



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

Value of Construction Put in Place

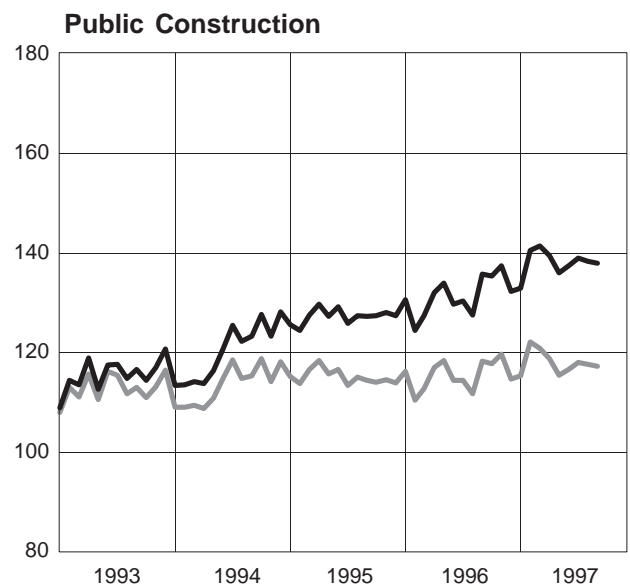
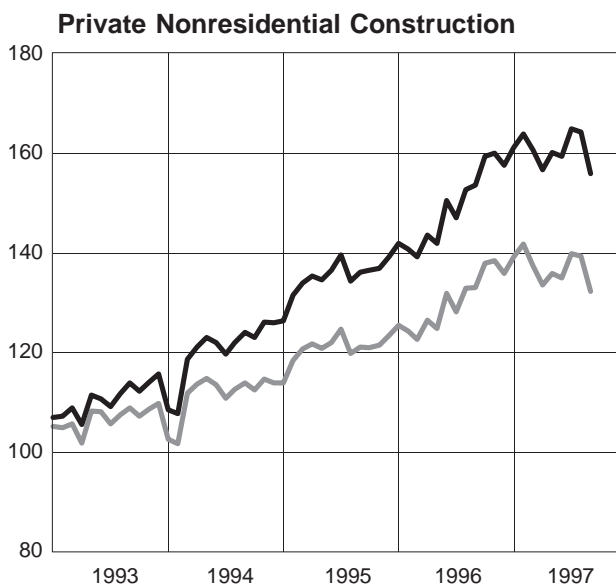
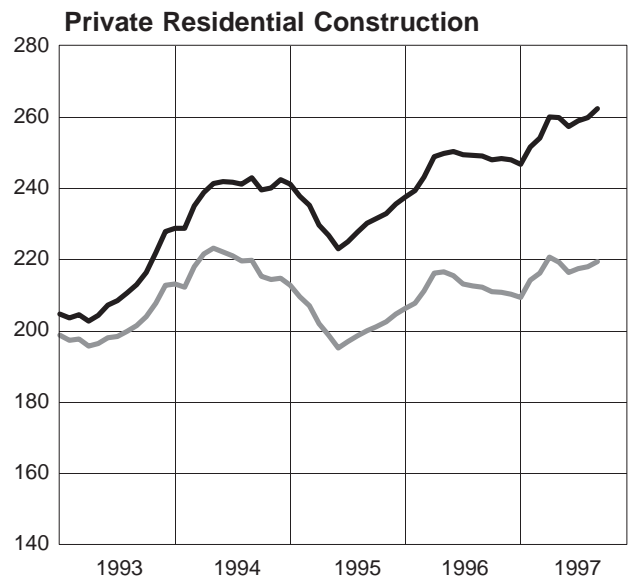
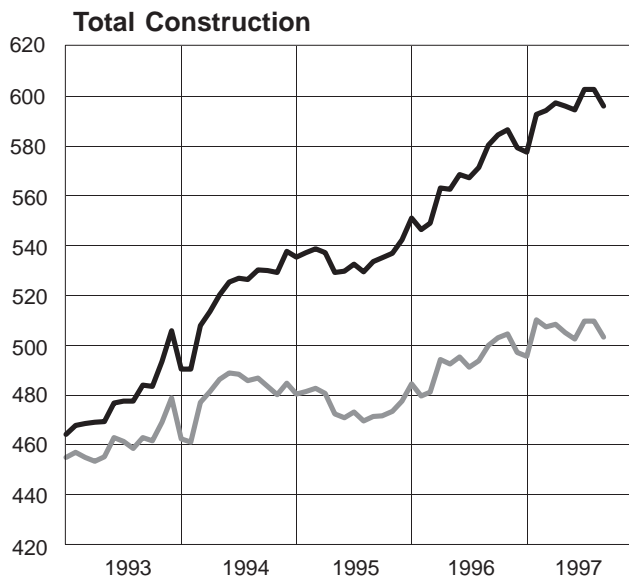
SEPTEMBER 1997

C30/97-9
Issued November 1997

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 September 1997 was estimated at a seasonally adjusted annual rate of \$595.8 billion, 1(±5) percent below the revised August estimate of \$602.3 billion. The September figure represents a 3(±5) percent increase over September 1996.

During the first 9 months of this year \$443.8 billion of construction was put in place, 6 percent above the \$419.9 billion for the same period in 1996.

In constant (1992) dollars, the September annual rate was \$502.9 billion, 1(±5) percent below the revised estimate of \$509.3 billion for August.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$185.5 billion in September, 1(±2) percent above the revised August estimate of \$183.9 billion. Nonresidential building construction was at a rate of \$155.8 billion, 5 percent below the revised August estimate of \$164.1 billion.

In September, the estimated seasonally adjusted annual rate of public construction put in place was \$137.8 billion, nearly the same (±5 percent) as the revised August estimate of \$138.2 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 1997*, C30/97-5, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1997; contains annual data for 1992 to 1996 and monthly data for 1994 to 1996.
- 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: 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: 1992-1996

[Millions of dollars]

Type of construction	Current dollars					Constant (1992) dollars				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
Total construction	452,086	478,648	519,896	534,068	568,585	451,998	461,078	480,965	474,426	493,587
Private construction	336,239	362,688	399,366	406,776	437,079	336,126	347,851	367,265	359,411	378,150
Residential buildings	187,819	210,455	238,874	230,688	247,177	187,687	200,502	218,005	201,682	212,069
New housing units	129,600	144,071	167,919	162,898	179,448	129,522	137,243	153,250	142,413	153,965
1 unit	116,505	133,282	153,838	145,009	159,124	116,419	126,960	140,416	126,773	136,516
2 or more units	13,094	10,788	14,081	17,889	20,324	13,103	10,283	12,833	15,640	17,449
Improvements	58,219	66,384	70,955	67,790	67,729	58,165	63,259	64,755	59,268	58,104
Nonresidential buildings	105,646	110,635	120,285	135,022	149,376	105,615	106,729	111,416	120,627	130,394
Industrial	29,029	26,482	28,947	32,505	32,069	29,027	25,554	26,803	29,043	28,003
Office	20,271	20,920	22,178	25,613	27,609	20,271	20,197	20,553	22,891	24,099
Hotels, motels	3,691	4,565	4,648	7,112	11,758	3,690	4,405	4,308	6,351	10,263
Other commercial	29,197	32,453	37,551	42,654	47,319	29,172	31,292	34,756	38,098	41,301
Religious	3,485	3,887	3,869	4,326	4,539	3,483	3,748	3,584	3,864	3,961
Educational	4,474	4,649	4,822	5,493	6,638	4,475	4,484	4,471	4,908	5,790
Hospital and institutional	11,487	12,492	12,268	11,248	11,982	11,485	12,050	11,377	10,051	10,460
Miscellaneous ¹	4,012	5,188	6,002	6,071	7,462	4,011	5,000	5,565	5,421	6,516
Farm nonresidential	2,398	3,392	3,246	3,014	3,135	2,396	3,271	3,008	2,693	2,736
Public utilities	36,807	34,925	34,071	35,158	35,010	36,859	34,120	32,074	31,767	30,842
Telecommunications	8,993	9,619	10,121	11,093	11,960	9,005	9,468	9,785	10,071	10,420
Other public utilities	27,814	25,306	23,950	24,065	23,050	27,854	24,652	22,289	21,696	20,422
Railroads	2,928	3,108	3,340	3,509	4,560	2,926	3,056	3,186	3,202	4,030
Electric light and power	17,136	15,567	14,918	14,049	12,654	17,184	15,096	13,877	12,656	11,191
Gas	6,901	5,645	4,694	5,578	4,814	6,895	5,536	4,308	5,004	4,291
Petroleum pipelines	849	986	998	929	1,022	849	965	918	834	910
All other private ²	3,570	3,281	2,890	2,893	2,381	3,569	3,229	2,763	2,644	2,109
Public construction	115,847	115,960	120,530	127,292	131,506	115,872	113,227	113,700	115,014	115,437
Buildings	49,986	48,559	48,841	53,622	56,685	49,988	46,813	45,177	47,832	49,415
Housing and redevelopment ..	4,138	4,011	3,647	4,293	4,522	4,136	3,833	3,326	3,754	3,881
Industrial	1,876	1,718	1,465	1,508	1,392	1,875	1,658	1,358	1,348	1,216
Educational	20,647	19,129	19,002	21,534	23,064	20,645	18,465	17,593	19,237	20,131
Hospital	3,383	3,710	4,085	4,312	4,558	3,383	3,579	3,787	3,854	3,981
Other ³	19,943	19,991	20,642	21,974	23,148	19,949	19,279	19,114	19,638	20,207
Highways and streets	33,106	34,299	37,346	36,508	37,774	33,132	34,164	36,151	33,500	33,297
Military facilities	2,502	2,453	2,318	3,011	2,534	2,502	2,405	2,196	2,729	2,225
Conservation and development ..	5,952	5,937	6,464	6,362	5,909	5,946	5,771	6,091	5,773	5,244
Sewer systems	9,663	8,863	9,120	9,895	10,207	9,658	8,622	8,592	8,975	9,060
Water supply facilities	5,162	5,085	4,875	5,539	5,887	5,170	4,868	4,443	4,923	5,121
Miscellaneous public ⁴	9,477	10,765	11,566	12,355	12,510	9,475	10,583	11,050	11,282	11,075

¹Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc.

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

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

⁴Includes 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: 1992-1996

[Millions of dollars]

Type of construction	Current dollars					Constant (1992) dollars				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
Total public construction	115,847	115,960	120,530	127,292	131,506	115,872	113,227	113,700	115,014	115,437
State and local construction	101,471	101,535	106,090	111,417	115,917	101,497	99,200	100,130	100,686	101,730
Total buildings	44,022	42,865	43,699	47,580	50,412	44,022	41,323	40,422	42,442	43,946
Housing and redevelopment	3,977	3,775	3,201	3,717	3,842	3,975	3,608	2,920	3,251	3,296
Educational	20,617	19,108	18,975	21,507	23,052	20,616	18,445	17,568	19,213	20,120
Hospital	2,626	2,804	3,234	3,271	3,359	2,626	2,703	2,998	2,923	2,933
Other ¹	16,801	17,177	18,289	19,084	20,160	16,805	16,567	16,936	17,054	17,597
Highways and streets	32,886	33,961	36,918	36,076	37,339	32,912	33,827	35,736	33,104	32,913
Conservation and development	1,419	1,719	2,088	2,194	2,066	1,417	1,670	1,966	1,992	1,833
Sewer systems	9,663	8,863	9,120	9,895	10,207	9,658	8,622	8,592	8,975	9,060
Water supply facilities	5,162	5,085	4,875	5,539	5,887	5,170	4,868	4,443	4,923	5,121
Miscellaneous nonbuilding ²	8,320	9,043	9,390	10,132	10,006	8,318	8,890	8,970	9,250	8,857
Federal construction	14,376	14,424	14,440	15,875	15,589	14,375	14,027	13,569	14,328	13,707
Total buildings	5,964	5,695	5,142	6,043	6,273	5,966	5,490	4,755	5,390	5,469
Housing	161	236	446	576	681	161	225	406	503	585
Industrial	1,876	1,718	1,465	1,508	1,392	1,875	1,658	1,358	1,348	1,216
Educational	30	21	26	27	12	30	20	24	24	11
Hospital	757	906	851	1,041	1,199	757	875	789	931	1,048
Other ³	3,141	2,814	2,354	2,891	2,989	3,144	2,713	2,178	2,584	2,609
Highways and streets	220	338	428	432	435	220	336	414	396	383
Military facilities	2,502	2,453	2,318	3,011	2,534	2,502	2,405	2,196	2,729	2,225
Conservation and development	4,533	4,217	4,376	4,167	3,843	4,529	4,102	4,124	3,781	3,411
Miscellaneous public ⁴	1,157	1,722	2,176	2,223	2,504	1,157	1,693	2,080	2,032	2,218

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc.

²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc.

⁴Includes 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 ⁵	
		Total ¹	Residential buildings					Nonresidential buildings									Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications		
				Total	1 unit	2 units or more													
YEAR TO DATE																			
September 1996	419,859	322,454	184,069	133,371	118,121	15,250	108,460	23,321	20,104	8,479	34,408	3,220	4,823	8,656	5,449	(NA)	8,435	1,802	
September 1997	443,795	340,650	191,885	136,519	119,909	16,610	119,270	22,947	23,283	9,868	35,926	4,142	6,104	10,335	6,666	(NA)	(NA)	1,548	
Percent change	6	6	4	2	2	9	10	-2	16	16	4	29	27	19	22	(NA)	(NA)	-14	
MONTHLY DATA																			
1995: September	50,414	37,227	21,563	15,452	13,843	1,609	12,181	2,848	2,183	607	4,109	419	495	971	551	(NA)	946	283	
October	49,486	37,297	21,548	15,358	13,754	1,605	12,232	2,844	2,088	641	4,118	440	435	1,010	657	(NA)	984	259	
November	46,441	35,522	20,373	14,816	13,258	1,558	11,818	2,782	2,045	767	3,833	389	437	977	590	(NA)	970	195	
December	41,022	31,936	17,451	12,711	11,134	1,578	11,354	2,844	2,012	795	3,487	327	363	948	579	(NA)	885	226	
1996: January	37,393	29,152	15,684	11,719	10,283	1,437	10,446	2,514	1,808	794	3,175	317	359	929	551	(NA)	840	203	
February	36,234	28,592	14,936	11,205	9,749	1,457	10,600	2,444	1,902	863	3,236	314	386	873	583	(NA)	845	186	
March	40,063	31,634	17,617	13,217	11,629	1,588	10,859	2,501	1,921	868	3,338	307	423	883	619	(NA)	870	191	
April	44,566	34,672	19,695	14,255	12,457	1,798	11,699	2,610	2,123	981	3,664	340	437	912	633	(NA)	972	199	
May	48,485	36,967	21,648	15,316	13,427	1,889	12,055	2,531	2,348	899	3,859	350	510	976	584	(NA)	1,001	194	
June	51,339	39,433	23,243	16,389	14,475	1,914	12,866	2,713	2,480	971	4,054	384	640	994	631	(NA)	908	208	
July	52,521	39,846	23,686	16,897	15,184	1,713	12,667	2,570	2,437	948	4,062	362	681	972	635	(NA)	948	186	
August	54,492	41,360	24,170	17,290	15,536	1,754	13,492	2,573	2,498	1,093	4,522	414	731	1,057	603	(NA)	1,086	243	
September	54,767	40,796	23,390	17,083	15,381	1,702	13,776	2,866	2,589	1,064	4,499	432	655	1,061	611	(NA)	966	192	
October	54,095	41,080	23,080	16,698	14,961	1,737	14,249	3,129	2,539	1,072	4,662	438	642	1,082	686	(NA)	1,128	217	
November	50,564	38,950	21,695	15,970	14,217	1,753	13,781	2,895	2,551	1,072	4,397	446	624	1,115	681	(NA)	1,131	190	
December	44,066	34,596	18,334	13,410	11,826	1,584	12,886	2,724	2,414	1,135	3,852	435	550	1,130	646	(NA)	1,266	172	
1997: January	39,285	30,899	16,281	12,189	10,750	1,439	11,916	2,380	2,364	983	3,647	363	508	1,070	601	(NA)	825	140	
February	38,947	30,458	15,714	11,861	10,183	1,678	12,082	2,412	2,518	1,021	3,500	375	527	1,090	641	(NA)	809	134	
March	43,351	33,976	18,446	13,818	12,087	1,731	12,437	2,353	2,402	1,076	3,739	437	549	1,158	723	(NA)	888	157	
April	47,369	36,886	20,665	14,633	12,795	1,838	12,763	2,435	2,405	1,069	3,763	467	658	1,204	763	(NA)	1,012	180	
May	51,213	39,618	22,608	15,665	13,589	2,076	13,490	2,534	2,565	1,160	4,068	500	683	1,139	842	(NA)	979	164	
June	54,050	41,241	23,903	16,379	14,377	2,002	13,772	2,613	2,703	1,149	4,182	449	768	1,139	769	(NA)	973	173	
July ^f	55,762	42,274	24,568	17,005	15,116	1,890	14,256	2,716	2,784	1,138	4,433	469	807	1,108	800	(NA)	1,045	183	
August ^f	57,452	43,259	25,129	17,478	15,440	2,038	14,615	2,810	2,905	1,162	4,366	510	857	1,216	790	(NA)	995	219	
September ^p	56,366	42,040	24,570	17,490	15,572	1,918	13,939	2,695	2,637	1,110	4,228	573	747	1,212	737	(NA)	(NA)	200	
PERCENT CHANGE																			
August 1997- September 1997	-2	-3	-2	(Z)	1	-6	-5	-4	-9	-4	-3	12	-13	(Z)	-7	(NA)	(NA)	-9	

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 ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
YEAR TO DATE													
September 1996	97,406	41,940	3,318	1,153	17,235	3,381	16,853	27,596	1,955	4,619	7,488	4,226	9,581
September 1997	103,145	44,756	3,435	808	18,775	3,661	18,076	30,461	1,918	4,182	7,388	4,505	9,937
Percent change	6	7	4	-30	9	8	7	10	-2	-9	-1	7	4
MONTHLY DATA													
1995: September	13,187	5,031	390	180	2,097	439	1,924	4,292	361	758	961	484	1,302
October	12,188	4,512	390	97	1,853	344	1,827	4,369	156	344	957	560	1,290
November	10,918	4,406	372	117	1,720	367	1,829	3,191	269	483	930	540	1,099
December	9,086	3,997	358	111	1,554	340	1,634	2,244	295	459	752	441	897
1996: January	8,241	4,039	362	104	1,516	340	1,717	1,644	248	376	683	358	894
February	7,641	3,686	314	103	1,421	359	1,489	1,637	202	369	639	372	738
March	8,429	4,053	314	124	1,593	382	1,640	1,776	206	432	712	384	866
April	9,894	4,325	323	120	1,690	392	1,799	2,465	214	483	862	502	1,042
May	11,517	4,866	413	128	1,922	396	2,007	3,305	220	490	902	527	1,207
June	11,906	4,906	355	129	2,062	369	1,991	3,707	210	506	870	523	1,185
July	12,675	5,165	402	129	2,299	365	1,971	4,238	191	513	850	515	1,204
August	13,132	5,347	373	133	2,495	323	2,025	4,323	193	574	1,021	506	1,167
September	13,971	5,554	462	185	2,237	457	2,214	4,502	271	877	951	540	1,278
October	13,016	5,068	419	60	2,073	392	2,123	4,521	175	420	1,080	658	1,093
November	11,615	5,088	424	91	2,005	363	2,205	3,275	203	478	918	546	1,106
December	9,470	4,589	361	88	1,751	423	1,966	2,382	200	392	721	457	731
1997: January	8,387	4,307	335	90	1,653	400	1,829	1,641	199	411	655	419	757
February	8,489	4,327	337	79	1,683	395	1,832	1,673	170	385	643	426	866
March	9,375	4,547	345	88	1,800	394	1,920	2,022	192	443	719	501	951
April	10,483	4,830	375	114	1,924	431	1,987	2,760	188	416	790	474	1,026
May	11,595	4,851	417	74	2,016	388	1,956	3,544	214	444	873	499	1,171
June	12,809	5,338	389	94	2,340	438	2,077	4,222	221	434	890	502	1,202
July ^f	13,488	5,480	403	91	2,494	437	2,054	4,595	230	440	880	557	1,306
August ^f	14,194	5,549	396	80	2,590	388	2,095	5,094	236	503	945	549	1,317
September ^p	14,326	5,528	437	98	2,275	390	2,327	4,910	269	707	994	580	1,340
PERCENT CHANGE													
August 1997-September 1997	1	(Z)	10	22	-12	1	11	-4	14	41	5	6	2

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes 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 ⁵		
			Total ¹	Residential buildings					Nonresidential buildings										Public utilities ⁴	
				Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total		Telecommunications	
					Total	1 unit	2 units or more													
1995:	September	533,200	406,111	229,968	163,724	145,336	18,387	135,992	32,239	25,330	7,271	43,286	4,593	5,607	11,318	6,348	(NA)	11,134	3,074	
	October	534,727	407,541	231,355	165,562	147,361	18,201	136,332	31,630	24,564	7,589	43,998	4,661	5,148	11,465	7,278	(NA)	10,831	2,794	
	November	536,617	408,739	232,742	166,588	148,135	18,453	136,782	32,345	23,960	9,357	43,643	4,219	5,370	11,231	6,656	(NA)	10,729	2,147	
	December	541,887	414,690	235,441	169,225	149,444	19,781	139,069	32,104	25,095	9,653	44,420	3,957	5,192	11,482	7,165	(NA)	10,724	2,839	
1996:	January	550,748	420,298	237,392	171,124	151,215	19,909	141,679	33,414	23,501	10,500	45,305	4,193	5,306	11,896	7,564	(NA)	11,999	2,742	
	February	546,059	421,747	239,296	173,454	153,318	20,136	140,617	32,081	23,752	10,888	45,419	4,162	5,408	11,105	7,803	(NA)	11,685	2,695	
	March	548,550	421,244	242,957	176,542	155,924	20,618	138,982	31,355	23,664	10,446	45,357	4,082	5,900	10,818	7,359	(NA)	11,258	2,552	
	April	562,889	431,083	248,755	181,387	159,027	22,360	143,384	31,888	25,198	11,260	46,679	4,274	5,603	11,112	7,370	(NA)	11,754	2,521	
	May	562,287	428,467	249,677	181,834	160,162	21,672	141,795	30,161	26,525	10,146	46,026	4,315	5,928	11,544	7,149	(NA)	11,625	2,248	
	June	568,189	438,624	250,201	182,395	161,133	21,262	150,364	31,978	29,822	11,212	46,864	4,820	6,584	11,738	7,346	(NA)	10,786	2,361	
	July	566,999	436,845	249,401	181,169	161,964	19,206	146,896	30,537	28,891	11,487	45,428	4,343	6,713	11,918	7,579	(NA)	10,906	2,137	
	August	570,996	443,553	249,211	181,092	161,978	19,114	152,620	30,968	28,988	12,888	48,581	4,571	7,084	12,388	7,154	(NA)	11,861	2,785	
	September	579,959	444,388	248,957	180,650	161,197	19,453	153,539	32,845	29,646	12,701	47,067	4,666	7,228	12,347	7,040	(NA)	11,489	2,099	
	October	584,140	448,952	247,901	179,886	160,153	19,733	159,310	34,738	29,961	12,684	49,903	4,609	7,556	12,291	7,568	(NA)	11,893	2,347	
	November	586,226	448,907	248,259	180,036	159,293	20,743	159,895	33,244	29,987	13,054	50,157	4,948	7,972	12,832	7,702	(NA)	12,995	2,101	
	December	579,109	447,045	247,899	179,112	159,267	19,845	157,371	30,752	29,532	13,816	48,863	5,122	7,635	13,650	8,002	(NA)	14,640	2,157	
1997:	January	577,116	444,391	246,661	178,271	158,284	19,987	161,045	31,871	30,607	12,937	51,372	4,878	7,464	13,657	8,258	(NA)	11,675	1,869	
	February	592,365	452,037	251,402	183,408	160,152	23,256	163,721	32,161	32,388	12,891	50,719	5,245	7,848	13,792	8,676	(NA)	11,737	1,911	
	March	593,908	452,728	253,974	184,118	161,516	22,602	160,545	30,520	30,144	12,997	50,871	5,699	7,424	14,148	8,741	(NA)	11,393	2,090	
	April	596,907	457,604	259,917	185,217	162,477	22,739	156,536	29,331	28,710	12,430	47,835	6,032	8,678	14,626	8,893	(NA)	12,279	2,264	
	May	595,763	459,882	259,662	185,273	161,612	23,660	160,043	30,501	29,708	13,134	48,962	6,196	7,946	13,545	10,051	(NA)	11,548	1,961	
	June	594,195	456,927	257,277	182,844	160,641	22,202	159,164	31,046	31,671	13,333	47,338	5,587	7,762	13,509	8,917	(NA)	11,356	1,995	
	July ^f	602,322	463,510	258,843	182,833	161,520	21,312	164,849	31,952	32,630	13,688	49,906	5,700	7,892	13,637	9,444	(NA)	11,776	2,070	
	August ^f	602,303	464,091	259,655	183,903	161,674	22,228	164,135	32,837	32,982	13,627	46,904	5,758	8,462	14,205	9,360	(NA)	11,460	2,469	
	September ^p	595,786	457,996	262,207	185,528	163,628	21,900	155,831	30,590	30,341	13,256	44,859	6,049	8,239	14,133	8,364	(NA)	(NA)	2,124	
PERCENT CHANGE																				
August 1997-	September 1997	-1	-1	1	1	1	-1	-5	-7	-8	-3	-4	5	-3	-1	-11	(NA)	(NA)	-14	

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 ⁷
			Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
1995:	September	127,088	53,790	4,226	1,636	22,164	4,572	21,193	36,319	3,309	6,031	9,873	5,378	12,387
	October	127,186	52,526	4,481	1,462	21,578	4,040	20,966	37,883	2,265	4,717	10,077	5,714	14,003
	November	127,877	53,111	4,374	1,444	21,483	4,511	21,298	36,782	3,133	5,866	10,236	6,009	12,742
	December	127,196	52,314	4,423	1,348	21,533	4,125	20,885	37,822	3,335	6,028	10,058	5,632	12,008
1996:	January	130,450	55,999	4,702	1,321	22,321	4,380	23,275	37,649	3,128	5,301	9,730	5,198	13,445
	February	124,312	50,549	4,107	1,358	21,154	4,625	19,305	39,520	2,923	5,317	9,436	5,531	11,035
	March	127,306	53,791	4,007	1,522	22,196	4,736	21,331	37,385	2,415	5,807	9,770	5,366	12,770
	April	131,807	54,202	4,021	1,469	22,336	4,617	21,758	38,119	2,721	6,017	11,138	6,367	13,243
	May	133,820	57,140	4,815	1,414	23,415	4,677	22,820	37,166	2,640	5,733	10,864	6,115	14,162
	June	129,565	54,616	4,034	1,468	22,217	4,181	22,716	37,227	2,463	5,960	9,779	5,863	13,656
	July	130,154	56,390	4,781	1,519	22,778	4,272	23,041	37,614	2,301	5,706	9,795	5,625	12,724
	August	127,443	55,986	4,385	1,583	23,066	4,068	22,884	35,196	2,278	6,154	10,549	5,479	11,801
	September	135,572	59,637	5,108	1,713	23,547	4,796	24,472	38,338	2,482	7,177	9,750	5,997	12,192
	October	135,188	58,348	4,671	878	24,068	4,659	24,072	38,367	2,531	5,573	11,155	6,693	12,521
	November	137,319	61,588	4,947	1,122	24,964	4,425	26,129	38,610	2,365	5,710	10,269	6,080	12,697
	December	132,064	59,626	4,446	1,090	24,343	5,064	24,684	39,585	2,241	5,223	9,704	5,854	9,831
1997:	January	132,725	59,515	4,320	1,128	24,219	5,197	24,651	37,869	2,542	5,807	9,508	6,106	11,377
	February	140,328	60,984	4,638	1,108	24,999	5,262	24,976	41,060	2,564	5,727	10,082	6,591	13,320
	March	141,180	60,311	4,507	1,021	25,080	4,785	24,918	41,473	2,232	6,114	9,992	7,044	14,014
	April	139,304	60,375	4,641	1,394	25,173	5,031	24,135	42,356	2,408	5,134	10,114	5,945	12,973
	May	135,882	57,173	4,783	797	24,581	4,673	22,339	40,694	2,548	5,242	10,381	5,780	14,064
	June	137,268	59,261	4,579	1,052	25,029	4,949	23,652	41,531	2,580	4,952	10,073	5,652	13,219
	July ^f	138,813	59,362	4,727	1,102	24,699	5,119	23,715	41,056	2,743	4,989	10,155	6,096	14,410
	August ^f	138,212	58,947	4,700	1,013	24,120	4,922	24,192	41,896	2,775	5,384	9,838	5,986	13,386
	September ^p	137,790	59,025	4,728	927	23,962	4,107	25,302	41,115	2,479	5,739	10,260	6,390	12,782
PERCENT CHANGE														
	August 1997- September 1997	(Z)	(Z)	1	-8	-1	-17	5	-2	-11	7	4	7	-5

NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes 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 ⁴		All other private ⁵
			Total ¹	Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications		
					Total	1 unit	2 units or more													
1995:	September	471,059	356,756	199,798	142,245	126,270	15,975	120,881	28,657	22,516	6,463	38,477	4,082	4,984	10,060	5,643	(NA)	9,950	2,795	
	October	471,405	357,459	201,003	143,842	128,029	15,813	120,755	28,016	21,757	6,721	38,971	4,129	4,559	10,155	6,446	(NA)	9,636	2,528	
	November	473,080	358,712	202,385	144,859	128,813	16,046	121,261	28,675	21,241	8,295	38,690	3,740	4,761	9,957	5,901	(NA)	9,512	1,940	
	December	477,310	363,660	204,554	147,024	129,839	17,186	123,179	28,436	22,228	8,550	39,345	3,505	4,599	10,170	6,347	(NA)	9,490	2,563	
1996:	January	484,138	368,090	206,069	148,545	131,263	17,283	125,268	29,544	20,779	9,284	40,057	3,708	4,691	10,518	6,688	(NA)	10,581	2,462	
	February	479,163	368,890	207,542	150,437	132,974	17,464	124,110	28,315	20,963	9,610	40,087	3,673	4,773	9,802	6,887	(NA)	10,286	2,411	
	March	480,862	368,244	210,900	153,248	135,350	17,898	122,451	27,626	20,849	9,204	39,962	3,597	5,198	9,532	6,484	(NA)	9,876	2,275	
	April	493,871	377,113	216,121	157,590	138,164	19,426	126,441	28,120	22,220	9,930	41,163	3,769	4,941	9,799	6,499	(NA)	10,311	2,249	
	May	492,125	373,823	216,358	157,569	138,788	18,780	124,710	26,527	23,329	8,924	40,480	3,795	5,214	10,153	6,287	(NA)	10,179	2,002	
	June	494,882	380,650	215,319	156,966	138,669	18,298	131,667	28,002	26,114	9,818	41,036	4,221	5,765	10,278	6,432	(NA)	9,436	2,099	
	July	490,878	376,661	212,981	154,713	138,312	16,401	127,958	26,600	25,167	10,006	39,571	3,783	5,848	10,381	6,601	(NA)	9,500	1,893	
	August	493,282	381,760	212,456	154,384	138,089	16,295	132,713	26,928	25,207	11,207	42,245	3,974	6,160	10,772	6,221	(NA)	10,287	2,456	
	September	499,575	381,523	212,058	153,875	137,306	16,569	132,934	28,437	25,668	10,996	40,750	4,040	6,258	10,690	6,095	(NA)	9,904	1,840	
	October	502,583	385,003	210,800	152,965	136,185	16,780	137,811	30,050	25,918	10,972	43,169	3,987	6,536	10,632	6,546	(NA)	10,271	2,057	
	November	504,085	384,631	210,746	152,832	135,223	17,609	138,318	28,758	25,940	11,292	43,388	4,280	6,896	11,100	6,663	(NA)	11,251	1,843	
	December	496,676	382,146	210,084	151,790	134,972	16,818	135,665	26,510	25,458	11,910	42,123	4,416	6,582	11,767	6,899	(NA)	12,676	1,887	
1997:	January	495,257	380,158	209,212	151,205	134,252	16,953	138,951	27,499	26,408	11,162	44,324	4,209	6,440	11,783	7,125	(NA)	10,117	1,633	
	February	509,850	387,879	213,959	156,092	136,300	19,792	141,627	27,821	28,018	11,151	43,874	4,537	6,789	11,931	7,505	(NA)	10,206	1,673	
	March	507,140	386,485	216,148	156,696	137,461	19,235	137,218	26,086	25,764	11,109	43,479	4,871	6,346	12,093	7,471	(NA)	9,847	1,787	
	April	508,034	389,402	220,455	157,097	137,810	19,287	133,449	25,005	24,476	10,597	40,780	5,143	7,398	12,469	7,581	(NA)	10,540	1,928	
	May	504,770	389,424	219,124	156,348	136,382	19,967	135,745	25,870	25,198	11,140	41,528	5,255	6,740	11,488	8,525	(NA)	9,870	1,669	
	June	502,250	385,799	216,199	153,650	134,993	18,657	134,770	26,288	26,817	11,290	40,083	4,731	6,572	11,439	7,550	(NA)	9,697	1,698	
	July ^f	509,288	391,366	217,332	153,512	135,617	17,895	139,702	27,078	27,652	11,600	42,293	4,830	6,688	11,557	8,004	(NA)	10,073	1,765	
	August ^f	509,302	391,835	217,832	154,281	135,633	18,648	139,216	27,852	27,975	11,558	39,783	4,884	7,177	12,048	7,939	(NA)	9,812	2,107	
	September ^p	502,902	385,795	219,236	155,124	136,812	18,311	132,060	25,924	25,712	11,234	38,016	5,126	6,982	11,977	7,088	(NA)	(NA)	1,812	
PERCENT CHANGE																				
August 1997-	September 1997	-1	-2	1	1	1	-2	-5	-7	-8	-3	-4	5	-3	-1	-11	(NA)	(NA)	-14	

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 ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
1995: September	114,303	47,729	3,671	1,454	19,702	4,064	18,838	33,198	2,984	5,448	8,919	4,764	11,260
October	113,946	46,449	3,893	1,295	19,112	3,578	18,570	34,377	2,032	4,261	9,103	5,052	12,673
November	114,367	47,010	3,804	1,280	19,045	3,999	18,882	33,196	2,802	5,299	9,247	5,304	11,510
December	113,651	46,262	3,843	1,194	19,073	3,653	18,499	34,074	2,980	5,446	9,085	4,967	10,837
1996: January	116,049	49,437	4,082	1,168	19,735	3,872	20,579	33,645	2,780	4,776	8,765	4,576	12,069
February	110,273	44,553	3,562	1,198	18,671	4,082	17,039	35,129	2,589	4,781	8,486	4,865	9,870
March	112,619	47,341	3,478	1,341	19,556	4,172	18,794	33,084	2,134	5,208	8,762	4,707	11,381
April	116,758	47,745	3,494	1,296	19,697	4,072	19,187	33,823	2,406	5,396	9,990	5,585	11,813
May	118,302	50,193	4,172	1,243	20,594	4,113	20,070	32,949	2,332	5,132	9,726	5,359	12,611
June	114,232	47,764	3,471	1,286	19,454	3,661	19,892	32,974	2,169	5,321	8,731	5,134	12,138
July	114,217	49,039	4,083	1,323	19,841	3,721	20,070	33,228	2,019	5,063	8,691	4,908	11,270
August	111,522	48,609	3,738	1,377	20,057	3,538	19,899	31,010	1,995	5,431	9,311	4,760	10,406
September	118,052	51,562	4,351	1,483	20,387	4,152	21,188	33,630	2,162	6,290	8,545	5,178	10,686
October	117,581	50,405	3,972	759	20,820	4,030	20,823	33,567	2,201	4,889	9,785	5,760	10,974
November	119,454	53,197	4,200	971	21,596	3,828	22,603	33,779	2,058	5,022	9,031	5,228	11,138
December	114,529	51,337	3,768	939	20,985	4,365	21,279	34,542	1,943	4,582	8,512	5,012	8,601
1997: January	115,099	51,287	3,664	973	20,897	4,484	21,269	33,016	2,205	5,089	8,333	5,224	9,945
February	121,971	52,689	3,947	958	21,626	4,552	21,606	35,860	2,230	5,028	8,851	5,648	11,664
March	120,655	51,532	3,836	872	21,436	4,090	21,297	35,477	1,908	5,225	8,540	5,995	11,978
April	118,632	51,450	3,937	1,188	21,461	4,289	20,576	36,017	2,051	4,384	8,637	5,042	11,050
May	115,347	48,472	4,037	676	20,849	3,964	18,947	34,516	2,161	4,473	8,858	4,898	11,969
June	116,451	50,149	3,848	890	21,193	4,191	20,027	35,225	2,187	4,232	8,610	4,798	11,250
July ^f	117,922	50,270	3,969	934	20,931	4,338	20,098	34,882	2,327	4,272	8,694	5,193	12,285
August ^f	117,467	49,954	3,943	859	20,458	4,174	20,519	35,595	2,356	4,610	8,423	5,107	11,421
September ^p	117,106	49,968	3,953	785	20,307	3,480	21,442	34,962	2,105	4,917	8,792	5,457	10,906
PERCENT CHANGE													
August 1997- September 1997	(Z)	(Z)	(Z)	-9	-1	-17	4	-2	-11	7	4	7	-5

NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes 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 ⁵	
		Total ¹	Residential buildings					Nonresidential buildings									Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications		
				Total	1 unit	2 units or more													
YEAR TO DATE																			
September 1996	365,771	279,973	158,488	114,845	101,704	13,141	95,038	20,442	17,614	7,433	30,144	2,821	4,221	7,585	4,778	(NA)	7,371	1,602	
September 1997	376,956	288,968	161,827	115,153	101,138	14,015	101,636	19,557	19,843	8,409	30,612	3,528	5,198	8,811	5,678	(NA)	(NA)	1,327	
Percent change	3	3	2	(Z)	-1	7	7	-4	13	13	2	25	23	16	19	(NA)	(NA)	-17	
MONTHLY DATA																			
1995: September	44,567	32,691	18,734	13,425	12,027	1,398	10,827	2,531	1,940	540	3,652	372	440	863	490	(NA)	846	257	
October	43,639	32,706	18,721	13,344	11,949	1,394	10,834	2,519	1,849	567	3,647	389	386	895	582	(NA)	875	234	
November	40,938	31,172	17,715	12,883	11,529	1,355	10,477	2,466	1,813	680	3,398	344	387	866	523	(NA)	860	176	
December	36,130	28,018	15,162	11,044	9,673	1,371	10,057	2,519	1,782	704	3,089	289	322	840	512	(NA)	783	204	
1996: January	32,871	25,545	13,615	10,173	8,926	1,247	9,236	2,223	1,598	702	2,807	280	317	821	487	(NA)	741	183	
February	31,805	25,031	12,954	9,718	8,455	1,263	9,355	2,157	1,679	762	2,856	277	341	770	514	(NA)	744	167	
March	35,119	27,664	15,292	11,473	10,095	1,378	9,568	2,203	1,692	765	2,941	271	373	778	546	(NA)	763	171	
April	39,100	30,337	17,111	12,385	10,823	1,562	10,316	2,301	1,872	865	3,231	300	385	804	558	(NA)	852	177	
May	42,434	32,252	18,759	13,272	11,635	1,637	10,603	2,226	2,065	791	3,394	308	448	858	514	(NA)	876	173	
June	44,707	34,210	20,002	14,104	12,457	1,647	11,266	2,375	2,172	850	3,550	336	561	870	552	(NA)	794	185	
July	45,466	34,338	20,227	14,429	12,967	1,462	11,034	2,239	2,122	826	3,538	315	594	847	553	(NA)	826	164	
August	47,078	35,580	20,605	14,740	13,245	1,495	11,732	2,237	2,172	951	3,932	360	635	919	525	(NA)	942	214	
September	47,191	35,016	19,923	14,551	13,101	1,450	11,928	2,481	2,242	921	3,895	374	567	918	529	(NA)	833	168	
October	46,547	35,221	19,625	14,199	12,722	1,477	12,326	2,707	2,197	927	4,033	379	555	936	593	(NA)	974	190	
November	43,474	33,369	18,417	13,557	12,069	1,488	11,921	2,504	2,207	927	3,804	386	540	965	589	(NA)	979	167	
December	37,795	29,587	15,537	11,364	10,022	1,343	11,109	2,348	2,081	979	3,321	375	474	974	557	(NA)	1,096	151	
1997: January	33,714	26,447	13,809	10,339	9,118	1,221	10,281	2,053	2,040	848	3,147	313	438	923	518	(NA)	715	123	
February	33,527	26,155	13,374	10,095	8,666	1,428	10,452	2,087	2,178	883	3,027	324	456	943	554	(NA)	703	117	
March	37,023	29,012	15,698	11,760	10,287	1,473	10,629	2,011	2,053	919	3,196	374	470	990	618	(NA)	767	134	
April	40,321	31,393	17,528	12,412	10,853	1,559	10,881	2,075	2,050	911	3,208	398	561	1,027	651	(NA)	869	153	
May	43,391	33,548	19,079	13,219	11,467	1,752	11,442	2,149	2,175	984	3,450	424	579	966	714	(NA)	836	139	
June	45,682	34,815	20,087	13,764	12,082	1,682	11,661	2,213	2,288	973	3,541	380	650	965	651	(NA)	831	147	
July ^f	47,142	35,684	20,628	14,278	12,692	1,587	12,082	2,302	2,360	965	3,757	397	684	939	678	(NA)	894	156	
August ^f	48,575	36,511	21,081	14,662	12,953	1,709	12,396	2,384	2,464	985	3,703	432	727	1,031	670	(NA)	852	187	
September ^p	47,581	35,403	20,543	14,624	13,020	1,604	11,812	2,283	2,235	941	3,583	486	633	1,027	624	(NA)	(NA)	171	
PERCENT CHANGE																			
August 1997- September 1997	-2	-3	-3	(Z)	1	-6	-5	-4	-9	-4	-3	13	-13	(Z)	-7	(NA)	(NA)	-9	

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 ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
YEAR TO DATE													
September 1996	85,798	36,692	2,857	1,010	15,092	2,964	14,767	24,399	1,723	4,111	6,672	3,694	8,508
September 1997	87,987	38,104	2,899	689	15,991	3,121	15,405	25,963	1,636	3,596	6,347	3,836	8,506
Percent change	3	4	1	-32	6	5	4	6	-5	-13	-5	4	(Z)
MONTHLY DATA													
1995: September	11,876	4,464	339	160	1,864	390	1,710	3,923	326	684	868	428	1,183
October	10,932	3,990	339	86	1,642	305	1,619	3,965	140	310	865	495	1,168
November	9,766	3,900	324	104	1,525	325	1,622	2,880	241	436	840	476	993
December	8,113	3,535	311	98	1,377	301	1,447	2,022	264	414	679	389	810
1996: January	7,325	3,565	314	92	1,340	300	1,518	1,469	221	338	615	315	802
February	6,775	3,248	272	91	1,254	316	1,314	1,455	179	332	574	327	661
March	7,455	3,567	273	109	1,403	337	1,445	1,572	182	387	639	337	772
April	8,763	3,810	281	106	1,490	346	1,587	2,187	189	433	773	440	930
May	10,182	4,274	358	112	1,691	348	1,765	2,930	194	439	807	462	1,075
June	10,498	4,291	305	113	1,806	323	1,743	3,284	185	451	776	458	1,053
July	11,128	4,492	343	112	2,002	318	1,717	3,744	168	455	754	449	1,066
August	11,498	4,643	318	115	2,169	281	1,761	3,809	169	507	901	440	1,029
September	12,174	4,802	393	160	1,937	395	1,917	3,949	236	769	833	466	1,120
October	11,326	4,378	357	52	1,794	339	1,837	3,955	152	369	948	566	958
November	10,104	4,395	360	79	1,735	314	1,907	2,866	177	420	808	469	970
December	8,208	3,950	306	76	1,509	364	1,695	2,078	173	343	632	391	639
1997: January	7,267	3,711	284	77	1,426	345	1,578	1,431	172	360	574	358	661
February	7,372	3,738	287	69	1,456	342	1,584	1,461	148	338	564	365	758
March	8,011	3,885	294	75	1,539	336	1,641	1,730	164	379	615	426	813
April	8,928	4,116	318	97	1,640	368	1,694	2,347	160	355	674	402	874
May	9,843	4,113	352	63	1,710	329	1,659	3,006	182	379	745	422	997
June	10,866	4,517	327	80	1,981	371	1,759	3,581	187	371	761	426	1,023
July ^f	11,458	4,641	339	77	2,114	370	1,741	3,904	195	377	754	474	1,113
August ^f	12,064	4,703	333	68	2,197	329	1,777	4,328	200	431	809	468	1,124
September ^p	12,178	4,680	365	83	1,928	331	1,972	4,175	228	606	851	495	1,143
PERCENT CHANGE													
August 1997-													
September 1997	1	(Z)	10	22	-12	1	11	-4	14	41	5	6	2

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. ^Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes 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 ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1995:	September	11,185	4,316	326	2,091	315	1,584	4,241	158	961	484	1,026
	October	11,300	4,154	333	1,851	292	1,677	4,317	165	957	560	1,146
	November	9,604	3,898	293	1,720	276	1,610	3,153	167	930	540	917
	December	7,801	3,513	306	1,551	251	1,405	2,218	155	752	441	722
1996:	January	7,050	3,551	309	1,515	277	1,450	1,625	121	683	358	713
	February	6,510	3,214	270	1,421	253	1,270	1,618	135	639	372	534
	March	7,189	3,540	269	1,592	260	1,419	1,756	144	712	384	653
	April	8,591	3,818	270	1,689	269	1,590	2,437	157	862	502	815
	May	10,102	4,279	333	1,921	256	1,770	3,267	157	902	527	970
	June	10,593	4,371	297	2,062	293	1,719	3,664	178	870	523	988
	July	11,392	4,626	337	2,298	267	1,724	4,189	192	850	515	1,021
	August	11,871	4,865	316	2,494	250	1,806	4,273	207	1,021	506	999
	September	11,966	4,841	394	2,236	335	1,876	4,451	202	951	540	983
	October	11,990	4,679	373	2,072	318	1,917	4,469	221	1,080	658	882
	November	10,314	4,562	363	2,003	275	1,920	3,237	203	918	546	848
	December	8,346	4,066	310	1,750	306	1,699	2,354	149	721	457	600
1997:	January	7,265	3,808	264	1,653	274	1,618	1,620	140	655	419	624
	February	7,399	3,830	279	1,682	260	1,609	1,649	136	643	426	716
	March	8,162	4,075	293	1,796	296	1,690	2,001	168	719	501	699
	April	9,287	4,340	325	1,923	343	1,749	2,727	190	790	474	766
	May	10,357	4,401	369	2,015	290	1,727	3,503	156	873	499	927
	June	11,581	4,824	330	2,338	322	1,834	4,177	177	890	502	1,011
	July ^r	12,225	5,010	349	2,493	355	1,814	4,541	171	880	557	1,066
	August ^r	12,942	5,095	348	2,588	294	1,864	5,046	196	945	549	1,112
	September ^p	12,590	4,923	386	2,272	316	1,948	4,853	177	994	580	1,065
		Federally owned public construction										
		Total Federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1995:	September	2,002	715	65	180	6	124	340	(NA)	361	600	275
	October	889	358	57	97	2	52	150	(NA)	156	178	145
	November	1,314	508	80	117	-	91	220	(NA)	269	316	183
	December	1,285	485	52	111	4	89	230	(NA)	295	304	175
1996:	January	1,191	488	53	104	1	63	268	(NA)	248	255	181
	February	1,131	472	44	103	-	105	219	(NA)	202	234	204
	March	1,239	513	45	124	1	122	221	(NA)	206	288	212
	April	1,303	507	53	120	1	123	209	(NA)	214	326	228
	May	1,415	586	80	128	1	141	237	(NA)	220	333	237
	June	1,313	535	58	129	1	76	272	(NA)	210	328	197
	July	1,283	538	64	129	1	98	247	(NA)	191	321	183
	August	1,260	482	57	133	1	73	219	(NA)	193	367	168
	September	2,005	713	68	185	1	121	338	(NA)	271	676	295
	October	1,025	389	46	60	2	74	207	(NA)	175	199	210
	November	1,300	527	61	91	2	87	285	(NA)	203	275	258
	December	1,124	523	51	88	-	116	267	(NA)	200	242	131
1997:	January	1,122	499	71	90	-	127	211	(NA)	199	271	132
	February	1,090	497	58	79	2	135	223	(NA)	170	249	150
	March	1,213	472	52	88	4	98	230	(NA)	192	275	252
	April	1,197	491	50	114	1	89	237	(NA)	188	225	260
	May	1,238	450	49	74	1	98	229	(NA)	214	288	245
	June	1,227	514	59	94	2	116	243	(NA)	221	257	191
	July ^r	1,263	470	55	91	1	82	241	(NA)	230	269	240
	August ^r	1,251	455	48	80	2	94	231	(NA)	236	307	206
	September ^p	1,736	605	51	98	3	74	379	(NA)	269	530	275

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes 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 ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1995:	September	110,379	47,303	3,640	22,111	3,446	18,106	35,887	1,588	9,873	5,378	10,349
	October	113,551	47,137	3,623	21,548	3,260	18,707	37,432	1,664	10,077	5,714	11,526
	November	111,795	46,847	3,392	21,480	3,384	18,591	36,344	1,905	10,236	6,009	10,454
	December	111,301	46,404	3,791	21,491	3,039	18,084	37,384	2,089	10,058	5,632	9,735
1996:	January	114,785	49,769	4,027	22,307	3,577	19,859	37,214	1,867	9,730	5,198	11,007
	February	108,635	44,342	3,525	21,152	3,239	16,425	39,062	2,065	9,436	5,531	8,199
	March	111,940	47,486	3,454	22,188	3,233	18,611	36,964	2,225	9,770	5,366	10,129
	April	115,653	48,001	3,369	22,322	3,114	19,196	37,686	2,015	11,138	6,367	10,446
	May	117,597	50,643	3,928	23,402	3,119	20,194	36,739	1,846	10,864	6,115	11,391
	June	114,291	48,527	3,373	22,206	3,320	19,627	36,795	2,031	9,779	5,863	11,296
	July	115,232	50,031	4,021	22,769	3,118	20,123	37,179	1,996	9,795	5,625	10,607
	August	113,030	50,230	3,707	23,056	3,199	20,268	34,789	2,057	10,549	5,479	9,926
	September	118,668	53,022	4,477	23,537	3,670	21,338	37,903	2,043	9,750	5,997	9,953
	October	119,707	52,651	3,997	24,042	3,569	21,043	37,926	2,263	11,155	6,693	9,019
	November	121,343	55,087	4,193	24,935	3,348	22,610	38,162	2,273	10,269	6,080	9,473
	December	117,938	53,149	3,813	24,339	3,624	21,374	39,120	2,015	9,704	5,854	8,096
1997:	January	117,964	53,228	3,422	24,215	3,599	21,991	37,385	2,143	9,508	6,106	9,594
	February	124,444	54,039	3,822	24,976	3,378	21,864	40,471	2,114	10,082	6,591	11,147
	March	126,298	54,852	3,903	25,034	3,654	22,261	41,042	2,587	9,992	7,044	10,781
	April	124,607	54,355	4,025	25,163	3,941	21,226	41,850	2,457	10,114	5,945	9,886
	May	121,795	52,322	4,257	24,572	3,620	19,873	40,224	1,881	10,381	5,780	11,208
	June	123,218	53,528	3,922	25,007	3,653	20,945	41,088	1,918	10,073	5,652	10,959
	July ^f	123,991	53,678	4,064	24,683	4,126	20,805	40,574	1,865	10,155	6,096	11,623
	August ^f	123,545	53,175	4,091	24,097	3,728	21,259	41,501	1,957	9,838	5,986	11,088
	September ^P	123,120	53,321	4,250	23,933	3,409	21,729	40,638	1,783	10,260	6,390	10,727
		Federally owned public construction										
		Total Federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1995:	September	16,709	6,487	585	1,636	54	1,126	3,086	(NA)	3,309	4,443	2,037
	October	13,635	5,389	858	1,462	30	780	2,258	(NA)	2,265	3,053	2,477
	November	16,083	6,264	983	1,444	2	1,127	2,707	(NA)	3,133	3,961	2,287
	December	15,895	5,910	633	1,348	43	1,085	2,801	(NA)	3,335	3,940	2,273
1996:	January	15,665	6,230	675	1,321	14	803	3,416	(NA)	3,128	3,434	2,438
	February	15,677	6,208	582	1,358	3	1,386	2,880	(NA)	2,923	3,251	2,836
	March	15,365	6,305	553	1,522	7	1,502	2,720	(NA)	2,415	3,583	2,641
	April	16,153	6,201	652	1,469	15	1,503	2,561	(NA)	2,721	4,002	2,797
	May	16,223	6,498	886	1,414	13	1,558	2,626	(NA)	2,640	3,887	2,771
	June	15,274	6,090	661	1,468	10	861	3,089	(NA)	2,463	3,929	2,359
	July	14,922	6,359	761	1,519	8	1,154	2,917	(NA)	2,301	3,710	2,117
	August	14,413	5,756	678	1,583	10	869	2,616	(NA)	2,278	4,096	1,875
	September	16,904	6,614	631	1,713	10	1,126	3,134	(NA)	2,482	5,134	2,239
	October	15,482	5,697	674	878	26	1,090	3,029	(NA)	2,531	3,310	3,502
	November	15,976	6,501	754	1,122	30	1,077	3,519	(NA)	2,365	3,437	3,225
	December	14,126	6,477	633	1,090	4	1,440	3,310	(NA)	2,241	3,208	1,735
1997:	January	14,761	6,287	897	1,128	4	1,598	2,660	(NA)	2,542	3,663	1,783
	February	15,884	6,944	816	1,108	24	1,885	3,112	(NA)	2,564	3,613	2,173
	March	14,882	5,459	605	1,021	46	1,131	2,657	(NA)	2,232	3,527	3,232
	April	14,697	6,020	616	1,394	10	1,091	2,909	(NA)	2,408	2,677	3,087
	May	14,086	4,851	526	797	9	1,053	2,466	(NA)	2,548	3,361	2,856
	June	14,050	5,733	657	1,052	21	1,296	2,707	(NA)	2,580	3,034	2,259
	July ^f	14,822	5,684	663	1,102	16	993	2,910	(NA)	2,743	3,124	2,787
	August ^f	14,667	5,773	610	1,013	23	1,194	2,933	(NA)	2,775	3,427	2,297
	September ^P	14,670	5,704	478	927	29	698	3,573	(NA)	2,479	3,955	2,054

NA Not available, but estimates are included in totals. ^PPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes 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 ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1995:	September	99,304	41,974	3,163	19,654	3,063	16,094	32,804	1,435	8,919	4,764	9,408
	October	101,747	41,690	3,148	19,086	2,887	16,570	33,968	1,503	9,103	5,052	10,431
	November	99,989	41,473	2,949	19,043	3,000	16,482	32,801	1,721	9,247	5,304	9,444
	December	99,442	41,038	3,293	19,035	2,692	16,017	33,679	1,887	9,085	4,967	8,786
1996:	January	102,100	43,940	3,496	19,723	3,162	17,559	33,256	1,682	8,765	4,576	9,881
	February	96,345	39,082	3,058	18,669	2,859	14,497	34,721	1,857	8,486	4,865	7,334
	March	98,997	41,793	2,998	19,549	2,849	16,397	32,712	1,995	8,762	4,707	9,027
	April	102,425	42,285	2,927	19,684	2,746	16,928	33,439	1,808	9,990	5,585	9,319
	May	103,940	44,490	3,404	20,582	2,743	17,760	32,570	1,652	9,726	5,359	10,143
	June	100,752	42,442	2,903	19,445	2,908	17,187	32,591	1,813	8,731	5,134	10,041
	July	101,121	43,512	3,434	19,834	2,716	17,529	32,843	1,771	8,691	4,908	9,395
	August	98,906	43,615	3,160	20,049	2,782	17,624	30,651	1,816	9,311	4,760	8,753
	September	103,330	45,844	3,813	20,378	3,178	18,475	33,249	1,790	8,545	5,178	8,723
	October	104,102	45,487	3,399	20,797	3,087	18,204	33,181	1,985	9,785	5,760	7,905
	November	105,540	47,585	3,559	21,570	2,896	19,559	33,387	1,999	9,031	5,228	8,309
	December	102,274	45,763	3,231	20,982	3,124	18,426	34,136	1,768	8,512	5,012	7,083
1997:	January	102,291	45,875	2,903	20,893	3,105	18,974	32,593	1,879	8,333	5,224	8,386
	February	108,155	46,693	3,253	21,605	2,922	18,913	35,346	1,856	8,851	5,648	9,761
	March	107,937	46,868	3,321	21,397	3,123	19,027	35,109	2,211	8,540	5,995	9,215
	April	106,106	46,321	3,414	21,452	3,359	18,096	35,586	2,098	8,637	5,042	8,421
	May	103,376	44,360	3,593	20,841	3,070	16,856	34,117	1,605	8,858	4,898	9,538
	June	104,523	45,299	3,296	21,175	3,093	17,735	34,850	1,639	8,610	4,798	9,327
	July ^f	105,323	45,458	3,412	20,918	3,496	17,631	34,472	1,597	8,694	5,193	9,909
	August ^f	104,990	45,064	3,432	20,438	3,162	18,031	35,260	1,676	8,423	5,107	9,461
	September ^p	104,625	45,139	3,554	20,282	2,889	18,415	34,556	1,528	8,792	5,457	9,153
		Federally owned public construction										
		Total Federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1995:	September	14,999	5,755	509	1,454	48	1,001	2,743	(NA)	2,984	4,014	1,852
	October	12,199	4,758	746	1,295	27	691	2,000	(NA)	2,032	2,758	2,242
	November	14,378	5,536	855	1,280	2	999	2,400	(NA)	2,802	3,578	2,066
	December	14,209	5,224	550	1,194	38	961	2,481	(NA)	2,980	3,559	2,051
1996:	January	13,949	5,497	586	1,168	12	710	3,020	(NA)	2,780	3,094	2,188
	February	13,928	5,470	504	1,198	2	1,223	2,542	(NA)	2,589	2,924	2,537
	March	13,621	5,548	480	1,341	6	1,324	2,396	(NA)	2,134	3,213	2,354
	April	14,333	5,459	566	1,296	13	1,326	2,259	(NA)	2,406	3,589	2,495
	May	14,362	5,703	768	1,243	12	1,370	2,310	(NA)	2,332	3,480	2,468
	June	13,479	5,323	569	1,286	9	754	2,705	(NA)	2,169	3,508	2,097
	July	13,096	5,526	650	1,323	7	1,005	2,541	(NA)	2,019	3,292	1,875
	August	12,616	4,994	578	1,377	8	756	2,275	(NA)	1,995	3,615	1,653
	September	14,723	5,718	538	1,483	9	975	2,714	(NA)	2,162	4,500	1,962
	October	13,478	4,918	573	759	23	943	2,620	(NA)	2,201	2,904	3,069
	November	13,914	5,612	640	971	26	931	3,044	(NA)	2,058	3,023	2,829
	December	12,256	5,574	536	939	3	1,242	2,854	(NA)	1,943	2,814	1,518
1997:	January	12,808	5,412	761	973	3	1,379	2,295	(NA)	2,205	3,211	1,559
	February	13,815	5,996	694	958	21	1,630	2,692	(NA)	2,230	3,172	1,903
	March	12,717	4,664	515	872	40	966	2,271	(NA)	1,908	3,015	2,763
	April	12,526	5,129	522	1,188	8	930	2,480	(NA)	2,051	2,286	2,629
	May	11,970	4,112	444	676	7	893	2,091	(NA)	2,161	2,868	2,431
	June	11,929	4,850	553	890	18	1,097	2,292	(NA)	2,187	2,593	1,923
	July ^f	12,600	4,812	557	934	13	842	2,467	(NA)	2,327	2,675	2,376
	August ^f	12,476	4,891	511	859	19	1,012	2,488	(NA)	2,356	2,934	1,960
	September ^p	12,481	4,828	400	785	25	591	3,028	(NA)	2,105	3,389	1,753

NA Not available, but estimates are included in totals. ^fPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes 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 ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1995:	September	10,078	3,830	283	1,859	280	1,408	3,876	142	868	428	933
	October	10,137	3,673	289	1,640	259	1,486	3,918	149	865	495	1,037
	November	8,592	3,451	255	1,525	244	1,427	2,845	151	840	476	828
	December	6,964	3,106	266	1,374	222	1,244	1,998	140	679	389	652
1996:	January	6,265	3,134	269	1,340	245	1,282	1,452	109	615	315	640
	February	5,770	2,832	234	1,254	223	1,121	1,438	121	574	327	478
	March	6,356	3,116	234	1,403	229	1,250	1,554	129	639	337	582
	April	7,607	3,364	235	1,489	237	1,402	2,162	141	773	440	727
	May	8,929	3,759	288	1,689	225	1,557	2,896	141	807	462	864
	June	9,339	3,823	255	1,805	257	1,505	3,246	158	776	458	878
	July	10,002	4,024	288	2,002	233	1,502	3,700	170	754	449	904
	August	10,394	4,225	269	2,169	217	1,570	3,765	183	901	440	881
	September	10,427	4,186	335	1,936	290	1,624	3,904	177	833	466	861
	October	10,434	4,042	318	1,792	275	1,658	3,910	194	948	566	773
	November	8,972	3,940	308	1,733	238	1,661	2,832	179	808	469	744
	December	7,233	3,500	263	1,509	264	1,465	2,054	131	632	391	525
1997:	January	6,294	3,282	223	1,426	236	1,396	1,412	122	574	358	546
	February	6,425	3,309	237	1,455	225	1,392	1,440	119	564	365	627
	March	6,975	3,481	249	1,535	253	1,444	1,712	143	615	426	597
	April	7,908	3,698	275	1,639	292	1,491	2,319	163	674	402	653
	May	8,791	3,731	311	1,709	246	1,465	2,971	133	745	422	789
	June	9,824	4,083	277	1,980	272	1,553	3,543	151	761	426	860
	July ^r	10,384	4,243	293	2,113	301	1,537	3,858	146	754	474	909
	August ^r	10,999	4,318	292	2,195	250	1,581	4,287	168	809	468	948
	September ^p	10,701	4,167	323	1,925	268	1,651	4,127	152	851	495	908
		Federally owned public construction										
		Total Federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1995:	September	1,798	634	56	160	5	110	302	(NA)	326	542	250
	October	795	316	50	86	2	46	133	(NA)	140	161	131
	November	1,175	449	69	104	-	81	195	(NA)	241	286	165
	December	1,148	428	45	98	3	79	203	(NA)	264	274	158
1996:	January	1,060	431	46	92	1	56	237	(NA)	221	229	162
	February	1,004	416	38	91	-	93	193	(NA)	179	211	183
	March	1,099	451	39	109	1	108	195	(NA)	182	258	189
	April	1,156	446	46	106	1	108	185	(NA)	189	292	203
	May	1,252	515	69	112	1	124	208	(NA)	194	298	211
	June	1,159	468	50	113	1	66	238	(NA)	185	293	175
	July	1,126	468	55	112	1	85	215	(NA)	168	285	162
	August	1,104	418	48	115	1	63	191	(NA)	169	324	148
	September	1,747	616	58	160	1	105	292	(NA)	236	592	258
	October	892	336	39	52	2	64	179	(NA)	152	174	184
	November	1,132	455	52	79	2	75	247	(NA)	177	242	226
	December	975	450	43	76	-	100	230	(NA)	173	212	115
1997:	January	973	429	60	77	-	109	182	(NA)	172	238	115
	February	947	429	50	69	1	117	193	(NA)	148	218	131
	March	1,036	403	45	75	3	84	196	(NA)	164	235	216
	April	1,020	418	43	97	1	76	202	(NA)	160	192	221
	May	1,052	381	41	63	1	83	194	(NA)	182	246	208
	June	1,042	435	49	80	2	98	205	(NA)	187	220	163
	July ^r	1,073	398	46	77	1	70	204	(NA)	195	230	204
	August ^r	1,065	385	40	68	2	80	196	(NA)	200	263	176
	September ^p	1,478	512	42	83	3	63	321	(NA)	228	454	235

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^rPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes 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														
1992.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100	100	100
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	112.4	109.8	109.8	114.4	114.3	116.2	110	109	115	111	111	112	110
1996.....	115.0	115.2	113.0	112.8	116.4	116.5	116.0	112	112	118	112	112	115	115
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	122.3	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	114.3	111.5	111.8	115.3	115.4	112.7	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	118.7	112	112					
September.....	116.0	116.1	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	117.6	114	113					
December.....	116.7	116.6	116.9	115.2	118.4	118.0								
1997: January.....	116.9	116.5	117.6	115.6	118.3	117.8								
February.....	116.8	116.2	117.6	115.7	118.0	117.5	127.1	114	114					
March.....	117.2	117.1	117.3	115.5	117.8	117.5				121	114	114	117	115
April.....	117.4	117.5	118.7	116.3	117.9	117.9								
May.....	118.0	118.0	119.2	117.1	118.6	118.5	125.7	116	116					
June.....	117.9	118.3	119.9	117.6	118.5	119.0								
July.....	^r 117.7	^r 118.3	119.7	117.6	^r 118.4	^r 119.1								
August.....	^r 117.8	^r 118.3	119.5	117.4	^r 118.6	^r 119.2	(NA)	118	118					
September.....	^p 118.0	^p 118.5	119.2	117.4	^p 119.0	^p 119.6				122	114	114	118	117
October.....			119.0	117.3										

NA Not available. ^pPreliminary. ^rRevised.

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

[Percent]

Type of construction	Sep. 1997 ^P	Aug. 1997 ^f	July 1997 ^f	June 1997	May 1997	Apr. 1997	Mar. 1997	Feb. 1997	Jan. 1997	Dec. 1996	Nov. 1996	Sep. 1996
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	114.2	114.6	112.3	107.4	100.9	94.5	89.8	76.3	81.5	89.1	107.1	114.5
2 units or more	105.1	110.0	106.4	108.2	105.3	97.0	91.9	86.6	86.4	95.8	101.4	105.0
Nonresidential buildings:												
Industrial	105.7	102.7	102.0	101.0	99.7	99.6	92.5	90.0	89.6	106.3	104.5	104.7
Office	104.3	105.7	102.4	102.4	103.6	100.5	95.6	93.3	92.7	98.1	102.1	104.8
Hotels, motels	100.5	102.3	99.8	103.4	106.0	103.2	99.3	95.0	91.2	98.6	98.5	100.5
Other commercial	113.1	111.7	106.6	106.0	99.7	94.4	88.2	82.8	85.2	94.6	105.2	114.7
Religious	113.7	106.2	98.7	96.5	96.8	92.8	92.1	85.7	89.2	102.0	108.2	111.2
Educational	108.8	121.5	122.7	118.7	103.1	91.0	88.8	80.6	81.7	86.4	93.9	108.8
Hospital and institutional	102.9	102.7	97.5	101.2	100.9	98.8	98.2	94.8	94.0	99.3	104.3	103.1
Miscellaneous nonresidential	105.7	101.3	101.7	103.5	100.5	103.0	99.3	88.6	87.3	96.9	106.1	104.1
Telecommunications	107.1	104.2	106.5	102.8	101.7	98.9	93.5	82.7	84.8	103.8	104.4	100.9
All other private	113.1	106.3	105.9	103.8	100.3	95.2	89.9	83.9	90.1	95.9	108.6	109.7
PUBLIC CONSTRUCTION												
State and Local												
Buildings:												
Housing and redevelopment	109.1	102.2	102.9	101.0	103.9	96.8	90.0	87.6	92.4	97.5	104.0	105.5
Educational	113.9	128.9	121.2	112.2	98.4	91.7	86.1	80.8	81.9	86.3	96.4	114.0
Hospital	111.3	94.7	103.2	105.6	96.2	104.3	97.1	92.4	91.2	101.4	98.7	109.6
Other buildings	107.6	105.2	104.6	105.1	104.3	98.9	91.1	88.3	88.3	95.4	101.9	105.5
Highways and streets	143.3	145.9	134.3	122.0	104.5	78.2	58.5	48.9	52.0	72.2	101.8	140.9
Conservation and development	119.1	120.3	110.1	110.7	99.2	93.0	77.8	77.1	78.1	88.9	107.4	118.5
Sewer systems	116.2	115.3	104.0	106.0	100.9	93.7	86.4	76.5	82.6	89.1	107.3	117.0
Water supply facilities	108.9	110.0	109.6	106.6	103.5	95.6	85.3	77.5	82.3	93.7	107.7	108.0
Miscellaneous construction	119.1	120.3	110.1	110.7	99.2	93.0	77.8	77.1	78.1	88.9	107.4	118.5
Federal												
Buildings:												
Housing and redevelopment	127.3	94.5	99.2	107.5	111.3	97.8	103.8	85.9	95.2	96.9	97.2	129.3
Industrial	127.3	94.5	99.2	107.5	111.3	97.8	103.8	85.9	95.2	96.9	97.2	129.3
Educational	127.3	94.5	99.2	107.5	111.3	97.8	103.8	85.9	95.2	96.9	97.2	129.3
Hospital	127.3	94.5	99.2	107.5	111.3	97.8	103.8	85.9	95.2	96.9	97.2	129.3
Other buildings	127.3	94.5	99.2	107.5	111.3	97.8	103.8	85.9	95.2	96.9	97.2	129.3
Military	130.0	102.0	100.7	102.6	100.8	93.7	103.1	79.6	93.7	107.0	103.1	131.0
Conservation and development	160.8	107.5	103.2	101.6	102.9	101.0	93.7	82.6	88.9	90.6	95.9	157.9
Miscellaneous construction	160.8	107.5	103.2	101.6	102.9	101.0	93.7	82.6	88.9	90.6	95.9	157.9

^PPreliminary. ^fRevised.

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 72 percent of total construction in 1996 (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 55 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, 44 percent; state and locally owned public construction, 33 percent; private residential construction of 2 units or more, 48 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 1994. (Outlays are included if a government agency's fiscal year ending date falls within July 1993 to June 1994 inclusive, and

for three state agencies with fiscal years ending in August or September 1994.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1994 through April 1998. 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 -0.8 percent to 0.7 percent with a median of 0.0 percent. The range of the difference between first revision and second revision was from -0.6 to 0.3 percent, with a median of 0.1 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)
Total construction	2	1	1	.03	.02
Private construction	3	1	1	.04	.02
Residential buildings	5	2	2	.06	.03
New housing units	2	1	1	.01	.01
1 unit structures	2	2	2	.01	.01
2 units or more	4	3	3	.03	.03
Nonresidential buildings	2	1	1	.02	.01
Industrial	3	2	2	.04	.03
Office	4	2	2	.05	.03
Hotels, motels	7	6	5	.09	.08
Other commercial	5	3	2	.06	.04
Religious	9	6	5	.12	.09
Educational	7	5	5	.10	.07
Hospital and institutional	6	5	5	.07	.07
Miscellaneous buildings	7	4	4	.09	.06
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	4	4	.08	.06
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	4	4	.11	.06
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	6	5	.11	.09
Other public buildings	4	3	2	.05	.04
Highways and streets	4	2	2	.05	.03
Conservation and development	16	9	9	.23	.13
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 1996 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.