Congress of the United States
Congressional Budget Office
Washington, D.C.

BACKGROUND PAPER NO. 19

The Federal Government's Pay Systems: Adjustment Procedures and Impacts of Proposed Changes

February 1977

THE FEDERAL GOVERNMENT'S PAY SYSTEMS: ADJUSTMENT PROCEDURES AND IMPACTS OF PROPOSED CHANGES

The Congress of the United States
Congressional Budget Office

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $1.10

GENERAL NOTES

The principal data source for this paper is the fiscal year 1976 Work Year and Personnel Costs Report published December 1, 1976, by the Office of Management and Budget (in compliance with OMB Circular A-93). Unless otherwise indicated, all employment and cost figures pertain to civilian and military employment of the executive branch of the federal government and include the U.S. Postal Service. Costs include appropriate allowances for the estimated effect of manpower reductions projected in the Department of Defense (uniformed military) and U.S. Postal Service and are in current dollars.

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

PREFACE

The Congressional Budget Office's first background paper on federal pay appeared in March 1976. It dealt primarily with the budgetary implications of alternative approaches to setting pay for the federal civilian work force. In the intervening period we have received numerous questions on the "mechanics" of federal pay systems and the budgetary impact of changes recommended by the President's Panel on Federal Compensation (Rockefeller Panel).

This background paper provides a more detailed discussion of the procedures for adjusting pay and generally updates much of the material in the earlier paper. We hope this treatment of the subject will prove useful to the Members of Congress and their staff representatives who are concerned with federal pay systems.

The paper was prepared by David M. Delquadro of the Management Programs Division of the Congressional Budget Office, under the supervision of Howard M. Messner and Seymour D. Greenstone. It was prepared for publication under the supervision of Johanna Zacharias. Betty Ripple typed the manuscript.

Alice M. Rivlin
Director

January 1977

TABLE OF CONTENTS

	Page
General Notes	ii
Preface	iii
Summary	xi
Chapter I. Introduction--Major Pay Systems and Approaches to Setting Pay	1
Chapter II: The Current System for Determining General Schedule (GS) Pay	7
Data Collection	7
Development of Pay Rates	11
Chapter III: Report of the President's Panel on Federal Compensation (December 1975) and its Potential Impact on the Current System	17
Appendix A. Job List for the PATC Survey	25
Appendix B. PATC Salary Data Weighted by Composition of the Federal Work Force	31

TABLES

		Page
1.	Five-Year Cost Projections for Executive Branch Payroll and Benefits, Fiscal Years, Dollars in Billions	5
2.	Distribution of Executive Branch Employment by Pay Plan, Numbers in Thousands	6
3.	PATC Survey Criteria--Size of Industry	8
4.	Computation of General Schedule Pay Rates, Fiscal Year 1977	15
5.	Cost Impact on Executive Branch Payroll of the Administrative Changes to the Comparability Process	18
6.	Five-Year Cost Impact of the Administrative Changes to the Comparability Process, Dollars in Billions	19
7.	Occupational Distribution of General Schedule Employees, Dollars in Billions	20
8.	Pay Adjustments Accompanying the Replacement of the General Schedule, Dollars in Millions	22
9.	Five-Year Impact of Replacing the General Schedule, Dollars in Millions	22
10.	Five-Year Cost Impact of Recommendations Two and Three, Dollars in Millions	23

FIGURES

		Page
1.	Distribution of Executive Branch Payroll and Benefit Costs by Major Pay Systems, Dollars in Billions	4
2.	GS Percentage Increases for the "SGH" and "Standard" Curves	13

82-861 O - 77 - 2

SUMMARY

The federal government's annual pay and benefits to its executive branch civilian and military employees will cost approximately $71.8 billion in fiscal year 1977. Between fiscal years 1977 and 1982, compensation to federal employees will increase an estimated $22.7 billion. Obviously, any adjustments in the annual rates of pay will have substantial budgetary impact.

The principal criterion for adjusting federal pay, regardless of the pay system or the manner of adjustment, is comparability with the private sector.

In terms of impact on the federal budget, the annual adjustment of the General Schedule (GS) pay system is the most significant. The GS system determines the pay rates for about 53 percent of all civilian employees and directly affects the 2 million uniformed military. The Federal Wage (Blue-Collar) and Postal Service are the two other major federal pay systems. They represent 19 percent and 24 percent of the total civilian executive branch work force, respectively. Federal Wage rates are based on prevailing local wage norms. Postal pay is set by collective bargaining between postal management and the postal unions.

THE CURRENT SYSTEM FOR ADJUSTING GENERAL SCHEDULE PAY

There are two steps in the development of General Schedule pay adjustments: (1) the collection of national salary data by the Bureau of Labor Statistics, and (2) the development of new pay rates by the Civil Service Commission and the Office of Management and Budget. The salary data collected by BLS is published as the National Survey of Professional, Administrative, Technical, and Clerical pay (PATC Survey).

The occupational coverage and design of the PATC survey is the responsibility of OMB/CSC. The BLS advises only on the feasibility aspects of proposed survey changes. After the private sector salary data is received by CSC, a pay line or curve linking the salary levels is constructed. A similar pay line is developed linking the existing General Schedule salaries. The new GS rates are then determined by comparing the difference between the private sector and GS pay lines. The subsequent adjustment is intended to result in federal pay rates comparable to those of the private sector (external pay alignment) while maintaining work and performance distinctions between federal employees (internal alignment). The annual adjustment to GS pay rates is based on comparability; it is not a cost-of-living adjustment.

REVISING THE CURRENT PROCESS

Changes to the existing process for adjusting General Schedule pay that have been discussed in recent years usually focus on three or four major structural reforms. The recent comprehensive review of federal pay procedures conducted by the President's Panel on Federal Compensation (Rockefeller Panel) resulted in four significant proposals that would impact General Schedule salaries directly.

- The President's agent (OMB/CSC) should continue its efforts to improve the statistical techniques used in the white-collar (PATC) survey design and pay rate determination process.

- The present General Schedule, which covers white-collar employees, should be replaced by a Clerical/Technical Service and a Professional/Administrative/Managerial/Executive Service.

- The Clerical/Technical Service should be paid local or other geographical rates.

- The principle of comparability should be extended to include benefits as well as pay.

The administrative changes included in the 1976 pay adjustment were: (1) inclusion of salary data for secretaries and computer operators, (2) introduction of weighting to reflect the composition of the federal work force, and (3) development of a new pay line or curve. The result of these changes was to reduce the size of the fiscal year 1977 increase from 10.3 percent under the previous criteria to 5.17 percent. The cost impact on the executive branch payroll for fiscal year 1977 was a net reduction of $2.5 billion.

The recommendation to replace the General Schedule with a Professional/Administrative/Managerial/Executive Service and a Clerical/Technical Service would place about 600,000 employees in the former schedule and about 800,000 in the latter. The potential cost impact would be a net increase in total payroll costs of $50 million.

The proposal to adjust clerical/technical wages on a local basis would reduce payroll costs by about $150 million, thus making the net saving from implementing the two principal legislative recommendations of the Rockefeller Panel about $100 million.

A total compensation approach, due to the number of unknown variables, merits further development and experimentation.

CHAPTER I INTRODUCTION--MAJOR PAY SYSTEMS AND APPROACHES TO SETTING PAY

There are four major federal pay systems: (1) the General Schedule, (2) the U.S. Postal Service, (3) the Federal Wage, and (4) the Uniformed Military. 1/ These four systems represent about 96 percent of all federal civilian and military employees. Payroll costs and benefits for the four major pay systems are estimated to be $69 billion in fiscal year 1977. Total payroll and benefits for all military and executive branch employees will total $71.8 billion. The basic approaches to adjusting pay in the federal government are determinations based on national surveys, collective bargaining, prevailing wages in localities, and linkage of rate changes in one system to those in another. In all cases, the recurring theme is comparability with private sector pay.

The General Schedule (GS) is the basic pay system for 1.4 million federal white-collar employees, or about one-half of the civilian employees in the federal government. The payroll costs and associated benefits of these employees will total $25 billion for 1977. The General Schedule is composed of 18 grades or levels of work and is nationwide in its applicability.

The General Schedule salary system was instituted by statute in 1949 and is currently maintained on the basis of comparability with private enterprise rates. Pay adjustments occur on an annual basis and become effective in October, the first month of the fiscal year. Changes in benefits other than pay are determined independently.

1/ Other systems that will be discussed include the Foreign Service system, the Physicians, Dentists, and Nurses of the Veterans Administration, and the Executive Schedule.

The U.S. Postal Service, prior to 1970, was linked to the General Schedule for pay setting. Now approximately 80 percent of its 684,000 employees have their pay rates established through collective bargaining between Postal Service management and employee unions. The bargaining is conducted in accordance with the provisions of the Postal Reorganization Act of 1970. This Act requires that compensation and benefits (a "total compensation" approach) for all postal employees be maintained on a standard of comparability with the private sector for commensurate levels of work. The current contract term is two years and provides for cost-of-living adjustments (based on changes in the Consumer Price Index) as well as periodic changes in base pay. The 1977 Postal Service payroll is approximately $11.7 billion.

The Federal Wage or "Blue-Collar" System represents about 524,000 trade, craft, and labor employees and a 1977 payroll of about $8.4 billion. Pay adjustments are based on prevailing local wage norms; each local wage area adjusts pay once a year but at different times. About 60 percent of all increases occur during the first six months of the fiscal year.

The Uniformed Military System's annual pay adjustment is "linked" to that of the General Schedule and equal to the average percentage adjustment received by GS employees. Thus, military personnel in all pay grades receive a constant percentage increase--even when GS adjustments vary by grade, as they did in October 1976. Since 1974, adjustments in military pay have had an equal and across-the-board impact on basic pay and quarters and food allowances. However, in 1976 Congress granted the President authority to allocate up to 25 percent of the increase in basic pay to allowances for quarters or food. As a result, the October 1976 basic pay increase was reduced from 4.83 percent to 4.52 percent. The remaining portion of the pay adjustment was allocated to food and quarters allowances. The 2 million servicemen represent an annual 1977 payroll of $23.6 billion.

Civilian Pay Systems linked to the General Schedule include the Foreign Service, Veterans Administration medical, Energy Research and Development Administration, and minor elements of several other agencies. These systems represent about 68,500 employees and 1977 payroll costs and benefits of $1.9 billion.

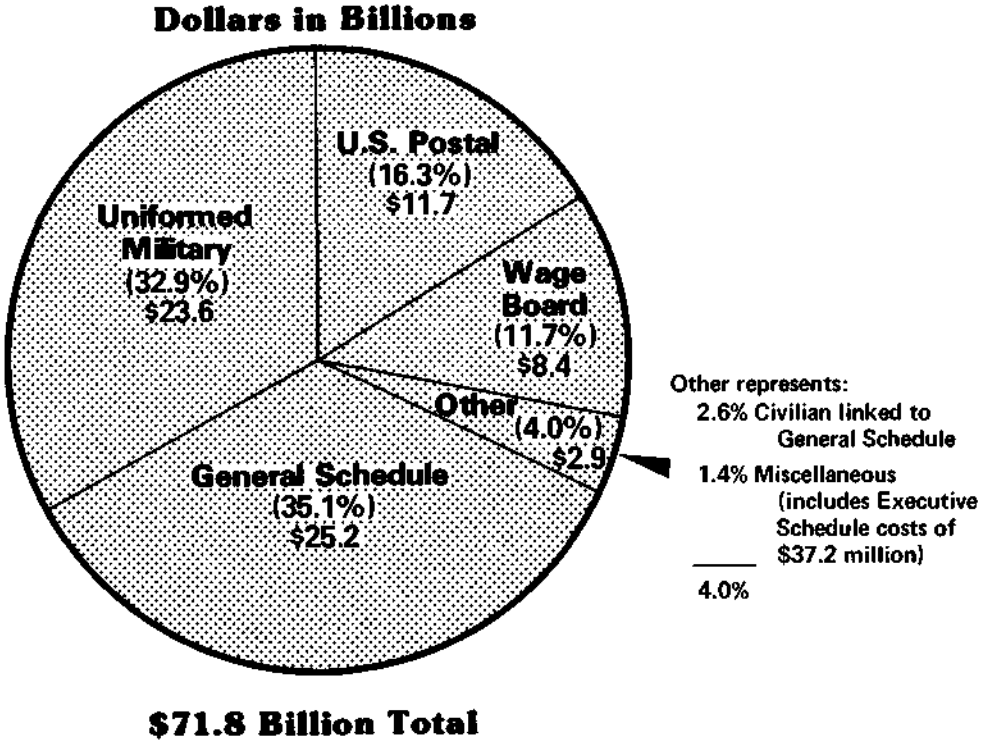
These pay schedules are linked to the annual rate adjustment process of the General Schedule by identification of two or more work levels and their equivalent GS grades. Linkage points are determined by job evaluation comparisons. For example, the Foreign Service FSO-4 is "linked" to GS-13, FSO-8 to GS-7, and FSO-10 to GS-4. Similarly, for the Veterans Administration schedule, the directors are linked to GS-16, associates to GS-11, and junior nurses to GS-6. Rates for the remaining Foreign Service and VA work levels are then extrapolated, based on the internal structure of the respective pay schedules.

The Executive Schedule includes about 860 senior officials who serve at the pleasure of the President and have an annual payroll of approximately $37.2 million. The schedule is composed of five levels that determine pay for secretaries of executive departments and heads of independent agencies, principal deputies, and assistants. Historically, the Executive Schedule has also determined the compensation rate for members of Congress, who have been tied to Executive level II. Each level is compensated at a single annual rate subject to review and adjustment once every four years by a commission established for this purpose. The first quadrennial review was conducted in 1968 and, in 1969, increases suggested by the review were enacted. The recommendations of the 1972 review were rejected by the Congress. The recommendations of the 1976 Commission were considered by the President and provided the basis for his recommendations concerning executive pay. These recommendations were transmitted to the Congress in January 1977, as part of the fiscal year 1978 budget.

82-861 O - 77 - 3

Figure 1.

Distribution of Executive Branch Payroll and Benefit Costs by Major Pay Systems



COST PROJECTIONS UNDER CURRENT PAY SYSTEMS

The cost of executive branch pay and benefits between fiscal years 1978 and 1982 is estimated to increase by $23 billion beyond the fiscal year 1977 total of $71.8 billion.

TABLE 1. FIVE-YEAR COST PROJECTIONS FOR EXECUTIVE BRANCH PAYROLL AND BENEFITS, FISCAL YEARS, DOLLARS IN BILLIONS

Pay Plans	1977	1978	1979	1980	1981	1982
General Schedule	$25.2	$26.7	$28.3	$29.9	$31.5	$33.1
Linked to General Schedule	1.9	2.0	2.1	2.2	2.3	2.5
Uniformed Military	23.6	25.0	26.4	27.8	29.2	30.6
U.S. Postal	11.7	12.3	13.2	14.1	15.0	16.1
Wage Board	8.4	8.6	9.2	9.7	10.2	10.8
Miscellaneous	1.0	1.1	1.2	1.2	1.3	1.4
Total	71.8	75.7	80.4	84.9	89.5	94.5

These projections are based on two assumptions: (1) continuation of the current levels of employment in the executive branch (with the exception of the U.S. Postal Service and uniformed military), and (2) pay adjustments on the basis of comparability with the private sector.

TABLE 2. DISTRIBUTION OF EXECUTIVE BRANCH EMPLOYMENT BY PAY PLAN, NUMBERS IN THOUSANDS

Pay Plan	Total Employment	DOD	Civilian Agencies
General Schedule	1,404	607	797
U.S. Postal	684	-	684
Wage Board	524	394	130
Other Civilian Systems	171	23	148
Subtotal	2,783	1,024	1,759
Percentage	100%	36.8%	63.2%
Uniformed Military	2,128	2,088	40
Total	4,911	3,112	1,799
Percentage	100%	63.4%	36.6%

In terms of budgetary impact, the General Schedule is the most significant pay system, directly affecting 1.4 million white-collar (GS) employees and, through linkage, all the military and over half of the remaining civilian employees--excluding Wage Board and Postal. Approximately 75 percent of the 4.9 million civilian and military employees in the executive branch are affected by GS rate adjustments. Because of the predominant influence of the General Schedule on federal pay, the following discussion will consider the process involved in determining the annual pay adjustment under the General Schedule and the potential impact of major changes to the system.

CHAPTER II THE CURRENT SYSTEM FOR DETERMINING GENERAL SCHEDULE (GS) PAY

Pay and benefits for GS employees are determined separately. Benefits, such as leave and retirement, are determined through enactment of separate legislation on an ad hoc basis. Pay rates are adjusted annually under policies and procedures established by the Federal Pay Comparability Act of 1970. Although the current system for adjusting pay rates is relatively new, the comparability principle on which it is based goes back many years. Broadly defined, "comparability" means equal pay for substantially equal work, both within the federal government (internal alignment) and in comparison with equivalent jobs in the private sector (external alignment). Specifically, internal alignment requires pay rates that reflect work and performance distinctions among federal employees; external alignment requires that federal salaries be commensurate with private industry pay for the same level of work. The system by which this is accomplished is known as the "comparability process."

DATA COLLECTION

As a first step in the comparability process, the Bureau of Labor Statistics conducts a National Survey of Professional, Administrative, Technical, and Clerical (PATC) Pay. This is an annual survey required by section 5301 of Title 5 of the United States Code, and was designed specifically for the comparability process. The first survey was conducted in 1960 and was based on data collected over a six-month period (January-June). Since then, changes in the design of the survey--i.e., the determination of the industrial, geographic, establishment size, and occupational coverages--have been the responsibility of the Office of Management and Budget and the Civil Service Commission. The Bureau of Labor Statistics

provides advice to OMB/CSC concerning the feasibility of proposed survey changes, and it is still responsible for the conduct of the PATC survey and collection of data.

Geographic Coverage

The PATC survey covers metropolitan and nonmetropolitan areas of the United States, excluding Alaska and Hawaii. Federal employees in Alaska and Hawaii receive pay allowances to compensate for differing conditions, but no other locality or geographic pay differentials exist. The PATC sample is designed to support national pay estimates for determination of a servicewide General (salary) Schedule.

Industry and Size-of-Establishment Coverage

The survey covers all industry classes. But it looks only at establishments that employ sufficient numbers in the occupations surveyed to materially influence the national estimates. The coverage is summarized as follows:

TABLE 3. PATC SURVEY CRITERIA--SIZE OF INDUSTRY

Industry Division	Minimum Size-of-Establishment
Manufacturing	250 employees
Public Utilities a/	100
Wholesale Trade	100
Retail Trade	250
Finance, Insurance, and Real Estate	100
Services b/	100

a/ Transportation, communication, gas, electric, and sanitary services.

b/ Engineering and architectural services, and commercially operated research, development, and testing laboratories only.

The sectors not covered by the survey include governments, agriculture, mining, contract construction, and most of the service industries. Governments are excluded by the statutory principle of comparability with rates paid in "private enterprise." Other classes are excluded because working conditions or pay practices are so different from the federal government's as to materially affect the meaning of the rates paid.

The minimum size-of-establishment cutoff varies from one industry to another because the size of the professional, administrative, technical, and clerical (white-collar) work force varies from industry to industry. In the finance industry, for instance, nearly the entire work force is engaged in the white-collar occupational universe covered by the survey. In manufacturing and retail trade, however, 20 to 25 percent of the work force consists of white-collar workers. Thus, the graduated size criterion excludes from the survey establishments not likely to have a white-collar work force of 50 to 60 employees.

Jobs and Work Levels

Currently there are 19 jobs (such as chemist, clerk-typist, buyer, etc.) and 80 work levels (e.g., accountant I, II, III, IV) included in the PATC survey. A staff technical paper recently completed by OMB/CSC recommended a list of 28 jobs and 135 work levels. The new list does not include five jobs currently surveyed--accounting clerks, keypunch operators, keypunch supervisors, drafters, and job analysts. These five jobs represent 15 work levels. The rationale for excluding these jobs is their relative lack of numerical significance. The recommended job list would result in a significant improvement over current job selection in terms of representation of the federal work force. The current list covers about 25 percent of General Schedule employees; adopting the new list would expand coverage to about 45 percent. (See Appendix A.)

Occupational Coverage

An important question to be resolved in determining pay is "which and how many?" jobs should represent given

work levels in comparing federal and private enterprise pay. While standards have been established to determine which jobs qualify for inclusion in the PATC survey, 1/ there are no criteria for selecting the number and mix of the eligible matches. The lack of such criteria allows considerable latitude in selection and produces results which are vulnerable from a statistical standpoint.

The lack of criteria for selecting the number and mix of jobs and work levels is particularly critical in those grades where there are more than two PATC occupational categories. 2/ For example, the 1975 PATC survey included nine job matches at the GS-5 work level--four professional, three technical, one clerical, and one administrative. However, of the 153,712 federal employees at the GS-5 level in March 1975, only 2.6 percent (3,954) were in professional jobs, while 72.2 percent (110,971) were employed in clerical positions. The professional category was represented by four job matches; thus, 51 percent of all professional jobs at the GS-5 level were represented in the survey. By contrast, the clerical positions were represented by just one job match; less than 5 percent of all GS-5 clerical jobs were represented. The addition in 1976 of salary data for the job of secretary greatly increased the clerical job representation at GS-5.

Timing

Since 1972, a March payroll period has been used as the average reference period, with some survey data collected both prior and subsequent to this date. The

---

1/ The criteria for including a job in the PATC survey are that the job: (1) consists of work essentially the same in private enterprise as in the government, (2) is numerically important in both sectors, (3) is surveyable by the job matching technique, (4) is covered by a published Civil Service Commission classification standard, and (5) exists across industry lines.

2/ PATC categories are professional, administrative, technical, and clerical.

lag between the March reference date and the October effective date has been the subject of several discussions between OMB/CSC and representatives of the Federal Employees Pay Council. BLS is unable to further reduce the time necessary to complete the PATC survey. OMB/CSC has rejected an alternative suggestion involving a statistical adjustment of the pay data to produce an estimate or projection of its movement after March. They feel federal pay adjustments must be based on factual data, not estimates or projections.

DEVELOPMENT OF PAY RATES

After the PATC survey data are collected, staff of the Civil Service Commission compare the private enterprise pay rates to the General Schedule salaries in order to determine the size of the adjustment. Each of the work levels for which salary data were collected corresponds to a General Schedule grade. 3/

Weighting

Prior to 1976, each work level at each grade had an identical impact on determining the private enterprise pay rates used as reference points. In 1976, private enterprise salaries were weighted to reflect the composition of the federal GS work force. This new procedure weights each grade level for total GS employment at that grade, and it also partitions (stratifies) the work levels by professional, administrative, technical, and clerical occupations. In 1976, the private enterprise weighted grade average reflects both a job weight and a category weight, rather than the simple arithmetic average used in prior years. (See Appendix B.)

3/ Although there are 18 grades, salary data for the "supergrade" work levels (GS-16, 17, and 18) have not been collected; adjustments for these grades are extrapolated.

82-861 O - 77 - 4

The Pay Line

The pay line can be thought of as a smooth curve that follows the trends of a salary schedule. Given the weighted private sector grade averages, a number of lines can be mathematically constructed to link the weighted salaries. Regardless of the shape of the line, however, it must provide a proper balance between internal and external alignment. The "standard curve," which was developed in the 1960s, was in use for several years. The curve was based on a diminishing (percentage) intergrade differential, that is, the percentage difference between GS salaries at the lower grades was greater than the percentage differential at the higher grades. Since 1970, the difference between GS-1 and GS-3 was between 27 and 29 percent while the difference between GS-14 and GS-15 was approximately 16-17 percent.

In 1976, the standard curve was abandoned in favor of a second-degree curve 4/ which was fitted to the weighted private sector salaries by standard regression (least squares of the logarithms) techniques. According to OMB/CSC, this curve (arbitrarily named the "SGH Curve") "produces a better fit to the PATC data and does a better job of closing the comparability gap, while providing proper regularity in the pattern of intergrade differentials." 5/

The SGH curve produced an intergrade difference of 28.7 percent between GS-1 and GS-2, which gradually diminished to 14.3 percent between GS-14 and GS-15. By constrast, had the standard curve been used in 1976

4/ The formula for the 1976 pay line is represented by: $\log Y = \overline{a} + X \log \overline{b} + X^2 \log \overline{c}$; where X is equal to the GS grade level, Y is the value of the pay line, and a, b, c are constants equal to $5,576.8, $1.410, and $.9983 respectively.

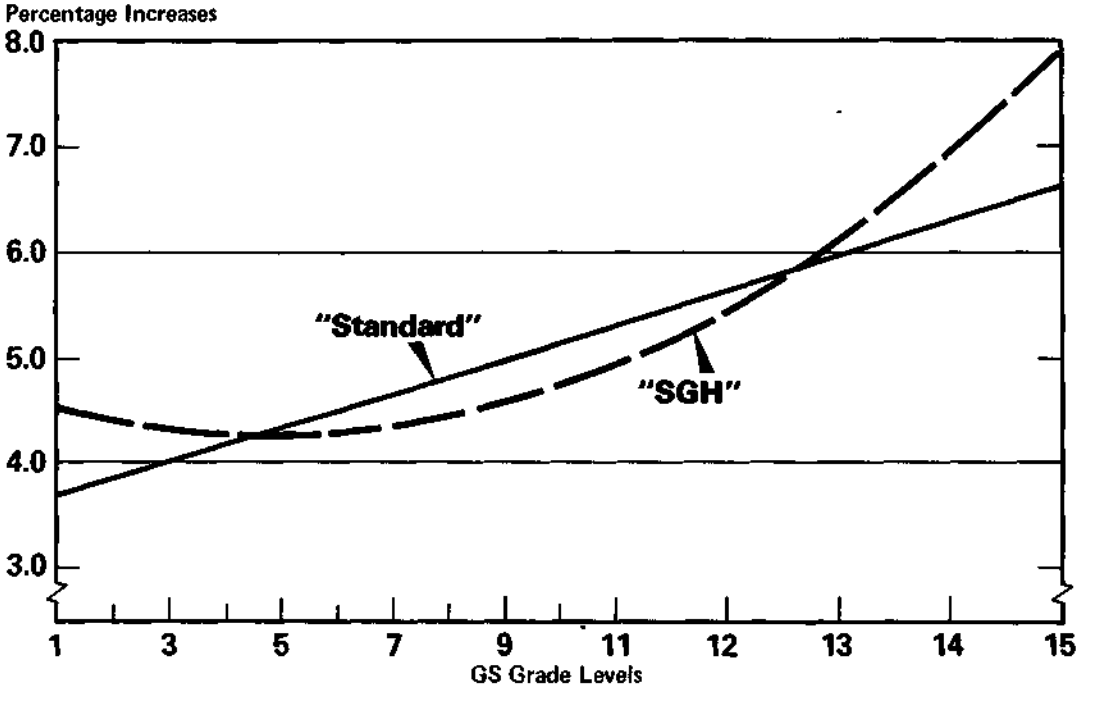
5/ 1976 Pay Agent Report.

instead of the SGH curve, the intergrade differential would decline at a slower rate and the difference between a GS-14 and GS-15 would have been 16.9 instead of 14.3 percent. As demonstrated in the accompanying graph, the SGH curve reduced the size of increases for employees between GS-4 and GS-13.

Figure 2.

GS Percentage Increases for the "SGH" and "Standard" Curves

1976 Data Base



GS Reference Points

The last step is the determination of how the private enterprise pay line will be used to make a pay comparison. A critical aspect in this determination is the development of salary reference points for federal employees at grades GS 1-15. These reference points are based on salaries at each GS grade and are analogous to the weighted averages developed for the private enterprise pay lines. The method for determining the value for these reference points has been changed.

At the beginning of the pay comparability process in 1962, step four (the median GS within-grade step) 6/ was considered to be the appropriate reference point. However, in 1972, the median shifted to step five. Analysis revealed a shift of relatively few employees could cause the median to shift again. The upward shift of the median (reference point) in 1972 would have substantially reduced the size of the pay adjustment, had not the method been changed.

Currently, GS reference points are calculated using an average salary basis; i.e., the total dollars paid employees at a given grade divided by the total number of employees at that grade. This method recognizes that the representative step at a given grade reflects differences in the rate of career progression among employees. In addition, the method avoids abrupt fluctuations in determining a representative salary level.

6/ There is a constant dollar differential between adjacent steps at each GS grade. In order to determine the salary rates for GS steps 2-10 at any grade, divide the step one rate by 30 and round to the nearest whole dollar. This is the dollar differential; i.e., step two = step one rate + (1) x (dollar differential), step three = step one + (2) x (dollar differential), etc.

Once the average salaries are determined, a pay line identical in shape to the private sector pay line is constructed through standard least square regression. The resulting grade adjustments eliminate the pay gap between the private sector and General Schedule pay lines. For example, the difference between the private sector (PATC) and General Schedule pay line for GS-5 (fiscal year 1977) was 4.24 percent. The "proposed" GS-5 step one rate of $9,303 represents a 4.24 percent increase over the "current" rate of $8,925 (see table 4, overleaf).

The application of the SGH curve in 1976 produced percentage increases of 4.5 percent at GS-1 step one, 4.2 percent at GS-5 step one (greatest concentration of employees are at the GS-5 level), and 7.9 percent at GS-15 step one. The overall cost, as a percentage of payroll, for the 1976 increases was 5.17 percent; the average percentage increase received by employees was 4.83 percent. Under the standard curve, the overall cost would have been 5.18 percent of payroll, but the distribution would have been much different (see graph on page 13).

One very important final point should be made. The annual salary adjustment for federal employees has often been referred to as a cost-of-living adjustment--it is not. The annual adjustment reflects changes in productivity, labor supply and demand, organization of labor markets, as well as the cost of living. It is a comparability adjustment and, theoretically, could result in a reduction in federal pay.

TABLE 4. COMPUTATION OF GENERAL SCHEDULE PAY RATES, FISCAL YEAR 1977

	Private Enterprise (PATC) Payline			General Schedule Payline			Increases Needed		
Grade	PATC Average Salaries	Intergrade Differentials	PATC Payline	Current GS Average Salaries	Intergrade Differentials	Current Average Salary Payline	Current Step 1 Rates	Difference Between PATC & CS Paylines	Proposed Step 1 Rates
GS-1	$6,186	-	$6,352	$5,658	-	$6,078	$5,559	4.51%	$5,810
2	6,877	-	7,212	6,487	-	6,909	6,296	4.39	6,572
3	8,225	28.450	8,160	7,617	28.702	7,823	7,102	4.30	7,408
4	9,494	-	9,201	8,881	-	8,826	7,976	4.25	8,316
5	10,189	26.735	10,341	10,139	26.808	9,920	8,925	4.24	9,303
6	10,344	-	11,583	11,411	-	11,109	9,946	4.27	10,370
7	13,513	25.043	12,931	12,429	24.942	12,395	11,046	4.33	11,523
8	13,300	-	14,387	14,145	-	13,778	12,222	4.42	12,763
9	16,465	23.373	15,953	15,037	23.103	15,258	13,482	4.55	14,097
10	-	-	17,631	17,092	-	16,835	14,824	4.72	15,524
11	19,776	21.725	19,419	18,288	21.292	18,507	16,255	4.93	17,056
12	22,708	20.100	23,322	21,848	19.507	22,117	19,386	5.45	20,442
13	27,429	18.496	27,636	26,009	17.748	26,042	22,906	6.12	24,308
14	32,533	16.914	32,311	30,541	16.015	30,213	26,861	6.94	28,725
15	38,696	15.353	37,271	35,636	14.308	34,536	31,309	7.92	33,789
16	-	13.813	42,419	-	12.626	38,897	36,338	9.06	39,629*
17	-	12.293	47,634	-	10.969	43,163	42,066*	10.36	46,423*
18	-	10.793	52,775	-	9.336	47,192	48,654*	11.83	54,410*

NOTE: All figures rounded independently; actual computations utilized a very high degree of precision.

* Actual rates limited to the rate for level V of the Executive Schedule which, under this adjustment, would become $39,600. Salary data for grade 10 were considered statistically suspect and not included.

CHAPTER III REPORT OF THE PRESIDENT'S PANEL ON FEDERAL COMPENSATION (DECEMBER 1975) AND ITS POTENTIAL IMPACT ON THE CURRENT SYSTEM

The cost magnitude, pervasiveness, and equity issues raised by General Schedule pay have posed serious questions about the current system for determining civil service pay. In recent years, discussions of these questions have revolved around three or four possible structural changes in the system. The most recent major review of federal pay was that of the President's Panel on Federal Compensation. The primary objective of the Panel was to conduct a comprehensive review of major federal employee compensation systems in order to recommend changes that would result in a system "that is fair and equitable both to the employees and to the public."

PRINCIPAL RECOMMENDATIONS--THEIR IMPACT ON THE CURRENT SYSTEM AND COST IMPLICATIONS

The Panel's report, submitted in December 1975, made four recommendations with direct impact on General Schedule salaries:

(1) The President's agent (OMB/CSC) should continue its efforts to improve the statistical techniques used in the white-collar (PATC) survey design and pay rate determination process.

(2) The present General Schedule, which covers white-collar employees, should be replaced by a Clerical/Technical Service and a Professional/Administrative/Managerial/Executive Service.

(3) The Clerical/Technical Service should be paid local or other geographical rates.

(4) The principle of comparability should be extended to include benefits as well as pay.

Recommendation Number 1--Administrative Improvements in the General Schedule Comparability Process

The cost impact of administrative changes can be significant. For example, changes made in the determination of the GS pay rate adjustments for October 1976 (fiscal year 1977) resulted in a $2.5 billion cost reduction. The major changes were: (1) inclusion of salary data for secretaries and computer operators, (2) introduction of weighting to reflect the composition of the federal work force, and (3) development of the SGH pay line.

If the 1976 pay adjustment had been calculated on the basis of the criteria used for the October 1975 adjustment, the additional cost for pay to General Schedule employees would have been 10.3 percent of the payroll. The administrative changes in the number and treatment of job matches reduced the size of the fiscal year 1977 increase from 10.3 to 5.17 percent. The increase for military personnel, as a result of being "linked" to the average percentage increase received by GS employees, was reduced from 10.3 to 4.83 percent. In addition, the reallocation of basic pay increases to allowances for quarters and subsistence produced an October 1976 effective rate increase of 4.52 percent for military pay.

TABLE 5. COST IMPACT ON EXECUTIVE BRANCH PAYROLL OF THE ADMINISTRATIVE CHANGES TO THE COMPARABILITY PROCESS

Schedule	FY 1976 Payroll Base (Annualized; Dollars in Billions)	FY 1977 Payroll Cost		
		October 1975 Criteria	October 1976 Criteria	Cost Reduction
General Schedule and Linked Civilian	$25.7	$28.4	$27.0	$1.3
Uniformed Military (Linked to GS)	22.6	24.8	23.7	1.2
Total	$48.3	$53.2	$50.7	$2.5

The five year cumulative cost reduction as a result of the administrative changes will be $15.0 billion.

TABLE 6. FIVE-YEAR COST IMPACT OF THE ADMINISTRATIVE CHANGES TO THE COMPARABILITY PROCESS, DOLLARS IN BILLIONS

Pay System	1978	1979	1980	1981	1982
GS and Linked Civilian	-$1.4	-$1.5	-$1.6	-$1.6	-$1.8
Uniformed Military	-1.3	-1.3	-1.4	-1.5	-1.6
Total Reduction	-$2.7	-$2.8	-$3.0	-$3.1	-$3.4

Recommendation Number 2--Replace the General Schedule with a Professional/Administrative/Managerial/Executive Service and a Clerical/Technical Service

At present, the General Schedule establishes pay rates for about 1.4 million white-collar employees in a wide range of professional, administrative, technical, and clerical occupations. The 1977 payroll costs and associated benefits for these employees totaled about $25.2 billion.

TABLE 7. OCCUPATIONAL DISTRIBUTION OF GENERAL SCHEDULE EMPLOYEES, DOLLARS IN BILLIONS

Occupation	Employees		Compensation Cost	
	Number	% of Total	Amount	% of Total
Professional/ Administrative	604,500	43	$14.9	59
Clerical/ Technical	800,000	57	10.3	41
Total	1,404,500	100	$25.2	100

The rationale for establishing two separate schedules to replace the General Schedule is based on pay practices in the private sector and on what some view as equity considerations. Specifically, the existing General Schedule does not provide:

(1) External pay alignment, since in the private sector, professional pay is based on national norms while local pay schedules are used for clerical employees.

(2) Special consideration for entry-level positions having high promotion potential, especially professional positions.

(3) The flexibility necessary to balance internal and external alignment; i.e., equal pay for equal work both within the government and as compared to the private sector.

All this implies that many of the 800,000 clerical/ technical employees paid under the General Schedule earn more than their counterparts in the private sector. One of the claimed objectives of establishing two separate schedules to replace the General Schedule would be to bring both professional/administrative and clerical/ technical rates closer to those paid in the private sector (i.e., salaries of professionals would increase; those of support positions would decrease).

Potential Cost Impact of Replacing the General Schedule

Based on an analysis of Bureau of Labor Statistics data, 1/ the estimated cost of replacing the General Schedule with two schedules is about $50 million (see following table).

1/ Payroll increases and decreases are based on March 1976 PATC survey data provided by the Bureau of Labor Statistics. The cost changes were estimated by CBO. The methodology required development of two GS pay lines--one of which excluded clerical/technical salary data, and the second of which excluded professional/ administrative salary data. The cost estimate is the result of comparing these pay lines with the 1976 pay line adopted by OMB/CSC.

TABLE 8. PAY ADJUSTMENTS ACCOMPANYING THE REPLACEMENT OF THE GENERAL SCHEDULE, DOLLARS IN MILLIONS

Schedule	Direct Pay and Benefits	Cost Impact
Professional/Administrative/ Managerial/Executive Service	$14,910	$258
Clerical/Technical	10,260	-208
Total	$25,170	$50

Implementation of this adjustment could be accomplished in one step or phased. Replacing the General Schedule would result in a larger cost base and associated increases in annual costs. Assuming the adjustment were fully implemented in 1978, annual GS payroll and benefit costs would increase about $62 million by 1982.

TABLE 9. FIVE-YEAR IMPACT OF REPLACING THE GENERAL SCHEDULE, DOLLARS IN MILLIONS

1978	1979	1980	1981	1982
$50	$53	$56	$59	$62

Recommendation Number 3--Salaries for Clerical and Technical Postions Should be Adjusted on a Geographic Locality Basis

This recommendation is an extension of the one to redesign the General Schedule. The average salary of

clerical workers paid under the General Schedule and living in metropolitan areas other than Washington, D.C., is 6.6 percent higher than the wages of their counterparts working for private concerns. 2/ Adjusting all clerical wages (regardless of geographic location) on a local pay basis would reduce payroll costs by about $154 million, thus making the net saving from implementing recommendations number two and three about $100 million. This estimate is tenuous, and is based on summary information collected by the Civil Service Commission for stenographers and typists in 86 geographically diverse Standard Metropolitan Statistical Areas (SMSAs). 3/

Assuming recommendations two and three were both fully implemented in fiscal year 1978, the cumulative five-year cost reduction would be $560 million.

TABLE 10. FIVE-YEAR COST IMPACT OF RECOMMENDATIONS TWO AND THREE, DOLLARS IN MILLIONS

1978	1979	1980	1981	1982
-$100	-$106	-$112	-$118	-$124

The transition and administrative costs associated with implementation of local pay would be substantial. The justification for local pay thus relates more to "good" pay practices than to savings impact.

2/ Based on the Civil Service Commission staff report Locality Pay Study of October 1975, and revised employment figures provided by CSC at the request of CBO.

3/ Similar information concerning technical employees was not available. Consequently, the cost reduction assumes no net change in salaries for technical employees.

Recommendation Number 4--The Principle of Comparability Should be Extended to Include Benefits as Well as Pay

This recommendation for a "total compensation" approach would require a development and testing period "to determine the manner and extent to which the principle of comparability can be implemented." 4/

To estimate the potential impact of a total compensation approach on the future level of federal employee compensation or on the federal budget would require:

- Design of a cost-of-benefit or level-of-benefit approach for measuring and comparing employee benefits.

- Development of benefit comparison and linkage criteria such as industry and occupational coverage, establishment size, and costs.

The total compensation approach represents the most far-reaching of the Panel's recommendations in its potential impact on federal pay. If comparability with the private sector remains the basis for determining federal pay, the total compensation approach will merit serious consideration in the future. However, due to the number of unknown variables there is need for further development and experimentation with the total compensation approach.

4/ Report to the President of the President's Panel on Federal Compensation (December 1975).

APPENDIX A JOB LIST FOR THE PATC SURVEY

The following is a list of jobs recommended by the Office of Management and Budget and the Civil Service Commission. Additions to the job list currently used in the PATC Survey are indicated by an asterisk. This recommended list does not include five jobs currently surveyed--accounting clerks, keypunch operators, keypunch supervisors, drafters, and job analysts. These five jobs represent 15 work levels. The rationale for excluding these jobs is relative lack of numerical significance. The recommended job list would result in a significant improvement over current job selection in terms of representation of the federal work force. The current list covers about 25 percent of General Schedule employees; adopting the new list would expand coverage to about 45 percent.

TABLE A-1.

Grade and Job	PATC Category a/
GS-1	
Clerk Typist	C
General Clerical and Admin.*	C
Mail and File Clerk	C
GS-2	
Clerk Typist	C
General Clerical and Admin.*	C
Mail and File Clerk	C

a/ In addition to the standard PATC categories of professional (P), administrative (A), technical (T), and clerical (C), the expanded list includes jobs classified as other (O).

TABLE A-1 (Continued)

GS-3	
Clerk Stenographer	C
Clerk Typist	C
General Clerical and Admin.*	C
Guard*	O
Mail and File Clerk	C
Nursing Assistant*	O
Supply Clerk and Technician*	C
Surveying Technician*	O
GS-4	
Clerk Stenographer	C
Clerk Typist*	C
General Clerical and Admin.*	C
Guard*	O
Mail and File Clerk*	C
Nursing Assistant*	O
Secretary	C
Supply Clerk and Technician*	C
Surveying Technician*	O
GS-5	
Accountant	P
Accounting Technician*	T
Auditor	P
Buyer	A
Chemist	P
Clerk Stenographer*	C
Computer Operator	T
Computer Specialist*	A
Engineer	P
Engineering Technician	T
General Clerical and Admin.*	C
Guard*	O
Nursing Assistant*	O
Secretary	C
Supply Clerk and Technician*	C
Surveying Technician*	O

TABLE A-1 (Continued)

GS-6	
Accounting Technician*	T
Computer Operator	T
Engineering Technician*	T
General Clerical and Admin.*	C
Guard*	O
Nursing Assistant*	O
Secretary	C
Supply Clerk and Technician*	C
Surveying Technician*	O
GS-7	
Accountant	P
Accounting Technician*	T
Auditor	P
Buyer	A
Chemist	P
Computer Operator	T
Computer Specialist*	A
Engineer	P
Engineering Technician	T
Equipment Specialist*	T
Inventory Manager*	A
Mail and File Clerk*	C
Nurse*	P
Secretary	C
Social Insurance Admin.*	A
Supply Clerical and Technical*	T
GS-8	
Accounting Technician*	T
Clerk Stenographer*	C
Computer Operator	T
Engineering Technician*	T
Mail and File Clerk*	C
Secretary	C

TABLE A-1 (Continued)

GS-9	
Accountant	P
Accounting Technician*	T
Attorney	P
Auditor	P
Buyer	A
Chemist	P
Computer Operator	T
Computer Specialist*	A
Engineer	P
Engineering Technician	T
Equipment Specialist*	T
Inventory Manager*	A
Management Analyst*	A
Nurse*	P
Social Insurance Admin.*	A
GS-10	
Accounting Technician*	T
Computer Operator*	T
Engineering Technician*	T
Equipment Specialist*	T
Social Insurance Admin.*	A
GS-11	
Accountant	P
Attorney	P
Auditor	P
Buyer	A
Chemist	P
Computer Operator*	T
Computer Specialist*	A
Engineer	P
Engineering Technician*	T
Equipment Specialist*	A
Inventory Manager*	A
Management Analyst*	A
Nurse*	P
Personnel Management	A
Quality Assurance*	A

TABLE A-1 (Continued)

GS-12	
Accountant	P
Attorney	P
Auditor*	P
Buyer*	A
Chemist	P
Computer Specialist*	A
Engineer	P
Equipment Specialist*	A
Management Analyst*	A
Personnel Management	A
Quality Assurance*	A
GS-13	
Accountant	P
Attorney	P
Auditor*	P
Buyer*	A
Chemist	P
Computer Specialist*	A
Engineer	P
Management Analyst*	A
Personnel Management	A
Quality Assurance*	A
GS-14	
Accountant	P
Attorney	P
Auditor*	P
Buyer*	A
Chemist	P
Computer Specialist*	A
Engineer	P
Management Analyst*	A
Personnel Management	A
Quality Assurance*	A

TABLE A-1 (Continued)

GS-15	
Accountant	P
Attorney	P
Auditor*	P
Buyer*	A
Chemist	P
Computer Specialist*	A
Engineer	P
Management Analyst*	A
Personnel Management	A
Quality Assurance*	A

APPENDIX B PATC SALARY DATA WEIGHTED BY COMPOSITION OF THE FEDERAL WORK FORCE

Private sector jobs are arranged by work level and salary, and then weighted to reflect the composition of the federal work force. Specifically, work levels are distributed to reflect analogous grades (GS 1-15) in the General Schedule. Salary averages are first weighted to reflect the relative importance of work within a particular PATC occupation or occupational category (i.e., professional, administrative, technical, and clerical), and then to reflect the relative importance of each PATC occupation at a particular grade.

For example: At GS-5 (see data for GS-5 in the following table), all four PATC occupational categories are represented. In the clerical occupation, 99 percent of the clerical employees sampled are Secretary II and earn on the average $9,641. The remaining 1 percent are Keypunch Supervisor II and earn an average of $12,815. The percentage of employees within a job is the job weight. The weighted category average of $9,673 is the sum of ($12,815 x .01) plus ($9,641 x .99).

The weighted category average of $9,673 is then multiplied by the category weight of 66.6 percent. This is the percentage of all GS-5 employees who are in the clerical category. The product of ($9,673 x .666) is then added to similarly derived products for the other three categories to determine the weighted grade average of $10,189 for GS-5. That figure becomes the GS reference point for grade 5.

TABLE B-1.

	Job Average	Job Weight a/	Weighted Category Average	Category Weight a/	Weighted Grade Average
GS-1					
Clerical					
File Clerk I	$5,875	61.2%			
Messenger	6,676	38.8			
		100.0	$6,186	100.0%	$6,186
GS-2					
Clerical					
File Clerk II	6,637	16.4			
Keypunch Operator I	7,660	9.8			
Typist I	6,827	73.8			
		100.0	6,877	100.0	6,877
GS-3					
Technical					
Drafter-Tracer	8,369	25.6			
Engineering Technician I	9,064	74.4			
		100.0	8,886	13.6	
Clerical					
Accounting Clerk I	7,636	1.8			
File Clerk III	8,205	8.6			
Keypunch Operator II	8,811	11.4			
Keypunch Supervisor I	9,939	b/			
General Stenographer	8,472	7.3			
Typist II	7,975	70.8			
		100.0	8,121	86.4	
				100.0	8,225
GS-4					
Technical					
Accounting Clerk II	9,652	34.5			
Drafter I	9,763	14.8			
Engineering Technician	10,841	38.1			
Computer Operator I	7,761	12.6			
		100.0	9,884	20.4	
Clerical					
Accounting Clerk II	9,652	13.0			
Keypunch Supervisor II	11,470	0.7			
Secretary I	8,882	16.1			
Senior Stenographer	9,445	70.2			
		100.0	9,394	79.6	
				100.0	9,494

a/ Percentage weights are shown rounded to the nearest 1/10 of a percent and then forced to total to 100; actual calculations utilized a very high degree of precision.

b/ Less than 1/10 of 1 percent, but included in the actual calculation.

TABLE B-1 (Continued)

GS-5					
Professional					
Accountant I	$11,453	14.8%			
Auditor I	11,769	32.0			
Chemist I	12,473	6.1			
Engineer I	13,918	47.1			
		100.0	$12,777	2.3%	
Administrative					
Buyer I	11,732	100.0			
Job Analyst I		c/ -			
		100.0	11,732	4.9	
Technical					
Buyer I	11,732	28.9			
Computer Operator II	8,774	31.5			
Drafter II	12,029	11.6			
Engineering Technician III	12,268	28.0			
		100.0	10,981	26.2	
Clerical					
Keypunch Supervisor III	12,815	1.0			
Secretary II	9,641	99.0			
		100.0	9,673	66.6	
				100.0	$10,189
GS-6					
Technical					
Computer Operator III	10,162	100.0	10,162	33.2	
Clerical					
Keypunch Supervisor IV	14,883	0.5			
Secretary III	10,413	99.5			
		100.0	10,435	66.8	
				100.0	10,344
GS-7					
Professional					
Accountant II	13,394	14.9			
Auditor II	13,427	24.3			
Chemist II	14,077	7.3			
Engineer II	15,184	53.5			
		100.0	14,409	12.1	
Administrative					
Buyer II	14,200	83.3			
Job Analyst II	13,559	16.7			
		100.0	14,093	19.2	
Technical					
Buyer II	14,200	10.3			
Computer Operator IV	11,881	32.7			
Drafter III	15,288	7.2			
Engineering Technician IV	14,178	49.8			
		100.0	13,509	58.3	
Clerical					
Keypunch Supervisor V		c/ -			
Secretary IV	11,442	100.0			
		100.0	11,442	10.4	
				100.0	13,513

c/ Data for this job did not meet BLS' statistical criteria for publication in 1976.

TABLE B-1 (Continued)

GS-8					
Technical					
Computer Operator V	$13,523	100.0%	$13,523	81.1%	
Clerical					
Secretary V	12,342	100.0	12,342	18.9	
				100.0	$13,300
GS-9					
Professional					
Accountant III	15,428	13.7			
Attorney I	15,413	3.2			
Auditor III	16,059	28.9			
Chemist III	16,589	11.1			
Engineer III	17,482	43.1			
		100.0	16,624	20.0	
Administrative					
Buyer III	17,122	80.1			
Job Analyst III	16,091	19.9			
		100.0	16,917	39.3	
Technical					
Computer Operator VI	15,038	13.0			
Engineering Technician V	16,086	87.0			
		100.0	15,950	40.7	
				100.0	16,465
GS-11					
Professional					
Accountant IV	18,738	7.9			
Attorney II	18,667	6.2			
Auditor IV	19,952	26.0			
Chemist IV	20,429	7.4			
Chief Accountant I	20,460	2.0			
Engineer IV	20,749	50.5			
		100.0	20,225	37.7	
Administrative					
Buyer IV	20,075	48.9			
Job Analyst IV	19,142	41.1			
Personnel Director I	18,193	10.0			
		100.0	19,503	62.3	
				100.0	19,776
GS-12					
Professional					
Accountant V	23,402	5.9			
Attorney III	24,205	8.5			
Chemist V	24,099	5.8			
Chief Accountant II	22,753	2.6			
Engineer V	24,082	77.2			
		100.0	24,019	43.0	
Administrative					
Personnel Director II	21,720	100.0	21,720	57.0	
				100.0	22,708

TABLE B-1 (Continued)

GS-13					
Professional					
Attorney IV	$29,828	11.5%			
Chief Accountant III	28,136	3.2			
Chemist VI	28,868	5.4			
Engineer VI	27,737	79.9			
		100.0	$28,051	48.4%	
Administrative					
Personnel Director III	26,845	100.0	26,845	51.6	
				100.0	$27,429
GS-14					
Professional					
Attorney V	36,308	17.0			
Chemist VII	33,559	5.3			
Chief Accountant IV	33,916	5.0			
Engineer VII	30,850	72.7			
		100.0	32,074	53.5	
Administrative					
Personnel Director IV	33,060	100.0	33,060	46.5	
				100.0	32,533
GS-15					
Professional					
Attorney VI	43,747	29.3			
Chemist VIII	40,723	5.8			
Engineer VIII	36,236	64.9			
		100.0	38,696	100.0	
Administrative					
Personnel Director V		c/ -	-	-	
				100.0	38,696

c/ Data for this job did not meet BLS' statistical criteria for publication in 1976.

U. S. GOVERNMENT PRINTING OFFICE : 1977 O - 82-861