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ABSTRACT

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This is the fifth annual report of Employee Training in the Federal Service. The report contains five sections. Section I discusses developments in several major areas of interest during 1971, including the increased emphasis on improved training management, the continuation of executive development and upward mobility, and labor relations training. Section II displays and analyzes data submitted by 31 agencies in connection with their FY 71 training activities. Section III shows the training activities of the Civil Service Commission, including the Commission's developmental work on a training cost model, which is now available for agency use, and the joint agency-Commission evaluation of long-term training in non-Government facilities conducted during the 1960's. Section IV describes significant training programs which helped to improve agency operations during the year. Section V contains summary data tables on agency training activities. (Author/DB)

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EMPLOYEE TRAINING

IN THE

FEDERAL SERVICE

FISCAL YEAR 1971



U.S. CIVIL SERVICE COMMISSION
BUREAU OF TRAINING

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I INTRODUCTION

Employee Training in the Federal Service is published annually by the United States Civil Service Commission. This is the fifth year the report has appeared in this form. It serves two basic purposes. First, it meets the reporting requirements established by Congress in the Government Employees Training Act. Second, it serves the agencies of the Government, aiding them in the management of the Federal training program.

The report contains five sections. Section I discusses developments in several major areas of interest during 1971. Among these were an increased emphasis placed on improved management of training, and the continuation of two major Presidential programs, executive development and upward mobility, focusing attention on training for the upper and lower grades of the Federal service. This section also highlights labor relations training, which emerged as a significant area of concern during the year.

Section II displays and analyzes data submitted by agencies in connection with their FY 1971 training activities. Section III shows the training activities of the Civil Service Commission, including the Commission's developmental work on a training cost model, which is now available for agency use, and the joint agency-Commission evaluation of long-term training in non-Government facilities conducted during the 1960's. Section IV describes significant training programs which helped to improve agency operations during the year. Section V contains summary data tables on agency training activities.

IMPROVED TRAINING MANAGEMENT

Two major documents were issued during calendar year 1971 in connection with the management of training. The first came from the Comptroller General of the United States on May 25. This was Report B-70896,, "Improvements Needed in Management of Training Under the Government Employees Training Act." Following a review of the management of training programs at 14 Department of Defense installations, the General Accounting Office concluded that better cost accounting systems were needed for training, and that record-keeping, evaluation, and audit and inspection procedures should be improved. While the General Accounting Office study

was concerned only with the Department of Defense, its findings highlight the problems faced by training officers in all Federal agencies in managing the training function. A basic issue the General Accounting Office report illuminates is the absence of accurate training cost data, data necessary not only for reporting purposes, but also for planning and assessing the training function. The Commission agreed with these findings, and stated that it was designing a methodology which could lead to a uniform cost estimation system for training. This was the training cost model, which is described in Section III of this report. The cost model allows estimates of course costs to be made, given certain assumptions concerning its length, location, format, and instructor and participant mix.

While the cost model should meet the General Accounting Office requirements for keeping accurate training cost records, it can also assist in meeting the requirements of the second major document on training management to appear, the Office of Management and Budget Circular A-48 (revised), "Responsibilities for Planning Training Investments and Regulations Governing Reductions in Payments to Employees," dated September 23, 1971. It stated that "In connection with budgetary responsibilities, the Office of Management and Budget will review agency training plans and resource allocations to assure that:

- "1) A systematic planning process is being employed by the agency;
- "2) The agency is systematically identifying its training targets;
- "3) Adequate dollar and manpower resources to accomplish the training effort have been planned for and assigned; and
- "4) Adequate provisions have been made to evaluate and measure benefits of training in relation to the investment made."

The Civil Service Commission was cited as being responsible for assisting agencies to develop sound programs and financial plans for training. The cost model in particular can be a basic element in a training planning system by integrating training plans with the agency budget cycle and by giving agency management the opportunity to select among training options by costing out different programs and comparing them.

Section II, Agency Training Activities, can also be useful in taking the steps toward better training management required by OMB Circular





A-48. It provides a detailed summary and analysis of the training agencies gave during FY 1971, as well as trends over the last five years. This report was first published in FY 1967, and now five years of experience are available to begin to discuss trends in a meaningful way. In particular, the concept of training ratios is more fully developed than last year, when it was first introduced in discussing the amount of training given by grade group and pay system. It is believed that these ratios can play an important part in the planning, evaluation, and control of training, since they refine gross data to show the proportionate amount of time employees spend in training. Section II includes a subpart which shows agencies how these training ratios can be used, as well as certain precautions which must be taken in interpreting the data. Section II is supplemented by Section V, the Statistical Review of Training. This section contains the data tables on which the analysis was based, including detailed summaries of training ratios and trends for 31 of the reporting agencies

Any management system requires accurate, relevant data, and both the cost model and the training ratio tables should be able to provide this in the areas of cost projection and the estimation of level of program activity. The long-term training study described in Section III is also a step toward better training management through evaluation and feedback into existing policy for the purpose of future planning.

GOVERNMENT-WIDE PROGRAMS

The remainder of the report focuses on programs designed to achieve specific training goals. Among these goals is the establishment of agency executive development programs. For several years, executive development has been a matter of significant concern. On October 8, 1971, the Civil Service Commission issued "Guidelines for Executive Development in the Federal Service," requiring for the first time that agencies establish specific programs with high levels of organizational commitment, development plans for each midmanager of high potential as well as each incumbent executive, improved mobility programs, more effective training resource utilization, and improved program evaluation.

The guidelines present ways agencies may use to achieve the policy goals for executive development set forth in the Memorandum for the Heads of Departments and Agencies issued by the Director of the Office of Management and Budget on September 14, 1971. The guidelines are an extension of past Commission interest in management training, reflected in such programs as the establishment of the Federal Executive Institute, the Executive Seminar Centers, numerous shorter interagency courses for supervisors, managers, and executives, as well as regulations requiring that each new first-line supervisor receive a specified amount of training. In addition, the Commission has undertaken a study of current management training needs throughout the Government, as well as an assessment and proposal of possible systems for meeting those needs. At the present time, most Government managers and executives are primarily specialists who have been promoted to supervisory and policy-making levels. Whether it is believed that administration should be a separate profession, or whether it ought to be practiced only by those who have come up through the specialist ranks, the fact remains that serious questions have been raised concerning management performance both within Government, as well as by the public at large. The present emphasis on executive development attempts to face some of these problems.

Labor relations training also assumed special importance last year. The Commission's new Labor Relations Training Center became officially and fiscally operative on July 1, 1971, although courses were being conducted at Washington, D.C., and the Regions before that date. Labor relations training is one of the most urgent management training needs in the Federal Government at the present time. Many agencies, however, are not making themselves ready to deal with labor organizations in a bilateral, collective bargaining sense. This is despite the fact that during the next several years at least 3,000 new agreements will have to be negotiated with exclusive bargaining units. Facing this challenge will provide a stimulating test for both Commission and agency training operations.

Upward Mobility training for lower-level employees continues to be a high-priority program, in addition to those programs which have been established in connection with Equal Employment Opportunity. Section III of this report describes some recent steps of the Commission. These include: (1) establishment of the Southwest Inter-

governmental Training Center in San Antonio, Texas; and (2) an EEO Institute, established in the Commission's central office. In addition, the Public Service Careers program completed its first full year of operation, and on January 26, 1971, the Commission issued an FPM Letter (410-9) reminding agencies of the availability of non-Government facilities as a training resource for those in the lower grades.

Section VI, Accomplishments Through Training, contains descriptions of some of the agency programs which are directed along these lines. One such program, conducted by the Department of Commerce through Public Service Careers funding, provided orientation counseling and skills training to entry employees, as well as upgrade training for employees in such areas as clerical and stenographic occupations, computer technology, printing, and trades. Supervisors of the worker-trainees received training in special

skills essential to supervising low-skilled employees.

Other areas of training also received special emphasis during FY 1971. Of significant interest was the growth in intergovernmental training programs. When funds are allocated to state and local governments under the provisions of the Intergovernmental Personnel Act, more activity can be expected. Next year's training report will contain a special section discussing FY 1972 data to be reported by agencies on training of this type.

SUMMARY

This report attempts to present an outline of the FY 1971 training experience. It is hoped that the report will be useful, not only to the Congress in assessing the state of employee training, but also to agency management and training personnel at all organizational levels.



II AGENCY TRAINING ACTIVITIES

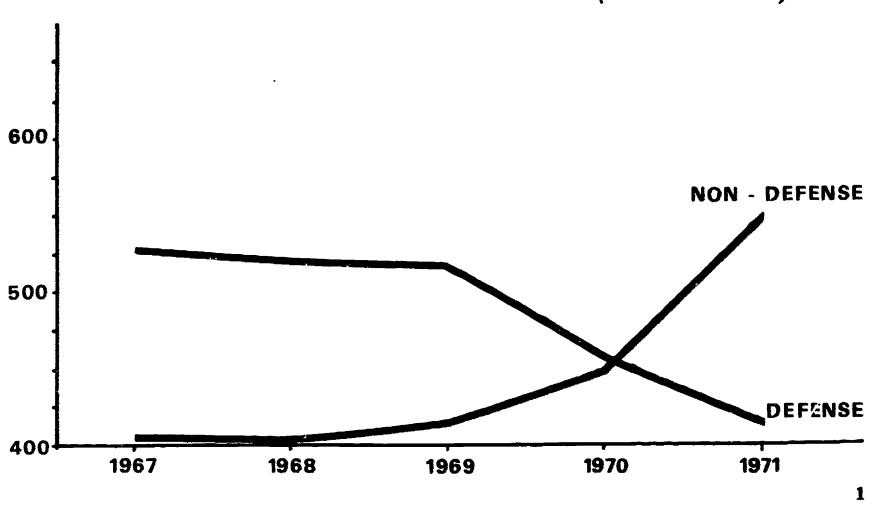
Last year training participation rose from 907,969 to 967,619, an increase of 6.6% over FY 1970. Participation has increased by 3.7% since FY 1967, the first year of this report. This section describes these and other changes through data on training participation, the cost of training, and the numbers and distribution of training personnel. Conclusions regarding the meaning of the data are drawn whenever possible and ways are given to use the data in managing the training program. Summary data show the following highlights:

- Internal training continued to be the most widely used source of training, accounting for 73.7% of all training participants. Total internal participation increased by 7.8%.
- Interagency training grew by 10.2%. There was no change in non-Government short-term training. Non-Government long-term training decreased by 20 cases, from 1662 to 1642. This was the third consecutive year this type of training declined.
- Training participation comprises all instances of attendance at formal classroom training courses of eight hours duration or longer.

 Because the U.S. Postal Service is no longer required to report training data to the Civil Service Commission, all Post Office data from previous years will also be excluded.

- Technical training was the most widely used type of training, accounting for 38% of training participants and 49% of training man-hours. Professional, Medical, Scientific, and Engineering training grew by 11.4%, showing the greatest increase for any type.
- The average length of training programs Government-wide was 48 hours. Taken as a group, Federal employees spent 1.11% of their total working time in training.
- Training rates for employees in grades 1-4 increased by 4.9%. The increase for those in grades 5-8 and 9-12 was 6.9% and 10.9%, respectively. Training rates for those in grades 13-15, 16-18, and Wage Systems all declined. The decline was 1.2%, 21.2%, and 9.8%, respectively.
- 127,621 Federal employees were trained in 83 training centers operated by 15 agencies. This accounted for 13.2% of all participants.
- Reported training expenditures increased from \$171,266,470 to a total of \$200,271,-208. This was an increase of 17.2%. The average expenditure per employee trained was \$207. The average expenditure per employee on the rolls was \$96.

Chart 1 - TRAINING PARTICIPATION (in thousands)





AGENCY PARTICIPATION

Table 1 shows changes in participation by agency and fiscal year. Total participation increased by 3.7% from FY 1967 to FY 1971. This increase has not occurred uniformly in all agencies. In general, training by the Department of Defense has gone down, while training in the other agencies has gone up. Chart 1 illustrates this fact.

in 1967, Defense participation accounted for 56.5% of all trainees. In 1971, the corresponding

figure was 43.4%. For those agencies with 1,000 or more participants in FY 1971, only three outside Defense have decreased their participation since FY 1967. These are AEC (-64.1%), NASA (-31.6%), and Small Business Administration (-66.0%). All other agencies in this group have grown in participation.

In 1967, each of the Defense departments—Army, Navy, and Air Force—trained more than 140,000 participants. In that year, only two other agencies trained more than 50,000. These were

Table 1: PARTICIPATION BY AGENCY AND FISCAL YEAR

AGENCY	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	CHANGE BETWEEN FY 70-71	CHANGE BETWEEN FY 67-71
TOTAL	933,457	924,294	931,971	907,969	967,619	+6.6	+3.7
Total Non-defense		402,784	413,520	447,046	548,572	+22.7	+35.0
Agriculture	57,996	62,955	66,736	83,438	91,663	+9.9	+58.1
Commerce	9,974	11,277	14,601	15,680	21,314	+35.9	+113.7
Defense	527,304	521,510	518,451	460,923	419,047	-9.1	-20.5
Army	(204,599)	(172,773)	(192,603)	(175, 164)	(186, 165)	+6.2	-9.0
Navy	(140,876)	(172,821)	(163,372)	(136,675)	(95,966)	-29.8	-31.9
Air Force	(145,069)	(122,688)	(112,800)	(104,059)	(93,452)	-10.2	-35.6
Other Defense	(36,760)	(53,228)	(49,676)	(45,025)	(43,464)	-3.6	+18.2
HEW	37,955	72,553	35,760	41,456	49,698	+19.9	+30.9
HUD	4,311	8,311	3,400	3,629	7 , 090	+95.3	+64.5
Interior	48,327	47,168	43,060	36,142	48,288	+33.6	-0.1
Justice	13,327	15,324	15,914	21,048	29,899	+42.1	+210.1
Labor	4,590	8,858	6,006	6,628	8,264	+24.7	+80.0
State	2,694	1,566	5,271	3,296	5,017	+52.2	+86.2
(Including AID)							
Transportation	36 , 053	33,107	23 , 931	32 , 864	39,880	+21.3	+10.6
Treasury	66 , 231	38,813	73 , 465	71,291	97,957	+37.4	+47.9
AEC	9,485	3 , 673	3,387	2,904	3,404	+17.2	-64.1
CSC	1,352	987	1,084	1,770	2,944	+66.3	+117.8
DC Govt	8.322	16,807	16,454	21,493	25 , 806	+20.1	+310.1
EPA	age day on		-		1,311		
GAO	1,281	2,374	2 , 165	2,031	4,501	+121.6	+251.4
GPO	***	930	698	872	1,395	+60.0	
GSA	8,216	12,409	11,828	17,848	20,295	+13.7	+147.0
Lib of Congress	504	756	935	1,105	1,538	+38.2	+205.2
NASA	32,629	23 , 192	21 , $6\overline{.}5$	23 , 217	22,322	-3.9	-31.6
OEO					2,335	and the same of th	****
Panama Canal	12,112	7,868	6,472	5,498	5,050	-8.1	-58.3
Selective Service	1,651	3,977	5,707	4,461	2,062	-53.8	+24.9
SBA	4,051	2,970	2,420	1,816	1,378	-24.1	-66.0
VA	,	38,605	45,338	41,785	49,847	-19.3	+24.0
All Others*	4,135	6 , 854	7,618	7 , 646	5,314	-30.5	+28.5

^{*18} Other agencies, each reporting fewer than 1,000 participants in FY 71 Data for these agencies are included in the Summary tables in Section VI



Agriculture and Treasury. By 1971, Treasury had trained more than both Air Force and Navy, and Agriculture was close behind. Chart 2 illustrates the changes for these five.

Five agencies last year trained 30-50,000 participants. These were VA, HEW, Interior, Other Defense, and Transportation. Chart 3 shows the changes in these organizations during the five year period.

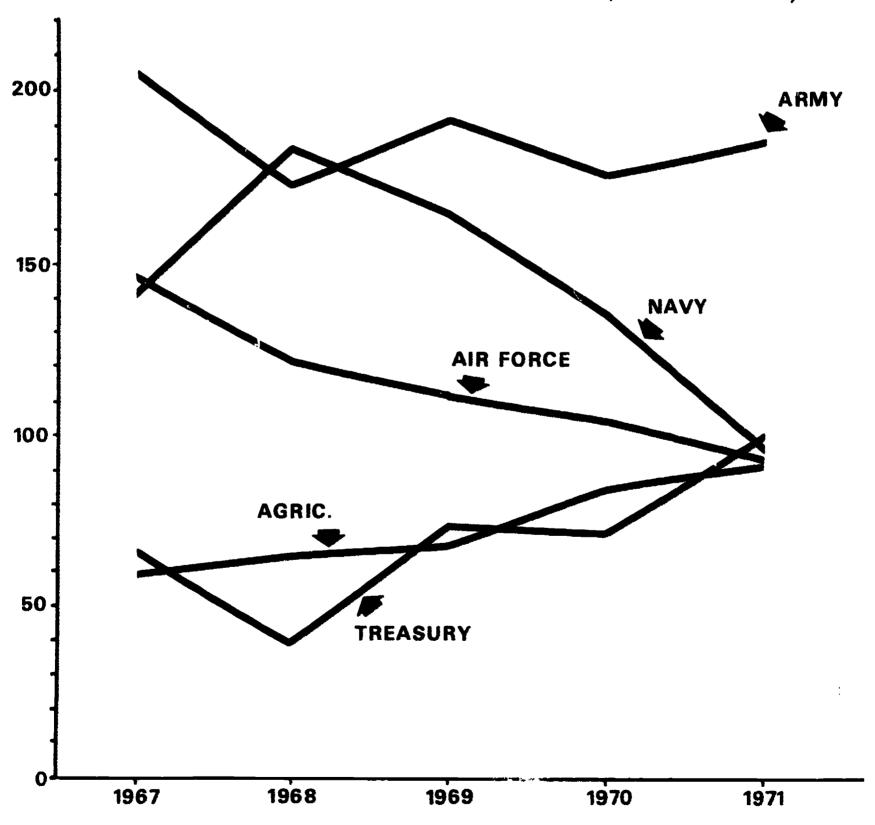
Five other agencies trained 20-30,000. These

were Justice, D.C. Government, NASA, Commerce, and GSA. All but NASA have shown rapid growth in recent years. In 1967, this group, excluding NASA, trained 39,839 participants. By 1971 the number had grown to 97,314, an increase of 144.3%. Chart 4 shows the changes in all five agencies.

TRAINING BY TYPE

Training activity is reported in four categories by type: professional, medical, scientific,

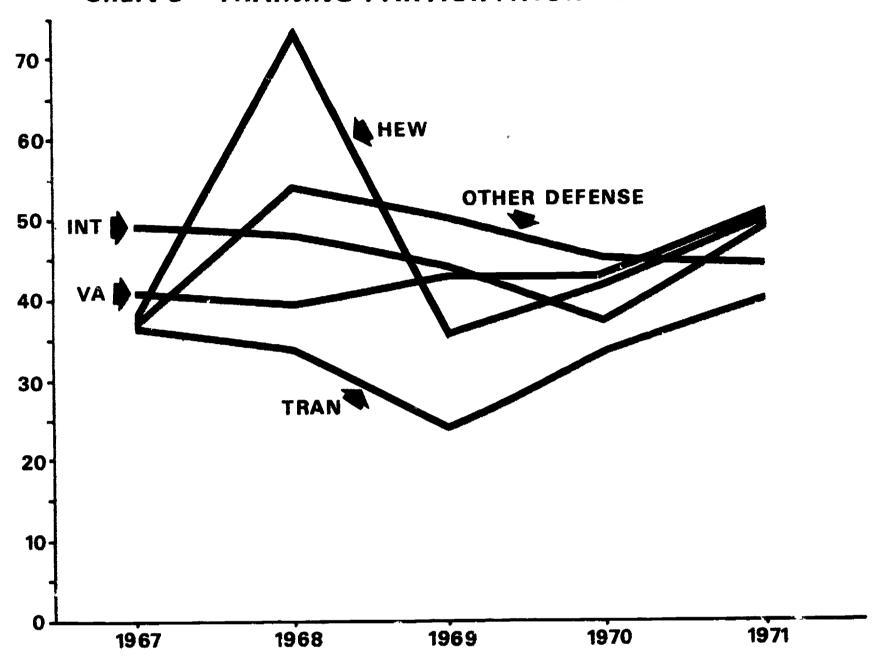
Chart 2 - TRAINING PARTICIPATION (in thousands)





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Chart 3 - TRAINING PARTICIPATION in thousands



and engineering; technical; administrative, management, and supervisory; and "other." Table 2 shows the change in participation from FY 1970. Charts 5 and 6 show the percentage of participants and man-hours devoted to each type.

Professional training is reported for the medical, scientific, engineering, legal, and related

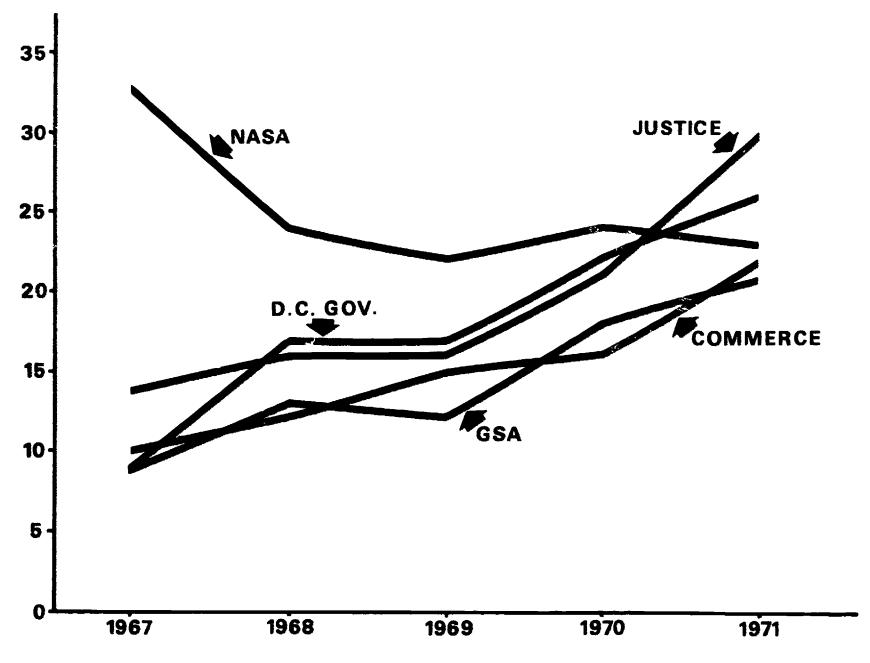
fields, including the social sciences, education, and library science. Professional training grew by 11.4% over FY 1970. Although the total number trained has not yet reached the previous high of 183,891 reported in 1969, an overall growth of 67.8% since 1967 has been reported. Only 19% of all participants went to this type of training, al-

Table 2: PARTICIPATION BY TYPE AND FISCAL YEAR

	FY 1970	FY 1971	% CHANGE
TOTAL	903,369	967,619	+6.5%
Professional, Medical, Scientific, Engineering	163,034	181,695	+11.4%
Technical	354,248	367,903	+3.9%
Administrative, Management, Supervisory	192,665	199,964	+3.8%
Other	198,422	218,057	+9.9%



Chart 4 - TRAINING PARTICIPATION (in thousands)



though they received 23% of the total training man-hours. The average session lasted 62 hours, compared to the average for all courses of 50 hours.

As shown in Table 3, 31.6% of professional training last year was given in non-Government facilities on a short-term basis, primarily at colleges and universities. 62.0% was given in-house.

Technical training includes courses in trades and crafts, in facilities and services (such as materials handling and building and grounds maintenance), and in administrative techniques and skills (such as automatic data processing, personnel, finance and budget, and supply).

In addition, much of this training is given for jobs which do not have counterparts in indus-

try or which are difficult to fill through ordinary recruiting channels. These jobs are found in such areas as Federal criminal law enforcement, food inspection, internal revenue collection, and in the military and space agencies. The Department of Transportation operates an extensive technical training operation for air flight controllers, and the entire Federal personnel, budgeting, supply, and grant administration staffs must be trained in procedures peculiar to government. Four agencies accounted for 81% of all technical training last year. These were Agriculture, Defense, Transportation, and Treasury. Technical training data show these additional highlights:

- Technical training rose by 3.9% last year.
- More employees were trained in this cate-





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Chart 5 - PERCENTAGE OF TRAINING PARTICIPANTS BY TYPE

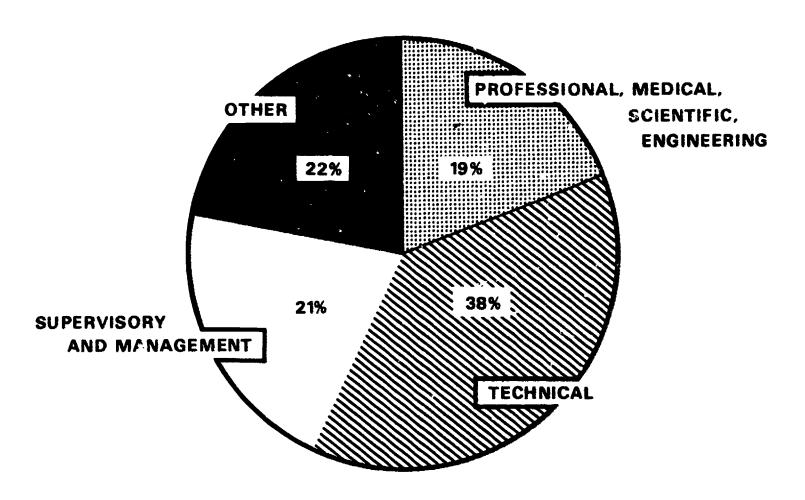


Chart 6 - PERCENTAGE OF TRAINING MAN-HOURS BY TYPE

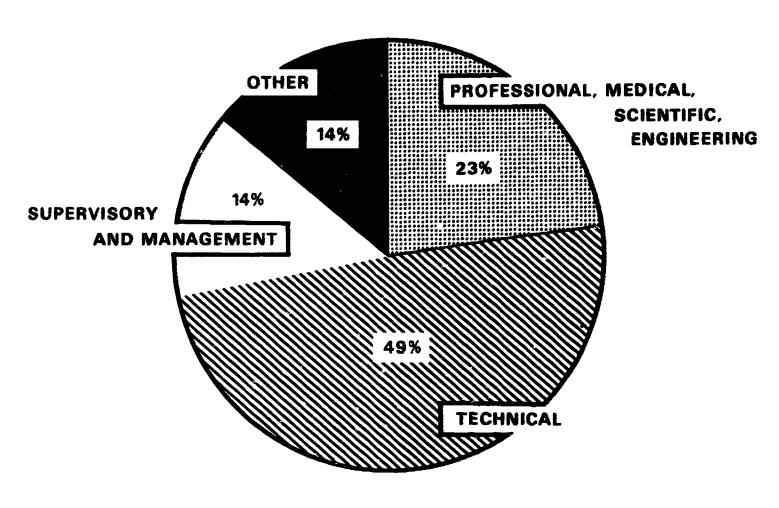


Table 3: PERCENTAGE OF TOTAL PARTICIPATION BY TYPE AND SOURCE—FY 1971

So	urce of Training		Non Cor	rernment	
	Internal	Interagency	Short-Term	Long-Term	Total
Professional, Medical, Scientific, Engineering	62.0	5.7	31.6	0.7	100.0
Technical	81.2	5 . 5	13.3		100.0
Administrative, Management, Supervisory	67.9	16.2	15.8	0.1	100.0
Other.	76.5	10.5	13.0		100.0
All Types.	73.7	8.9	17.2	0.2	100.0

gory than in any other. 38% of all participants fell into this category, as well as 49% of all training man-hours.

- Technical training averaged 65 hours per instance of participation, compared to the average for all courses of 50.
- 81.2% of technical training was given inhouse.

Training in administration, management, and supervision (A/M/S) grew 3.8% last year and shows these additional highlights:

- A/M/S training accounted for 21% of all participants, but only 14% of participant man-hours.
- The average length of a session was 33 hours, considerably lower than the average for all courses of 50.
- 67.9% of A/M/S training was given inhouse. 16.2% consisted of interagency training, and 15.8% was given in non-Government facilities on a short-term basis. There were 292 A/M/S trainees in non-Government long-term training compared to 249 in FY 1970.

From 1967 to 1969, this type of training fell steadily, from 183,654 participants to 168,876. Data for FY 1970 reflected the implementation of Civil Service Commission regulations requiring that new first-line supervisors receive 80 hours of classroom training within two years of promotion. As a result, A/M/S training increased by 43.6% in 1970 over the previous year. This level was maintained last year despite the general decline in training rates among employees in grades 13–15, 16–18, and Wage Systems supervisors.

Participation in other types of training programs increased by 9.9%. The bulk of this training is secretarial and clerical, although other

types of training are included, such as apprentice training, fire prevention, orientation, safety, communications skills, summer employee training, medical self-help, etc. The average length of training sessions was 30 hours, considerably below the average. 76.5% of this training was given inhouse.

TRAINING BY SOURCE

For FY 1971, 967,619 instances of training were reported in four different categories by source of training. The sources were internal, interagency, non-Government long-term, and non-Government short-term. The number of employees trained and the percentage trained by each source were as follows:

Total	967,619	100.0%
Non-Govt. Short-Term	166,240	17.2%
Non-Govt. Long-Term	1,642	0.2%
Interagency	85,934	8.9%
Internal	713,803	73.7%

FY 1970 internal training participation was 661,945. Last year's growth amounted to 7.8%. As Table 4 indicates, in-house training occurred primarily in the area of technical training. "Other" types of training, such as training in office skills, is the second largest area of in-house activity.

Interagency training showed another year of growth, increasing by 10.2%. Instances of interagency training have increased each year since this report was first published for FY 1967. The increase from 1967 to 1971 has been 72%. It is expected that this source of training will continue to grow in the future, as increased emphasis is



Table 4: PERCENTAGE OF TOTAL PARTICIPATION BY SOURCE AND TYPE—FY 1971

Source of	f Training		Non-Gov	All	
	Internal	Interagency			Sources
Professional, Medical, Scientific Engineering	15.8	12.1	34.6	74.0	18.8
Technical	41.8	23.6	29.4	7.5	38.0
Administrative, Management, and Supervisory	19.0	37.6	19.0	17.8	20.7
Other	23.4	26.7	17.0	0.7	22.5
Total	100.0	100.0	100.0	100.0	100.0

placed on interagency and intergovernmental cooperation.

Administrative, supervisory, and management training was the predominant type conducted on an interagency basis. 37.6% of all interagency participants took courses of this type. "Other" and technical training were next in importance. Relatively little interagency training was given in the professional fields. Nevertheless, the 10,402 trainees in professionally oriented interagency courses represented a 31% increase over FY 1970.

For the third year in a row, non-Government long-term training declined.1 The decrease was small, however, amounting to only 20 instances, a decrease of 1.2%. This type of training grew rapidly from FY 1960 to FY 1968, but has declined in recent years. Almost three-fourths of non-Government long-term training was given in the professional fields. A distant second was administrative, management, and supervisory training, which accounted for 17.8% of the long-term training instances. Despite the relatively low number of training instances, A/M/S non-Government long-term training increased by 14.7% over FY 1970, growing from 249 to 292 instances. Non-Government short-term training fell by less than one percent. Training provided by this source was dominated by professional training (34.6%) and technical training (29.4%).

Charts 7-10 show changes in these types of training over the last five years.

TRAINING BY GRADE GROUP AND PAY SYSTEM

Because of the flux in agency population distribution, gross figures of numbers of employees trained by grade group and pay system do not present the most accurate picture of the rate of training, or of the change in the rate. For that reason, this analysis of training by grade group and pay system is based on the computation of training participant ratios and training manhour ratios.

To determine the participant ratio for any group of employees, the number of training participants is divided by the population for that category. Thus, a group of 100 employees with 50 instances of training will have a participant ratio of 50%.

Similarly, the training man-hour ratio is determined by dividing the number of hours spent in training by the total number of hours worked by the employee group. If the employee group worked for one million man-hours during the course of a year and spent ten thousand of these man-hours in training, the man-hour ratio would be 1.00%.

This year, as in the past, the number of hours worked by a full-time employee is taken to be 1816 hours per year. This is 8 hours a day for 227 days (260 days less 8 paid holidays, 20 days annual leave, and 5 days sick leave).

The analysis was based on data for 31 Federal agencies.² Those Cabinet departments and large agencies (over 10,000 employees) were included where over 50% of the employees were either General Schedule or Wage Systems employees. These agencies were Agriculture, Commerce, Army, Navy, Air Force, Other Defense, GSA, HEW, HUD, Interior, Justice, Labor, NASA, Transportation, Treasury, and VA. In addition, 15 small agencies were included. These were CAB, Civil Service Commission, EEOC, FCC, Federal Home Loan Bank Board, FPC,



¹ Long-term training is training through non-Government facinities in courses over 120 days in duration,

² Data for all agencies is included, however, in the discussion of training rates for GS 16-18 executives.

375,000 FY 67 FY 68 FY 69 FY 70 FY 71

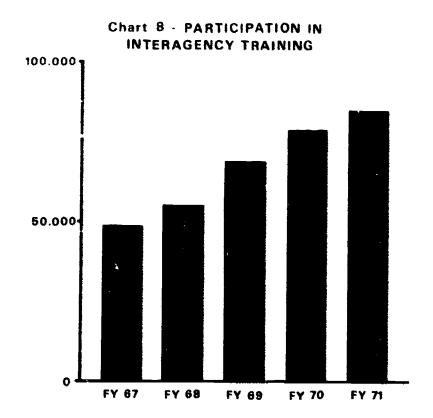
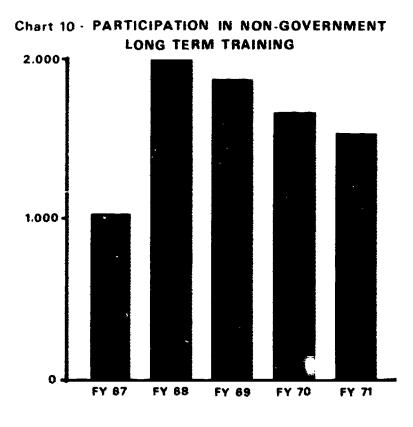


Chart 9 - PARTICIPATION IN NON-GOVERNMENT SHORT-TERM TRAINING



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FTC, ICC, Library of Congress, National Labor Relations Board, OMB, Railroad Retirement Board, SEC, Small Business Administration, and the Smithsonian Institution. Population data was that of June 30, 1970. The 31 agencies employ 98% of all General Schedule employees.

For the 31 agencies studied, the training participant ratio was 42.1%. The training man-hour ratio was 1.11%. This latter figure meant that on the average, employees spent 20.2 hours in training during the course of the year. Gross participation increased by 1.5% over FY 1970, but participant man-hours decreased by 2.8%. The average length of training sessions per participant was 48 hours in FY 1971. The average length in 1970 was 50 hours.

Data for individual grade groups yielded the



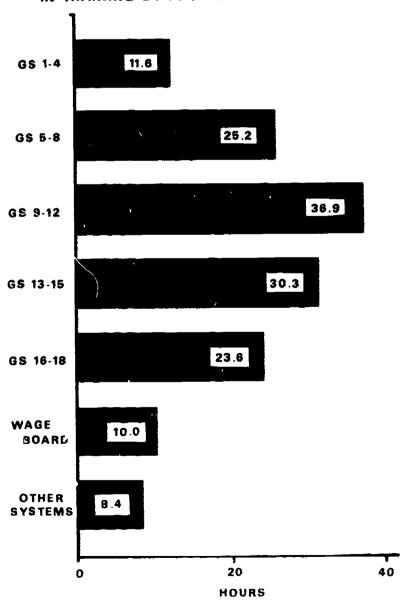


Table 5: PARTICIPANT & MAN-HOUR RATIOS BY GRADE GROUP

Grade Group	Participant Ratio	Man-hour Ratio
GS 1-4	33.3%	0.64%
GS 5-8	47.8%	1.39%
GS 9-12	75.6%	2.03 %
GS-13-15	71.7%	1.67%
GS 16-18	48.2%	1.30%
Wage Systems	17.0%	0.55%
Other Systems	23.1%	0.46%

participant ratios and man-hour ratios shown in Table 5. Chart 11 shows the corresponding figures for the average time spent in training by each employee in the grade group.

Comparisons with data from FY 1970 in Table 6 show changes in the grade group populations, numbers of training participants, numbers of training man-hours, participant ratios, manhour ratios, and the numbers of hours of training per participant. This table will be the basis for the discussion which follows.

DISCUSSION OF TRENDS

GS 1-4

The number of lower level employees in the Federal service is steadily declining and has been for several years. Last year the number dropped by 8.3% from the previous year in the 31 agencies studied. Total training instances at this level also decreased. Despite the net increase in training instances, the proportion of time spent in training to total time worked increased for this group. The increase was accounted for by training programs in two agencies. GSA instituted an accelerated guard training program, and the Department of Transportation operated Project 150, where future Air Flight Controllers in grades 3 and 4 each spent 150 days in training to prepare for future positions. If the data from these two agencies are excluded, then the training ratios for lower level employees did not change to any appreciable extent.

Summary data show the following highlights for grades 1-4:

• The training participant ratio increased by 4.7% and the man-hour ratio by 4.9%.



Table 6: PERCENTAGE CHANGES FOR 31 AGENCIES

Grade Group	Population	Farticipants	Man-Hours	Part-Ratio	MH-Ratio	Hrs, Part
GS 1-4	-8.3	-4.0	-3.8	+4.7	+4.9	0.0
GS 5-8	-3.7	+5.5	+2.8	+9.4	+6.9	-1.8
GS 9–12	-3.4	+7.4	+7.2	+11.2	+10.9	0.0
GS 13-15.	+5.7	+19.2	+4.2	+12.7	-1.2	-12.5
GS 16–18	+5.1	-4.2	-17.7	-8.9	-21.2	-14.0
Wage Systems	-10.3	-19.7	-18.6	-10.5	-9.8	0.0
Other Systems	Wales of the	-18.0	-55.2			-41.9
All Agencies	Approximation .	+1.5	-2.8		.A	-4.0

- Nine large agencies increased training by 25% or more. These were Agriculture (+26.5%), Commerce (+37.8%), Army (+26.1%), Other Defense (+25.8%), HEW (+83.3%), Interior (+49.1%), Labor (+43.5%), Transportation (+138.9%), and GSA (+200.0%). The 15 small agencies increased training by 34.1%.
- Five large agencies cut back training by 21% or more. These were Air Force (-25.0%), Navy (-36.1%), HUD (-44.4%), Treasury (-27.3%), and NASA (-21.8%).
- Employees in this group made up 15.8% of the total population and 12.5% of all training participants. They received 9.1% of the training man-hours.
- The average length of a training session was 35 hours, or a little more than four days. There was no change in this figure from FY 1970.

GS 5-8

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The category of employees in grades 5–8 contains a preponderance of nonprofessional employees and a smaller number of entry-level professionals. During FY 1971, the population of this group decreased by 3.7%, but they received more training than the year before. Data show the following highlights:

- Participants among this group increased by 5.5% and training man-hours by 2.8%.
- Because fewer employees received more training, the participant ratio rose by 9.4% and the man-hour ratio by 6.9%.

- The fifteen small agencies increased training by nearly a third, or 32.8%.
- Three large agencies showed an increase of 96% or more. These were HEW (+96.2%), HUD (+575.0%), and Justice (+130.8%).
- Two cut back training by more than 45%.
 These were Navy (-45.8%), and Transportation (-55.8%).
- Employees in grades 5-8 made up 18.4% of the total population and 20.9% of the training participants. They received 23.0% of the training man-hours.
- The average length of a training session for these employees was 53 hours, or almost seven days. This was roughly the same figure as the year before.

GS 9-12

Grades 9-12 are the most populous of the GS categories. They are composed of three groups: higher-level non-professionals, entry-level and pre-journeyman professionals, and journeyman professionals. Although their numbers decreased by 3.4% last year, participation increased by 7.4% and the number of training man-hours by 7.2%. Again, fewer employees received more training. The following highlights appear in the data:

- The participant ratio increased by 11.2% and the man-hour ratio by 10.9%. These were the largest increases for any group.
- Four large agencies increased training by more than 52%. These were HUD (+880.0%), Interior (+66.3%), Labor (+72.6%), and Treasury (+52.2%).
- The greatest decrease occurred in Navy (-33.1%).



- Employees in this group made up 21.0% of the total population and 37.8% of the training participants. They received 38.3% of the training man-hours.
- The average length of a training session was 49 hours, or about six days. There was no change in this figure from last year.

GS 13-15

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Grades 13-15 are composed primarily of journeyman professionals and middle managers. The population of this group increased last year by 5.7%, the largest increase for any group. Training participation increased by 19.2% and training man-hours by 4.2%. Data show these additional highlights:

- The average length of training sessions decreased from 48 to 42 hours. Thus while the participant ratio increased by 12.7%, the man-hour ratio decreased by 1.2%. The amount of training given to these employees did not keep pace with their growth in numbers.
- Three large agencies increased training by at least 45%. These were HUD (+45.9%), Transportation (+46.7%), and Treasury (+84.4%).
- Four cut back training by at least 20%. These were Navy (-27.1%), Interior (-20.2%), Justice (-44.1%), and NASA (-22.6%).
- Employees in these grades made up 7.6% of the total population and accounted for 13.0% of the training participants. They received 11.4% of the training man-hours.

GS 16-18

The population of GS 16-18 executives also increased last year. The amount of increase was 5.1%, yet the number of training participants decreased by 4.2% and the participant man-hours, by 17.7%. In addition, the participant ratio fell by 8.9% and the man-hour ratio by 21.2%. The difference in the rate of change of the two ratios was caused by a decrease in the average length of training sessions of 14.0%. Data for all agencies taken together show the following highlights:

• The number of participants fell by 4.9% and the number of training man-hours by 20.2%.

- The decrease in the amount of training received by employees in these grades did not occur uniformly in all categories of training. Internal participation declined by 6.3%. Interagency training increased by 7.6%. Last year there were three long-term trainees in non-Government facilities, compared to eleven in FY 1970. This was a decrease of 72.7%. Non-Government short-term training decreased by 10.3%.
- Greater changes occurred in participant man-hours. Internal training declined by 18.4%. Interagency training increased by 8.6%. Non-Government long-term training decreased by 78.2%. And non-Government short-term training decreased by 34.2%.
- There was also change in the average length of training sessions. In 1970, the average internal session lasted 36.3 hours. In 1971, the average length was 32.7 hours, a decrease of 9.9%. Interagency sessions were slightly longer, growing from 86.7 hours to 88.2 hours, an increase of 1.7%. The average length of long-term non-Government programs decreased from 1704.7 hours to 1365.3 hours, or 19.9%. This was a decrease of eight and one-half weeks, dropping from 42.6 weeks to 34.1 weeks. The average length of non-Government short-term sessions fell even more, from 42.1 hours to 30.9 hours, a decline of **26.6%**.

To summarize, training for employees in grades 16-18 decreased last year in three areas, internal training, non-Government long-term training, and non-Government short-term training. Interagency training was the only type of training to grow. Although participation at the Federal Executive Institute decreased by twelve, or 7%, this small decline was more than made up by the growth of other interagency programs.

Among the 31 agencies studied, the following highlights appear:

- Seven large agencies cut back training by 29% or more. These were Army (-45.2%), Air Force (-29.9%), Navy (-51.3%), Other Defense (-35.6%), Justice (-58.5%), Treasury (-56.5%), and NASA (-34.6%).
- Four increased training by 23% or more. These were HUD (+23.1%), Interior



- (+44.2%), Labor (+35.2%), and VA (+73.1%). The fifteen small agencies increased training by 163.3%.
- Employees in grades 16-18 made up 0.2% of the agency population and accounted for 0.2% of the training participants. They received 0.3% of the training man-hours.

Wage Systems

The Wage Systems employee population showed a major decrease last year of 10.3%. Because 85% of the Wage Systems employees worked for the Department of Defense, the bulk of the decline occurred there. The rate of decline was approximately equal in both Defense and the other agencies, 10% and 11%, respectively. Training data show the following highlights:

- Wage Systems participation fell by 19.7%.
 Training man-hours declined by 18.6%.
 The participant ratio fell by 10.5% and the man-hour ratio by 9.8%.
- Four large agencies increased training by at least 100%. These were Commerce (+180.0%), HEW (+291.7%), Treasury (+181.0%), and VA (+100.0%).
- Five showed a decrease of at least 22%. These were Navy (-28.0%), Other Defense (-22.5%), Justice (-100.0%), Transportation (-23.3%), and NASA (-42.7%).
- The average length of a Wage Systems training session was 59 hours. This was the same as for FY 1970.
- Wage Systems employees made up 32.1% of the total population and 12.9% of the training participants. They received 16.0% of the training man-hours.

Other Pay Systems

Other pay systems include VA's Department of Medicine and Surgery System, the AD, ST, and YV systems, etc. Participation for employees in other pay systems fell by 18.6% and the number of training man-hours fell by 55.2%. Participant and man-hour ratios were not derived because population data was not included for this group in last year's report. Highlights include these items:

• Employees in other pay systems made up 4.9% of the total population and 2.7% of the

- training participants. They received 2.0% of the training man-hours.
- The average length of a training session was 36 hours. During FY 1970 it was 62 hours. The FY 1971 figure represented a decline of 41.9%.

Summary of Trends

With data for two large single-agency programs excluded (GSA and Transportation), grades 1-4 received the same amount of training as they did in FY 1970. Those in grades 5-8 and 9-12 received more. Training rates for employees in grades 13-15, 16-18, Wage Systems, and other pay systems declined. Trends in population and training show that the Federal workforce is becoming smaller, while some employees are being more intensively trained.

Using the Study

A summary table for each of the 31 agencies included in this analysis appears in Section V of the report. Assuming the accuracy of the reported data, each table presents a complete picture of trends in training for grades groups and pay systems. Great care should be taken interpreting this data, however. As previously indicated, fluctuations in the distribution of training within agencies are sometimes profound. This report makes no attempt to explain the causes of these changes, but merely shows what changes occurred. Alone, the figures do not constitute a basis for justification or criticism of an agency's training activities. Nevertheless, the summary tables can be useful in the management of training. Accurate data and the methodology to convert that data into useful information—is essential to sound management decisions. These same elements are also the basis for the planning, programming, and budgeting called for by E.O. 11348 and revised OMB Circular A-48. The participant and manhour ratios discussed in the present section and shown on an agency-by-agency basis in Section V are one such method.

Similar information can be derived by agencies as reports are received from constituent units which compile training and population data. This can be compared with data on other agencies with similar manpower and mission characteristics on a Government-wide basis through the Commission's annual training report.



For example, an agency may note performance deficiencies in the work of one of its subunits. It could consult the training data to determine how much training the employees of the sub-unit are receiving proportionate to the amount of time they work. If the figure is low, compared to other organizations within or outside the agency, an indication may appear that the performance of the sub-unit could be improved through training. If the training ratio is average or high, the agency might then reach one of three conclusions: the training received is not appropriate to the unit's problem, the training is not being effectively delivered or, that in this instance, there is not a training problem and they should look elsewhere for an explanation of performance deficiencies. If additional training is undertaken, the agency could, at year-end, compute a new manhour ratio to determine how much training was given and compare this figure with any changes which have been observed in the sub-unit's performance.

Observing its man-hour ratios, an agency may also conclude that in certain places a large amount of training is being given which has never been evaluated. It may wish to find out why a training ratio is very high compared to those in other sub-units or in other agencies. In some cases, special training programs may suggest obvious answers. But even where a high man-hour ratio can be tracted to a particular program, the agency may determine that the program consumes such a large share of its total training resources that it should be examined carefully to determine its value. In the case of a high man-hour ratio for a particular group of employees, the agency may also wish to study other man-hour ratios to determine whether the emphasis on training for one group has led to other groups being undertrained. Such information can be most useful in planning and budget preparation.

In the case of Presidential programs, such as Upward Mobility and Executive Development, the training data can readily show to what extent an agency is participating in the program. An agency may conclude that its man-hour ratio for lower-level employees is too low for advancement to occur and may then take corrective action. On the other hand, it may determine that the training rate is adequate and take no further steps in the absence of further indications that a training

problem exists. It is also possible for an agency to have a well-publicized training program which does nothing to change the rate of training for an employee group or which may only withdraw resources from other programs which still need support.

Obviously, training ratios can never be the only items of information which lead to training decisions. The figures are program indicators, giving an approximate idea of the status of the training program, offering clues about where to look to locate training problems, and providing means for monitoring the effects of training decisions.

Used for these purposes, the training ratios are more valuable than gross figures of numbers of employees trained or of training expenditures. Properly conceived and applied, ratios of this type will become more useful to management in the planning, evaluation, and control of training.

The remainder of this section consists of three data tables showing figures for the agencies included in this study. The 16 large agencies are listed separately. The 15 small agencies are shown together. The tables show Changes in Man-Hour Ratios, FY 1970-FY 1971 (Table 7), Average Time Spent in Training by All Employees, FY 1971 (Table 8), and Average Length of Training Session per Participant (Table 9). These tables supplement the narrative in this section as well as the agency tables in the statistical section (Section V).

AGENCY TRAINING CENTERS

127,621 Federal employees attended agency training centers in FY 1971, accounting for 13.2% of all training participants. In addition, 20,198 non-Federal employees attended courses at the centers. Table 10 illustrates the participant composition at all centers.

Table 10: AGENCY TRAINING CENTER PARTICIPATION, FY 1971

	Participants	Percentage
Agency Employees	94,945	64.3
Employees of Other Agencies	32,676	22.1
Total Federal	127,621	86.4
Non-Federal	20,148	13.6
Total	147,769	100.0



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Table 7: CHANGES IN MAN	N-HOUR	RATIOS, FY	1970-FY	1971 (UN	PERCENTS)	*
Agency	GS 1-4	GS 5-8	GS 9-12	GS 13–15	GS 16-18	Wage Systems
Agriculture	+26.5	+1.6	+4.5	+5.5	-14.1	+42.1
Commerce	+37.8	-13.5	+7.9	-1.2		+180.0
• Army	+26.1	+11.8	+22.4	+10.1		-8.8
Air Force	-25.0	-3.9	-14.6	-16.8		+1.7
Navy	-36.1	-45.8	-33.1	-27.1		-28.0
Other Defense	+25.8	-7.8	-6.6	-17.6	-35.6	-22.5
HEW	+83.3	+96.2	-8.1	-11.0	-11.4	+291.7
HUD	-44.4	+575.0	+880.0	+45.9	+23.1	
Interior	+49.1	+14.3	+66.3	-20.2	+44.2	-18.0
Justice	-14.9	+130.8	+8.6	-44.1	,	-100.0
Labor	+43.5	+13.3	+72.6	-16.3		
Transportation	+138.9	-55.8	+20.1	+46.7	•	-23.3
Treasury	-27.3	-14.1	+52.2	+84.4		+181.0
GSA	+200.0	+26.6	-3.7	+9.7		+2.7
VA	-14.9	+11.4	+4.5	+2.3		+100.0
NASA	-21.8	+8.4	-21.0	-22.6	,	-42.7
15 Small Agencies	+34.1	+32.8	-1.4	0.0		+94.4
All Agencies	+4.9	+6.9	+10.9	-1.2	-21.2	-9.8
*Other Pay Systems and Agency Totals not available						

Agency	GS 1-4	GS 5–8	GS 9–12	GS 13–15	16-18	Wage Systems	Other	All Groups
Agriculture	7.8	23.2	37.6	31 . 4	30 9	4.9	28.7	24 .
Commerce	45.0	16.3	34 .9	28.9	26.2	2.5	10.5	24
Army	5.3	15.4	33.8	37.6	29.2	5.6	6.4	14
Air Force	3.3	17.8	25.4	31.4	30.7	11.1	6.5	14.
Navy	4.2	9.4	20.9	23.4	24.7	13.1	0.4	13.
Other Defense	7.1	27.8	54 . 3	56.1	43.9	5.6	1.5	31.
HEW	12.0	46.7	24.7	24.9	26.9	17.1	0.0	25 .
HUD.	10.0	19.6	17.8	26.0	27.1	7.1	2.2	18.
Interior	14.9	20.3	49.2	18.7	11.3	$7.\overline{4}$	20.7	25.
Justice	73.9	59.9	98.4	10.4	8.0	0.0	2.4	59.
Labor	18.0	15.4	29.8	18.7	17.4	2.0	0.0	20.
Pransportation	58.8	79.5	83.7	43.9	30.3	13.8	2.4	63 .:
Preasury	21.2	70.6	49.8	36.5	21.8	64.3	0.0	45.0
GSA	34.9	21.6	28.i	28.9	28.1	6.9	15.4	17.8
VA	11.4	7.1	12.5	13.3	34.0	3.3	14.5	9.8
NASA	7.8	18.3	29.4	29.8	24.7	9.3	15.3	24 .
15 Small Agencies	16.0	15.4	12.5	12.2	14.3	6.4	1.8	12.
 All Agencies	11.6	25.2	36.9	30.3	23.6	10.0	8.4	20 .

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Table 9: AVERAGE LENGTH OF TRAINING SESSION PER PARTICIPANT, FY 1971 (IN HOURS)

Agency	GS 1-4	GS 58	GS 9-12	GS 13-15	GS 16-18	Wage Systems	Other	All Groups
Agriculture	18	26	26	32	47	16	71	27
Commerce	23	40	63	59	57	31	78	44
Army	19	44	49	46	48	55	61	45
Air Force	31	66	47	67	67	61	20	55
Navy	33	40	49	52	41	66	1,212	55
Other Defense	35	57	50	5 6	5 9	31	26	50
HEW	32	91	41	31	43	130	34	56
HUD	29	39	38	49	72	40	15	39
Interior	34	33	58	36	55	37	151	48
Justice	84	72	103	21	21	8	14	78
Labor	26	24	28	28	48	37		27
Transportation	201	149	124	52	70	65	25	105
Treasury	24	60	37	28	47	212		42
GSA	51	29	25	25	38	39	30	34
VA	5 0	25	23	2 8	29	20	26	30
NASA	27	32	35	39	43	23	73	36
15 Small Agencies	37	48	32	32	57	47	38	38
All Agencies	35	53	49	42	49	59	36	48

The total cost of this training was \$42,714,127 and averaged \$285 per person trained. Of this total, 91% was composed of staff salaries with the remaining 9% representing expenditures on training aids, equipment, materials and supplies. There are currently 83 such centers maintained by 15 agencies. Designed primarily to meet internal training : eds, these centers are often open to employees from other agencies. Agency Training Centers For Federal Government Employees, a directory compiled by the Civil Service Commission's Bureau of Training, provides a current listing of all centers and the courses offered. Where appropriate, interagency participation at these centers can enable Federal agencies to share their training.

OFF-CAMPUS STUDY CENTERS

Off-campus study centers are established by cooperative agreements between Federal agencies and educational institutions to provide career-related training and higher education opportunities at a relatively low cost at the work site. In FY 1971, 12 agencies sponsored 125 off-campus study centers (often in cooperation with other agencies at both the Federal and state level)

throughout the United States and in Puerto Rico and Europe. The courses and programs offered include nearly every major field of study from the Arts to Zoology. Table 11 illustrates the participant composition at these centers.

Table 11: OFF-CAMPUS STUDY CENTER PARTICIPATION, FY 1371

	Participants	Percentage
Agency Employees	29,035	73.0
Employees of Other Agencies		7.6
Total Federal	32,057	80.6
Non-Federal	7,739	19.4
Total	39,796	100.0

Off-Campus Study Centers For Government Employees, a directory compiled by the Civil Service Commission's Bureau of Training provides a current listing of all centers and fields of study offered.

TRAINING EXPENDITURES

Summary data show that \$200,271,208 were spent for training during FY 1971, an increase of



17.2% over the previous year. The average cost for each participant was \$207, compared to the FY 1970 average of \$176. Non-salary expenditures accounted for 48% of the total, an increase of 2% over FY 1970, while salary expenditures declined from 54% to 52% of the total. Thus non-salary costs increased more than salary costs.

This is only the second year that agencies have been required to report internal training costs and with only two years of data available, no meaningful trends can yet be detected. All that can be said at this time is that reported expenditures for internal training are increasing but that actual growth cannot yet be accurately determined.

Non-Salary Expenditures

Non-salary expenditures for training totaled \$95,338,901, an increase of 18% over the \$80.6 million reported for FY 1970. The average non-salary cost per participant for FY 1971 was \$99, an increase of \$10 over the previous year's average of \$89. This might indicate that non-salary expenditures increased by over 11%, while participation increased by only 6.6%. Expenditures for internal training accounted for \$51.6 million, or 54% of the total non-salary expenditures of \$39.8 million. However, for FY 1971, internal travel and per diem expenditures totaled \$40.5 million or 78% of all non-salary internal training expenditures. This is an increase of 25%, or \$8

million, of this expense item over FY 1970 expenditures of \$32.4 million.

This \$8 million increase for one item of expense in one category of training represents 55% of the increase in expenditures for all items of expense in all categories of training. Spot checks of those agencies reporting the largest percentage increases for expenditures for internal travel and per diem indicated that an appreciable percentage of these increases can be attributed to more accurate reporting systems. Hence, the full amount of the reported increases cannot be assumed to represent an actual increase in expenditures for training but only an increase in reported expenditures. This must be kept in mind when examining Table 12, which displays non-salary expenditures by type and Chart 12, showing percentage breakdowns.

Expenditures for interagency and non-Government training combined increased 7%, while total participation in these categories increased 5%. In-house training expenditures increased 12%, or over \$2 million, while participation increased by 7.8%. Increases were approximately equal for all types of expense for an increase in the average cost of \$13 per participant. Non-Government short-term training expenditures increased 4% or \$1 million while participation declined by .6% or 102 individuals, for an average increase of \$6 per participant. Sixty percent of this increase was due to increased expenditures

Table 12: AGENCY NON-SALARY EXPENDITURES FOR TRAINING, FY 1971 (IN DOLLARS)

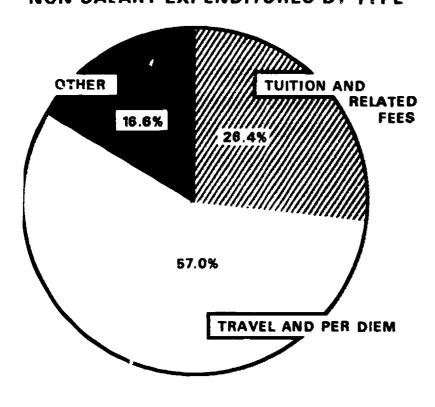
			Non-Gove	ernment	
Type of Expense	Internal	Interagency	Short-term	Long-term	Total
Tuition and Related Fees	793 , 689	6,883,325	15,582,923	1,947,126	25,207,063
Travel and Per Diem	40,549,302	4,576,957	7,614,347	1,556,342	54,296,948
Other Expenditures	10,269,374	317,941	4,941,362	306,362	15,834,890
Books and Materials	(1,864,822)	(72,534)	(561,337)	(140,633)	(2,639,326)
Contractors	(4,824,904)	(199,933)	(4,339,369)	(163,721)	(9,527,723)
Rental	(508,323)	(75)	(4,325)	(NONE)	(512,723)
Other Related Costs	(3,071,324)	(45,399)	(36,331)	(1,859)	(3,154,913)
TOTAL	51,612,365	11,778,223	28,138,632	3,809,681	95,338,901
Percent of Total Expendi-					, ,
tures	54.1	12.4	29.5	4.0	100.0
Percent change from FY					
1970	+29.5	+21.6	+3.7	-2.7	+18.3
Percent change from FY					•
1968		+98.4	+34.4	+9.8	+44.1*
*Internal training expenditures not include	led in determination of	percentage.		•	•







Chart 12 - PERCENTAGE OF NON-SALARY EXPENDITURES BY TYPE



for contractors with tuition increases accounting for 25% and travel and per diem 10%.

Non-Government long-term training expenditures declined by 3%, or \$125,000, while participation declined by 1%, or 20 individuals. Tuition payments declined but expenditure increases for contractors and travel and per diem offset most of that decrease.

For all sources of training, travel and per diem expenditures accounted for 60%, or \$9 million, of the total increase in non-salary expenditures, with \$8 million of that increase occurring in the category of internal training. Participation in internal training in FY 1971 increased by 8% over the FY 1970 level. To obtain an approximation of the actual increase in internal travel and per diem expenditures, the FY 1970 internal travel and per diem expenditures were increased by 8% which gave an approximate expenditure of \$35 million, a decrease of \$5.5 million from the reported expenditures for this type of expense in FY 1971. This resulted in total non-salary expenditures for all categories of training of only \$90 million, or an increase of 12%over the total for fiscal 1970. This increase is comparable to the 13% average yearly increase in nonsalary expenditures since FY 1968.

Based on reported data, the non-salary ex-

penditures and average participant man-hour costs by source for FY 1971 were:

- Internal: \$51.6 million was expended on the training of 713,803 participants for an average participant cost of \$72; the cost per participant hour for 35,771,853 hours was \$1.44.
- Interagency: 85,934 participants received training at a cost of \$11.8 million for an average of \$137 per participant; the cost per participant hour for 3,554,044 hours was \$3.31.
- Non-Government Short-Term: 166,240 participants were trained at a cost of \$28.1 million resulting in an average cost per participant of \$169; the cost per participant hour for 6,939,480 hours was \$4.05.
- Non-Government Long-Term: 1,642 participants were trained at a total cost of \$3.8 million for an average of \$2,576 for each participant; the cost per participant hour for 2,071,587 hours was \$1.84.

Salary Expenditures

The total salary expenditures for both full-time and part-time training personnel totaled \$104,932,307, an increase of 15.7% or \$14,252,335 from FY 1970. The average salary expenditure per employee trained in FY 1971 was \$108, for an increase of 8%, or \$8, over the average for FY 1970.

Full-Time Staff Salary Costs

Fifty-two agencies reported full-time salary expenditures of \$92,925,988 for 7035 employees in the following categories:

- Employee Development Officers: 2123 employees in this category earned \$32,962,122 in salaries.
- Instructors: 2,895 employees received salaries totaling \$39,217,252.
- Administrative Support: 749 employees earned \$12,128,959 in salaries.
- Clerical Support: 1,269 employees in this category received salaries totaling \$8,617,-655.

The total of these expenditures is an increase of 16.9%, or \$13,441,495 over FY 1970. This increase was affected by the hiring of an additional 614 full-time training personnel, who earned ap-

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Table 13: AVERAGE SALARY BY CATEGORY OF FULL-TIME TRAINING PERSONNEL, FY 1968 AND FY 1971 (IN DOLLARS)

	Employee Development Officers	Instructors	Administrative and Clerical Support	Average
1971	15,546	13,547	10,281	13,209
1968	11,355	10,774	5,444	9,654
Dollar Change	+4,191	+2,773	+4,837	+3,555
Percentage Change	+36.9	+25.7	+88.9	+36.8

proximately \$7.7 million in salaries, and the Federal Employees Salary Act of 1970, which resulted in an average salary increase of \$813 per individual for a total rise in full-time salary expenditures of approximately \$5.7 million.

Since FY 1968, expenditures for full-time staff salaries have increased 89.6%, which is an annual growth rate of approximately 23%. Over the same period, the full-time staff has increased 38.6%, or 1,958 employees, from the FY 1968 total of 5,077, and the average salary has increased by 36.8%, or \$3,555. Table 13 illustrates the change in salary expenditures that has occurred since FY 1968.

Part-Time Staff Salary Costs

Part-time training personnel are defined as those employees who spend at least 25% of their time, but less than full-time, in activities directly related to training.

Forty-two agencies reported that part-time personnel worked an estimated 1,147 man-years and received \$12,006,319 in salaries. The part-time staff represented 16% of total training staff man-years and 11.5% of total salary expenditures.

The total number of part-time man-years remained relatively constant from FY 1970, decreasing by only 23 man-years. Salary expenditures increased 7.2% for this category over FY 1970. The average expenditure for each man-year in-

creased 9.4% to \$10,468, an increase of \$899 over the FY 1970 average of \$9,569. This increase probably indicates that higher grade level employees are being utilized for training on a parttime basis as the percentage increase in the average expenditure per man-year is greater than the Federal pay raises discussed earlier would account for.

DISTRIBUTION OF FULL-TIME TRAINING PERSONNEL

The distribution of full-time training personnel by category for FY 1971 is given in Chart 13. Although year-by-year variations have occurred in this distribution, the long-term percentages have remained relatively constant. The largest change has been in the relative number of Employee Development Officers (EDO's), who have declined from 33% of all training personnel in FY 1967 to 30% in FY 1971. Over the same period the percentage of support personnel has increased 2% from 27% of all full-time training personnel to 29%. Instructors comprised 40% of the total in FY 1967 and have increased by only 1% to the FY 1971 total of 41%. These changes are shown in Table 14, which shows the percentage distribution of training personnel by category for FY 1967 and FY 1971.

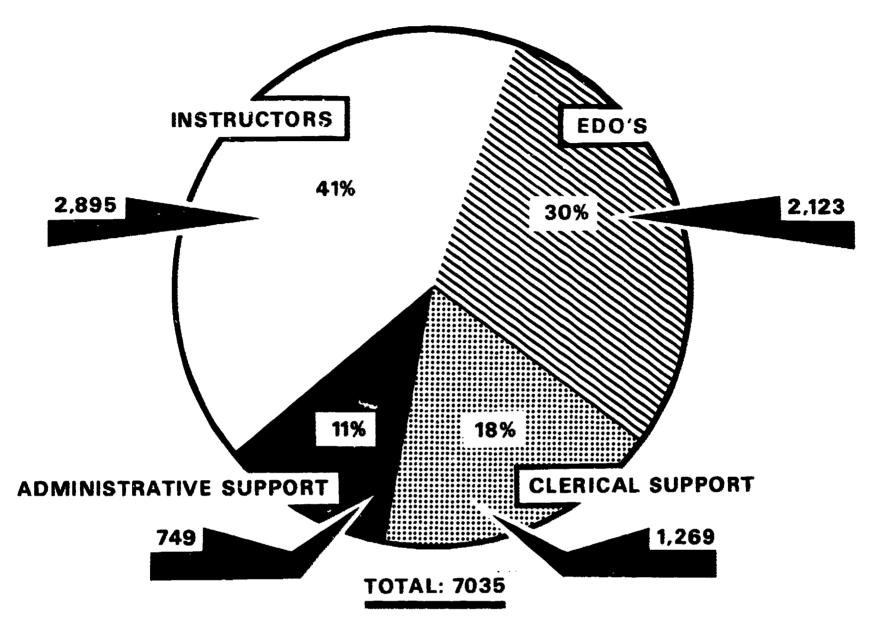
While the table shows a decline in the ratio of Employee Development Officers relative to all

Table 14: PERCENTAGE DISTRIBUTION OF FULL-TIME TRAINING PERSONNEL BY CATEGORY— FY 1967 AND FY 1971

	1967	1971
Employee Development Officers	33%	30%
Instructors	40%	41%
Support Personnel	27%	29%
Total	100%	100%



Chart 13 - DISTRIBUTION OF FULL-TIME TRAINING PERSONNEL, FY 1971



full-time training personnel, the absolute number of Employee Development Officers and other training personnel in all categories has shown a steady increase since FY 1967. There has been an increase of 40.4%, or 611, in the number of Employee Development Officers during this period with all other categories of training personnel showing comparable increases. For all categories, there has been an increase of 52.7%, or 2429 em-

ployees since FY 1967. Table 15 summarizes this numerical and percentage growth.

The increase in full-time training personnel since FY 1967 has exceeded the growth in agency population over the same period, resulting in a higher ratio of training personnel to all employees. More significantly, the increase in training personnel continued in FY 1971 while the Federal workforce decreased in size. In FY 1967, there

Table 15: NUMBERS OF FULL-TIME TRAINING PERSONNEL BY CATEGORY— FY 1967 TO FY 1971

			% Change 1971 FY 67-71 FY 70-			
	1967	1970	1971	FY 67-71	FY 70-71	
Employee Development Officers	1,512	2,080	2,123	40.4%	2.1%	
Instructors	1,865	2,541	2,894	55.2%	13.9%	
Support Personnel	1,229	1,800	2,018	64.2%	9.7%	
Total	4,606	6,412	7,035	52.7%	9.7%	

were an average of .81 Employee Development Officers, and an overall average of 2.49 full-time training personnel, for each 1.000 Federal Employees. In 1971, these ratios were 1.02 and 3.38 respectively. The changes in the ratio of all categories of training personnel per 1,000 employees are shown in Table 16.

The Civil Service Commission has long believed that many agency training offices have been understaffed relative to their responsibilities. With the increase in training personnel and the decrease in the Federal workforce, it is felt that a more reasonable employee-trainer mix is being reached. As described in Section I of this report, the increasing number of new training programs and responsibilities suggests that more training personnel will be required to handle the resulting workload. In these circumstances, the ratio of training personnel to agency employment will probably continue to increase.

Table 16: FULL-TIME TRAINING PERSONNEL BY CATEGORY FOR EACH 1,000 FEDERAL EMPLOYEES, FY 1967 TO FY 1971

	1967	1968	1969	1970	1971
Employee Development Officers	. 81	.76	.92	. 96	1.02
Instructors	. 99	1.11	1.25	1.18	1.25
Support Personnel	. 66	.60	.88	. 96	. 97
Total	2.49	2.47	3.05	3.10	3.38



III TRAINING ACTIVITIES OF THE CIVIL SERVICE COMMISSION

The training activities of the Civil Service Commission are carried out primarily by the Bureau of Training, the Regional Training Centers, and the Federal Executive Institute. During FY 1971, the Bureau was reorganized into four operating offices or divisions and an office of administrative management. The operating units serve the following purposes:

Training Operations conducts the interagency and intergovernmental training programs for Federal, state and local employees at the Commission's Executive Seminar Centers and the Washington and Regional Training Centers.

The Training Assistance Division coordinates training opportunities for lower-level, disadvantaged, and summer employees, promotes and administers the Education for Public Management Program and the Federal Personnel Intern Program, coordinates and promotes the use of interagency training programs, provides agencies with guidance and consultation on individual and general problems related to training, and provides guidance and leadership in the development, selection, evaluation, and utilization of modern instructional methods and techniques.

The Public Service Careers Office administers Plan D of the Department of Labor's Public Service Careers Program to improve and expand current programs to employ persons with limited education and skills within the Federal Government and to expand current activities to upgrade lower-level employees.

The Training Management Division serves as the focal point within the Government for information collection and analysis, strategic planning, systems development, evaluation, and research in regard to training.

The Commission's training functions can be grouped into three broad categories, in which any of the Bureau of Training operating units may be involved: interagency training, intergovernmental training, and consultation, leadership, and assistance. Highlights of the Commission's FY 1971 activities will be discussed under these categories.

INTERAGENCY TRAINING

The Commission's interagency training program continues to grow. In FY 1971, 76,053 employees received training in courses conducted by the Bureau of Training and the Regional Training Centers. This was an increase of 24.5% over the FY 1970 total of 61,087. Of this total, 74,702 attended courses at the Bureau's Central Office and Regional Training Centers. The Executive Seminar Centers located at King's Point, New York, and Berkeley, California, accounted for 1,351 participants. Attendance at these two centers has remained relatively constant since FY 1967. Chart 14 shows the growth in total participation for all facilities since FY 1965. (Data for the Federal Executive Institute, a separate organization within the Civil Service Commission, is not included in these totals. Training activities of the Institute are discussed separately in this section.)

The FY 1971 participation total includes 7,238 employees of state and local governments, a figure which exceeded expectations by more than 2,000. Commission training personnel offered 3,073 program sessions, giving classroom training of 91,586 hours in length. Attendance at these sessions accounted for 7% of all Federal employee training in FY 1971.

The increased participation and new training responsibilities has led to the establishment of new training facilities and programs which are described below.

Executive Seminar Centers

In July, 1971, the third Executive Seminar Center was opened in Oak Ridge, Tennessee. With this new center, the total capacity at the executive seminar centers now exceeds 2,000 executives per year. The new center will take advantage of the scientific resources and talent available within the immediate area.

Labor Relations Training Center

In response to the growth of Federal employee unions and negotiated contracts, as well as the need for a "management team" orientation, the Commission established the Labor Relations Training Center during FY 1971. The purpose of the center is to train agency supervisors, managers, executives, and specialists in the knowl-

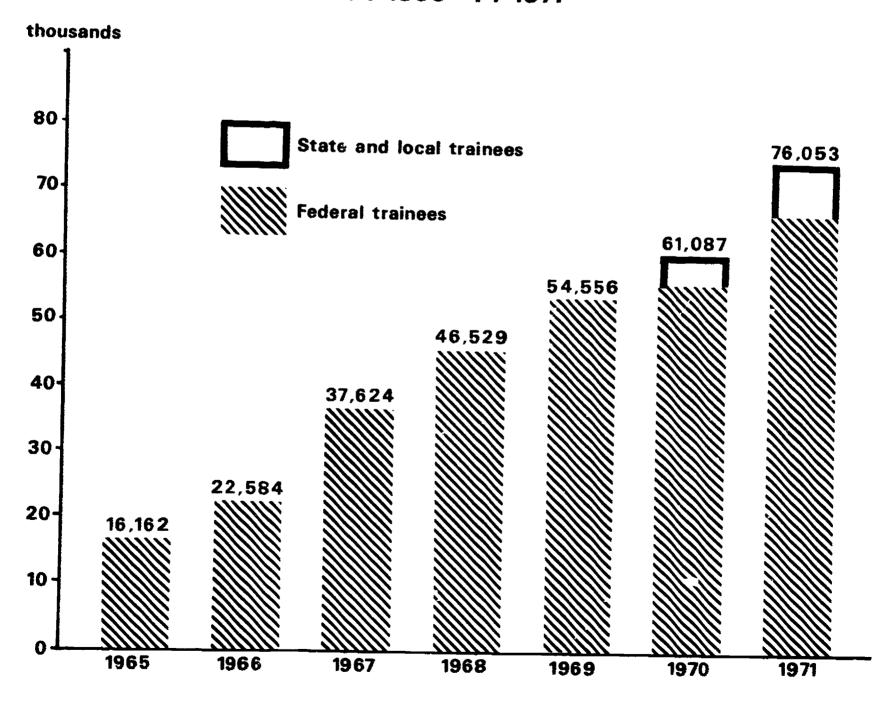


edge and skills required to establish constructive collective bargaining relationships. The center's program is designed to train the management team to handle union-management conflict by providing a realistic approach to the collective bargaining process as well as the specific skills needed to utilize it. The need is intense. By 1971, more than 3,000 exclusive bargaining units had been certified in the Federal Government. Better than 60 percent of the entire civil workforce was represented by unions. At least 3,000 contracts will have to be negotiated during the next few years. The number of exclusive bargaining units and contracts is increasing at a rapid pace.

The Center's curriculum is divided into three categories:

- 1. Management Labor Relations Policy and Conduct, Collective Bargaining—General Series. These are the basic knowledge and skill courses.
- 2. Management Labor Relations Policy and Conduct, Collective Bargaining-Specialty Workshop Series. The courses in this series are designed to provide specific skill training.
- 3. Collective Bargaining—Special Programs. These are custom-tailored special courses or programs designed, developed, and conducted

Chart 14 - TRENDS IN INTERAGENCY TRAINING
FY 1965 - FY 1971





at the request of an agency or other unit of government to meet a specific collective bargaining training need.

Southwest Intergovernmental Training Center

The Southwest Intergovernmental Training Center began operations in January, 1972, in San Antonio, Texas. First year funding is provided by the Department of Labor. The center was established to serve as an intergovernmental training facility for Upward Mobility in the Southwest. This step was taken in response to the President's 16-point program to enhance Federal employment opportunities for Spanish-surnamed Americans. The center consists of two components—one for basic education and one for skills training. As the program becomes fully operational, it is expected that employees in cities outside San Antonio, such as El Paso, Albuquerque, and Corpus Christi, will utilize the center's courses. Plans will be coordinated through the Dallas Regional Training Center of the Civil Service Commission.

National Indian Training Center

Another joint effort of the Commission, through its Denver Regional Training Center and the Bureau of Indian Affairs, is the National Indian Training Center. It is located at the Instructional Service Center at Brigham City, Utah, and opened in September, 1971. The Center provides educational opportunities for Indians, as well as for governmental officials—Federal, state, or local—who work with Indians. Courses are designed to meet specific needs identified by users. A sampling of courses in the initial offering includes Indian School Board Training, Leadership in the Indian Community, and Grant-in-Aid Programs Available to Indian People.

EEO Institute

To meet a high priority need, the Commission established a special EEO Institute in the central office Personnel Management Training Center. The Institute will develop courses for delivery in interagency programs nationwide as well as conduct courses locally. Attendance at EEO courses has greatly exceeded expectations. The Regional Training Centers had anticipated teaching fewer than 100 sessions during FY 1971, but found that the demand was for about 130 sessions. Plans for FY 1972 show an increase of about 50 sessions.

Management Sciences Institutes

Formerly, only a few Regional Training Centers offered courses in ADP management or financial management. Beginning in FY 1972, all of the regional training centers will offer courses in both curriculum areas in ten newly established Management Sciences Institutes.

Most of the basic courses in ADP and financial management will be offered initially with the expectation of expanding the curriculum as the centers develop their capability. Examples of the initial course, offered are ADP Orientation, Conversational Computing, Governmental Bookkeeping and Accounting, and Cost Benefit Workshop.

General Management Training Center

The General Management Training Center has made the second of its 40-hour basic supervisory courses available through the Government Printing Office. The course is Supervision and Group Performance, designed for nationwide use by Federal, state, and local government organizations. On the initial Commission requisition, 29 agencies purchased 764 instructor manuals for the course. GPO sales on the first supervisory course, Introduction to Supervision, have totaled 825 copies to date. Manuals and participant workbooks for both courses continue to be stocked by the Superintendent of Documents.

Federal, state, and local governments continued to make heavy use of the Commission's basic 40-hour supervisory courses. During FY 1971, a total of 9,721 supervisors attended these courses.

Both members of Congress and officials of executive agencies have expressed a need for intensive consideration of the interrelations between Congress and the executive branch. In response to this need, the General Management Training Center held five two-day briefing conferences and workshops for officials with responsibilities for various functional areas. Three sessions were held for those concerned with education, labor, health, and welfare; and two for those responsible for public lands, land exploration, agriculture, and related areas. During these sessions, participants met with members of House and Senate Committees and key committee staff personnel, selected agency top officials and liaison representatives, and analysts from the Office of Management and

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Budget with responsibilities in the program areas involved. Primary attention was given to Congressional committee work and to factors determining how legislative priorities are set, how substantive legislation and appropriation matters in those program areas are handled, and how conflicts in legislative program areas are resolved at the departmental, OMB, and Congressional levels. As a result of the affirmative response to this program, seven sessions were scheduled for FY 1972.

Federal Executive Institute

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During FY 1971, 751 executives attended sessions at the Federal Executive Institute in Charlottesville, Virginia. The principal activity of the Institute is an eight-week Residential Program in Executive Education which is designed to heighten responsiveness to national needs and goals, increase appreciation for the totality of the governmental system, and improve knowledge of managerial processes.

There were five sessions of this program in FY 1971 with a total attendance of 266 people—258 were employed by the Federal government and represented 40 agencies; seven were employees of state and local governments; and one was employed by the World Health Organization. Of those attending, approximately 80% were at grade GS-16 and above (or the equivalent in other pay systems) and approximately 20% were at grade GS-15, or equivalent.

Other activities of the Institute included short seminars and conferences developed and led by members of the Institute faculty and staff, and by members of other Government organizations.

INTERGOVERNMENTAL TRAINING PROGRAMS

In 1970, the Brookings Institution, under contract to the Commission, developed a model Intergovernmental Affairs Fellowship Program. The 1971 program, patterned on this model, was designed and conducted by the Commission's Management Sciences Training Center.

The primary purpose of the fellowship is to provide the opportunity for intergovernmental learning and mutual assistance among Federal, state, and local officials engaged in grant-in-aid activities. Through this program, Federal executives with policy-making roles in grant programs can enhance management effectiveness by develop-

ing a more sophisticated understanding of the grant-in-aid environment. Eighteen grant executives participated in the 1971 session.

The Executive Seminar Centers conducted several seminars in Intergovernmental Programs and Problems during FY 1971 for Federal, state, and local officials. These seminars explore the origins, evolving nature, and problems of the American system of government. Emphasis is placed on the growing pattern of shared responsibility among national, state, and local programs. Their relationship to the larger problems of American Federalism is selectively reviewed from the vantage points of legislative and executive practitioners and scholars at all levels of government.

The Regional Training Centers have also expanded their training for state and local governments. Some examples of regional courses are Managing the Modern City, developed under contract with the State of New Jersey, and conducted by the New York region; courses for county tax assessors, developed and conducted by the Seattle region; and a cluster of specialized courses on environmental projects, such as the Environmental Engineering and Water Resources Seminar developed and conducted by the Dallas region. A workshop in Basic Employee Development. funded by the Department of Housing and Urban Development, was developed in the central office and given tuition free to state and local officials by each of the Regional Training Centers. Plans for FY 1972 call for an advanced employee development course for the same audience in all the centers.

CONSULTATION, LEADERSHIP, AND ASSISTANCE

Publications

To assist agencies in the coordination of Government and non-Government training resources for Federal employees, the Training Assistance Division of the Bureau of Training prepares the following resource publications, all of which are available from the Government Printing Office:

• Interagency Training Programs Catalog and the Quarterly Calendar of Interagency Training Programs. These publications provide information on training programs open to employees of other agencies. There



are separate issues for the Metropolitan Washington, D.C., area and the areas served by the ten Regional Training Centers.

- Agency Training Centers for Federal Employees. This pamphlet lists separate facilities established by agencies to conduct special agency-oriented training for their own employees. Employees of other agencies may participate on a space-available basis.
- Off-Campus Study Centers. This is a listing of facilities that have been established by cooperative arrangements between academic institutions and Federal agencies to sponsor continuing educational opportunities for Federal employees.
- A Directory of Studies and Reports Related to Training and Education. This publication is designed to facilitate the exchange of information by providing a directory of the studies and reports prepared by agencies concerning special programs, training needs, and problems.

The Commission also issues informational publications on a wide variety of training topics. In FY 1970, a series on Training Systems and Technology was introduced. As of now, six publications have been issued in this series. Among the subjects covered are training evaluation, programmed instruction, the selection and use of visual materials, and computer assisted instruction. A current directory of available publications is provided in the Commission's Guide to Training Resource and Information Publications.

Contract Exchange Information Service

In addition to the above publications, the Commission maintains a file of information about contracts for training services and materials. This information has been supplied by agencies and is available to government training officers on request. Such information should be useful in making decisions about new contracts and in taking advantage of products already produced for other agencies.

Public Service Careers

The Public Service Careers program completed its first full year of operations during FY 1971. The Federal component, Plan D, was ad-

ministered by the Public Service Careers Office using funds provided by the Department of Labor. By the end of the year, signed agreements with agencies totalled \$7,793,201. The program calls for the hiring and training of minimally skilled persons at entry level as well as providing upgrade opportunities for those already employed. By the end of the year, 2,699 new employees had been hired, and 1,494 designated for upgrad? training. 217 had completed training. Traineus were located in 117 cities in 42 states and in the District of Columbia. 70% of the PSC trainees enrolled were employed outside the D.C. area. In addition to employees already participating in the program, commitments for several thousand more have been made by the agencies. The total commitment at the end of the fiscal year was 12,974.

Participant data show the following characteristics of PSC trainces:

- The typical trainee was in his 20's, male, and lacking a high school education.
- Nearly 91% of both entry and upgrade PSC trainees have remained on the job and are still employed by the Federal Government.
- Over 95% of the PSC trainees entering the program through the Worker-Trainee Exam are currently employed by their hiring agency.
- General Schedule employees constituted 37.9% of the PSC trainees; Wage Systems employees, 28.5%; Postal Field Service employees, 26.1%; and employees of other pay systems, 7.5%.
- Nearly 15% of entry-level PSC trainees were Vietnam veterans.

Several new training program were developed or utilized in connection with the program. Four of the Commission's interagency training centers developed 14 PSC-related courses, conducted 67 course sessions, and trained 1,600 participants nationwide. HEW's Southwest Interagency Training Center, located in Washington, D.C., was funded by PSC and provided surportive services and orientation to over 400 PSC trainees and skills training to approximately 245 more. In addition, an agreement was made with Opportunities Industrialization Center, an independent, non-profit, "self-help" training organization for unemployed and underemployed persons,



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to provide free orientation, counsaing, advisory services, and skills training to PSC trainees.

Long-Term Training Evaluation

During FY 1971, with a decade of long-term training experience, the Commission and 12 Federal agencies undertook an evaluation to provide the basis for planning future investments in the program.

The period selected for the study covered fiscal years 1960 through 1969. Twelve agencies participated, representing approximately 40% of the assignments made to long-term training in non-Government facilities during that decade. They were the Departments of Agriculture, Commerce, HEW, HUD, Interior, Transportation, and Treasury; and the Atomic Energy Commission; the Defense Intelligence Agency, D.C. Government, NASA, and VA. (The three military departments are also participating in the study. Their evaluations will not be completed until FY 1972 due to the large volume of assignments they made during the period—over 50% of the total.)

The Commission supplied each participating agency with suggested questionnaires and other analytical tools. Agencies had the latitude to put these to use, to modify them, or to develop their own methods for eliciting the needed information, so long as certain minimum standards were met. The minimum standards set by the Commission were:

- Management appraisals of the influence of the training on the trainee's value to the agency.
- Appraisals by the trainee and his supervisors of (1) the timing of the "payoff";
 (2) the degree of utilization of the training received; and (3) the degree of realization of the training objectives.
- Descriptions by the trainee and his supervisors of how the training was applied to the agency's problems and programs.
- Management review of the information gathered and an estimation of the return on the investment in light of the costs and the benefits of the training.
- A summary of findings, showing selected characteristics of the trainees and the training programs, as well as the nature of the return.

• A report to the Commission transmitting the summary of findings, a statement of the agency's policy concerning future use of long-term training in non-Government facilities, and any recommendations the agency cared to make growing cut of the study.

In reporting the return on their investments, the agencies used the categories established by the Commission: Very Good, Moderate, Small, Broke Even, and Did Not Break Even. Appraisals were reported on 2,610 assignments. In comparing the costs to the benefits derived from the assignments, the agencies reported a moderate or better return on 90% of the assignments. In only 2% of the assignments did the agencies report that they did not break even. The most prevalent reason for appraisals of less than moderate return was that the employee left the agency which sponsored the training.

A number of recommendations were passed on to the Commission by the participating agencies regarding the use of long-term training, such as:

- A specific plan for utilization of the trainee should be required for each long-term training assignment.
- A continuing responsibility for achieving utilization of the knowledge acquired through the training should be assigned to an appropriate official.
- A career development profile should be used in connection with training assignments under "broadening" programs in order to forecast the employee's position assignments and to assist in utilizing him properly during the critical post-training period.
- A well-conceived written plan for the anticipated post-training assignment of the employee should be an integral part of the nominating document.
- The Commission should reaffirm the "simultaneous selection" concept by reissuing the substance of Bulletin 410-19 ("Selection of Candidates for Long-Term Training," now expired), to ensure that consideration is given to all eligible employees and that the best candidates for long-term training are nominated systematically.
- Guidance should be given to agencies show-



ing how relief from employment-ceiling restrictions can be granted to organizations which send employees to long-term training (such as the allocation of spaces from a central pool).

Several agencies reported that increased attention would be given to the post-training utilization of employees assigned to long-term training. In addition, there was clear indication that future selections for long-term training would be influenced by the nature of the return the agencies experienced on past investments as revealed by the study.

The Commission is reviewing the recommendations made by the participating agencies to consider the need for policy changes or guidelines to ensure that future investments in long-term training will continue to be responsive to national priorities and programs as well as present and projected conditions affecting Federal employment.

Training Cost Model

Over the years, training officers and agency management in general have become more concerned with the cost of training. One reason for this concern is the increased cost of training; another is the increased importance of training in an agency's operation. Until now, however, there has been no system available to enable trainers to arrive at standard cost data on training. Since this kind of information is essential for the efficient management of training, the Civil Service Commission has developed a training cost model for agency use.

The primary purpose of the training cost model is to predict the annual costs of a proposed training course; a secondary purpose is to reconstruct costs of a past course where there is no accurate accounting data available. Four steps are involved in the use of the model. The first is the making of basic assumptions about the course, such as its length, the number of people attending, and the type of methodology used. The second step is the selection of cost data from cost data tables. The tables provide standard costs on salary, travel, development, and production. The third step involves entering the data on four worksheets, covering costs for development, participants, instructors, and facilities. On each worksheet, both annual cost and cost per trainee hour are calculated. Annual cost is needed as an input to the agency's budget and per trainee hour cost as one measure of course efficiency. The fourth step is the transferal of the data to a summary worksheet. While the first step-making the assumptions—should be done by a qualified training officer, the other three steps can be done by clerical personnel.

The model is useful for a number of purposes: Different training formats can be costed out and compared. Contractor proposals can be analyzed from a cost standpoint. The cost of training can be compared with the cost of other problem-solving methods. Accurate performance-linked budget inputs for the training function can be provided. And the model gives a sound basis for including training in an agency's strategic planning.

The cost model considers, of course, only one side of the cost/benefit ratio. A benefit model is being developed by the Commission which will be initially applicable to jobs with easily obtainable production measures. Eventually the benefit model will be used for jobs with less tangible outputs.



IV. ACCOMPLISHMENTS THROUGH TRAINING

Federal Agencies conduct training courses and programs encompassing the entire span of governmental activities. The examples given below serve to illustrate the approaches used to satisfy the diverse training needs during FY 1971. Selected from agency reports, these examples have been grouped under the following broad categories:

- Training to Improve Performance of Current Duties
- Training in Anticipation of Future Programs and Staffing Needs
- Training as a Result of New Missions or Programs
- Training to Keep Employees Abreast of Technological Advances and to Maintain Proficiency in Specialization
- Training to Develop Unavailable Skills

TRAINING TO IMPROVE PERFORMANCE OF CURRENT DUTIES

Defense Supply Agency

The Operation Deep Look Training Program (Test, Train, Re-Test) was continued at several field activities during FY 71. An important part of the program is the identification of "performance gaps" and the necessary follow-up training and development. At the Defense Depot in Ogden, Utah, 121 warehouseman and 25 packers received 8 to 18 hours of training in warehouseman techniques or packer producers. DDOU operations reports indicate a productivity increase in the receiving function and the packing and shipping functions of 7 to 10 per cent over the FY 70 level.

Department of Housing and Urban Development

A major reorganization and realignment of HUD at the beginning of last fiscal year precipitated numerous meetings of the Regional Training Committee to plan types and methods of training needed for employees. The kinds of training required were both a general orientation to acquaint each person with overall goals, objectives, and responsibilities, and more intensive training for members of the professional staff.

Program offices worked out a two-day agenda to be taught in the area offices by teams from the regions. A general orientation was first conducted, followed by sessions on various programs or phases. Employees selected and attended sessions according to their particular area of interest or need.

In addition, various workshops were conducted in the regional offices. Employees came from area and insuring offices to attend. The workshops included Wage Requirements Workshop, Seminar on Pealignment, (New Roles of Regional and Area Offices), RAMIS Training, Financial Management Seminar, Codes Training, and a Model Cities Training Conference.

Department of Transportation

In May, 1971, the first group of supervisors and managers attended the newly established FAA Management Training School at Cameron College, Lawton, Oklahoma, where FAA supervisory and managerial training is conducted on a live-in basis. All new current supervisors and middle managers must attend the appropriate course. Each of the three-week courses consists of 80 hours of study in basic supervisory or managerial skills together with 40 hours of laboratory work in which actual supervisory or management situations are simulated. Heavy emphasis is being placed on post-course counseling and application of the newly learned skills and knowledge back on the job. Following the initial training, supervisors and middle managers will attend a one-week refresher training course each year. A total of 3,000 supervisors and 600 managers are expected to attend the school annually. From May, 1971, through the end of the fiscal year, 623 trainees were enrolled.

Department of the Air Force

Civilian employees were enrolled in the two-week Environmental Protection Course given at the Air Force Institute of Technology's Civil Engineering School. This course broadens the professional skills of engineers in the application of identification techniques for environmental protection and control. Fundamental instruction includes current technology in water quality, air quality, solid waste management, noise, radiation hazards, herbicides and pesticides, land management, and environmental impact statements. The course provides students with a basis for applying principles and methods applicable to identifying sources of pollutants and selecting proper treatment and/or disposal techniques to comply with



standards. Individuals in positions designated as environmental protection engineering-management in the Civil Engineering functional area or Air Force bioenvironmental engineers are provided this training to update professional skills. It is planned that graduates of this course will be eligible after four years for refresher training in this area.

Department of Health, Education and Welfare

The Social Rehabilitation Service continued the implementation of a Management by Objectives program and developed an operational planning system as part of the newly designed Rehabilitation Service Management System. Training in these programs continued for executives, managers, supervisors and other professionals to participate in the joint setting of organizational program objectives and individual employee objectives, both personal and those based upon job responsibilities. Most of the training is conducted under contract. One of the most important results noticed thus far is the establishment of realistic objectives in tune with the Secretary's goal and Regional Directors' priorities. The service is continuing to develop in-house capabilities to reduce dependence on contracts.

Department of the Treasury

An international training course was developed in late 1970 by the Office of the Comptroller of the Currency to better prepare examiners for examining foreign branches and international departments of national banks. Twenty-five examiners participated in the one-week course. The trainees received intensive instruction in operations of foreign departments of American banks, Edge Act Agreement Corporations, overseas branches, and international banking techniques, such as letters of credit, foreign exchange, foreign loans, and investments. More international training courses will be held in FY 1972.

Federal Communications Commission

The FCC is sending 7 persons to an Adult Education Demonstration Center for four hours each week so they can obtain remedial education and basic skills in preparation for receiving high school equivalency certificates. Trainees are attending the same facility for an intensive vocabulary building, reading improvement, and mathe-

matics program under the FCC Upward Mobility Program.

Small Business Administration

Operations have improved throughout the SBA as a result of the agency-wide Cross-Training Program. All professional employees who work with applicants for assistance (financial assistance, management assistance, minority enterprise) are cross-trained in other SBA assistance programs, thereby giving them a good working knowledge of the operations of programs outside their own specialty.

TRAINING IN ANTICIPATION OF FUTURE PROGRAMS AND STAFFING NEEDS

Department of Defense

Project Hire (Alaska Native Employment Program) is a program to recruit, train, and employ Alaskan natives with little or no experience or education. Since the program began in August, 1969, a total of 426 trainees have been brought into the program (Air Force-232, Army-178, and Navy-16). The program is designed to allow a trainee to progress to a higher target grade or journeyman rate. On-the-job training is the primary method, with outlines similar to those used in the training of airmen. For those in need of special courses, arrangements have been made in addition to OJT. Special typist, key punch, and shorthand courses were set up with local business colleges, and remedial education and GED courses are in progress. Special classes were arranged to train supervisors in the socio-economic backgrounds of various Alaskan native cultures to better understand special problems relative to placement and training of Alaskan natives. The instructor was an Alaskan native, and supervisors who attended the classes said that this presentation would definitely make their jobs easier in training the Project Hire employees.

Department of Commerce

In the Department of Commerce, bureaus have been urged to direct attention toward the inclusion of women in professional training. The Department is ensuring that nominees for executive and professional training represent the workforce at the professional level, with special



attention paid to the training needs of women who have been assigned executive and management level responsibilities. It is interesting to note that the number of women who attended managerial and supervisory training courses increased by 70% over FY 70.

At the conclusion of FY 1971, the Department completed its first year of participation in the Public Service Careers Program. Under PSC, Commerce employed 142 disadvantaged job seekers (GS-1 or WG-1 or 2) and upgraded or sent to upgrade training 98 current employees (GS-1 through GS-5). The \$100,700 PSC grant from Labor was a major contribution to Commerce's Upward Mobility efforts. Entry employees received orientation counseling and skills training. Immediate supervisors of the worker-trainees received training in special skills essential to supervising low-skilled employees. Upgrading activities included clerical and stenographic occupations, computer technology, printing, and the various trades.

Government Printing Office

For several years, GPO has provided presupervisory training for employees with potential for becoming supervisors. Three hundred and sixty-one persons were trained prior to FY 1971. One hundred and eighty (50%) of these have been promoted. Some of these employees have been promoted several times. During FY 1971, 175 employee completed classroom training and are now receiving rotational assignments and on-the-job training in supervisory functions.

National Aeronautics and Space Administration

At Langley Research Center, a Pollution Lecture Series was conducted in response to the growing interest by staff scientists in determining the problem areas which are amenable to analysis and solution using the capabilities and facilities available at the Center. This series of six lectures, which was also open to local educational institutions and other government agencies, consisted of the following topics: Diffusion and Modeling, General and Urban Modeling, Supersonic Transport and Pollution of the Upper Atmosphere, Chemistry of Air Pollution, Laboratory Simulation of Atmospheric Effects, and Pollution Work at MIT.

TRAINING AS A RESULT OF NEW MISSIONS OR PROGRAMS

Department of Commerce

In cooperation with private consultants, the Department conducted two "awareness" training seminars. Both were attended by the Assistant Secretary for Administration and 24 top management officials from all of the administrative areas. The July program, a 20-hour seminar, accomplished the following:

- Established a common understanding of the Administration's Equal Employment Opportunity Program.
- Reviewed EEO progress.
- Identified obstacles to employment and advancement from minorities' point of view.
- Established an employment and development program to encourage more qualified minorities and women to make professional careers in administration.

Department of Labor

Training was able to solve a major operational problem of the Department in FY 71. In January, the Occupational Safety and Health Act was signed into law by the President with an April 1 implementation date. The Act set standards for Safety and Health in the workplace and provided for on-site inspections by Department of Labor safety engineers. With a short time between enactment and implementation, the Department was faced with a major staffing need. The labor market supply of safety engineers was insufficient to meet this need.

At the same time, however, the economic downturn in the aero-space and related industries resulted in a large number of engineers seeking work. It was decided to tap this labor resource by providing an intense residential course in Safety Engineering Techniques and Practices. Five such courses were held. When the implementation date arrived, trained safety engineers were ready and able to usher in a new era of high standards of health and safety for the nation's workers.

Federal Power Commission

There has been growing concern in recent years regarding potential and actual power failures and blackouts. Previously, the Federal Power



Commission was less active in assessing adequate power facilities and the proper tie-in of various power systems. Because of public concern, the interconnection and coordination of power systems, reliability of power systems, and adequacy of natural gas reserves have become critical issues within the Commission. Much training is being directed toward equipping the staff with the knowledge needed to meet changes in the organization's current mission. Power Systems Engineering and the Executive Training Program in Liquefied Natural Gas are examples of new training programs.

TRAINING TO KEEP EMPLOYEES ABREAST OF TECHNOLOGICAL ADVANCES AND TO MAINTAIN PROFICIENCY IN SPECIALIZATION

Department of the Treasury

Since the banking industry continues to be revolutionized by advances in data processing, examining personnel in the Office of the Comptroller of the Currency are enrolled in the programmed instruction course, "Computer Systems Fundamentals", through their local IMB Center. In addition, during FY 1971, a five-day seminar in the use of electronic data processing techniques in bank examinations was established in cooperation with a consultant. Several seminars will be conducted to familiarize those concerned with the examination and supervision of national banks with the effect of EDP equipment on examination procedures and techniques.

The course also aids the examiner in the review of reports prepared by examiners already specially trained to examine the growing number of banks using EDP equipment. Instruction covers both the capabilities and limitations of EDP systems in commercial banks. In addition to this basic training, additional employees from each region were selected for specialized instruction in Advanced Electronic Data Processing.

General Services Administration

The Office of Automated Data Management Services in the Federal Supply Service began a long-term project to upgrade training in ADP through the in-house development of videotape training classes. The intent of the project is to standardize training at all GSA data processing facilities while at the same time substantially reducing training costs.

TRAINING TO DEVELOP UNAVAILABLE SKILLS

Department of the Army

Repairs and adjustments to the lock and dam structures under water level have been a problem since the Little Rock Engineer District became involved in navigation. Since Arkansas is an inland state, there are no trained divers available within 500 miles. To alleviate this problem a program to train employees to be part-time divers was developed. Five employees are presently attending the Divers Training Academy at Fort Lauderdale, Florida, for five weeks. After completing the school, they should be able to perform all diving activities required in the district. A sixth employee has several years diving experience in the U.S. Navy. Although the program is rather expensive, in the long run it will be much more economical than the present system of waiting for divers to report with work crews remaining idle for long periods of time.

Department of the Navy

The Navy's apprentice program provides an intake to meet anticipated requirements for skilled artisans and for employees with potential for advancement to higher level positions where journeyman or technical experience is desirable. Apprentice graduates provide a source of personnel for positions such as Foreman, Engineering Technician, Inspector Planner, and Estimator, as well as other ungraded and graded technical and administrative positions. There were 7,215 apprentices trained during this reporting period. 31% of the graduating apprentices completed their apprenticeship in less than four years.

National Labor Relations Board

As a result of in-house training under the Upward Mobility program, more than 80 NLRB employees successfully completed courses in typing, shorthand, and English usage. One positive by-product of this training was the certification of approximately 15 clerk-stenographers, most of whom moved into stenographic positions within the agency.



V. STATISTICAL REVIEW OF TRAINING

The statistical data contained in this section were submitted to the Commission by agencies through the Annual Report of Training. The tables are divided into four areas: participation and man-hours, expenditures, personnel engaged in training, and the agency summary tables. The tables show participation by pay system, manhours of training, types and sources of training, personnel engaged in training, and training expenses compared to agency population and participation.

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Participation and Man-Hours

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AGENCY ABBREVIATIONS

AGENCY	ABBREVIATION
Agriculture, Department of	AGRIC
Air Force, Department of	A F
Army, Department of	
Atomic Energy Commission	
Civil Aeronautics Board	
Civil Service Commission	CSC
Commerce, Department of	COMMERCE
Commission on Civil Rights	CIVIL RIGHTS
Defense, Department of	
Defense Agencies, Other	
District of Columbia Government	D C GOVT
D. C. Redevelopment Land Agency.	D C REDV LAND AG
Environmental Protection Agency	EPA
Equal Employment Opportunity Commission	EEOC
Federal Communications Commission	F C C
Federal Home Loan Bank Board	
Federal Power Commission	FPC
Federal Trade Commission	FTC
General Accounting Office	G A O
General Services Administration	GSA
Government Printing Office	GP0
Health, Education and Welfare, Department of	HEW
Housing and Urban Development, Department of	HUD
Information Agency, United States	USIA
Interior, Department of the	INTERIOR
International Development, Agency for	
Interstate Commerce Commission	I C C
Justice, Department of	JUSTICE
Labor, Department of	LABOR
Library of Congress	
National Aeronautics and Space Administration	NASA
National Capital Housing Authority	NAT CAP HOUSING
National Labor Relations Board	NLRB
National Science Foundation.	NSF
Navy, Department of	NAVY
Office of Economic Opportunity	OEO
Office of Management and Budget	ОМВ
Panama Canal Company/Canal Zone Government	DANIANTA CIANTAI
Railroad Retirement Board	
Securities and Exchange Commission	S E C
Selected Service Commission	
Small Business Administration	SEL SVC S B A
Smithsonian Institution	•
Soldiers Home, United States	SMITH INST SOLDIERS HOME
State, Department of	STATE STATE
Transportation, Department of	TRANS
Treasury, Department of	TREAS
Veterans Administration	V A
v Coulain Municipal adivil	τ α



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INTERNAL	-1	INTERAGENCY	KCY	NON-GOVT LONG TERM	ONG TERM	NON-GOVT SHORT TERM	HORT TERM	TOTAL	
PART	M-HOURS	PART	M-HOURS	PART	M-HOURS	PART	M-HOURS	PART	M-HOURS
94,146	3,312,519	6,648	196,867	4	2,292	8,942	374,114	109,740	3,885,792
139,411	7,997,752	19,694	549,458	85	105,483	26,533	1,019,198	185, 723	9,671,891
1 977,722	11,048,663	32,198	1,078,269	879	1,087,212	65,767	2,628,540	326,623	15,842,684
63,997	2,289.962	14,614	565,103	563	730,120	35,063	1,258,733	114,237	4,843,918
862.	24,157	663	58,467	es	7,096	963	29,760	2.367	116,480
526,071 2	24,673,053	73,817	2,448,164	1,534	1,929,203	137,268	5,310,345	738,690	34,360,765
21,422	532,922	2,194	61,908	2	2,832	3,124	99,135	26,742	696,797
72,845	4,970,657	2,177	73,582	55	96,040	10,680	k82,138	85,757	5,992,417
94,267	5,503,579	4,371	135,490	57	68,872	13,804	981, 273	112,499	6,689,214
93,465	5,595,221	7,746	970,390	51	73,512	15,168	647,862	116,430	7,286,985
713,803 3	35,771,853	85,934	3,554,044	1,642	2,071,587	166,240	6,939,480	967,619	48,336,964
112,610	7,021,729	10,402	361,752	1,215	1,520,196	57,468	2,431,903	181,695	11,335,580
298,696	19,702,825	20,285	1,298.188	123	143,360	48,799	2,588.861	367,903	23, 733, 234
135,720	4,033,835	32,290	1,174,029	292	396,055	31,662	1,084,849	199,964	6,688,748
166,777	5,013,464	22,957	720,075	12	11,976	28,311	833.867	218,057	6.584,382
713,803	35, 771, 853	85,934	3,554,044	1,642	2.071,587	166,240	6,939,480	967,519	48.336,964
5 5 5 5 6 6 14 W W 0 8 W 0 W		3 3 3	7,997,752 11 11,046,663 3 2,289,962 11 24,673,053 7 5,503,579 5,595,221 5,595,221 7,021,729 11 19,702,825 2 4,033,835 3 5,013,464 2 5,013,464 2 35,771,853 8	7,997,752 19,694 549, 11,046,663 32,198 1,078, 2,289,962 14,614 565, 24,157 663 58, 24,673,053 73,817 2,448, 4,970,657 2,177 73, 5,595,221 7,746 970, 35,771,853 85,934 3,554, 4,033,835 32,290 1,174, 5,013,464 22,957 720, 35,771,853 85,934 3,554,	7,997,752 19,694 549,458 11,046,663 32,198 1,078,269 2,289,962 14,614 565,103 24,157 663 58,467 24,673,053 73,817 2,448,164 5,593,579 4,371 135,490 5,595,221 7,746 970,390 5,595,221 7,746 970,390 7,021,729 10,402 361,752 19,702,825 20,285 1,298,188 4,033,835 32,290 1,174,029 5,013,464 22,957 720,075 5,013,464 22,957 720,075	7,997,732 19,694 549,438 85 10 11,046,663 32,198 1,078,269 879 1,08 2,289,962 14,614 565,103 563 73 24,157 663 38,467 3 1,92 24,673,053 73,817 2,448,164 1,534 1,92 5,595,221 7,746 970,390 51 7 7,021,729 10,402 361,752 1,215 1,52 19,702,825 20,285 1,298,188 123 14 4,033,835 32,290 1,174,029 292 39 5,013,464 22,957 720,075 12 1 335,771,853 85,934 3,554,044 1,642 2,07	7,997,722 19,694 5.99,458 85 105,483 11,048,663 32,198 1,078,269 879 1,087,120 2,289,962 14,614 565,103 563 730,120 24,137 663 58,467 3 4,096 24,673,033 73,817 2,448,164 1,534 1,929,203 11 532,922 2,177 73,582 55 66,040 1 5,593,579 4,371 135,490 57 68,872 1 5,593,271 7,746 970,390 51 73,512 1 35,771,833 85,934 3,554,044 1,642 2,071,587 16 10,402 361,752 1,215 1,520,196 5 19,702,825 20,285 1,174,029 292 396,055 3 5,013,464 22,957 720,075 12,642 2,071,587 16 5,013,464 22,957 720,075 12,642 2,071,587 16	7,997,752 19,694 549,458 85 105,483 26,333 11,1046,663 32,198 1,078,269 105,483 26,767 22,767 22,289,962 14,614 565,103 563 730,120 35,063 11,087,212 65,767 22,777 22,832 11,087,212 65,767 22,777 11,929,203 113,266 55,263 11,266 55,263 11,27,266 55,263 11,27,266 55,263 57,266 57,267 57,267 <td< td=""><td>7.997.752 19,694 559,458 85 105,463 26,333 1,019,196 11,048,663 33,198 1,078,269 879 10,027,212 56,5167 2,628,533 1,019,196 22,899,962 14,614 565,103 563 730,120 35,063 1,236,733 24,137 663 58,467 3 4,096 963 29,760 24,673,033 73,817 2,448,164 1,534 1,929,203 137,266 5,310,345 352,922 2,194 61,908 2 2,832 3,124 99,135 4,970,657 2,177 73,562 55 66,040 10,660 861,273 5,593,521 7,746 970,390 51 73,512 15,166 67,862 5,593,521 7,746 970,390 51 73,512 15,166 67,862 7,021,729 10,402 361,752 1,243 66,040 166,240 69,394,480 7,021,787 4,033,835 32,290 1,174,029</td></td<>	7.997.752 19,694 559,458 85 105,463 26,333 1,019,196 11,048,663 33,198 1,078,269 879 10,027,212 56,5167 2,628,533 1,019,196 22,899,962 14,614 565,103 563 730,120 35,063 1,236,733 24,137 663 58,467 3 4,096 963 29,760 24,673,033 73,817 2,448,164 1,534 1,929,203 137,266 5,310,345 352,922 2,194 61,908 2 2,832 3,124 99,135 4,970,657 2,177 73,562 55 66,040 10,660 861,273 5,593,521 7,746 970,390 51 73,512 15,166 67,862 5,593,521 7,746 970,390 51 73,512 15,166 67,862 7,021,729 10,402 361,752 1,243 66,040 166,240 69,394,480 7,021,787 4,033,835 32,290 1,174,029

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PARTICIPATION AND MAN-HOURS BY AGENCY AND SOURCE

2,451,339 865.518 0.052.502 ,992,503 5.251.827 .022.219 ., 766. 302 .. 766, 302 278.090 , 337.242 223, 43H 37.834 419.532 87.459 10,623 4, 206, 323 2,819 23.844 4.188.222 110,660 39.5 460.9 M-HOURS ALL SCURCES 186.165 91.663 21.314 43.464 7.090 49.698 48.288 29, 199 1.064 39,880 8,264 97,957 3.953 3,404 2,444 25.506 163 1.311 292 PART 193,679 585,266 414.416 .280.487 216.030 422.95R 18.889 95.818 58.504 ,436,022 777 767 9,423 140,334 128,069 67.376 40.616 10.870 1.907 M-HOURS 3.001 17.371 4.190 NON-GOVT SHORT TERM 4,813 31,041 12,665 12,116 10,931 21,401 4,931 11,158 2,573 1.380257 4,128 3,386 1,166 485 41 59 17 126 PARTICIPATION AND MAN-HOURS BY AGENCY AND SOURCE 127,264 145,648 420,589 334,344 255.395 207,512 23,680 M. HOURS 93,051 53,332 1.560 3,120 1,440 55,384 17,960 58,820 58.640 20,951 7.570 144 NON-GOVT LONG TERM 66 333 247 228 181 Ξ 12 38 48 52 12 9 PART M-HOURS 288.682 81,459 932,594 2 5.002 115,144 4,336 210,374 25.791 322.630 157,261 131,636 97,445 43,614 165,329 31,276 83.036 687 52.397 3.007 10.212 4.055 16.191 INTERAGENCY 8.542 1.738 11,632 2,759 2,970 6.339 916.01 1,317 6.881 5.105 107 301 3,238 2.834 1,179 821 1.755 2.100 317 544 59 16 PART 1,182,097 239,730 22.635 3,944,748 1,620,977 4,066,414 2.039.919 7,418.832 3,255,459 1,638,267 2,082,503 11₺.200 17,826 **2**25 24.192 M-HOURS .878,969 1,451,506 9.944 10,529 2,438 INTERNAL 143,168 14,664 67,437 77:800 72,094 35,382 32,120 5.589 25.195 5.565 32,466 22,220 91.725 669 1.812 1.-05 245 273 871 18,451 75 PAPT OTHER DEFENSE..... COMMERCE..... THI ER I OR. LABOR..... STATE..... CSC...... TREAS..... A1D..... LIVIL RIGHTS..... DC REDSY LAND AC..... CAB..... JUSTICE..... ARMY..... AGENCY

PARTICIPATION AND MAN-HOURS BY AGENCY AND PAY SYSTEM

		PARTICI	PATION AND MAN-E	PARTICIPATION AND MAN-EOURS BY AGENCY AND PAY SYSTEM	ND PAY SYSTEM			
	20 IA COUNTO	9 110 200	WAGE SYST	SWALS	OTHER PA	OTHER PAY SYSTEMS	ALL PAY SYSTEMS	SYSTEMS
1	GENERAL SCHEDULE	CHEDULE	7					
AGENCY	PART	M-HOURS	PART	M-HOURS	PART	M-HOURS	PART	M-HOURS
AGRIC	87,992	2,302,027	2,042	33,340	1,629	115,972	91,663	2.451,339
COMMERCE	16,381	705.588	221	6,876	4,712	153,054	21,314	865,518
ARMY	121,380	5,186,447	19,478	1,070,508	45,307	3,795,547	186,165	10.052.502
NAVY	50,425	2,308,338	41,857	2,765,238	3,684	178,251	95,966	5.251,827
<u> </u>	54,387	2,885,235	26.695	1,621.548	12,370	515,436	93,452	5.022,219
OTHER DEFENSE	41,118	2,111,729	2,221	68,608	125	3,268	43.464	2,183,605
HEW	48,823	2,653,105	867	112,926	α	271	49,698	2,766,302
G ii	7,010	276,445	17	680	63	596	7,090	278,090
INTERIOR	34,159	1,601,124	2,954	107,855	11,175	283,524	48.288	1,992,503
	29,651	2,333,681		∞	247	3,553	29,899	2.337.242
LABOR	8,259	223,254	5	781			8,264	223, 438
STATE	1,051	37,242	13	592			1,064	37.834
SZ A A	38,345	4,114,115	1,329	87,050	206	5,158	39,880	4, 206, 323
TO FAC	96,437	3,865,115	1,520	323,107			97,957	4.188.222
CI-4	878	82.666	1	14	3.074	337,152	3,953	419.832
	3, 394	109,890	en 	143	11	636	3.404	110,669
ABL	12	2.803	4	16			72	2,819
(Ab)	2,940	87,355	7	ş	2	87	2,944	87,459
CIVIL RIGHTS.	12	392					12	392
DC COVT	10,598	415,950	1,077	87,434	14.131	1,321,467	25,806	1.824.851
DC REDEV LAND AG	163	860.9					163	860.9
JOSE	828	23.844					525	23.844
Add de	1,298	51,460	13	301			1,311	51,761
FCC	291	10 667	~	16			39 2	10.583

		PARTICI	PATION AND MAN-HO	PARTICIPATION AND MAN-HOURS BY AGENCY AND PAY SYSTEM	D PAY SYSTEM			
	GENERAL	SCREDULE	WAGE SYS	SYSTEMS	OTHER PA	OTHER PAY SYSTEMS	ALL PAY SYSTEMS	STEMS
AGENCY	PART			M-HOURS	PART	M-HOURS	PART	M-HOURS
FHI BB	659	22.368	1	57			099	22,392
FPC	290	12,206	7	152			294	12,358
FTC	286	8,290					286	8,290
GAO	667,4	211,321	8	80			4.501	211.401
6Sh	16,254	535, 106	3.284	128.042	757	22.467	20.295	685,615
GPO	909	16,442			791	20,967	1.395	37.409
USIA	415	14,680	12	780		35	428	15.195
100	263	10,487	2	144			265	10,631
LIB CONG	1,504	34,583	Ŋ	75	29	1,100	1,538	35.75%
NA SA	50,906	756.932	1,204	27,687	212	15,521	22,322	800,140
NAT CAP HOUSING	65	3,272					59	3,272
NLRB	370	12.335	2	41			372	12,376
NSF	276	10,358	ಣ	170			279	10,528
060	2,335	776.78				-	2.335	84.944
OMB.	119	7.472					119	7,472
PANAMA CANAL	1,339	71,091	2,335	132.935	1,376	101,941	5,050	305.967
RR RET BD.	877	86,739					X77	86,739
SEC	374	6,576		30			375	9,606
SEL SVC	614	12,730			1.448	14,538	2,062	27,268
SBA	1.376	33,313		12		20	1,378	33,345
SMITH INST	258	9,207	133	99.9	7	160	39.5	16,031
SCLDIERS HOME	155	4,172	59	1,906	2	28	216	6,166
VA	29,645	1.001,571	5,133	104,272	15,069	395.906	178.67	1.501,749
TOTALS	738,690	34,360,765	112,499	6,689,214	116,430	7.286,985	967,619	48,336,964

×. 533 10.745 5.33. 272 8 2.740 2.3 5 2,412 1.764 8,679 6.360 ¥0× 3,899 515 1,711 112 3,200 2,103 320 133 73 -1 124 11 38 136 သူ ž 43 721 M-HOURS 884.61E 453.379 443,308 320,559 263,349 70.875 058,00 63.327 50,688 6,214 534,356 358,150 14,362 45,295 1,340 11.550 7,262 12,773 26.391 2,754 GS 13-15 8,706 5.689 8.436 1,440 3,677 3,009 1,822 175 12,415 6,631 264 666 507 12,181 8 152 599 671 PARI GENERAL SCHEDULE PARTICIPATION AND MAN-HOURS BY AGENCY 107,308 .054,522 1,432,118 607,691 891,234 12,944 2,718,386 ..325,003 100,001 1,226,161 13,768 32,468 386 32,870 116,760 3,616 ,408,665 394,815 7,541 3,355 M-HOURS GS 9-12 55.895 24,945 30,261 26,435 14,708 18,126 2.857 8,670 3,573 19,344 37,588 185 635 1,103 3.626 619 54 257 100,102 422,218 M-HUURS 875.042 375,905 277,883 736,377 43,775 2,240,381 11.562 820,303 477,1115 48.557 1,643,968 411 160,178 1,686 3,909 19,871 13,881 2,506 26,081 28,427 1,802 10.228 1,789 5,493 27,075 293 1,522 8,372 385 4.266 671 PART M-HOURS 152,771 336,566 158,961 198,247 129,436 79,497 296,102 25,230 135,494 540.336 26.966 6,450 2.2 112 461,822 5,478 5,171 20.961 1,454 CS 1-4 6.523 8.811 7,523 6,018 873 2,247 9,209 1,038 1,203 19,226 163 3,941 7,627 588 129 734 2,006 77 67 86 98 48 PART ARMY COMMERCE..... NAVY OTHER DEFENSE..... HEW.,,,,,,,,,,, нир.... INTER TOR..... AGRIC..... JUSTICE..... LA BOR..... STATE..... TRANS..... TREAS..... AEC..... CIVIL RIGHTS..... DC GOVT..... DC REDEV LAND AG...... AGENCY

Ş . ._ 1 . 7 . . 1 2.853 140 . M-HOURS 234 1.854 7.011 456 GS 16-1F Ť. 183 33 6 PART 10.215= 682.4 10.958 752 148 4,643,916 2.829 787 2,784 580 80 723 2.604 3.170 3,239 4,612 29,900 4,486 627 59,417 M-HOURS GS 13-15 114.237 2.367 150 £12 13 53 27 116 χ. Ω 3 63 338 118 1,469 2,417 35 56 196 8.871 7.1 27 PART GENERAL SCHEDULE PARTICIPATION AND MAN-HOURS BY AGENCY 196,030 15,842,684 20,216 567.7 4.842 4.516 11,111 390 1.472 2.152 679 18,829 2,791 131.720 4,436 3,745 2.740 17,364 310.854 5.454 83,746 6,324 5,658 2,371 M-HOURS GS 9-12 326,623 8,376 495 184 680 105 116 88 57 558 8.826 61 25 117 1,748 5,202 149 62 22 177 PART 2,268= 213,242 1.556 2,318 20,296 27,438 59,800 633 5,360 8,206 9,671,891 77,694 1,576 3.306 10,023 986 124,180 6,584 4,015 590 1,742 3,408 36,513 M-HOURS GS 5-8 185.743 547 370 R. 368 239 63 2,459 101 665 408 23 124 548 87 33 4,340 218 21 28 **6**43 140 PART 522.975 21.842 2,636 2,388 1,316 12.520 21.281 243 2.274 3,885.792 217,937 1,746 3.610 2,132 2.141 166 1.884 7,486 2,528 15.561 2,771 M-HOURS GS 1-4 109,740 10,452 367 270 169 113 2 359 4,246 115 199 267 24 67 299 88 86 PART TOTALS..... SOLDIERS HOME...... RR RET BD..... 35C.... MLRB.... NAT CAP HOUSING.... GAO..... LIB CONG..... NASA..... FPC..... SEL SVC..... FHLBB..... SMITH INST.... SEA..... AGENCY PANAMA C. NAL. GSA....

301 16 33,340 6,876 1,621,548 68,608 112,926 989 107,855 143 1,070,508 87,050 323,107 2,765,238 592 87,434 M-HOURS ALL WAGE SYSTEM 19,478 41,857 26,695 2,042 221 2,221 1,077 867 2,954 13 PART MAGE SYSTEM PARTICIPATION AND MAN-HOURS BY AGENCY 213 91 20,585 4.980 905,463 75,092 M-HOURS 55,273 80,746 313,278 2,585,527 1,426,225 107,061 81,421 NON-SUPERVISORY , 702 13,337 160 2,125 1,320 34,529 19,793 1,627 696 1,158 864 9 PART M-HOURS 11,958 6,013 88 12,755 1,896 165,045 179,711 195,323 13, 335 5,865 27,109 472 680 184 SUPERVISORY 6,141 7,328 165 330 362 213 6,902 594 829 11 OTHER DEFENSE...... HEW..... STATE...... DC GOVT..... INTERIOR LABOR..... TRANS..... DC REDEV LAND AG..... JUSTICE..... TREAS COMMERCE..... CIVIL RIGHTS..... AGENCY

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		WAGE SYSTEM	PARTICIPATION AN	WAGE SYSTEM PARTICIPATION AND MAN-HOURS BY AGENCY	GENCY	
	SUPERVISORY	SORY	NON-SUPERVISORY	lvi sory	AIL WAGE SYSTEM	SYSTEM
AGENCY	PART	M_HOURS	PART	M-HOURS	PART	M-HOURS
FHLBB			1	57	. =	54
FPC			7	152	7	152
FTC						
GAO	7	80			7	80
GSA	301	11,163	2,983	116,879	3,284	128,042
GFO						
UFIA	Ŋ	200	7	280	12	480
			5	144	2	144
LIB CONG			\$	75	'n	75
NA SA	310	4,234	768	23,453	1,204	27,687
: T CAP HOUS: NG						
NLRB.			5	41	7	41
NSF	7	146	~	54	E	170
OEO						_
QMB						
PANAMA CANAL	352	8,445	1,983	124.490	2,335	132.935
RR RET BD		-				
SEC	1	8			-	유 -
SEL SVC						
SBA			prof	12		12
SMITH INST	84	3,176	67	3,488	133	6,664
SOLDIERS HOME	25	338	34	1,568	59	1,906
VA	1,941	38, 594	3,192	656,678	5,133	104,272
TOTALS	26.742	696,797	85,7,7	5,992,417	112,499	6,689,214

NUMBER OF FULL-TIME TRAINING PERSONNEL BY AGENCY

DE	EMPLOYEE DEVELOPMENT OFFICERS	INSTRUCTORS	ADMIN. SUPPORT	CLERICAL SUPPORT	TOTAL TRAINING PERSONNEL	AGENCY POPULATION	NO. EMPLOYEES PER TRAINING PERSON
•	2,123	2,894	749	1,269	7,035	2,087,206	297
:	29	52	22	09	201	111,191	554
:	59	50	18	22	89	37,912	425
•	345	191	58	145	739	402,664	545
:	325	579	79	122	1,090	361,517	332
<u> </u>	253	158	12	29	067	297,597	607
:	62	888	103	58	328	96,514	294
:	192	131	117	141	581	110,884	191
:	20		m	•	29	15,323	528
•	52	37	12	32	133	68,061	511
:	21	100	29	70	220	40,589	185
•	39	2	7	13	53	11,091	209
•	106	867	189	180	1,342	67,602	51
•	217	88	55	145	505	90,377	179
•	15	5		12	32	14,364	677
	13		7	7	23	5,601	249
 : :	777	125	17	47	2 33	60,211	259

NUMBER OF FULL-TIME TRAINING PERSONNEL BY AGENCY

AGENCY	EMPLOYEE DEVELOPMENT OFFICERS	INSTRUCTORS	ADMIN. SUPPORT	CL ER ICAL SUPPORT	TOTAL TRAINING PERSONNEL	AGENCY POPULATION	NO. EMPLOYEES PER TRAINING PERSON
EPA		39	16	20	76	2,447	72
GSA	18	56	∞	13	65	38,071	586
GPO	11	-		2	14	8,299	593
LIB CONG	2	∞		2	12	3,862	322
NA SA	77	က	es	18	99	30,371	877
OEO	12		H	8	15	2,377	158
PANAMA CANAL	2	10		S	21	16,177	770
RR RET BD	2	က	ო	2	10	1.761	176
VA	188	357	11	69	625	170,424	273
ALL OTHERS*	28	7	1	6	42	79.371	1,800,090

*22 agencies reporting fewer than 10 full-time training personnel.



SALARIES OF FULL-TIME TRAINING PERSONNEL BY AGENCY

AGENCY	EMPLOYEE DEVELOPMENT OFFICERS	INSTRUCTORS	ADMIN. SUPPORT	CLERICAL SUPPORT	TOTAL
TOTAL	32,962,122	39,217,252	12,128,959	8,617,655	92,925,988
AGRIC	1,202,935	760,332	326,318	364,119	2,653,704
COMMERCE	470,642	268,035	246,669	134,927	1,120,273
ARMY	4,835,070	1,450,716	583,691	864,985	7,734,462
NAVY.	4,591,496	5,882,528	805,262	821,280	12,100,566
A F.	3,666,634	1,763,772	139,303	437,475	6,007,184
OTHER DEFENSE	1,369,057	1,417,171	1,936,695	430,280	5,153,203
HEW	3,342,143	1,921,069	1,698,742	900,022	7,861,976
нор	342,160		37,647	41,271	421,078
INTERIOR	846,345	434,101	124,703	195,717	1,600,866
JUSTICE	298,927	1,622,606	541,522	517,945	2,981,000
LABOR	585,418	24,481	36,444	94,985	741,328
TRANS	1,907,515	15,419,750	4,113,699	1,353,698	22,794,662
TREAS	3,540,000	938,661	778,970	1,052,607	6,310,238
AID	326,379	98,875		97,897	523,151
CSC	326,003	16,584	18,585	41,871	703,643
DC GOVT	636,902	1,460,844	228,975	354,384	2,681,105
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SALARIES OF FULL-TIME TRAINING PERSONNEL BY AGENCY

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AGENCY	E*IPLOYEE DEVELOPMENT OFFICERS	INSTRUCTORS	ADMIN. SUPPORT	CL ER I CAL SUPPORT	TOTAL
EPA	12,020	506,381	184,171	114,564	817,136
GA O	89,366			20,078	109,444
GSA	303,121	261,031	99,668	86,259	750,079
GPO	143,831	8,582		15,735	168,148
LIB CONG	32,152	81,283		16,078	129,513
NASA	748,830	53,467	23,841	127,508	923,646
OEO	185,896		11,654	14,081	211,631
PANAMA CANAL	57,767	152,344	13,461	25,629	249,201
RR RET BD	28,657	41,146	19,452	12,324	101,579
SBA	89,992		8,501	8,065	106,558
VA	2,658,993	4,564,392	148,834	439,054	7,811,273
ALL OTHERS*	323,871	69, 101	2,152	34,817	429.941

*20 agencies reporting less than \$100,000





TRAINING COST BY AGENCY

AGENCY	INTERNAL	INTERAGENCY	LONG-TERM	SHORT-TERM	TOTAL NON-SALARY	FULL-TIME STAFF SALARY	PART-TIME STAFF SALARY	TOTAL	EXPENDITURE PER EMPLOYEE TRAINED	EXPENDITURE PER EMPLOYEE
AGRIC,	5,090,669	1,286,544	246,951	1,865,901	8,490,065	2,653,704	1,049,706	12, 193, 475	133	110
COMMERCE,	702,716	290,341	222,463	829,671	2,045,191	1,120,273	211,186	3,376,650	158	89
ARMY	5,160,360	1,149,483	721,651	4,018,804	11,050,298	7,734,462	668,038	19,452,798	104	87
NAVY	2,752,216	830,517	478,473	5,150,516	9,211,722	12,100,566	842,567	22,154,855	231	61
A F	4,216,695	362,925	303,070	2,251,140	7,133,830	6,007,184	1,230,271	14,371,285	154	87
OTHER DEFENSE	1,980,840	468,857	265,369	539,326	2,254,392	5,153,203	521,392	8,928,987	205	93
HEW	3,402,438	897,510	374,117	1,953,365	6,627,430	7,861,976	950,096	15,418,502	310	139
HUD	238,366	144,262	122,064	137,768	642,824	421,078	30.438	1,094,340	569	7.1
INTERIOR	1,993,819	1,119,353	132,157	1,701,516	4.946,845	1,600,866	485,460	7,033,171	146	103
JUSTICE	4,157,244	291,692	4,930	379,416	4,833,282	2,981,000	569,892	8,384,174	280	207
LABOR	180,889	175,216	19,231	296, 253	671,589	741,328	37,461	1,450,378	176	131
STATE		12,805	4,141	29,169	46,115	66,371	8,868	121,354	114	5
TRANS	10,289,607	506,713	283,016	2,556,116	13,635,452	22,794,662	2,545,222	38,975,336	776	577
TREAS	8,916,388	978,165	109,496	772,693	10,776,742	6,310,238	118,080	17,205,060	176	190
A1D	656,66	1,033,978	118,714	380,105	1,632,756	523, 151	27,886	2, 183, 793	552	152
AEC	5, 232	161,789	48,186	208,954	424, 161		78,102	502, 203	148	62
CAB	900	5,418		3,521	9,439		7,884	14,323	199	2.1
ss	12,437	155,346		37,278	205,161	403,043	2,662	610,866	207	109
CIVII RICHTS					•					
DC GOVT.	178,936	100,178		480.575	759,689	2,681,105	93,767	3,534,561	137	59
DC REDEV LAND AG		5,120		3,448	8,568		15,114	23,682	145	7.7
EEOC	47,795	45,066	- -	12,298	105,159	78,100		183,259	317	232
EPA	290,148	59,913	47,759	73,437	471,257	817,136	154. 498	1,442,891	1,101	265
FCC	2,121	7,176		14,516	23, £13	18,353	5,933	48,099	65	31

TRAINING COST BY AGENCY

				IN. LAL	IN-LAINE COST OF ACENCE	i no i		-		
AGENCY	INTERNAL	INTERAGENCY	LONG-TEPM	SHORT.TERM	TOTAL NON-SALARY	FULL-TIME STAFF SALARY	PART - TIME STAFF SALARY	TOTAL	EXPENDITURE PER EXPLOYEE TRATMED	EXPENDITYRE PUR EMPLOYEE
FHL 85	79,315	18,680		68,238	166,233	85.848	2,662	255,743	38.7	203
FPC	009	5,545		33,255	45,600	20,815	13,823	50,238	273	it f-
FTC	1,147	12,627	6,582	4.179	24,535	10,354	11.346	46.235	161	35
одо	387,402	90,396	17.212	212,116	707.326	109.444		×16.770	1×1	173
GSA	.286,793	489,935	29,915	492.896	1,299,539	750,079	146,504	2,196,122	10A	عر. عر.
СРО	1,500	16,245		38.873	56,618	168,143	165,618	390,384	280	, , ,
USIA		35,435	1,680	32,314	69,429	13,878	43,124	126,431	295	13
1cc	4,000	9,579		2.963	16,542	16,052	1,600	34,194	129	19
LIB CONG	9,400	6.916		24,475	46,791	129,513	20.092	191,296	124	. 05
NA SA	192,298	282,538	172.797	1,829,259	2,476,892	953,646	27.232	3,457,770	155	114
MAT CAP HOUSIML		450		970	1,390		8.288	9.678	79 1	14
NLRB.	26,554	10,499	2.666	2,873	42,592			42,592	114	20
NSF.		33,120		19,677	52,797		31,579	84,376	30.2	99
0£0.	31,769	166,148	51,146	47,886	346.949	211,631	76,063	584,643	2, .	246
OMB		12,455	4,510	14,213	31,179		17,000	48.179	507	7.7
PANAMA CANAL.	50.63€	41,804		104,175	196,615	249,201	9,477	455,293	06	28
RR RET 3D.	14.067	23,616		95	37.733	101,579	45.340	184,652	412	105
SEC		1,345		553	1,898	96,485	63,709	1,898	٠,	
SEL SVC	41.911	5.707		202	47.82C	106.015	62,857	206,319	001	57
SBA	100,084	33.972		25.629	159.685	106,558	1.957	268.200	19.5	- 9
SMITH INST		2,414		8,560	10,974		:5.100	24.074	6.6	10
SOLDIERS HOME	1,095	827		4,361	6,283	22,685		28,967	134	56
VA.	658,119	389,069	21,385	1,425,129	2,493,702	7,811,273	1,726,026	12.031,061	241	17.
TOTALS	51,612,365	11,778,223	3,809,681	28,138,632	95,338,901	92,925,988	12,006 319	200,271,208	207	96
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EXPLANATION OF ITEMS ON SUMMARY TABLES

Name of Agency	GS 1-4 GS 5-8 GS 9-12 GS 13-15 GS 16-18 WAGE OTHER TOTALS
POPULATION	The reported population of the grade group as of June 30, 1970.
AVAILABLE MAN-HOURS.	The number of man-hours worked and available for training (1,816 hrs. per employee).
PARTICIPANTS	The number of training participants reported by the agency.
PARTICIPANT MAN- HOURS	The number of training man-hours reported by the agency.
PARTICIPANT RATIO (%)-	Grade group population divided by training participants (the percentage figure is shown).
MAN-HOURS RATIO (%)	Available man-hours divided by training man-hours (the percentage figure is shown).
LAST YEAR'S MAN-HOUR RATIO (%)	The man-hour ratio for FY 1970.
% CHANGE FROM LAST YEAR	The percentage change in the man-hour ratio from FY 1970 to FY 1971.
% OF AGENCY POPULA- TION	The percentage of total agency population made up by the grade group.
% OF AGENCY PARTICI- PANTS	The percentage of total training participants made up by the grade group.
% OF AGENCY MAN- HOURS	The percentage of training man-hours received by the grade group.
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	The average number of hours spent in training by employees in the grade group.
AVERAGE HOURS OF TRAINING PER PARTICIPANT	The average length of a training session for each training participant.





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AGRICULTURE	CS 1-4	6S 5-8	6S 9-12	GS 13-15	GS 16-18	ws	OTHER	TOTALS
POPULATION	20,109	29,576	31,793	7,935	214	67.49	\$607	100,411
AVAILABLE MAN-HOURS	36,517,944	53,710,016	57,736,088	14,409,960	388,624	12,256,184	7,327,560	182,346,376
PARTICIPANTS	3811	25,081	45,236	7724	140	20175	1629	91,663
PARTICIPANT MAN-HOURS	158,961	688,322	1,198,145	249,981	6618	33,340	115,972	2,451,339
PARTICIPANT RATIO (2)	43.8	88.2	142.3	97.3	7*59	30.2	7*01	91.3
MAN-HOUR RATIO (%)	0.43	1,28	2.07	1.73	1.70	0.27	1.58	1.34
LAST YEAR'S MAN-HOURS RATIO (%)	0.34	1.8	1.98	1.64	1.98	0.19	ı	ı
Z CHANGE FROM LAST YEAR	+26.5	+1.6	+4.5	+5.5	-14.1	+42.1	ŧ	,
% OF AGENCY POPULATION	50.0	29.4	31.7	7.9	0.2	6.7	0*7	100.0
2 OF AGENCY PARTICIPANTS	9*6	28.4	7*67	4.8	0.2	2.2	1.8	100.0
2 OF AGENCY MAN-HOURS	6,5	28,1	78.9	10.2	0.3	1.4	L**7	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	7.8	23.2	37.6	31.4	30.9	6*7	28.7	24.3
AVERAGE HOURS OF TRAINING PER	18	92	%	32	47	16	ıγ	2



AIR PORCE	6S 1-4	6.5. 5.8	6.8 9-12	GS 13-15	GS 16-18	\$5,	CTHER	TOTALS
POPULATION	38,507	\$6,84	660*99	14,136	174	146,427	5,221	139,657
AVAILABLE MAN-HOURS	69,928,712	aa, 865,7P4	101,375,784	25,670,976	315, 324	266,020,392	9,421,336	562,159,144
PARTICIPANTS	ובוץ	13,294	30,261	6631	8	26,695	1,737*	62,819
PARTICIPANT MAN-HOURS	129,436	875,042	1,432,118	443,308	5331	1,521,548	37,420**	4,511,203
PARFICIPANT RATIO (2)	10.7	27.2	53.9	6.94	0*97	18.2	33.5	26.8
MAN-HOUR RATIO (2)	0.18	0.98	1.40	1.3	1.69	0.61	0.36	(a.c)
LAST YEAR'S MAN-BOURS RATIO (%)	0.24	1,02	3.64	2,03	2.41	09.0		i
z change from last year	-,25.0	-3.9	-14.6	-16.8	-29.9	+1.7	(t
7 OF AGENCY POPULATION	12.4	15.8	18.1	9.4	0.1	47.3		100.0
% OF AGENCY PARTICIPANTS	5.0	16.1	36.6	8.0	0.1	32.2	2.1	100.0
% OF AGENCY MAN-HOURS	φ. *	19.3	31.5	8.6	0.1	35.7	8.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	3.3	17.8	25.4	31.4	30.7	11.11	6.5	14.7
AVERAGE HOURS OF TRAINING PER PARTICIPANT	31	99	27		49	61	8	

*10,633 local foreign national participants excluded.

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ARMY	GS 1-4	8-5 55	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	62,981	79,985	80,688	23,577	222	191,761	16,229	१.49,६५३
AVAILABLE MAN-HOURS	114,373,496	145,252,760	146,529,408	42,815,832	403,152	348,237,976	18,575,364	316,128,452
PAKTICIPANTS	17,637	28,422	55,895	19,290	136	19,478	*0901:	816,141
PAKIICIPANI MAN-HOURS	336,566	1,240,381	2,718,386	884,618	9679	1,070,508	64,413**	6,321,363
PARTICIPANT RATIO (%)	28.0	35.6	69.3	81.3	61.3	10.2	10.4	31.6
MAN-HOUR RATIO (%)	0.29	0.85	1.86	2.07	1.61	0,31	0.35	0.77
LAST YEAR'S MAN-HOURS RATIO (2)	0.23	92.0	1.52	1,88	2.94	0.34	,	i
% CHANGE FROM LAST YEAR	+26.1	+11.8	+22.4	+10.1	-45.2	සා ස	ı	1
% OF AGENCY POPULATION	14.0	j., p	12.0	2,5	0.0	42.6	2.3	0.001
% OF AGENCY PAKTICIPANTS	12.4	20.0	39.4	13.6	0.1	13.7	0.7	9 .0 01
2 OF AGENCY MAN-HOURS	5.3	19.6	43.0	14.0	0.1	16.9	0.1	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	5.3	15.4	33.8	37.6	29.2	5.6	7.9	0
AVERAGE HOURS OF TRAINING PER PARTICIPANT	19	44	67	46	78	55	61	57

%44,247 local foreign national participants excluded. ##3,731,134 local foreign national participant man-hours excluded.





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CAB	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	Ω. Σ	OINER OF	Canal Of
POPULATION	67	203	165	186	∄	Ç	c 1	2
AVAILABLE MAN-HOURS	88,984	368,648	079,662	337,776	106,67	27,240	32,688	1,234,820
PARTICIPANTS	۲,	13	15	30	ជ	ਜ	0	72
PARTICIPANT MAN-HOURS	80	477	386	1340	512	16	0	22819
PARTICIPANT RATIO (2)	4.1	7.9	9.1	16.1	25.0	6.7	0.0	10.6
MAN-HOUR RATIO (2)	0.10	0.13	0.13	07.0	79*0	90.0	8.	°.33
LAST YEAR'S MAN-HOURS RATIO (2)	0.07	0.38	0.73	96.0	0.93	17.0	i -	1
Z CHANGE FROM LAST YEAR	+42.9	-65.8	-82,2	-56.2	-31.2	4*58	t	,
2 of Agency Population	7.2	8.9	24.3	27.3	6.5	2.2	2.6	100.0
% OF AGENCY PARTICIPANTS	2.B	18.1	8° 8°	41.7	15.3	1.4	o	100.0
2 of agency man-hours	3.1	16.9	13.7	47.5	18.2	9.0	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	8*[2.4	2.4	7.3	11.6	1:1	0.0	2***
AVERAGE HOURS OF TRAINING PER PARTICIPANT	77	37	56	45	47	1.6	0	35



SSO		0 1	c c		01 71 30	. 55	dana	0.141.0
POPULATION	1929	1089	1495	716	52	Łħ	163	5491
AVAILABLE MAN-HOURS	3,503,064	1,977,624	2,714,920	1,300,256	94,432	85,352	296,008	9,971,656
PARTICIPANTS	732	899	1101	396	25	Q	0	392t
PARTICIPANT MAN-HOURS	50,929	19,807	32,742	11,446	2087	95	0	37,067
PAKTICIPANT RATIO (%)	37.9	61.3	73.6	55.3	48.1	4.2	0	53.2
MAN-HOUR RATIO (Z)	09*0	1.00	1.21	0,88	2.21	90*0	00.00	0.87
LAST YEAR'S MAN-HOURS RATIO (%)	0.72	0.53	99.0	0,61	0.22	0.21	t .	,
Z CHANGE FROM LAST YEAR	-16.7	+88.7	+83.3	+44.3	5**106+	071.4	ı	1
2 OF AGENCY FORULATION	35.1	19.8	21.2	13.0	6.0	8.0	3.0	100.0
2 OF ACENCY PARTICIPANTS	25.0	22.8	37.7	13.5	80	0.1	0.0	100.0
Z OF ACENCY MAN-HOURS	24.0	22.7	37.6	13.1	2.4	0,1	0.0	100.0
AVERACE EMPLOYEE HOURS SPENT IN TRAINING FY 71	10.9	18.2	22.0	16.0	1,04	1.1	0.0	15.8
AVERAGE HOURS OF TRAINING PER DARTICIPANT	&	30	30	&	89	28	0	30

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		· · · · ·						
COMMERCE	GS 1-4	65 5-8	GS 9-12	GS 13-15	GS 16-18	S	OTHER	, TOTALS
POPULATION	3396	8609	17 868	5284	338	5609	524.A	1
AVAILABLE MAN-HOURS	6,167,136	11,073,968	15,116,394	4,595,744	613,808	4,737,944	9,530,368	56,835,352
Participarts	6523	2506	4610	2588	154	221	0×9	17,282
PAKTICIPANT MAN-HOURS	152,771	100,102	290,697	153,187	8831	6876	53,054	765,518
PARFICIPANT RATIO (%)	192.1	7.17	55.4	0*67	9*57	8.5	13.0	55.2
MAN-HOUR RATIO (Z)	2.48	06.0	1.92	1.59	1.44	41.0	0.56	1.35
LAST YEAR'S MAN-HOURS RATIO (%)	1.80	1.04	1.78	1,61	1,55	\$0.	1	ŧ
Z CHANGE FROM LAST YEAR	+37.8	-13.5	47.9	-1.2	07.1	+180,0	ŧ	,
% OF AGENCY POPULATION	10.8	19.5	26.6	16.9	1.1	R.3	16.3	100.0
2 OF AGENCY PAKTICIPANTS	37.7	14.5	26.7	15.0	6*0	1.3	3.9	100.0
% OF AGENCY MAN-HOURS	20.0	13.1	38.0	20.0	1.2	6.0	6.9	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAIMING FY 71	45.0	16.3	34.9	28.9	26.2	2.5	20.2	24.5
AVERAGE HOURS OF TRAINING PER PARTICIPANT	23	07	63	59	57	31	78	77



EBOC	7-1 S9	GS 5-8	GS 9-12	SS 13-15	GS 16-18	Sh	OTHER	TOTALS
POPULATION	149	225	306	137	15	7	<i>5</i> 2	898
AVAILABLE MAN-HOURS	270,584	009,804	555,696	248,792	otr2",270	12,712	52,664	1,576,288
PARTICIPANTS	19	9	257	152	38	ı	t	579
PAKTICIPANT MAN-HOURS	1932	3909	1757	7262	3200	•	•	23,844
PARTICIPANT RATIO (%)	72.0	28.9	0*78	110.9	253.3	0.0	0.0	2.99
MAN-HOUR RATIO (%)	0.71	96.0	1.36	2.92	11.75	8.	8.	1.57
LAST YEAR'S MAN-HOURS RATIO (%)	1.22	1.49	3.77	2.77	1.11	8.	8.	ı
Z CHANGE FROM LAST YEAR	-41.8	-35.6	-63.9	+5.4	+958.6	0.0	0.0	ı
% OF AGENCY POPULATION	17.1	25.9	35.3	15.8	1.7	8.0	3.3	100.0
% OF AGENCY PARTICIPANTS	11.6	11.2	44.4	26.3	9*9	0.0	0.0	100.0
% OF AGENCY MAN-HOURS	€.	16.4	31.6	30.5	13.4	0.0	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	12.9	17.4	24.7	53.0	213.4	0.0	0.0	27.4
AVERAGE HOURS OF TRAINING PER	28	99	82	47	78	0	0	17

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FCC	GS 1-4	68 5-8	GS 9-12	GS 13-15	81-91 SS	MS	OTHER	TOTALS
POPULATION	506	452	707	298	95	37	7	1526
AVAILABLE MAN-HOURS	379,544	820,832	733,664	666,472	90,800	67,192	12,712	2,771,216
PARTICIPANTS	87	77	76	17	н	н	ı	262
PARTICIPANT MAN-HOURS	1454	7187	3355	75.27	320	16		10,683
PARTICIPANT RATIO (2)	23.0	17.0	23.3	19.3	2.0	2.7	0.0	19.1
MAN-HOUR RATIO (%)	0.38	0.34	94.0	17.0	0.35	20°0	0.0	0.39
LAST YEAR'S MAN-HOURS RATIO (%)	0.14	0.36	67.0	0.30	0.34	0.34	(ŀ
% CHANGE FROM LAST YEAR	+171.4	-5.56	-6.12	+36.7	+2,9	104.1	ŧ	ŧ
% OF AGENCY POPULATION	13.7	29.6	26.5	54.0	3.3	2.4	0.5	16.0
% OF AGENCY PARTICIPANTS	16.4	56.4	32.2	24.3	0.3	0.3	0:0	100.0
% OF AGENCY MAN-HOURS	13.6	26.1	31.4	25.8	3.0	0.1	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	6.9	6.2	7.60	7.4	7.9	7.0	0.0	
AVERAGE HOURS OF TRAINING PER PARTICIPANT	30	36	36	39	320	16	0	t.



FILLES	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	157	213	54.1	310	6	19	33	1,282
AVAILABLE MAN-HOURS	285,112	38,808	982,456	562,960	16,344	34,504	59,928	2,328,112
PARTICIPANTS	65	65	177	338	82	1	ř	099
PARTICIPANT MAN-HOURS	2773	2602	6324	10,215	9577	7,7	,	22,392
PARIICIPANT RATIO (%)	37.6	30.5	32.7	0.901	222.2	5.3	0.0	51.5
MAN-HOUR RATIO (Z)	26.0	29.0	79.0	1.81	2.79	0.07	0.0	96.0
LAST YEAR'S MAN-HOURS RATIO (2)	0.13	0.16	1.07	1.13	21.0	0.29	1	ı
Z CHANGE FROM LAST YEAR	+646.2	+318.8	2.04-	-60.2	+2225.0	-75.9	•	,
% OF AGENCY POPULATION	12.2	16.6	777	24.2	0.7	1.5	2.6	100.0
2 OF AGENCY PARTICIPANTS	<i>a.</i>	8.6	24.8	57.2	3.0	6.2	0.0	130.0
Z OF AGENCY MAN-HOUPS	75.4		2.8.2	45.6	2.0	T*o	0.0	30.0
A GRACE EMPLOYEE HOUSE SPENT IN THE TRAINING BY 71	2		977	cr cr	50.7	1.3	0.0	17.4
ANERAGE BOTHS OF TRAINING PLA		2,12		90	ଯ	র	0	34

FPC	55 1-4	6.5 5.8	GS 9-12	cs 13-15	GS 16-18	WS	O1 JER	TOTALS
POPULATION	911	662	πε	323	94	25	25	8711
AVAILABLE MAN-HOURS	210,656	542,984	570,224	586,568	83,536	45,400	72,460	2,084,768
PARTICIPANTS	3	73	117	116	6	4	ŧ	762
PARTICIPANT MAN-HOURS	8 2	27/2	5658	9877	232	152	,	12,358
PARTICIPANT RATIO (2)	2.6	77.47	37.3	36.5	19.6	16.0	0.0	25.6
MAN-HOUR RATIO (2)	*o*o	0.32	66.0	0.76	0.28	0.33	0.0	0.59
LAST YEAR'S MAN-HOURS (ATIO (2)	0.30	0.25	79.0	97*0	0.7%	0.38	ŧ	ı
Z CHANGE FROM LAST YEAR	-96.7	+28.0	£7°75	+65.2	-62.2	-13.2	•	ŀ
Z OF AGENCY POPULATION	10.1	26.0	27.4	28.1	0.4	2.2	2.2	າ 200.
Z OF AGENCY PARTICIPANTS	1.0	9.77	39.8	40.1	3.1	1.4	0.0	100.0
Z OF AGENCY MAN-HOURS	2.0	14.1	45.8	36.3	1.9	2	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	0.7	5.8	13.0	13.8	5.1	0.9	0.0	10.7
AVERACE BOURS OF TRAINING PER PARTICIPANT	82	T.	78	38	26	38	0	77

FTC	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	88	OTHER	TOTALS
POPULAT ON	255	347	290	378	92	73	24	1359
AVAILABLE MAN-HOURS	463,080	630,152	526,640	686,443	47,216	38,136	76,272	2,467,944
PARTICIPANTS	677	140	0,	12	t	•	,	286
PARTICIPANT MAN-HOURS	1884	3408	2371	129	,	ŧ	ŧ	3290
PARTICIPANT RATIO (2)	19.2	40.3	24.1	7.1	0.0	0.0	0.0	21.0
MAN-HOUR RATIO (Z)	17*0	95.0	0.45	60°0	00.00	0.0	00. 00	9.34
LAST YEAR'S MAN-HOURS RATIO (72)	1.52	0.63	0.87	0.21	0.08	. 0.11	ŧ	,
Z CHANGE FROM LAST YEAR	-73.0	-16.7	-48.3	-57.1	-100.0	-100.0	ŧ	ı
Z OF AGENCY FORULATION	8.8	25.5	21.3	27.8	1.9	1.5	3.1	700.0
2 OF AGENCY PARTICIPANTS	17.1	0.64	ት-42	7.6	0.0	0.0	0.0	100.0
Z OF AGENCY MAN-HOURS	22.7	41.1	28.6	7.6	0.0	0.0	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	7.4	8.6	8.3	1,6	0.0	0.0	0.0	6.2
AVERAGE HOURS OF TRAINING PER PARTICIPANT	38.4	24.3	33.9	23.2	0.0	0.0	0.0	29.0



CSA.	GS 1-4	G 5-8	GS 9-12	GS 13-15	GS 16-18	SM	OTHER	TOTALS
POPULATION	1229	5739	7197	2063	39	967°31	1,460	38,719
AVAILABLE MAN-BOURS	11,377,336	10,422,024	8,487,984	3,746,408	119,856	33,588,736	2,651,360	70,313,704
PARTICIPANTS	9424	07/27	\$202	24.17	64	3284	757	20,295
PARTICIPANT MAN-HOURS	217,937	124, 180	131,720	217*65	1852	128,042	22,467	685,615
PARTICIPANT RATIO (2)	6.83	75.6	111.3	117.2	74.2	17.8	51.8	52.4
MAN-HOUT RATTO (%)	1.92	1.19	1.55	1.59	1.55	0.38	0.85	0.98
LAST YEAR'S MAN-HOURS RATIO (7.)	79.0	76°0	1.61	1.45	1.69	0.37	,	f
Z CHANGE FROM LAST YEAR	+300.0	+26.6	-3.7	L*6+	-8.3	+2.7	•	•
Z OF AGENCY POPULATION	16.1	8*77	12.1	5.3	0.2	8-27	3.8	1 00. 0
Z OF ASENCY PARTICIPANTS	80.9	7772	25.6	11.9	0.2	16.2	3.7	100.0
Z OF AGENCY MAN-HOURS	31.8	18.1	19.2	8.7	0.3	18.7	3,3	0.00.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	34.9	21.6	28.1	18.9	28.1	6.9	15.4	17.8
AVERAGE HOURS OF TRAINING PER PARTICIPANT	51	82	25	25	38	39	30	34.



ули	GS 1-4	6.5 5-8	GS 9-12	GS 13-15	GS 16-18	SM	отнек	TOTALS
POPULATION	24,737	31,678	77,606	10,581	329	929*9	6,709	108,266
AVAILABLE MAN-HOURS	44,922,392	57,527,24,8	44,684,496	19,215,096	597,464	12,032,816	17,631,544	196,611,056
PARTICIPANTS	6926	16,265	14,708	84,36	305	298	*0	869*67
PARTICIPANT MAN-HOURS	296,102	1,477,115	169,'09	263,349	8788	112,926	27.1	2,766,302
PARTICIPANT RATIO (Z)	37.2	51.3	59.8	7.67	62.3	13.1	0.1	. 57.
MAN-HOUR RATIO (%)	99°0	2.57	1.36	1.37	1.48	76*0	00.0	17:1
LAST YEAR'S MAN-HOURS RATIO (Z)	0.36	1.31	1.48	1.54	1.67	72.0	,	. \$
Z CHANGE PROM LAST YEAR	+83.3	+96.2	-8.1	-11.0	-11.4	+291.7		t .
2 OF AGENCY POPULATION	22.8	29.3	22.7	9.8	0.3	6.1	0.6	100.0
Z OF AGENCY PARTICIPANTS	18.5	32.7	29.6	17.0	7.0	1.7	0.0	100.0
2 OF AGENCY MAN-HOURS	10.7	53.4	22.0	9.5	0.3	4.1	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	0.21	7.97	24.7	87.9	8.9	17.1	0.0	25.6
AVERAGE HOURS OF TRAINING PER PARTICIPANT	37.	91	13	31	£7	130	34	56

нил	GS 1-4	65 5-3	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	2505	3571	5988	डाय	101	95	441	15,422
AVAILABLE MAN-HOURS	4,543,632	6,484,936	10,874,268	4,946,785	183,416	172,520	958,000	28,006,352
PARTICIPANTS	873	1802	2857	1440	38	17	63	7090
PARTICIPANT MAN-HOURS	25,230	70,289	107,308	70,878	0712	069	596	278,090
PARIICIPANI RATIO (2)	34.9	50.5	47.7	52.9	37.6	17.9	14.3	0.64
MAN-HOUR RATIO (2)	0.55	1.08	86.0	1.43	67.1	0.39	0.12	66.0
LAST YEAR'S MAN-HOURS RATIO (2)	66.0	0.16	0,10	86*0	1.21	0.0	ŧ	•
Z CHANGE FROM LAST YEAR	7-77-	+575.0	0.088+	+45.9	+3.1	t	١	t
2 of agency population	16.2	23.2	38.8	17.7	0.7	9*0	5.9	100.0
Z OF AGENCY PARTICIPANTS	12.3	25.4	6.04	80.3	0.5	0.2	6*0	100.0
Z OF AGENCY MAN-HOURS	9.1	25.3	38.6	25.5	0.7	0.2	0.3	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	10.0	19.6	17.8	26.0	27.1	7.1	5.2	18.0
AVERAGE HOURS OF TRAINING PER PARTICIPANT	53	39	38	67	72	077	15	39

Interior	6 S 1-4	65 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	9122	13,707	21,404	70.8	212	14,372	4,825	70,660
AVAILABLE MAN-HOURS	16,565,552	24,891,912	38,869,664	12,744,688	384,992	26,099,552	9,762,200	123,322,560
PARTICIPANTS	3941	8372	18,126	3677	43	7562	658	37,771
PARTICIPANT MAN-HOURS	135,494	277,883	1,054,522	103,850	2375	107,855	787*66	1,808,463
PARTICIPANT RATIO (2)	43.2	1.19	84.7	52.4	20.3	9.02	13.6	53.5
MAN-HOUR RATIO (Z)	0.82	1.12	2.71	10.3	96.2	0.41	1.14	1.41
LAST YEAR'S MAN-HOURS RATIO (7.)	0.55	96.0	1.63	1,29	67.0	0.50	•	ı
Z CHANGE FROM LAST YEAR	1*67+	+14.3	+66.3	-20.2	+44.2	-18 0	,	i
Z OF AGENCY POPULATION	12.9	19.4	30.3	6.6	0.3	20.3	8.49	100.0
2 OF AGENCY PARTICIPANTS	10.4	22.2	78.0	9.7	0.1	7.8	1.7	100.0
Z OF AGENCY MAN-HOURS	7.5	15.4	58.3	5.5	0.1	0.9	5.5	100,0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	6.71	30.3	49.2	18.7	11.3	7.4	20.7	55,6
AVERAGE HOURS OF TRAINING PER PARTICIPANT	34	33	58	36	55	32	151	4.8

	0	a y	61-8 S)	GS 13-15	CS 16-18	S	OTHER	TO FALS
POPULATION	324	727	260	286	711	32	27	1770
AVAILABLE MAN-HOURS	588,384	769,984	1,016,960	519,376	212,472	58,112	360,64	3,214,320
PARTICIPANTS	98	ដ	62	95	38	R	0	592
PAKTICIPANT MAN-MOURS	2132	266	041/2	3239	1786	144	0	10,631
PAKTICIPANT SATIO (Z)	26.5	2.0		20.0	32.5	6.2	0.0	15.0
MAN-HOUR RATIO (Z)	0.36	80.0	0,27	0.62	78.0	0.25	0.0	0.33
LAST YEAR'S MAN-HOURS RATIO (2)	90.0	60°0	67.0	0.81	0.36	0.20	!	
Z CHANGE FROM LAST YEAR	+500.0	11.1	6.44-	-3.5	+133.3	+25.0	ı	ŧ
2 of Agency Population	18.3	24.0	33.6	16.2	9.9	1,8	1.5	100.0
Z OF AGENCY PARTICIPANTS	32.5	7.9	3.4	1.12 1.13	14.3	0.7	0.0	130.0
Z OF AGENCY MAN-HOURS	20.1	5.5	25.8	30.4	16.8	1.4	°.°°	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	6.5	1.5	6.4	11.3	15.2	4.5	o. 0	0.9
AVERAGE HOURS OF TRAINING PER PARTICIPANT	25	28	17	58	7.7	72	0	071

JUSTICE	GS 1-4	GS 5-8	GS 9-12	68 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	7592	12,285	9056	7609	30.5	1,358	1,460	39,212
AVAILABLE MAN-HOURS	15,715,664	22,309,560	16,445,696	11,066,704	553,880	2,465,128	2,e51,360	11,204,992
PARTICIPANTS	7627	10,228	8670	3009	217	н	272	59,899
PARTICIPANT MAN-HOURS	966,336	736,377	891,234	63,322	24.12	₩.	3553	2,317,242
PARTICIPANT RATIO (2)	88.1	83.3	95.7	7.67	38.4	0,1	16.9	76.2
MAN-HOUR KATIO (2)	4.07	3.30	5.42	0.57	m.0	8.0	0.13	3.28
LAST YEAR'S MAN-HOURS RATIN (2)	81.4	1.43	66.77	1,02	1.06	0.70	ı	ı
7 CHANCE FROM LAST YEAR	-14.9	+130.8	9.8+	-44.1	-58.5	-100.0	,	ı
2 OF AGENCY ENPULATION	22.1	731.3	23.1	15.5	8.0	3.4	3.7	100.0
Z OF AGENCY PARTICIPANTS	25.5	34.2	59.0	10.1	7.0	0.0	\$°°°°	100.0
2 of agency man-hours	27.4	31.5	38.1	2.7	0.1	0.0	0.2	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	73.9	6.65	7.86	10.4	8.0	0.0	2.4	59.6
AVERAGE HOURS OF TRAINING PER PARTICIPANT	778	72	103	21	21	æ	77	79

LABOR	6S 1-4	65 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	1493	2823	3368	2708	101	56	201	10,789
AVAILABLE MAN-HOURS	2,711,288	5,126,568	6,116,288	4,917,728	183,416	172,520	365,016	19,592,824
PARTICIPANTS	1038	1789	3573	1822	37	\$	ţ	8264
PAKTICIPANT MAN-HOURS	56,966	43,775	100,061	50,688	1764	184	,	223,438
PARTICIPANT RATIO (2)	69.5	63.4	106.1	67.3	36.6	5.3	ı	76.6
MAN-HOUR RATIO (2)	6.0	0.85	1,64	1.03	96*0	о.п	ŧ	1.14
LAST YEAR'S MAN-HOURS RATIO (7)	69.0	0.75	96.0	1.23	17.0	0.00	t	ŧ
2 CHANGE FROM LAST YEAR	+43.5	+13.3	+72.6	-16.3	+35.2		ŧ	,
Z OF AGENCY POPULATION	13.8	26.2	31.2	25.1	6.0	6.0	1.9	130.0
Z OF AGENCY PARTICIPANTS	12.6	21.6	43.2	22.0	7.0	0.1	0.0	100.0
2 of Agency Man-Hours	12.1	19.6	44.8	22.7	88.0	0.1	0.1	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	18.0	15.4	29.8	18.7	7.71	2.0	0.0	20.7
AVERAGE HOURS OF TRAINING PER PARTICIPANT	56	77	28	28	87	37	0	27

LIBRARY OF CONGRESS	GS 1-4	GS 5-8	GS 9-12	GS 13-15	CS 16-18	WS	OTHER	TOTALS
POPULATION	292	1294	1071	353	27	137	6	3678
AVAILABLE MAN-HOURS	1,392,872	2,349,904	1,944,936	641,048	85,352	248,792	16,344	6,679,248
PARTICIPANTS	199	875	558	196	٣	50	&	1538
PARTICIPANT MAN-HOURS	2528	10,023	17,364	7197	99	52	1100	35,758
PARTICIPANT RATIO (%)	25.9	75.3	52.1	55.5	7*9	3.6	322.2	41.8
MAN-HOUR RATIO (2)	0.18	0.43	68.0	0.72	6.07	0.03	16.30	75.0
LAST YEAR'S MAN-HOURS RATIO (%)	91.0	0.35	0.58	0.36	0,18	8.0	i	,
% CHANGE FROM LAST YEAR	+12,5	+22.9	+23.4	+100,0	-61.1	,	·	•
% OF AGENCY POPULATION	20.9	35.2	29.1	9.6	1.3	3.7	0.2	100.0
2 OF AGENCY PARTICIPANTS	12.9	35.6	36.3	12.7	0,2	0.3	1.9	100.0
% OF AGENCY MAN-HOURS	7.1	28.0	9*87	12.9	0.2	0.2	3.1	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	3.3	7. 8	16.2	13.1	1.3	5.0	296.0	8.46
AVERAGE HOURS OF TRAINING PER PARTICIPANT	13	18	31	77	19	15	38	23

NASA	GS 1-4	65 5-8	GS 9-12	GS 13-15	GS 16-18	SΜ	OTHER	TOTALS
POPULATION	1977	8627	10,537	11,535	319	47162	1012	33,062
AVAILABLE MAN-HOURS	3,590,232	8,604,208	19,135,192	20,947,560	579,304	5,346,304	1,837,792	60,040,592
PARTICIPANTS	567	5772	8826	8871.	183	1204	212	22,322
PARTICIPANT MAN-HOURS	15,561	469,17	310,854	344,895	7928	27,687	15,521	900,140
PARTICIPANT RATIO (2)	26.7	51.9	83.8	76.9	57.4	6.04	20.9	67.5
MAN-HOUR RATIO (2)	6,43	06.0	1.62	1.64	1.36	0.51	78.0	1.33
LAST YEAR'S MAN-HOURS RATIO (2)	0.55	0.83	2.05	2.12	2.08	0.89		ŧ
Z CHANGE FROM LAST YEAR	-21.8	†*£+	-21.0	-22.6	-34.6	-42.7	ı	ı
2 OF AGENCY POPULATION	6.0	14.3	31.9	34.9	1.0	6.9	3.1	100.0
Z OF AGENCY PARTICIPANTS	2.5	11.0	39.5	39.7	8°0	2.4	6.0	100.0
% OF AGENCY MAN-HOURS	1.9	7.6	38.8	43.1	1.0	3.5	1.9	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	7.8	16.3	29.4	29.8	24.7	9.3	15.3	24.2
AVERAGE HOURS OF TRAINING PER PARTICIPANT	72	32	35	39	43	23	73	36

MZRB	68 1-4	8-5	GS 9-12	GS 13-15	68 16-18	SA	OTHER	TOTAL
POPULATION	797	572	827	728	139	25	55	2181
AVALLABLE MAN-HOURS	424,944	1,038,752	777,24,8	1,322,048	252,424	45,400	088,880	3,960,696
PARTICIPANTS	92	101	911	11	•	۲	0	372
PAKTICIPANT MAN-HOURS	पंगट	2268	5454	2288	184	17	0	12,376
PAKTICIPANT RATIO (2)	32.5	17.71	1.12	8*6	4.3	8.0	0.0	17.1
MAN-HOUR RATIO (2)	0.50	0.22	0.70	0.17	0.07	60°0	8.0	0.31
LAST YEAR'S MAN-HOURS RATIO (2)	0.05	0.15	0.12	0.32	00.00	œ.º	·	ı
Z CHANGE FROM LAST YEAR	0*006+	+46.7	+483.3	6.91		t	•	ŧ
2 of agency population	10.7	8.2	19.6	33.4	7.9	1.1	2.5	100.0
Z OF AGENTY PURTICIPANTS	7.02	77.2	31.2	19.1	1.6	5.5	0.0	100.0
Z OF AGENCY MAN-HOURS	17.3	18.3	44.1	18.5	1.5	0.3	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	9.1	0.4	7.21	3.1	1.3	1.6	0.0	5.6
AVERAGE HOURS OF TRAINING PER ES PARTICIPANT	8	22	47	32	33	8		33



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MM-HDUIS MM-HDU	MAVX	GS 1-4	65 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
S	POPULATION	48,145	766,44	58,533	19,283	938	194,579	16,126	381,401
S HAM-BOURS 199, 247 12.5 12.6 12.6 12.7 12.7 12.7 12.7 12.6 12.6 12.6 12.7 12.7 12.7 12.6 13.1 13.1 13.1 13.1	AVAILABLE MAN-HOURS	87,431,320	80,619,504	106,305,008	35,017,928	941,019	353,355,464	29,284,816	692,624,50
MAN-HOURS 198,247 4.22,218 1,226,161 4,51,779 8333 2,766,238 NATIO (2) 12.5 23.8 42.6 45.2 60.1 21.5 TIO (2) 0.23 0.52 1.15 1.29 1.36 0.72 MAN-HOURS MATD (2) 0.36 0.96 1.72 1.77 2.79 1.00 MAN-HOURS MATD (2) 0.36 1.68 -33.1 -77.1 -51.3 -28.0 PARTICIPANTS 6.5 12.8 2.0 9.4 0.2 45.4 MAN-HOURS 3.9 8.3 24.1 8.9 0.2 54.1 MAN-HOURS 1.2 9.4 30.9 23.4 24.7 13.1 MS OF TRAINING PER 1.2 1.2 1.2 1.2 1.2 1.2 MS OF TRAINING PER 1.2 1.2 1.2 1.2 1.2 MS OF TRAINING PER 1.2 1.2 1.2 MS OF TRAINING PER 1.2 1.2 MS OF TRAINING PER 1.2 1.2 1.2 MS OF TRAIN	PARTICIPANTS	6018	10,554	24,945	8706	202	41,857	**	92,286
HAM-HOURS RATIO (Z) O.22 O.52 O.54 O.52 O.54 O.52 O.54 O.54 O.54 O.54 O.55 O.75 O.78 O.78 O.78 O.78 O.78 O.79 O.70 O.70 O.71 O.72 O.72 O.73 O.72 O.73 O.72 O.73 O.72 O.73 O.72 O.73 O.74 O.72 O.73 O.74 O.74 O.75 O.75 O.75 O.75 O.77 O.76 O.77 O.77 O.78 O.78 O.79 O.70 O.7	PAKTICIPANT MAN-HOURS	198,247	422,218	1,226,161	453,379	6333	2,765,238	**8787	5 77 \$ 424
MAN-HOURS RATIO (Z) O.36 O.96 1.72 1.77 2.79 1.00 ON LAST YEAR -36.1 -45.8 -33.1 -77.1 -77.1 -77.2 1.00 NAN-HOURS RATIO (Z) O.36 O.36 1.72 1.77 2.79 1.00 PARTICIPANTS 6.5 12.8 7.0 9.4 O.2 45.4 MAN-HOURS SPENT IN 4.2 9.4 20.9 23.4 24.7 13.1	PARTICIPANT RATIO (%)	12.5	23.8	75.6	45.2	60.1	21.5	0.0	
MAN-HOURS RATIO (Z) 0.36 0.96 1.72 1.77 2.79 1.00 OM LAST YEAR -36.1 -45.8 -33.1 -77.1 -51.3 -28.0 POPULATION 12.6 11.6 15.3 5.0 0.1 51.0 PARTICIPANTS 6.5 12.8 27.0 9.4 0.2 45.4 MAN-HOURS 3.9 8.3 24.1 8.9 0.2 54.4 AN-HOURS 3.1 4.2 9.4 20.2 54.4 AS OF TRAINING PER 4.2 24.7 13.1	MAN-HOUR RATIO (2)	0.23	0.52	1.15	1.29	1.36	c.72	0.02	0.73
OH LAST YEAR -36.1 -45.8 -33.1 -77.1 -51.3 -28.0 POPULATION 12.6 11.6 15.3 5.0 0.1 51.0 PAKTICIPANTS 6.5 12.8 27.0 9.4 0.2 45.4 MAN-BOURS 3.9 8.3 24.1 8.9 0.2 54.4 LOYEE HOURS SPENT IN 4.2 9.4 23.4 24.7 13.1 RS OF TRAINING PER 20.9 23.4 24.7 13.1	LAST YEAR'S MAN-HOURS RATIO (Z)	0.36	96*0	1.72	1.71	2.7%	1.00	ı	
POPULATION 12.6 11.6 15.3 5.0 0.1 51.0 PARTICIPANTS 6.5 12.8 27.0 9.4 0.2 45.4 MAN-HOURS 3.9 8.3 24.1 8.9 0.2 54.4 LOYEE HOURS SPENT IN 4.2 9.4 20.9 23.4 24.7 13.1 RS OF TRAINING PER 30.9 23.4 24.7 13.1	Z CHANGE FROM LAST YEAR	-36.1	-45.8	-33.1	-27.1	-51.3	-28.0	•	,
PARTICIPANTS 6.5 12.8 Z/.0 9.4 0.2 45.4 MAN-HOURS 3.9 8.3 .24.1 8.9 0.2 54.4 LOYEE HOURS SPENT IN 7.1 4.2 9.4 20.9 23.4 24.7 13.1 RS OF TRAINING PER 3.3 23.4 24.7 13.1	2 of agency population	12.6	11.6	15.3	5.0	0.1	51.0	7.7	100.0
MAN-HOURS 3.9 8.3 '24.1 8.9 0.2 54.4 LOYEE HOURS SPENT IN 4.2 9.4 20.9 23.4 24.7 13.1	2 OF AGENCY PARTICIPANTS	6.5	12.8	2/.0	776	0.2	7-57	0.0	100.0
LOYEE HOURS SPENT IN 4.2 9.4 20.9 23.4 24.7 13.1 RS OF TRAINING PER	Z OF AFENCY MAN-HOURS	3.9	8,3	724.1	8.9	0.2	24.4	0.1	100.0
RS OF TRAINING PER	AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	4.2	7.6	80.9	23.4	24.7	13.1	7.0	13.3
33 40 49 52 41	AVERAGE HOURS OF TRAINING PER PARTICIPANT	33	07	67	52	17	99	1212	

*3680 local foreign national participants exleuded.

**173,403 local foreign national participant man-hours excluded.

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POPULATION	6 s 1-4 33	GS 5-8 156	GS 9-12 119	6S 13-15 202	69	ws 13	OTHER 14	TOTALS 606
AVAILABLE MAN-HOURS	59,928	283,296	216, 104	366,832	125,304	23,608	25,424	1,100,496
PARTICIPANTS	٣	33	25	95	80	0	0	119
PARTICIPANT MAN-HOURS	36	986	679	6697	920	0	0	7472
PARTICIFANT RATIO (2)	9.1	21.1	21.0	24.8	371	0.0	0.0	19.6
MAN-HOUR RATIO (Z)	0.13	0.35	0°30	1.32	0.73	0.0	0. 0.	0.68
LAST YEAR'S MAN-HOURS RATIO (1)	80°0	0.33	27°0	1.31	2.72	00.0	ŧ	,
7 CHANGE FROM LAST YEAR	+62.5	7.9 +	-28.6	+0°8	-73.2	ŧ		,
2 OF AGENCY POPULATION	5.4	25.7	19.6	33.3	11.3	2.1	2.3	100.0
Z OF AGENCY PARTICIPANTS	2.5	27.72	21.0	75.0	6.7	0.0	0:0	100.0
% OF AGENCY MAN-HOURS	1.0	13.2	60	8*19	12.3	0.0	o•o	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	2.4	7.9	5.4	0.45	13.3	0.0	0.0	12,3
AVERAGE HOURS OF TRAINING PER PARTICIPANT	%	30	98	97	115	0	0	63

		ç			9	Ē	o differen	
POPULATION	11,184	13,501	027172	5704	24.5	12,014	22.27	69,295
AVAILABLE MAN-HOUF	20,310,144	24,517,816	44,346,720	10,358,464	444,920	21,817,424	4,044,232	125,839,720
PARTICIPABLS	2247	5759	26,455	5689	182	2221	125	43,464
PARTICIPANT MAN-POURS	79,497	375,904	1,325,003	320,559	10,765	809*89	3268	2,183,605
PAKTICIPANT RATIO (Z)	20.1	48.5	108.3	7.66	75.5	18.5	5.6	62.7
MAN-HOUR RATIO (2)	0.39	1.53	2.99	3.09	2,42	0.31	0.08	1.74
LAST YEAR'S MAN-HOURS RATIO (2)	0.31	1.66	3.20	3.75	3.76	07.0	t	1
Z CHANGE FROM LAST YEAR	+25.8	-7.8	9.9	-17.6	-35.6	-22.5	t	ı
Z OF AGENCY FORULATION	16.1	19.5	35.2	8,2	7.0	17.3	3.2	100.0
2 OF AGENCY PARTICIPANTS	8.2	15.1	6.09	13.1	7.0	5:1	6.0	100.0
7 of Acency Man-Hours	3.6	17.2	60.7	7.41	6.5	3.1	0.1	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	7.1	8.12	54.3	56.1	43.9	5.6	1.5	31.6
AVERAGE HOURS OF TRAINING PER PARTICIPANT	35	57	8.	56	65	31	92	50

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RAIIROAD RETIREMENT BOARD	GS 1-4	SS 5-8	GS 9-12	6S 13-15	GS 16-18	S.M.	OTHER	TOTALS
POPULATION	887	675	552	76	6	30	53	1775
AVALLABLE MAN-HOURS	886,208	4 86 , 966	1,002,432	170,704	16,344	24,480	672°96	3,223,400
PAKTICIPANTS	12	602	108	&	н	,	ı	844
PARTICIPANT MAN-HOURS	21,281	59,800	2787	784	32	•	ı	66,739
PARTICIPANT BATIO (2)	14.5	43.5	19.6	30.9	11.1	0.0	0.0	25.2
MAN-HOUR BATIO (Z)	2,40	00. 9	87.0	94*0	0.20	0.00	00.00	2.69
LAST YEAR'S MAN-HOURS RATIO (Z)	0.18	05:7	0.85	1.07	0.0	00.0	ŧ	1
Z CHANGE FROM LAST YEAR	+1233.3	+33.3	-43.5	-57.0	ŧ	,	ı	t
2 OF AGENCY POPULATION	27.5	30.9	31.1	5.3	0.5	1.7	3.0	100.0
Z OF AGENCY PARTICIPANTS	15.8	53.3	24.1	6.5	0.2	0.0	0.0	100.0
Z OF AGENCY MAN-HOURS	24.5	6.89	5.6	6.0	0.0	0.0	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	43.6	109.0	8.7	8.4	3.6	0.0	0.0	6.87
AVERAGE HOURS OF TRAINING PER	300	250	45	Z	32	o	0	194

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SEC	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	WS	ОТИЕК	TOTALS
POPULATION	203	343	£0 7 7	701	34	क्ष	17	1478
AVAILABLE MAN-HOURS	368,648	622,888	731,664	733,664	61,744	36,320	128,936	2,684,048
PARTICIPANTS	10	83	184	150	2	rf	0	375
PARTICIPANT MAN-HOURS	577	633	2791	5812	02T	30	0	9099
PARTICIPANT AATIO (Z)	6.4	6.7	45.7	37.1	20.6	5.0	0.0	25.4
MAN-HOUR RATIO (2)	90°0	0.10	0,38	0.38	0.19	0.08	00°0	0.25
LAST YEAR'S MAN-HOURS RATIO (2)	17.0	0.16	0.59	0.57	1.26	0.11	į.	ŧ
Z CHANGE FROM LAST YEAR	7*58-	-37.5	-35.6	-33.3	6*78-	-27.3	,	ı
Z OF ASENCY POPULATION	13.7	33.2	27.3	27.3	.23	1.4	8:47	0 .0 0/
2 OF AGENCY PARTICIPANTS	2.7	6.1	1.64	0.04	1.9	0.3	0.0	100.0
% OF AGENCY MAN-BOURS	3.7	9.6	12.2	2.24	1.8	0.5	o.o	100. 0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	1.1	1.8	6.9	6.9	3.5	1.5	0.0	9.7
AVERAGE HOURS OF TRAINING PER PARTICIPANT	*72	28	15	19	17	30	0	18

SBA	65 1-4	8-5 59	GS 9-12	GS 13-15	GS 16-18	S N	OTHER	mTals
POPULATION	188	1027	77771	827	31	R	102	1332
AVAILABLE MAN-HOURS	1,599,896	, 1,865,032	2,622,304	1,501,832	56,296	36,320	185,232	7,866,912
PARTICIPANTS	169	370	717	017	13	н	H	1378
PAKTICIPANT MAN-HOURS	2636	8208	пт'п	10,958	707	12	8	33,345
PAKTICIPANT RATIO (Z)	19.2	36.0	28.7	9*67	6777	5.0	1.0	31.8
MAN-HOUR RATIO (2)	97.0	777° 0	27*0	0.73	17.0	0.03	0.01	24.0
LAST YEAR'S MAN-HOURS RATIO (2)	71.0	0.37	92.0	0.83	0.29	61.0	\$	ı
Z CHANGE FROM LAST YEAR	+14.3	+18.9	-777	-17.0	+144.8	6*94-	ŧ	t
2 of agency population	20.3	23.7	33.3	19.1	6.7	0.5	2.4	0.001
Z OF ACENCY PARTICIPANTS	12.3	26.9	30°0	8°.	5.0	0.1	0.1	100.0
Z OF AGENCY MAN-HOURS	7.9	24.6	33.3	32.9	1.2	0.0	0.1	0.001
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	2.9	8.0	7.6	13.3	12.9	0.5	0.2	9.2
AVERAGE HOURS OF TRAINING PER PARTICIPANT	16	22	72	27	31	21	श्र	7

SHITHSONIAN	6S 1-4 146	522	767	270	30	689	58	2510
AVAILABLE MAN-BOURS	809,936	947,952	898,920	026,094	087*75	251,224	105,328	4,558,160
PARTICIPANTS	m	99	62	23	r	133	4	395
PARTICIPANT MAM-HOURS	2388	1566	56777	752	15	7999	091	16,031
PARTICIPANT RATIO (2)	25.3	11.5	12.5	10.0	3.3	19.3	6.9	15.7
MAN-HOUR RATIO (%)	0.29	97.0	0.50	0.15	0.03	2.65	0.15	0.35
LAST YEAR'S MAN-HOURS RATIO (2)	0.38	0.22	0.38	79.0	6.0	0.25	ı	ı
I CHANGE FROM LAST YEAR	7.82-	-27.3	+31.6	-76.6	-66.7	0.096+	ı	t
A OF AGENCY POPULATION	17.8	8.02	19.7	10.8	1.2	27.4	2,3	100.0
Z OF AGENCY PAKTICIPANTS	28.6	15.2	15.7	8.9	0°3	33.7	1.2	100.0
Z OF AGENCY MAN-HOURS	14.9	2.6	28.0	4-7	0.1	77.6	1,0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	5.3	2.9	9.1	2.7	0.5	1.84	2.7	7*9
AVERAGE HOURS OF TRAINING PER PARTICIPANT	ದ	98	72	88	16	8	07	17

TRANSPORTATION	GS 1-4	65 5-8	GS 9-12	GS 13-15	CS 16-18	SM	OTHER	TOTALS
POPULATION	4255	116,01	28,768	77,422	285	6285	2151	66,477
AVAILABLE MAN-BOURS	7,727,080	18,724,776	52,242,688	26,190,352	517,560	11,413,560	3,906,216	120,722,232
Pakticipants	1303	5493	19,344	181'21	77.7	1329	306	39,880
PAKTICIPANT MAN-HOURS	242,112	820,303	2,408,665	634,356	8679	87,050	5158	4,206,323
PAKTICIPANT RATIO (2)	28.3	53.3	67.2	84.5	43.5	21.1	9.6	0.09
MAN-HOUR RATIO (Z)	3.13	4.38	4.61	2,42	1.67	92.0	0.13	3.48
LAST YEAR'S MAN-HOURS RATIO (Z)	1.31	9.91	3.84	1.65	1.84	0.99	•	ı
Z CHANGE FROM LAST YEAR	+138.9	-55.8	+20.1	4.64.7	-9.5	-3.2	ŧ	1
2 of Agency Population	6.4	15.5	43.3	21.7	7*0	9.5	3.2	100.0
Z OF AGENCY PARTICIPANTS	3.0	13.8	48.5	30.5	0.3	3.3	0.5	100.0
Z OF AGENCY MAN-HOURS	φ. •	19.5	57.3	15.1	0.2	2.1	0.1	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	26.8	79.5	83.7	43.9	30.3	13.8	7.7	63.2
AVERAGE HOURS OF TRAINING PER PARTICIPANT	201	т,	721	52	%	65	25	105

Treasury	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TOTALS
POPULATION	21,817	23,272	28,003	9818	291	5019	0087	93,020
AVATLABLE PAN-HOURS	39,619,672	42,261,952	50,853,448	17,829,488	588,456	9,114,504	8,716,900	168,924,320
PARTICIPANTS	13,266	27,075	37,588	12,415	133	1520	t	756*16
PARTICIPANT MAN-HOURS	728,197	1,643,968	1,394,815	358,150	9369	323,107	ı	4,188,222
PARTICIPANT RATIO (2)	88.1	116.3	134,2	126.5	1.54	30.3	0.0	105.3
MAN-HOUR BATIO (Z)	1.17	3.89	2.74	2.01	1.20	3.54	0.0	2.48
LAST YEAR'S MAN-HOURS RATIO (%)	1,61	4.53	1.80	1.09	2.53	1.26	+	ı
Z CHANGE FROM LAST YEAR	-27.3	-14.1	+52.2	7*78+	- 56.5	+181.0	'	ı
2 OF AGENCY POPULATION	23.5	25.0	30.1	9.01	0.3	5.4	5.2	100.0
Z OF AGENCY PARTICIPANTS	19.6	27.6	38.4	12.7	0.1	1,6	0.0	100.0
Z OF AGENCY MAN-HOURS	11.0	39.3	33.3	8.5	0.2	7.7	0.0	100.0
AVERAGE EMPLOYEE HOURS SPENT IN TRAINING FY 71	27.2	70.6	8.67	36.5	21.8	64.3	0.0	45.0
AVERAGE HOURS OF TRAINING PER PARTICIPANT	న	8	37	28	47	212	0.0	1,2

<u>.</u>	VETERANS ADMINISTRATION	5 -1 89	68 5-8	GS 9-12	GS 13-15	GS 16-18	WS	OTHER	TO TAL.S
	POPULATION	45,613	29,720	15,655	£117	69	31,326	£17°£2	153,913
•	AVAILABLE MAN-HOURS	82, 833, 208	53,971,520	28,429,480	7,469,208	125,304	56,888,016	49,789,272	279,506,008
	PARTICIPANTS	10,452	8368	8376	2367	88	5133	15,069	278*67
• .	PARTICIPANT MAN-HOURS	522,975	213,242	196,030	586*999	2339	104,272	395,906	1,501,749
90	PARTICIPANT RATIO (%)	Š	28.2	53.5	57.5	118.8	7.91	55.0	32.4
~U.\$. G	MAN-POUR RATIO (%)	0.63	0.39	69.0	%**	1.87	0.18	0.80	75*0
OVERNMEN	LAST YEAR'S MAN-HOURS RATIO (Z)	72°0	0.35	99.0	0.88	1.08	60.00		ı
T PRINTING	2 CHANGE FROM LAST YEAR	-14.9	+11.4	+4.5	+2.3	+73.1	+100.0	•	,
OFF105: 1	Z OF AGENCY POPULATION	33.6	19.3	10.2	2.7	0.0	20.4	17.8	100.0
972-721-83	Z OF AGENCY PARTICIPANTS	27.0	16.8	16.8	2.4	2.0	10.3	30.2	100.0
6/101-1-3	Z OF AGENCY TAN-BOURS	34.8	14.2	13.1	4.5	1.6	6.9	26.4	100.0
Adult	AVENTE EMPLOYER BOURS SPENT IN	17.4	7.1	५ श	16.3	34.0	3.3	14.5	8) · 6
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