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Federal Centers' 1993 Compensation in Relation to Federal Levels

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Chairman
The Honorable Daniel K. Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable C. W. Bill Young
Chairman
The Honorable John P. Murtha
Ranking Minority Member
Subcommittee on National Security
Committee on Appropriations
House of Representatives

This report provides information on the professional staff, managers, and executives of the Department of Defense (DOD) Federally Funded Research and Development Centers (FFRDC). As requested, we reviewed fiscal year 1993 costs for salaries, other cash compensation, and benefits to determine total compensation for the FFRDCs, and identified the federal levels that contained the average compensation paid by the FFRDCs to their personnel. However, we did not compare FFRDC and federal government positions or personnel, nor did we match positions or personnel among FFRDCs. This report is the third in a series covering the DOD FFRDC personnels' affiliations and pay.[1]

Background

The FFRDCs were established during World War II to meet special research needs that federal and private sector facilities could not provide. The number of FFRDCs has varied over the years, but in fiscal year 1993 there were 39,[2] with 10 being sponsored by DOD—the Aerospace Corporation, the Center for Naval Analyses,[3] the Institute for Defense Analyses, the

[1]Previously issued reports were Defense Research and Development: Affiliations of Fiscal Year 1993 Trustees for Federally Funded Centers (GAO/NSIAD-95-135, July 26, 1995) and Defense Research and Development: Fiscal Year 1993 Trustee and Adviser Costs at Federally Funded Centers (GAO/NSIAD-96-27, Dec. 26, 1995).

[2]The 29 non-DOD FFRDCs are managed by the Department of Energy (19), the National Science Foundation (6), the Federal Aviation Administration (1), the Internal Revenue Service (1), the National Institutes of Health (1), and the National Aeronautics and Space Administration (1).

[3]The CNA Corporation manages the Center for Naval Analyses.

Lincoln Laboratory,[4] the Logistics Management Institute, the MITRE Corporation, the RAND Corporation,[5] and the Software Engineering Institute.[6] Each FFRDC is managed by a private sector nonprofit company or university and funded primarily through a renewable 5-year, sole-source contract. In fiscal year 1993, Congress appropriated about $1.4 billion for the DOD FFRDCs.

Our study included 7,423 full-time, professional employees out of a total fiscal year employment of 10,248 (72 percent). Our study included all of the FFRDC executives. We included all managers and professional staff who were directly involved in research and development work at the FFRDCs. These employees represented 79 percent of managers and 71 percent of staff (see app. I). See the scope and methodology section for a description of the employees excluded from our study.

The total salaries paid by the FFRDCs in fiscal year 1993 were: the MITRE Corporation $217 million, the Aerospace Corporation $203 million, the Lincoln Laboratory $131 million, the Institute for Defense Analyses $48 million, the Center for Naval Analyses $26 million, the RAND Corporation $16 million, and the Logistics Management Institute and the Software Engineering Institute $14 million each. Our study included 81 percent of the DOD FFRDCs' fiscal year 1993 total salary costs ($669 million).

The fiscal year 1993 federal pay and compensation levels used in this report are those for the General Schedule (GS) grades 13 through 15 and for a combined executive level. (See tables IV.1 through IV.7 for more details.)

From fiscal year 1993 to date, according to the DOD FFRDCs: (1) there have been no significant changes to major benefits; (2) salary levels rose slightly, with maximum annual increases of about 4 percent; and (3) employment went up at five FFRDCs and down at three others, with the overall employment increasing by about 2 percent.

[4]The Massachusetts Institute of Technology manages the Lincoln Laboratory.

[5]RAND Corporation manages three FFRDCs—the Arroyo Center for the Army, Project Air Force, and the National Defense Research Institute for DOD.

[6]Carnegie Mellon University manages the Software Engineering Institute.

Results in Brief

The FFRDCs' average base salaries,[7] benefits, and total compensation for the three types of personnel we studied are shown in appendix II. The average base salary for all FFRDC study employees was $73,000, with individual averages for FFRDCs ranging from $67,000 for the Center for Naval Analyses to $81,000 for the RAND Corporation. The greatest difference among FFRDCs was in executive base salaries, with averages ranging from $123,000 for the Center for Naval Analyses to $183,000 for the MITRE Corporation. (See table II.1 for more details.)

The average employer cost of benefits (as a percent of salary) for all the FFRDC personnel in our study ranged from 16 percent for the Aerospace Corporation to 24 percent for the Institute for Defense Analyses and the RAND Corporation. The greatest difference among FFRDCs was in the cost of executive benefits, which ranged from 19 percent of salary for the Lincoln Laboratory to 54 percent for the MITRE Corporation. For all federal and FFRDC executives (excepting those at the Aerospace and the MITRE Corporations) benefits received were about the same as those provided to all other employees. (See tables II.2 and II.3 for more details.)

The average total compensation cost for the FFRDC personnel in our study ranged from $81,000 for the Center for Naval Analyses to $100,000 for the RAND Corporation. The greatest difference among FFRDCs was in average executive compensation costs, which ranged from $149,000 for the Center for Naval Analyses to $282,000 for the MITRE Corporation. (See table II.4 for more details.)

The average compensation for all fiscal year 1993 FFRDC employees in our study was $89,000. The federal level at this compensation was GS-14 step 8. For executive personnel, the average compensation was above federal levels for the Aerospace, the MITRE, and the RAND Corporations, and at Executive Schedule (ES) level for all the rest. For managers, five FFRDCs were at the Senior Executive Service (SES) level, and the Aerospace Corporation, the Center for Naval Analyses, and the MITRE Corporation were at the GS-15 level. For staff positions, the Institute for Defense Analyses, the Logistics Management Institute, the Software Engineering Institute, and the RAND Corporation were at the GS-14 level, while the other four were at the GS-13 level. The federal compensation levels noted in this report are based on Office of Management and Budget Circular A-76. (See tables III.1 through III.8 and IV.1 through IV.7 for more details.)

[7]The average salaries used in our report are the means for the base salaries of the FFRDC executives, managers, and professional staff. Our analysis of within-FFRDC salary distributions showed comparable results using either mean or median salaries.

Scope and Methodology

We initially requested data from each FFRDC on salaries, other cash compensation, and benefits provided in fiscal year 1993 to their professional staff, managers, and executives who were employed on a full-time basis on September 30, 1993. We asked that information be provided for all individuals in the above three employee categories if 50 percent or more of their salary during fiscal year 1993 was paid by the FFRDC component of their organization.

We defined the chief executive officer and all other corporate officers as executives, including administrative and operational officers.

We defined managers as those who plan, organize, direct, and control major functions or departments of the FFRDCs through subordinates who may also be managers or supervisors. Managers may also perform independent research and development work. We excluded managers of support operations, such as the heads of personnel and training.

We defined professional staff to include scientists, engineers, analysts, and others in similar positions, whether they supervised others or worked alone. We asked that the FFRDCs provide information on only professional staff with responsibilities for work in basic and applied research and development, special studies and analyses, and systems planning, engineering, and integration. We excluded professional staff whose functions were in support of the above work, such as legal, accounting, training, and purchasing services, or who were intermittent workers or consultants to the FFRDC. We also excluded all nonprofessional technicians and analysts performing work in support of professional staff.

We requested data on (1) individual employees' annual base salaries, (2) employer annual costs for benefits, and (3) other data on FFRDC operations and personnel. We also requested data on bonuses, incentive awards, and other cash compensation. However, none of these were reported by the FFRDCs as paid in fiscal year 1993. The FFRDCs reported overall fiscal year 1993 salary and benefit costs for full-time FFRDC employees in our study. The employer expenditures for benefits used in our study were the premiums paid for life, health, and worker's compensation and the costs of contributions toward employee retirement, and social security. We took employer benefit costs for these same benefits provided to federal employees from the Office of Management and Budget Circular A-76, which established federal employer benefit

costs for fiscal year 1993 at 30 percent of salary.[8] We excluded the employer costs of some benefits provided to FFRDC and federal employees.[9] These employer costs were small, relative to those we considered, or the benefits were offered to only a few employees or by only a few FFRDCs or federal agencies. Leave costs were included as part of base salary and, therefore, were not considered separately as a benefit. We did not compare the content, value, or quality of any benefit plan nor did we analyze the differences in leave amounts or policies.

The average salaries used in our report are the means for the base salaries of the FFRDC executives, managers, and professional staff. Analysis of within-FFRDC salary distributions showed comparable results using either mean or median salaries. Federal compensation levels in this report consist of base salary and benefits costs for federal employees. Salary figures taken from the 1993 federal salary schedules were adjusted to include the 30-percent cost of benefits to the federal government and where applicable, an 8-percent geographic differential for GS employees. SES and ES level positions did not receive geographic differential pay in fiscal year 1993. Where a compensation amount is in two federal levels, we express it as the lower level. For example, an average compensation of $75,000, in both the GS-13 step 8 and GS-14 step 2 levels, is noted at the GS-13 level. When a salary or compensation was over a federal level by any amount it was expressed at the next level. Since we used the entire ES pay scale, we did not use SES levels 5 and 6, which overlap ES levels V and IV. We did not compare FFRDC and federal government positions or personnel, nor did we match positions or personnel among FFRDCs.

The FFRDCs provided all of the salary and benefit data on the individuals and groups in our study. In addition, each FFRDC verified that the numbers used in this report for its salaries and benefits were accurate and presented a fair representation of its costs. Our work on this and other previously issued reports was performed from July 1994 through June 1996 in accordance with generally accepted government auditing standards.

[8]The fiscal year 1993 federal employer benefit costs were 29.55 percent of salary, rounded to 30 percent, consisting of 21.7 percent for retirement and social security, 4.7 percent for health and life insurance, 1.7 percent for workers' compensation and miscellaneous benefits, and 1.45 percent for medicare.

[9]Benefit costs reported by some FFRDCs that were excluded from our study included college tuition, home security systems, airline upgrade coupons, child care, elder care, and free physicals. We also excluded the costs of federal benefits for subsidized parking, child care, physicals, and health club facilities.

Agency Comments

In commenting on a draft of this report, each of the eight organizations managing DOD's FFRDCs agreed that the report accurately presented the data provided on their employees' salaries and compensation. We also discussed the contents of the draft report with representatives of the Office of Personnel Management and DOD. Several of these organizations offered technical corrections or editorial suggestions that we incorporated in the report where appropriate.

We are providing copies of this report to the Secretaries of Defense, the Army, the Navy, and the Air Force; the Directors, Office of Management and Budget and Defense Research and Engineering; other congressional committees and subcommittees; and each of the DOD FFRDCs. We will also make copies available to others on request.

If there are any questions about the information presented in this report, please contact me on (202) 512-4587. Major contributors to this report are listed in appendix V.

David E. Cooper
Associate Director, Defense Acquisitions Issues

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Tables

Abbreviations

DOD	Department of Defense
FFRDC	Federally Funded Research and Development Center
GAO	General Accounting Office

Fiscal Year 1993 Federally Funded Research and Development Center Personnel Reviewed by GAO

Table I.1: Number of Personnel by Type Reviewed by GAO Compared to Total FFRDC Employment

FFRDC	Executives reviewed	Executives total	Managers reviewed	Managers total	Staff reviewed	Staff total	Total reviewed	Total
Aerospace	12	12	493	647	1,925	2,251	2,430	2,910
CNA	14	14	15	23	251	431	280	468
IDA	6	6	33	57	374	749	413	812
LLB	29	29	133	159	1,013	2,246	1,175	2,434
LMI	7	7	17	17	146	199	170	223
MITRE	18	18	583	713	1,999	2,285	2,600	3,016
RAND	11	11	16	16	169	169	196	196
SEI	5	5	11	16	143	168	159	189
Total	**102**	**102**	**1,301**	**1,648**	**6,020**	**8,498**	**7,423**	**10,248**

Note: The following identify the acronyms used in the table: The Center for Naval Analyses (CNA), the Federally Funded Research and Development Center (FFRDC), the Institute for Defense Analyses (IDA), the Lincoln Laboratory (LLB), the Logistics Management Institute (LMI), and the Software Engineering Institute (SEI).

Table I.2: Percent of Personnel by Type Reviewed by GAO Compared to Total FFRDC Employment

FFRDC	Executives reviewed	Managers reviewed	Staff reviewed	Total reviewed
Aerospace	100	76	86	84
CNA	100	65	58	60
IDA	100	58	50	51
LLB	100	84	45	48
LMI	100	100	73	76
MITRE	100	82	87	86
RAND	100	100	100	100
SEI	100	69	85	84
Total	**100**	**79**	**71**	**72**

Comparison of Fiscal Year 1993 FFRDC Base Salaries, Benefits, and Compensation

Table II.1: Comparison of Average FFRDC Base Salary Costs for Different Types of Personnel

Dollars in thousands

FFRDC	Executives	Managers	Staff	Total
Aerospace	$175	$94	$68	$74
CNA	123	100	62	67
IDA	137	109	75	79
LLB	140	110	64	71
LMI	127	92	67	72
MITRE	183	90	65	71
RAND	162	105	74	81
SEI	139	101	75	79
Total	**$151**	**$94**	**$67**	**$73**

Table II.2: Comparison of Average FFRDC Benefit Costs for Different Types of Personnel

Dollars in thousands

FFRDC	Executives	Managers	Staff	Total
Aerospace	$72	$15	$11	$12
CNA	26	21	13	14
IDA	33	26	18	19
LLB	27	21	12	13
LMI	29	21	15	17
MITRE	99	20	14	16
RAND	39	25	18	19
SEI	31	22	17	17
Total	**$45**	**$21**	**$15**	**$16**

Table II.3: Comparison of Average Benefit Cost for FFRDCs (as a percent of salary) Provided to Different Types of Personnel

FFRDC	Executives	Managers	Staff	Total
Aerospace	41	16	16	16
CNA	21	21	21	21
IDA	24	24	24	24
LLB	19	19	19	19
LMI	23	23	23	23
MITRE	54	22	22	23
RAND	24	24	24	24
SEI	22	22	22	22

Table II.4: Comparison of Average FFRDC Total Compensation[a] Costs for Different Types of Personnel

Dollars in thousands

FFRDC	Executives	Managers	Staff	Total
Aerospace	$247	$109	$79	$86
CNA	149	121	75	81
IDA	170	135	93	98
LLB	167	131	76	84
LMI	156	113	82	89
MITRE	282	110	79	87
RAND	201	130	92	100
SEI	170	123	92	96
Total	**$196**	**$115**	**$82**	**$89**

[a]Total compensation consists of salary plus benefits.

Fiscal Year 1993 Range and Average Total Compensation for Each FFRDC

Table III.1: The Aerospace Corporation

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	12	$183 to $374	$247
Managers	493	67 to 193	109
Staff	1,925	35 to 158	79
Total	**2,430**	**$35 to $374**	**$86**

Table III.2: CNA

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	14	$110 to $248	$149
Managers	15	100 to 143	121
Staff	251	30 to 149	75
Total	**280**	**$30 to $248**	**$81**

Table III.3: IDA

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	6	$117 to $279	$170
Managers	33	99 to 191	135
Staff	374	37 to 181	93
Total	**413**	**$37 to $279**	**$98**

Table III.4: LLB

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	29	$111 to $273	$167
Managers	133	93 to 154	131
Staff	1,013	40 to 151	76
Total	**1,175**	**$40 to $273**	**$84**

Table III.5: LMI

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	7	$114 to $185	$156
Managers	17	42 to 150	113
Staff	146	25 to 148	82
Total	**170**	**$25 to $185**	**$89**

Table III.6: The MITRE Corporation

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	18	$222 to $447	$282
Managers	583	63 to 179	110
Staff	1,999	39 to 183	79
Total	**2,600**	**$39 to $447**	**$87**

Table III.7: The RAND Corporation

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	11	$114 to $296	$201
Managers	16	95 to 172	130
Staff	169	33 to 144	92
Total	**196**	**$33 to $296**	**$100**

Table III.8: SEI

Dollars in thousands

Type of personnel	Number of people	Range of compensation	Average total compensation
Executives	5	$151 to $218	$170
Managers	11	98 to 135	123
Staff	143	38 to 153	92
Total	**159**	**$38 to $218**	**$96**

Fiscal Year 1993 Federal Compensation Levels

Table IV.1: Federal Executive Compensation With Benefits at 30 Percent of Salary

Dollars in thousands

Category	Fiscal year 1993 base	30-percent benefits	Compensation
SES-1	$92.9	$27.9	$120.8
SES-2	97.4	29.2	126.6
SES-3	101.8	30.5	132.3
SES-4	107.3	32.2	139.5
SES-5	111.8	33.5	145.3
SES-6	115.7	34.7	150.4
ES-V	108.2	32.5	140.7
ES-IV	115.7	34.7	150.4
ES-III	123.1	36.9	160.0
ES-II	133.6	40.1	173.7
ES-I	148.4	44.5	192.9[a]

[a]The maximum fiscal year 1993 federal compensation of $192,900 (for Executive Schedule (ES) I) is composed of $148,400 in salary and $44,500 in benefits (30 percent of salary). Federal executive level positions did not receive geographic differential pay.

Table IV.2: GS-15 Federal Compensation With Benefits at 30 Percent of Salary

Dollars in thousands

Steps	Fiscal year 1993 base	30-percent benefits	Compensation
1	$66.6	$20.0	$86.6
2	68.8	20.6	89.4
3	71.0	21.3	92.3
4	73.3	22.0	95.3
5	75.5	22.7	98.2
6	77.7	23.3	101.0
7	79.9	24.0	103.9
8	82.1	24.6	106.7
9	84.4	25.3	109.7
10	86.6	26.0	112.6

Table IV.3: GS-15 Federal Compensation With Benefits at 30 Percent of Salary and 8-Percent Geographic Differential

Dollars in thousands

Steps	Fiscal year 1993 base	+8 percent[a]	30-percent benefits	Compensation
1	$66.6	$71.9	$21.6	$93.5
2	68.8	74.3	22.3	96.6
3	71.0	76.7	23.0	99.7
4	73.3	79.2	23.8	103.0
5	75.5	81.5	24.5	106.0
6	77.7	83.9	25.2	109.1
7	79.9	86.3	25.9	112.2
8	82.1	88.7	26.6	115.3
9	84.4	91.2	27.4	118.6
10	86.6	93.5	28.1	121.6

[a]The federal GS-level positions in the parts of California where the Aerospace and the RAND Corporations were located got an 8-percent geographic differential added to their salary.

Table IV.4: GS-14 Federal Compensation With Benefits at 30 Percent of Salary

Dollars in thousands

Steps	Fiscal year 1993 base	30-percent benefits	Compensation
1	$56.6	$17.0	$73.6
2	58.5	17.6	76.1
3	60.4	18.1	78.5
4	62.3	18.7	81.0
5	64.2	19.3	83.5
6	66.1	19.8	85.9
7	68.0	20.4	88.4
8	69.8	20.9	90.7
9	71.7	21.5	93.2
10	73.6	22.1	95.7

Table IV.5: GS-14 Federal Compensation With Benefits at 30 Percent of Salary and 8-Percent Geographic Differential

Dollars in thousands

Steps	Fiscal year 1993 base	+8 percent[a]	30-percent benefits	Compensation
1	$56.6	$61.1	$18.3	$79.4
2	58.5	63.2	19.0	82.2
3	60.4	65.2	19.6	84.8
4	62.3	67.3	20.2	87.5
5	64.2	69.3	20.8	90.1
6	66.1	71.4	21.4	92.8
7	68.0	73.4	22.0	95.4
8	69.8	75.4	22.6	98.0
9	71.7	77.4	23.2	100.6
10	73.6	79.5	23.9	103.4

[a]The federal GS-level positions in the parts of California where the Aerospace and the RAND Corporations were located got an 8-percent geographic differential added to their salary.

Table IV.6: GS-13 Federal Compensation With Benefits at 30 Percent of Salary

Dollars in thousands

Steps	Fiscal year 1993 base	30-percent benefits	Compensation
1	$47.9	$14.4	$62. 3
2	49.5	14.9	64.4
3	51.1	15.3	66.4
4	52.7	15.8	68.5
5	54.3	16.3	70.6
6	55.9	16.8	72.7
7	57.5	17.3	74.8
8	59.1	17.7	76.8
9	60.7	18.2	78.9
10	62.3	18.7	81.0

Table IV.7: GS-13 Federal Compensation With Benefits at 30 Percent of Salary and 8-Percent Geographic Differential

Dollars in thousands

Steps	Fiscal year 1993 base	+8 percent[a]	30-percent benefits	Compensation
1	$47.9	$51.7	$15.5	$67.2
2	49.5	53.5	16.1	69.6
3	51.1	55.2	16.6	71.8
4	52.7	56.9	17.1	74.0
5	54.3	58.6	17.6	76.2
6	55.9	60.4	18.1	78.5
7	57.5	62.1	18.6	80.7
8	59.1	63.8	19.1	82.9
9	60.7	65.6	19.7	85.3
10	62.3	67.3	20.2	87.5

[a]The federal GS-level positions in the parts of California where the Aerospace and the RAND Corporations were located got an 8-percent geographic differential added to their salary.

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