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REPORT BY THE U.S.

114106

# General Accounting Office

## Better Use Can Be Made Of Federal Professional Staff

The Federal Government is not realizing the full potential of its professional staff. About 57 percent of the professionals GAO surveyed said they spend a substantial portion of their time on tasks which should be delegated if support staff were available.



114106

When professionals must do work which does not require their skills and abilities

- the quality of their work suffers,
- a backlog of their professional duties develops,
- the mission may not be accomplished,
- job satisfaction is lower, and
- developmental and job enrichment opportunities are limited.

GAO believes that, despite personnel constraints, agencies have opportunities for substantial improvements in productivity by employing a balanced mix of professionals and support staff or automation. Agencies' work force planning capabilities need to be improved to achieve this and to convince the Congress and the Administration that overly restrictive personnel constraints should be abolished.



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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

FEDERAL PERSONNEL AND  
COMPENSATION DIVISION

B-165959

The Honorable Patricia Schroeder  
Chairwoman, Subcommittee on Civil  
Service, Committee on Post Office  
and Civil Service  
House of Representatives

Dear Madam Chairwoman:

We advised you on September 30 that we would be providing you with several reports dealing with the potential for improving productivity and enhancing the quality of working life for the Government's work force. We also pointed out the limited usefulness of the aggregate data included, concerning supervisor to nonsupervisory ratios, in assessing the effectiveness of the Federal work force. Accordingly, we are sending you this report, believing that it provides greater insight into staffing problems, especially those problems related to the use of skilled professionals who make up a large component of the Federal work force.

As you know, the work of Government is becoming increasingly complex, and it seems that this trend will continue for the foreseeable future. Adjusting to this complexity will require a departure from traditional approaches used when resources were more readily available. This makes it imperative that Government as an employer make the best use of the special talents of its professional staff, thereby providing a framework for the continued growth and enhancement of professional skills.

Trends in private sector use of professionals have increasingly highlighted (1) the potential benefits of employing professionals in tasks which require their highest skill use and (2) the opportunities that are thus afforded to support personnel through position upgrading and job restructuring which effective agency work force planning systems can contribute.

Many management experts, including Peter Drucker, in his newest book, 1/ challenge managers to look anew at what

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1/Managing in Turbulent Times, Harper & Row.

is going on around them, to reassess what they see, and to come up with new and creative responses to those events. He explains:

"Wherever there has been economic development in a country, it has been based on the purposeful management of resources for increased productivity."

Our objective in this study is to (1) determine how much time professional employees are spending on tasks which should be delegated and (2) assess the impact, in terms of costs and other results, of the time spent doing work that could be done by support staff. After developing an appropriate questionnaire, we requested that the professionals themselves provide an estimate of the time they spend on tasks which they believe should be delegated and indicate how this use of their time affected them and their agencies. We mailed questionnaires to 2,942 professionals and received responses from 2,475. Our findings and their relevance to ongoing work and to previously reported problems are summarized below and discussed in more detail in the appendixes.

Results of our survey show that about 57 percent of the professionals spend from 10 percent to over 25 percent of their time on tasks which should be delegated. Many of these tasks are ones which we have discussed in previous reports dealing with opportunities to increase the productivity of professionals. The respondents attributed this time spent on delegable tasks to a nonavailability of paraprofessionals and other support staff. Moreover, the survey results indicate that this problem is not restricted to such professionals as physicians, dentists, attorneys, and engineers. Other professionals, in a wide variety of jobs, spend comparable amounts of time on work which does not require their skills or abilities.

The responses also indicate that job satisfaction is significantly lower among professionals who (1) spend more time on work that should be delegated, (2) are given fewer opportunities to continue their professional development, (3) do not do the kind of work they like to do, and (4) have fewer opportunities to use their skills and abilities. Other adverse effects cited by the professionals included work backlogs, lower quality work, and hindrances to agency mission accomplishment. Similar problems have been the subject of a number of GAO reports which have discussed the imbalance between professional and support staff.

Employing a balanced mix of professionals and support staff offers continued opportunities for substantial improvements in agency productivity. Such improvement could result from substituting support staff for professionals to deliver about the same services at less cost. Alternatively, the same number of professionals could deliver more services if supplemented by additional support staff or automation. We believe that this can generally be accomplished within existing personnel resources and constraints.

We believe the basic reason for the imbalance between the number of professionals and the number of support staff employed is poor agency work force planning and overly restrictive and arbitrary personnel constraints. These are conditions which we have repeatedly discussed in prior reports urging agencies to improve work force planning procedures and pointing out the negative effects of personnel constraints. Removal of overly restrictive personnel constraints coupled with effective agency work force planning would provide needed management flexibility, enhance the skills and utilization of professional staff, and provide job enrichment opportunities to paraprofessionals and other support staff.

Related studies have also confirmed that employment constraints, such as personnel ceilings, have discouraged agency managers from developing better work force planning capability. We remain convinced that personnel ceilings are at best a poor substitute for sound management, but believe personnel ceilings and similar employment constraints are unlikely to be abandoned until agencies develop credible work force planning systems and acceptable ways to measure program effectiveness. Therefore, it is important that agencies be encouraged to develop an effective work force planning capability. Top agency management, however, must be convinced that the benefits derived from such a work force planning system--increased productivity and/or lower operating expenses--are worth the implementation and maintenance costs, and that the system's results will be used as the basis for OMB and congressional personnel/budget decisions.

This study and a number of our past studies disclose that, while modest steps have been taken, much remains to be done. The long-term goals of your committee, your bill (H.R. 8306), and your oversight hearings can provide a vehicle for the needed exploration of this and other aspects of work force management improvement.

As we have mentioned, your concern with agency staffing problems and their negative effects on productivity is an issue of much importance to us. We believe that the way to address this issue is to examine (1) the soundness of work force planning systems for determining the optimum number and mix of personnel needed to accomplish agency missions, (2) the constraints within the governmental system which inhibit effective work force planning and which contribute to staffing imbalances, and (3) the way in which agencies are organized to minimize duplication of effort, fragmentation of authority, unnecessary levels of review, and unnecessary Government overhead.)

We have several studies in progress which will provide a comprehensive perspective of the problems associated with employing and retaining the staff required to do the work of the Federal Government. These studies will offer innovative ways for the Congress and the Administration to oversee and for the agencies to better manage the size, composition, and cost of the total Federal work force. Our overall objective in this comprehensive work is to identify the needed changes in work force planning policies, systems, and budgeting and to demonstrate whether specified changes would improve human resources management. We believe the continued support of your Subcommittee in this endeavor will substantially enhance the prospect of the success of various constructive initiatives currently being undertaken to improve Federal work force productivity.

Sincerely yours,



H. L. Krieger  
Director

BETTER USE CAN BE MADE OF FEDERAL PROFESSIONALSINTRODUCTION

The Federal Government employs about 274,000 military and 352,000 civilian personnel in General Schedule (GS) grades 12 through 15 and equivalent military grades. These people include doctors, lawyers, engineers, accountants, and managers, as well as military counterparts. Such professionals 1/ are a necessary part of the work force, performing demanding technical and managerial functions essential to Government operations. On the average, they receive substantially higher salaries than people working in lower grades.

Civil service reform, with its stress on improving personnel management, and congressional and public intent on restraining Government spending emphasize that Federal agencies should more effectively manage the Federal work force. One aspect of more effective management involves balancing the number and kinds of people in the work force with the work load. Professionals should be able to devote most of their working hours to tasks requiring their knowledge, skills, and abilities. They can function as professionals if they can delegate less demanding work to paraprofessionals, technicians, and clerical people, or if the less demanding work is automated. Imbalances between work force and workload are likely unless agencies have work force planning systems capable of anticipating staff needs, hiring the number and kinds of employees needed, and assigning them where needed.

OBJECTIVE, SCOPE, AND METHODOLOGY

During the past years, we have issued numerous reports showing how Government agencies can more efficiently and effectively utilize their professional and support personnel.

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1/The Office of Personnel Management (OPM) classifies full-time, civilian, white-collar employees into five categories: professional, administrative, technical, clerical, and others. The Air Force considers all of its military officers in the professional category. In this report, we are concerned with GS-12 through GS-15 civilians in positions classified as professional and administrative, and with military officers--captain through colonel.

In a recent report 1/ we showed that using expanded-function dental auxiliaries (dental assistants) enables dentists to concentrate on more complex dental tasks and treat additional patients. We also reported on opportunities for productivity gains in civil legal services through systematizing and automating operations. 2/ These reports and other reports are discussed in more detail on pp. 7 to 9.

Our objective in this review is to determine how much time professional employees are spending on tasks which should be delegated and to assess the impact of this particular use of a professional's time.

We conducted this study by requesting the professionals themselves to provide an estimate of the time they spend on tasks which they believe should be delegated, and to indicate how this use of their time affected them and their agencies. We mailed questionnaires to 2,942 professionals, randomly selected from about 129,000 professionals employed by the Air Force, the Justice Department, Veterans Administration, and the Army Corps of Engineers. 3/ (See app. II.) These departments and agencies were selected for test because they collectively employ large numbers of attorneys, dentists, engineers, and physicians, as well as other professionals. At headquarters and local offices of these agencies, we obtained general information on staffing policies and practices. We also reviewed data and discussed employment practices related to professional staff and support personnel with headquarters officials of the Office of Management and Budget (OMB) and OPM.

The professionals who responded to the questionnaire comprised about 84 percent of the sample. We analyzed their responses in accordance with generally accepted statistical methods determining significance, where applicable, at the

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1/"Increased Use of Expanded Function Dental Auxiliaries Would Benefit Consumers, Dentists, and Taxpayers" (HRD-80-51, Mar. 7, 1980).

2/"Quality Civil Legal Services for the Poor and Near Poor are Possible Through Improved Productivity" (FGMSD-79-46, Oct. 19, 1979).

3/Only engineers were selected from Corps of Engineers.



95-percent confidence level. Appendix III shows further details on the development of the questionnaire and the statistical methods used.

PROFESSIONALS' TIME SPENT ON  
LOWER LEVEL WORK

The Government is not realizing the full productive potential of its professionals. The four agencies we surveyed require civilian professional employees and military officers to do work which does not require their professional skills. Fifty-seven percent of the respondents to our questionnaire said that they spend from 10 to over 25 percent of their time performing tasks which should be delegated. On the basis of sample results, we estimate the additional salary and fringe benefit costs for having professionals perform these tasks at these agencies to be about \$181 million a year. <sup>1/</sup> Previous work, discussed herein, indicates that the problem is not unique to these agencies and that Government-wide costs are far greater than \$181 million.

The survey responses also indicate that requiring professionals to do work which does not require their professional skills and abilities

- causes the quality of their work to suffer,
- creates a backlog of their professional duties,
- hinders mission accomplishment,
- lowers their job satisfaction, and
- limits developmental and job enrichment opportunities,

The need to conserve valuable professional time is well recognized in Government. Several million people in lower GS grades are employed to perform those tasks which need not and should not be done by higher paid professionals. The professionals responding to our survey indicate that they are delegating tasks but are unable to delegate as much as they should.

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<sup>1/</sup>At the 95 percent confidence level, the amount could range from \$168.8 million to \$193.5 million.

About 67 percent of the respondents to our questionnaire cited personnel ceilings as a reason for not being able to delegate more of the work. OMB imposes the ceilings to limit the number of people employed by agencies. There is substantial evidence that such employment limitations cause staff shortages and inhibit agency management from establishing work force planning systems which could result in a better balance of staff and workload. (See p. 12.) A number of our reports, however, have shown opportunities to improve the productivity of professionals, while working within the limitations of the ceilings imposed by OMB. This improvement could come about through greater use of paraprofessionals and/or by automating more of the workload.

Additional costs of having professionals  
do work which should be delegated

We asked the professionals to estimate the percent of time they spend on tasks which they should delegate. The survey responses showed that such time averaged about 11 percent. The following table presents a breakdown by profession.

Percent Of Time Spent on Tasks  
Which Should Be Delegated

<u>Profession</u>	<u>Agency A</u>	<u>Agency B</u>	<u>Agency C</u>	<u>Agency D</u>	<u>Overall</u>
Attorneys	-	10.4	10.5	12.4	10.9
Dentists	-	-	12.0	16.0	13.9
Engineers	11.3	-	16.4	12.4	12.4
Physicians	-	-	9.3	12.5	10.3
Others (note a)	-	12.0	13.2	10.7	11.1
Overall	11.3	11.6	11.5	11.1	11.3

a/All professionals not specifically listed.

We did not confirm the accuracy of the respondents' time estimates, but the averages calculated from the responses by agency and profession were generally comparable. However, the individual responses ranged from zero to over 25 percent as shown by agency in the following table.

Percent of time spent on support tasks	Percent of work force				Total
	Agency A	Agency B	Agency C	Agency D	
0-9	42	40	40	45	43
10-14	18	21	23	16	18
15-19	6	8	7	7	8
20-24	11	11	13	12	12
25 and over	23	20	17	20	19

Some of the time spent by professionals on lower level tasks may be unavoidable. For example, the workloads of some small offices may require one or more professionals but may not be sufficient to justify additional support staff. Since about 43 percent of the respondents reported less than 10 percent, we believe limiting each professional's time on such tasks to 10 percent is a reasonable goal. We made an analysis, therefore, counting only the time spent on lower level work, reported as being above 10 percent by each professional responding to our survey. The time spent above 10 percent averaged 7.6 percent for the entire sample. This ratio, applied to the projection base of about 108,000 professionals (see app. III, p 32), resulted in an estimated equivalent of 8,274 full-time professionals. The following table shows an analysis of this estimate by agency and profession.

<u>Profession</u>	<u>Agency A</u>	<u>Agency B</u>	<u>Agency C</u>	<u>Agency D</u>	<u>Total</u>
Attorneys	-	151	25	59	235
Dentists	-	-	52	118	170
Engineers	379	-	65	847	1,291
Physicians	-	-	459	221	680
Others	-	760	661	4,477	5,898
Total	<u>379</u>	<u>911</u>	<u>1,262</u>	<u>5,722</u>	a/ <u>8,274</u>

a/This could vary up or down by 563 at the 95 percent confidence level.

Data obtained from the Department of Defense shows that the Government's costs for employing professionals in these agencies exceed, by an average of \$21,900 a year, the costs for employing people in lower pay grades. (See app. IV.) Thus, it appears that by substituting 8,274 people in lower grades for professionals, the four agencies could save about \$181 million a year without reducing production. Alternatively, if budgeting resources permitted, the agencies could

increase their services by supplementing the professionals with additional paraprofessional or clerical staff, or by automating some tasks where feasible.

#### KINDS OF PERSONNEL NEEDED

We asked each respondent who performed work that could be delegated to indicate the type of assistants that they needed to support them. About 25 percent of the respondents indicated they needed assistants. The following table shows by professional category the percent of such respondents identifying the type of clerical and technical personnel most needed.

<u>Dentists</u>	<u>Percent of respondents</u>	<u>Physicians</u>	
Dental assistant	38%	Medical technician	15%
Expanded function dental auxiliary	17%	Physician assistant	8%
Dental hygienist	12%	Administrative or clerical	49%
Administrative or clerical	15%		
<u>Attorneys</u>		<u>Engineers</u>	
Paralegal	33%	Engineering technician	21%
Legal clerk or technician	19%	Engineering aid	12%
Administrative or clerical	37%	Administrative or clerical	50%
		<u>All other professionals</u>	
		Technician (various types)	15%
		Administrative or clerical	70%

We also asked each respondent to describe one or two of the most significant tasks they were doing which should be delegated. The tasks identified ranged from clerical duties to complex technical functions. Many of these tasks have been listed in our reports.

#### Dentists and physicians

Dentists and physicians responding to our questionnaire cited the following tasks as those they should be able to delegate.

Physicians

Taking temperatures  
 Keeping routine records  
 Drawing blood samples  
 Ushering patients

Dentists

Making impressions of teeth  
 Fabricating temporary crowns  
 and bridges  
 Ordering supplies  
 Calling people to set up  
 appointments

A 1971 GAO report 1/ showed that many physicians, dentists, and nurses fill staff and administrative positions and that, in some positions, medical professional abilities are used only part time. This study also reported that medical professionals assigned to treatment facilities could give more time to patient care if command, administrative, and nonprofessional duties were assigned to qualified nonprofessional personnel. Also cited was the lack of a uniform method of establishing medical manpower requirements.

A 1979 report 2/ indicated that an insufficient number of physicians seriously impaired the ability of the military's direct medical care system to deliver care in peacetime. The military services are attempting to fill the physician gap with other medical care providers such as physician assistants. The report points out that physicians are often constrained by administrative paperwork and lack of support staff and makes several recommendations to improve the physicians' environment, including the reduction of a physician's nonmedical duties.

In comments on our report, the Secretary of Defense said that reducing physicians' nonmedical duties has been recognized as a problem and that efforts are underway to identify solutions. The Secretary noted, however, that improvement in this area will require additional support personnel.

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1/"Improvements Needed in Establishing Requirements for/and Uses of Medical Professional Personnel in the Military Services" (B-169556, Dec. 16, 1971).

2/"Military Medicine is in Trouble: Complete Reassessment Needed" (HRD-79-107, Aug. 16, 1979).

A 1975 report 1/ showed that the use of physician extenders would increase the productivity of physicians. Physician extenders do many tasks, previously done only by physicians, that do not require the extensive skill and knowledge of a physician. In those medical practices we reviewed which employed physician extenders, the number of patients seen had increased, while the physicians' total time spent on the job had remained the same or decreased. Also, some physicians spent a greater percentage of their time on more complex cases. The recommendations made in this 1975 report were that physician extenders be used to help alleviate the Nation's health manpower maldistribution problems and be provided with the mobility to locate in health manpower shortage areas. In response to this report, the Department of Health, Education, and Welfare (now the Department of Health and Human Services) said it intended to more vigorously pursue the placement of physician extenders in deficient areas.

A March 1980 GAO report 2/ describes how employing expanded function dental auxiliaries (EFDAs) increased the productivity of dentists in private practice from 7 to 400 percent, depending on the number of EFDAs employed and the number of dental chairs operated. EFDAs are dental assistants or dental hygienists who have obtained additional formal education or on-the-job training to perform a wide range of expanded clinical functions and patient care procedures that do not require the extensive knowledge and skill of a dentist.

The report also shows that the Department of Health Education, and Welfare, Division of Dentistry, has estimated that a dentist ideally should have at least three dental chairs equipped and routinely available for restorative work. According to a 1977 American Dental Association survey, about 47 percent of the dentists responding had three or more dental chairs. Moreover, adequately trained chairside assistants ideally should be available to perform such tasks as passing instruments and mixing materials.

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1/"Progress and Problems in Training and Use of Assistants to Primary-Care Physicians" (MWD-75-35, Apr. 7, 1975)

2/"Increased Use of Expanded Function Dental Auxiliaries Would Benefit Consumers, Dentists, and Taxpayers" (HRD-80-51, Mar. 7, 1980).

This 1980 report contains a recommendation that OMB establish a policy for emphasizing and promoting the use of EFDAs to the extent possible in all federally operated or funded dental care delivery programs. In comments on the report, the Director stated that OMB will determine the best approach for encouraging appropriate use of EFDAs in Federal programs.

#### Attorneys

Attorneys responding to the questionnaire said they were spending time on such tasks as

- reviewing accounts and claims,
- proofreading and processing legal claims,
- making routine legal searches, and
- handling files and correspondence.

A 1978 GAO report relating to the 1965 Voting Rights Act 1/ showed that the Department of Justice could expand its use of paraprofessional staff and increase their responsibilities, thereby freeing additional attorneys to handle more litigative activities and other matters requiring their legal expertise.

This report also indicated that certain legal actions could be taken without the need for additional attorneys through more effective use of the paraprofessional staff and through the development and implementation of a systematic approach for identifying potential litigative activity. Since the issuance of this report, the Department of Justice has expanded its use of paralegals and legal technicians.

In a 1978 report on the military justice system 2/, we concluded that the number of support personnel is inadequate at most legal offices and that attorneys perform many functions which could be done by lower paid support personnel.

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1/"Voting Rights Act--Enforcement Needs Strengthening" (GGD-78-19, Feb. 6, 1978).

2/"Fundamental Changes Needed to Improve the Independence and Efficiency of the Military Justice System" (FPCD-78-16, Oct. 31, 1978).

We also reported on opportunities for productivity gains in a 1979 report on legal services for the poor.<sup>1/</sup> This report discusses the provision of quality legal services for the poor and near poor and suggests how to improve the productivity of these services. Based on private sector advances to increase productivity in the legal profession, we recommended developing and instituting a research and demonstration program aimed toward systematizing and automating operations.

### Engineers and others

Engineers and other professionals responding to the questionnaire indicated they were doing a variety of routine tasks which they should have been able to delegate. Examples of these tasks follow.

#### Engineers

Estimating and analyzing costs  
 Handling routine correspondence  
 Preparing reports  
 Reviewing Government estimates

#### Other professionals

Consolidating and  
 tabulating reports  
 Ordering supplies and  
 equipment  
 Preparing graphic  
 illustrations

### JOB SATISFACTION

Job satisfaction is one of many factors having an important bearing on productivity. Responses to the questionnaire showed that job satisfaction, although high for approximately 54 percent of the respondents, was lower among those who

- spent more time on tasks they should have been able to delegate,
- had less opportunity provided by the agencies to develop their professional skills,
- had less opportunity to do the kind of work they like to do, and

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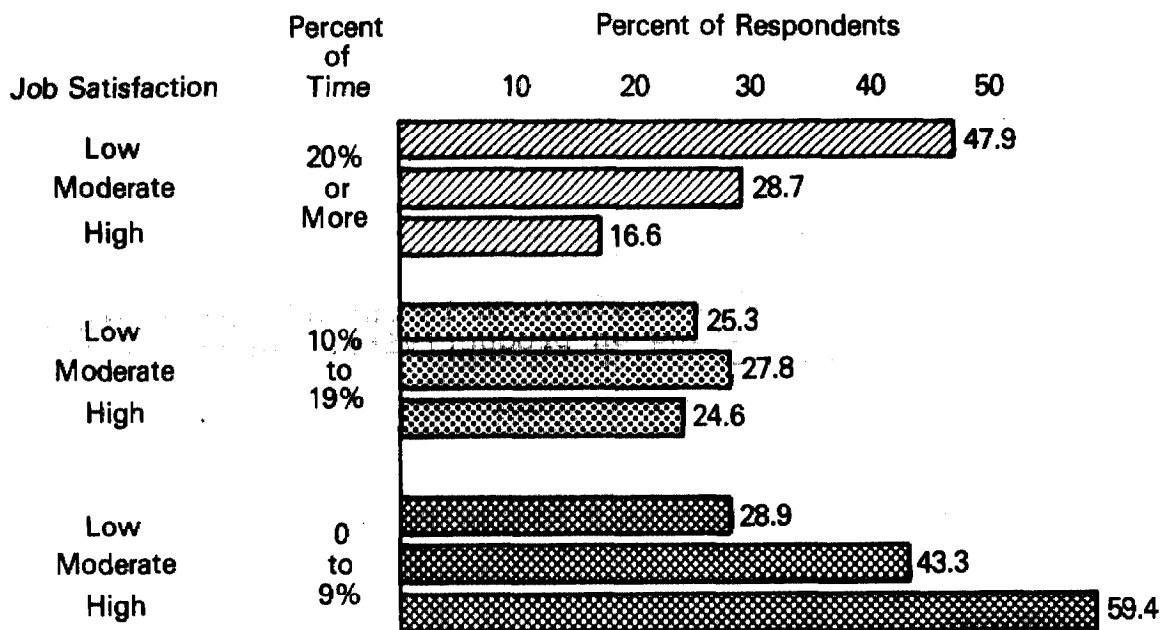
<sup>1/</sup>"Quality Civil Legal Services for the Poor and Near Poor are Possible Through Improved Productivity" (FGMSD-79-46, Oct. 19, 1979).



--had less opportunity to make good use of their skills and abilities.

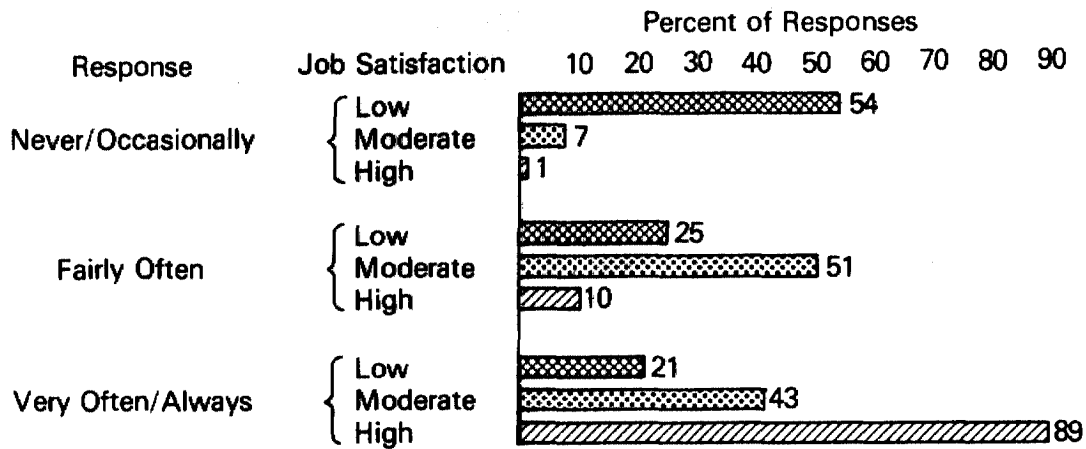
Those reporting high job satisfaction spent an average of 7.9 percent or significantly less time on lower level tasks than the 15.7 percent spent by those reporting lower job satisfaction. As shown on the following chart, about 59 percent of those reporting high job satisfaction had spent less than 10 percent of their time on tasks they should have been able to delegate. In contrast, about 47 percent of those reporting lower job satisfaction had spent 20 percent or more of their time on such tasks.

**PROFESSIONALS' JOB SATISFACTION AND TIME ON LOW LEVEL TASKS**

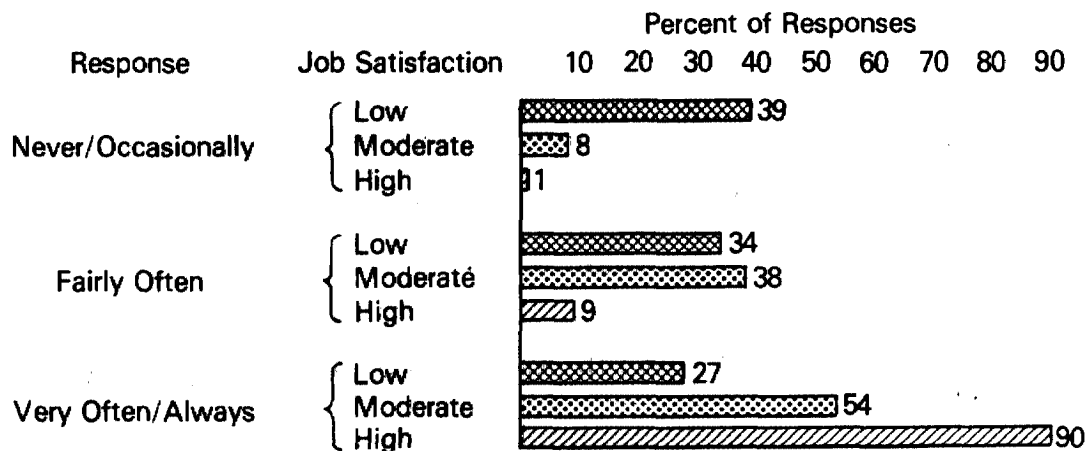


We found a direct association between professionals' job satisfaction and the extent of their involvement in lower level tasks, opportunities for professional development, doing the kind of work they like, and making good use of their skills and abilities. The following charts show further details on the professionals' responses concerning job satisfaction. (See app. V for a more detailed analysis).

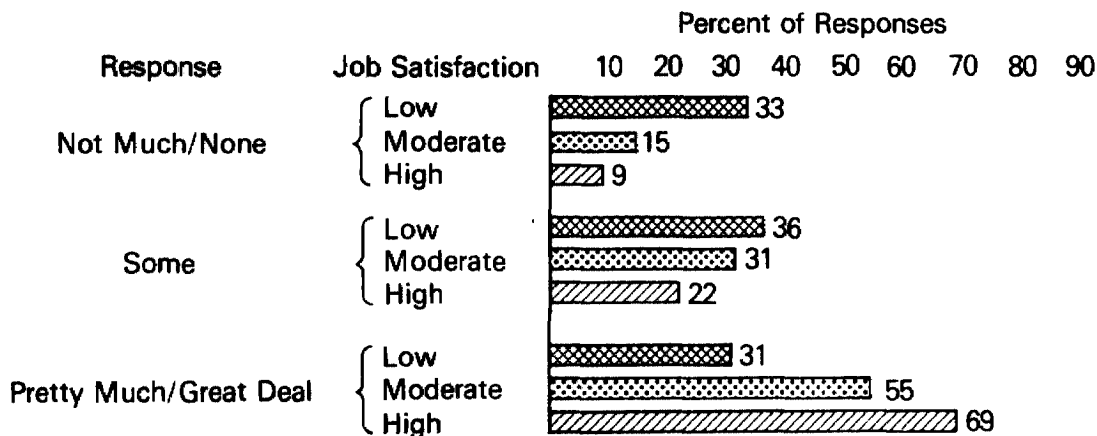
**PROFESSIONALS' JOB SATISFACTION  
AND OPPORTUNITY TO DO THE KIND OF WORK THEY LIKE**



**JOB SATISFACTION  
AND OPPORTUNITY TO USE PROFESSIONAL SKILLS**



**JOB SATISFACTION AND  
OPPORTUNITY OF PROFESSIONALS TO CONTINUE DEVELOPMENT**



OTHER ADVERSE EFFECTS

We asked the respondents who were doing tasks which they believed should be performed by people in lower grades to indicate what impact doing such tasks had on them. Only 7 percent said that their performing such tasks had no impact, while 93 percent indicated one or more of the following adverse effects:

Creates work backlog	68%
Causes lower quality work	36%
Hinders agency mission	41%

Similar problems have been discussed in our prior reports. In general comments to our questionnaire, respondents stated that having to perform lower level tasks causes many professionals to seek other employment.

REASONS FOR NOT DELEGATING TASKS

The reasons why professionals are doing work they should be delegating are undoubtedly complex and varied. The predominate reason cited by about 67 percent of the respondents to our questionnaire is personnel ceilings which cause an imbalance between the number of professionals and the number of support staff employed. This is a common problem we have discussed in many reports which urged agencies to develop and use better work force planning <sup>1/</sup> procedures. (See app. VI.)

Personnel ceilings--a persisting problem

For years, the Office of Management and Budget (OMB) has imposed personnel ceilings on agencies to limit the size

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<sup>1/</sup>While there is no commonly accepted definition, "work force planning" is generally used to categorize a broad range of data gathering and analytical tasks that are performed to (1) determine the quantity and type of skills that would be needed to accomplish the required work of the organization and (2) identify the volume and type of personnel management actions that will be needed during the budget or program period to obtain, develop, and maintain the work force that will do the work. These two broad subdivisions of organization work force planning are referred to as the "manpower requirements determination" phase and the "staffing needs planning" phase.

of the Federal work force. OMB believes the ceilings are needed to keep Federal activities at a reasonable level, and recent legislation supports their use.

We have issued a number of reports showing that such employment limitations deprive agencies of the discretion they need to effectively manage their resources. These reports illustrate the problems caused by insufficient staff and staffing imbalances. The problems affect a broad range of Government services, causing work backlogs, ineffective implementation of legislative mandates, and excessive use of overtime and consultants.

For example, a June 1977 report, 1/ on personnel ceilings shows that, because of the ceilings, agencies in seven executive departments had deferred or canceled work, experienced shortages in certain skills, and experienced imbalances between clerical and professional staff.

In commenting on that report, the Director, OMB, stated that the ceilings exist because of the proper concern of the President, many members of the Congress, and the public about the number of employees on the Federal payroll, regardless of any other considerations.

In February 1980, we discussed with OMB our report 2/ to the Congress on public land management. This report shows that the Bureau of Land Management was experiencing backlogs and a variety of other problems because of staff shortages caused by personnel ceilings. OMB's Chief, Resources System Branch, said that OMB still opposes any discontinuance of personnel ceilings. He said it is unrealistic to expect the agencies to do everything they are legislatively authorized to do and the purpose of the ceilings is to force agencies to limit their efforts to a realistic level.

Since 1977 the Congress has passed two laws which support use of the ceilings. The Civil Service Reform Act of 1978 limits the number of civilian employees in the executive branch at the end of fiscal year 1979, 1980, and 1981 to the number of such employees on September 30, 1977. The Federal

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1/"Personnel Ceilings--A Barrier to Effective Manpower Management" (FPCD-76-88, June 2, 1980).

2/"Changes in Public Land Management Required to Achieve Congressional Expectations" (CED-80-82, July 16, 1980).

Employees Part-time Career Employment Act of 1978 requires that part-time career employees be controlled on a fractional basis beginning in fiscal year 1981.

OMB says that it plans to replace current year-end ceilings with workyear ceilings (full-time equivalents) in fiscal year 1982--a change it says will alleviate many of the management problems associated with current ceilings and permit agencies to hire more permanent part-time employees. We believe, however, this new control will require a much improved agency work force planning capability.

#### OMB ACTIONS TO PROMOTE BALANCED WORK FORCE

OMB has issued a number of circulars to the heads of executive departments and agencies suggesting management action to improve efficiency and overall mission performance. In Circular A-11, OMB encourages agencies to use work measurement in determining staffing requirements and in preparing budget estimates. The circular also directs agency heads to establish grade reduction goals. The circular suggests a number of options available to agencies in attaining such grade reductions such as reorganizing work where appropriate so that it can be accomplished with lower graded employees. Circulars A-64 and A-117 provide additional guidance related to work force planning.

According to OMB officials, however, their agency does not have enough manpower resources to evaluate and monitor agencies' management systems to determine the effectiveness of its guidance. We were advised by OMB budget examiners and agency officials that grade reduction goals are set by agencies and are discussed during budget considerations. Other budgetary data submitted, however, takes precedence, and reported grade reduction data is considered but usually plays a minor role.

#### LITTLE ENTHUSIASM FOR WORK FORCE PLANNING

Work force planning capability is a significant element in the ability of all agencies to establish the most productive mix of professionals and support staff. In our past and current studies on work force planning, we have found that agency progress in developing work force planning systems has been slow and that no comprehensive effort has been made in recent years to assess the actual status of agency progress in this area.

Personnel ceilings and other budgetary processes inhibit agencies from developing and using work force planning systems which could result in more nearly balanced staffs. As part of a study 1/ we did concerning the need for better work force planning, we interviewed a cross section of manpower authorities from several agencies. All were in general agreement that personnel constraints are obstacles to good work force planning, stifling management initiative to develop work force planning components. In this regard we are currently studying ways in which effective work force planning and budgetary controls can be substituted for personnel ceilings.

The limited progress in developing effective agency work force planning systems can be largely attributed to

- personnel constraints such as personnel ceilings, hiring freezes, and across-the-board cuts imposed by the Administration and Congress;
- a poor relationship between personnel resources needed to do the Federal Government's work and the budgetary process;
- the lack of incentives to do good work force planning and a poor understanding of the cost/benefit trade-offs; and
- the lack of commitment to work force planning by top agency management and comprehensive direction by the President's central management agencies, OMB, and OPM.

Although OMB, OPM, and others have undertaken several new initiatives and research efforts to improve the level and quality of work force planning, these efforts are limited in scope and do not comprehensively address the full range of problems associated with accurately determining the proper size, composition, and appropriate placement of the human resources required to do all the work of the Federal Government.

The Executive Director of the President's Council for Management Improvement has also recognized this problem and suggested to OPM that a work force planning demonstration project could be planned and initiated under Title VI of the

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1/"Federal Work Force Planning: Time for Renewed Emphasis"  
(FPCD-81-4, Dec. 30, 1980).

Civil Service Reform Act. Subsequent to the receipt of this suggestion, OPM's Deputy Director has been coordinating the development of a management improvement initiative tentatively identified as the work force planning and budget process proposal. An OPM official told us that this initiative, although at a very preliminary stage, will address many of the staffing problems.

### CONCLUSIONS

Previous GAO report findings and our survey confirm that, because professionals are not adequately supported,

- they have devoted too much of their time to tasks which should be delegated or be automated,
- their morale has been adversely affected,
- the agencies have experienced work backlogs,
- the quality of the work has been impaired, and
- accomplishment of agency missions has been hindered.

Some of the obvious problems resulting from this situation are staffing imbalances, poor development and utilization of professional resources, job dissatisfaction, increased costs, and reduced program effectiveness.

Employing an appropriate number of professionals and support staff will provide opportunities for improving agency productivity. The continued growth and enhancement of professional skills and the most appropriate use of a professionals' talents could result from substituting support staff for professionals to deliver about the same services at less cost. Alternatively the same number of professionals could deliver more services if supplemented by additional support staff or if more of the lower level work were automated. Such trade-offs would also provide opportunities for position upgrading and job restructuring to other personnel. We believe these improvements can largely be accomplished, within existing personnel resources and constraints, through improved agency work force planning systems.

Improvements in agency work force planning capabilities would result in a better mix of professional and support personnel. Although OMB has tried through its circulars to encourage the agencies to develop such capabilities, its efforts do not appear to have been very effective. We believe

the lack of progress stems from disincentives which result from OMB and congressional imposition of personnel ceilings, arbitrary limitations such as reductions in work force, across-the-board cuts, hiring freezes, and other budgetary processes which pay little attention to agency workload and the results of agency work force planning.

We remain firmly convinced that personnel ceilings are at best a poor substitute for sound management. Because of personnel ceilings and other personnel constraints, agencies are dissuaded from implementing effective work force planning systems. Until agencies develop effective work force planning systems that are linked to the budget process, however, the likelihood of abolishing personnel ceilings is diminished.

It is more important than ever, therefore, that agencies develop work force planning methodologies which will permit them to establish the most cost effective personnel mix. The efficiency and effectiveness of this mix should be demonstrable and convincing to budget examiners and decisionmakers at all levels of Government. Top agency management also must be convinced that the benefits derived from such a work force planning system--increased productivity and/or lower operating expenses--are worth the implementation and maintenance costs and that the system's results will be used as the basis for OMB and congressional personnel/budget decisions.



SURVEY OF GOVERNMENT PROFESSIONALS

U. S. GENERAL ACCOUNTING OFFICE

Introduction

The U.S. General Accounting Office, an agency of the Congress, is studying the extent to which technical, clerical, and other personnel can enhance professionals such as doctors, dentists, engineers, and lawyers. Your response to this questionnaire is invaluable to the success of our effort.

The purpose of this questionnaire is to determine the extent to which government professionals are now being or could be assisted by support personnel. In addition, we want to identify the specific types of personnel who could be of assistance and the tasks they would be performing.

All responses will be treated as confidential and released in summary form only. The questionnaire is numbered only to allow us to control the receipt of questionnaires and thus avoid unnecessary follow-up requests. Throughout this questionnaire, there are numbers printed within parenthesis to assist our keypunchers in coding responses for computer analysis; please disregard these numbers.

If you have any questions, please call Mr. Dan Schreck at (816) 374-4641 or FTS 758-4641. After completing the questionnaire, please return it in the self-addressed, postage-paid envelope.

Thank you for your cooperation and assistance.

CONTROL NUMBER

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(1-7)

1. How many years have you been with the Federal Government (civilian and military)? (8-9)  
 Years
2. How many years have you been with your present Agency or Department (VA, Corps of Engineers, Justice, Air Force)? (10-11)  
 Years
3. How many years have you been practicing your profession? (12-13)  
 Years
4. Are you a full-time employee? (14)
  - 1)  Yes
  - 2)  No
5. To what extent does your agency provide opportunities for your continuing professional development? (15)
  - 1)  A great deal
  - 2)  Pretty Much
  - 3)  Some
  - 4)  Not Much
  - 5)  None
6. Does your agency offer courses which could contribute to your professional development? (16)
  - 1)  Yes
  - 2)  No (Go to question 8)
  - 3)  I don't know (Go to question 8)
7. In the past 2 years, have you participated in any of these courses? (17)
  - 1)  Yes, two or more
  - 2)  Yes, one
  - 3)  No

Indicate how often each of the following statement (8-14) applies by circling the number under the most accurate answer.

	<u>Never</u>	<u>Occasionally</u>	<u>Fairly Often</u>	<u>Very Often</u>	<u>Always</u>	
8. I am able to make good use of my skills and abilities on my job.	1	2	3	4	5	(18)
9. I am doing the kind of work I like to do.	1	2	3	4	5	(19)
10. I am given too much work to be able to do a good job.	1	2	3	4	5	(20)
11. My office has the proper <u>number</u> of personnel to do our job.	1	2	3	4	5	(21)
12. My office has the proper <u>types</u> of personnel to do our job.	1	2	3	4	5	(22)
13. My organization makes improvements in methods and operations.	1	2	3	4	5	(23)
14. I am satisfied with my present position.	1	2	3	4	5	(24)

15. How many hours of overtime did you work during the last pay period? (25-26)  
 Hours

16. Will you be paid for any of this overtime? (27)

1)  Not applicable-Did not work overtime (Go to question 18)

2)  Yes

3)  No

4)  Don't know

17. Was the decision to work this overtime made primarily at your initiative or at the request of your supervisor? (28)

1)  My initiative

2)  Supervisor's request

18. During the last day you worked, how much of your time was spent idle waiting for assistance from support personnel (para-professionals, technical, and clerical)? (29-30)  
 Percent

19. In performing your job, are you doing any tasks you believe could be adequately performed by support personnel? (31)

1)  ~~NO~~ YES

2)  No (Go to question 24)

19a. During the last day you worked, how much of your time was spent doing these tasks? (32-33)  
 Percent

20. In performing your job, are you doing any tasks you believe should be performed by support personnel? (34)

- 1)  Yes
- 2)  No (Go to question 24)

20a. During the last day you worked, how much of your time was spent doing these tasks? (35-36)

Percent

21. Please provide a brief description of at least 1 or 2 of the most significant tasks referred to in question 20.

Task #1 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Task #2 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Task #3 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

22. What is the impact of your performing tasks that should be done by support personnel? (Check all that apply).

- 1)  Creates a backlog of my professional duties. (37)
- 2)  Forces me to do a lower quality of work. (38)
- 3)  Agency/Department mission, objectives, or goals accomplishment is hindered. (39)
- 4)  Other, (Please specify) \_\_\_\_\_ (40)
- 5)  No impact (41)

23. Which support personnel should perform each task you described in question 21? Indicate your answer by choosing the number to the left of the most appropriate person on the list in question 24. (For example, if you feel a "medical technician" should perform task #1 write in "10" in the box above task #1.)

Task #1 (42-43)       Task #2 (44-45)       Task #3 (46-47)

24. How many of the personnel in the list below assist you now? What would be the ideal number of these types of support personnel needed to assist you? (Indicate your answers by writing the appropriate numbers in the boxes to the right of each type of assistant. If you share support personnel with your co-workers, indicate only your portion of the shared staff.)

	Number Now Assisting	Ideal Number	
1) Dental Assistant	<input type="checkbox"/>	<input type="checkbox"/>	(48-51)
2) Expanded Function Dental Auxiliary	<input type="checkbox"/>	<input type="checkbox"/>	(52-55)
3) Dental Hygienist	<input type="checkbox"/>	<input type="checkbox"/>	(56-59)
4) Medical Assistant	<input type="checkbox"/>	<input type="checkbox"/>	60-63)
5) Nurses Aid	<input type="checkbox"/>	<input type="checkbox"/>	(64-67)
6) Licensed Practical Nurse	<input type="checkbox"/>	<input type="checkbox"/>	(68-71)
7) Registered Nurse	<input type="checkbox"/>	<input type="checkbox"/>	(72-75) Card No.1 80
8) Nurse Practitioner	<input type="checkbox"/>	<input type="checkbox"/>	( 8-11)
9) Physician Assistant	<input type="checkbox"/>	<input type="checkbox"/>	(12-15)
10) Medical Technician	<input type="checkbox"/>	<input type="checkbox"/>	(16-19)
11) Engineering Technician	<input type="checkbox"/>	<input type="checkbox"/>	(20-23)
12) Engineering Aid	<input type="checkbox"/>	<input type="checkbox"/>	(24-27)
13) Draftsman	<input type="checkbox"/>	<input type="checkbox"/>	(28-31)
14) Para-Legal	<input type="checkbox"/>	<input type="checkbox"/>	(32-35)
15) Legal Clerk/ Technician	<input type="checkbox"/>	<input type="checkbox"/>	(36-39)
16) Administrative or Clerical Person	<input type="checkbox"/>	<input type="checkbox"/>	(40-43)
17) Technician	<input type="checkbox"/>	<input type="checkbox"/>	(44-47)
18) Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	(48-51)

IF YOU ANSWERED "NO" TO  
 QUESTION 19 OR QUESTION 20  
 GO TO QUESTION 28.

25. If you feel that all the support you need is not available, which of the reasons listed are responsible? (52)
- 1)  Personnel ceilings (52)
  - 2)  Top management not supportive of these type positions (53)
  - 3)  Nationwide/arewide shortage of these personnel (54)
  - 4)  Top management will not allow support personnel to do these tasks (55)
  - 5)  Regulations limit what support personnel do (56)
  - 6)  Support personnel are often required to do non-job related tasks which take them away from their support function (57)
  - 7)  Other (specify) \_\_\_\_\_ (58)
26. Could presently assigned support personnel perform the tasks you identified in question 21 without working overtime? (59)
- 1)  Not Applicable (No support personnel)
  - 2)  Yes
  - 3)  No
  - 4)  Don't know
27. If appropriate use of your skills requires the assignment of additional support personnel, to what extent could your work-unit effectively utilize these people? (Check only one) (60)
- 1)  Does not apply (additional people not required)
  - 2)  Continually
  - 3)  Quite Often
  - 4)  Some of the time
  - 5)  Rarely

28. If you have any comments or opinions regarding the efficient use of professional, paraprofessional, technical or clerical personnel, please provide them below. (61)

EXPANDED SCOPE ON STATISTICAL DESIGN

We made the statistical analysis to test whether professional employees were devoting the vast majority of their time to tasks requiring their skills. We were interested in this information because using professional employees to perform tasks which can be performed by lower paid people results in the ineffective use of resources.

We also wanted to determine whether such use varied significantly by profession. We reviewed agencies which employ sizable numbers of doctors, dentists, attorneys, and engineers, as well as other employees who OPM classifies as professional or administrative. We included only engineers of the Corps of Engineers. This provided a sizable base of engineers for comparison with those engineers in the Air Force. Because we did not include other Corps employees, our findings on the engineers cannot be projected to all of the Corps' professional employees.

As finally defined for the four agencies, the universe of about 129,000 was restricted to

- employees with duty stations in the contiguous 48 states,
- military officers in grades 03 through 06,
- civilian employees in grades GS-12 through GS-15, in addition to U.S. attorneys and physicians, and
- full-time employees (except that we included part-time physicians who constitute a large number of physicians employed by the Veterans Administration).

From this universe we randomly selected 2,942 employees to whom we mailed questionnaires, a copy of which is reproduced as appendix I. We received responses from 2,475 employees, or about 84 percent of the sample. We avoided any assumptions about the 16 percent who did not respond by reducing the projection base by this ratio, or from about 129,000 to about 108,000. The following table shows further details on the universe and sample.

<u>Agency/profession</u>	<u>Universe</u>	<u>Sample</u>	<u>Responses</u>		<u>Projection base</u>
			<u>No.</u>	<u>Percent</u>	
Agency A:					
Engineers	5,341	253	234	92	4,940
Agency B:					
Attorneys	3,592	169	123	73	2,614
Others	11,296	125	104	83	9,398
Agency C:					
Physicians	10,351	493	409	83	8,587
Dentists	856	65	60	92	790
Attorneys	495	65	50	77	381
Engineers	601	65	57	88	527
Others	10,290	114	102	89	9,207
Agency D:					
Physicians	3,335	156	120	77	2,565
Dentists	1,261	65	52	80	1,009
Attorneys	1,007	65	50	77	775
Engineers	11,512	546	481	88	10,141
Others	68,827	761	633	83	57,249
Total	<u>128,764</u>	<u>2,942</u>	<u>2,475</u>	84	<u>108,183</u>

Because the numbers in the universe and sample are not proportionate, we weighted the sample results in making projections. For example, Agency C employs 10,351 physicians, and the sample included 493 of these. Therefore, each one in the sample represented about 21 in the universe. This weighted method added some precision for estimates by agency or profession, but the overall results were about the same as the unweighted sample results.

#### Reliability of the questionnaire data

We developed the questionnaire after interviewing about 100 professionals in various agencies to determine their views on policies and practices affecting the use of their time. In designing the questionnaire, we consulted experts in our Office, as well as agency officials with expertise in occupational and manpower research.

Before mailing the questionnaire, we pretested it by administering it to 31 professionals and had it critiqued by top management officials of the Corps of Engineers and Air Force. The data obtained in the pretest resulted in some

further refinement. As a further test of reliability, we compared the overall sample results with the information we had obtained in developing the questionnaire. The difference in the two sets of data was trivial.

Questionnaire control and data accuracy were important considerations throughout the review. A control log was used to track the mailout, followup, and receipt of questionnaires. Each questionnaire was reviewed for completeness and assurance that the respondent understood the questions. The questionnaires were then keypunched and verified and a 10-percent sample of the first 1,000 questionnaires showed an insignificant error rate in keypunching. In addition, the computerized data base was passed through numerous logic checks.

#### Analysis methodology

Where projections from sample averages appear in the report, we established 95 percent assurance that estimates are within the confidence intervals. We also used that level of confidence in establishing the significance of differences in the sample data and to measure the impact of certain variables on others. These tests included mostly analyses of variance, chi-square tests, and "t" tests. Analyses of variance and chi-square tests showed us general areas of significant differences. We used "t" tests to more closely identify subgroups or variables where these differences occurred.

ANNUAL COSTS FOR PROFESSIONAL  
AND LOWER GRADE EMPLOYEES

	<u>Personnel</u>		<u>Estimated economic costs</u>	
	<u>Number</u> <u>(note a)</u>	<u>Percent</u> <u>of total</u>	<u>Average</u> <u>(note b)</u>	<u>Weighted</u> <u>Average</u>
<u>Professional</u>				
Civilians GS 12 to 15	96,189	56.8	\$40,766	\$ -
Air Force officers (captains--colonels)	73,025	43.2	40,023	40,446
Total	<u>169,214</u>	<u>100.0</u>		
<u>Lower grade</u>				
Civilians GS 1 to 11	433,441	48.6	19,223	
Air Force Enlisted	458,953	51.4	17,889	<u>18,537</u>
Total	<u>892,394</u>	<u>100.0</u>		
Difference				<u>\$21,909</u>

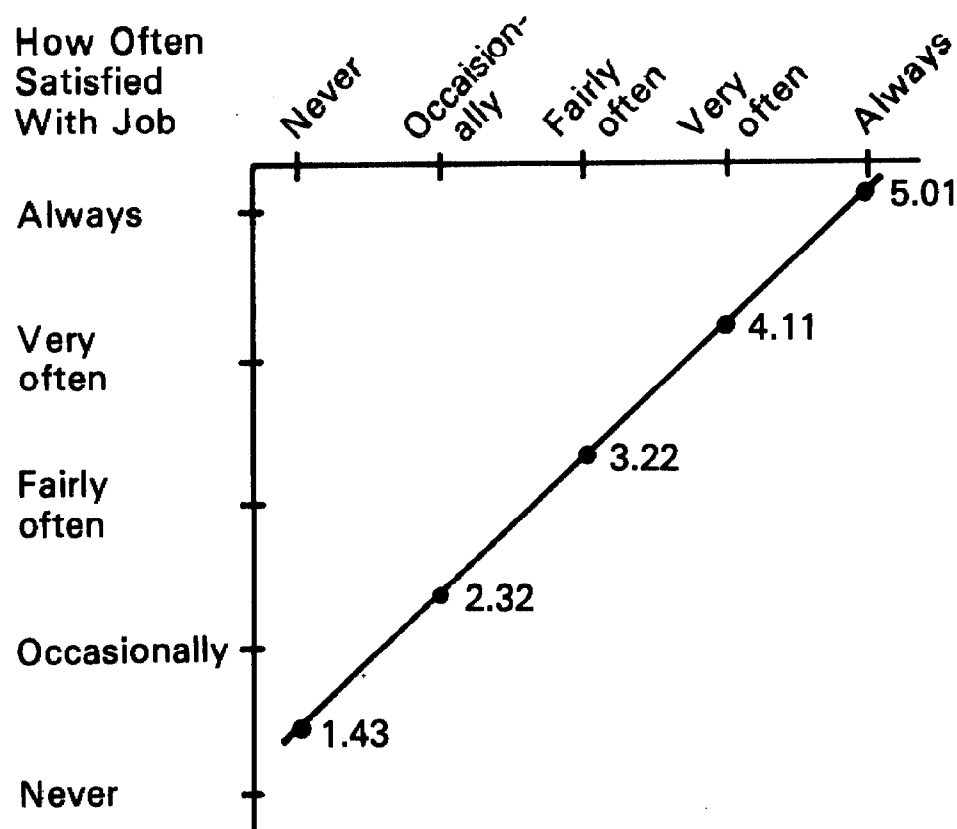
a/ The number of civilian employees of the four agencies/ departments tested was obtained from the Office of Personnel Management, Washington, D.C. The number of Air Force officers and enlisted personnel was obtained from the Air Force Military Personnel Center, Randolph Air Force Base, Texas.

b/ We used the appropriate cost schedules in the Department of Defense's study, "Economic Cost of Military and Civilian Personnel in the Department of Defense," dated December 1977, which we adjusted upward by 5.5 percent to reflect the October 1979 pay raise. We used the Department of Defense's economic costs for all civilian employees because individual cost components, such as retirement and unemployment compensation, apply to all civilian employees of the Government.



ANALYSIS OF FACTORS BEARING ON JOB SATISFACTION

An analysis of responses bearing on job satisfaction showed a highly significant association between job satisfaction and the respondents' feelings that they were or were not treated as professionals. These feelings were shown by how they answered questions on whether the agencies provide them opportunities for continuing professional development, make good use of their skills and abilities, and allow them to do the kind of work they like. Because responses to these questions closely paralleled each other, we combined them into one factor and measured the effect of this factor on job satisfaction. The result is depicted in the following chart, which shows how job satisfaction rises when professionals are treated as such.

**HOW OFTEN TREATED AS PROFESSIONALS**

PARTIAL LIST OF GAO REPORTS ON NEED FOR  
MORE RELIABLE WORK FORCE MANAGEMENT

<u>Report number</u>	<u>Date</u>	<u>Report Title and Summary</u>
FPCD-77-72	Oct. 18, 1977	"Development and Use of Military Services Staffing Standards: More Direction, Emphasis, and Consistency Needed" This report discusses the need for ways to measure work that are reliable and useful to the budget process. Staffing standards based on the concept of work measurement offer the potential to do this.
FPCD-79-32	May 21, 1979	"Improvements Needed in Army's Determination of Manpower Requirements for Support and Administrative Functions." This report points out the need for the Army to have information to support its manpower budget to OMB and the Congress, allocate authorized manpower spaces, and assess manpower use.
FPCD-77-53	June 15, 1977	"The Work Measurement System of the Department of Housing and Urban Development Has Potential but Needs Further Work to Increase Its Reliability." This report discusses the need for more objective and systematic ways for Government agencies to reliably estimate their personnel requirements.
LCD-76-401	Aug. 31, 1976	"Improvements Needed in Defense's Efforts to Use Work Measurements." This report points out that the military services approach work measurement efforts with different interests. assign different priorities to these efforts,

provide varying degrees of independence to the work measurement staffs, and define the universe for potential application of work measurements differently.

FGMSD-77-8 Jan. 17, 1978

"Uniform Accounting and Workload Measurement Systems Needed for Department of Defense Medical Facilities." This report addresses the military department's lack of uniform procedures for preparing budget estimates, accounting for costs, measuring workload, and staffing medical facilities.

FPCD-77-85 Feb. 9, 1978

"Personnel Restrictions and Cutbacks in Executive Agencies: Need for Caution" This report concluded that mechanisms for controlling resources are needed. However, any approval which involves controlling only one element of the total resources, such as personnel, run the risk of distorting overall management decisions. We recommended that the Congress carefully assess the impact of personnel ceilings and cutbacks if it is to avoid reducing staff at the expense of efficient administered programs.

FPCD-78-21 Mar. 6, 1978

"Estimates of Federal Employees Available Time For Work Distort Workforce Requirements" Manpower requirements are clearly dependent on the accuracy and credibility of workload estimates and estimated work force availability. Errors in estimating work force availability can have a major impact on the number and costs of personnel.





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