict the principle of treating absorption as a temporary spending cut, the principle is not violated because absorption is assumed to affect one full year's worth of increased pay funding at any point in time. If absorption were not included in the carryover, the financing reduction would be in effect only 51 weeks during the year.

The third component of the formula represents the increased pay costs resulting from a salary adjustment in the latest year of the projection. As with the 4 percent carryover in budget authority from the next to the last year of the forecast, absorption may be assumed.

A slightly different approach is used to calculate multiyear outlays with absorption for federal blue-collar workers. This alternative methodology is made necessary by the use of a lower spendout rate for these employees and the staggered timing of blue-collar pay rate adjustments. Because federal wage-board workers receive their pay rate adjustments at different times throughout the year, the first-year cost of the increase is less than the full-year cost. In subsequent years, however, the full 12-month cost of the adjustment must be applied, since by that time all workers are receiving the increase as part of their basic salary. Apart from these two differences, the wage-board methodology parallels the approach used for other workers.

Once the increase in outlays is calculated for wage-board and nonwage-board employees, total additional outlays are estimated by simply summing the two results. Table 11 shows a multiyear projection for civilian agency pay raises assuming annual pay rate adjustments of 4 percent and retention of the current executive pay ceilings. The estimate also assumes that federal agencies will be required to absorb 50 percent of the cost of the salary adjustments in all years through reducing other administrative purchases.

TABLE 11. TOTAL INCREASES IN BUDGET AUTHORITY AND OUTLAYS DISPLAYED BY CBO IN THE ALLOWANCES FUNCTION (By fiscal year, in millions of dollars)

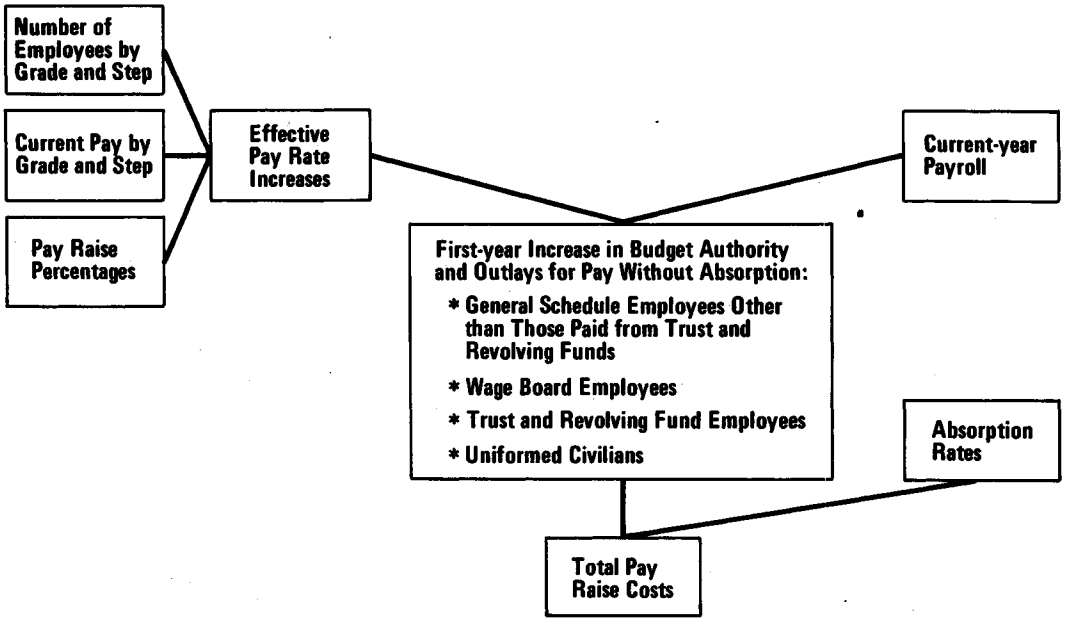
		1983	1984	1985	1986	1987
Blue-Collar	BA	40	173	312	456	606
	O	37	167	306	449	600
All Other	BA	527	1,599	2,703	3,838	5,001
	O	546	1,679	2,869	4,093	5,346
Total	BA	567	1,772	3,015	4,294	5,607
	O	583	1,846	3,175	4,542	5,946

SUMMARY

Figure 2 illustrates the relationships between each of the elements described above. The inputs required by the model include salary and work force data by grade and step, nominal pay raise percentages, the current-year civilian payroll, and absorption rates. The output consists of annual estimates of the costs associated with anticipated federal pay adjustments and multiyear estimates reflecting absorption.

Figure 2.

Estimating the Total Increased Funding for Federal Civilian Agency Pay



CHAPTER IV. CURRENT PAY ESTIMATES

This chapter examines three current civilian agency pay raise cost estimates generated using the CBO model. The first is the CBO current policy baseline used by the budget committees in their fiscal year 1983 budget deliberations. The second is CBO's estimate of the costs associated with the pay rate adjustments assumed in the First Concurrent Resolution on the Budget for Fiscal Year 1983. The final projection examined is CBO's reestimate of the President's 1983 Mid-Session Review.

BASELINE USED FOR FISCAL YEAR 1983 BUDGET RESOLUTION

Each year CBO prepares an estimate of the expenditures expected to result if current tax and spending policies are carried into the future. This estimate, known as the CBO baseline, often serves as the starting point for the budget committees when they consider changes in federal budget policy.

In the case of federal civilian pay, the baseline has usually been defined in one of two ways. Until fiscal year 1980, the baseline for civilian pay was derived by inflating the federal civilian payroll by the pay rate increases projected as necessary to achieve and maintain comparability. Current policy for pay was defined in these terms because the laws governing the federal pay-setting process require annual comparability adjustments, unless the President or the Congress act to replace the comparability adjustment with an alternative plan.

Beginning in fiscal year 1980, the baseline for civilian pay was defined in a significantly different manner. Rather than show huge comparability pay rate adjustments as part of the baseline, CBO and the budget committees decided that the annual change in private-sector wages and salaries would serve as a better measure of current policy. In other words, the catch-up component of comparability was removed from the baseline. Using this approach, the pay adjustment assumed in the baseline for fiscal year 1983 was 8 percent instead of the 18.5 percent projected under comparability. For fiscal years 1984 and 1985, pay rate increases of 7.6

percent and 6.4 percent were assumed for all federal employees.1/ The costs of these adjustments as projected by CBO appear in Table 12.

TABLE 12. BASELINE ESTIMATES FOR CIVILIAN AGENCY PAY (By fiscal year, in millions of dollars)

		1983	1984	1985
Civilian Agency Employees	BA	2,289	4,743	6,979
	O	2,359	4,988	7,395
Coast Guard Uniformed Workers	BA	57	115	168
	O	54	113	165
Baseline Total	BA	2,346	4,858	7,147
	O	2,413	5,101	7,560

FIRST CONCURRENT BUDGET RESOLUTION FOR FISCAL YEAR 1983

The First Concurrent Resolution on the Budget for Fiscal Year 1983 assumed civilian and military pay rate increases of 4 percent in all years and an annual absorption rate of 50 percent. As Table 13 illustrates, the assumptions contained in the resolution had the effect of lowering baseline outlays for civilian agency pay by $1.8 billion in 1983, $3.2 billion in 1984, and $4.3 billion in 1985. The portion of these savings attributable to absorption totaled $604 million in 1983, $654 million in 1984, and $679 million in 1985. The absorption savings are virtually constant each year because absorption in the 1983-1985 period is assumed to be temporary. The total outlay figures in Table 13 are slightly higher than the estimates contained in Table 11 because the First Concurrent Resolution on the Budget for Fiscal Year 1983 did not assume retention of the current executive pay ceilings.

1. The baseline figures published by CBO in February 1982 differ from the estimates used by the budget committees during their deliberations. The published baseline assumed pay rate increases of 7 percent in all years and retention of the executive pay ceiling.

TABLE 13. COMPARISON OF CBO BASELINE PAY ESTIMATES FOR CIVILIAN AGENCIES WITH THOSE OF THE FIRST CONCURRENT RESOLUTION (By fiscal year, in millions of dollars)

	1983	1984	1985
Baseline Outlays	2,413	5,101	7,560
FCR Pay Raise Savings	-1,180	-2,478	-3,501
FCR Absorption Savings	-604	-654	-679
Total FCR Savings	-1,811	-3,188	-4,258
Total Outlay Increase Assumed in FCR	602	1,913	3,302

In addition to the measures taken by the Congress to lower the cost of future federal pay increases, the First Concurrent Resolution also assumed a 2 percent reduction in the size of the federal civilian work force. The savings estimated to result from this action total $800 million in 1983 and $1 billion in 1984 and 1985.

The actual savings resulting from these work force reductions may be higher or lower than the estimates contained in the resolution depending on how the reductions are achieved. If attrition is used--that is, if the government simply fails to replace workers who voluntarily leave the federal service--then the savings should be roughly equal to the sum of the salaries received by those no longer employed. If, on the other hand, workers are laid off, the short-term savings to the government could be reduced substantially, since the displaced workers would be entitled to severence pay and other benefits that would generate additional federal expenditures.

CBO'S REESTIMATE OF THE PRESIDENT'S MID-SESSION REVIEW

Differences in OMB and CBO estimating methodologies are revealed when one compares the Administration's 1983 Mid-Session Review to CBO's reestimate of the President's policy. The Mid-Session Review figures are

TABLE 14. COMPARISON OF FEDERAL PAY RAISE COSTS UNDER THE PRESIDENT'S 1983 MID-SESSION REVIEW AND CBO'S REESTIMATE OF THE PRESIDENT'S POLICY (By fiscal year, in millions of dollars)

		1983	1984	1985
OMB a/	BA	1,472	3,005	4,546
	O	1,413	2,944	4,484
CBO	BA	1,362	2,836	4,379
	O	1,405	2,986	4,645
Difference	BA	-110	-169	-167
	O	-8	+42	+161

a. Derived from Mid-Session Review of the 1983 Budget.

based on pay rate adjustments of 5 percent a year in each of the next three years for all federal civilian employees, and a reduction in the federal work force of approximately 75,000 positions over the same period.2/ The CBO reestimate of the President's Mid-Session Review uses the same assumptions.

Table 14 shows OMB and CBO projections under the President's pay rate adjustment and work force reduction assumptions. CBO's budget authority estimates are lower than the Administration's in all years while its outlay estimates are lower in 1983 and higher in 1984 and 1985.

There are two principal reasons for the variance between the OMB and CBO estimates. First, OMB and CBO use different data on the size and composition of the federal payroll. CBO constructs its payroll base using

2. Although the Administration recommended only a 4 percent pay rate increase, the estimates in budget subfunction 921 assumed a 5 percent increase. A separate adjustment was made to conform the Mid-Session Review totals to the policies of the budget resolution.

the latest actual data available on the size of the federal payroll and work force data obtained from the Office of Personnel Management (OPM). OMB, on the other hand, constructs it pay base using payroll data obtained from OPM in March and projected work force changes collected directly from individual federal agencies. Because CBO prepares its reestimate of the President's policy after the President's budget is completed, CBO is able to use more recent data on the size and composition of the federal payroll. As a result, each organization's payroll base is slightly different, with CBO's payroll estimate exceeding OMB's.

OMB and CBO also make different assumptions regarding the composition of the federal work force. The CBO base year payroll, for example, contains a larger blue-collar component than is assumed by OMB. Since the first-year cost of a wage adjustment for federal blue-collar workers is only 60 percent of the full-year cost, CBO's 1983 outlay estimate is marginally lower than OMB's. In 1984 and 1985, however, CBO's projected outlays exceed OMB's by $44 millions and $166 million, respectively.

A second reason for the difference between the OMB and CBO estimates is that OMB double-counts the budget authority associated with pay rate adjustments for employees paid out of trust and revolving funds. The double counting occurs because OMB lists this budget authority both in the receipts of the funds and together with other civilian agency pay raise dollars in function 920. CBO avoids this problem by including only the outlays associated with a pay rate increase for these workers in its civilian agency estimates. The budget authority associated with the increase remains in the trust or revolving fund itself, since trust and revolving fund budget authority is defined as all receipts of the fund. As a consequence, CBO's outlay estimates always exceed its projected increases in budget authority.

One of the major management initiatives proposed by the President is the elimination of approximately 75,000 full-time equivalent positions over the 1982-1985 period. This elimination would result in outlay savings to the government by lowering aggregate base pay and by reducing the costs of future federal pay rate adjustments.3/

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3. As discussed above, the short-term savings from the reductions could be cut substantially if layoffs are used rather than attrition, since the government would be required to make various payments to workers forced to leave federal employment. In the long term, however, real outlay savings are expected to result from the reductions regardless of how the cutbacks are achieved.

Table 15 presents a comparison of CBO's pay raise cost estimates for an anticipated pay rate increase of 5 percent a year with and without the President's proposed work force reductions. The table also shows CBO's projection of the pay raise savings estimated to result from reducing the federal work force. It should be noted that the savings reflect only the work force reductions in civilian agencies and do not account for the expeced growth in the civilian work force in the Department of Defense (DoD). These employment increases are integrated into the DoD budget estimates.

TABLE 15. COMPARISON OF CBO'S FULL-COST ESTIMATES OF THE PRESIDENT'S BUDGET WITH AND WITHOUT WORK FORCE REDUCTIONS (By fiscal year, in millions of dollars)

		1983	1984	1985
CBO Full Cost Without Work Force Reductions	BA	1,435	3,007	4,652
	O	1,478	3,161	4,922
CBO Full Cost With Work Force Reductions	BA	1,362	2,836	4,379
	O	1,405	2,986	4,645
Pay Raise Savings of Work Force Reductions	BA	73	171	273
	O	73	175	277