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United States General Accounting Office Washington, D.C. 20548

National Security and International Affairs Division

B-278783

August 12, 1998

The Honorable David R. Obey Ranking Minority Member Committee on Appropriations House of Representatives

Dear Mr. Obey:

The Department of Defense (DOD) spends over \$200 billion annually for contracts and compensation across the country. These dollars, entering each state's economy, are generally associated with employment and other economic benefits. As you requested, we reviewed (1) the overall trends and geographical distribution of defense spending between 1988 and 1997 and (2) defense spending in conjunction with each state's population and income tax contributions.

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Background

During fiscal year 1997, the federal government spent about \$1.4 trillion on various programs in the United States. These funds, in part, procured products and services, paid salaries and wages to federal employees, provide public assistance, and fund federal retirement programs and social security. DOD prime contracts and compensation discussed in this report accounted for about \$204 billion, or about 14 percent, of the federal expenditures.

Defense spending data are available to users in and outside the government and are regularly used in policy formulation and evaluation. DOD contractors have used federal government data in support of their work for DOD on the economic impacts of base realignment and closure actions. Federal expenditure data have also been used to provide information to communities, businesses, and individuals adjusting to the effects of defense downsizing and other changing economic conditions. Researchers at private companies, universities, and state government offices also use these data in a wide array of research projects and publications.

Defense spending covered in this report includes DOD prime contract awards and DOD compensation. Compensation includes civilian pay, military active duty pay, reserve and national guard pay, and retired military pay. National totals for DOD contracts and compensation are

considered to be accurate. However, when these numbers are broken down for individual states, the numbers are often viewed as less reliable.

We recently reported¹ that, due to certain key limitations, federal government sources do not provide data for determining the full and complete economic magnitude of federal expenditures in states. Most importantly, pop's contract database does not include data on the location of subcontracts, making it difficult to measure contract activity within a state. A substantial portion of prime contracts could be subcontracted out-of-state. In contrast, contractors within the state could be awarded subcontracts by out-of-state prime contractors, yet these subcontracts would not be recognized within the state's total.

However, existing data are not without value, nor should the government necessarily strive for increased data collection that could actually entail more costs than benefits. Those who rely on federal data need to be alert to their drawbacks and exercise discretion when using them. See appendix I for details of our scope and methodolgy.

Results in Brief

The award of DOD prime contracts in the United States declined from \$164 billion to \$107 billion from 1988-97. There were large declines in equipment and research prime contracts, while service prime contracts have become a more significant portion of total prime contracts.

Meanwhile, DOD compensation decreased from \$111 billion to \$97 billion. Data were adjusted for inflation and shown in constant 1997 dollars.

Four states—California, Virginia, Texas, and Florida— accounted for \$81 billion, or about 40 percent, of DOD prime contract awards and DOD compensation in 1997. Over the period 1988-97, changes in the prime contract awards have occurred throughout the 50 states; California has experienced the largest decrease. States with the largest decreases had major reductions in prime contracts for equipment. In some states, gains in prime contracts for services lessened the impact of significant decreases in equipment prime contracts.

Defense dollars are generally associated with employment and other economic benefits to the states; therefore, Congress and other decisionmakers are also often interested in measuring defense spending against state population and income tax contributions. Large variances

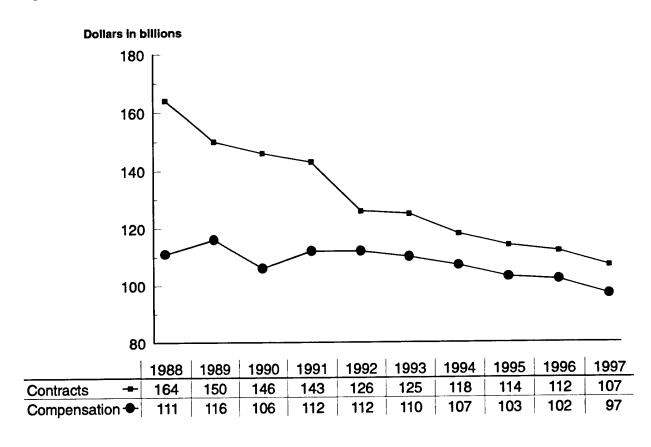
¹Defense Spending and Employment: Information Limitations Impede Thorough Assessments (GAO/NSIAD-98-57, Jan. 14, 1998).

occur within these measures. For example, DOD prime contract awards and DOD compensation per dollar of personal tax contributions in 1996 ranged from \$0.78 per dollar in Hawaii to \$0.04 per dollar in several states.

Defense Prime Contract Awards and DOD Compensation Between 1988 and 1997 DOD prime contract awards and DOD compensation in the United States have declined significantly² since 1988. Despite some fluctuations during the decade, DOD compensation decreased from \$111 billion to \$97 billion. Meanwhile, DOD prime contract awards decreased from \$164 billion to \$107 billion. (See fig. 1.)

²The DOD prime contracts amounts shown in this report represent the amounts that could be designated for specific states. For example, during 1997, prime contracts amounted to \$128.4 billion, but only \$106.6 billion was allocable to specific states.

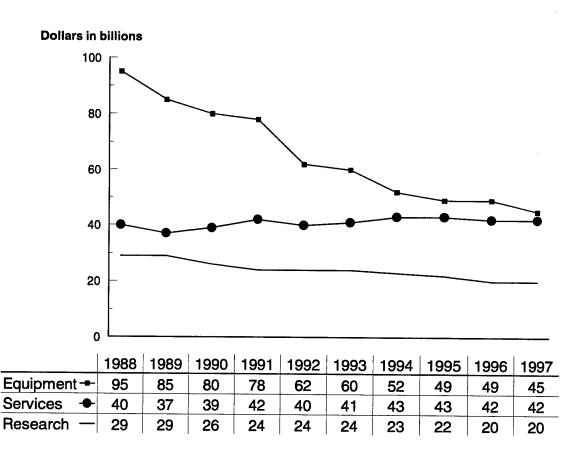
Figure 1: DOD Prime Contract Awards and DOD Compensation in the United States (1988-97)



Equipment, Service, and Research Prime Contracts

DOD has three broad categories for its contracts: research, development, test, and evaluation (research); other services and construction; and supplies and equipment. Figure 2 shows that both equipment and research prime contracts experienced decreases, while service prime contracts remained nearly constant. Equipment prime contracts dropped 53 percent, from \$95 billion to \$45 billion.

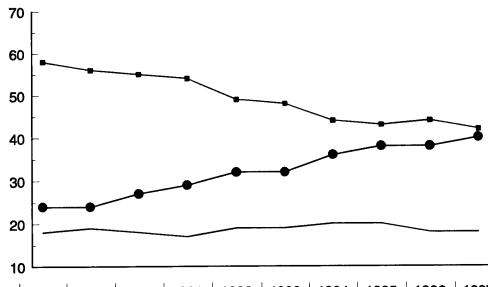
Figure 2: Equipment, Service, and Research Prime Contracts (1988-97)



One discernible trend not readily apparent in the preceding figure is that service prime contracts have become a more significant portion of DOD prime contracts over the decade. Figure 3 shows the changes in the percent-to-total for the three types of contracts between 1988 and 1997. Equipment prime contracts decreased by 16 percentage points, research prime contracts remained nearly constant, and service prime contracts increased by 16 percentage points.

Figure 3: Percentages for Equipment, Services, and Research Prime Contracts (1988-97)

Percent of DOD contract dollars

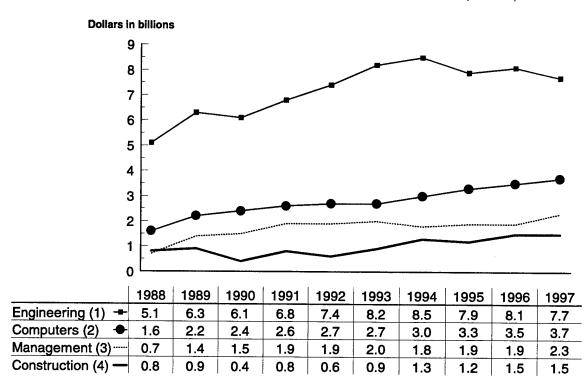


1	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Equipment -	58	56	5 5	54	49	48	44	43	44	42
Services •	24	24	27	29	32	32	36	38	38	40
Research —	18	19	18	17	19	19	20	20	18	18

Growth in DOD Prime Contract Awards for Selected Service Industries

In 1997, service prime contracts totaled about \$42 billion, of which 36 percent was associated with the selected large service industries described in figure 4. Engineering and architectural services represented the largest service industry by a wide margin.

Figure 4: Growth in DOD Prime Contract Awards for Selected Service Industries (1988-97)



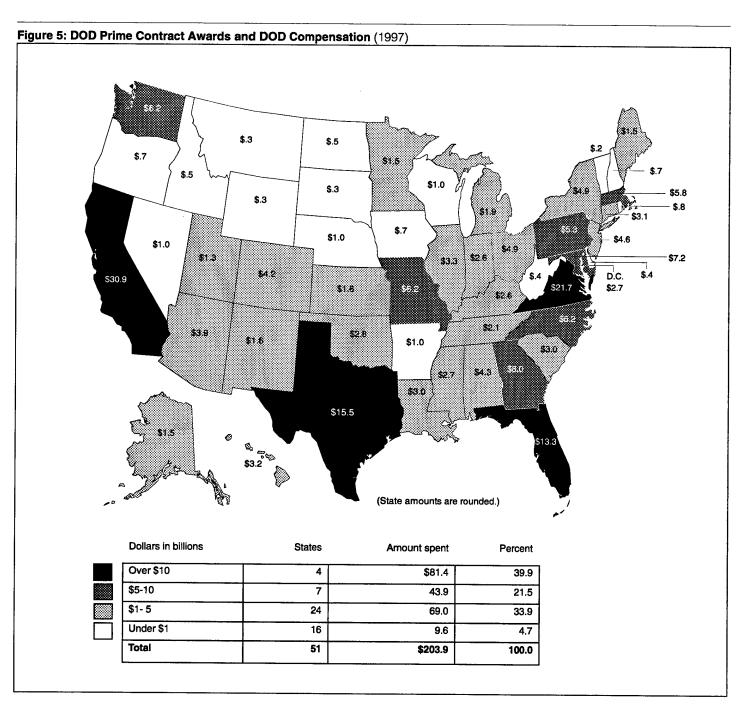
(1) Engineering and Architecture

⁽²⁾ Computers and Data Processing

⁽³⁾ Management and Public Relations

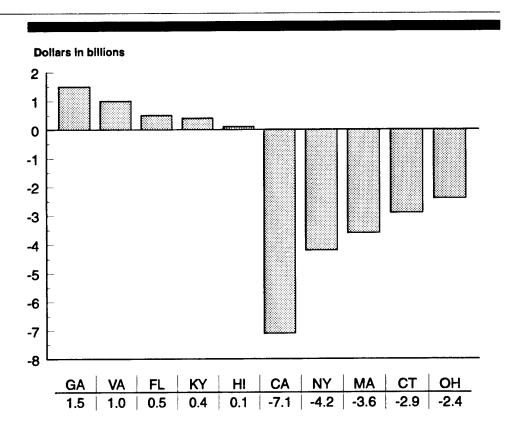
⁽⁴⁾ Residential Building Construction

Geographical Distribution of DOD Prime Contract Awards and DOD Compensation Figure 5 shows that DOD prime contract awards amounts and DOD compensation for 1997 were concentrated within a few states. For 1997, DOD prime contract awards and DOD compensation in the United States amounted to \$204 billion. Four states—California, Virginia, Texas, and Florida—accounted for \$81 billion, or about 40 percent, of the total. For the other years between 1988 and 1997, DOD prime contract awards and DOD compensation were similarly concentrated within a few states. For example, in 1988 the same four states accounted for 39 percent of the total, and, again in 1992, they accounted for 39 percent of the total.



States With Large Increase and Decreases in DOD Prime Contract Awards The five states with the largest increases in DOD prime contract awards and the five with the largest decreases³ are shown in figure 6. (See app. II for state listing with additional data.) During this period, nearly all states experienced reductions in equipment prime contracts. The states with the largest decreases in prime contracts all had sizable reductions in equipment.

Figure 6: States With the Largest Increases and Decreases in DOD Prime Contract Awards (1988-97)



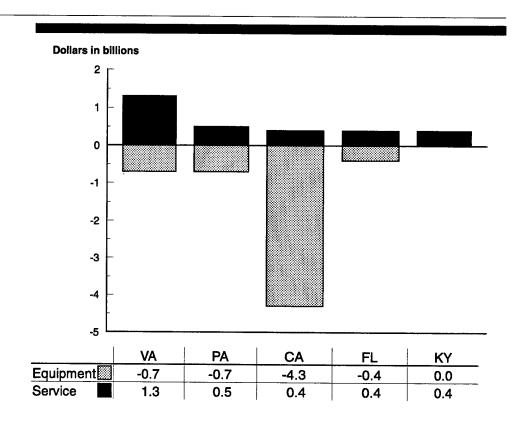
Source: Our analysis of DOD data

Equipment reductions in some states were offset to some degree by increases in service prime contracts. Figure 7 provides data on the five

The states with the largest increases and decreases were determined by measuring the differences in 5-year averages for each state (the average for 1993-97 less the average for 1988-92).

states with the largest increases in service prime contracts. (See app. III for state listing with additional data.)

Figure 7: States With Largest Increases in Service Prime Contract Awards (1988-97)



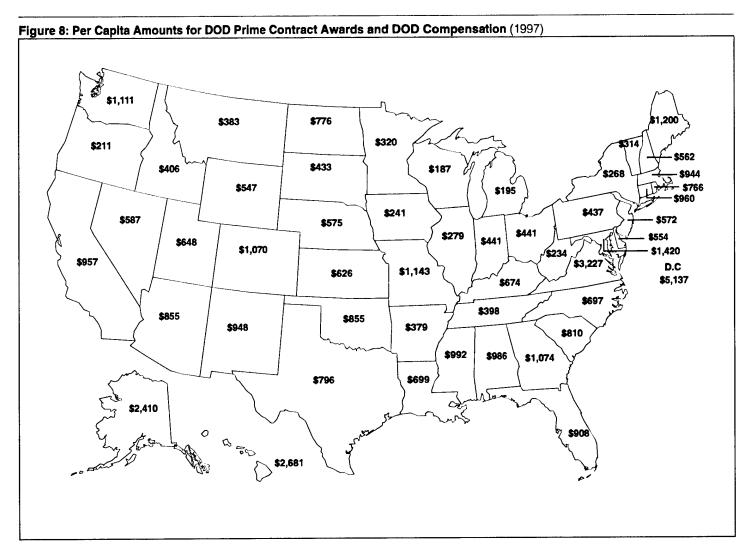
Source: Our analysis of DOD data.

Other Indicators of Defense Spending

DOD prime contracts, which account for the majority of defense spending, may be awarded based on a number of factors such as contract price, contractors' past performance, and company expertise and technical superiority. Thus, defense amounts awarded for prime contracts in each state would not be expected to be proportional with statistical indicators such as state population or state income tax contributions. Because defense dollars are generally associated with employment and other economic benefits to the states, however, Congress and other

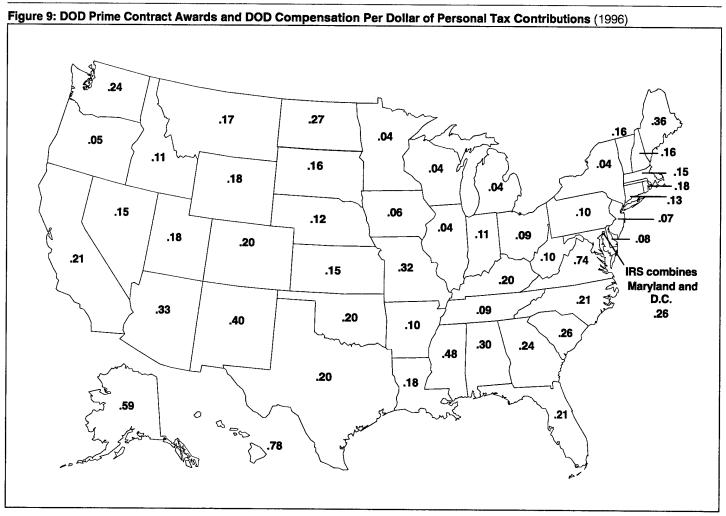
decisionmakers are often interested in measuring defense spending against population and income tax data.

Figure 8 shows, for each state, the per capita amount of DOD prime contract awards and DOD compensation for 1997. (See app. IV for state listing with additional data.) Per capita amounts ranged from \$5,137 in Washington, D.C., to \$187 in Wisconsin, while the national average was at \$762.



Source: Our analysis of DOD and Department of Commerce data.

The amounts of DOD prime contract awards and DOD compensation per dollar of personal tax contributions for each state are shown in figure 9. (See app. V for state listing with additional data.) These amounts ranged from \$0.78 per dollar in Hawaii to \$0.04 per dollar in several states, while the national average was at \$0.16.



Note: Internal Revenue Service data on tax contributions were not available for 1997 at the conclusion of our review.

Source: Our analysis of DOD and Internal Revenue Service data.

Agency Comments

We requested comments on a draft of this report from the Secretary of Defense or his designee. On June 30, 1998, the Office of the Director of Defense Procurement indicated that DOD has no comments on the report.

We are providing copies of this report to other interested congressional committees and members. Copies will also be made available to others upon request.

Please contact me at (202) 512-8412 if you or your staff have any questions concerning this letter report. Major contributors to this report were Ralph Dawn, Kendall Graffam, and John Ting.

Sincerely yours,

David E. Cooper Associate Director

Defense Acquisitions Issues

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Per Dollar of Personal Tax Contributions

Abbreviations

DOD Department of Defense
IRS Internal Revenue Service

Scope and Methodology

In conducting our work, we analyzed data on Department of Defense (DOD) prime contract awards and compensation during fiscal year 1997 as well as the trends between 1988 and 1997. As requested, we analyzed the data on a national basis as well as on a state-by-state basis. In this report, we provide data for the 50 states and the District of Columbia on defense spending, population, per capita defense spending, and tax contributions. The data were adjusted for inflation and shown in constant 1997 dollars to show real growth and declines between 1988 and 1997. Specific values for each of the states are presented in appendixes II, III, IV, and V.

DOD reports information on its prime contract awards and its compensation, by state, in the Atlas/Data Abstract for the United States and Selected Areas. The prime contract amounts shown in this report represent the amounts that could be designated for the specific states. The ultimate source of data on prime contract awards comes from the computerization of information contained in the DD Form 350 (Individual Contracting Action Report). Because of reliability concerns, data on DOD grants was excluded from our analysis.

Population data were obtained from the Bureau of Economic Analysis, Department of Commerce. Internal Revenue Service (IRS) data were extracted from its yearly publication Internal Revenue Service Data Book. IRS personal tax contributions were used in our analysis and derived by subtracting corporation income tax contributions from total revenue collections for the states. Our analysis was hampered because data on IRS contributions were not available for 1997 at the conclusion of our review. We, therefore, used 1996 IRS data for our analysis.

In our analysis of DOD prime contract awards, we found that large variations occurred on a year-to-year basis. For a specific state, large increases in contracts in one year were often followed by large decreases in contracts for the next year or vice versa. As a result, the states with the largest increases and decreases were determined by measuring the differences in 5-year averages for each state (the average for 1993-97 less the average for 1988-92).

We prepared some computer-generated reports from the DD Form 350 database to assist in our analysis. In addition to the use of the <u>Federal</u> Supply Class or Service Codes, we used the commercial Standard

¹For example, during 1997, DOD prime contract awards amounted to \$128.4 billion but only \$106.6 billion was allocable to the states because of work located outside the United States (\$6.8 billion), contracts with values under a \$25,000 reporting threshold (\$11.7 billion), and expenditures not assigned to a specific state (\$3.3 billion).

Appendix I Scope and Methodology

<u>Industrial Classification of Establishments</u> to assess the growth in specific service industries.

In our 1997 report, we identified some key limitations on the use of the DOD data because certain data are not reported. Concerning the accuracy of the numbers that are reported, DOD does perform some reviews and edit checks of the data, but it does not perform full scale reliability assessments to ensure that the data are reliable. We did not systematically verify the accuracy of DOD's data or conduct a reliability assessment of the database.

Our work was conducted between November 1997 and June 1998 in accordance with generally accepted government auditing standards.

Trends in DOD Prime Contract Awards (1988-97)

Dollars in millions	1988-92	1993-97	Increases or
State and District of Columbia	5-year average	5-year average	(decreases)
Alabama	\$2,152	\$1,929	(\$223
Alaska	567	612	45
Arizona	3,239	2,488	(750
Arkansas	497	288	(209
California	28,233	21,084	(7,149
Colorado	3,448	2,402	(1,046
Connecticut	5,670	2,771	(2,899
Delaware	181	119	(61
D.C.	1,848	1,442	(406
Florida	5,993	6,457	464
Georgia	2,635	4,094	1,459
Hawaii	710	832	122
Idaho	78	106	28
Illinois	1,744	1,313	(431
Indiana	2,091	1,589	(503)
lowa	577	400	(177
Kansas	1,098	740	(357)
Kentucky	527	886	359
Louisiana	1,749	1,587	(162)
Maine	970	941	(29)
Maryland	5,000	4,344	(656)
Massachusetts	8,915	5,339	(3,576)
Michigan	1,636	1,377	(259)
Minnesota	2,155	1,218	(937)
Mississippi	2,275	1,741	(534)
Missouri	6,756	6,163	(593)
Montana	8 9	94	4
Nebraska	306	310	4
Nevada	26 8	26 5	(3)
New Hampshire	533	4 64	(69)
New Jersey	4,160	2,9 59	(1,200)
New Mexico	812	69 5	(116
New York	8,098	3,881	(4,216)
N. Carolina	1,599	1,309	(290)
N. Dakota	152	137	(15)
Ohio	5,423	3,021	(2,403)
			(continued

Dollars in millions			
State and District of Columbia	1988-92 5-year average	1993-97 5-year average	Increases or (decreases)
Oklahoma	806	761	(45)
Oregon	370	167	(203)
Pennsylvania	3,622	3,228	(395)
Rhode Island	547	380	(168)
S. Carolina	855	974	119
S. Dakota	87	104	17
Tennessee	1,640	1,158	(482)
Texas	11,172	8,879	(2,293)
Utah	1,016	499	(517)
Vermont	121	135	13
Virginia	9,093	10,075	982
Washington	2,917	2,284	(634)
West Virginia	206	180	(26)
Wisconsin	1,157	684	(474)
Wyoming	75	72	(2)

Note: Numbers are rounded.

Trends in DOD Service and Equipment Prime Contracts (1988-97)

Dollars in million						
	7.45	Services			Equipment	
State and District of Columbia	Average 1988-92	Average 1993-97	Increase (decrease)	Average 1988-92	Average 1993-97	Increase or (decrease)
Alabama	\$819	\$862	\$43	\$ 795	\$459	(\$336
Alaska	455	506	52	112	103	(9
Arizona	446	572	126	2,401	1,592	(809
Arkansas	196	149	(47)	296	121	(175
California	6,335	6,736	401	14,170	9,899	(4,272
Colorado	566	712	146	394	272	(122
Connecticut	807	483	(324)	4,631	1,952	(2,679
Delaware	61	76	15	104	37	(68
D.C.	1,239	8 82	(357)	528	431	(97
Florida	1,835	2,207	372	3,077	2,645	(432
Georgia	804	943	139	1,408	1,319	(89
Hawaii	589	73 5	146	104	78	(26
Idaho	47	71	24	28	26	(3
Illinois	558	540	(18)	1,036	683	(352
Indiana	411	3 86	(25)	1,571	1,092	(480
lowa	109	123	14	3 57	197	(161
Kansas	600	347	(253)	445	382	(63
Kentucky	317	6 67	3 50	207	216	9
Louisiana	6 10	556	(55)	1,133	1,018	(116
Maine	136	93	(43)	827	841	13
Maryland	2,026	2,284	258	1,872	1,248	(623
Massachusetts	1,171	1,083	(87)	5,344	2,420	(2,924
Michigan	2 70	2 32	(38)	1,029	971	(58
Minnesota	224	184	(39)	1,548	775	(773
Mississippi	620	486	(134)	1,647	1,215	(433
Missouri	1,192	1,012	(181)	4,975	4,094	(881
Montana	50	52	2	39	40	2
Nebraska	157	18 5	28	136	109	(26
Nevada	225	227	2	28	32	4
New Hampshire	105	90	(15)	3 29	25 5	(75
New Jersey	1,371	1,544	173	2,187	1,021	(1,167
New Mexico	431	377	(55)	157	117	(40
New York	1,760	1,374	(385)	4,775	1,852	(2,923
N. Carolina	6 50	786	136	694	441	(254
N. Dakota	86	109	23	6 5	26	(39

Appendix III Trends in DOD Service and Equipment Prime Contracts (1988-97)

Dollars in million						
		Services				
State and District of Columbia	Average 1988-92	Average 1993-97	Increase (decrease)	Average 1988-92	Average 1993-97	Increase or (decrease)
Ohio	696	809	114	3,891	1,662	(2,229)
Oklahoma	507	546	39	259	202	(57)
Oregon	150	71	(79)	196	78	(118)
Pennsylvania	558	1,047	490	2,069	1,352	(716)
Rhode Island	194	216	22	322	120	(202)
S. Carolina	528	792	264	283	149	(134)
S. Dakota	52	52	0	35	52	17
Tennessee	835	576	(259)	608	324	(283)
Texas	2,540	2,738	198	7,316	4,612	(2,703)
Utah	297	250	(48)	569	165	(405)
Vermont	9	9	(1)	96	100	4
Virginia	4,783	6,039	1,256	3,397	2,656	(741)
W. Virginia	110	135	25	68	37	(31)
Washington	849	966	117	1,325	949	(376)
Wisconsin	123	132	9	969	539	(430)
Wyoming	26	42	16	48	30	(18)

Note: Numbers are rounded.

Per Capita Amounts for DOD Prime Contract Awards and DOD Compensation (1997)

State and District of Columbia	DOD amounts (millions)	Population (millions)	Per capita
Alabama	\$4,256	4.3	\$986
Alaska	1,467	0.6	2,410
Arizona	3,895	4.6	855
Arkansas	956	2.5	379
California	30,873	32.3	957
Colorado	4,167	3.9	1,070
Connecticut	3,138	3.3	960
Delaware	405	0.7	554
D.C.	2,717	0.5	5,137
Florida	13,304	14.7	908
Georgia	8,040	7.5	1,074
Hawaii	3,183	1.2	2,681
Idaho	492	1.2	406
Illinois	3,321	11.9	279
Indiana	2,587	5.9	441
lowa	688	2.9	241
Kansas	1,624	2.6	626
Kentucky	2,634	3.9	674
Louisiana	3,042	4,4	699
Maine	1,490	1.2	1,200
Maryland	7,235	5.1	1,420
Massachusetts	5,776	6.1	944
Michigan	1,906	9.8	195
Minnesota	1,498	4.7	320
Mississippi	2,708	2.7	992
Missouri	6,173	5.4	1,143
Montana	337	0.9	383
Nebraska	9 52	1.7	575
Nevada	984	1.7	587
New Hampshire	6 60	1.2	562
New Jersey	4,605	8.1	572
New Mexico	1,640	1.7	948
New York	4,853	18.1	268
N. Carolina	5,172	7.4	697
N. Dakota	497	0.6	776
Ohio	4,932	11.2	441
			(continued)

Appendix IV
Per Capita Amounts for DOD Prime
Contract Awards and DOD Compensation
(1997)

State and District of Columbia	DOD amounts (millions)	Population (millions)	Per capita amounts
Oklahoma	2,836	3.3	855
Oregon	685	3.2	211
Pennsylvania	5,252	12.0	437
Rhode Island	756	1.0	766
S. Carolina	3,046	3.8	810
S. Dakota	319	0.7	433
Tennessee	2,136	5.4	398
Texas	15,481	19.4	796
Utah	1,335	2.1	648
Vermont	185	0.6	314
Virginia	21,732	6.7	3,227
Washington	6,230	5.6	1,111
West Virginia	425	1.8	234
Wisconsin	969	5.2	187
Wyoming	263	0.5	547
United States	203,857	267.6	762

Note: Numbers are rounded.

Source: Our analysis of DOD and Department of Commerce data.

DOD Prime Contract Awards and DOD Compensation Per Dollar of Personal Tax Contributions (1996)

State and District of Columbia	DOD amounts (millions)	Personal tax contributions (millions)	DOD amounts/tax contributions
Alabama	\$4,021	\$13,367	\$0.30
Alaska	1,444	2,438	0.59
Arizona	4,775	14,294	0.33
Arkansas	980	10,014	0.10
California	30,561	145,113	0.21
Colorado	4,202	21,075	0.20
Connecticut	3,251	24,903	0.13
Delaware	433	5,182	0.08
D.C.	2,719		
Florida	12,532	60,135	0.21
Georgia	8,298	35,204	0.24
Hawaii	3,259	4,169	0.78
Idaho	479	4,418	0.11
Illinois	3,244	74,815	0.04
Indiana	2,574	23,242	0.11
lowa	615	10,014	0.06
Kansas	1,842	12,054	0.15
Kentucky	2,597	12,806	0.20
Louisiana	2,411	13,632	0.18
Maine	1,322	3,700	0.36
Maryland	7,402		
Massachusetts	5,518	37,298	0.15
Michigan	2,005	53,587	0.04
Minnesota	1,354	3 5, 3 31	0.04
Mississippi	3,213	6,737	0.48
Missouri	8,723	27,189	0.32
Montana	388	2,248	0.17
Nebraska	1,033	8,524	0.12
Nevada	1,062	7,286	0.15
New Hampshire	808	4,918	0.16
New Jersey	3,983	56,951	0.07
New Mexico	1,844	4,592	0.40
New York	5,189	117,309	0.04
N. Carolina	5,681	26,818	0.21
N. Dakota	545	1,995	0.27
Ohio	5,069	56,985	0.09
			(continued)

Appendix V DOD Prime Contract Awards and DOD Compensation Per Dollar of Personal Tax Contributions (1996)

State and District of Columbia	DOD amounts (millions)	Personal tax contributions (millions)	DOD amounts/tax contributions
Oklahoma	2,943	14,762	0.20
Oregon	684	13,216	0.05
Pennsylvania	5,906	60,359	0.10
Rhode Island	771	4,403	0.18
S. Carolina	3,275	12,447	0.26
S. Dakota	368	2,319	0.16
Tennessee	2,209	23,877	0.09
Texas	17,202	88,174	0.20
Utah	1,310	7,263	0.18
Vermont	315	1,981	0.16
Virginia	20,919	28,197	0.74
Washington	6,195	26,328	0.24
West Virginia	441	4,216	0.10
Wisconsin	964	23,259	0.04
Wyoming	324	1,771	0.18
Combined-Maryland & D.C.		39,372	0.26
United States	209,202	1,290,288	0.16

Note: Numbers are rounded.

Source: Our analysis of DOD and IRS data.