

135565

United States General Accounting Office

GAO

Fact Sheet for the Honorable
Wayne D. Owens, House of
Representatives

April 1988

DOD PROCUREMENT

Geographic Dispersion of C-17 And C-5B Subcontractors



135565

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

National Security and
International Affairs Division

B-230389

April 12, 1988

The Honorable Wayne D. Owens
House of Representatives

Dear Mr. Owens:

This report responds to your request that we obtain information on the geographical distribution of prime contracts and first-tier subcontracts for the C-17 and the C-5B aircraft. Based on your initial request and subsequent discussions with your Office, we obtained information on

- the dollar value of prime and subcontractor contracts,
- the congressional district where the subcontractor is performing the contract work, and
- whether competition was used in selecting the prime contractors and subcontractors.

The dollar value of prime contracts and first-tier subcontracts for the C-17 and C-5B aircraft are shown in appendixes I and II, respectively, by state and congressional district. These dollar value awards cover the period from initiation of the program to July 31, 1987, for the C-17 and initiation of the program to June 30, 1987, for the C-5B. The extent to which prime and subcontract awards were made on a competitive basis is also shown.

Data provided to us by the C-17 prime contractor for subcontractors with subcontracts totaling over \$100,000 showed that as of July 31, 1987, 51 C-17 subcontractors were awarded 707 subcontracts. The subcontract data represent purchase orders issued between the period of July 23, 1982, and July 31, 1987. These subcontractors are located in 14 states, with 38 percent of the total dollar value of the subcontracts awarded to companies located in California. Approximately 79 percent of the total dollar value of the subcontracts were awarded competitively. The value of these subcontracts was approximately \$232.6 million, which does not include subcontracts of approximately \$9.4 million that were awarded to foreign firms. A C-17 prime contractor

official informed us that although the amount of its company's purchase orders as of July 31, 1987, totaled \$232.6 million, there is a much greater amount--about \$750 million--of commitments to purchase once it receives authority to produce future C-17 aircraft.

Data provided to us by the C-5B prime contractors for subcontracts over \$500,000 showed that as of June 30, 1987, 99 C-5B subcontractors were awarded a total of 144 subcontracts. The value of these subcontracts was approximately \$3.37 billion, which does not include subcontracts amounting to \$172.7 million that were awarded to foreign firms. These subcontractors are located in 29 states, with about 44 percent of the total dollar value of the C-5B subcontracts awarded to companies located in California. Approximately 10 percent of the total dollar value of the subcontracts were awarded competitively. According to the largest C-5B prime contractor, the low percentage of competitive contracts occurred because the C-5B is a variant and follow-on to the C-5A aircraft, and the original contracts were awarded competitively.

You also requested that we obtain information on the B-1B aircraft. Because of the difficulty in obtaining complete B-1B subcontractor data, it was subsequently agreed with your Office to delete that system from our review. However, the limited information we were able to obtain showed that the B-1B prime contractors had subcontracts in at least 48 states.

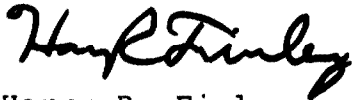
We obtained prime contract information from Air Force commands. Data on C-17 subcontracts were obtained from the prime contractor, Douglas Aircraft Company, McDonnell Douglas Corporation, Long Beach, California. Data on C-5B subcontracts were also obtained from the prime contractors, Lockheed Aeronautical Systems Company-Georgia, Marietta, Georgia; United Airlines Aircrew Training, Inc., Lakewood, Colorado; Enginetics Corporation, Huber Heights, Ohio; and Creativision, Inc., Orlando, Florida. We performed a limited review of the information provided to us and found two errors in the data on the congressional districts where the work was performed; one error affects the C-17 and the other affects the C-5B. These errors did not affect the distribution of subcontracts by state. We conducted our review from June 1987 to January 1988.

As agreed, we did not obtain official Department of Defense comments on this report, but we discussed the information with Air Force and prime contractor officials. They agreed with the information in the report. Any technical or

editorial comments they had were incorporated into this report as appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 5 days from the date of issuance. At that time, we will send copies of this report to the Chairmen, House and Senate Committees on Armed Services; the Secretaries of Defense and the Air Force; the Director, Office of Management and Budget; and other interested parties upon request.

Sincerely yours,

A handwritten signature in cursive script that reads "Harry R. Finley".

Harry R. Finley
Senior Associate Director

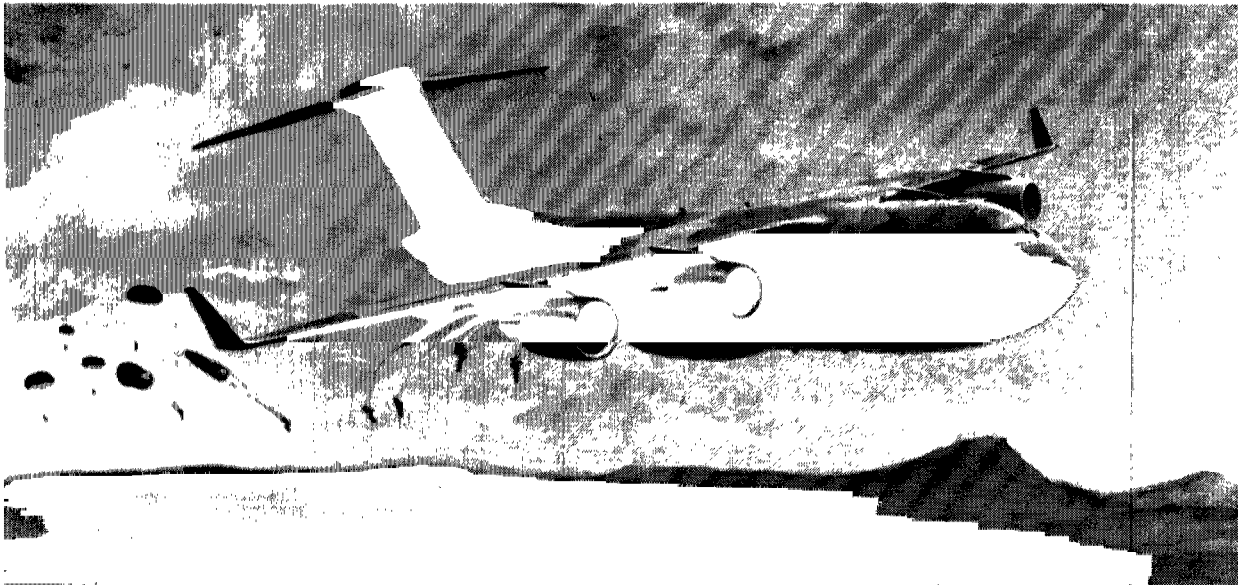
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C-17 AIRCRAFT

The C-17 aircraft (see fig. I.1) is being developed by the Air Force to provide additional inter-theater (from one theater of operation to another) and intra-theater (operations within one theater) airlift capabilities. It is being designed to fly the full range of military cargo into a wide variety of airfields.

Figure I.1: C-17 Aircraft



The prime contract for the C-17 was awarded competitively in 1982 to Douglas Aircraft Company, McDonnell Douglas Corporation, Long Beach, California. It is a fixed priced incentive fee contract that provides for a \$4.1 billion full-scale engineering development program and includes the fabrication of one test aircraft and other test articles. The contract also includes two options for the purchase of the first eight production aircraft, totaling \$1.7 billion.¹ The first production option for approximately \$604 million was exercised in January 1988, and the second option will be exercised in January 1989. The Air Force

¹Current plans call for the procurement of six rather than eight aircraft.

currently plans to acquire 210 aircraft at an estimated cost of about \$35 billion (in then-year dollars²).

Data provided to us by the Douglas Aircraft Company for subcontractors with subcontracts totaling over \$100,000 showed that as of July 31, 1987, 51 C-17 subcontractors were awarded 707 subcontracts. The subcontract data represent purchase orders issued between the period of July 23, 1982, and July 31, 1987. These subcontractors are located in 14 states, with 38 percent of the total dollar value of the subcontracts awarded to companies located in California. Approximately 79 percent of the total dollar value of the subcontracts were awarded competitively. The value of these subcontracts was approximately \$232.6 million, which does not include subcontracts of approximately \$9.4 million that were awarded to foreign firms. Douglas Aircraft Company informed us that subcontractors with purchase orders totaling over \$100,000 represented approximately 95 percent of the total dollar value of C-17 subcontracts.

A Douglas Aircraft Company official informed us that although the amount of its company's purchase orders as of July 31, 1987, totaled \$232.6 million, there is a much greater amount--about \$750 million--of commitments to purchase once it receives authority to produce future C-17 aircraft.

Tables I.1 through I.3 and figure I.2 present the data as provided to us by the prime contractor.

²Then-year dollars include estimates of future years' inflation.

Table I.1: C-17 Subcontractor Awards by State as of July 31, 1987

<u>State</u>	<u>Amount</u>	<u>Percent of total amount</u>
California	\$88,327,384	38.0
New York	52,100,128	22.4
Florida	41,179,747	17.7
Texas	11,975,106	5.1
Minnesota	11,959,433	5.1
Ohio	11,182,795	4.8
New Mexico	6,339,873	2.7
Arizona	3,044,699	1.3
Connecticut	2,997,952	1.3
Michigan	1,244,689	.5
Massachusetts	808,990	.3
Iowa	795,479	.3
Illinois	464,064	.2
New Jersey	200,000	.1
Total	<u>\$232,620,339</u>	<u>99.8^a</u>

^aLess than 100 percent due to rounding.

Figure I.2: C-17 Subcontractor Awards by State as of July 31, 1987

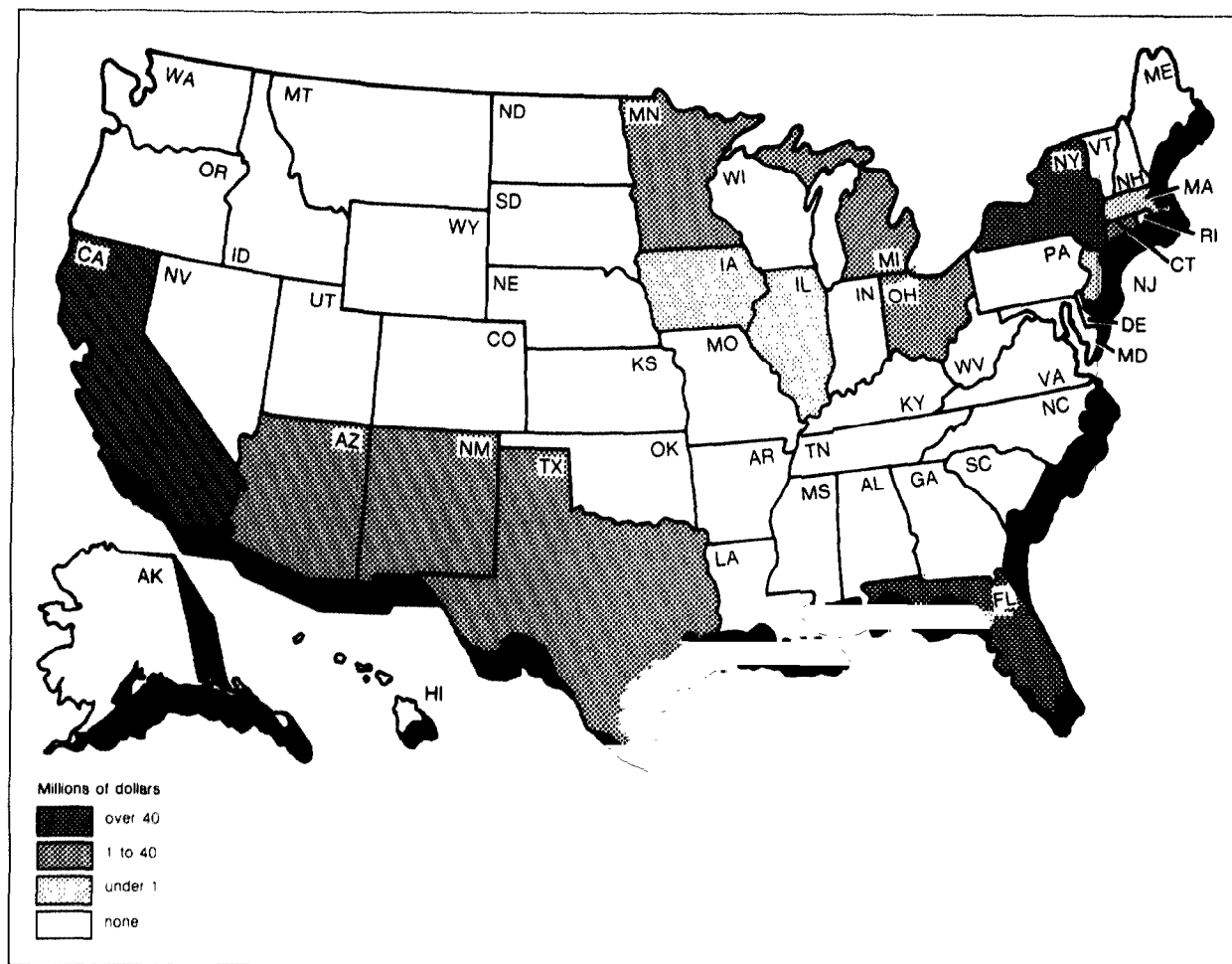


Table I.2: C-17 Subcontractor Awards by Congressional District as of July 31, 1987

<u>State</u>	<u>Congressional district</u>	<u>Amount</u>	<u>Percent of total amount</u>
California	19	\$ 69,313,447	29.8
Florida	12	39,979,747	17.2
New York	4	28,431,078 ^a	12.2
New York	33	18,997,922	8.2
Texas	5	11,828,680	5.1
Minnesota	3	11,598,194	5.0
Ohio	21	11,021,482	4.7
California	27	6,495,269	2.8
New Mexico	1	5,678,834	2.4
New York	3	4,671,128 ^a	2.0
California	28	4,032,926	1.7
California	23	3,080,439	1.3
Connecticut	6	2,997,952	1.3
Arizona	1	1,903,956	.8
California	25	1,350,486	.6
Florida	15	1,200,000	.5
Arizona	2	1,140,743	.5
California	31	1,026,364	.4
Massachusetts	3	808,990	.3
New Mexico	3	661,039	.3
California	40	655,496	.3
Michigan	5	642,500	.3
Michigan	12	602,189	.3
Iowa	2	452,273	.2
California	36	434,290	.2
California	33	422,097	.2
Minnesota	5	361,239	.2
Iowa	1	343,206	.1
California	21	275,000	.1
California	29	254,286	.1
California	30	250,707	.1
Illinois	13	249,501	.1
Illinois	16	214,563	.1
New Jersey	8	200,000	.1
California	39	186,909	.1
California	32	176,550	.1
Ohio	3	161,313	.1
Texas	20	146,426	.1
California	22	124,964	.1

<u>State</u>	<u>Congressional district</u>	<u>Amount</u>	<u>Percent of total amount</u>
California	42	122,920	0.1
California	38	117,701	.1
California	24	<u>7,533</u>	<u>b</u>
Total		<u>\$232,620,339</u>	<u>100.2^c</u>

^aAccording to one of the subcontractors we contacted, \$28.4 million shown in New York congressional district 4 should be in New York congressional district 3.

^bLess than one-tenth of 1 percent.

^cGreater than 100 percent due to rounding.

Table I.3: C-17 Competitive and Noncompetitive Subcontracts as of July 31, 1987^a

	<u>Dollar value of subcontracts</u>			<u>Percent of dollar value of subcontracts awarded competitively</u>	<u>Percent of State subcontracts awarded competitively</u>
	<u>Competitive</u>	<u>Non-competitive</u>	<u>Total</u>		
	----- (millions) -----				
Arizona	\$ 3.04	\$ 0.00	\$ 3.04	100.00	100.00
California	83.43	4.90	88.33	94.45	90.30
Connecticut	3.00	.00	3.00	100.00	100.00
Florida	36.99	4.19	41.18	89.83	75.00
Iowa	.65	.15	.80	81.25	47.83
Illinois	.44	.02	.46	95.65	92.86
Massachusetts	.62	.19	.81	76.54	64.29
Michigan	1.24	.00	1.24	100.00	100.00
Minnesota	.03	11.93	11.96	.25	25.00
New Jersey	.20	.00	.20	100.00	100.00
New Mexico	5.63	.71	6.34	88.80	60.00
New York	28.43	23.67	52.10	54.57	44.44
Ohio	11.15	.03	11.18	99.73	60.98
Texas	<u>7.89</u>	<u>4.09</u>	<u>11.98</u>	<u>65.86</u>	<u>56.25</u>
Total	<u>\$182.74</u>	<u>\$49.88</u>	<u>\$232.62</u>	78.56	84.44

^aWe determined whether a subcontract was awarded competitively or noncompetitively based on information supplied by the prime contractor. According to Douglas Aircraft Company, a subcontract was awarded competitively if it involved either price, design, or technical competition or if such competition was attempted.

C-5B AIRCRAFT

The C-5 (see fig. II.1) is the largest aircraft in the U.S. fleet and performs long-range airlift missions. It is a multi-engine turbofan aircraft designed to airlift substantial payloads over intercontinental ranges. It is the only U.S. aircraft currently capable of carrying outsized cargo and equipment, such as attack helicopters, fighting vehicles, large trucks, tanks, etc. The C-5B is a modified version of the C-5A design.

Figure II.1: C-5B Aircraft



The C-5B program is being executed under a fixed price with economic adjustment contract awarded in December 1982 to the Lockheed Corporation. The major part of the work on the C-5B aircraft is being performed by Lockheed Aeronautical Systems Company-Georgia, located in Marietta, Georgia. As of June 30, 1987, Lockheed had received contracts from the Air Force to produce 50 C-5Bs at a total value of \$6.7 billion. The Air Force has no plans at this time to buy additional C-5Bs.

The Air Force has also awarded, as competitive or minority business awards, several other smaller prime contracts for related work and training requirements for the C-5B aircraft. These smaller prime contractors are listed in table II.1.

Table II.1: Smaller C-5B Prime Contractors

<u>Contractor</u> ^a	<u>Location</u>	<u>Amount</u> (millions)	<u>Purpose</u>
United Airlines Aircrew Training, Inc.	Lakewood, Colorado	\$127.1	Aircrew training system
Enginetics Corporation	Huber Heights, Ohio	8.5	Troop seats
GEC Avionics Limited	Rochester, United Kingdom	3.6	Air data computer
Creativision, Inc.	Orlando, Florida	1.9	Training systems
MGR Equipment Corp.	Inwood, New York	.5	Refrigerators

^aAll the prime contracts were competitive awards except Enginetics Corporation, which was a minority business award.

Data provided to us by the prime contractors for subcontracts over \$500,000 showed that as of June 30, 1987, 99 C-5B subcontractors were awarded a total of 144 subcontracts. The value of these subcontracts was approximately \$3.37 billion, which does not include subcontracts amounting to \$172.7 million that were awarded to foreign firms. These subcontractors are located in 29 states, with approximately 44 percent of the total dollar value of the C-5B subcontracts awarded to companies located in California. Approximately 10 percent of the total dollar value of the subcontracts were awarded competitively.³ The prime contractor informed us that subcontractors with subcontracts totaling over \$500,000 represented approximately 90 percent of the total dollar value of C-5B subcontracts.

Tables II.2 through II.4 and figure II.2 present the data as provided to us by the prime contractors.

³According to Lockheed, the largest prime contractor, the low percentage of competitive contracts occurred because the C-5B is a variant and follow-on to the C-5A aircraft, and the original contracts were awarded competitively.

Table II.2: C-5B Subcontractor Awards by State as of June 30, 1987

<u>State</u>	<u>Amount</u>	<u>Percent of total amount</u>
California	\$1,488,827,403	44.2
Ohio	838,950,963	24.9
Tennessee	395,659,158	11.7
Texas	183,714,204	5.4
New York	126,729,402	3.8
Connecticut	66,341,452	2.0
New Jersey	64,431,402	1.9
Illinois	30,230,372	.9
Minnesota	29,857,777	.9
Arizona	29,043,172	.9
Wisconsin	20,569,896	.6
Michigan	17,407,363	.5
Florida	17,078,238	.5
Utah	12,924,532	.4
Massachusetts	9,371,463	.3
Iowa	9,104,985	.3
Virginia	7,870,000	.2
Washington	7,610,264	.2
Mississippi	4,657,644	.1
Vermont	2,732,339	.1
Colorado	1,882,482	.1
Indiana	1,241,110	a
New Mexico	973,530	a
Maryland	875,000	a
New Hampshire	836,732	a
Pennsylvania	677,644	a
Alabama	595,310	a
Georgia	561,650	a
North Carolina	554,119	a
Total	<u>\$3,371,309,606</u>	<u>99.9^b</u>

^aLess than one-tenth of 1 percent.

^bLess than 100 percent due to rounding.

Figure II.2: C-5B Subcontractor Awards by State as of June 30, 1987

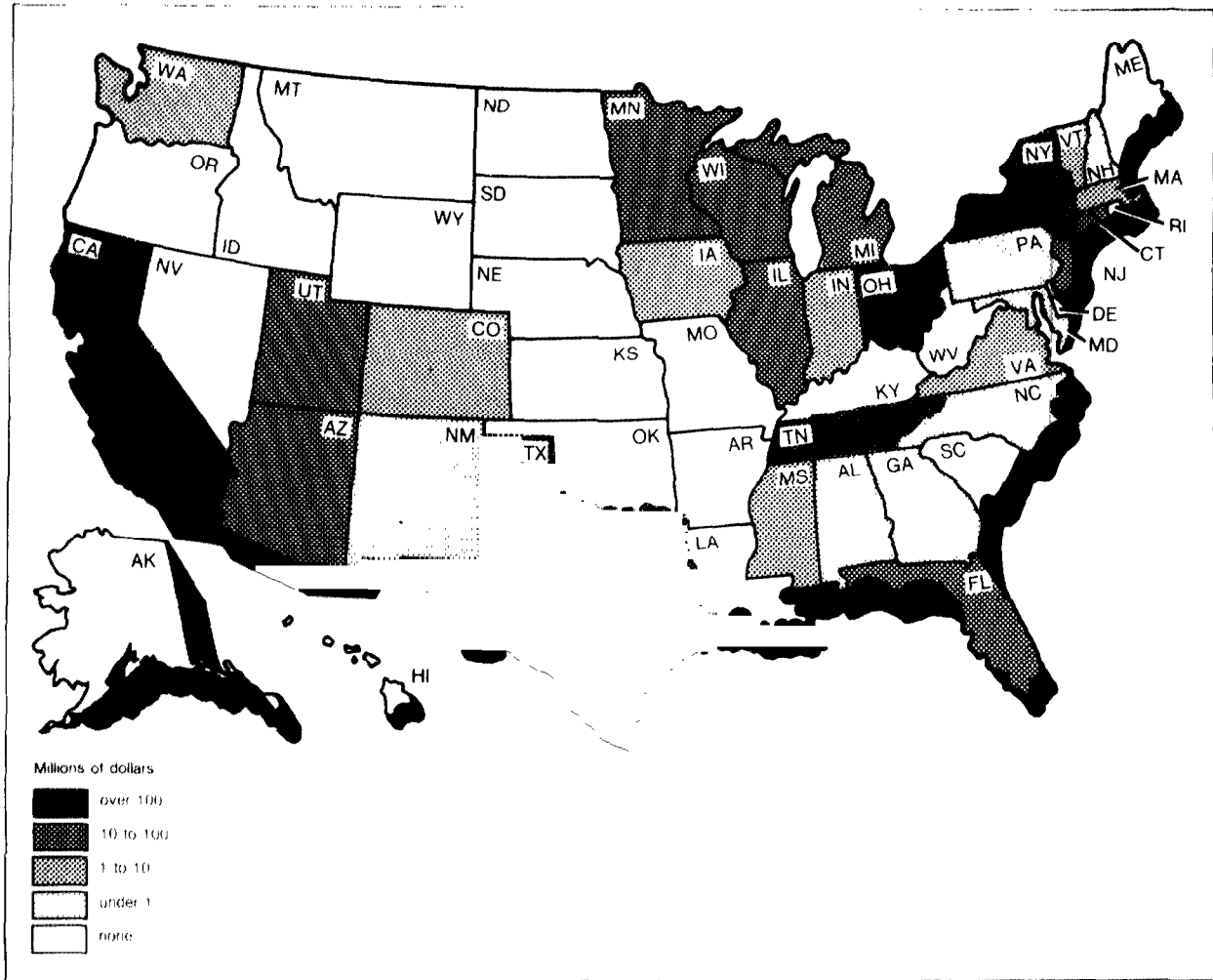


Table II.3: C-5B Subcontractor Awards by Congressional District as of June 30, 1987

<u>State</u>	<u>Congressional district</u>	<u>Amount</u>	<u>Percent of total amount</u>
California	22	\$848,584,288	25.2
Ohio	1	747,653,026	22.2
Tennessee	5	395,659,158	11.7
California	45	270,255,329 ^a	8.0
Texas	26	117,804,407	3.5
New York	4	108,129,754	3.2
California	42	88,317,498	2.6
Connecticut	1	66,341,452	2.0
Texas	24	63,822,223	1.9
California	26	54,569,491	1.6
California	40	53,293,233	1.6
California	36	52,998,209	1.6
California	34	45,247,266	1.3
Ohio	7	40,792,992	1.2
Ohio	14	36,500,000	1.1
Minnesota	3	29,857,777	.9
Arizona	1	29,043,172	.9
Illinois	16	27,987,050	.8
New Jersey	3	27,782,885	.8
New Jersey	7	26,091,165	.8
California	21	24,086,732	.7
Wisconsin	5	19,269,900	.6
Utah	2	12,924,532	.4
Michigan	15	12,911,315	.4
California	38	12,369,986	.4
New York	28	12,335,108	.4
Massachusetts	7	9,371,463	.3
California	19	9,074,891	.3
Iowa	2	8,557,185	.3
New Jersey	11	8,237,360	.2
Ohio	19	8,186,462	.2
Virginia	9	7,870,000	.2
Florida	15	6,675,421	.2
California	44	6,560,559 ^a	.2
Florida	14	5,121,525	.2
California	23	5,002,710	.1
Mississippi	4	4,657,644	.1
Washington	2	4,248,949	.1
New York	3	4,102,845	.1
Michigan	5	3,880,036	.1
Ohio	11	3,837,179	.1
California	29	3,674,100	.1
California	24	3,460,399	.1
Vermont	1	2,732,339	.1

<u>State</u>	<u>Congressional district</u>	<u>Amount</u>	<u>Percent of total amount</u>
Florida	1	2,644,852	0.1
California	35	\$2,423,863	.1
California	39	2,422,345	.1
New Jersey	12	2,319,992	.1
California	33	2,114,435	.1
Texas	12	2,087,574	.1
Ohio	3	1,981,304	.1
Colorado	1	1,882,482	.1
California	30	1,829,077	.1
California	31	1,761,988	.1
Florida	4	1,364,150	b
Washington	6	1,331,144	b
Wisconsin	4	1,299,996	b
Florida	8	1,272,290	b
Illinois	6	1,263,408	b
Indiana	4	1,241,110	b
Washington	4	1,109,041	b
Illinois	9	979,914	b
New Mexico	1	973,530	b
Washington	1	921,130	b
Maryland	2	875,000	b
New Hampshire	1	836,732	b
New York	2	833,460	b
California	27	781,004	b
New York	13	764,788	b
Pennsylvania	19	677,644	b
Michigan	18	616,012	b
Alabama	5	595,310	b
New York	9	563,447	b
Georgia	4	561,650	b
North Carolina	9	554,119	b
Iowa	1	547,800	.b
Total		<u>\$3,371,309,606</u>	<u>99.8^c</u>

^aAccording to one of the subcontractors we contacted, \$270.2 million shown in California congressional district 45 should be in California congressional district 44.

^bLess than one-tenth of 1 percent.

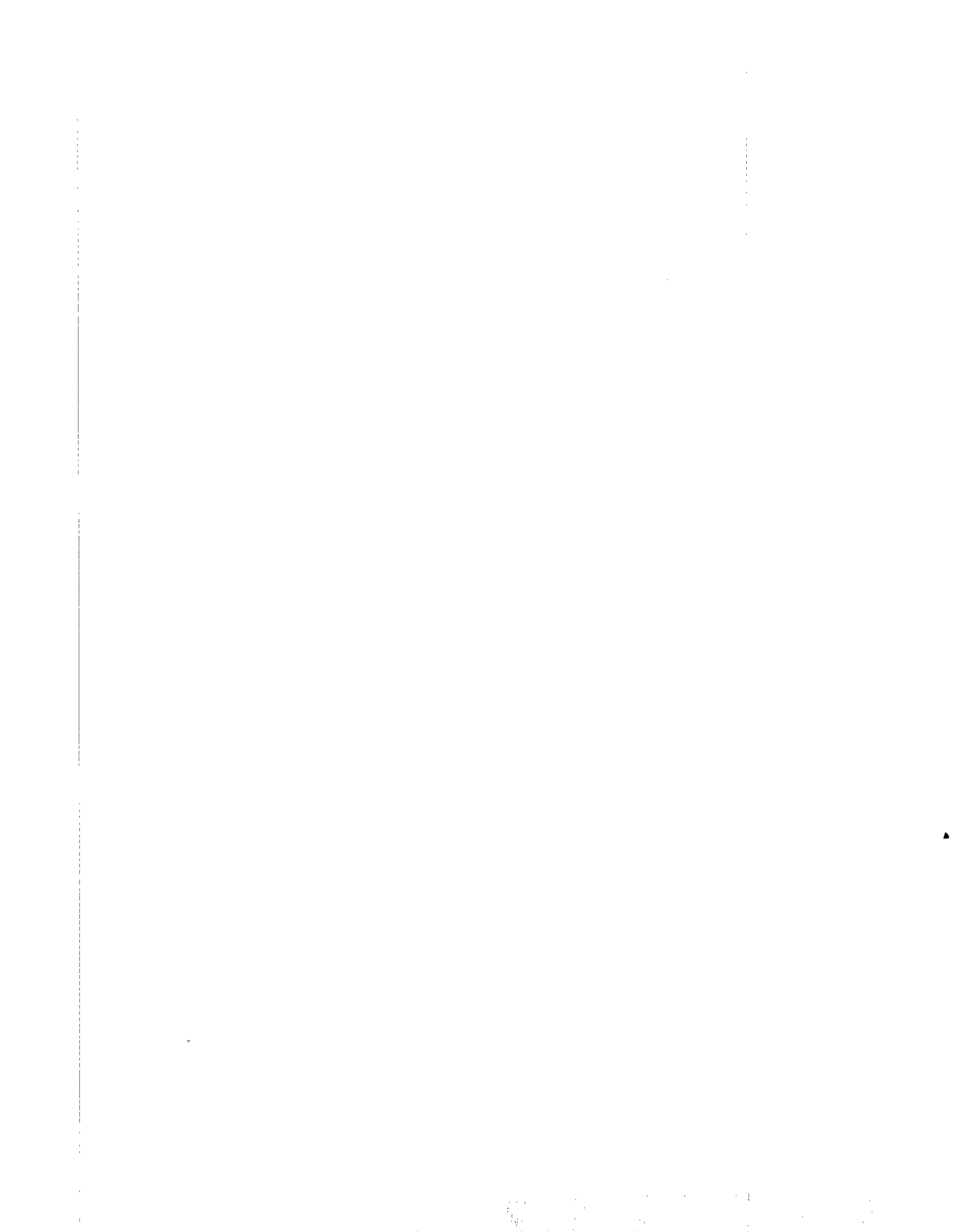
^cLess than 100 percent due to rounding.

Table II.4: C-5B Competitive and Noncompetitive Subcontracts as of June 30, 1987^a

	<u>Dollar value of subcontracts</u>			<u>Percent of dollar value of subcontracts awarded competitively</u>	<u>Percent of State subcontracts awarded competitively</u>
	<u>Competitive</u>	<u>Non-competitive</u>	<u>Total</u>		
	----- (millions) -----				
Alabama	\$ 0.60	\$ 0.00	\$ 0.60	100.00	100.00
Arizona	.00	29.04	29.04	.00	.00
California	58.26	1,430.57	1,488.83	3.91	25.00
Colorado	1.88	.00	1.88	100.00	100.00
Connecticut	.00	66.34	66.34	.00	.00
Florida	7.76	9.32	17.08	45.43	50.00
Georgia	.00	.56	.56	.00	.00
Illinois	1.26	28.97	30.23	4.17	25.00
Indiana	.00	1.24	1.24	.00	.00
Iowa	.55	8.56	9.11	6.04	20.00
Maryland	.00	.88	.88	.00	.00
Massachusetts	9.37	.00	9.37	100.00	100.00
Michigan	4.91	12.49	17.40	28.22	25.00
Minnesota	.00	29.86	29.86	.00	.00
Mississippi	2.21	2.45	4.66	47.42	50.00
North Carolina	.00	.55	.55	.00	.00
New Hampshire	.84	.00	.84	100.00	100.00
New Jersey	7.26	57.17	64.43	11.27	9.09
New Mexico	.00	.97	.97	.00	.00
New York	111.76	14.97	126.73	88.19	42.86
Ohio	.00	838.95	838.95	.00	.00
Pennsylvania	.68	.00	.68	100.00	100.00
Tennessee	.00	395.66	395.66	.00	.00
Texas	124.78	58.93	183.71	67.92	66.67
Utah	12.92	.00	12.92	100.00	100.00
Vermont	2.73	.00	2.73	100.00	100.00
Virginia	.00	7.87	7.87	.00	.00
Washington	2.44	5.17	7.61	32.06	50.00
Wisconsin	.00	20.57	20.57	.00	.00
Total	<u>\$350.21</u>	<u>\$3,021.09</u>	<u>\$3,371.30</u>	10.39	28.47

^aWe determined whether a subcontract was awarded competitively or noncompetitively based on information supplied by the prime contractors.

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