

2013

BY THE COMPTROLLER GENERAL  
 Report To The Chairman, Subcommittee On  
 Legislation And National Security  
 Committee On Government Operations  
 House Of Representatives  
 OF THE UNITED STATES

## Compensation By 12 Aerospace Contractors

GAO made a comparative analysis of the pay and benefits at 12 of the nation's large aerospace contractors. The contractors, on the average, paid executives and clerical, technical, and factory employees more than the average pay for similar positions surveyed by the Bureau of Labor Statistics (BLS) and the American Management Association (AMA). Professional salaries (mostly engineers) were slightly below BLS averages. Wide pay variations existed among the contractors and among categories of employees. Some of the contractors' pay was about the same as BLS and AMA and some was much higher. Employee earnings have increased faster for these contractors than in the general economy, and employee fringe benefit costs were borne more often by the contractors than by firms surveyed by BLS.

These comparisons in themselves do not allow GAO to draw conclusions about whether this level of compensation is reasonable, but they do suggest a need for defense contracting officials to examine compensation carefully during negotiations, and a need to find a workable means of assessing the reasonableness of compensation--generally one of the largest cost items in contracts.



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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON D.C. 20548

B-213672

The Honorable Jack Brooks  
Chairman, Subcommittee on Legislation  
and National Security  
Committee on Government Operations  
House of Representatives

Dear Mr. Chairman:

In response to your March 23, 1983, request, we reviewed compensation paid to employees in the aerospace industry. You specifically asked us to review the reasonableness of compensation paid in aerospace firms in relation to that paid employees in other industries. After subsequent discussions with your office, it was agreed we would determine the pay and fringe benefits received by employees at 12 of the nation's large aerospace contractors and compare them to broad surveys of pay and benefits conducted by the Bureau of Labor Statistics (BLS) and the American Management Association (AMA).

Compensation is generally one of the largest cost items in contracts. For example, it accounted for an estimated 70 percent of Air Force contract costs. Department of Defense (DOD) contract cost principles provide that compensation costs are allowable if the costs are "reasonable." Determining the reasonableness of compensation has been a long-standing problem for DOD because of the difficulties associated with establishing specific criteria to measure reasonableness.

Based on our salary comparisons alone, we were unable to reach a conclusion on the reasonableness of compensation paid by the 12 contractors. The definition of reasonableness embodied in the Defense Acquisition Regulation (DAR)<sup>1</sup> lacks quantitative criteria, and there is no generally accepted pay survey to which contractors might be compared. Furthermore, we would need to examine other factors--such as industry and particular companies' conditions, and employee performance--to sustain findings regarding reasonableness in individual cases.

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<sup>1</sup>On April 1, 1984, the Defense Acquisition Regulation became part of the newly established Federal Acquisition Regulations System.

Our comparisons of compensation do, however, provide some insights and suggest that certain categories of employees have fared better in the aerospace industry than in the economy as a whole. Specifically

- Executive pay (salary and bonus), which was about one percent of the contractors' total payroll, averaged 42 percent more than the AMA average salary and bonus at comparably sized firms.
- Professional pay (salary), which ranged from 40 to 75 percent of the contractors' payroll, averaged about 2.5 percent below the BLS average (mean) monthly salary.
- Clerical and technical pay (earnings), which ranged from 10 to 20 percent of the contractors' payroll, averaged 9 percent more than the BLS average (mean) weekly earnings.
- Factory pay (earnings), which ranged from 5 to 40 percent of the contractors' payroll, averaged 8 percent more than the BLS average (mean) weekly earnings.

Our comparisons also showed wide variations in compensation among the contractors and among categories of employees.

We also found employee salaries and earnings increased faster than pay and prices in the economy as a whole from 1978 to 1983. Employees of the 12 contractors received the same types of fringe benefits (pension plans, life and health insurance, capital accumulation plans, and paid time off) identified in BLS's survey of medium and large sized firms. But a higher percentage of employer-paid benefits were available to contractor employees than were available to BLS surveyed employees. Also, some health benefit features were available more frequently to the contractor employees than to the BLS surveyed employees.

In response to another specific question you raised, we found employees of the 12 contractors work under the same pay schedules and benefit provisions whether they are working on a defense or a commercial project. Details of our analysis are summarized in appendix II.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

In responding to your request, we examined overall compensation paid to employees from 1978 to 1983 at 12 of the nation's large aerospace contractors. For the purpose of our presentation, we use the term pay when generally referring to salaries,

bonuses, and earnings. We use the term compensation when referring to both pay and fringe benefits. Otherwise, we use the specific terms applied by BLS--salary and earnings--to the amounts of money received by employees in the various categories.

The contractors listed in appendix I are business segments of larger corporations. Our examination covered compensation in the defense business segment, not compensation in the parent corporation. Each year, DOD awards negotiated contracts, involving billions of dollars, for which compensation is usually the major cost item. Under advertised or competitively priced contracts, specific cost categories such as compensation are not evaluated.

Although the term "aerospace" is difficult to define precisely, the 12 companies which we examined make major weapons and components, including aircraft, engines, missiles, spacecraft, and associated electronic equipment. On the average, each did over \$1.5 billion in business a year (from \$305 million to \$3.4 billion in 1982) of which 78 percent was government contracts (from 50.3 to 99.8 percent), and they employed an average of about 14,770 people (from 4,654 to 24,912). Because you asked for a geographically dispersed sample, we chose three from each of the four geographic areas for which the Bureau of Labor Statistics (BLS) gathers wage data.

We compared pay and benefit records from the selected contractors with survey data gathered by the BLS and the Executive Compensation Services, Inc., of the AMA. We used AMA survey data for executive compensation since executives are not covered by BLS. Both surveys are large, recognized, and publicly available, and both are frequently used by DOD activities reviewing compensation by defense contractors. Their data are particularly useful for pay comparisons by job because both publish bench mark descriptions for each job category they survey.

As is the case with any pay survey, both BLS and AMA found a range of pay rates. The BLS data express the range in a frequency distribution of four intervals with each containing one quarter of the total population. The middle range (the quarter either side of the middle) contains 50 percent of the total population. The AMA surveys provide an equation for estimating salary and bonus by executive position and a standard error of the estimate. The standard error determines the level of certainty one can have in the estimate. Both the BLS and AMA confidence measurements are shown in appendix II.

We recognize that both of these large surveys include a wide range of companies, many of which are markedly different from the 12 contractors we examined. We considered using smaller, more select surveys compiled by private firms or industry

associations, but determined those surveys had similar as well as some additional drawbacks. On balance, we believe the BLS and AMA surveys represent the best available data base on which to make the comparisons you requested. (See app. I for a detailed description of our methodology, including a discussion of AMA and BLS surveys.)

Our review was conducted during the period July 1983 through May 1984 and was made in accordance with generally accepted government auditing standards, except that we did not obtain contractor and agency comments.

#### EMPLOYEE COMPENSATION AT THE 12 CONTRACTORS

The following sections briefly summarize our analysis. To protect against disclosure of contractors' proprietary data, contractors are designated by different letters in each of the charts. Also, several charts contain fewer than 12 contractors, because particular data items could not be obtained from each contractor or inclusion of a particular contractor on a specific chart might have resulted in inadvertent disclosure of proprietary data. The data in the following charts are presented for 1982, the last year for which we gathered complete data. Appendix II presents data for the years 1978 to 1982, and 1983 average salary and earnings data for the professional, clerical, and technical and factory employee categories. The 1983 data for these categories are not materially different from the 1982 data.

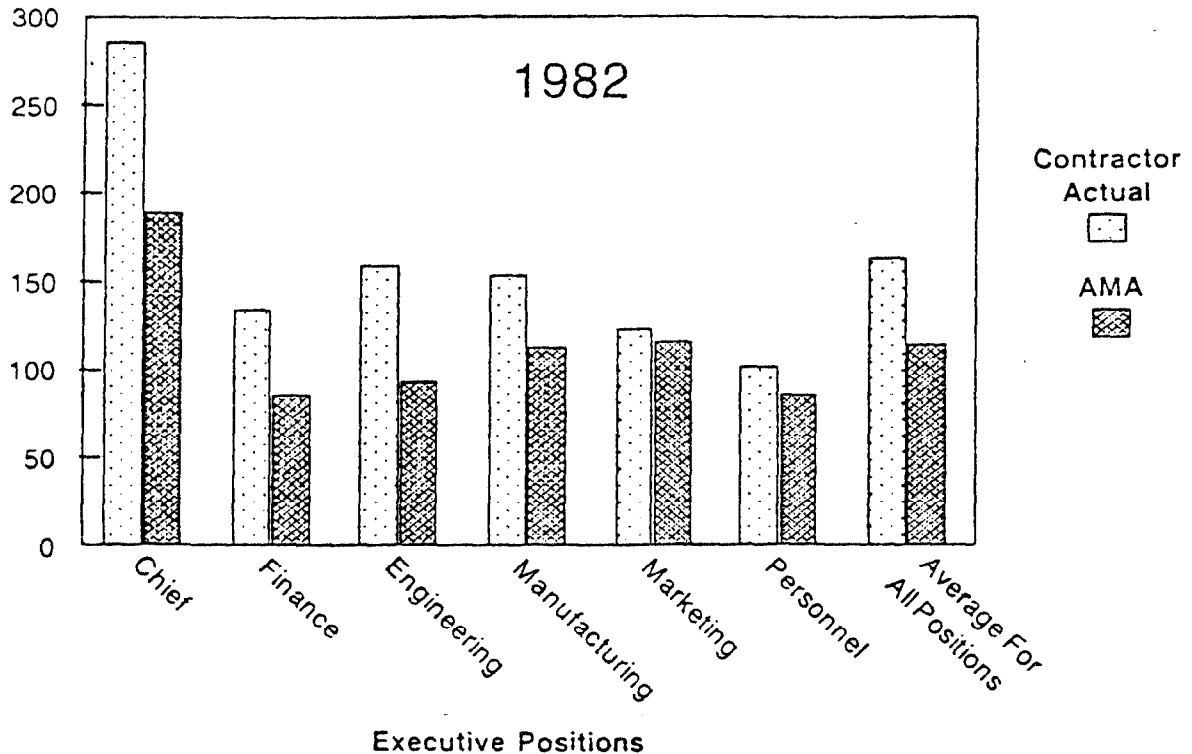
#### Executive salary, bonus, and perquisites

As chart I shows, we looked at average salaries and bonuses for six executive positions which were common to most of the selected contractors and for which the AMA gathers statistics. These executive positions pertained to the subdivisions making defense aerospace products and were compared to executive positions in similarly sized (sales) corporate subdivisions surveyed by AMA. The AMA average salary and bonus by executive position were estimated using the AMA equation. (See app. I, p. 6.) Executive salaries and bonuses accounted for less than one percent of these contractors' total payroll costs.

CHART I

AVERAGE ACTUAL EXECUTIVE SALARY  
AND BONUS BY POSITION COMPARED TO  
AMA AVERAGES BY POSITION

\$ (in thousands)

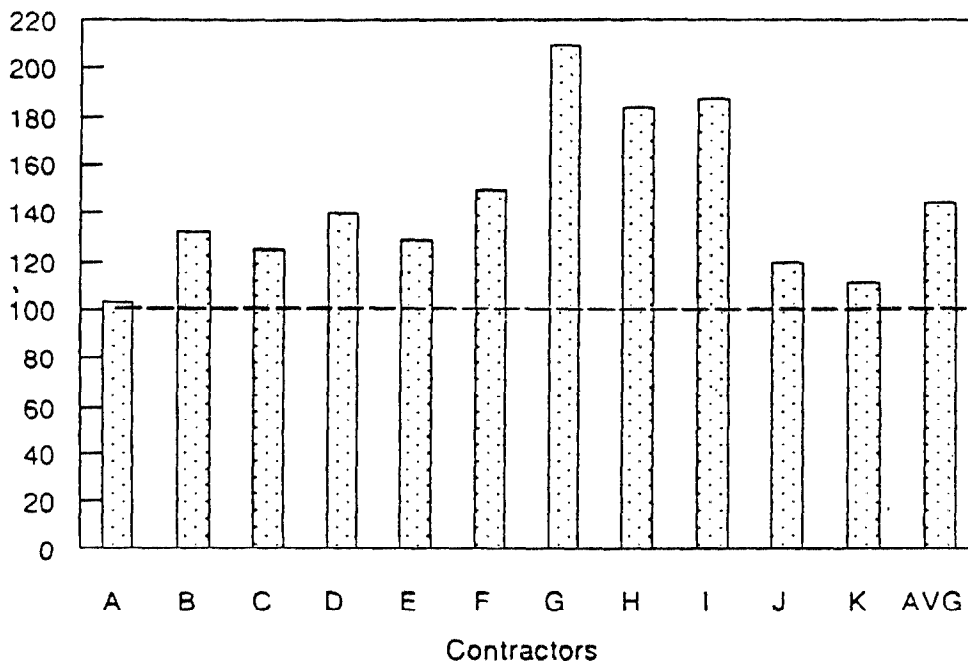


The relationship of executive salary and bonus to AMA averages varied among the six positions. Chief executive officers and the senior financial, engineering, and manufacturing executives were paid significantly more than 1982 AMA averages for these positions. Senior marketing and personnel executives were paid closer to the AMA averages. For example, the AMA average for chief executive officers was \$189,316; contractor chief executives were paid an average of \$285,494, or about 51 percent more. Marketing executives, on the other hand, were paid an average of \$122,920 or about 5 percent more than the AMA average of \$117,113. Overall, these six executive categories were paid 42 percent more than the AMA average salary and bonus at comparably sized (sales) firms.

There were also wide variations from contractor to contractor. Chart II shows differences among the contractors in salary and bonus paid to the executive group as a percentage of the AMA average for salaries and bonuses paid.

CHART II  
 THE CONTRACTORS' EXECUTIVE SALARY AND  
 BONUS LEVELS AS A PERCENTAGE OF  
 THE AMA AVERAGE, 1982  
 (AMA AVERAGE=100 PERCENT)

Percent of AMA Estimated  
 Salary and Bonus



All the contractors paid their executive group above the AMA averages, and one paid 109 percent more.

Some executives receive additional benefits, referred to as "perks," not available to all employees. Executive "perks" include such items as stock options, use of automobiles, social club memberships, and free travel for spouses. Some executives also receive executive dining areas, car washes, and haircuts. Assessing the economic value of such diverse benefits is impractical. In negotiating government contracts, some, but not all, costs incurred for these perks may be included in overhead accounts. Eight of the 12 contractors gave stock options to executives, 7 provided automobiles, 3 gave social club memberships, and 4 paid for company travel for spouses.

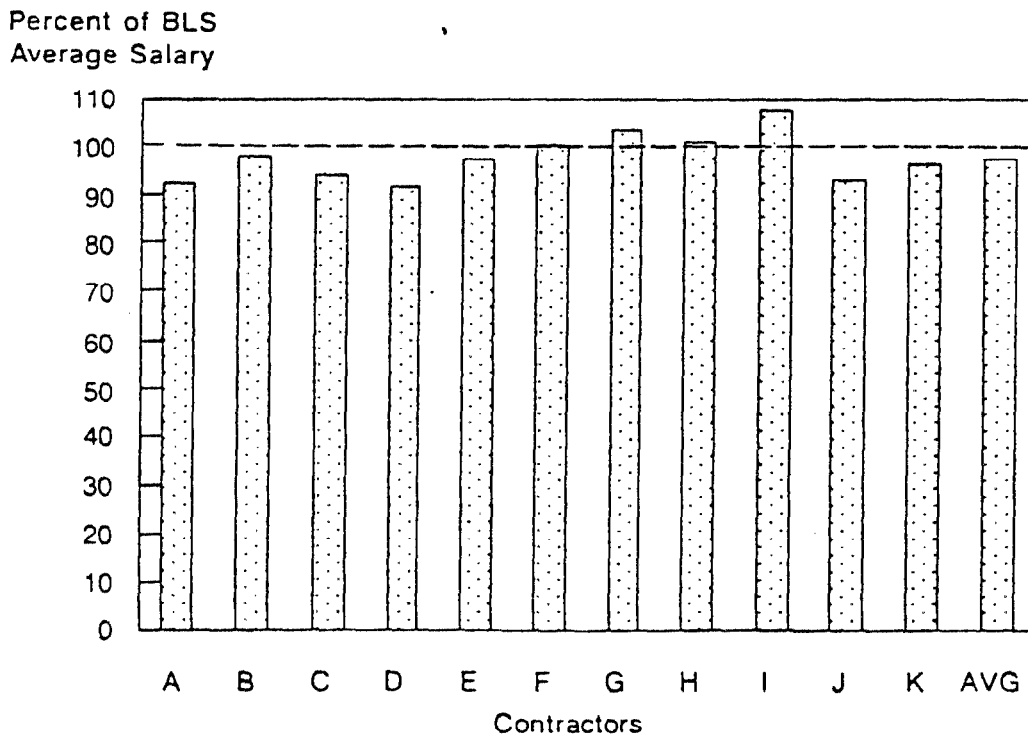
Professional salaries

Professionals include such job categories as engineers, accountants, and buyers, and accounted for the single largest



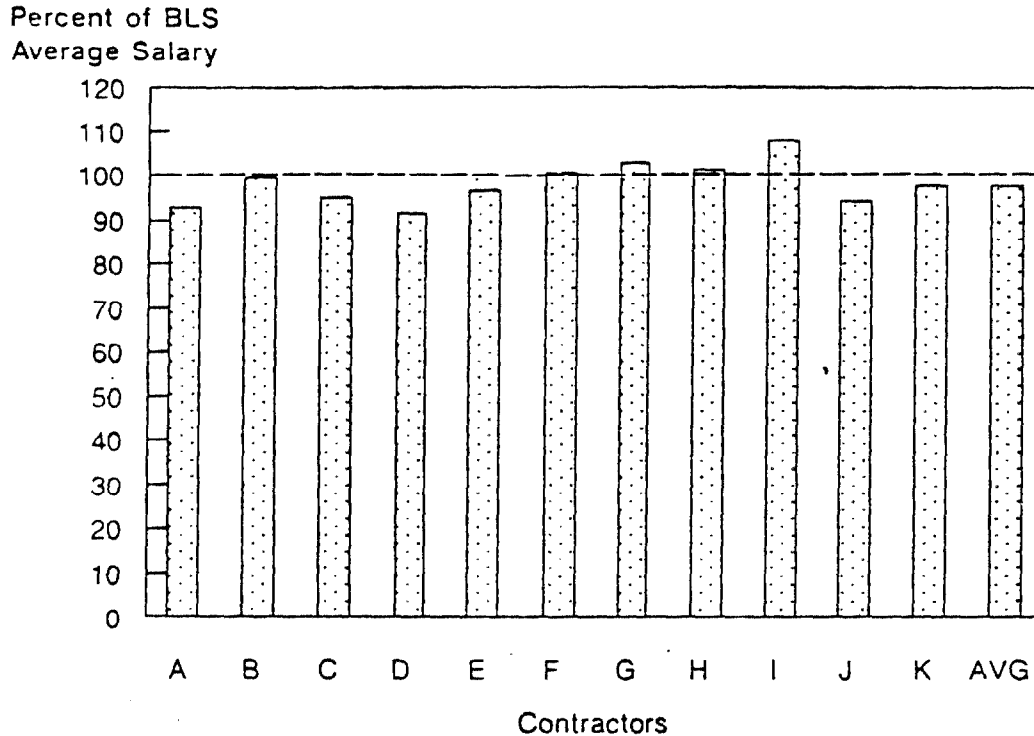
percentage of total payroll cost. Contractors more oriented toward research and development than production tend to have relatively more professionals than factory workers. At the contractors where data were readily available, professionals accounted for 40 to 75 percent of the total payroll. As chart III shows, the salaries for professional employees were slightly below the BLS average (mean) monthly salary for similar positions--averaging about 2.5 percent less. Our methodology for matching contractor jobs with BLS survey jobs is discussed in appendix I.

CHART III  
 THE CONTRACTORS' PROFESSIONAL SALARIES  
 AS A PERCENTAGE OF THE  
 BLS AVERAGE, 1982  
 (BLS AVERAGE=100 PERCENT)



As you requested, we also looked specifically at engineers' salaries. As shown on page 8, engineers were paid slightly below the BLS national average (mean) monthly salary at most contractors.

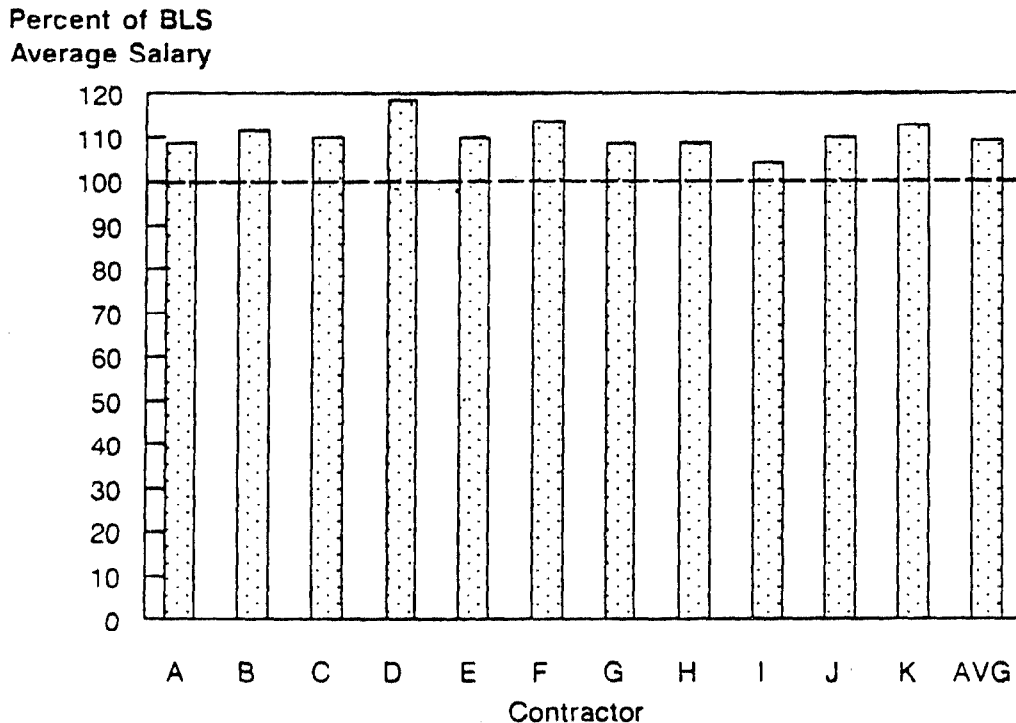
CHART IV  
 THE CONTRACTORS' ENGINEER SALARIES  
 AS A PERCENTAGE OF THE  
 BLS AVERAGE, 1982  
 (BLS AVERAGE=100 PERCENT)



Clerical and technical earnings

These categories include such jobs as secretary, typist, stenographer, accounting clerk, draftsman, key entry operator, messenger, computer operator, and engineering technician. At the contractors where data were readily available, these categories received from 10 to 20 percent of the total payroll.

CHART V  
 THE CONTRACTORS' CLERICAL AND TECHNICAL  
 EARNINGS AS A PERCENTAGE OF THE  
 BLS AVERAGE, 1982  
 (BLS AVERAGE=100 PERCENT)



Staff in these categories received an average of about 9 percent more than the BLS average (mean) weekly earnings for metropolitan areas at or near the contractors' locations. Aggregate earnings varied from about 4 to more than 18 percent above BLS levels; however, the variations within individual job categories were typically greater. For example, secretaries' earnings varied from 4 to 44 percent above BLS averages and draftsmen from the BLS average to 39 percent above.

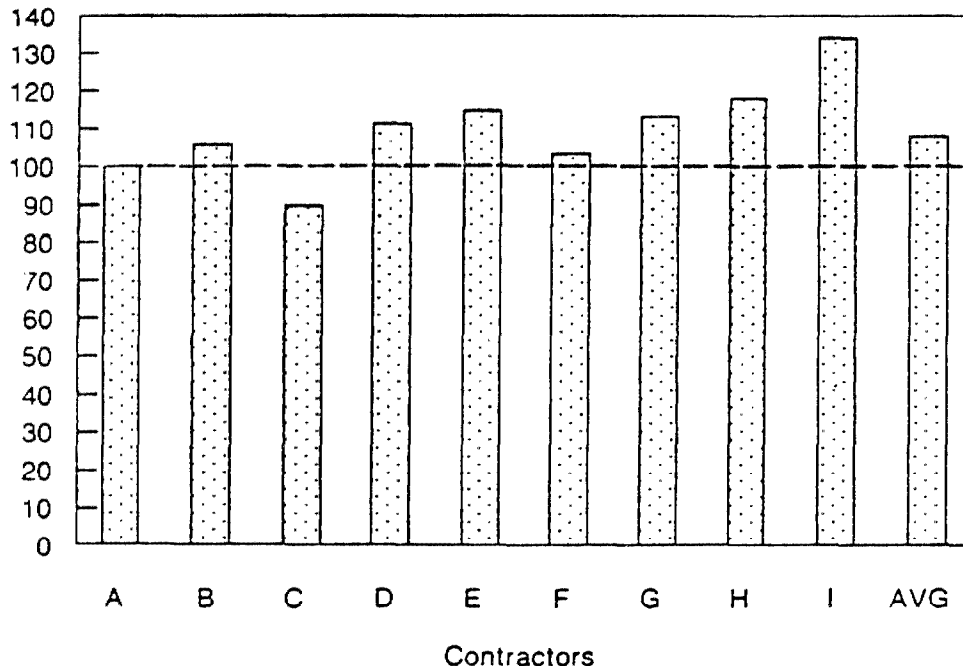
#### Factory earnings

This category includes traditional blue-collar jobs such as machinist, tool and die maker, electrician, guard, and janitor. At the contractors where data were readily available, this category represented from 5 to 40 percent of total payrolls, depending on how production-oriented the contractor was.

CHART VI

THE CONTRACTORS' FACTORY WORKER EARNINGS  
 AS A PERCENT OF THE BLS  
 AVERAGE, 1982  
 (BLS AVERAGE=100 PERCENT)

Percent of BLS  
 Average Salary

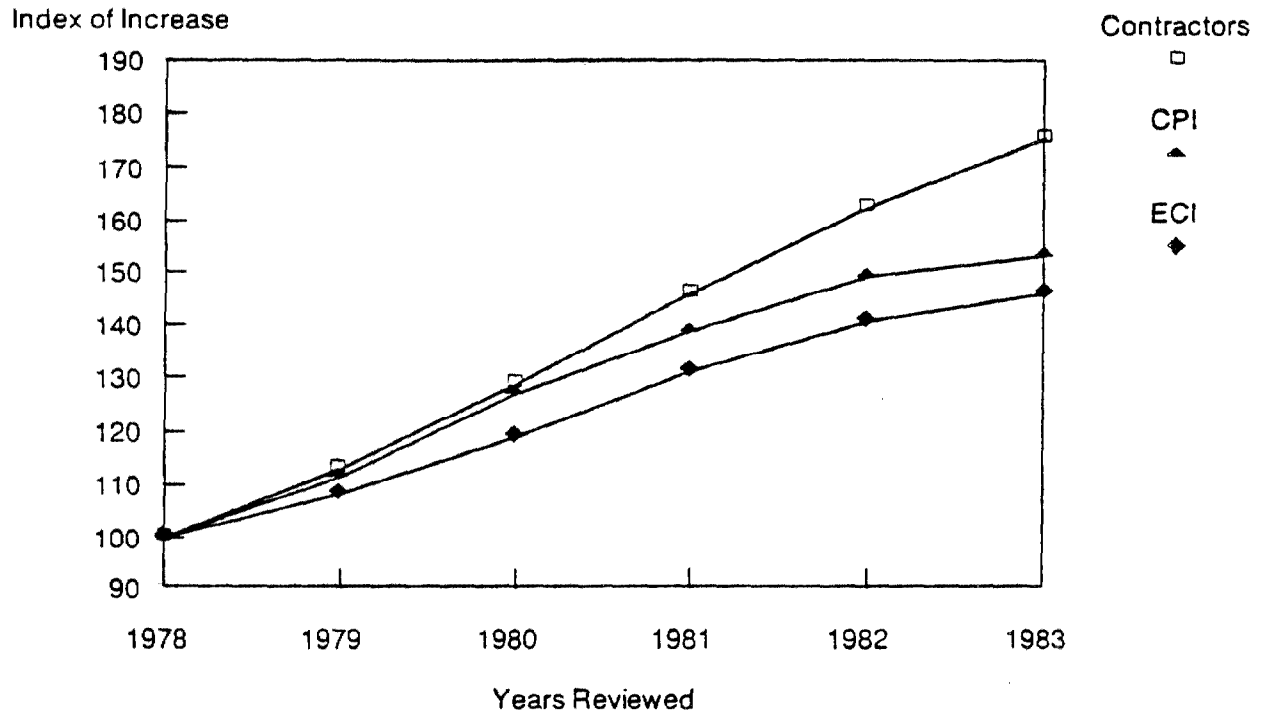


Earnings for these positions averaged 8 percent more than the BLS metropolitan average (mean) hourly earnings and ranged from almost 10 percent less to over 34 percent more at the different contractors. Like the clerical and technical category, this category includes many different jobs with wide variations in earnings. Janitors' earnings, for example, ranged from 4 to 58 percent more than BLS levels, and tool and die makers' ranged from 9 percent less to 19 percent more.

Pay increases from 1978 to 1983

At contractors where automated data were available (8 of 12 contractors), we compared employee pay increases with increases in the Consumer Price Index (CPI) and the BLS's Employment Cost Index (ECI). The CPI measures the cost to consumers of a fixed market basket of goods; similarly, the ECI measures the cost to employers of a fixed "market basket" of labor. As chart VII shows, pay for these employees increased more than either of the two indexes.

CHART VII  
**INCREASES IN CONTRACTOR'S PAY  
 COMPARED TO THE CPI AND ECI  
 (1978=100)**



Although pay in general (indexed by the ECI) increased less than prices (indexed by the CPI), the reverse was true for the contractors. Contractor pay increased by 75 percent between 1978 and 1983, while the CPI increased 53 percent. During this same period the ECI increased 45 percent.

### Employee benefits

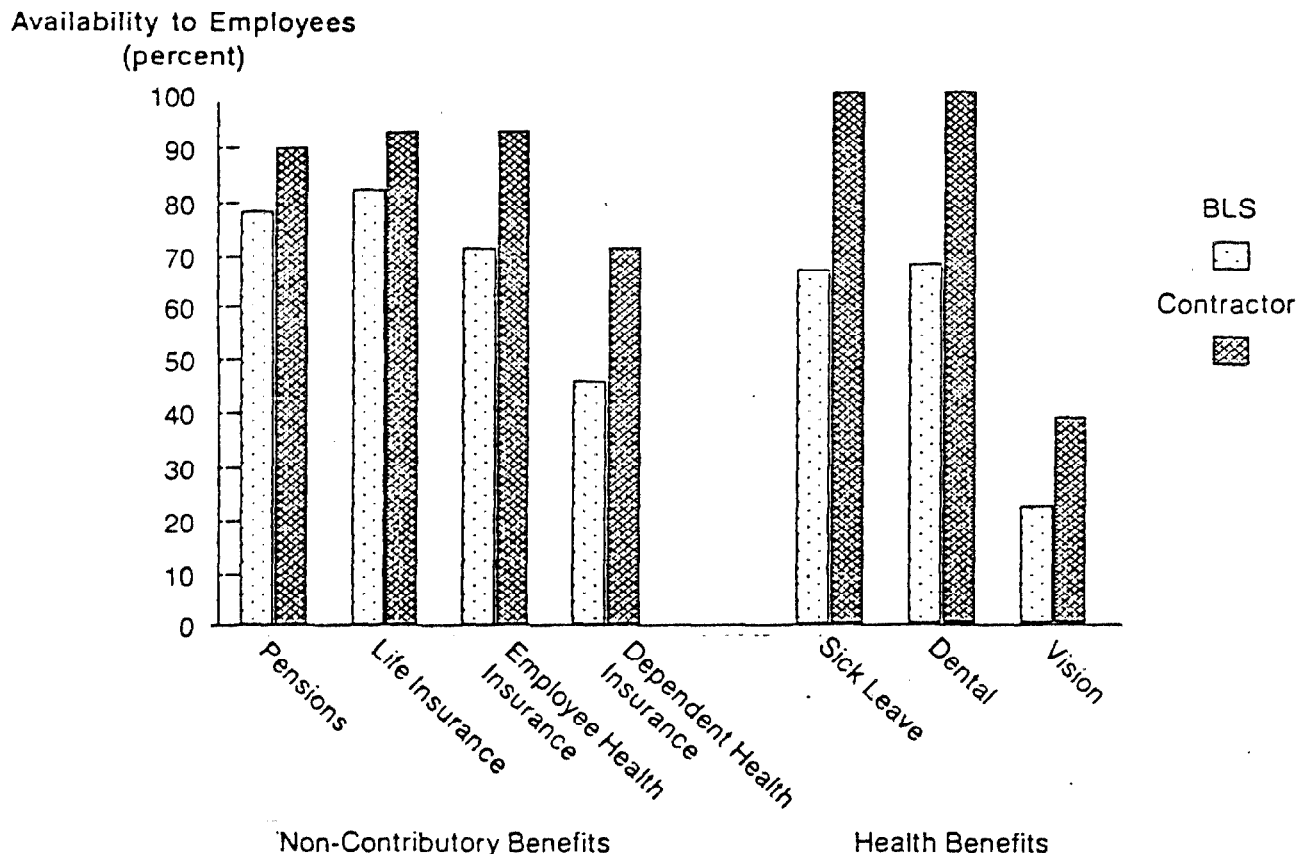
Benefits are generally defined as economic rewards other than pay that employees receive by virtue of being employed. There is no consensus over what economic rewards should be considered benefits, and over how to determine the comparative value of benefits. We compared the availability of the categories of benefits in BLS's survey entitled "Employee Benefits in Medium and Large Firms, 1982" with their availability in the 12 contractors. The firms surveyed by the BLS were on average smaller than the 12 contractors.

Some benefits, such as social security, are required by law and the employers' contributions are fixed by law. We did not examine these, but we concentrated on those benefits that employers might choose to provide and for which the employer

determines what and how much to contribute. Although some benefit decisions are made through collective bargaining agreements, the majority of the contractor employees were not members of collective bargaining units.

The non-required benefits may be noncontributory (the employee pays nothing) or contributory (the employee pays some of the cost). Such benefits include pensions, group insurance, employee morale and welfare programs, and company-assisted savings or investment plans. Chart VIII compares the noncontributory benefits and selected health benefits. The comparisons are made to BLS survey statistics.

CHART VIII  
BENEFITS AVAILABLE TO CONTRACTOR EMPLOYEES  
COMPARED TO BENEFITS AVAILABLE TO EMPLOYEES  
SURVEYED BY BLS  
1982



A higher percentage of employer-paid benefits was available to employees at the 12 contractors than in the BLS firms. Health insurance, one of the more expensive benefits, was available at no cost to 93 percent of the contractors' employees, as compared to 71 percent of the employees surveyed by BLS. Dental

plans were universally available to employees of the contractors.

The complexity of BLS's savings and investment plans (capital accumulation plans) data prevented a comparison on an "employee availability" basis. On a company basis, savings and investment plans were available at about 74 percent of the BLS firms, whereas they were available at 11 of the 12 contractors, or about 92 percent.

DOD EXPERIENCE IN  
EVALUATING COMPENSATION

The Defense Contract Administration Service (DCAS) and the Defense Contract Audit Agency (DCAA) are the two DOD activities primarily responsible for reviewing the reasonableness of contractor compensation. DCAS, a unit of the Defense Logistics Agency, reviews contractor employee compensation systems, and DCAA reviews contract cost proposals and audits costs charged against specific contracts. Both help the procurement contracting officer assess the reasonableness of costs in negotiated defense contracts.

Since about 1959, the DAR has contained provisions requiring that negotiated defense contracts include employee compensation costs only to the extent that they are reasonable. DAR 15-205.6 states the criteria for making the reasonableness judgment.

"Compensation is reasonable to the extent that the total amount paid or accrued is commensurate with compensation paid under the contractor's established policy and conforms generally to compensation paid by other firms of the same size, in the same industry, or in the same geographic area, for similar services ...." (Underscoring supplied.)

The definition of reasonableness lacks quantitative criteria, and the concept of reasonableness itself is difficult to enforce legally. Legally, reasonableness is based on the concept of the prudent person--to be reasonable, a claimed contract cost should not exceed what a prudent person would incur in conducting competitive business. In practice, it is difficult to specify how much the prudent person pays his or her employees.

The DAR requires only that compensation "conform generally" to comparable compensation, raising questions about the meaning of "conform generally" and about what compensation is comparable. Compensation data acceptable to all parties are usually not available to make the required comparisons. The broad based

and publicly available surveys prepared by BLS and AMA are not generally acceptable to the contractors because they include many companies that are unlike aerospace firms. On the other hand, the surveys preferred by the contractors cover only a select group of companies with similar compensation policies, and these surveys are usually not publicly available.

DCAS had performed compensation system reviews at 11 of the 12 contractors covered in our review and had issued 10 review reports. The evaluations were based on different comparative compensation data. At five locations, DCAS compared compensation paid by the contractors to average, nationwide compensation data developed by the AMA, and at two contractors DCAS compared the pay to area data developed by the BLS. At other locations DCAS used industry sponsored studies. In many of the job comparisons DCAS reported to support its conclusions, contractors' pay rates were higher than the comparative pay data.

Two reports showed that the evaluators were not given access to actual salaries and bonuses for executives. In one case, the DCAS protested the denial but completed the report without the data, giving a temporary approval and noting that an adequate evaluation of executive pay could not be made without actual pay records. In the other case, the report recommended a qualified acceptance of the contractor's system noting that the executive salary and bonus records were not available.

DCAS considered the compensation systems unacceptable at two locations primarily because the contractor pay exceeded comparative pay data. In both of these cases, the contractors objected to DCAS's reported findings on the basis that the comparable pay data used in making the judgment were not acceptable. Settlement of these cases through DOD's administrative process was ongoing at the completion of our field work.

DCAS and DCAA have had little success in substantiating findings that compensation was unreasonable. When such findings have been contested in court or before boards of contract appeal, the government has not fared well. These bodies have held that actual compensation costs incurred by contractors are presumed to be reasonable and that the burden is on the government to prove unreasonableness through detailed studies including highly specific information, such as employee qualifications and performance and industry conditions.

These difficulties led the Air Force to conclude that, for all practical purposes, the reasonableness criterion in the DAR is unenforceable and should be changed. The Air Force, in coordination with the other services, submitted proposals to the DAR council--the DOD body responsible for administering the DAR--to change the regulation in March 1984. These proposals



are intended to give the government greater authority to review and approve changes in contractor compensation systems, give the government more flexibility in determining the relevant comparative criteria, and put more of the burden on contractors for establishing that their compensation is reasonable. The proposed changes would also link bonuses and incentive pay to individual performance and make excessive severance payments unallowable.

DCAA and DCAS are also aware of the problem and are making efforts to increase and improve their evaluation of contractor compensation. DCAS is revising its compensation review program and received approval in January 1984 to increase its compensation review staff from 18 to 51.

DCAA issued additional criteria in March 1984 on assessing reasonableness of compensation for its field auditors' guidance and has undertaken an effort to identify studies and data for comparative purposes.

During our review we identified the changes and proposals discussed above; however, the scope of our work did not include an evaluation of the merits or probable effects of these. Also, additional changes may be planned or proposed which we did not identify since the primary focus of our review was not on those matters.

### CONCLUSIONS

In three of the four categories we reviewed--executives, clerical/technical, and factory--salary, bonus, and earnings in the 12 aerospace companies were higher than AMA and BLS averages. For professionals--the single largest pay grouping--salaries were about 2.5 percent below the BLS average. Salaries, bonuses, and earnings grew faster for the contractors where we were able to make comparisons than either the CPI or ECI, and employees at these companies have received more noncontributory benefits than employees at companies surveyed by BLS.

While these facts in themselves are not sufficient to determine whether this level of compensation is reasonable, they reinforce the importance of DOD contracting officials carefully examining compensation rates during contract negotiations. DOD is well aware of the problems associated with determining reasonableness of compensation and is taking steps to improve its capabilities to make such determinations, including proposals to change the DAR reasonableness definition.

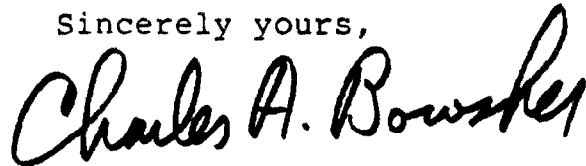
We agree that such initiatives are needed and endorse efforts to strengthen the hand of DOD contracting officers in negotiating contracts. We believe the fundamental solution rests with developing criteria which are viewed as acceptable

and fair both to DOD and the contractors and usable and enforceable by those charged with overseeing compensation reasonableness. In light of the ongoing DAR Council efforts to revise the criteria, we are not making recommendations at this time.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Chairmen, House and Senate Committees on Appropriations, Senate Committee on Governmental Affairs; the Director, Office of Management and Budget; the Secretary of Defense; the Director, Defense Logistics Agency; the Director, Defense Contract Audit Agency; and other interested parties.

We trust this report answers your request. Let us know if we can be of further assistance.

Sincerely yours,

A handwritten signature in black ink that reads "Charles A. Bowsher". The signature is written in a cursive, slightly slanted style.

Comptroller General  
of the United States

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ABBREVIATIONS

AMA	American Management Association
BLS	Bureau of Labor Statistics
CPI	Consumer Price Index
DAR	Defense Acquisition Regulation
DCAA	Defense Contract Audit Agency
DCAS	Defense Contract Administration Service
DLA	Defense Logistics Agency
DOD	Department of Defense
ECI	Employment Cost Index
GAO	General Accounting Office

OBJECTIVES, SCOPE, AND METHODOLOGY

In a letter dated March 23, 1983, the Chairman of the Legislation and National Security Subcommittee, House Committee on Government Operations, asked us to review compensation paid to employees in the aerospace industry. Specifically, we were asked to review the reasonableness of compensation paid in aerospace firms in relation to that paid employees in other industries.

Our review was to include a representative number of large DOD aerospace contractors in all sections of the country, and was to respond to specific questions regarding

- the pay and fringe benefits of executives, managers, engineers and other employees,
- whether the same pay and fringe benefits were paid to contractor employees working on commercial products, and
- how pay and fringe benefits compared to (1) data reported by the BLS and (2) compensation packages offered by similar firms producing non-defense goods.

After discussions with the subcommittee staff, we agreed to obtain data on employee compensation at 12 large defense aerospace contractors throughout the country and compare it with survey data developed by BLS and the Executive Compensation Service, Inc., of the American Management Association (AMA).

CAUTIONS ABOUT THE COMPARISONS

The pay and fringe benefit comparisons provide insights and perspective on compensation in the aerospace industry. However, generalizations cannot be formed about the whole industry from the 12 contractors' data because it is not a statistically projectable sample.

Moreover, comparisons are not conclusions; 10 percent more does not mean 10 percent too much. There are many variables relating to the companies, the labor markets, and the national economy as a whole that affect salary levels. Unless the analysis controls for differences in these variables, conclusions about the relevance of particular pay differentials are difficult.

A more comprehensive analysis would include company variables such as company size, because large companies typically pay more than small companies; the average turnover and length

of employment of the company's workforce, because long-term employees are usually at the high end of the pay scale for a job; and for executive bonuses and company profitability, because executive bonuses are often based on company profits.

Additionally, the analysis would include variations in regional growth rates or other factors (such as heavy layoffs by other local firms) that would tend to depress pay levels, shortages of key employee skills that would tend to inflate pay, and area cost-of-living and quality-of-life factors that may make employment in the area more or less attractive.

Finally, the analysis would include national economy factors such as a recession, an inflationary surge, and a large increase in defense expenditures occurring during the review period. These rapidly changing conditions have affected the aerospace industry differently from other sectors of the economy.

#### GOVERNMENT AGENCIES CONTACTED

In addition to the contractors visited, we contacted officials within the Office of the Secretary of the Air Force who are responsible for a DOD study of aerospace industry compensation levels and officials at Headquarters, Defense Logistics Agency; Headquarters, Defense Contract Audit Agency; the Defense Contract Audit Institute; and Headquarters, Air Force Contract Management Division, who monitor and evaluate contractor compensation.

At each contractor, we contacted local representatives of the Defense Contract Audit Agency and the respective Army, Air Force, Navy, or Defense Contract Administration Service Plant Representative Office. At three locations we met with Defense Contract Administration Service regional officials who conduct periodic evaluations of contractor compensation systems. We also contacted officials of the Bureau of Labor Statistics and the Department of Commerce who are responsible for gathering and analyzing data on pay and fringe benefits.

#### CONTRACTORS REVIEWED

We selected 12 contractor locations for review. The selection process was structured to ensure that the sample included a geographical dispersion of locations throughout the nation and that the total volume of sales and employment included in the sample would represent a significant share of defense aerospace sales and employment. The 12 contractor locations selected are as follows.

Contractor Locations Selected for Review

Boeing Military Airplane Company; Wichita, KS  
Parent: Boeing Company; Seattle, WA

General Dynamics - Fort Worth Division; Fort Worth, TX  
Parent: General Dynamics Corporation; St. Louis, MO

General Electric, Aircraft Engine Business Group; Evendale, OH  
Parent: General Electric Company; Schenectady, NY

Grumman Aerospace Corporation; Bethpage, NY  
Parent: Grumman Corporation; Bethpage, NY

Hughes Helicopter, Inc.; Culver City, CA  
Parent: McDonnell Douglas Corporation (Jan. 1984);  
St. Louis, MO

Lockheed-Georgia Company; Marietta, GA  
Parent: Lockheed Corporation; Los Angeles, CA

LTV Aerospace and Defense Company; Dallas, TX  
Parent: LTV Corporation; Dallas, TX

McDonnell Aircraft Corporation; St. Louis, MO  
Parent: McDonnell-Douglas Corporation; St. Louis, MO

Northrop Corporation, Aircraft Division; Hawthorne, CA  
Parent: Northrop Corporation, Los Angeles, CA

Raytheon Company, Missile Systems Division; Bedford, MA  
Parent: Raytheon Company; Lexington, MA

Sikorsky Aircraft Division; Stratford, CT  
Parent: United Technologies Corporation; Hartford, CT

TRW Electronics and Defense Sector; Redondo Beach, CA  
Parent: TRW, Inc.; Cleveland, OH

The BLS divides the nation into four major regions for certain statistical reporting purposes. The contractors selected include three in each of the four regions.

Each of the 12 contractors currently holds large dollar amounts of defense contracts. In 1982, 78 percent of the 12 contractors' total business (\$18.6 billion) was conducted with the government. Total employment at the 12 aerospace contractors was about 177,000 in 1982. While there is no BLS employment figure for the aerospace industry, two major industry segments--aircraft, and missile and space vehicles--which make



up most of the aerospace industry, employed about 733,500 people in 1982 BLS reports. Based on this data, we believe our survey included a substantial portion of the aerospace industry.

In selecting the 12 contractors, we followed the general concept of the business establishment used by the BLS. A large corporation may have several major divisions or segments located in different areas of the country manufacturing different types of products. We defined the locations or contractor establishment included in our review as a business segment of each corporation whose employees were located in a contiguous geographic area and engaged in essentially a single line of business--manufacturing defense aerospace products.

#### Data gathered for review

At each contractor reviewed, we requested general information on the establishment's structure and operations and specific records on employee pay and fringe benefit costs. The general information requested included policies and procedures established both at the contractor location and at the corporate headquarters level governing pay management and fringe benefit packages. In addition, we gathered information on accounting procedures for accumulating the cost of salaries, earnings, and fringe benefits and descriptive data on the contractor's volume of business and employment levels.

At each contractor we requested payroll records in magnetic tape format for employees over the period 1978 through 1983. We requested records for the pay period including June 12th of each year. The BLS gathers data for the pay periods that include the 12th day of the month in its earnings surveys. Since the BLS surveys were for various months, we chose the mid-year month to minimize the effects of survey timing. Five contractors provided earnings records in the requested format. Three provided records in an alternate, but acceptable, magnetic tape format. Earnings records from these eight contractors were analyzed using computer assisted techniques. Four firms did not maintain historical payroll records in a magnetic tape format and were requested to provide the data they had supplied BLS for BLS earnings surveys.

To analyze fringe benefits at the establishments reviewed, we obtained cost totals for the years 1978 through 1982 for accounts used to record fringe benefit-related expenses. In addition to cost information on fringe benefits, we obtained copies of descriptive brochures and other documents outlining the types of fringe benefit plans offered by the contractors and the provisions of the plans.

We examined records for the period 1978 through 1983. The most recent records examined to determine fringe benefits and

executive salary and perks were for the accounting year most recently completed at the time of our review, January 1, 1982, through December 31, 1982. To determine employee pay, we examined contractors' payroll records for each year through a mid-year pay period that included June 12, 1983.

One contractor did not have a bonus plan for executives. Since bonus was a major part of executive compensation at other contractors, the tables comparing executives exclude the non-bonus contractor. One contractor did not have historical pay data in magnetic tape format nor BLS input data. Consequently, the contractor's pay records could not be readily compared with BLS averages. Finally, some contractors did not have data for all years or data for specific job classification. For these reasons, our analysis did not in all cases include data for all 12 contractors.

#### STANDARDS OF REVIEW

This review was conducted in accordance with generally accepted government auditing standards, except that we did not obtain contractor and agency comments on a draft of this report. A departure from the customary audit procedure of verifying summary records to records of original entry was necessary to accommodate the privacy of employee pay data provided by the contractors.

A principal data base for this review consisted of payroll records covering employees at the contractor locations over a 6-year period, containing more than 700,000 individual pay records. To accommodate this volume of records and protect the privacy of individual data, we used alternate audit procedures to satisfy ourselves that the audit evidence was valid, complete, and sufficient. We have retained sufficient evidence in our working papers to support our report. However, to protect individual privacy, the data retained cannot be related to individuals.

#### METHODOLOGY

Experts generally identify two ways of comparing a firm's compensation to that paid by other firms: job content analysis and bench mark position analysis. We used the bench mark position analysis method, which involves identifying generic positions that are common to many organizations for comparative purposes.

Bench mark position surveys vary in their reliability and usefulness. Experts identify two characteristics of a good survey: a broad scope and care in assuring that positions compared are similar. A broad survey scope, covering a large number of organizations, minimizes the chance that peculiarities in one

organization's compensation practices will distort the survey results. Attention to position comparability, including distribution of bench mark position descriptions for jobs surveyed, reduces the possibility that a survey's usefulness will be undermined by comparing positions with similar titles but markedly different duties.

Comparative baselines for evaluating pay levels at a particular firm are generally obtained by conducting pay surveys. Both the BLS and the AMA conduct broad-scoped, publicly available pay surveys covering employees throughout the nation in all types of industries. We chose to use these surveys because they were broad-based, recognized, and publicly available.

Many other surveys exist. Several aerospace and related firms sponsor nationwide pay surveys of professional employees in the industry. Employers' associations in several major metropolitan areas sponsor pay surveys for their area. Some of the contractors reviewed also surveyed firms they considered important competitors in either labor or product markets. These surveys were generally more narrow in scope than the BLS and AMA surveys.

#### Executive salary and bonus

The AMA has conducted and published the results of executive salary and bonus surveys for more than 30 years. The most recent survey, covering 1982, gathered information on 15,679 executive positions at 1,969 companies. In analyzing its survey data, the AMA correlates the salary and bonus level with the company sales level. Analysis results are reported as an equation of the form:

$$\log y = a(\log x) + b$$

Where: y = Executive salary and bonus  
 x = Company sales  
 and a and b are constants  
 describing the correlation  
 relationship

We used this AMA equation and AMA data for divisional management in the durable goods manufacturing section of the economy to estimate salaries and bonuses for the specific executive positions we examined. We then compared the estimated salaries and bonuses to actual amounts paid by the contractors.

The following example illustrates the calculations to estimate the salary and bonus for a division chief executive managing a division with \$1 billion annual sales. In the 1982 AMA

division chief equation,  $a = .173$ , and  $b = 2.215$ . Salary and bonus (y) is expressed in hundreds of dollars, and annual sales (x) is expressed in thousands of dollars. Using the AMA equation, the estimated salary and bonus (y) for a division chief executive, whose division has \$1 billion annual sales (x), is \$179,061 for 1982.

In reporting survey results, the AMA distinguishes between executives of independent companies--corporate headquarters executives--and executives at divisions that operate under the general policy guidance and direction of a corporate headquarters. The contractors we reviewed were organizationally related to their corporate parents in a variety of ways--some were divisions, others were business groups comprising several divisions, others were separately incorporated subsidiaries of the parent company. Executives at the contractor locations did, however, operate under the general policy guidance and direction of a corporate headquarters. We compared actual salaries and bonuses at the 12 contractors to estimated salaries and bonuses we computed using the AMA equation and the AMA survey results for division-level executives.

We reviewed salary and bonuses for six executive positions: the chief executive, the senior financial executive, the senior manufacturing or operations executive, the senior engineering executive, the senior marketing executive, and the senior human resources or personnel executive. We selected these six positions because they were common to most of the contractors and represented a range of areas of management responsibility.

The duties of comparable executive positions at different firms are not identical, and at some of the contractors certain executives were responsible for functions not traditionally associated with their positions. For example, one contractor's senior engineering executive was also responsible for aircraft flight test operations. Another contractor's senior human resources executive was also responsible for such administrative functions as the mail distribution system and the security guard force. Industry officials explained that these differing duties were considered in setting salary and bonuses for executives and could explain some deviations from survey projections. In cases where we believed large discrepancies existed between the duties of the closest comparable aerospace executive and the standard AMA executive position description, we deleted that executive salary and bonus from all comparisons.

#### Levels of employee salary and earnings

The BLS conducts annual surveys of average salaries or earnings for professional, administrative, technical, and clerical occupations throughout the nation. It also conducts

annual surveys of average earnings for clerical, technical, and factory occupations in selected metropolitan areas. The universe for the Bureau's 1982 survey of professional, administrative, technical, and clerical occupations covered about 23.2 million employees in over 44,000 establishments. The 1982 area surveys covered from 86,000 to about 1.5 million employees in individual metropolitan areas examined.

The Bureau's surveys gather information on about 60 occupational groups. The Bureau publishes an occupational description for each category surveyed to assist in classifying workers employed under various payroll titles with comparable job content.

For the eight contractors that provided pay records in magnetic tape format, we reviewed job titles and job descriptions they provided to identify employees with duties similar to the BLS occupational categories. We then analyzed the pay data they provided to develop average pay levels for job groups similar to the BLS categories.

For the four contractors that did not maintain payroll records in magnetic tape format, we requested their input to the BLS surveys of professional, administrative, technical, and clerical occupations, if available. For this latter group of contractors, we did not verify the completeness or accuracy of the input. One contractor had no record of BLS input, and we were unable to match their occupations.

The following table shows the extent of job matching.

<u>Percentage of Jobs Matched</u>	<u>Number of Contractors</u>
10	2
11 - 15	0
16 - 20	4
21 - 25	3
26 - 30	<u>2</u>
Total	<u>11</u>

We believe that the comparisons we have made are indicative of the general trend of the contractor pay levels. Compensation management procedures at several of the contractors recognize that pay levels for all jobs cannot be directly compared to external market levels. Accordingly, jobs are ranked and compared internally, with jobs having similar levels of skill and responsibility being paid at similar rates. Surveys are used to

maintain pay comparability with the labor market for those bench mark jobs that can be priced directly.

The geographical scope of the labor market for different categories of employees is generally considered to vary. The labor market for professional employees is sometimes considered to be national in scope, while the market for clerical and factory employees is more local. The BLS, for example, publishes only national salary data for professional job titles, both national and metropolitan area data for clerical personnel, and only metropolitan area data for factory employees. We used BLS metropolitan area data as a comparative base for clerical and factory employees.

### Increases in employee pay

In analyzing trends in pay since 1978, we determined the percentage increase in base pay rate from year to year for each contractor employee and the mean percentage increase for the contractors. This analysis considered the absolute percentage increase in base pay for each employee, and thus the mean rate of escalation includes increases due to job upgrades, advancements, and promotions and decreases due to demotions and downgrades, as well as increases in base pay rates. Pay escalation for individual employees varied widely for each contractor. This analysis was made only for the eight contractors who provided magnetic tape data.

We compared the contractor increases to the CPI (urban) for June each year and the ECI for durable good manufacturing workers.

### Employee fringe benefits

The BLS conducts an annual survey of employee fringe benefits in medium and large firms. The survey, begun in 1979, covers a universe of about 23 million employees in about 44,000 firms representing a cross-section of industries. The BLS survey covers 11 categories of employee benefits provided by employers and gathers data on the percentage of employees provided benefits and the frequency of common benefit features. We analyzed fringe benefits by comparing the incidence of selected benefits and benefit provisions at the 12 contractors to their frequency in the BLS universe of medium and large firms for 1982.

The BLS reports statistics on the percentage of surveyed employees provided various benefits and benefit plan features. In interpreting the incidence rate for particular benefit plan features, it is important to remember that the statistics sometimes include employees who are not provided the basic benefit.

For instance, the BLS survey showed that 78 percent of the surveyed employees had a noncontributory pension plan. The remaining 22 percent included employees who had a contributory pension plan and others who had no pension plan. Of the employees covered by a pension plan, 93 percent had noncontributory pensions.

We did not adjust the BLS survey statistics on benefit plan features to reflect the incidence rate of a feature only among those employees having the basic benefit. Our purpose was to compare benefits and features at the 12 contractors to the total BLS universe rather than to just those employees provided a benefit.

During the review, we gathered extensive data on the cost of various fringe benefit programs at the 12 contractors. We identified two major broad-scoped surveys of fringe benefit costs. For our purposes, both of these had shortcomings as comparative bases. One, conducted annually by the U.S. Chamber of Commerce, covers a reasonably complete range of benefit types, but accumulates cost data for non-exempt employees only. The other, the Annual Survey of Manufacturers conducted by the Bureau of the Census, gathers cost data for all employees, but does not report data separately for the cost of paid time off.

Differences in the contractor cost records also presented comparison difficulties. The contractors followed different accounting procedures in recording benefit costs, and some benefit costs were not recorded separately. Benefit costs, we concluded, were not a satisfactory measure of the benefit employees derive from some benefit programs. Therefore, we did not draw any conclusions from our examination of benefit costs. Further, benefit costs are not included in the compensation comparisons. We believe they should be considered, but a satisfactory means of consistently doing so would have to be developed and tested.

REVIEW OF EMPLOYEE COMPENSATION AT 12  
DEFENSE CONTRACTORS

INTRODUCTION

Compensation for personal services includes all remuneration paid currently or accrued, in whatever form and whether paid immediately or deferred, for services rendered by employees to a contractor during the period of contract performance. It includes, but is not limited to, salaries; directors' and executive committee members' fees; bonuses (including stock bonuses); i.e., incentive awards, employee stock options, stock appreciation rights, and stock ownership plans; employee insurance; fringe benefits; contributions to pension, annuity, and management employee incentive compensation plans; and allowances for off-site pay, incentive pay, location allowances, hardship pay, severance pay, and cost of living differential. Compensation for personal services is an allowable contract cost if it complies with DOD cost principles.

DOD has long had cost principles to determine the allowability of contract costs. For negotiated fixed price contracts, cost principles are used to develop a price negotiation position. For negotiated cost reimbursement contracts, cost principles are used to determine the proper amount of reimbursable compensation costs. The principles are also used to establish or negotiate overhead rates for both types of negotiated contracts.

Compensation costs are usually the largest element of defense contract costs and the most difficult to evaluate. The Air Force analyzed 5 years of historical data on contracts at plants under Air Force administration and reported in 1982 that compensation for prime contract and subcontract employees constituted about 70 percent of the total costs incurred. Thus, Defense's compensation cost principles are a major guideline for evaluating the acceptance of compensation cost.

In evaluating pay by comparison to publicly available surveys, we expressed contractor pay as average (mean) salary and earnings (hourly, weekly, or monthly), excluding premium pay such as overtime or shift differential. Our comparisons are of average (mean) salaries and earnings, including bonuses where applicable. We were unable to quantify most fringe benefits in terms of value to employee for comparison. Also, we were unable to find useful comparative fringe benefit surveys expressed in dollars. For these reasons, fringe benefits are not included in any dollar comparisons of salary, bonus, and earnings.



### Defense regulations

The Defense Acquisition Regulations (DAR) have, since about 1959, contained a provision in the cost principles section dealing with compensation for personnel services. With regard to reasonableness, the cost principle (DAR 15-205.6) states in part that

"Compensation is reasonable to the extent that the total amount paid or accrued is commensurate with compensation paid under the contractor's established policy and conforms generally to compensation paid by other firms of the same size, in the same industry, or in the same geographic area, for similar services...."

### Defense administration of the compensation cost principle

The Defense Logistics Agency (DLA) was designated the DOD executive agency for defense contractor employee compensation systems reviews in December 1983. This designation recognized the fact that DLA had an ongoing program for this purpose and was doing compensation systems reviews. The DLA contract administration group, the DCAS, published guidance for its contractor compensation system review program in 1970 and applies the program at large plants under DLA administration--currently about 338 plants. At the 75 contractor plants under military service administration, the service may request DCAS compensation systems reviews.

The compensation system review concept differs from traditional contract pricing reviews. Compensation system reviews assess the probability that the contractor's compensation system will produce reasonable compensation rather than whether compensation costs proposed for a specific contract are reasonable. Since future compensation costs are a critical part of pricing most contracts, it is important that proposed changes in compensation be evaluated when pricing a specific contract. This is usually done by the DCAA, which reviews compensation cost for both prime contracts and subcontracts. Thus, both the DCAS and the DCAA assist the procurement contracting officer in assuring that compensation costs are reasonable in negotiated defense contracts.

### Twelve contractors GAO reviewed

The criteria used to select the 12 contractors reviewed are described in appendix I. (See pp. 1 and 2.) Briefly, the contractors produce major military hardware, do a large volume of business with the government, and employ a large number of

people. Table I shows selected aggregated business statistics for the 12 contractors.

Table I  
Selected Business Data for  
the 12 Contractors

<u>Data item</u>	<u>Period of review</u>				
	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Number of employees	139,213	153,829	170,104	174,946	177,246
Total sales <sup>a</sup> (in billions)	\$10.347	\$11.831	\$14.522	\$16.836	\$18.581
Government sales (in billions)	\$ 7.325	\$ 8.349	\$10.218	\$12.593	\$14.539
Government sales as a percentage of total	70.8%	70.6%	70.4%	74.8%	78.3%

<sup>a</sup>This figure includes both division sales and division work-in-process accounts expressed as equivalent sales.

The table shows that the 12 contractors increased their business from 1978 to 1982, but as with most aggregated data, this table masks the individual contractor trends. One contractor had reduced business in the middle years but returned to nearly its 1978 volume in 1982. The remainder have had upward business trends, but at different rates. Their government sales have been primarily in fixed-price contracts with a few cost-type contracts.

#### EMPLOYEE PAY AT THE 12 CONTRACTORS

Salary and earnings are the most easily quantified segment of employee compensation. Managing compensation levels requires a balance to be struck--a firm must pay enough to attract and retain qualified employees, but not so much as to make the prices of the firm's products noncompetitive in the marketplace. For salary and earnings costs included in the prices of government contracts, the DAR has long had a requirement that compensation costs be reasonable. The DAR further defines reasonable costs as those that do not exceed what would be incurred by an ordinary, prudent person in the conduct of competitive business. While reasonableness is generally accepted as a goal for pay, there is less acceptance of specific standards and measures of reasonableness.

### Executive salaries and bonuses

Actual salary and bonus for executives at the contractors reviewed were usually higher than the salary and bonus estimates for executives holding similar positions in durable goods manufacturing divisions surveyed by AMA. Executive salary and bonus at the contractors averaged about 42 percent higher in 1982 than salary and bonus levels estimated using the AMA executive compensation equation.<sup>1</sup> Incentive compensation or bonus payments represented a larger share of the compensation package for executives at these contractors than at other companies surveyed by AMA. We also noted that these executives were provided other special benefits, commonly referred to as executive "perks." The compensation value of these special benefits was not evaluated because their monetary value is difficult to establish. Also, the incidence of these "perks" at other companies was not readily available for comparison.

In analyzing its survey data on executive salaries and bonuses, the AMA correlates the level of salary and bonus with the level of company sales or division sales. The results of this analysis are reported as an equation.

Although salary and bonuses for executives at the 12 contractors were higher than at other firms, these costs are not a major part of total payroll costs. The DCAS, in reviewing compensation costs at some of our contractors, found that salary and bonuses for top executives typically represented less than one percent of total payroll. Our analysis of executive positions supports this conclusion.

### Executive salary and bonus

The divergence from estimates made with the AMA equation was more marked for some positions than for others. Salary and bonus for the chief executives and the senior engineering and financial executives at the contractors showed the greatest divergence from the estimates during the 5-year period. Compensation for the senior marketing and personnel executives was closer to the estimates. (See table II.)

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<sup>1</sup>See page 6, appendix I.

Table II  
Average Actual Salary and Bonus for Executive Positions Reviewed at 11  
Contractors by Executive Position Compared to AMA  
Average Estimate by Position<sup>a</sup>

<u>Position</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Chief executive	\$171,983	\$198,215	\$231,605	\$249,941	\$285,494
Percent of AMA estimate	136%	125%	136%	130%	151%
Standard error <sup>b</sup>	4.8%	10.6%	10.2%	10.5%	9.6%
Senior financial executive	84,365	97,049	98,262	116,095	134,114
Percent of AMA estimate	143%	145%	129%	141%	156%
Standard error	4.3%	8.9%	8.8%	8.9%	8.9%
Senior engineering executive	105,363	108,766	125,680	141,128	159,749
Percent of AMA estimate	160%	149%	148%	165%	171%
Standard error	4.8%	9.0%	8.8%	9.4%	10.3%
Senior manufacturing executive	94,513	110,375	114,550	128,727	153,621
Percent of AMA estimate	126%	125%	118%	119%	136%
Standard error	4.8%	10.0%	8.8%	8.9%	8.0%
Senior marketing executive	85,540	96,975	101,331	109,427	122,920
Percent of AMA estimate	105%	108%	98%	98%	105%
Standard error	4.9%	10.5%	9.7%	11.5%	9.9%
Senior personnel executive	69,134	81,187	88,959	91,699	102,244
Percent of AMA estimate	131%	124%	121%	117%	118%
Standard error	3.9%	9.5%	8.5%	9.1%	8.0%

<sup>a</sup>One contractor without a bonus plan is excluded from this table because inclusion with bonus paying contractors could distort comparison.

<sup>b</sup>The figures shown in table II are averages of salary and bonus data collected from the 11 contractors. The estimated standard errors shown in table II pertain to these averages. In some cases where positions were vacant or no comparable position existed at the contractor's location, averages include less than 11 salary and bonus observations. In each case cited in the table, the standard error published in the AMA survey was reduced by the square root of the sample size of the corresponding average to obtain the standard error shown.

Salary and bonus estimates we calculated using the AMA estimating equation have a standard error, as shown in table II, which denotes the level of certainty of the estimates. The salary and bonus differential between aerospace executives and durable goods manufacturing executives varies by position. For example, chief executive officers in the aerospace industry received from 125 percent (in 1979) to 151 percent (in 1982) more than their counterparts in the durable goods manufacturing industry. This difference in salary and bonus levels is statistically significant at the 95 percent level<sup>2</sup> in every year on our sample. Similarly, aerospace financial executives, engineering executives, and manufacturing executives earned more salary and bonus than their durable goods executive counterparts. These differences were also statistically significant in every year on the sample.

Aerospace personnel executives made from 117 percent to 131 percent more than durable goods personnel executives. This difference was statistically significant in every year except 1981. Finally, aerospace marketing executives made only slightly more than their durable goods executive counterparts in 1978, 1979, and 1982. In 1980 and 1981, the aerospace marketing executives made slightly less than the comparable durable goods executives. The differences in salary and bonus among marketing executives were not statistically significant in any year of the sample.

The average compensation for the group of executive positions that we examined was closer to the AMA estimate at some locations than others. (See table III.)

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<sup>2</sup>Statistically speaking, at this level, we are certain 95 times out of 100 that the estimates are significant.

Table III  
Average Actual Salary and Bonus for Executive Positions Reviewed at 11  
Contractors by Contractor Compared to AMA  
Average Estimate by Position

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Contractor A	\$ 88,600	\$ 98,833	\$104,667	\$107,000	\$123,167
Percent of AMA estimate	120%	109%	98%	91%	102%
Contractor B	98,310	94,529	99,308	114,975	143,858
Percent of AMA estimate	115%	114%	107%	110%	133%
Contractor C	121,103	144,127	154,247	171,099	160,799
Percent of AMA estimate	136%	133%	131%	136%	124%
Contractor D	85,689	94,433	112,695	128,042	150,766
Percent of AMA estimate	113%	108%	118%	125%	140%
Contractor E	79,983	100,267	111,717	103,583	136,633
Percent of AMA estimate	119%	132%	128%	106%	129%
Contractor F	99,082	116,431	131,183	147,706	166,601
Percent of AMA estimate	121%	118%	128%	139%	149%
Contractor G	115,136	160,644	167,601	178,308	213,527
Percent of AMA estimate	162%	199%	188%	185%	209%
Contractor H	166,458	159,600	175,340	211,220	234,600
Percent of AMA estimate	200%	156%	150%	167%	184%
Contractor I	132,500	150,250	177,000	195,325	218,000
Percent of AMA estimate	170%	166%	176%	175%	187%
Contractor J	96,392	101,211	109,329	121,259	140,468
Percent of AMA estimate	115%	103%	104%	108%	120%
Contractor K	66,200	76,200	90,700	107,320	127,300
Percent of AMA estimate	104%	93%	94%	96%	112%

#### Executive bonuses

Incentive, or bonus, payments represented a larger share of payments to contractor executives than was typical of companies covered in the AMA survey. One contractor did not have a bonus program and is not included in this analysis. On average, executives at the 11 contractors received incentive awards equaling 53 percent of base salary compared to an average of about 29 percent for executives in the AMA survey.

Tables IV and V provide data on bonus rates for the different positions and contractors examined.

Table IV  
 Bonus as a Percent of Salary for Executive Positions  
 Reviewed at 11 Contractors by Executive Position  
 Compared to AMA Bonus Estimates

<u>Position</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Chief executive	48%	59%	61%	58%	64%
AMA bonus estimate	46%	44%	47%	45%	40%
Senior financial executive	47%	47%	44%	42%	49%
AMA bonus estimate	24%	24%	28%	25%	22%
Senior engineering executive	46%	49%	48%	50%	53%
AMA bonus estimate	28%	26%	30%	27%	24%
Senior manufacturing executive	44%	52%	47%	46%	54%
AMA bonus estimate	27%	30%	34%	30%	28%
Senior marketing executive	38%	49%	47%	44%	46%
AMA bonus estimate	30%	29%	36%	31%	27%
Senior personnel executive	27%	34%	35%	33%	35%
AMA bonus estimate	22%	25%	26%	21%	23%

Table V  
 Bonus as a Percent of Salary for Executive Positions  
 Reviewed at 11 Contractors by Contractor  
 Compared to AMA Bonus Estimates

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Contractor A	46%	52%	52%	51%	56%
AMA bonus estimate	31%	31%	36%	33%	30%
Contractor B	22%	21%	18%	23%	40%
AMA bonus estimate	35%	30%	34%	31%	28%
Contractor C	81%	96%	90%	85%	76%
AMA bonus estimate	34%	34%	38%	34%	30%
Contractor D	25%	30%	35%	38%	42%
AMA bonus estimate	31%	31%	34%	31%	29%
Contractor E	23%	37%	38%	21%	42%
AMA bonus estimate	29%	29%	33%	30%	28%
Contractor F	68%	68%	69%	78%	80%
AMA bonus estimate	32%	32%	35%	31%	29%
Contractor G	34%	65%	59%	55%	65%
AMA bonus estimate	30%	30%	33%	30%	28%
Contractor H	58%	63%	64%	67%	75%
AMA bonus estimate	33%	33%	38%	34%	31%
Contractor I	46%	57%	57%	40%	34%
AMA bonus estimate	32%	32%	36%	33%	30%
Contractor J	32%	28%	27%	29%	34%
AMA bonus estimate	33%	32%	36%	32%	29%
Contractor K	20%	22%	26%	34%	36%
AMA bonus estimate	29%	30%	35%	32%	29%

The contractors reviewed determined the amount of incentive awards in different ways. In general, an individual's award was related to the overall profitability of the parent company, the contractor's contribution to parent-company profits, and the individual's performance during the year. Some contractors had a formalized process involving setting performance objectives for



executives eligible for incentive awards, measuring performance against objectives, and subjecting proposed awards to review by senior, corporate-level officials. At other contractors, the system for determining incentive compensation awards was less formal.

Incentive awards were also paid in varying forms at different locations. The simplest plans, used by four contractors, provided for a single, lump-sum cash payment of the incentive compensation award. More complex plans provided for some portion of the award to be paid in the form of parent-company stock or stock options--seven contractors provided stock awards and three also provided stock options. Of the seven contractors providing non-cash award payments, the award recipient determined the mix of cash and non-cash items at three locations, and a compensation committee determined the mix at four others. Most locations paid awards in one lump sum, but two paid awards in four annual installments and one paid awards over 5 years.

#### Executive "perks"

Some of the 12 contractors provided executives special benefits in addition to incentive compensation payments. Special benefits, sometimes referred to as executive "perks," included such items as stock options, use of company-provided automobiles, social club memberships, and free travel for spouses. While these benefits are attractive, it is difficult to quantify their monetary value. Too, some do not affect the cost of government contracts because they are either not claimed by the contractor as reimbursable overhead or not allowed by the government if claimed.

Of the 12 contractors, 8<sup>3</sup> provided stock option plans for executives, 7 provided automobiles, 3 provided social club memberships, and 4 paid for some travel for spouses. These benefits were not necessarily widely available or extensive. One company providing club memberships, for example, only paid for a portion of one executive's club membership fees. Other items included executive dining rooms, an executive barbershop, and an executive car wash.

Quantifying the benefits in terms of value to the executive is difficult. The value of a stock option, for example, cannot be determined until the holder exercises the option. Options

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<sup>3</sup>These stock option plans were offered as special benefits and are not related to the stock options discussed above which were offered as a form of incentive award payment. Some contractors offered both types.

granted by some of the contractors we reviewed could be exercised as much as 10 years after they were granted. Similarly, costs to the contractor of some of the items falling into the category of executive "perks" are not allowable costs under DOD cost principles, and thus do not affect the prices of government contracts.

### Employee salaries and earnings

Salaries and earnings at the 12 contractors were higher than comparable jobs at other firms in some cases. On average, salaries for professional employees were closely aligned with average salary rates for comparable occupations reported by the BLS. Clerical and technical employees and factory workers, on average, earned about 9 and 8 percent more, respectively, than BLS averages for comparable occupations.

There were extensive variations that are not reflected in the overall averages. Some contractors' were generally above the BLS averages for all categories of employees while others were generally below. Likewise, different occupations and categories of employees diverged by different amounts from the BLS averages.

As is the case with any survey, BLS found a range of salary and earnings rates. The BLS data express the range in a frequency distribution of four intervals with each containing one quarter of the total population. The middle range (the quarter either side of the middle) contains 50 percent of the total population. We have shown the middle range percentage for BLS national survey data at the bottom of each table to give the reader a perspective of ranges. We have not provided the middle ranges on metropolitan area comparisons to preclude disclosure of proprietary data.

### Professional employees

The category of professional employees includes such occupations as engineers, accountants, auditors, attorneys, and buyers. We did not obtain data showing the percentage of the workforce made up of professionals and managers at all firms but estimate, based on the data available, that they represent from 40 to 75 percent of the total payroll dollars. Companies that are more oriented towards research and development will have a higher percentage of professional employees; companies more oriented towards production will have a smaller percentage of professionals. At the 12 contractors, engineers were the most numerous category of professional employees examined.

Table VI  
Professional Employee Salaries by Contractor  
As a Percent of BLS National Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	94%	95%	94%	93%	92%	92%
Contractor B	104	102	100	99	98	98
Contractor C	-0-a	93	99	99	94	93
Contractor D	95	94	92	93	91	90
Contractor E	-0-a	94	93	94	98	95
Contractor F	104	103	102	101	100	99
Contractor G	108	109	105	107	103	-0-a
Contractor H	105	103	102	101	101	101
Contractor I	108	108	110	110	107	106
Contractor J	89	90	96	92	93	88
Contractor K	106	103	98	97	96	98
All contractors	102	99	99	98	98	96
Middle range percentages <sup>b</sup>	90-109	90-109	90-109	90-109	91-108	91-108

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

The market for professional employees is generally considered to be national in scope, and we compared professional salaries to BLS national averages. As shown in the above table, salaries for professional employees were generally close to the BLS averages. Further, overall professional salaries as a percentage of the BLS average declined during the period.

Because the subcommittee expressed an interest, we also looked specifically at salary levels for engineers at the contractors. The salaries for engineers were aligned about the same as professionals.

Table VII  
 Engineer Salaries by Contractor  
 As a Percent of BLS National Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	95%	96%	95%	93%	93%	92%
Contractor B	106	104	102	101	99	98
Contractor C	-0-a	95	102	101	95	94
Contractor D	98	96	93	93	92	90
Contractor E	-0-a	93	91	93	96	94
Contractor F	104	103	102	100	101	99
Contractor G	108	109	104	106	103	-0-a
Contractor H	105	104	103	102	102	102
Contractor I	108	109	111	111	108	107
Contractor J	89	91	98	93	94	88
Contractor K	108	104	100	98	98	99
All contractors	102	100	100	99	98	96
Middle range percentages <sup>b</sup>	91-108	91-108	91-109	91-109	91-108	92-108

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

#### Clerical and technical employees

The clerical and technical category includes clerical occupations such as secretary, typist, stenographer, and accounting clerk, and technical support personnel such as draftsmen, engineering technicians, and computer operators. We estimate that this category represents between 10 and 20 percent of the payroll dollars at the 12 contractors.

The labor market for clerical and technical personnel is generally considered to be more localized in nature than the market for professional personnel. Accordingly, we compared

earnings in this category to BLS average (mean) weekly earnings for the metropolitan area in which the contractor was located. Because one contractor was not located in an area for which BLS reports data, the earnings at this contractor were compared to BLS data for an adjacent metropolitan area.

As shown in the following table, earnings for clerical and technical personnel were generally about 9 percent over the BLS averages in 1983. Earning levels at some contractors were well above the averages for their areas while other contractors' levels were similar to average area earnings.

Table VIII  
Clerical and Technical Employee Earnings by Contractor  
As a Percent of BLS Area Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	101%	105%	102%	110%	109%	107%
Contractor B	116	109	105	143	111	111
Contractor C	-0-a	117	119	115	110	111
Contractor D	102	118	119	114	118	114
Contractor E	-0-a	105	104	109	110	111
Contractor F	120	118	114	122	114	118
Contractor G	112	114	109	114	108	-0-a
Contractor H	108	108	106	105	109	110
Contractor I	103	104	104	109	104	102
Contractor J	112	113	112	112	110	110
Contractor K	127	122	115	111	113	120
All contractors	109	110	108	112	109	109
Middle range percentages <sup>b</sup>	84-113	85-113	84-113	84-113	84-114	84-114

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

A widespread occupation in the clerical and technical category is that of secretary. As shown by the following table, secretaries at the contractors earned about 9 percent more than BLS averages in 1983, but some contractors paid close to the local-area average, while others paid more than the local average.

Table IX  
Secretary Earnings by Contractor  
As a Percent of BLS Area Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	98%	103%	100%	108%	108%	106%
Contractor B	138	137	138	143	137	138
Contractor C	-0-a	130	130	121	112	115
Contractor D	121	112	118	113	118	113
Contractor E	-0-a	105	103	109	110	111
Contractor F	141	137	142	146	145	142
Contractor G	112	114	109	114	109	-0-a
Contractor H	104	103	101	102	106	107
Contractor I	103	103	104	109	105	102
Contractor J	115	115	116	114	112	111
Contractor K	130	124	117	111	113	121
All contractors	108	108	107	111	109	109
Middle range percentages <sup>b</sup>	85-113	85-113	85-113	85-113	84-113	85-113

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

### Factory employees

The factory category includes traditional blue-collar occupations such as machinist and tool and die maker, maintenance trades such as carpenter, and occupations such as janitor and

security guard. We estimate that factory employees comprise as little as 5 percent to 40 percent of the work force at the contractors we reviewed. Firms that are primarily involved in research and development, producing only a few models of a product, will have a smaller factory work force.

As we did for clerical and technical employees, we compared factory employee earnings to BLS metropolitan area average (mean) hourly earnings because the market for factory labor is generally localized. Factory earnings were about 7 percent more than the BLS averages in 1983, although some contractors' earnings levels were generally below their area BLS averages.

Since we had BLS area earnings survey input for factory employees from fewer contractors than we did for professional, clerical, and technical personnel, we compared factory earnings levels for fewer contractors. (See table X below.)

Table X  
Factory Employee Earnings by Contractor  
As a Percent of BLS Area Averages

Contractor	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	-0-% <sup>a</sup>	-0-% <sup>a</sup>	99%	100%	100%	97%
Contractor B	99	104	103	103	106	105
Contractor C	-0-% <sup>a</sup>	90	91	93	90	94
Contractor D	110	111	113	114	112	112
Contractor E	115	114	117	117	115	-0-% <sup>a</sup>
Contractor F	100	103	101	102	104	108
Contractor G	112	112	111	115	114	107
Contractor H	127	123	122	123	118	121
Contractor I	128	126	123	125	134	134
All contractors	109	107	107	109	108	107
Middle range percentages <sup>b</sup>	86-114	86-114	87-114	84-116	85-115	85-115

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

Most of the 12 contractors employed tool and die makers. As shown in table XI, earnings for tool and die makers in the aggregate were about 2 percent higher than the BLS area averages in 1983, but varied substantially among contractors.

TABLE XI  
Tool and Die Maker Earnings by Contractor  
As a Percent of BLS Area Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	97%	103%	101%	99%	103%	95%
Contractor B	-0-a	92	92	95	91	96
Contractor C	104	103	105	105	106	106
Contractor D	111	112	114	113	111	-0-a
Contractor E	94	104	96	107	107	112
Contractor F	127	123	121	120	119	118
Contractor G	104	102	99	100	107	101
All contractors	104	101	101	103	103	102
Middle range percentages <sup>b</sup>	92-108	93-108	93-106	92-110	93-107	93-108

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

Several of the contractors also employed janitors, but we were unable to match as many contractor positions in this job category as we were for other job categories. In the aggregate, janitor earnings were about 18 percent more than the BLS area averages in 1983, with some contractors paying as much as 56 percent more. (See table XII.)



Table XII  
 Janitor Earnings by Contractor  
 As a Percent of BLS Area Averages

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Contractor A	119%	125%	109%	-0-% <sup>a</sup>	-0-% <sup>a</sup>	-0-% <sup>a</sup>
Contractor B	104	106	113	109	107	105
Contractor C	124	125	125	114	115	112
Contractor D	102	102	100	104	104	110
Contractor E	147	144	151	155	158	156
All contractors	120	122	120	120	120	118
Middle range percentages <sup>b</sup>	78-121	79-121	79-124	74-130	75-125	75-115

<sup>a</sup>Contractor data not available.

<sup>b</sup>50 percent of the BLS surveyed salaries falls within these ranges.

#### Inflation and pay

The inflation rate is often used as a standard to evaluate pay trends. The DCAA uses projected Consumer Price Index (CPI) increases as one measure for assessing projected pay increases included in contract pricing proposals. No simple relationship exists between CPI increases and overall pay increases.

The Employment Cost Index (ECI) is one broad measure of pay changes. It is similar in concept to the CPI. The CPI measures the change in prices of a fixed market-basket of goods; the ECI measures the change in prices of a fixed market basket of labor.

Comparing changes in the CPI with changes in the ECI during the period of our survey, we found that pay generally has not kept pace with inflation. During the 1978 to 1980 period of high inflation rates, pay increases did not keep pace with price increases. As inflation eased in 1981, pay increases were more nearly in line with price increases, and by 1983 pay was

increasing more rapidly than prices. For the entire period, the CPI increased by about 53 percent compared to about 45 percent for the ECI.

#### Pay increases at the contractors

Pay increases at the contractors were greater than increases in the ECI and, except for the period of highest inflation, greater than the CPI increase. Pay increases followed the trend in the general economy--rapid growth during the period of high inflation until about 1980 or 1981, followed by more modest rates of increase as inflation eased. Overall, however, pay increases nearly equalled the CPI rate of increase and continued to increase at a higher rate than the ECI even as inflation eased.

As shown by the following table, cumulative pay increases at the contractors varied but generally exceeded the cumulative increases in both the CPI and ECI.

Table XIII  
Cumulative Pay Increases at the Contractors  
Compared to the CPI and the ECI  
(1978 = 100)

<u>Category</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1982</u>
All employees <sup>a</sup>	100%	113%	129%	146%	162%	175%
Salaried employees	100	111	126	141	158	171
Hourly employees	100	114	131	151	166	179
CPI	100	111	127	139	149	153
ECI	100	108	119	131	141	146

<sup>a</sup>Includes employees of 8 of the 12 contractors which had magnetic tape data.

#### EMPLOYEE FRINGE BENEFITS

Fringe benefits are generally defined as economic rewards other than pay that all employees receive by virtue of being employed. Opinions differ, however, about the monetary value of fringe benefits and about how to assess the relative value of particular benefits. Consequently, a comparative evaluation of benefit packages is difficult to make. The fringe benefits offered by the 12 contractors generally included the customary

benefits provided by most employers. The contractors paid the full cost of benefit programs more frequently, however, than was the case at firms surveyed by BLS.

Fringe benefits are usually divided into two groups--legally required and voluntary. Some benefits, such as social security and workmen's compensation insurance, are required by law and the employer's contributions are fixed by law. Since the contractors have little or no discretion in managing the cost of legally required benefits, we have not examined them in detail. We concentrated on voluntary benefit programs, which include items such as paid time off, pensions, insurance programs, and matching savings plans, and for which the contractor determines the benefits to be offered and the extent of those benefits. Although some benefit decisions are made through collective bargaining agreements, the majority of contractor employees were not members of collective bargaining units.

We gathered information on the costs of various benefit programs at the 12 contractors and noted that the cost of the total benefit packages and of individual benefit elements varied widely among contractors. Also, since contractors had different procedures to account for the cost of benefits, the cost data gathered was not always comparable.

The recorded cost of a benefit program may not be a satisfactory measure of the benefit the employee derives. For example, costs recorded for a pension plan vary based on the actuarial interest rate used in estimating pension costs. One study indicates that a 1 percent change in the actuarial interest rate used by management will produce a 25 percent change in estimated pension cost if benefit amounts are not changed.

#### Features of fringe benefit programs

The benefit programs offered to employees of the 12 contractors usually included the more widely recognized types of benefits, and the contractors chose to provide their employees a higher level of some types of benefits than was typical of firms in the BLS survey, "Employee Benefits in Medium and Large Firms, 1982." Further, for some types of benefits that often are funded in part by employee contributions, the 12 contractors paid the full cost of the benefit more frequently than employers in the BLS survey.

All 12 contractors provided the common types of paid time off--holidays, vacations, and sick leave. The number of paid holidays provided per year was generally greater than found in the BLS survey, while the number of vacation days provided per year was about the same. Although more of the contractor

employees had sick leave than in the BLS survey, the number of sick leave days provided was difficult to evaluate because policies regarding carry over of unused sick leave days from year to year and payment for unused sick leave varied widely.

Table XIV  
Comparison of Selected Paid Time Off Benefits  
Available at 12 Contractors With BLS Survey Data

<u>Paid time off benefits</u>	<u>Percentage available</u>	
	<u>Contractors'</u> <u>employees</u>	<u>BLS</u> <u>survey</u>
Holidays	100	98
At least 10 days	100	65
At least 11 days	93	38
At least 12 days	86	20
At least 13 days	46	11
At least 14 days	10	5
More than 14 days	-	3
Paid vacations	100	98
Sick leave	100	67

All the contractors also provided the usual range of pension and insurance benefit programs. The BLS survey found that health insurance for both the employee and dependents and life insurance were quite common in their universe of medium and large firms. Retirement pensions were somewhat less common. Non-contributory plans under which the employer pays the entire cost of a benefit program were somewhat more common at the 12 contractors than in the BLS universe, especially for dependent health insurance coverage.

Table XV  
Comparison of Selected Insurance and Pension Benefits  
Available at 12 Contractors With BLS Survey

<u>Insurance and pension benefits</u>	<u>Percentage available</u>	
	<u>Contractors'</u> <u>employees</u>	<u>BLS</u> <u>survey</u>
Health insurance for employee noncontributory	100 93	97 71
Health insurance for dependents noncontributory	100 71	93 46
Retirement pension noncontributory	100 90	84 78
Life insurance noncontributory	100 93	96 82

The availability of dental and vision plans at the 12 contractors compared to the BLS universe is shown below.

Table XVI  
Comparison of Selected Other Benefits Available  
at 12 Contractors With BLS Survey

<u>Other benefits</u>	<u>Percentage available</u>	
	<u>Contractors'</u> <u>employees</u>	<u>BLS</u> <u>survey</u>
Dental plan	100	68
Vision plan	39	22

Savings and investment plans under which the employer matches a portion of the employee's savings contribution were available at 11 of the 12 contractors, or about 92 percent, compared to 74 percent of the firms in the BLS universe.

We gathered extensive information on the cost of fringe benefit programs offered by the 12 contractors, but did not form any conclusions as to fringe benefit costs. As noted above, there were differences among contractors in procedures used to account for fringe benefit costs, and in some areas, recorded costs may not be a good measure of the benefit derived by employees. Further, we were unable to identify a satisfactory standard for evaluating fringe benefit costs.

The following table displays the average fringe benefit costs per employee for voluntary benefit plans. Divergences in cost per employee among companies were wide, and costs at the different companies increased at different rates during the review period. We did not determine the reasons for these variations.

Table XVII  
Comparison of Fringe Benefit Costs per  
Employee for Voluntary Benefit Programs  
(Excludes Paid Time-off)

<u>Contractor</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1978-1982 percentage increase</u>
A	\$6,813	\$6,541	\$6,221	\$6,933	\$7,232	6%
B	3,280	3,435	3,479	3,627	4,292	31
C	4,150	4,631	5,157	5,511	5,997	45
D	4,457	4,920	5,871	5,272	5,699	28
E	3,403	3,731	4,138	4,414	5,193	53
F	4,412	4,693	4,535	4,799	5,390	22
G	2,998	3,218	3,157	3,692	4,073	36
H	1,703	2,049	2,828	3,708	3,862	127
I	3,688	4,071	3,992	4,552	4,948	34
J	3,615	3,927	4,776	5,432	6,096	69
K	2,014	2,233	2,504	3,395	4,056	101
L	<u>3,162</u>	<u>2,795</u>	<u>3,028</u>	<u>3,945</u>	<u>4,620</u>	<u>46</u>
Average	<u>\$3,641</u>	<u>\$3,854</u>	<u>\$4,135</u>	<u>\$4,610</u>	<u>\$5,122</u>	<u>41%</u>

DOD EXPERIENCE IN  
EVALUATING COMPENSATION

Since about 1959, the DAR has required that negotiated defense contracts include employee compensation costs only to the extent that they are reasonable. DAR 15-205.6 states the criteria for making the reasonableness judgment.

"Compensation is reasonable to the extent that the total amount paid or accrued is commensurate with compensation paid under the contractor's established policy and conforms generally to compensation paid by other firms of the same size, in the same industry, or in the same geographic area, for similar services...." (Underscoring supplied.)

This criterion is difficult to apply because compensation data acceptable to all parties is not available to make the

comparisons required. The publicly available surveys prepared by BLS and AMA are not generally acceptable to the contractors. The surveys the contractor participates in are usually not available to the government and are of select companies with similar compensation policies. The usefulness of these surveys is sometimes doubtful because of their scope.

This fundamental problem of acceptable surveys led the Air Force to conclude recently that the current cost principle is for all practical purposes unenforceable and should be changed.

Given this fundamental criteria problem, DCAS and DCAA evaluators have had difficulty evaluating the reasonableness of compensation. Neither DCAS nor DCAA had quantitative working criteria to assist their field staffs in assessing the reasonableness of compensation costs prior to December 31, 1983. The Defense contract auditor relied on DCAS teams to evaluate the contractor's compensation system. But in the absence of clear guidance, DCAS regions use different criteria for assessing systems, thus producing different results.

#### Compensation system reviews

Since 1982, DCAS had reviewed compensation systems at 11 of the 12 contractors visited and had issued 10 review reports. DCAS considered the employee compensation systems at four locations adequate to generate total compensation cost that met the reasonableness test (DAR 15.205.6). Compensation systems at four locations were "qualified" acceptable because of administrative deficiencies. At one location the qualified acceptance was based in part on the contractors' refusal to provide access to executive compensation records. DCAS considered the compensation system unacceptable at two locations primarily because the contractor pay exceeded comparative pay data.

Although the review methodology in each case was similar, the evaluations were based on different ranges of acceptability, different comparative pay data, and different levels of documentation. Both contractors whose compensation systems were considered unacceptable have challenged the use of broad-based pay surveys to evaluate their pay systems. Contractors have generally challenged the acceptability of broad-based pay data such as that developed by the AMA or the BLS, preferring instead comparable pay data developed by private surveys based on individual industries. The DAR permits comparison to industry, but also provides for comparison to firms of the same size or in the same location.

In its published evaluation program, DCAS points out that if surveys are to produce valid and meaningful results, they

should be objectively designed and conducted in accordance with generally accepted standards. Since employee compensation may be considered reasonable when comparable to compensation for similar work in the private, competitive economy, the acceptability of the comparable data is important. To be acceptable to DCAS, the compensation surveys should not include only employees engaged in negotiated contract work. The preferred survey data should have a heavy or exclusive coverage of businesses not predominantly engaged in cost-type contract work. Frequently, DCAS cannot determine whether industry surveys meet these requirements because their survey data are not disclosed to the government.

#### Use of recognized public surveys

Five of the DCAS reports compared pay at contractors to average, nationwide pay data developed by the AMA. Two of these reports also compared the contractors' pay to area pay data developed by the BLS. In many job comparisons reported in support of the conclusions, contractors' pay rates were higher than the comparative pay data. For instance, comparisons at one contractor showed that pay rates for non-exempt employees were 4.6 percent higher than comparable AMA data. Specific job categories that were higher included custodians who were paid 40.5 percent more than the AMA average for custodians; receptionists were paid 75 percent more than the AMA average; and telephone operators were paid 35 percent more than the AMA average. At another contractor where BLS data was used, DCAS reported that 13 office and technical jobs were paid from 30 to 109 percent more than BLS local pay averages, and that 11 factory jobs were paid from 11 to 116 percent more.

Three reports compared contractors' pay data to industry average data and concluded that although most pay was above the industry average, it was reasonable. For instance, exempt professional and technical pay was 10.5 percent more than the industry average at one contractor, 6 percent less at another, and 4.1 percent more at a third. All pay rates were considered reasonable.

#### Access to compensation records

In two of the reviews we examined, the reports showed that the evaluators were not given access to actual salaries and bonuses for executives. In one case, the DCAS protested the denial but completed the report without the data, giving a qualified approval and noting that an adequate evaluation of executive pay could not be made without actual pay records. In the other case, the report recommended a qualified acceptance of the contractor's system, noting that the executive pay records were not available.



Changing environment

The conditions we found are being changed by recent events. The DAR Council is considering proposed changes in DAR criteria which were submitted to the Council in March 1984. Also in March 1984, DCAA issued guidance containing quantitative criteria for reviewing the reasonableness of contractor pay and fringe benefit costs. Also, with the designation of DLA as the executive agency for contractor employee compensation systems reviews, additional resources have been assigned. The DCAS review staff has been increased from 18 staff members to 51. All these efforts are directed toward improving DOD's ability to ensure that contractor compensation levels in negotiated contracts are reasonable.

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