

# Value of Construction Put in Place

JUNE 1998



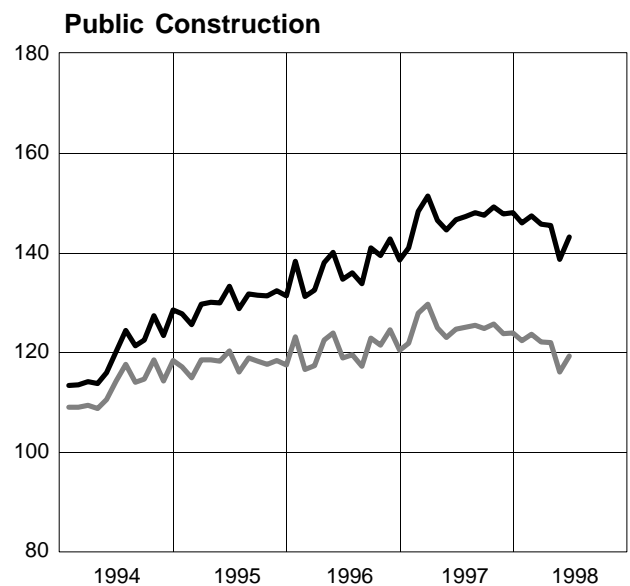
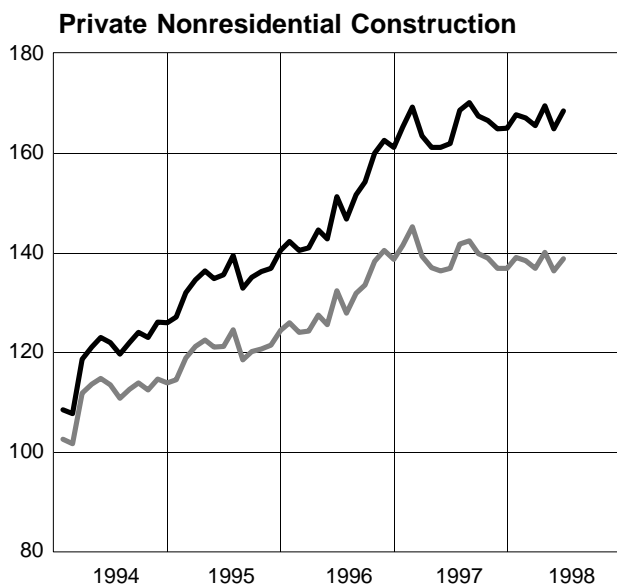
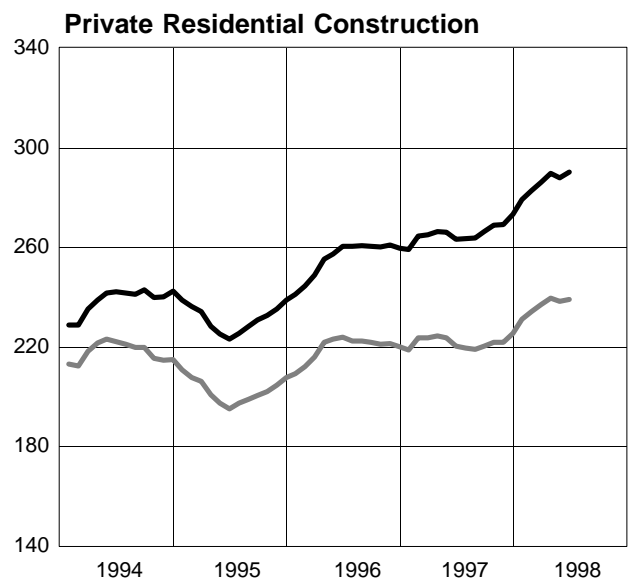
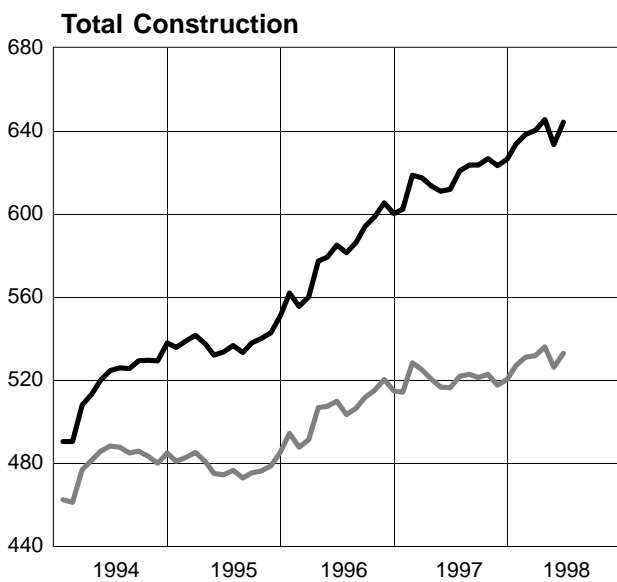
U.S. Department of Commerce  
Economics and Statistics Administration  
BUREAU OF THE CENSUS

C30/98-6  
Issued August 1998

## Monthly Value of Construction Put in Place

(Seasonally adjusted annual rate in billions of dollars)

— Current dollars  
— 1992 dollars



Source: U.S. Bureau of the Census, Value of Construction Put in Place.

## VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during June 1998 was estimated at a seasonally adjusted annual rate of \$644.0 billion, 2 ( $\pm 5$ ) percent above the revised May estimate of \$633.3 billion. The June figure represents a 5( $\pm 5$ ) percent increase over June 1997.

During the first 6 months of this year \$294.4 billion of construction was put in place, 5 percent above the \$281.5 billion for the same period in 1997.

In constant (1992) dollars, the June annual rate was \$532.6 billion, 1( $\pm 5$ ) percent above the revised estimate of \$525.9 billion for May.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$207.1 billion in June, 1( $\pm 2$ ) percent above the revised May estimate of \$204.5 billion. Nonresidential building construction was at a rate of \$168.4 billion, 2( $\pm 3$ ) percent above the revised May estimate of \$164.8 billion.

In June, the estimated seasonally adjusted annual rate of public construction put in place was \$143.0 billion, 3( $\pm 5$ ) percent above the revised May estimate of \$138.5 billion.

The "value of construction put in place" is a measure of the value of construction installed or erected at the site during a given period. For an individual project, this includes—

1. Cost of materials installed or erected.
2. Cost of labor (both by contractors and force account) and a proportionate share of the cost of construction equipment rental.
3. Contractor's profit.
4. Project owner's overhead and office costs.
5. Cost of architectural and engineering work.
6. Miscellaneous costs chargeable to the project on the owner's books.
7. Interest and taxes paid during construction.

The total value-in-place for a given period is the sum of the value of work done on all projects underway during this period, regardless of when work on each individual project was started or when payment was made to the contractors. For some categories, estimates are derived by distributing the total construction cost of the project by means of historic construction progress patterns.

## ADDITIONAL DATA

Additional data related to the value of construction put in place can be found in the following publications:

- Current Construction Reports, *Value of Construction Put in Place: May 1998*, C30/98-5, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1998; contains annual data for 1993 to 1997 and monthly data for 1995 to 1997.
- Current Construction Reports, *Value of Construction Put in Place: July 1997*, C30/97-7, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1997; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1973 to 1996.
- Current Construction Reports, *Value of New Construction Put in Place: October 1992*, C30/92-10, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1992; contains total time and monthly progress from start to completion for private nonresidential buildings and for state and local construction.
- Current Construction Reports, *Value of New Construction Put in Place in the United States, 1964 to 1980*, C30-80 supplement, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1981; contains annual data for 1915 to 1963.
- Current Construction Reports Special Study, *Expenditures for Nonresidential Improvements and Repairs: 1992*, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1994.

Table 1. Annual Value of Construction Put in Place: 1993-1997

[Millions of dollars]

Type of construction	Current dollars					Constant (1992) dollars				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
<b>Total construction</b> .....	<b>478,648</b>	<b>519,539</b>	<b>538,134</b>	<b>583,638</b>	<b>618,217</b>	<b>461,078</b>	<b>480,620</b>	<b>478,069</b>	<b>506,655</b>	<b>520,117</b>
<b>Private construction</b> .....	<b>362,688</b>	<b>399,346</b>	<b>407,477</b>	<b>446,306</b>	<b>471,159</b>	<b>347,851</b>	<b>367,247</b>	<b>360,040</b>	<b>385,967</b>	<b>395,321</b>
Residential buildings .....	210,455	238,874	230,688	256,460	265,610	200,502	218,005	201,677	220,017	221,546
New housing units .....	144,071	167,919	162,898	179,448	187,075	137,243	153,250	142,413	153,966	156,038
1 unit .....	133,282	153,838	145,009	159,124	164,444	126,960	140,416	126,773	136,516	137,156
2 or more units .....	10,788	14,081	17,889	20,324	22,631	10,283	12,833	15,640	17,450	18,882
Improvements .....	66,384	70,955	67,790	77,012	78,535	63,259	64,755	59,264	66,052	65,508
Nonresidential buildings .....	110,635	120,285	135,022	150,350	165,146	106,729	111,416	120,627	131,188	139,067
Industrial .....	26,482	28,947	32,505	32,657	31,394	25,554	26,803	29,043	28,503	26,440
Office .....	20,920	22,178	25,613	27,886	32,816	20,197	20,553	22,891	24,329	27,631
Hotels, motels .....	4,565	4,648	7,112	10,912	12,752	4,405	4,308	6,351	9,521	10,741
Other commercial .....	32,453	37,551	42,654	48,188	50,763	31,292	34,756	38,098	42,042	42,748
Religious .....	3,887	3,869	4,326	4,534	5,885	3,748	3,584	3,864	3,955	4,951
Educational .....	4,649	4,822	5,493	6,742	8,437	4,484	4,471	4,908	5,880	7,101
Hospital and institutional .....	12,492	12,268	11,248	11,780	13,741	12,050	11,377	10,051	10,280	11,576
Miscellaneous <sup>1</sup> .....	5,188	6,002	6,071	7,650	9,358	5,000	5,565	5,421	6,677	7,880
Farm nonresidential .....	3,392	3,226	3,014	3,804	3,956	3,271	2,990	2,692	3,319	3,329
Public utilities .....	34,925	34,071	35,859	33,261	34,188	34,120	32,074	32,401	29,286	29,448
Telecommunications .....	9,619	10,121	11,093	11,772	11,626	9,468	9,785	10,073	10,245	9,918
Other public utilities .....	25,306	23,950	24,766	21,489	22,562	24,652	22,289	22,328	19,041	19,529
Railroads .....	3,108	3,340	3,509	4,398	5,059	3,056	3,186	3,201	3,894	4,321
Electric light and power .....	15,567	14,918	14,049	11,211	12,144	15,096	13,877	12,656	9,914	10,545
Gas .....	5,645	4,694	6,279	4,865	4,390	5,536	4,308	5,637	4,330	3,820
Petroleum pipelines .....	986	998	929	1,015	969	965	918	834	903	843
All other private <sup>2</sup> .....	3,281	2,890	2,893	2,431	2,258	3,229	2,763	2,643	2,156	1,931
<b>Public construction</b> .....	<b>115,960</b>	<b>120,193</b>	<b>130,657</b>	<b>137,333</b>	<b>147,058</b>	<b>113,227</b>	<b>113,373</b>	<b>118,029</b>	<b>120,688</b>	<b>124,796</b>
Buildings .....	48,559	49,446	55,700	58,659	63,603	46,813	45,728	49,683	51,119	53,515
Housing and redevelopment ..	4,011	3,835	4,491	4,614	4,861	3,833	3,495	3,928	3,958	4,055
Industrial .....	1,718	1,465	1,508	1,389	998	1,658	1,358	1,348	1,214	842
Educational .....	19,129	20,361	23,278	24,112	27,065	18,465	18,838	20,800	21,035	22,786
Hospital .....	3,710	3,951	4,332	4,638	5,042	3,579	3,663	3,871	4,050	4,247
Other <sup>3</sup> .....	19,991	19,834	22,089	23,907	25,637	19,279	18,373	19,737	20,863	21,585
Highways and streets .....	34,299	37,419	38,498	41,243	45,197	34,164	36,219	35,303	36,483	38,605
Military facilities .....	2,453	2,318	3,011	2,634	2,620	2,405	2,196	2,728	2,317	2,223
Conservation and development ..	5,937	6,363	6,368	6,011	5,658	5,771	5,996	5,779	5,335	4,841
Sewer systems .....	8,863	8,700	9,435	10,433	10,463	8,622	8,199	8,557	9,260	8,951
Water supply facilities .....	5,085	4,647	5,283	5,964	6,339	4,868	4,237	4,695	5,187	5,393
Miscellaneous public <sup>4</sup> .....	10,765	11,301	12,362	12,388	13,177	10,583	10,799	11,284	10,987	11,267

<sup>1</sup>Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc.

<sup>2</sup>Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc.

<sup>3</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc.

<sup>4</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 2. Annual Value of Public Construction Put in Place: 1993-1997

[Millions of dollars]

Type of construction	Current dollars					Constant (1992) dollars				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
<b>Total public construction . . . .</b>	<b>115,960</b>	<b>120,193</b>	<b>130,657</b>	<b>137,333</b>	<b>147,058</b>	<b>113,227</b>	<b>113,373</b>	<b>118,029</b>	<b>120,688</b>	<b>124,796</b>
<b>State and local construction . . . . .</b>	<b>101,535</b>	<b>105,753</b>	<b>114,906</b>	<b>121,965</b>	<b>132,777</b>	<b>99,200</b>	<b>99,804</b>	<b>103,816</b>	<b>107,169</b>	<b>112,687</b>
Total buildings . . . . .	42,865	44,303	49,657	52,429	57,497	41,323	40,972	44,294	45,689	48,379
Housing and redevelopment . . . . .	3,775	3,389	3,915	3,933	4,185	3,608	3,089	3,424	3,374	3,490
Educational . . . . .	19,108	20,335	23,252	24,099	27,046	18,445	18,814	20,776	21,024	22,770
Hospital . . . . .	2,804	3,099	3,291	3,478	3,791	2,703	2,875	2,940	3,036	3,193
Other <sup>1</sup> . . . . .	17,177	17,480	19,199	20,919	22,476	16,567	16,195	17,153	18,255	18,926
Highways and streets . . . . .	33,961	36,991	38,190	40,875	44,817	33,827	35,805	35,020	36,157	38,281
Conservation and development . . . . .	1,719	1,988	2,201	2,167	2,296	1,670	1,872	1,997	1,922	1,964
Sewer systems . . . . .	8,863	8,700	9,435	10,433	10,463	8,622	8,199	8,557	9,260	8,951
Water supply facilities . . . . .	5,085	4,647	5,283	5,964	6,339	4,868	4,237	4,695	5,187	5,393
Miscellaneous nonbuilding <sup>2</sup> . . . . .	9,043	9,125	10,140	10,097	11,364	8,890	8,719	9,252	8,954	9,719
<b>Federal construction . . . . .</b>	<b>14,424</b>	<b>14,440</b>	<b>15,751</b>	<b>15,368</b>	<b>14,281</b>	<b>14,027</b>	<b>13,569</b>	<b>14,214</b>	<b>13,519</b>	<b>12,109</b>
Total buildings . . . . .	5,695	5,142	6,043	6,230	6,106	5,490	4,755	5,390	5,430	5,136
Housing . . . . .	236	446	576	681	677	225	406	503	585	565
Industrial . . . . .	1,718	1,465	1,508	1,389	998	1,658	1,358	1,348	1,214	842
Educational . . . . .	21	26	27	12	19	20	24	24	11	16
Hospital . . . . .	906	851	1,041	1,159	1,251	875	789	931	1,013	1,053
Other <sup>3</sup> . . . . .	2,814	2,354	2,891	2,989	3,161	2,713	2,178	2,584	2,608	2,659
Highways and streets . . . . .	338	428	308	368	380	336	414	283	325	325
Military facilities . . . . .	2,453	2,318	3,011	2,634	2,620	2,405	2,196	2,728	2,317	2,223
Conservation and development . . . . .	4,217	4,376	4,167	3,845	3,362	4,102	4,124	3,781	3,412	2,877
Miscellaneous public <sup>4</sup> . . . . .	1,722	2,176	2,223	2,291	1,812	1,693	2,080	2,032	2,034	1,548

NA Not available, but estimates are included in totals.

<sup>1</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc.<sup>2</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.<sup>3</sup>Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc.<sup>4</sup>Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 3. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars

[Millions of dollars]

Period	Total construction	Private construction																All other private <sup>5</sup>	
		Total <sup>1</sup>	Residential buildings					Nonresidential buildings								Public utilities <sup>4</sup>			
			Total <sup>2</sup>	New housing units				Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous <sup>3</sup>	Total		Telecommunications
				Total	1 unit	2 units or more													
<b>YEAR TO DATE</b>																			
June 1997	281,526	217,194	121,651	85,517	74,698	10,819	77,810	14,865	15,242	6,235	23,930	2,575	3,772	6,722	4,470	(NA)	5,334	1,007	
June 1998	294,389	230,844	132,025	94,207	82,433	11,774	79,648	14,498	17,693	6,275	22,921	2,835	4,486	6,584	4,356	(NA)	(NA)	1,115	
Percent change	5	6	9	10	10	9	2	-2	16	1	-4	10	19	-2	-3	(NA)	(NA)	11	
<b>MONTHLY DATA</b>																			
1996: June	53,031	40,613	24,186	16,399	14,475	1,924	12,942	2,768	2,514	894	4,107	387	641	995	636	(NA)	888	216	
July	54,170	40,860	24,713	16,896	15,184	1,712	12,704	2,601	2,441	866	4,147	360	677	962	651	(NA)	932	201	
August	56,370	42,620	25,292	17,289	15,536	1,752	13,521	2,632	2,498	1,001	4,590	411	721	1,039	631	(NA)	1,065	247	
September	56,513	41,913	24,445	17,074	15,381	1,693	13,908	2,914	2,594	994	4,644	425	650	1,045	643	(NA)	949	199	
October	55,820	42,209	24,092	16,694	14,961	1,733	14,408	3,219	2,589	1,000	4,748	439	634	1,068	711	(NA)	1,110	223	
November	52,175	40,092	22,695	15,955	14,217	1,738	13,927	2,993	2,614	1,002	4,433	452	617	1,100	716	(NA)	1,113	187	
December	45,436	35,480	19,093	13,406	11,826	1,581	13,114	2,823	2,507	1,050	3,962	430	560	1,104	678	(NA)	1,251	176	
1997: January	40,440	31,726	16,992	12,255	10,781	1,474	12,164	2,436	2,440	938	3,734	367	528	1,067	655	(NA)	795	152	
February	39,927	31,068	16,412	11,986	10,286	1,700	12,385	2,464	2,580	972	3,715	379	531	1,086	659	(NA)	771	141	
March	44,448	34,546	19,268	13,987	12,239	1,747	12,584	2,329	2,468	1,014	3,850	439	544	1,169	769	(NA)	854	164	
April	48,594	37,593	21,225	14,800	12,979	1,822	13,112	2,482	2,469	1,040	4,009	461	663	1,190	797	(NA)	975	179	
May	52,329	40,089	23,253	15,900	13,819	2,081	13,556	2,522	2,556	1,140	4,228	485	703	1,112	810	(NA)	946	179	
June	55,788	42,172	24,501	16,589	14,594	1,995	14,009	2,632	2,728	1,130	4,394	445	803	1,098	780	(NA)	994	192	
July	57,921	43,454	25,044	17,209	15,337	1,872	14,601	2,784	2,881	1,120	4,607	478	848	1,075	808	(NA)	1,070	199	
August	59,902	44,679	25,596	17,648	15,646	2,002	15,105	2,881	2,984	1,110	4,759	498	847	1,195	831	(NA)	995	225	
September	59,480	44,176	24,987	17,739	15,762	1,977	15,160	2,894	2,978	1,077	4,737	572	806	1,247	849	(NA)	1,087	209	
October	58,365	43,856	24,847	17,641	15,506	2,136	14,968	2,789	3,073	1,109	4,607	604	767	1,192	827	(NA)	1,120	244	
November	53,508	41,047	23,395	16,823	14,889	1,934	14,040	2,566	2,908	1,052	4,224	591	718	1,190	791	(NA)	965	214	
December	47,514	36,751	20,089	14,497	12,606	1,891	13,462	2,614	2,751	1,049	3,899	567	679	1,120	782	(NA)	1,056	159	
1998: January	42,419	33,440	18,345	13,464	11,644	1,819	12,316	2,306	2,801	994	3,406	482	647	1,049	632	(NA)	795	181	
February	41,199	32,338	17,568	12,974	11,111	1,864	12,244	2,297	2,657	987	3,409	484	673	1,081	657	(NA)	874	160	
March	46,531	36,887	20,909	15,408	13,442	1,966	12,910	2,489	2,764	1,015	3,662	476	733	1,079	692	(NA)	1,074	177	
April <sup>f</sup>	51,242	40,274	23,165	16,460	14,417	2,043	13,755	2,511	3,027	1,106	3,894	476	791	1,147	803	(NA)	982	176	
May <sup>f</sup>	54,045	42,355	25,113	17,340	15,307	2,034	13,756	2,402	3,118	1,021	4,099	442	821	1,099	756	(NA)	1,020	200	
June <sup>e</sup>	58,952	45,550	26,925	18,561	16,513	2,048	14,667	2,493	3,326	1,152	4,450	477	821	1,130	817	(NA)	(NA)	222	
<b>PERCENT CHANGE</b>																			
May 1998- June 1998	9	8	7	7	8	1	7	4	7	13	9	8	(Z)	3	8	(NA)	(NA)	11	

See footnotes at end of table.

Table 3. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars—Con.

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public <sup>7</sup>
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings <sup>6</sup>						
<b>YEAR TO DATE</b>													
June 1997 . . . . .	64,332	29,586	2,235	537	12,421	2,418	11,976	17,469	1,207	2,592	4,890	2,934	5,654
June 1998 . . . . .	63,545	29,669	2,288	488	12,171	1,891	12,831	17,217	1,265	2,552	4,557	3,003	5,282
Percent change . . . . .	-1	(Z)	2	-9	-2	-22	7	-1	5	-2	-7	2	-7
<b>MONTHLY DATA</b>													
1996: June . . . . .	12,417	5,045	356	129	2,130	377	2,052	4,041	219	513	888	526	1,186
July . . . . .	13,310	5,315	406	129	2,392	376	2,013	4,679	200	520	865	519	1,211
August . . . . .	13,749	5,503	381	132	2,597	331	2,062	4,737	202	579	1,042	520	1,167
September . . . . .	14,601	5,729	478	184	2,350	459	2,258	4,906	284	884	975	552	1,271
October . . . . .	13,612	5,266	443	60	2,207	386	2,171	4,939	179	433	1,107	685	1,003
November . . . . .	12,084	5,296	443	91	2,161	351	2,251	3,570	207	494	948	559	1,009
December . . . . .	9,956	4,813	371	88	1,893	418	2,043	2,595	204	401	762	474	708
1997: January . . . . .	8,714	4,475	340	89	1,796	396	1,854	1,821	202	418	680	426	692
February . . . . .	8,859	4,474	344	79	1,809	388	1,854	1,877	173	390	687	442	816
March . . . . .	9,902	4,803	351	88	1,979	390	1,996	2,218	195	459	783	519	925
April . . . . .	11,001	5,035	381	112	2,070	428	2,044	3,084	190	430	828	494	940
May . . . . .	12,240	5,116	421	74	2,181	379	2,061	3,868	220	452	934	520	1,130
June . . . . .	13,616	5,682	399	95	2,585	437	2,166	4,600	227	444	978	533	1,151
July . . . . .	14,467	5,877	420	92	2,736	449	2,180	5,082	239	469	955	577	1,270
August . . . . .	15,222	5,984	409	80	2,858	410	2,228	5,500	248	521	963	556	1,451
September . . . . .	15,304	6,065	469	98	2,517	525	2,456	5,206	279	764	1,031	587	1,372
October . . . . .	14,510	5,874	528	56	2,428	467	2,396	5,044	205	405	992	616	1,374
November . . . . .	12,460	5,253	430	65	2,069	411	2,277	4,030	242	417	882	579	1,057
December . . . . .	10,763	4,965	371	70	2,036	362	2,125	2,866	201	490	751	491	1,000
1998: January . . . . .	8,980	4,581	361	75	1,839	328	1,979	1,943	198	352	689	426	791
February . . . . .	8,861	4,559	357	78	1,807	302	2,014	1,864	197	428	656	447	711
March . . . . .	9,644	4,746	381	94	1,850	367	2,053	2,225	244	412	741	467	809
April <sup>f</sup> . . . . .	10,968	5,095	391	84	2,096	294	2,230	3,067	203	393	778	533	900
May <sup>f</sup> . . . . .	11,691	5,155	371	80	2,173	295	2,237	3,597	199	436	790	555	959
June <sup>p</sup> . . . . .	13,401	5,532	427	77	2,405	305	2,318	4,522	225	532	904	575	1,112
<b>PERCENT CHANGE</b>													
May 1998- June 1998 . . . . .	15	7	15	-4	11	3	4	26	13	22	14	4	16

NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>r</sup>Revised. <sup>Z</sup> Less than 0.5 percent.

<sup>1</sup>Includes farm nonresidential and other private categories, not shown separately. <sup>2</sup>Includes residential improvements, not shown separately. <sup>3</sup>Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. <sup>4</sup>Includes gas, electric, railroad, and petroleum pipelines, not shown separately. <sup>5</sup>Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. <sup>6</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. <sup>7</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

**Table 4. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars**

[Millions of dollars]

Period		Total construction	Private construction																All other private <sup>5</sup>	
			Total <sup>1</sup>	Residential buildings						Nonresidential buildings								Public utilities <sup>4</sup>		
				Total <sup>2</sup>	Total	1 unit	2 units or more	Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous <sup>3</sup>	Total	Telecommunications		
1996:	June . . . . .	584,892	450,310	260,051	182,824	161,432	21,392	151,072	32,472	30,111	10,338	47,436	4,877	6,611	11,782	7,445	(NA)	10,661	2,531	
	July . . . . .	581,004	445,138	260,173	181,807	162,108	19,699	146,740	30,631	28,635	10,383	46,549	4,331	6,685	11,824	7,702	(NA)	10,719	2,213	
	August . . . . .	586,042	452,361	260,517	181,605	162,401	19,203	151,499	30,838	28,659	11,669	49,218	4,596	7,121	12,066	7,331	(NA)	11,703	2,701	
	September . . . . .	593,691	452,940	260,283	180,668	161,338	19,330	154,087	33,108	29,558	11,735	48,502	4,553	7,188	12,134	7,309	(NA)	11,363	2,169	
	October . . . . .	598,301	459,013	259,797	180,249	160,440	19,809	159,899	35,275	30,168	11,794	50,596	4,468	7,447	12,234	7,919	(NA)	11,799	2,318	
	November . . . . .	605,105	462,431	260,599	180,599	159,890	20,709	162,412	34,729	30,725	12,224	50,954	5,019	7,960	12,652	8,149	(NA)	12,783	2,104	
	December . . . . .	599,884	461,449	259,498	179,773	159,805	19,968	161,077	32,329	31,014	12,740	50,366	5,018	7,829	13,337	8,444	(NA)	14,272	2,213	
1997:	January . . . . .	602,124	461,235	259,048	179,657	159,322	20,335	165,061	32,618	31,522	12,693	53,149	4,964	7,615	13,523	8,977	(NA)	11,194	2,046	
	February . . . . .	618,393	470,198	264,424	185,506	162,199	23,307	169,227	33,182	33,541	12,636	54,042	5,251	7,754	13,828	8,992	(NA)	11,114	2,071	
	March . . . . .	617,245	465,958	264,871	185,656	163,372	22,284	163,376	30,215	31,477	12,209	52,505	5,816	7,404	14,480	9,269	(NA)	11,096	2,204	
	April . . . . .	613,239	466,886	266,145	186,987	164,635	22,352	161,135	30,207	29,691	12,072	51,128	5,844	8,496	14,439	9,258	(NA)	11,766	2,285	
	May . . . . .	610,761	466,260	265,791	187,009	163,543	23,465	161,046	30,572	29,868	12,740	50,679	6,034	8,252	13,144	9,757	(NA)	11,337	2,228	
	June . . . . .	611,646	465,174	262,893	184,492	162,301	22,191	161,757	31,122	31,903	12,840	49,930	5,629	8,182	13,016	9,136	(NA)	11,622	2,254	
	July . . . . .	620,506	473,292	263,156	184,675	163,163	21,513	168,474	32,726	33,895	13,327	51,816	5,690	8,249	13,220	9,550	(NA)	12,112	2,223	
	August . . . . .	623,429	475,498	263,496	185,126	163,122	22,004	170,033	33,403	34,106	13,425	51,351	5,707	8,492	13,873	9,676	(NA)	11,432	2,442	
	September . . . . .	623,305	475,885	266,077	187,791	165,194	22,597	167,326	32,220	34,000	12,551	49,473	6,005	8,936	14,491	9,651	(NA)	12,322	2,286	
	October . . . . .	626,608	477,539	268,623	190,861	166,432	24,429	166,404	30,870	35,215	13,325	48,623	6,368	9,135	13,660	9,209	(NA)	11,975	2,509	
	November . . . . .	623,068	475,340	268,893	190,810	167,761	23,049	164,810	30,075	34,443	12,793	49,158	6,441	9,176	13,691	9,033	(NA)	11,624	2,396	
	December . . . . .	626,290	478,363	273,020	194,627	170,739	23,889	164,948	29,794	33,857	12,665	49,357	6,552	9,440	13,550	9,733	(NA)	11,702	2,003	
1998:	January . . . . .	633,714	487,807	278,956	197,151	172,085	25,066	167,636	31,055	36,853	13,082	48,954	6,399	9,325	13,294	8,676	(NA)	11,604	2,446	
	February . . . . .	638,180	490,896	282,496	200,582	175,198	25,384	166,962	30,936	34,624	12,723	49,528	6,661	9,846	13,709	8,935	(NA)	12,614	2,351	
	March . . . . .	639,913	494,333	286,045	203,633	178,825	24,808	165,449	31,474	34,661	12,182	49,320	6,145	9,900	13,401	8,366	(NA)	13,234	2,382	
	April <sup>f</sup> . . . . .	645,349	499,946	289,587	207,064	182,300	24,764	169,354	31,391	36,655	12,664	49,551	6,066	9,878	13,827	9,320	(NA)	11,939	2,253	
	May <sup>f</sup> . . . . .	633,277	494,776	287,684	204,476	181,322	23,154	164,844	28,737	36,893	12,082	49,590	5,710	9,704	13,026	9,102	(NA)	12,751	2,449	
	June <sup>p</sup> . . . . .	644,002	501,045	289,991	207,111	184,163	22,948	168,434	28,876	38,865	12,893	50,570	5,854	8,425	13,452	9,498	(NA)	(NA)	2,531	
<b>PERCENT CHANGE</b>																				
	May 1998- June 1998 . . . . .	2	1	1	1	2	-1	2	(Z)	5	7	2	3	-13	3	4	(NA)	(NA)	3	

See footnotes at end of table.

Table 4. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars—Con.

[Millions of dollars]

Period		Public construction												
		Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public <sup>7</sup>
			Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings <sup>6</sup>						
1996:	June . . . . .	134,581	56,670	4,236	1,525	22,843	4,388	23,677	39,914	2,643	6,004	10,024	5,954	13,373
	July . . . . .	135,866	58,036	4,804	1,531	23,739	4,278	23,683	41,106	2,396	5,916	9,687	5,686	13,039
	August . . . . .	133,681	57,799	4,602	1,623	24,176	4,137	23,260	39,314	2,321	6,146	10,803	5,679	11,620
	September . . . . .	140,751	60,972	4,940	1,661	24,911	4,786	24,674	41,814	2,761	7,008	10,033	6,092	12,071
	October . . . . .	139,288	59,847	4,825	864	25,493	4,373	24,292	41,799	2,576	5,776	11,293	6,918	11,079
	November . . . . .	142,673	63,422	5,123	1,092	27,118	4,249	25,841	42,374	2,296	6,025	10,648	6,129	11,779
	December . . . . .	138,435	62,647	4,637	1,068	26,287	5,006	25,649	42,593	2,360	5,270	10,103	5,965	9,499
1997:	January . . . . .	140,889	61,889	4,386	1,112	26,096	5,118	25,177	43,023	2,486	6,105	9,954	6,358	11,074
	February . . . . .	148,195	63,515	4,773	1,071	26,831	5,185	25,654	46,066	2,552	5,785	10,761	6,616	12,899
	March . . . . .	151,288	64,603	4,572	1,059	27,476	4,923	26,573	46,287	2,364	6,169	10,923	7,344	13,598
	April . . . . .	146,354	63,548	4,814	1,405	27,148	5,046	25,135	46,379	2,431	5,358	10,632	6,281	11,726
	May . . . . .	144,500	60,852	4,821	839	26,764	4,790	23,639	45,068	2,580	5,328	11,167	6,096	13,410
	June . . . . .	146,472	63,285	4,794	1,100	27,751	5,068	24,571	45,287	2,729	5,195	11,062	6,031	12,884
	July . . . . .	147,213	63,810	4,957	1,136	27,184	5,147	25,386	44,738	2,880	5,299	10,589	6,324	13,574
	August . . . . .	147,931	63,209	4,927	992	26,714	5,061	25,515	45,930	2,812	5,479	10,099	6,090	14,312
	September . . . . .	147,421	64,017	4,807	876	26,579	5,259	26,496	44,309	2,630	6,180	10,484	6,458	13,343
	October . . . . .	149,069	66,570	5,717	775	27,962	5,487	26,628	43,144	2,806	5,148	10,141	6,194	15,067
	November . . . . .	147,728	63,586	4,968	834	25,864	5,087	26,833	47,416	2,889	5,068	10,005	6,342	12,423
	December . . . . .	147,927	64,511	4,610	819	28,242	4,251	26,590	45,306	2,342	6,422	9,740	6,211	13,395
1998:	January . . . . .	145,907	63,283	4,642	949	26,647	4,362	26,683	46,067	2,474	5,281	10,060	6,301	12,440
	February . . . . .	147,284	64,520	4,963	1,042	26,765	4,033	27,717	45,561	2,916	6,305	10,150	6,665	11,167
	March . . . . .	145,580	62,930	4,931	1,189	25,759	4,518	26,534	45,559	2,818	5,488	10,388	6,612	11,785
	April <sup>f</sup> . . . . .	145,404	63,804	4,893	998	27,134	3,604	27,175	46,060	2,686	4,980	9,843	6,740	11,292
	May <sup>f</sup> . . . . .	138,500	61,640	4,321	957	26,586	3,640	26,136	42,033	2,296	5,111	9,633	6,485	11,302
	June <sup>p</sup> . . . . .	142,958	61,477	5,119	897	25,913	3,466	26,082	43,794	2,638	6,139	10,097	6,522	12,291
<b>PERCENT CHANGE</b>														
	May 1998- June 1998 . . . . .	3	(Z)	18	-6	-3	-5	(Z)	4	15	20	5	1	9

NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>f</sup>Revised. Z Less than 0.5 percent.

<sup>1</sup>Includes farm nonresidential and other private categories, not shown separately. <sup>2</sup>Includes residential improvements, not shown separately. <sup>3</sup>Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. <sup>4</sup>Includes gas, electric, railroad, and petroleum pipelines, not shown separately. <sup>5</sup>Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. <sup>6</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. <sup>7</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.



**Table 5. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars**

[Millions of dollars]

Period		Private construction																	
		Total construction	Residential buildings						Nonresidential buildings								Public utilities <sup>4</sup>		All other private <sup>5</sup>
			Total <sup>1</sup>	Total <sup>2</sup>	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous <sup>3</sup>	Total	Telecommunications	
					Total	1 unit	2 units or more												
1996:	June . . . . .	509,488	390,749	223,796	157,336	138,926	18,410	132,287	28,434	26,367	9,052	41,538	4,271	5,789	10,317	6,519	(NA)	9,327	2,254
	July . . . . .	503,016	383,664	222,180	155,258	138,435	16,823	127,822	26,682	24,943	9,044	40,548	3,773	5,824	10,300	6,709	(NA)	9,338	1,962
	August . . . . .	506,290	389,196	222,094	154,821	138,450	16,371	131,738	26,816	24,921	10,147	42,798	3,997	6,192	10,492	6,375	(NA)	10,150	2,384
	September . . . . .	511,402	388,735	221,706	153,891	137,426	16,465	133,408	28,665	25,591	10,161	41,993	3,942	6,223	10,505	6,328	(NA)	9,796	1,904
	October . . . . .	514,694	393,365	220,916	153,273	136,428	16,845	138,201	30,488	26,074	10,193	43,730	3,862	6,436	10,574	6,845	(NA)	10,163	2,037
	November . . . . .	520,216	395,849	221,221	153,310	135,730	17,579	140,253	29,991	26,533	10,556	44,002	4,334	6,874	10,926	7,037	(NA)	11,029	1,852
	December . . . . .	514,435	394,097	219,913	152,350	135,428	16,922	138,620	27,822	26,691	10,964	43,344	4,318	6,738	11,477	7,266	(NA)	12,293	1,945
1997:	January . . . . .	513,991	392,318	218,606	151,610	134,449	17,160	141,440	27,951	27,011	10,876	45,543	4,253	6,526	11,588	7,693	(NA)	9,642	1,781
	February . . . . .	528,124	400,280	223,331	156,677	136,992	19,685	145,134	28,458	28,766	10,837	46,348	4,503	6,650	11,859	7,712	(NA)	9,598	1,795
	March . . . . .	524,731	395,280	223,520	156,672	137,867	18,805	139,162	25,737	26,812	10,400	44,724	4,954	6,307	12,334	7,895	(NA)	9,525	1,892
	April . . . . .	520,008	395,188	224,216	157,529	138,698	18,831	136,903	25,664	25,226	10,257	43,439	4,965	7,218	12,267	7,866	(NA)	10,048	1,955
	May . . . . .	516,277	393,421	223,354	157,150	137,431	19,719	136,249	25,865	25,269	10,778	42,876	5,105	6,981	11,121	8,254	(NA)	9,649	1,903
	June . . . . .	516,020	391,518	219,994	154,387	135,817	18,569	136,735	26,308	26,968	10,854	42,206	4,758	6,916	11,003	7,723	(NA)	9,900	1,927
	July . . . . .	521,567	396,673	219,297	153,896	135,969	17,927	141,574	27,500	28,483	11,199	43,543	4,782	6,932	11,109	8,025	(NA)	10,335	1,901
	August . . . . .	522,516	397,214	218,850	153,759	135,483	18,276	142,287	27,952	28,541	11,234	42,971	4,776	7,106	11,609	8,097	(NA)	9,763	2,089
	September . . . . .	521,015	396,281	220,080	155,328	136,637	18,690	139,671	26,895	28,380	10,477	41,296	5,013	7,459	12,096	8,056	(NA)	10,531	1,956
	October . . . . .	522,495	396,848	221,636	157,476	137,320	20,156	138,785	25,747	29,370	11,113	40,553	5,311	7,618	11,392	7,681	(NA)	10,201	2,137
	November . . . . .	517,415	393,757	221,676	157,304	138,303	19,002	136,659	24,938	28,560	10,608	40,761	5,341	7,608	11,353	7,490	(NA)	9,826	2,027
	December . . . . .	520,118	396,351	225,264	160,584	140,873	19,710	136,773	24,705	28,074	10,502	40,926	5,433	7,828	11,235	8,071	(NA)	9,867	1,695
1998:	January . . . . .	526,820	404,647	230,923	163,205	142,454	20,750	138,886	25,729	30,532	10,838	40,559	5,301	7,725	11,014	7,188	(NA)	9,719	2,071
	February . . . . .	530,916	407,376	234,048	166,183	145,152	21,031	138,328	25,631	28,686	10,541	41,034	5,519	8,157	11,358	7,402	(NA)	10,547	1,998
	March . . . . .	531,649	409,635	236,792	168,570	148,034	20,536	136,735	26,012	28,645	10,068	40,760	5,078	8,182	11,075	6,914	(NA)	11,038	2,024
	April <sup>f</sup> . . . . .	535,724	413,884	239,328	171,127	150,661	20,466	139,962	25,943	30,293	10,466	40,951	5,013	8,164	11,427	7,703	(NA)	9,966	1,914
	May <sup>f</sup> . . . . .	525,879	409,948	238,149	169,268	150,101	19,167	136,234	23,749	30,490	9,985	40,983	4,719	8,020	10,765	7,523	(NA)	10,617	2,077
	June <sup>p</sup> . . . . .	532,565	413,348	238,873	170,602	151,700	18,903	138,743	23,786	32,014	10,620	41,656	4,822	6,940	11,081	7,823	(NA)	(NA)	2,138
<b>PERCENT CHANGE</b>																			
	May 1998- June 1998 . . . . .	1	1	(Z)	1	1	-1	2	(Z)	5	6	2	2	-13	3	4	(NA)	(NA)	3

See footnotes at end of table.

Table 5. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars—Con.

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public <sup>7</sup>
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings <sup>6</sup>						
1996: June	118,739	49,560	3,646	1,336	20,002	3,843	20,733	35,416	2,330	5,361	8,950	5,213	11,908
July	119,352	50,472	4,103	1,334	20,679	3,727	20,630	36,409	2,106	5,249	8,596	4,961	11,559
August	117,094	50,181	3,923	1,412	21,023	3,597	20,226	34,729	2,034	5,425	9,535	4,934	10,256
September	122,667	52,721	4,208	1,438	21,568	4,143	21,363	36,744	2,409	6,142	8,793	5,260	10,598
October	121,329	51,659	4,103	747	22,034	3,780	20,996	36,763	2,246	5,067	9,906	5,954	9,735
November	124,367	54,694	4,349	943	23,418	3,669	22,315	37,367	2,003	5,299	9,365	5,270	10,369
December	120,338	53,852	3,930	919	22,622	4,308	22,073	37,493	2,054	4,623	8,862	5,107	8,347
1997: January	121,673	52,975	3,701	953	22,361	4,385	21,574	37,542	2,151	5,295	8,633	5,439	9,638
February	127,845	54,410	4,032	919	23,011	4,447	22,002	40,092	2,206	4,996	9,293	5,670	11,178
March	129,451	54,992	3,859	902	23,404	4,193	22,635	39,902	2,025	5,272	9,336	6,251	11,672
April	124,820	53,957	4,055	1,194	23,066	4,287	21,355	39,776	2,074	4,575	9,079	5,327	10,030
May	122,855	51,455	4,051	710	22,643	4,052	19,999	38,519	2,194	4,546	9,528	5,162	11,451
June	124,502	53,454	4,012	930	23,458	4,284	20,770	38,707	2,318	4,441	9,455	5,115	11,012
July	124,894	53,587	4,131	954	22,844	4,326	21,333	38,303	2,442	4,525	9,043	5,382	11,611
August	125,302	52,864	4,092	830	22,355	4,235	21,351	39,324	2,381	4,679	8,625	5,187	12,243
September	124,734	53,400	3,976	732	22,186	4,390	22,117	37,968	2,223	5,273	8,945	5,510	11,414
October	125,647	55,470	4,717	646	23,321	4,577	22,209	36,624	2,360	4,403	8,675	5,281	12,834
November	123,658	52,701	4,096	691	21,446	4,218	22,250	39,812	2,412	4,320	8,529	5,374	10,510
December	123,767	53,473	3,804	679	23,418	3,525	22,048	37,945	1,952	5,484	8,318	5,264	11,332
1998: January	122,173	52,427	3,843	786	22,077	3,614	22,107	38,744	2,065	4,506	8,583	5,313	10,534
February	123,540	53,455	4,112	863	22,175	3,341	22,964	38,480	2,438	5,389	8,675	5,615	9,488
March	122,014	52,015	4,082	982	21,289	3,734	21,929	38,511	2,356	4,686	8,871	5,561	10,012
April <sup>f</sup>	121,840	52,730	4,044	825	22,425	2,979	22,458	38,935	2,244	4,256	8,413	5,668	9,594
May <sup>f</sup>	115,932	50,948	3,577	791	21,972	3,008	21,600	35,471	1,917	4,357	8,212	5,441	9,586
June <sup>p</sup>	119,217	50,640	4,217	739	21,345	2,855	21,484	36,771	2,195	5,211	8,571	5,448	10,381
<b>PERCENT CHANGE</b>													
May 1998- June 1998	3	-1	18	-7	-3	-5	-1	4	15	20	4	(Z)	8

NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>r</sup>Revised. <sup>Z</sup> Less than 0.5 percent.

<sup>1</sup>Includes farm nonresidential and other private categories, not shown separately. <sup>2</sup>Includes residential improvements, not shown separately. <sup>3</sup>Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. <sup>4</sup>Includes gas, electric, railroad, and petroleum pipelines, not shown separately. <sup>5</sup>Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. <sup>6</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. <sup>7</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars

[Millions of dollars]

Period	Total construction	Private construction																All other private <sup>5</sup>	
		Total <sup>1</sup>	Residential buildings					Nonresidential buildings									Public utilities <sup>4</sup>		
			Total <sup>2</sup>	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous <sup>3</sup>	Total	Telecommunications		
				Total	1 unit	2 units or more													
<b>YEAR TO DATE</b>																			
June 1997	238,870	183,899	102,385	71,980	62,874	9,107	66,215	12,652	12,973	5,306	20,362	2,190	3,209	5,721	3,803	(NA)	4,566	865	
June 1998	244,303	191,145	109,163	77,897	68,159	9,736	65,835	11,984	14,624	5,188	18,945	2,344	3,708	5,443	3,601	(NA)	(NA)	946	
Percent change	2	4	7	8	8	7	-1	-5	13	-2	-7	7	16	-5	-5	(NA)	(NA)	9	
<b>MONTHLY DATA</b>																			
1996: June	46,189	35,231	20,814	14,112	12,457	1,655	11,333	2,424	2,202	783	3,596	338	562	871	557	(NA)	777	193	
July	46,902	35,203	21,104	14,429	12,967	1,462	11,066	2,266	2,126	754	3,612	313	590	838	567	(NA)	812	178	
August	48,709	36,657	21,562	14,739	13,245	1,494	11,757	2,288	2,172	870	3,991	357	627	903	548	(NA)	924	218	
September	48,701	35,968	20,822	14,543	13,101	1,442	12,041	2,523	2,246	860	4,021	368	563	904	557	(NA)	818	175	
October	48,037	36,170	20,487	14,196	12,722	1,474	12,453	2,782	2,238	864	4,103	379	548	923	615	(NA)	956	196	
November	44,852	34,318	19,265	13,544	12,069	1,475	12,027	2,584	2,258	866	3,828	390	533	950	619	(NA)	960	165	
December	38,959	30,312	16,181	11,361	10,022	1,340	11,286	2,430	2,157	904	3,410	370	482	950	583	(NA)	1,078	155	
1997: January	34,509	26,996	14,339	10,342	9,098	1,244	10,424	2,087	2,091	804	3,199	314	452	914	561	(NA)	685	132	
February	34,091	26,459	13,861	10,123	8,688	1,435	10,622	2,113	2,213	834	3,186	325	455	931	566	(NA)	665	122	
March	37,773	29,308	16,260	11,803	10,329	1,475	10,719	1,984	2,102	864	3,280	464	655	996	655	(NA)	733	141	
April	41,202	31,823	17,882	12,469	10,934	1,535	11,140	2,109	2,098	884	3,406	391	564	1,011	677	(NA)	832	153	
May	44,229	33,823	19,540	13,361	11,613	1,748	11,468	2,134	2,163	965	3,577	410	595	941	685	(NA)	805	153	
June	47,066	35,490	20,503	13,882	12,212	1,670	11,842	2,225	2,306	955	3,714	376	679	928	659	(NA)	846	164	
July	48,695	36,414	20,870	14,341	12,781	1,560	12,270	2,340	2,421	941	3,872	401	713	904	679	(NA)	913	170	
August	50,226	37,321	21,260	14,658	12,995	1,663	12,640	2,411	2,497	929	3,982	417	709	1,000	695	(NA)	849	193	
September	49,750	36,788	20,668	14,673	13,037	1,635	12,655	2,416	2,486	899	3,954	477	673	1,041	709	(NA)	929	179	
October	48,684	36,445	20,501	14,556	12,794	1,762	12,484	2,326	2,563	925	3,842	504	640	994	690	(NA)	954	208	
November	44,432	34,000	19,287	13,869	12,274	1,595	11,642	2,128	2,411	872	3,502	490	595	987	656	(NA)	816	181	
December	39,457	30,453	16,575	11,962	10,401	1,560	11,162	2,168	2,281	870	3,233	470	563	929	648	(NA)	890	135	
1998: January	35,250	27,738	15,186	11,146	9,639	1,506	10,204	1,910	2,320	824	2,822	399	536	869	524	(NA)	666	153	
February	34,253	26,830	14,555	10,749	9,205	1,544	10,144	1,903	2,202	818	2,825	401	557	895	544	(NA)	730	136	
March	38,634	30,562	17,309	12,755	11,127	1,627	10,669	2,057	2,284	839	3,026	393	606	892	572	(NA)	896	150	
April <sup>f</sup>	42,528	33,343	19,145	13,603	11,915	1,688	11,368	2,075	2,502	914	3,218	393	654	948	664	(NA)	820	149	
May <sup>f</sup>	44,879	35,092	20,789	14,355	12,671	1,684	11,369	1,985	2,576	844	3,388	365	678	908	624	(NA)	849	170	
June <sup>g</sup>	48,759	37,580	22,179	15,289	13,602	1,687	12,081	2,054	2,740	949	3,666	393	677	931	673	(NA)	(NA)	188	
<b>PERCENT CHANGE</b>																			
May 1998- June 1998	9	7	7	7	7	(Z)	6	3	6	12	8	8	(Z)	3	8	(NA)	(NA)	11	

See footnotes at end of table.

Table 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars—Con.

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public <sup>7</sup>
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings <sup>6</sup>						
<b>YEAR TO DATE</b>													
June 1997	54,972	25,153	1,881	456	10,565	2,057	10,190	15,018	1,033	2,223	4,192	2,496	4,856
June 1998	53,158	24,524	1,892	403	10,058	1,562	10,606	14,514	1,056	2,177	3,886	2,523	4,477
Percent change	-3	-3	1	-12	-5	-24	4	-3	2	-2	-7	1	-8
<b>MONTHLY DATA</b>													
1996: June	10,958	4,412	307	113	1,865	330	1,797	3,586	193	458	793	461	1,056
July	11,699	4,623	346	112	2,083	328	1,754	4,145	176	462	767	453	1,074
August	12,052	4,779	324	115	2,258	288	1,793	4,185	177	511	919	451	1,030
September	12,734	4,953	407	160	2,035	398	1,955	4,311	248	775	854	477	1,116
October	11,867	4,546	377	52	1,907	334	1,877	4,344	156	380	971	589	881
November	10,534	4,567	376	78	1,866	303	1,944	3,148	181	435	834	481	888
December	8,647	4,137	315	75	1,629	360	1,759	2,284	178	352	668	406	622
1997: January	7,513	3,830	287	76	1,539	339	1,588	1,589	175	363	590	364	602
February	7,631	3,833	290	68	1,551	333	1,590	1,634	149	336	593	379	707
March	8,465	4,089	296	75	1,686	332	1,700	1,912	167	392	669	442	794
April	9,379	4,275	321	95	1,759	363	1,737	2,645	162	367	707	419	804
May	10,407	4,326	354	62	1,845	321	1,744	3,306	187	385	797	440	965
June	11,577	4,800	333	80	2,185	369	1,831	3,932	193	380	836	452	984
July	12,282	4,935	350	77	2,299	377	1,832	4,351	203	401	815	491	1,086
August	12,905	5,005	339	67	2,391	343	1,864	4,709	210	445	822	474	1,241
September	12,962	5,059	388	82	2,101	438	2,050	4,461	236	652	880	501	1,174
October	12,239	4,895	435	46	2,025	390	1,998	4,282	172	346	849	525	1,170
November	10,432	4,353	355	54	1,716	341	1,888	3,384	202	356	752	491	894
December	9,004	4,116	306	58	1,688	300	1,762	2,400	168	418	641	416	846
1998: January	7,512	3,795	299	62	1,523	271	1,639	1,634	165	300	588	360	670
February	7,423	3,777	296	65	1,497	250	1,669	1,574	165	366	560	377	604
March	8,072	3,923	316	78	1,529	303	1,697	1,881	204	352	633	393	687
April <sup>f</sup>	9,186	4,211	323	69	1,732	243	1,843	2,592	169	336	665	448	764
May <sup>f</sup>	9,786	4,261	307	66	1,796	244	1,849	3,036	166	371	673	465	813
June <sup>g</sup>	11,179	4,557	351	63	1,981	251	1,909	3,797	187	452	767	480	939
<b>PERCENT CHANGE</b>													
May 1998- June 1998	14	7	14	-5	10	3	3	25	13	22	14	3	15

NA Not available, but estimates are included in totals. <sup>P</sup>Preliminary. <sup>f</sup>Revised. <sup>Z</sup> Less than 0.5 percent.

<sup>1</sup>Includes farm nonresidential and other private categories, not shown separately. <sup>2</sup>Includes residential improvements, not shown separately. <sup>3</sup>Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. <sup>4</sup>Includes gas, electric, railroad, and petroleum pipelines, not shown separately. <sup>5</sup>Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. <sup>6</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. <sup>7</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

**Table 7. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in Current Dollars**

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction <sup>2</sup>
			Total	Housing and redevelopment	Educational	Hospital	Other buildings <sup>1</sup>					
1996:	June.....	11,102	4,509	298	2,129	302	1,780	4,005	184	888	526	989
	July.....	12,026	4,777	341	2,391	279	1,766	4,638	199	865	519	1,028
	August.....	12,484	5,021	324	2,596	258	1,843	4,690	213	1,042	520	999
	September.....	12,591	5,016	410	2,349	338	1,920	4,862	209	975	552	977
	October.....	12,684	4,895	397	2,205	329	1,965	4,894	234	1,107	685	869
	November.....	10,889	4,784	382	2,158	277	1,966	3,537	219	948	559	843
	December.....	8,887	4,300	320	1,892	311	1,776	2,572	158	762	474	622
1997:	January.....	7,662	3,990	269	1,796	283	1,643	1,805	146	680	426	613
	February.....	7,847	3,992	285	1,807	268	1,632	1,862	141	687	442	723
	March.....	8,797	4,346	298	1,975	307	1,766	2,200	183	783	519	766
	April.....	9,926	4,563	331	2,069	355	1,808	3,059	204	828	494	779
	May.....	11,089	4,662	372	2,181	296	1,814	3,835	162	934	520	974
	June.....	12,453	5,170	340	2,583	328	1,919	4,562	187	978	533	1,024
	July.....	13,288	5,401	365	2,735	378	1,923	5,040	198	955	577	1,119
	August.....	14,023	5,506	351	2,856	330	1,970	5,453	225	963	556	1,320
	September.....	13,525	5,355	414	2,514	351	2,077	5,161	218	1,031	587	1,173
	October.....	13,468	5,412	457	2,428	352	2,176	4,999	249	992	616	1,199
	November.....	11,212	4,686	371	2,069	282	1,965	3,998	204	882	579	862
	December.....	9,487	4,412	332	2,033	261	1,785	2,842	178	751	491	814
1998:	January.....	7,989	4,152	322	1,839	256	1,736	1,927	161	689	426	634
	February.....	7,783	4,097	293	1,806	237	1,762	1,848	148	656	447	587
	March.....	8,458	4,230	336	1,850	262	1,781	2,206	154	741	467	661
	April <sup>f</sup> .....	9,893	4,598	342	2,095	232	1,929	3,041	147	778	533	797
	May <sup>f</sup> .....	10,645	4,713	324	2,172	249	1,968	3,563	172	790	555	853
	June <sup>p</sup> .....	12,243	5,079	379	2,404	262	2,035	4,482	222	904	575	981
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction <sup>4</sup>	
			Total	Housing	Industrial	Educational	Hospital					Other buildings <sup>3</sup>
1996:	June.....	1,315	535	58	129	1	76	272	(NA)	219	328	197
	July.....	1,284	538	64	129	1	98	247	(NA)	200	321	183
	August.....	1,265	482	57	132	1	73	219	(NA)	202	366	168
	September.....	2,010	713	68	184	1	121	338	(NA)	284	675	295
	October.....	928	371	46	60	2	57	207	(NA)	179	199	133
	November.....	1,195	513	61	91	2	74	285	(NA)	207	276	166
	December.....	1,070	513	51	88	-	107	267	(NA)	204	244	86
1997:	January.....	1,053	484	71	89	-	113	211	(NA)	202	272	79
	February.....	1,011	482	58	79	2	120	223	(NA)	173	249	93
	March.....	1,105	457	52	88	4	83	230	(NA)	195	276	159
	April.....	1,075	473	50	112	1	73	236	(NA)	190	226	162
	May.....	1,151	454	49	74	1	84	247	(NA)	220	290	155
	June.....	1,163	512	59	95	2	109	248	(NA)	227	258	128
	July.....	1,179	476	55	92	1	70	257	(NA)	239	272	151
	August.....	1,199	478	58	80	2	80	258	(NA)	248	296	131
	September.....	1,779	709	55	98	3	174	379	(NA)	279	546	200
	October.....	1,042	462	71	56	-	116	220	(NA)	205	155	175
	November.....	1,248	567	60	65	1	129	312	(NA)	242	213	195
	December.....	1,276	553	39	70	3	101	340	(NA)	201	312	186
1998:	January.....	990	429	40	75	-	71	243	(NA)	198	191	157
	February.....	1,078	461	64	78	1	66	253	(NA)	197	280	124
	March.....	1,186	516	45	94	-	105	272	(NA)	244	258	148
	April <sup>f</sup> .....	1,075	498	49	84	1	63	301	(NA)	203	246	103
	May <sup>f</sup> .....	1,045	443	47	80	1	46	269	(NA)	199	263	106
	June <sup>p</sup> .....	1,158	453	48	77	2	43	283	(NA)	225	310	131

- Less than \$0.5 million. NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. <sup>2</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. <sup>3</sup>Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. <sup>4</sup>Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

**Table 8. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars**

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction <sup>2</sup>
			Total	Housing and redevelopment	Educational	Hospital	Other buildings <sup>1</sup>					
1996:	June.....	118,923	50,337	3,549	22,832	3,492	20,463	39,559	2,051	10,024	5,954	10,999
	July.....	120,713	51,621	4,037	23,731	3,114	20,739	40,746	2,106	9,687	5,686	10,868
	August.....	119,126	51,887	3,905	24,167	3,244	20,572	38,924	2,079	10,803	5,679	9,754
	September.....	124,183	54,553	4,328	24,901	3,693	21,632	41,439	2,125	10,033	6,092	9,940
	October.....	125,259	54,465	4,159	25,467	3,543	21,296	41,419	2,368	11,293	6,918	8,797
	November.....	128,166	57,243	4,387	27,089	3,360	22,407	41,982	2,507	10,648	6,129	9,657
	December.....	125,184	56,390	4,014	26,283	3,704	22,389	42,215	2,125	10,103	5,965	8,387
1997:	January.....	127,151	55,811	3,492	26,092	3,698	22,528	42,645	2,387	9,954	6,358	9,996
	February.....	133,901	56,988	3,982	26,808	3,561	22,636	45,698	2,259	10,761	6,616	11,579
	March.....	137,718	59,105	3,944	27,428	3,923	23,810	45,911	2,789	10,923	7,344	11,646
	April.....	132,813	57,642	4,186	27,138	4,134	22,184	46,003	2,545	10,632	6,281	9,711
	May.....	131,155	55,694	4,267	26,755	3,838	20,835	44,683	1,927	11,167	6,096	11,589
	June.....	132,756	57,352	4,112	27,729	3,810	21,701	44,913	2,068	11,062	6,031	11,330
	July.....	133,083	57,931	4,280	27,168	4,279	22,205	44,368	2,083	10,589	6,324	11,787
	August.....	134,033	57,259	4,204	26,692	4,066	22,297	45,537	2,191	10,099	6,090	12,857
	September.....	132,669	57,693	4,317	26,551	3,708	23,117	43,926	2,215	10,484	6,458	11,893
	October.....	133,846	60,132	4,732	27,959	3,878	23,564	42,759	2,517	10,141	6,194	12,103
	November.....	132,042	56,354	4,209	25,858	3,438	22,850	47,040	2,358	10,005	6,342	9,944
	December.....	132,343	58,060	4,156	28,209	3,075	22,620	44,926	2,403	9,740	6,211	11,003
1998:	January.....	132,738	57,863	4,141	26,645	3,460	23,618	45,688	2,598	10,060	6,301	10,227
	February.....	132,178	58,381	4,110	26,754	3,162	24,355	45,170	2,382	10,150	6,665	9,430
	March.....	130,884	56,430	4,364	25,755	3,201	23,110	45,170	2,314	10,388	6,612	9,969
	April <sup>f</sup> .....	131,935	57,857	4,310	27,117	2,855	23,576	45,669	1,845	9,843	6,740	9,981
	May <sup>f</sup> .....	126,170	56,319	3,754	26,569	3,090	22,906	41,635	2,033	9,633	6,485	10,064
	June <sup>p</sup> .....	129,367	56,190	4,557	25,892	2,962	22,780	43,406	2,427	10,097	6,522	10,725
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction <sup>4</sup>	
			Total	Housing	Industrial	Educational	Hospital					Other buildings <sup>3</sup>
1996:	June.....	15,658	6,334	688	1,525	11	896	3,214	(NA)	2,643	3,953	2,373
	July.....	15,152	6,415	767	1,531	8	1,164	2,943	(NA)	2,396	3,810	2,171
	August.....	14,556	5,912	697	1,623	10	893	2,688	(NA)	2,321	4,067	1,866
	September.....	16,568	6,419	613	1,661	10	1,093	3,042	(NA)	2,761	4,882	2,131
	October.....	14,029	5,383	667	864	26	830	2,996	(NA)	2,576	3,408	2,282
	November.....	14,507	6,180	736	1,092	29	889	3,434	(NA)	2,296	3,518	2,122
	December.....	13,252	6,257	623	1,068	4	1,302	3,260	(NA)	2,360	3,145	1,112
1997:	January.....	13,738	6,078	894	1,112	4	1,420	2,649	(NA)	2,486	3,718	1,078
	February.....	14,294	6,527	791	1,071	23	1,624	3,018	(NA)	2,552	3,526	1,321
	March.....	13,570	5,499	629	1,059	48	999	2,763	(NA)	2,364	3,379	1,953
	April.....	13,540	5,906	628	1,405	10	913	2,951	(NA)	2,431	2,813	2,015
	May.....	13,345	5,158	555	839	9	952	2,803	(NA)	2,580	3,402	1,821
	June.....	13,717	5,933	682	1,100	22	1,258	2,870	(NA)	2,729	3,128	1,553
	July.....	14,131	5,879	677	1,136	16	869	3,181	(NA)	2,880	3,216	1,786
	August.....	13,898	5,950	723	992	22	996	3,217	(NA)	2,812	3,289	1,454
	September.....	14,751	6,325	490	876	28	1,551	3,379	(NA)	2,630	3,965	1,449
	October.....	15,223	6,438	985	775	3	1,610	3,065	(NA)	2,806	2,631	2,964
	November.....	15,686	7,232	760	834	6	1,649	3,983	(NA)	2,889	2,709	2,479
	December.....	15,584	6,451	455	819	33	1,176	3,970	(NA)	2,342	4,019	2,392
1998:	January.....	13,169	5,420	501	949	3	902	3,066	(NA)	2,474	2,683	2,213
	February.....	15,106	6,138	853	1,042	11	871	3,362	(NA)	2,916	3,923	1,738
	March.....	14,696	6,500	567	1,189	4	1,317	3,424	(NA)	2,818	3,174	1,815
	April <sup>f</sup> .....	13,469	5,946	583	998	17	749	3,599	(NA)	2,686	3,135	1,311
	May <sup>f</sup> .....	12,331	5,321	567	957	17	550	3,230	(NA)	2,296	3,078	1,239
	June <sup>p</sup> .....	13,591	5,287	562	897	21	505	3,302	(NA)	2,638	3,711	1,566

NA Not available, but estimates are included in totals. <sup>P</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. <sup>2</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. <sup>3</sup>Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. <sup>4</sup>Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

**Table 9. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in 1992 Dollars**

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction <sup>2</sup>
			Total	Housing and redevelopment	Educational	Hospital	Other buildings <sup>1</sup>					
1996:	June.....	104,914	44,024	3,054	19,993	3,058	17,919	35,101	1,831	8,950	5,213	9,794
	July.....	106,047	44,897	3,447	20,672	2,713	18,066	36,090	1,869	8,596	4,961	9,634
	August.....	104,350	45,053	3,329	21,014	2,820	17,889	34,385	1,835	9,535	4,934	8,609
	September.....	108,229	47,172	3,686	21,559	3,197	18,729	36,414	1,863	8,793	5,260	8,727
	October.....	109,110	47,016	3,536	22,011	3,062	18,407	36,428	2,077	9,906	5,954	7,730
	November.....	111,731	49,368	3,724	23,393	2,902	19,350	37,021	2,205	9,365	5,270	8,501
	December.....	108,839	48,476	3,402	22,619	3,187	19,268	37,161	1,864	8,862	5,107	7,370
1997:	January.....	109,833	47,779	2,947	22,358	3,169	19,305	37,212	2,070	8,633	5,439	8,700
	February.....	115,541	48,823	3,363	22,991	3,054	19,414	39,772	1,951	9,293	5,670	10,033
	March.....	117,858	50,313	3,328	23,363	3,342	20,281	39,578	2,384	9,336	6,251	9,996
	April.....	113,284	48,944	3,527	23,057	3,512	18,848	39,454	2,173	9,079	5,327	8,307
	May.....	111,515	47,094	3,585	22,635	3,247	17,627	38,191	1,644	9,528	5,162	9,896
	June.....	112,854	48,445	3,441	23,439	3,221	18,344	38,387	1,767	9,455	5,115	9,684
	July.....	112,925	48,652	3,566	22,830	3,595	18,660	37,987	1,779	9,043	5,382	10,083
	August.....	113,557	47,889	3,492	22,336	3,402	18,659	38,987	1,871	8,625	5,187	10,998
	September.....	112,285	48,125	3,571	22,163	3,095	19,297	37,640	1,890	8,945	5,510	10,174
	October.....	112,825	50,110	3,904	23,319	3,234	19,653	36,298	2,153	8,675	5,281	10,309
	November.....	110,531	46,708	3,470	21,441	2,850	18,947	39,496	2,011	8,529	5,374	8,413
	December.....	110,694	48,126	3,429	23,391	2,550	18,756	37,627	2,052	8,318	5,264	9,309
1998:	January.....	111,136	47,937	3,428	22,075	2,866	19,567	38,425	2,217	8,583	5,313	8,660
	February.....	110,857	48,369	3,405	22,166	2,619	20,178	38,150	2,036	8,675	5,615	8,012
	March.....	109,703	46,643	3,613	21,285	2,645	19,099	38,183	1,976	8,871	5,561	8,470
	April <sup>f</sup> .....	110,559	47,816	3,562	22,411	2,359	19,484	38,604	1,577	8,413	5,668	8,480
	May <sup>f</sup> .....	105,607	46,550	3,108	21,958	2,554	18,931	35,135	1,733	8,212	5,441	8,536
	June <sup>p</sup> .....	107,869	46,285	3,754	21,327	2,440	18,764	36,445	2,061	8,571	5,448	9,058
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction <sup>4</sup>	
			Total	Housing	Industrial	Educational	Hospital					Other buildings <sup>3</sup>
1996:	June.....	13,825	5,536	592	1,336	9	784	2,815	(NA)	2,330	3,529	2,114
	July.....	13,305	5,575	655	1,334	7	1,014	2,564	(NA)	2,106	3,381	1,925
	August.....	12,744	5,129	594	1,412	9	777	2,338	(NA)	2,034	3,590	1,647
	September.....	14,438	5,549	522	1,438	9	946	2,634	(NA)	2,409	4,279	1,871
	October.....	12,218	4,643	567	747	23	718	2,589	(NA)	2,246	2,990	2,005
	November.....	12,636	5,326	625	943	25	768	2,965	(NA)	2,003	3,094	1,868
	December.....	11,499	5,377	528	919	3	1,121	2,805	(NA)	2,054	2,759	977
1997:	January.....	11,840	5,196	754	953	3	1,217	2,270	(NA)	2,151	3,224	938
	February.....	12,303	5,587	668	919	20	1,393	2,588	(NA)	2,206	3,045	1,144
	March.....	11,592	4,679	531	902	41	851	2,354	(NA)	2,025	2,888	1,676
	April.....	11,535	5,014	529	1,194	8	775	2,507	(NA)	2,074	2,402	1,723
	May.....	11,340	4,361	466	710	8	806	2,372	(NA)	2,194	2,902	1,555
	June.....	11,648	5,009	571	930	19	1,063	2,426	(NA)	2,318	2,673	1,328
	July.....	11,969	4,935	564	954	14	730	2,673	(NA)	2,442	2,747	1,528
	August.....	11,745	4,975	600	830	19	833	2,692	(NA)	2,381	2,809	1,244
	September.....	12,449	5,276	406	732	23	1,295	2,820	(NA)	2,223	3,383	1,240
	October.....	12,822	5,360	813	646	2	1,343	2,556	(NA)	2,360	2,250	2,525
	November.....	13,128	5,993	626	691	5	1,368	3,303	(NA)	2,412	2,310	2,097
	December.....	13,073	5,347	375	679	27	975	3,292	(NA)	1,952	3,432	2,024
1998:	January.....	11,037	4,490	415	786	2	747	2,540	(NA)	2,065	2,289	1,874
	February.....	12,683	5,086	707	863	9	722	2,785	(NA)	2,438	3,353	1,476
	March.....	12,310	5,373	469	982	3	1,089	2,830	(NA)	2,356	2,710	1,542
	April <sup>f</sup> .....	11,281	4,914	482	825	14	619	2,974	(NA)	2,244	2,679	1,114
	May <sup>f</sup> .....	10,325	4,399	469	791	14	455	2,669	(NA)	1,917	2,624	1,051
	June <sup>p</sup> .....	11,349	4,355	463	739	17	416	2,720	(NA)	2,195	3,151	1,323

NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. <sup>2</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. <sup>3</sup>Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. <sup>4</sup>Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.



Table 10. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in 1992 Dollars

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction <sup>2</sup>
			Total	Housing and redevelopment	Educational	Hospital	Other buildings <sup>1</sup>					
1996:	June.....	9,797	3,944	257	1,864	264	1,559	3,554	165	793	461	881
	July.....	10,572	4,155	291	2,083	243	1,539	4,108	177	767	453	911
	August.....	10,944	4,361	276	2,257	225	1,603	4,143	188	919	451	882
	September.....	10,981	4,337	349	2,034	293	1,662	4,273	183	854	477	857
	October.....	11,059	4,225	337	1,906	284	1,698	4,305	205	971	589	764
	November.....	9,493	4,125	324	1,864	239	1,698	3,119	192	834	481	742
	December.....	7,719	3,696	271	1,629	268	1,529	2,264	138	668	406	547
1997:	January.....	6,606	3,416	227	1,539	242	1,408	1,575	127	590	364	534
	February.....	6,761	3,420	241	1,550	230	1,399	1,621	122	593	379	626
	March.....	7,521	3,700	252	1,682	261	1,504	1,896	157	669	442	657
	April.....	8,464	3,874	279	1,758	301	1,536	2,624	174	707	419	666
	May.....	9,428	3,942	313	1,845	250	1,535	3,278	138	797	440	832
	June.....	10,589	4,367	284	2,184	278	1,622	3,899	160	836	452	875
	July.....	11,283	4,536	304	2,298	318	1,616	4,315	169	815	491	957
	August.....	11,892	4,606	291	2,390	276	1,648	4,669	192	822	474	1,129
	September.....	11,459	4,467	342	2,098	293	1,733	4,423	186	880	501	1,003
	October.....	11,362	4,510	377	2,025	293	1,815	4,244	213	849	525	1,021
	November.....	9,387	3,884	306	1,715	233	1,629	3,357	174	752	491	729
	December.....	7,935	3,657	274	1,686	217	1,480	2,380	152	641	416	689
1998:	January.....	6,682	3,440	266	1,523	212	1,438	1,620	137	588	360	537
	February.....	6,518	3,395	243	1,496	196	1,460	1,561	127	560	377	499
	March.....	7,079	3,496	278	1,529	217	1,472	1,865	131	633	393	562
	April <sup>f</sup> .....	8,286	3,800	283	1,731	191	1,594	2,570	126	665	448	677
	May <sup>f</sup> .....	8,911	3,895	268	1,795	206	1,626	3,007	147	673	465	723
	June <sup>p</sup> .....	10,212	4,184	312	1,980	216	1,676	3,763	189	767	480	829
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction <sup>4</sup>	
			Total	Housing	Industrial	Educational	Hospital					Other buildings <sup>3</sup>
1996:	June.....	1,161	468	50	113	1	66	238	(NA)	193	293	175
	July.....	1,127	468	55	112	1	85	215	(NA)	176	285	162
	August.....	1,108	418	48	115	1	63	191	(NA)	177	323	148
	September.....	1,752	616	58	160	1	105	292	(NA)	248	592	259
	October.....	808	320	39	52	2	50	179	(NA)	156	175	117
	November.....	1,041	442	52	78	2	64	246	(NA)	181	242	146
	December.....	928	441	43	75	-	92	230	(NA)	178	214	76
1997:	January.....	907	414	60	76	-	97	181	(NA)	175	236	69
	February.....	870	413	49	68	1	103	191	(NA)	149	215	81
	March.....	944	389	44	75	3	71	196	(NA)	167	236	137
	April.....	916	401	42	95	1	62	201	(NA)	162	193	138
	May.....	978	384	41	62	1	71	209	(NA)	187	247	132
	June.....	988	432	49	80	2	92	209	(NA)	193	220	109
	July.....	999	399	46	77	1	59	216	(NA)	203	232	129
	August.....	1,014	399	48	67	2	67	216	(NA)	210	253	112
	September.....	1,502	592	45	82	3	145	316	(NA)	236	466	171
	October.....	877	385	58	46	-	96	183	(NA)	172	133	149
	November.....	1,045	469	49	54	-	107	259	(NA)	202	182	165
	December.....	1,070	459	32	58	2	84	282	(NA)	168	266	157
1998:	January.....	830	355	33	62	-	59	201	(NA)	165	163	133
	February.....	905	382	53	65	1	54	209	(NA)	165	239	105
	March.....	993	427	37	78	-	86	225	(NA)	204	221	126
	April <sup>f</sup> .....	900	411	40	69	1	52	249	(NA)	169	210	87
	May <sup>f</sup> .....	875	366	39	66	1	38	222	(NA)	166	225	90
	June <sup>p</sup> .....	967	373	40	63	1	36	233	(NA)	187	263	110

- Less than \$0.5 million. NA Not available, but estimates are included in totals. <sup>p</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. <sup>2</sup>Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. <sup>3</sup>Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. <sup>4</sup>Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.



**Table 11. Indexes Used in Deriving Estimates of the Value of Construction Put in Place in Constant Dollars**

[1992 = 100]

Period	Bureau of the Census		Engineering News-Record		Bureau of the Census houses under construction		Federal Highway Administration composite	Bureau of Reclamation	Turner Construction Company	Handy-Whitman public utility				C.A. Turner telephone plant
	Composite fixed-weighted	Implicit price deflator	Buildings	Construction	Fixed-weighted	Price deflator				Buildings	Electric	Gas	Water	
Annual indexes														
1993.....	103.7	103.8	105.7	104.5	104.9	104.8	103.0	103	102	105	103	103	104	102
1994.....	108.0	108.1	109.8	108.5	109.7	109.5	109.5	106	105	112	107	109	109	103
1995.....	112.5	112.6	109.8	109.8	114.4	114.3	115.9	110	109	115	111	111	112	110
1996.....	115.0	115.2	113.0	112.8	116.4	116.5	116.1	112	112	118	112	112	115	115
1997.....	118.7	118.9	118.7	116.9	119.9	119.9	124.7	116	117	122	115	115	118	117
Monthly indexes							Quarterly indexes			Semiannual indexes				
1996: January .....	113.6	113.8	110.3	110.8	115.0	115.2								
February .....	113.8	113.9	110.5	111.0	115.2	115.3	120.3	111	111					
March.....	113.8	114.1	110.7	111.1	114.9	115.2				117	112	110	114	113
April.....	113.7	114.0	111.1	111.3	114.8	115.1								
May.....	114.1	114.2	111.5	111.8	115.3	115.4	112.3	112	112					
June.....	114.5	114.8	112.2	112.3	115.9	116.2								
July.....	115.2	115.5	112.6	112.7	116.8	117.1								
August.....	115.5	115.7	113.7	113.4	117.1	117.3	118.3	112	112					
September.....	116.0	116.0	114.6	114.0	117.4	117.4				118	112	113	115	115
October.....	116.3	116.2	115.9	114.7	117.9	117.6								
November.....	116.4	116.3	116.6	115.1	118.1	117.8	113.7	114	113					
December.....	116.7	116.6	116.9	115.2	118.4	118.0								
1997: January .....	117.1	117.2	117.6	115.6	118.6	118.5								
February.....	117.0	117.1	117.6	115.7	118.5	118.4	127.1	114	114					
March.....	117.6	117.7	117.3	115.5	118.6	118.5				121	114	114	117	116
April.....	117.8	117.9	118.7	116.3	118.7	118.7								
May.....	118.1	118.3	119.2	117.1	118.8	119.0	124.1	116	116					
June.....	118.3	118.5	119.9	117.6	119.2	119.5								
July.....	118.6	118.9	119.7	117.6	119.6	120.0								
August.....	118.9	119.3	119.5	117.4	120.0	120.4	116.4	118	118					
September.....	119.5	119.6	119.2	117.4	120.9	120.9				122	114	115	118	117
October.....	119.9	119.9	119.0	117.3	121.5	121.2								
November.....	120.6	120.4	118.2	117.1	121.9	121.3	131.5	118	119					
December.....	120.7	120.4	118.9	117.5	122.0	121.2								
1998: January .....	120.6	120.3	118.7	117.4	121.6	120.8								
February.....	120.3	120.3	119.0	117.8	121.1	120.7	113.8	118	120					
March.....	120.3	120.4	118.9	117.9	121.0	120.8				122	116	116	118	119
April.....	<sup>r</sup> 120.3	<sup>r</sup> 120.5	119.1	118.0	<sup>r</sup> 121.0	<sup>r</sup> 121.0								
May.....	<sup>r</sup> 120.3	<sup>r</sup> 120.4	119.1	118.0	<sup>r</sup> 120.8	<sup>r</sup> 120.8	(NA)	118	121					
June.....	<sup>P</sup> 121.1	<sup>P</sup> 120.9	119.2	118.3	<sup>P</sup> 122.0	<sup>P</sup> 121.4								
July.....			119.4	118.8										

NA Not available. <sup>P</sup>Preliminary. <sup>r</sup>Revised.

Table 12. Factors Used to Seasonally Adjust Estimates of the Value of Construction Put in Place

[Percent]

Type of construction	June 1998 <sup>P</sup>	May 1998 <sup>r</sup>	Apr. 1998 <sup>r</sup>	Mar. 1998	Feb. 1998	Jan. 1998	Dec. 1997	Nov. 1997	Oct. 1997	Sep. 1997	Aug. 1997	June 1997
<b>PRIVATE CONSTRUCTION</b>												
Residential buildings:												
New housing units:												
1 unit .....	107.6	101.3	94.9	90.2	76.1	81.2	88.6	106.5	111.8	114.5	115.1	107.9
2 units or more.....	107.1	105.4	99.0	95.1	88.1	87.1	95.0	100.7	104.9	105.0	109.2	107.9
Nonresidential buildings:												
Industrial .....	103.6	100.3	96.0	94.9	89.1	89.1	105.3	102.4	108.4	107.8	103.5	101.5
Office .....	102.7	101.4	99.1	95.7	92.1	91.2	97.5	101.3	104.7	105.1	105.0	102.6
Hotels, motels .....	107.2	101.4	104.8	100.0	93.1	91.2	99.4	98.7	99.9	103.0	99.2	105.6
Other commercial .....	105.6	99.2	94.3	89.1	82.6	83.5	94.8	103.1	113.7	114.9	111.2	105.6
Religious .....	97.8	92.8	94.1	92.9	87.1	90.3	103.9	110.1	113.9	114.2	104.8	94.8
Educational.....	117.0	101.5	96.1	88.9	82.0	83.2	86.3	93.9	100.8	108.2	119.7	117.8
Hospital and institutional .....	100.8	101.2	99.5	96.6	94.6	94.7	99.2	104.3	104.7	103.3	103.4	101.2
Miscellaneous nonresidential .....	103.2	99.6	103.4	99.2	88.2	87.4	96.4	105.1	107.8	105.6	103.0	102.4
Telecommunications .....	108.5	96.0	98.7	97.4	83.1	82.2	108.3	99.6	112.2	105.9	104.4	102.6
All other private .....	105.3	98.1	93.6	89.1	81.6	88.6	95.3	107.1	116.9	109.8	110.7	102.2
<b>PUBLIC CONSTRUCTION</b>												
<b>State and local</b>												
Buildings:												
Housing and redevelopment .....	99.7	103.4	95.2	92.5	85.6	93.2	95.9	105.7	115.9	115.0	100.1	99.1
Educational.....	111.4	98.1	92.7	86.2	81.0	82.8	86.5	96.0	104.2	113.6	128.4	111.8
Hospital .....	106.2	96.7	97.4	98.3	89.8	88.9	102.0	98.3	108.9	113.7	97.4	103.4
Other buildings.....	107.2	103.1	98.2	92.5	86.8	88.2	94.7	103.2	110.8	107.8	106.0	106.1
Highways and streets.....	123.9	102.7	79.9	58.6	49.1	50.6	75.9	102.0	140.3	141.0	143.7	121.9
Conservation and development .....	109.8	101.7	95.8	79.6	74.7	74.4	88.8	104.0	118.9	118.3	123.2	108.4
Sewer systems.....	107.4	98.4	94.8	85.6	77.5	82.2	92.5	105.8	117.4	118.0	114.4	106.1
Water supply facilities.....	105.8	102.6	94.9	84.7	80.5	81.2	94.8	109.6	119.3	109.0	109.6	106.0
Miscellaneous construction .....	109.8	101.7	95.8	79.6	74.7	74.4	88.8	104.0	118.9	118.3	123.2	108.4
<b>Federal</b>												
Buildings:												
Housing and redevelopment .....	102.7	99.9	100.4	95.3	90.2	95.0	102.9	94.0	86.1	134.6	96.3	103.6
Industrial .....	102.7	99.9	100.4	95.3	90.2	95.0	102.9	94.0	86.1	134.6	96.3	103.6
Educational.....	102.7	99.9	100.4	95.3	90.2	95.0	102.9	94.0	86.1	134.6	96.3	103.6
Hospital .....	102.7	99.9	100.4	95.3	90.2	95.0	102.9	94.0	86.1	134.6	96.3	103.6
Other buildings.....	102.7	99.9	100.4	95.3	90.2	95.0	102.9	94.0	86.1	134.6	96.3	103.6
Military .....	102.3	103.9	90.5	104.0	81.1	95.9	103.1	100.6	87.5	127.3	105.7	100.0
Conservation and development .....	100.2	102.7	94.1	97.7	85.5	85.2	93.1	94.3	70.8	165.2	108.0	98.8
Miscellaneous construction .....	100.2	102.7	94.1	97.7	85.5	85.2	93.1	94.3	70.8	165.2	108.0	98.8

<sup>P</sup>Preliminary.   <sup>r</sup>Revised.

## Appendix.

# Reliability of the Estimates

The statistics on the value of construction put in place result from direct measurement and indirect estimation. A series results from direct measurement when it is based on reports of the actual value of construction progress or construction expenditures obtained from a complete census or sample survey. All other series are developed by indirect estimation using related construction statistics.

On an annual basis, the estimates for series directly measured monthly, quarterly, or annually accounted for about 73 percent of total construction in 1997 (private multifamily residential, private residential improvements, private nonresidential buildings, farm nonresidential construction, public utility construction, all other private construction, and virtually all of public construction). On a monthly basis, directly measured data are available for about 56 percent of the value-in-place estimates.

Some of the directly measured monthly construction value-in-place estimates are based on samples. Estimates from these samples may differ from statistics which would have been obtained from a complete census using the same schedules and procedures. An estimate based on a sample survey is subject to both sampling error and nonsampling error. The accuracy of a survey result is determined by the joint effects of these errors.

### MEASURE OF SAMPLING ERRORS

Sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. Each sample selected for the monthly value-in-place survey is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Estimates derived from the different samples would differ from one another. The standard error, or sampling error, of a survey estimate is a measure of the variation among the estimates from all possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the average from all possible samples.

Estimates of the standard errors for the monthly, year-to-date and annual estimates were computed from the sample data for selected statistics in this report. They are presented in the form of relative standard errors in the following table. The relative standard error equals the standard error divided by the estimated value to which it refers.

The sample estimate and an estimate of its standard error allow us to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples with the same size and design. A 90-percent confidence interval is defined to be from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate. If all possible samples were selected and surveyed under essentially the same conditions and all the respective 90-percent confidence intervals were generated, then approximately nine-tenths of the intervals would include the average value of all sample estimates and approximately one-tenth would not include this estimate. For example, suppose Table 3 of this report showed that the monthly VIP estimate for "total private nonresidential buildings" was \$10.0 billion in a particular month. According to the following table, the relative standard error of this estimate is 2 percent. Multiplying \$10.0 billion by .02, we obtain \$200 million as the standard error. To obtain a 90-percent confidence interval, multiply \$200 million by 1.6 and add and subtract the result from \$10.0 billion, yielding limits of \$9.68 billion and \$10.32 billion. The average value of the monthly VIP estimate for "total private nonresidential buildings" may or may not be contained in this computed interval, but one can say that the average is included in the constructed interval with a specified confidence of 90 percent.

The following table also presents coefficients necessary to compute standard errors for the month-to-month and year-to-date changes. To derive a specific standard error of a change, look up an appropriate coefficient ( $k_1$  or  $k_2$ ) for the change and apply the following formula:

$$\text{Standard error of a change} = k (100 + (\% \text{ change shown in tables 3 thru 6}))$$

Once the standard error is available, one can construct a 90-percent confidence interval of the change by multiplying the standard error by 1.6.

No standard errors are shown for farm nonresidential or public utilities because the estimates are based on a complete enumeration.

### NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation estimates sampling variation but does not measure all nonsampling error in the data. Nonsampling error consists of both a variance component and a bias

component. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. Non-sampling errors are usually attributed to many possible sources: (1) coverage error—failure to accurately represent all population units in the sample, (2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of coverage, collection and nonresponse, response, processing, or imputing for missing or inconsistent data. These nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For preliminary value-in-place estimates, the average imputation rates for major components are as follows: private nonresidential construction, 45 percent; state and locally owned public construction, 33 percent; private residential construction of 2 units or more, 47 percent; and private residential improvements, 13 percent. Each of these imputation rates is not an explicit indication of the potential error in statistics, but the degree of uncertainty regarding the accuracy of the statistics increases as the percentage of imputation increases.

Other potential sources of bias are the upward adjustment of 28 percent made to the private nonresidential construction and the adjustment of the state and local owned public construction to the construction outlays from the Annual Survey of Government Finances in order to account for construction projects not included in their respective sampling frames. The adjustment for the nonresidential construction results from a coverage evaluation sample; hence, the estimated percentage adjustment is subject to sampling error and nonsampling errors associated with the evaluation study. In addition, the percentage was estimated from data collected during a limited time period; therefore, these adjustments do not reflect any recent changes in the proportion of projects not included in the frame.

For state and locally owned construction, construction outlays from the Survey of Government Finances are available only through Fiscal Year 1995. (Outlays are included if a government agency's fiscal year ending date falls within July 1994 to June 1995 inclusive, and

for three state agencies with fiscal years ending in August or September 1995.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1995 through April 1999. The relationship between the state and locally owned value-in-place and the capital outlays estimate changes from year to year so that revisions of 4 to 5 percent are expected in state and local construction and substantially larger revisions can be expected in the individual types of construction. In addition, because of the definition of fiscal year for the Survey of Government Finances, the reported capital outlays do not correspond to any 12 month period but result from capital outlays made over a 26 month period. There are also definitional and timing differences between the concepts of capital outlays and value put in place.

Consequently, even though the private nonresidential and state and local owned construction adjustments are designed to reduce the bias due to the failure to include projects in the sampling frames, for the above stated reasons, these adjustment procedures, themselves, may introduce a bias in the current estimates of value-in-place.

Furthermore, additional nonsampling errors may be introduced into the estimates because the procedures such as phasing, extrapolating, and forecasting used to develop the indirectly measured series are subject to the validity of the underlying assumptions made and mathematical models used. No explicit measures of the effect of these procedures are available.

## MONTHLY REVISIONS TO ESTIMATES

Statistics for the current month are preliminary estimates. These estimates are released to provide government and private data users with early measures of construction activity. A necessary part of the process of issuing these early data involves the issuance of subsequent revisions. The revisions to monthly construction put in place estimates are primarily the result of the replacement of imputed data with data which are reported in subsequent months.

For total construction, the range of the difference between the last 12 preliminary and second revision estimates for the same months was from 0.1 percent to 1.7 percent with a median of 0.5 percent. The range of the difference between first revision and second revision was from -0.4 to 0.5 percent, with a median of 0.0 percent.

### Relative Standard Errors and Coefficients for Standard Errors of Changes

Type of construction	Relative standard error (percent)			Coefficient for changes	
	Monthly estimate	Year-to-date estimate	Annual estimate	Month-to-month change (k1)	Year-to-date change (k2)
<b>Total construction</b> .....	<b>2</b>	<b>2</b>	<b>1</b>	<b>.03</b>	<b>.02</b>
Private construction .....	3	2	1	.04	.03
Residential buildings .....	5	3	2	.06	.04
New housing units .....	2	2	1	.01	.02
1 unit structures .....	2	2	2	.01	.02
2 units or more .....	4	4	3	.03	.04
Nonresidential buildings .....	2	1	1	.02	.01
Industrial .....	3	2	2	.04	.03
Office .....	4	3	2	.05	.04
Hotels, motels .....	7	6	5	.09	.08
Other commercial .....	5	3	2	.06	.04
Religious .....	9	8	5	.12	.11
Educational .....	7	5	5	.10	.07
Hospital and institutional .....	6	5	5	.07	.07
Miscellaneous buildings .....	7	5	4	.09	.07
Public construction .....	2	1	1	.03	.01
Housing and redevelopment .....	8	5	4	.11	.07
Industrial .....	(NA)	(NA)	(NA)	(NA)	(NA)
Educational .....	3	2	2	.04	.03
Hospital .....	6	5	4	.08	.07
Other public buildings .....	3	2	2	.04	.03
Highways and streets .....	4	2	2	.05	.03
Military facilities .....	(NA)	(NA)	(NA)	(NA)	(NA)
Conservation and development .....	4	2	2	.06	.03
Sewer systems .....	6	3	3	.08	.04
Water supply facilities .....	8	4	3	.11	.06
Miscellaneous public .....	8	5	4	.11	.07
State and local construction .....	2	1	1	.03	.01
Housing and redevelopment .....	8	5	5	.11	.07
Educational .....	3	2	2	.04	.03
Hospital .....	8	7	5	.11	.10
Other public buildings .....	4	3	2	.05	.04
Highways and streets .....	4	2	2	.05	.03
Conservation and development .....	16	10	9	.23	.14
Sewer systems .....	6	3	3	.08	.04
Water supply facilities .....	8	4	3	.11	.06
Miscellaneous public .....	9	5	4	.12	.07
Federal construction .....	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Note: All statistics are based upon 1997 data. The coefficient (k1) for the month-to-month change is applicable to change from the previous month and change from the same month a year ago.