

Value of Construction Put in Place

October

2000

Issued December 2000

C30/00-10

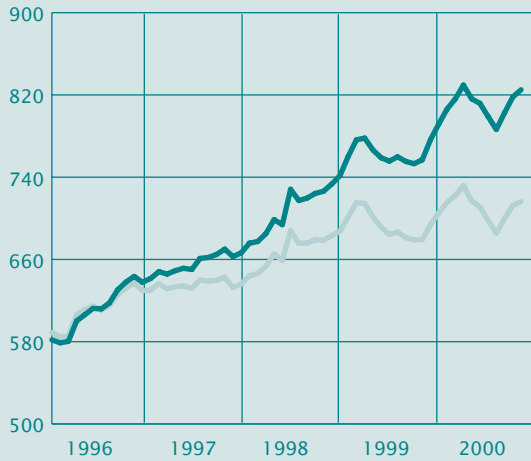
Current Construction Reports

Monthly Value of Construction Put in Place

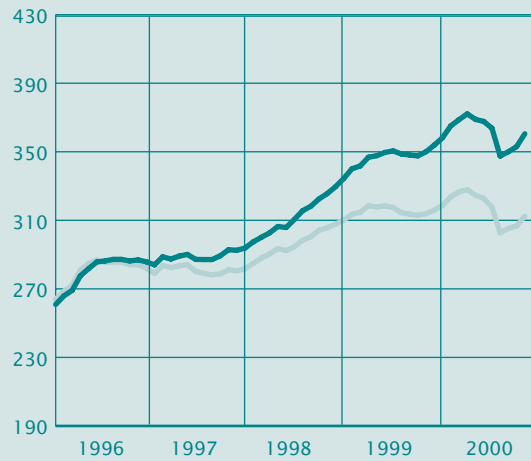
Seasonally adjusted annual rate in billions of dollars

— Current dollars
— 1996 dollars

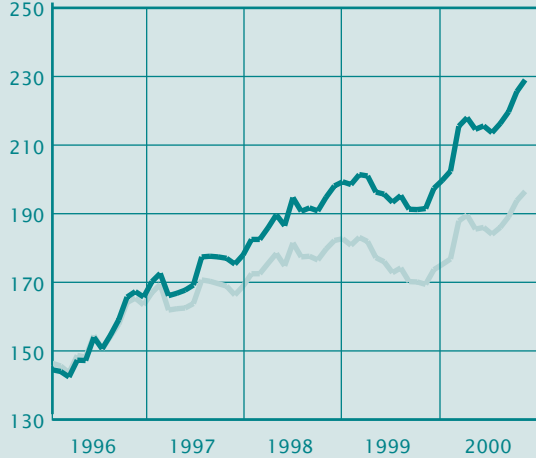
Total Construction



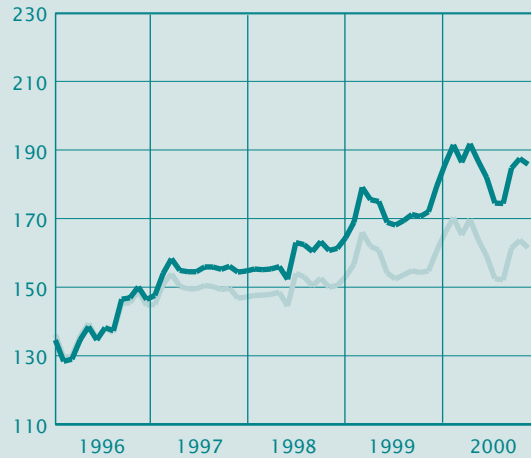
Private Residential Construction



Private Nonresidential Construction



Public Construction



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

Questions regarding these data may be directed to **Michael Davis**, Construction Expenditures Branch, Manufacturing and Construction Division, telephone: 301-457-1605.

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VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during October 2000 was estimated at a seasonally adjusted annual rate of \$825.0 billion, 1 (±5) percent above the revised September estimate of \$818.0 billion. The October figure represents a 9 percent increase over October 1999.

During the first 10 months of this year \$678.8 billion of construction was put in place, 6 percent above the \$637.5 billion for the same period in 1999.

In constant (1996) dollars, the October annual rate was \$716.2 billion, 1 (±5) percent above the revised estimate of \$712.4 billion for September.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$252.5 billion in October, nearly the same (±2 percent) as the revised September estimate of \$252.0 billion. Nonresidential building construction was at a rate of \$229.0 billion, 1 (±3) percent above the revised September estimate of \$225.6 billion.

In October, the estimated seasonally adjusted annual rate of public construction put in place was \$185.8 billion, 1 (±5) percent below the revised September estimate of \$187.5 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 2000*, C30/00-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2000; contains annual data for 1994 to 1999 and monthly data for 1996 to 1999.
- Current Construction Reports, *Value of Construction Put in Place: June 2000*, C30/00-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2000; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1994 to 1998.
- Current Construction Reports, *Value of New Construction Put in Place: October 1992*, C30/92-10,

U.S. Department of Commerce, U.S. Census Bureau, 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, U.S. Census Bureau, 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, U.S. Census Bureau, Washington, DC, 1994.

Table 1. Annual Value of Construction Put in Place: 1995-1999

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Total construction	555,591	613,535	656,630	711,759	764,233	567,900	613,454	635,765	670,859	692,477
Private construction	425,658	474,273	501,749	552,236	591,561	434,450	474,307	486,273	520,613	535,625
Residential buildings	247,351	281,115	289,014	314,607	348,826	251,937	281,229	280,748	297,886	315,757
New housing units	171,404	191,113	198,063	223,983	249,536	174,585	191,212	192,386	212,068	225,896
1 unit	153,515	170,790	175,179	199,409	222,280	156,363	170,865	170,154	188,785	201,210
2 units or more	17,889	20,324	22,883	24,574	27,256	18,222	20,347	22,232	23,283	24,686
Improvements	75,947	90,002	90,951	90,624	99,290	77,352	90,018	88,362	85,818	89,860
Nonresidential buildings	136,541	153,912	172,990	190,711	195,776	139,711	153,866	166,754	177,639	175,048
Industrial	34,024	36,220	36,739	40,484	34,894	34,814	36,215	35,411	37,715	31,214
Office	25,613	27,886	34,305	42,226	46,570	26,218	27,875	33,058	39,333	41,643
Hotels, motels	7,112	10,912	12,898	14,816	15,939	7,274	10,909	12,438	13,794	14,262
Other commercial	42,654	48,188	51,809	53,598	57,143	43,636	48,170	49,948	49,915	51,067
Religious	4,326	4,534	5,777	6,594	7,497	4,426	4,531	5,565	6,139	6,701
Educational	5,493	6,742	8,693	9,698	9,784	5,621	6,737	8,375	9,039	8,743
Hospital and institutional	11,248	11,780	13,546	13,793	13,624	11,512	11,778	13,066	12,853	12,183
Miscellaneous ¹	6,071	7,650	9,223	9,501	10,327	6,209	7,650	8,892	8,850	9,235
Farm nonresidential	3,014	3,658	3,815	4,284	4,451	3,084	3,657	3,675	3,989	3,977
Public utilities	35,859	33,156	33,638	40,028	39,607	36,740	33,124	32,884	38,616	38,166
Telecommunications	11,093	11,810	12,416	13,328	15,223	11,556	11,791	12,159	13,036	15,142
Other public utilities	24,766	21,346	21,222	26,700	24,384	25,184	21,333	20,725	25,581	23,024
Railroads	3,509	4,398	4,922	5,736	4,918	3,609	4,391	4,745	5,463	4,540
Electric light and power	14,049	11,211	11,325	12,381	14,057	14,310	11,209	11,122	11,885	13,393
Gas	6,279	4,722	4,006	7,318	3,920	6,329	4,720	3,911	7,020	3,690
Petroleum pipelines	929	1,015	969	1,265	1,489	936	1,013	947	1,213	1,401
All other private ²	2,893	2,431	2,292	2,606	2,901	2,979	2,431	2,212	2,482	2,678
Public construction	129,933	139,263	154,882	159,523	172,673	133,450	139,147	149,493	150,246	156,852
Buildings	57,754	63,471	71,867	73,277	77,690	59,074	63,446	69,319	68,334	69,497
Housing and redevelopment ..	4,698	5,048	5,230	5,124	5,618	4,786	5,046	5,084	4,853	5,088
Industrial	1,508	1,389	999	1,010	925	1,544	1,390	965	941	828
Educational	25,783	28,590	34,385	36,234	39,725	26,374	28,577	33,136	33,743	35,497
Hospital	4,236	4,617	5,152	3,906	3,968	4,335	4,617	4,970	3,642	3,548
Other ³	21,528	23,826	26,100	27,004	27,454	22,034	23,815	25,164	25,155	24,537
Highways and streets	37,616	39,464	44,105	48,515	53,532	38,952	39,412	42,535	45,877	48,827
Military facilities	3,011	2,591	2,556	2,529	2,111	3,102	2,593	2,466	2,377	1,909
Conservation and development ..	6,308	6,008	5,739	5,447	6,003	6,443	6,000	5,541	5,219	5,602
Sewer systems	8,420	9,798	10,392	10,168	11,181	8,600	9,778	10,034	9,743	10,438
Water supply facilities	4,709	5,618	6,419	6,830	7,602	4,809	5,609	6,275	6,552	7,142
Miscellaneous public ⁴	12,116	12,313	13,803	12,755	14,555	12,468	12,310	13,323	12,145	13,436

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: 1995-1999

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Total public construction	129,933	139,263	154,882	159,523	172,673	133,450	139,147	149,493	150,246	156,852
State and local construction	114,181	123,938	140,795	145,207	158,617	117,298	123,819	135,901	136,743	144,028
Total buildings	51,711	57,240	65,760	67,246	72,220	52,891	57,212	63,427	62,706	64,601
Housing and redevelopment	4,122	4,367	4,554	4,581	5,194	4,200	4,365	4,426	4,338	4,704
Educational	25,757	28,578	34,366	36,219	39,709	26,347	28,565	33,118	33,729	35,483
Hospital	3,195	3,457	3,901	2,897	3,118	3,269	3,457	3,764	2,701	2,785
Other ¹	18,638	20,838	22,939	23,550	24,199	19,075	20,826	22,120	21,938	21,628
Highways and streets	37,308	39,096	43,850	48,264	53,214	38,633	39,045	42,289	45,640	48,537
Conservation and development ..	2,140	2,163	2,371	1,911	1,993	2,187	2,159	2,289	1,832	1,860
Sewer systems	8,420	9,798	10,392	10,168	11,181	8,600	9,778	10,034	9,743	10,438
Water supply facilities	4,709	5,618	6,419	6,830	7,602	4,809	5,609	6,275	6,552	7,142
Miscellaneous nonbuilding ²	9,893	10,022	12,002	10,787	12,407	10,177	10,017	11,587	10,271	11,450
Federal construction	15,751	15,325	14,087	14,317	14,056	16,151	15,328	13,592	13,503	12,824
Total buildings	6,043	6,230	6,107	6,031	5,470	6,183	6,234	5,892	5,628	4,896
Housing	576	681	677	543	424	586	682	658	515	384
Industrial	1,508	1,389	999	1,010	925	1,544	1,390	965	941	828
Educational	27	12	19	15	15	27	12	19	14	14
Hospital	1,041	1,159	1,251	1,009	850	1,066	1,161	1,206	941	762
Other ³	2,891	2,989	3,161	3,454	3,255	2,960	2,989	3,045	3,217	2,909
Highways and streets	308	368	255	251	318	319	368	246	237	290
Military facilities	3,011	2,591	2,556	2,529	2,111	3,102	2,593	2,466	2,377	1,909
Conservation and development ..	4,167	3,845	3,368	3,536	4,009	4,257	3,841	3,252	3,387	3,743
Miscellaneous public ⁴	2,223	2,291	1,800	1,969	2,148	2,290	2,293	1,735	1,873	1,986

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																		
October 1999	637,456	493,506	291,800	207,752	184,965	22,787	162,570	29,195	38,872	13,317	47,061	6,197	8,109	11,255	8,564	(NA)	12,327	2,370
October 2000	678,770	524,132	303,253	218,277	194,892	23,385	181,016	33,259	44,269	13,897	51,501	6,591	9,958	12,745	8,796	(NA)	(NA)	2,693
Percent change	6	6	4	5	5	3	11	14	14	4	9	6	23	13	3	(NA)	(NA)	14
MONTHLY DATA																		
1998: October	66,736	51,245	29,849	21,329	19,113	2,217	17,320	3,632	3,835	1,436	4,993	640	744	1,165	876	(NA)	1,272	232
November	62,862	49,252	28,562	20,741	18,645	2,096	16,963	3,516	3,865	1,349	4,823	644	759	1,174	834	(NA)	1,119	248
December	56,336	44,317	24,580	17,999	16,012	1,987	16,296	3,434	3,772	1,347	4,397	607	745	1,177	818	(NA)	1,162	214
1999: January	50,794	40,399	22,529	16,732	14,782	1,950	14,603	2,885	3,541	1,308	3,857	568	612	1,054	779	(NA)	902	169
February	50,817	40,039	21,367	16,022	14,005	2,017	15,021	2,825	3,675	1,412	3,992	552	646	1,108	811	(NA)	977	173
March	57,544	45,757	25,746	19,114	16,896	2,219	15,868	2,997	3,757	1,434	4,368	571	722	1,138	881	(NA)	1,399	216
April	60,957	47,711	27,997	19,980	17,710	2,269	16,050	2,892	3,786	1,389	4,538	598	823	1,125	900	(NA)	1,359	259
May	64,660	50,596	30,623	21,176	18,845	2,331	16,416	2,896	3,913	1,367	4,830	597	792	1,128	894	(NA)	1,114	249
June	69,001	53,214	32,642	22,372	19,954	2,418	16,698	2,954	3,942	1,300	4,991	634	947	1,090	840	(NA)	1,242	257
July	70,701	54,337	33,076	23,070	20,693	2,378	16,806	3,033	3,832	1,368	5,054	637	956	1,078	847	(NA)	1,344	273
August	72,608	55,012	33,477	23,372	20,910	2,462	17,057	2,977	4,090	1,288	5,090	683	941	1,143	846	(NA)	1,390	269
September	71,204	53,597	32,284	23,160	20,762	2,398	17,123	2,915	4,230	1,233	5,190	655	840	1,173	887	(NA)	1,270	253
October	69,170	52,843	32,059	22,754	20,409	2,345	16,929	2,822	4,108	1,218	5,152	702	830	1,219	878	(NA)	1,329	252
November	66,722	51,557	30,652	22,248	19,973	2,275	16,970	2,795	3,957	1,312	5,291	675	847	1,212	881	(NA)	1,365	255
December	60,055	46,498	26,374	19,536	17,342	2,194	16,236	2,905	3,740	1,309	4,791	625	827	1,157	882	(NA)	1,531	276
2000: January	54,051	42,130	24,274	18,320	16,223	2,097	14,900	2,526	3,675	1,307	4,182	563	760	1,107	781	(NA)	1,239	173
February	54,140	42,547	23,115	17,579	15,507	2,072	16,267	2,910	4,001	1,295	4,639	609	828	1,127	860	(NA)	1,173	202
March	61,785	48,680	27,703	20,829	18,459	2,370	17,243	3,106	4,290	1,429	4,785	631	888	1,232	882	(NA)	1,529	236
April	64,979	50,726	29,911	21,724	19,268	2,455	17,429	3,132	4,409	1,390	4,852	617	912	1,279	838	(NA)	1,312	214
May	69,773	54,419	32,416	22,811	20,346	2,465	18,207	3,288	4,521	1,432	5,141	619	1,046	1,260	900	(NA)	1,502	227
June	72,711	56,577	33,974	23,553	21,025	2,528	18,445	3,399	4,440	1,429	5,326	654	1,056	1,253	887	(NA)	1,624	231
July	72,349	55,810	32,807	23,575	21,286	2,289	18,477	3,524	4,375	1,364	5,272	699	1,110	1,271	861	(NA)	1,470	272
August ^f	77,157	57,957	33,534	23,701	21,325	2,376	19,627	3,608	4,753	1,389	5,649	725	1,212	1,347	942	(NA)	1,592	358
September ^f	76,685	57,542	32,612	23,301	20,997	2,304	20,041	3,765	4,983	1,419	5,712	705	1,072	1,465	921	(NA)	1,781	364
October ^p	75,141	57,743	32,908	22,885	20,456	2,429	20,380	4,001	4,822	1,444	5,943	769	1,074	1,404	923	(NA)	(NA)	417
PERCENT CHANGE																		
September 2000-October 2000	-2	(Z)	1	-2	-3	5	2	6	-3	2	4	9	(Z)	-4	(Z)	(NA)	(NA)	15

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													
October 1999	143,950	64,798	4,726	765	33,357	3,281	22,669	44,839	1,740	4,902	9,300	6,389	11,982
October 2000	154,639	72,762	4,527	967	38,912	3,571	24,786	44,493	1,849	4,983	9,400	6,306	14,844
Percent change	7	12	-4	26	17	9	9	-1	6	2	1	-1	24
MONTHLY DATA													
1998: October	15,491	6,395	447	58	3,128	335	2,427	5,712	157	369	1,031	731	1,097
November	13,609	6,019	449	91	2,866	295	2,318	4,173	189	458	989	673	1,109
December	12,019	5,823	435	79	2,830	291	2,189	3,073	198	421	866	621	1,018
1999: January	10,395	5,284	388	64	2,630	291	1,912	2,394	147	385	776	502	907
February	10,778	5,401	387	69	2,602	343	2,001	2,548	174	423	727	545	959
March	11,787	5,726	445	85	2,727	305	2,164	3,000	187	459	852	586	978
April	13,246	6,090	473	76	3,053	283	2,205	3,837	179	443	877	605	1,216
May	14,063	6,187	515	83	3,103	314	2,173	4,524	179	413	954	638	1,168
June	15,787	6,995	479	73	3,810	344	2,289	5,166	186	496	1,028	669	1,247
July	16,364	7,136	479	89	3,881	346	2,341	5,514	195	491	1,003	724	1,300
August	17,596	7,587	514	70	4,194	327	2,483	6,099	142	594	1,031	713	1,430
September	17,607	7,398	539	112	3,828	379	2,540	6,139	207	776	1,019	697	1,371
October	16,327	6,992	508	45	3,529	349	2,561	5,618	145	423	1,034	711	1,404
November	15,165	6,603	451	72	3,266	344	2,469	4,849	166	554	975	648	1,369
December	13,557	6,289	441	88	3,101	343	2,316	3,844	204	546	906	565	1,203
2000: January	11,921	6,053	398	93	3,081	314	2,168	2,952	135	425	755	540	1,061
February	11,593	6,137	375	96	3,095	310	2,261	2,343	205	479	757	577	1,094
March	13,105	6,391	448	92	3,222	310	2,318	3,285	194	494	857	551	1,333
April	14,253	6,859	489	91	3,469	357	2,453	3,915	172	461	1,009	633	1,206
May	15,353	7,256	474	89	3,799	386	2,508	4,512	191	443	973	670	1,310
June	16,134	7,663	503	98	4,135	383	2,544	4,767	188	499	1,060	616	1,341
July	16,539	7,681	437	98	4,363	365	2,417	5,070	179	425	943	574	1,667
August ^f	19,200	8,450	464	109	4,869	370	2,638	6,429	201	522	1,032	685	1,882
September ^f	19,143	8,301	491	125	4,563	413	2,710	6,111	259	755	1,026	704	1,986
October ^p	17,398	7,972	447	76	4,317	363	2,768	5,110	128	480	988	756	1,965
PERCENT CHANGE													
September 2000-October 2000	-9	-4	-9	-39	-5	-12	2	-16	-51	-36	-4	7	-1

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. ^zLess 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		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												
1998:	October	726,270	565,571	325,603	233,744	208,311	25,433	194,816	40,470	44,633	16,729	54,028	6,737	9,029	13,367	9,822	(NA)	13,928	2,380
	November	733,290	572,003	329,590	236,575	211,471	25,104	198,106	40,605	45,604	16,456	55,598	7,102	9,511	13,558	9,673	(NA)	13,080	2,907
	December	741,496	577,101	334,431	240,079	214,925	25,154	199,275	39,241	46,665	16,033	56,006	7,029	10,242	14,045	10,014	(NA)	12,867	2,647
1999:	January	760,164	591,253	340,130	242,974	216,323	26,650	198,508	38,556	46,386	17,596	55,097	7,889	8,897	13,537	10,549	(NA)	13,757	2,434
	February	776,268	597,184	341,742	245,291	217,980	27,312	201,435	37,493	47,470	18,161	56,562	7,619	9,188	14,093	10,848	(NA)	14,030	2,638
	March	777,990	602,473	346,811	248,801	221,097	27,704	201,045	38,019	46,238	17,246	58,044	7,374	9,539	13,763	10,822	(NA)	16,551	2,865
	April	766,495	591,532	347,724	248,952	221,611	27,341	196,287	35,699	45,251	16,351	57,261	7,598	10,285	13,352	10,490	(NA)	16,034	3,308
	May	758,942	590,028	349,638	249,494	222,799	26,694	195,742	35,311	45,498	16,334	57,726	7,372	9,284	13,513	10,707	(NA)	14,121	3,071
	June	755,587	587,457	350,485	249,468	222,329	27,140	193,312	34,953	46,062	14,946	56,821	7,803	9,771	13,129	9,827	(NA)	13,990	3,021
	July	759,825	590,438	348,729	248,669	221,310	27,358	195,279	36,326	45,574	15,889	56,791	7,763	9,628	13,339	9,969	(NA)	15,709	3,002
	August	755,253	584,016	348,084	248,363	220,876	27,487	191,317	34,279	47,235	14,851	54,731	7,526	9,470	13,364	9,860	(NA)	15,461	2,741
	September	753,081	582,464	347,616	248,800	221,259	27,540	191,179	32,696	48,522	14,355	55,408	6,957	9,437	13,614	10,190	(NA)	14,669	2,732
	October	756,854	584,860	349,968	249,644	222,844	26,800	191,463	31,354	48,089	14,678	55,846	7,670	10,033	13,959	9,834	(NA)	15,189	2,569
	November	776,476	596,942	353,854	253,806	226,538	27,268	197,362	32,244	46,373	15,717	60,932	7,253	10,626	13,981	10,235	(NA)	15,213	3,014
	December	791,698	605,802	358,223	259,835	232,004	27,831	199,689	33,262	46,224	15,848	60,963	7,498	11,332	13,806	10,756	(NA)	16,884	3,405
2000:	January	806,099	614,584	365,149	265,361	236,834	28,528	202,450	33,947	48,144	17,192	59,817	7,560	11,009	14,235	10,546	(NA)	19,155	2,497
	February	816,012	629,590	368,745	268,696	240,727	27,970	215,499	38,538	49,644	15,969	65,796	7,959	11,812	14,309	11,473	(NA)	15,936	3,116
	March	829,517	637,743	372,118	270,657	241,034	29,623	218,044	39,030	52,586	17,178	63,444	8,287	11,777	14,886	10,858	(NA)	17,748	3,138
	April	816,156	629,491	368,948	268,079	238,618	29,461	214,640	38,670	53,819	16,792	61,223	7,888	11,388	15,065	9,795	(NA)	16,998	2,772
	May	811,816	629,820	367,653	266,017	237,737	28,280	215,604	39,814	52,119	16,868	61,262	7,618	12,169	15,033	10,720	(NA)	17,442	2,825
	June	798,860	624,383	363,756	261,504	233,179	28,325	213,619	39,951	52,080	16,274	60,754	8,044	11,004	15,086	10,425	(NA)	17,916	2,745
	July	786,390	612,031	347,488	255,091	228,676	26,415	216,316	42,165	52,760	16,211	59,407	8,543	11,311	15,722	10,196	(NA)	18,033	2,997
	August ^f	802,723	617,988	350,489	253,452	226,655	26,797	219,714	41,552	54,480	15,899	61,017	7,841	12,215	15,804	10,905	(NA)	17,257	3,674
	September ^f	818,021	630,529	353,003	251,979	225,372	26,607	225,605	42,378	57,439	16,963	61,368	7,843	12,077	16,948	10,590	(NA)	20,788	3,957
	October ^p	824,960	639,183	360,537	252,472	224,787	27,685	228,965	44,579	55,641	16,936	64,360	8,089	12,913	16,063	10,384	(NA)	(NA)	4,239
PERCENT CHANGE																			
	September 2000- October 2000	1	1	2	(Z)	(Z)	4	1	5	-3	(Z)	5	3	7	-5	-2	(NA)	(NA)	7

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						
1998:	October	160,699	72,757	4,944	786	35,777	3,944	27,305	50,544	2,289	5,114	10,697	7,386	11,912
	November	161,287	73,123	5,227	1,119	36,085	3,568	27,124	48,757	2,204	5,464	11,215	7,444	13,078
	December	164,395	75,097	5,288	938	37,899	3,489	27,483	48,705	2,268	5,368	11,308	7,969	13,680
1999:	January	168,911	74,017	5,167	861	38,253	3,824	25,912	54,199	1,952	5,676	11,503	7,542	14,021
	February	179,084	76,475	5,232	923	38,832	4,524	26,965	59,843	2,587	6,164	11,216	8,010	14,788
	March	175,517	76,946	5,673	1,015	38,681	3,730	27,847	56,515	2,157	6,045	11,485	8,280	14,089
	April	174,962	77,075	5,753	920	40,077	3,426	26,899	55,809	2,268	5,635	11,172	7,548	15,456
	May	168,914	75,114	6,154	1,022	38,790	3,878	25,271	53,647	2,124	5,050	11,509	7,452	14,018
	June	168,130	77,152	5,547	848	40,536	3,912	26,308	50,074	2,140	5,814	11,359	7,641	13,950
	July	169,387	76,490	5,669	1,024	38,521	4,067	27,208	51,896	2,268	5,598	11,306	7,933	13,896
	August	171,237	78,764	6,101	891	39,545	3,995	28,232	51,542	1,646	6,373	10,857	7,791	14,264
	September	170,617	78,684	5,803	989	40,157	4,025	27,709	52,432	1,932	6,145	10,447	7,592	13,386
	October	171,994	79,978	5,678	640	40,448	4,035	29,176	50,646	2,114	5,941	10,885	7,202	15,228
	November	179,534	80,188	5,176	877	41,084	4,101	28,949	56,547	1,944	6,585	10,925	7,191	16,154
	December	185,895	81,004	5,359	986	41,628	4,079	28,952	60,218	2,332	7,001	11,740	7,255	16,346
2000:	January	191,515	84,659	5,307	1,253	44,487	4,165	29,448	63,368	1,782	6,223	11,199	7,955	16,329
	February	186,422	86,507	5,036	1,267	45,685	4,105	30,413	53,145	3,011	6,975	11,518	8,475	16,792
	March	191,774	85,849	5,685	1,077	45,540	3,825	29,722	59,007	2,249	6,494	11,507	7,748	18,919
	April	186,665	86,697	6,070	1,160	45,049	4,523	29,895	55,923	2,180	5,840	12,976	7,862	15,186
	May	181,995	87,658	5,581	1,081	47,186	4,651	29,159	51,966	2,246	5,363	11,375	7,770	15,618
	June	174,477	84,598	5,795	1,105	44,070	4,331	29,297	48,148	2,157	5,832	11,638	7,085	15,019
	July	174,359	82,754	5,264	1,169	43,672	4,370	28,279	49,664	2,102	4,864	10,838	6,330	17,807
	August ^f	184,735	87,062	5,411	1,337	46,157	4,388	29,769	52,658	2,318	5,614	10,820	7,507	18,756
	September ^f	187,492	88,340	5,326	1,085	47,851	4,403	29,675	52,874	2,420	5,972	10,753	7,668	19,464
	October ^p	185,777	91,040	5,015	1,077	49,347	4,119	31,483	47,353	1,873	6,792	10,357	7,698	20,664
PERCENT CHANGE														
	September 2000- October 2000	-1	3	-6	-1	3	-6	6	-10	-23	14	-4	(Z)	6

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 5. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 Dollars

[Millions of dollars]

Period		Total construction	Private construction															All other private ⁵	
			Residential buildings						Nonresidential buildings								Public utilities ⁴		
			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												
1998:	October	678,737	528,731	305,731	219,477	195,597	23,881	179,719	37,334	41,174	15,433	49,841	6,215	8,329	12,332	9,061	(NA)	13,682	2,250
	November	682,952	532,445	307,741	220,892	197,452	23,440	182,250	37,355	41,954	15,139	51,148	6,533	8,750	12,473	8,899	(NA)	12,861	2,756
	December	687,453	534,403	310,232	222,708	199,374	23,334	182,653	35,968	42,773	14,696	51,335	6,442	9,388	12,873	9,179	(NA)	12,627	2,507
1999:	January	701,368	544,635	313,484	223,939	199,376	24,562	180,791	35,115	42,246	16,026	50,180	7,185	8,103	12,328	9,608	(NA)	13,513	2,301
	February	715,528	549,511	314,680	225,867	200,718	25,149	183,122	34,085	43,155	16,510	51,420	6,927	8,352	12,812	9,862	(NA)	13,795	2,491
	March	714,481	552,543	318,467	228,467	203,028	25,440	181,941	34,407	41,844	15,607	52,528	6,674	8,633	12,455	9,794	(NA)	16,211	2,693
	April	701,320	540,570	317,846	227,561	202,569	24,992	177,154	32,219	40,840	14,758	51,679	6,857	9,282	12,050	9,468	(NA)	15,907	3,092
	May	691,411	537,192	318,432	227,225	202,914	24,312	176,027	31,754	40,915	14,689	51,911	6,629	8,349	12,152	9,628	(NA)	14,065	2,843
	June	684,295	531,889	317,468	225,968	201,385	24,583	172,754	31,236	41,163	13,357	50,779	6,973	8,732	11,733	8,782	(NA)	13,948	2,774
	July	686,711	533,081	314,453	224,228	199,558	24,669	174,201	32,405	40,655	14,174	50,661	6,925	8,589	11,899	8,893	(NA)	15,709	2,764
	August	681,219	526,376	313,589	223,751	198,987	24,763	170,211	30,498	42,024	13,212	48,693	6,696	8,425	11,889	8,772	(NA)	15,430	2,515
	September	678,934	524,618	312,885	223,942	199,153	24,789	170,088	29,089	43,169	12,771	49,296	6,189	8,396	12,112	9,066	(NA)	14,640	2,509
	October	679,390	524,712	313,872	223,896	199,860	24,036	169,437	27,747	42,557	12,990	49,421	6,787	8,878	12,353	8,703	(NA)	15,204	2,348
	November	693,806	533,077	315,941	226,612	202,266	24,346	173,734	28,384	40,822	13,836	53,637	6,384	9,354	12,307	9,010	(NA)	15,229	2,742
	December	705,174	539,263	318,704	231,170	206,409	24,761	175,166	29,177	40,547	13,902	53,477	6,577	9,940	12,110	9,435	(NA)	16,901	3,090
2000:	January	715,395	545,064	323,714	235,250	209,959	25,291	176,812	29,648	42,047	15,015	52,242	6,603	9,615	12,433	9,211	(NA)	19,079	2,260
	February	722,124	556,969	326,612	237,995	213,221	24,774	187,881	33,599	43,282	13,922	57,363	6,939	10,298	12,475	10,002	(NA)	15,762	2,805
	March	731,866	562,076	327,857	238,464	212,365	26,099	189,604	33,939	45,727	14,937	55,168	7,206	10,241	12,944	9,442	(NA)	17,555	2,825
	April	716,767	552,947	324,778	235,985	210,051	25,934	185,514	33,423	46,516	14,513	52,915	6,817	9,843	13,021	8,466	(NA)	16,616	2,475
	May	711,128	551,996	322,786	233,553	208,724	24,829	186,026	34,352	44,969	14,554	52,858	6,573	10,499	12,971	9,249	(NA)	16,951	2,513
	June	697,815	545,332	317,691	228,388	203,650	24,738	183,996	34,411	44,858	14,017	52,329	6,929	9,478	12,994	8,979	(NA)	17,377	2,446
	July	685,497	533,371	302,690	222,204	199,195	23,010	185,998	36,255	45,366	13,939	51,081	7,346	9,726	13,519	8,767	(NA)	17,423	2,667
	August ^f	700,029	538,661	305,304	220,777	197,435	23,342	189,082	35,759	46,885	13,682	52,511	6,748	10,512	13,601	9,385	(NA)	16,658	3,274
	September ^f	712,376	548,724	306,692	218,922	195,806	23,116	193,819	36,407	49,346	14,573	52,721	6,738	10,375	14,560	9,098	(NA)	20,046	3,527
	October ^P	716,249	554,707	312,424	218,780	194,789	23,991	196,536	38,266	47,760	14,537	55,245	6,943	11,084	13,788	8,913	(NA)	(NA)	3,751
PERCENT CHANGE																			
	September 2000- October 2000	1	1	2	(Z)	-1	4	1	5	-3	(Z)	5	3	7	-5	-2	(NA)	(NA)	6

See footnotes at end of table.

Table 5. **Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 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						
1998:	October	150,006	67,200	4,642	725	33,005	3,638	25,189	47,326	2,127	4,875	10,198	7,021	11,259
	November	150,507	67,343	4,881	1,029	33,197	3,282	24,953	45,696	2,046	5,234	10,742	7,050	12,397
	December	153,050	68,892	4,905	860	34,737	3,198	25,191	45,604	2,100	5,146	10,842	7,511	12,955
1999:	January	156,733	67,467	4,762	784	34,839	3,483	23,599	50,701	1,802	5,421	10,987	7,102	13,253
	February	166,017	69,584	4,818	839	35,302	4,113	24,514	55,980	2,384	5,876	10,693	7,536	13,964
	March	161,938	69,710	5,209	919	35,005	3,376	25,201	52,621	1,981	5,735	10,897	7,753	13,242
	April	160,750	69,628	5,258	830	36,170	3,092	24,277	51,628	2,073	5,316	10,540	7,121	14,445
	May	154,219	67,619	5,605	919	34,883	3,487	22,725	49,172	1,927	4,724	10,766	7,031	12,980
	June	152,406	69,014	5,025	758	36,225	3,496	23,510	45,522	1,928	5,393	10,537	7,202	12,810
	July	153,630	68,288	5,111	914	34,363	3,628	24,271	47,308	2,045	5,202	10,507	7,484	12,796
	August	154,842	70,143	5,496	792	35,182	3,555	25,117	46,856	1,481	5,901	10,053	7,323	13,086
	September	154,315	70,064	5,223	880	35,726	3,581	24,653	47,709	1,739	5,695	9,682	7,135	12,292
	October	154,678	70,845	5,093	567	35,795	3,571	25,820	45,710	1,889	5,496	10,070	6,750	13,919
	November	160,729	70,653	4,621	772	36,166	3,610	25,484	50,760	1,728	6,080	10,088	6,721	14,699
	December	165,911	71,123	4,768	865	36,516	3,578	25,396	53,862	2,066	6,452	10,820	6,755	14,833
2000:	January	170,331	74,008	4,705	1,094	38,853	3,638	25,718	56,629	1,574	5,709	10,274	7,359	14,778
	February	165,154	75,490	4,461	1,105	39,830	3,579	26,515	47,282	2,651	6,353	10,490	7,775	15,114
	March	169,790	74,717	5,009	936	39,600	3,326	25,845	52,591	1,980	5,904	10,461	7,108	17,029
	April	163,820	75,030	5,343	1,003	38,936	3,909	25,838	49,055	1,899	5,304	11,786	7,187	13,559
	May	159,131	75,717	4,900	933	40,713	4,013	25,158	45,227	1,946	4,884	10,360	7,102	13,895
	June	152,483	72,936	5,061	952	37,959	3,730	25,234	41,832	1,866	5,331	10,638	6,494	13,386
	July	152,126	71,215	4,586	1,005	37,551	3,758	24,316	43,111	1,815	4,442	9,898	5,802	15,843
	August ^f	161,368	74,981	4,714	1,151	39,722	3,777	25,619	45,750	2,005	5,131	9,890	6,893	16,717
	September ^f	163,652	75,945	4,627	932	41,109	3,783	25,494	45,938	2,091	5,459	9,829	7,042	17,348
	October ^p	161,542	78,187	4,345	924	42,358	3,536	27,024	40,857	1,612	6,169	9,407	7,024	18,287
PERCENT CHANGE														
	September 2000- October 2000	-1	3	-6	-1	3	-7	6	-11	-23	13	-4	(Z)	5

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 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1996 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																			
October 1999	579,349	448,179	264,923	188,651	167,948	20,702	145,867	26,206	34,880	11,958	42,207	5,559	7,270	10,103	7,686	(NA)	12,241	2,197	
October 2000	594,424	458,918	265,501	191,140	170,654	20,485	156,338	28,719	38,237	12,006	44,479	5,691	8,598	11,008	7,598	(NA)	(NA)	2,403	
Percent change	3	2	(Z)	1	2	-1	7	10	10	(Z)	5	2	18	9	-1	(NA)	(NA)	9	
MONTHLY DATA																			
1998: October	62,378	47,911	28,028	20,028	17,946	2,082	15,978	3,351	3,538	1,325	4,606	590	686	1,075	808	(NA)	1,250	219	
November	58,549	45,845	26,668	19,366	17,409	1,957	15,605	3,234	3,556	1,241	4,437	592	698	1,080	767	(NA)	1,101	235	
December	52,219	41,034	22,802	16,697	14,853	1,843	14,937	3,147	3,457	1,234	4,030	556	683	1,079	750	(NA)	1,141	203	
1999: January	46,821	37,191	20,764	15,421	13,624	1,797	13,300	2,628	3,225	1,191	3,513	517	557	960	709	(NA)	886	160	
February	46,802	36,828	19,675	14,753	12,896	1,857	13,655	2,568	3,341	1,284	3,629	502	587	1,007	737	(NA)	961	163	
March	52,826	41,962	23,642	17,552	15,515	2,037	14,360	2,712	3,400	1,298	3,953	517	653	1,030	797	(NA)	1,370	203	
April	55,761	43,594	25,591	18,263	16,189	2,074	14,485	2,610	3,417	1,253	4,096	539	743	1,015	813	(NA)	1,348	242	
May	58,896	46,055	27,890	19,286	17,163	2,123	14,763	2,604	3,519	1,229	4,343	537	712	1,015	804	(NA)	1,110	231	
June	62,497	48,187	29,567	20,264	18,074	2,190	14,922	2,639	3,523	1,162	4,460	567	846	974	751	(NA)	1,238	236	
July	63,916	49,074	29,825	20,803	18,659	2,144	14,992	2,706	3,418	1,220	4,509	568	853	962	756	(NA)	1,344	252	
August	65,516	49,602	30,159	21,056	18,837	2,218	15,175	2,648	3,639	1,146	4,528	608	837	1,017	752	(NA)	1,387	247	
September	64,220	48,283	29,058	20,846	18,687	2,159	15,234	2,594	3,763	1,097	4,617	582	747	1,044	790	(NA)	1,268	233	
October	62,094	47,403	28,752	20,407	18,304	2,103	14,981	2,497	3,635	1,078	4,559	622	735	1,079	777	(NA)	1,329	230	
November	59,627	46,044	27,368	19,864	17,833	2,031	14,939	2,460	3,483	1,155	4,657	594	746	1,067	776	(NA)	1,367	232	
December	53,499	41,402	23,465	17,381	15,429	1,952	14,242	2,548	3,281	1,148	4,202	548	726	1,015	774	(NA)	1,532	251	
2000: January	47,927	37,335	21,519	16,241	14,382	1,859	13,013	2,206	3,210	1,141	3,653	491	663	967	682	(NA)	1,234	156	
February	47,890	37,629	20,474	15,570	13,735	1,835	14,182	2,537	3,488	1,129	4,044	531	722	982	749	(NA)	1,160	181	
March	54,511	42,916	24,408	18,352	16,264	2,088	14,994	2,701	3,731	1,242	4,161	549	772	1,071	767	(NA)	1,513	212	
April	57,050	44,541	26,330	19,123	16,962	2,161	15,064	2,707	3,810	1,201	4,194	533	788	1,106	725	(NA)	1,282	191	
May	61,119	47,693	28,460	20,028	17,863	2,164	15,709	2,837	3,901	1,236	4,436	534	902	1,087	776	(NA)	1,459	202	
June	63,518	49,422	29,672	20,570	18,362	2,208	15,887	2,928	3,824	1,231	4,588	563	910	1,080	764	(NA)	1,576	206	
July	63,073	48,650	28,578	20,536	18,542	1,994	15,887	3,030	3,762	1,173	4,533	601	955	1,093	740	(NA)	1,420	242	
August ^f	67,303	50,541	29,210	20,645	18,575	2,070	16,890	3,105	4,091	1,195	4,862	624	1,043	1,159	811	(NA)	1,537	319	
September ^f	66,799	50,084	28,334	20,244	18,243	2,001	17,218	3,234	4,281	1,219	4,907	605	921	1,258	791	(NA)	1,717	325	
October ^p	65,234	50,107	28,516	19,831	17,726	2,105	17,494	3,434	4,139	1,239	5,101	660	922	1,205	793	(NA)	(NA)	369	
PERCENT CHANGE																			
September 2000- October 2000	-2	(Z)	1	-2	-3	5	2	6	-3	2	4	9	(Z)	-4	(Z)	(NA)	(NA)	14	

See footnotes at end of table.

Table 6. **Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1996 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													
October 1999.	131,171	58,157	4,292	687	29,901	2,943	20,333	41,035	1,581	4,586	8,704	6,011	11,098
October 2000.	135,503	62,888	3,966	835	33,597	3,085	21,408	38,857	1,609	4,544	8,573	5,783	13,252
Percent change	3	8	-8	22	12	5	5	-5	2	-1	-2	-4	19
MONTHLY DATA													
1998: October.	14,467	5,907	420	53	2,885	309	2,239	5,348	146	352	982	694	1,037
November.	12,704	5,544	419	84	2,636	272	2,133	3,911	175	439	947	637	1,051
December.	11,185	5,342	403	73	2,594	266	2,006	2,877	183	403	830	585	964
1999: January.	9,630	4,817	357	58	2,395	265	1,741	2,239	135	367	741	473	858
February.	9,974	4,915	356	63	2,365	312	1,819	2,384	161	403	693	512	906
March.	10,864	5,188	409	77	2,468	276	1,958	2,793	172	435	808	549	919
April.	12,167	5,502	432	68	2,755	256	1,990	3,549	163	418	827	571	1,137
May.	12,841	5,570	469	75	2,791	282	1,954	4,147	163	386	893	602	1,081
June.	14,310	6,257	434	65	3,405	307	2,046	4,696	168	460	954	630	1,145
July.	14,842	6,371	432	80	3,462	308	2,089	5,026	176	457	933	683	1,197
August.	15,915	6,756	463	62	3,731	291	2,209	5,545	128	550	954	670	1,312
September.	15,937	6,587	485	99	3,406	337	2,260	5,586	186	719	944	655	1,259
October.	14,691	6,194	455	40	3,123	309	2,267	5,070	129	391	957	666	1,284
November.	13,583	5,818	403	63	2,875	303	2,174	4,353	148	512	900	606	1,246
December.	12,097	5,522	393	77	2,721	301	2,031	3,438	180	504	835	526	1,092
2000: January.	10,591	5,292	353	81	2,691	274	1,894	2,638	119	389	693	500	960
February.	10,261	5,356	332	84	2,699	270	1,971	2,084	180	437	690	529	985
March.	11,595	5,562	395	80	2,802	270	2,016	2,928	171	449	779	506	1,200
April.	12,509	5,936	431	79	2,998	309	2,120	3,434	149	418	916	579	1,077
May.	13,426	6,267	416	77	3,277	333	2,164	3,927	165	403	886	612	1,166
June.	14,095	6,607	440	84	3,562	330	2,191	4,141	162	457	969	565	1,195
July.	14,423	6,609	381	84	3,752	314	2,078	4,401	155	388	861	526	1,483
August ^f	16,762	7,277	404	94	4,190	318	2,270	5,585	174	477	943	629	1,677
September ^f	16,714	7,136	426	107	3,920	355	2,328	5,310	224	690	938	647	1,770
October ^p	15,127	6,846	388	65	3,706	312	2,376	4,409	110	436	898	690	1,739
PERCENT CHANGE													
September 2000- October 2000.	-9	-4	-9	-39	-5	-12	2	-17	-51	-37	-4	7	-2

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. ^zLess 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					
1998:	October	14,570	5,960	414	3,127	245	2,174	5,683	176	1,031	731	991
	November	12,366	5,542	401	2,865	232	2,044	4,150	145	989	673	868
	December	10,782	5,327	394	2,829	241	1,864	3,055	129	866	621	785
1999:	January	9,405	4,884	361	2,627	209	1,687	2,381	142	776	502	721
	February	9,649	4,935	360	2,601	220	1,753	2,535	129	727	545	778
	March	10,643	5,261	408	2,726	223	1,904	2,984	127	852	586	833
	April	12,094	5,662	431	3,052	223	1,957	3,816	151	877	605	983
	May	13,026	5,768	483	3,103	247	1,936	4,497	142	954	638	1,027
	June	14,596	6,541	440	3,809	274	2,019	5,133	158	1,028	669	1,068
	July	15,152	6,657	441	3,878	260	2,079	5,480	159	1,003	724	1,129
	August	16,422	7,171	480	4,190	281	2,220	6,062	197	1,031	713	1,249
	September	16,017	6,806	493	3,828	306	2,180	6,101	196	1,019	697	1,198
	October	15,349	6,572	476	3,529	300	2,267	5,581	187	1,034	711	1,265
	November	13,930	6,150	413	3,266	302	2,169	4,821	216	975	648	1,120
	December	12,335	5,813	408	3,101	275	2,029	3,823	193	906	565	1,036
2000:	January	10,969	5,663	373	3,081	255	1,954	2,938	146	755	540	926
	February	10,538	5,745	347	3,095	254	2,048	2,329	174	757	577	957
	March	11,885	5,968	416	3,222	270	2,060	3,268	147	857	551	1,094
	April	13,194	6,445	460	3,462	288	2,234	3,894	146	1,009	633	1,068
	May	14,266	6,858	444	3,798	343	2,274	4,484	151	973	670	1,130
	June	14,916	7,221	472	4,133	322	2,295	4,733	144	1,060	616	1,142
	July	15,497	7,299	406	4,362	320	2,210	5,036	147	943	574	1,499
	August ^f	17,938	7,997	434	4,867	315	2,382	6,391	153	1,032	685	1,681
	September ^f	17,509	7,755	461	4,558	342	2,394	6,073	170	1,026	704	1,780
	October ^p	16,386	7,520	418	4,315	323	2,463	5,074	204	988	756	1,845
		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
1998:	October	921	435	34	58	-	90	253	(NA)	157	193	107
	November	1,243	478	48	91	1	64	275	(NA)	189	313	241
	December	1,237	496	41	79	1	50	325	(NA)	198	292	233
1999:	January	989	400	27	64	3	82	225	(NA)	147	243	187
	February	1,129	466	26	69	1	123	247	(NA)	174	294	181
	March	1,144	465	37	85	1	82	260	(NA)	187	332	144
	April	1,153	428	42	76	1	60	248	(NA)	179	292	233
	May	1,038	420	32	83	1	67	237	(NA)	179	271	140
	June	1,190	453	39	73	1	71	270	(NA)	186	338	180
	July	1,213	479	39	89	3	86	263	(NA)	195	333	172
	August	1,174	416	34	70	4	46	263	(NA)	142	397	182
	September	1,590	592	46	112	1	73	360	(NA)	207	580	173
	October	978	421	32	45	-	49	295	(NA)	145	236	139
	November	1,236	453	38	72	-	43	301	(NA)	166	338	250
	December	1,222	476	33	88	1	68	287	(NA)	204	354	168
2000:	January	952	390	25	93	-	59	214	(NA)	135	279	135
	February	1,055	393	27	96	-	56	213	(NA)	205	306	137
	March	1,220	423	32	92	-	40	259	(NA)	194	347	240
	April	1,059	414	29	91	7	69	218	(NA)	172	315	138
	May	1,087	397	30	89	1	43	235	(NA)	191	291	180
	June	1,218	442	32	98	3	62	249	(NA)	188	356	199
	July	1,042	382	32	98	1	45	207	(NA)	179	278	168
	August ^f	1,262	453	30	109	2	55	256	(NA)	201	369	201
	September ^f	1,633	546	30	125	5	71	316	(NA)	259	585	206
	October ^p	1,012	452	29	76	3	40	305	(NA)	128	276	120

- Less than \$0.5 million. 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 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					
1998:	October	147,052	66,815	4,482	35,775	2,710	23,849	50,288	1,791	10,697	7,386	10,075
	November	146,266	67,239	4,638	36,078	2,782	23,741	48,488	1,699	11,215	7,444	10,181
	December	149,522	69,234	4,806	37,884	2,898	23,646	48,420	1,779	11,308	7,969	10,812
1999:	January	155,221	68,655	4,812	38,214	2,729	22,900	53,905	2,237	11,503	7,542	11,378
	February	163,282	70,259	4,881	38,822	2,888	23,668	59,537	2,023	11,216	8,010	12,236
	March	161,485	71,367	5,225	38,671	2,745	24,726	56,213	1,868	11,485	8,280	12,271
	April	160,507	71,883	5,239	40,063	2,695	23,885	55,504	1,914	11,172	7,548	12,486
	May	156,206	69,946	5,755	38,781	3,049	22,360	53,326	1,692	11,509	7,452	12,280
	June	154,153	71,868	5,091	40,523	3,090	23,164	49,754	1,741	11,359	7,641	11,789
	July	155,344	70,992	5,227	38,491	3,081	24,193	51,576	1,667	11,306	7,933	11,870
	August	157,479	73,445	5,672	39,496	3,407	24,869	51,229	1,926	10,857	7,791	12,231
	September	157,713	73,440	5,400	40,149	3,375	24,516	52,107	1,982	10,447	7,592	12,145
	October	157,155	74,016	5,232	40,447	3,335	25,003	50,313	1,897	10,885	7,202	12,842
	November	164,718	74,669	4,713	41,083	3,581	25,292	56,220	2,540	10,925	7,191	13,172
	December	171,493	75,666	4,991	41,621	3,314	25,740	59,889	2,655	11,740	7,255	14,288
2000:	January	178,303	79,393	4,975	44,485	3,373	26,560	63,068	2,271	11,199	7,955	14,417
	February	171,739	81,348	4,679	45,681	3,372	27,616	52,827	2,697	11,518	8,475	14,874
	March	176,895	80,895	5,309	45,538	3,358	26,690	58,701	2,137	11,507	7,748	15,907
	April	173,141	81,411	5,700	44,956	3,646	27,110	55,623	1,831	12,976	7,862	13,436
	May	168,831	82,835	5,215	47,174	4,135	26,311	51,644	1,795	11,375	7,770	13,412
	June	160,369	79,595	5,439	44,042	3,634	26,481	47,805	1,592	11,638	7,085	12,654
	July	162,032	78,176	4,885	43,657	3,832	25,801	49,331	1,553	10,838	6,330	15,804
	August ^f	170,220	81,521	5,039	46,129	3,718	26,635	52,347	1,503	10,820	7,507	16,522
	September ^f	174,245	83,593	5,065	47,809	3,790	26,929	52,546	1,718	10,753	7,668	17,968
	October ^p	170,365	84,636	4,605	49,309	3,554	27,169	47,020	2,054	10,357	7,698	18,600
		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
1998:	October	13,647	5,941	461	786	3	1,234	3,457	(NA)	2,289	3,323	1,837
	November	15,020	5,884	589	1,119	7	786	3,383	(NA)	2,204	3,766	2,898
	December	14,873	5,863	482	938	14	592	3,837	(NA)	2,268	3,589	2,868
1999:	January	13,690	5,362	355	861	39	1,095	3,011	(NA)	1,952	3,439	2,643
	February	15,802	6,216	351	923	9	1,636	3,297	(NA)	2,587	4,142	2,552
	March	14,032	5,579	448	1,015	10	985	3,121	(NA)	2,157	4,177	1,818
	April	14,456	5,192	513	920	13	732	3,014	(NA)	2,268	3,721	2,969
	May	12,708	5,168	399	1,022	9	828	2,911	(NA)	2,124	3,357	1,739
	June	13,977	5,283	457	848	13	821	3,144	(NA)	2,140	4,073	2,160
	July	14,043	5,498	442	1,024	30	987	3,015	(NA)	2,268	3,931	2,027
	August	13,758	5,319	429	891	49	588	3,362	(NA)	1,646	4,447	2,033
	September	12,904	5,244	403	989	8	651	3,193	(NA)	1,932	4,162	1,241
	October	14,839	5,962	446	640	1	700	4,174	(NA)	2,114	4,043	2,386
	November	14,816	5,518	462	877	1	520	3,657	(NA)	1,944	4,045	2,982
	December	14,402	5,338	369	986	7	765	3,211	(NA)	2,332	4,346	2,057
2000:	January	13,212	5,266	332	1,253	1	792	2,887	(NA)	1,782	3,952	1,912
	February	14,683	5,159	358	1,267	4	733	2,797	(NA)	3,011	4,278	1,917
	March	14,879	4,955	376	1,077	2	468	3,032	(NA)	2,249	4,358	3,012
	April	13,524	5,286	370	1,160	93	877	2,785	(NA)	2,180	4,008	1,750
	May	13,165	4,823	366	1,081	12	516	2,848	(NA)	2,246	3,568	2,205
	June	14,108	5,002	356	1,105	28	697	2,816	(NA)	2,157	4,240	2,365
	July	12,328	4,578	379	1,169	14	538	2,478	(NA)	2,102	3,311	2,004
	August ^f	14,516	5,541	372	1,337	28	670	3,134	(NA)	2,318	4,111	2,234
	September ^f	13,247	4,747	261	1,085	42	613	2,746	(NA)	2,420	4,255	1,497
	October ^p	15,412	6,404	409	1,077	38	565	4,314	(NA)	1,873	4,738	2,064

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 9. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 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					
1998:	October	137,246	61,712	4,209	33,002	2,500	22,001	47,086	1,707	10,198	7,021	9,523
	November	136,434	61,921	4,331	33,190	2,559	21,841	45,444	1,627	10,742	7,050	9,650
	December	139,146	63,512	4,458	34,724	2,656	21,674	45,337	1,705	10,842	7,511	10,239
1999:	January	143,986	62,580	4,435	34,803	2,485	20,857	50,426	2,137	10,987	7,102	10,754
	February	151,334	63,929	4,495	35,293	2,625	21,516	55,694	1,928	10,693	7,536	11,554
	March	148,950	64,655	4,798	34,996	2,484	22,376	52,340	1,773	10,897	7,753	11,533
	April	147,417	64,937	4,789	36,158	2,432	21,557	51,345	1,805	10,540	7,121	11,669
	May	142,596	62,967	5,242	34,875	2,742	20,108	48,879	1,583	10,766	7,031	11,370
	June	139,698	64,287	4,611	36,214	2,762	20,700	45,231	1,615	10,537	7,202	10,826
	July	140,866	63,380	4,713	34,337	2,748	21,582	47,016	1,549	10,507	7,484	10,930
	August	142,358	65,406	5,110	35,139	3,032	22,126	46,572	1,783	10,053	7,323	11,221
	September	142,615	65,394	4,860	35,719	3,002	21,812	47,413	1,837	9,682	7,135	11,152
	October	141,285	65,564	4,692	35,794	2,951	22,126	45,408	1,755	10,070	6,750	11,738
	November	147,396	65,789	4,208	36,165	3,152	22,264	50,467	2,345	10,088	6,721	11,985
	December	152,992	66,436	4,440	36,510	2,907	22,579	53,568	2,447	10,820	6,755	12,966
2000:	January	158,529	69,404	4,410	38,852	2,946	23,197	56,361	2,083	10,274	7,359	13,047
	February	152,096	70,988	4,144	39,827	2,940	24,077	46,999	2,456	10,490	7,775	13,388
	March	156,552	70,404	4,677	39,598	2,920	23,209	52,318	1,942	10,461	7,108	14,318
	April	151,880	70,455	5,018	38,856	3,151	23,431	48,792	1,663	11,786	7,187	11,997
	May	147,526	71,550	4,578	40,702	3,568	22,701	44,947	1,634	10,360	7,102	11,933
	June	140,022	68,623	4,750	37,934	3,130	22,809	41,533	1,455	10,638	6,494	11,278
	July	141,275	67,274	4,256	37,539	3,295	22,185	42,822	1,418	9,898	5,802	14,060
	August ^f	148,571	70,209	4,390	39,698	3,200	22,922	45,480	1,374	9,890	6,893	14,725
	September ^f	151,971	71,865	4,401	41,073	3,256	23,135	45,652	1,570	9,829	7,042	16,014
	October ^p	148,012	72,687	3,991	42,325	3,051	23,321	40,569	1,866	9,407	7,024	16,460
		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
1998:	October	12,760	5,488	433	725	3	1,138	3,189	(NA)	2,127	3,168	1,736
	November	14,073	5,421	550	1,029	7	723	3,112	(NA)	2,046	3,607	2,747
	December	13,903	5,379	447	860	13	542	3,517	(NA)	2,100	3,441	2,716
1999:	January	12,747	4,887	327	784	35	998	2,743	(NA)	1,802	3,284	2,498
	February	14,683	5,655	323	839	8	1,487	2,998	(NA)	2,384	3,948	2,410
	March	12,987	5,055	411	919	9	892	2,825	(NA)	1,981	3,963	1,709
	April	13,333	4,692	469	830	12	660	2,720	(NA)	2,073	3,510	2,775
	May	11,623	4,652	363	919	8	745	2,618	(NA)	1,927	3,141	1,610
	June	12,708	4,727	414	758	11	734	2,810	(NA)	1,928	3,778	1,984
	July	12,764	4,908	398	914	27	880	2,689	(NA)	2,045	3,653	1,866
	August	12,485	4,737	387	792	43	523	2,991	(NA)	1,481	4,118	1,865
	September	11,701	4,670	363	880	7	579	2,841	(NA)	1,739	3,858	1,139
	October	13,393	5,281	400	567	1	619	3,694	(NA)	1,889	3,740	2,181
	November	13,333	4,863	413	772	1	457	3,219	(NA)	1,728	3,735	2,713
	December	12,919	4,687	328	865	6	671	2,817	(NA)	2,066	4,005	1,867
2000:	January	11,802	4,603	294	1,094	1	692	2,522	(NA)	1,574	3,625	1,730
	February	13,058	4,503	317	1,105	3	639	2,438	(NA)	2,651	3,896	1,726
	March	13,237	4,313	331	936	2	407	2,636	(NA)	1,980	3,962	2,711
	April	11,940	4,575	326	1,003	80	758	2,407	(NA)	1,899	3,641	1,562
	May	11,605	4,167	322	933	10	445	2,457	(NA)	1,946	3,250	1,962
	June	12,461	4,313	311	952	24	600	2,426	(NA)	1,866	3,876	2,108
	July	10,851	3,941	330	1,005	12	463	2,131	(NA)	1,815	3,023	1,783
	August ^f	12,797	4,773	324	1,151	24	577	2,697	(NA)	2,005	3,758	1,991
	September ^f	11,681	4,081	227	932	36	527	2,359	(NA)	2,091	3,889	1,334
	October ^p	13,530	5,500	355	924	33	485	3,703	(NA)	1,612	4,304	1,827

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 10. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in 1996 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					
1998:	October	13,607	5,505	388	2,885	226	2,006	5,321	168	982	694	936
	November	11,539	5,104	375	2,636	213	1,880	3,889	139	947	637	823
	December	10,030	4,887	365	2,593	220	1,709	2,860	124	830	585	743
1999:	January	8,710	4,452	333	2,393	190	1,536	2,227	135	741	473	681
	February	8,925	4,491	332	2,365	200	1,594	2,372	123	693	512	735
	March	9,805	4,767	375	2,467	202	1,723	2,778	120	808	549	783
	April	11,104	5,115	394	2,754	201	1,766	3,530	142	827	571	919
	May	11,892	5,192	439	2,790	222	1,741	4,122	132	893	602	951
	June	13,228	5,851	398	3,404	244	1,804	4,666	146	954	630	981
	July	13,740	5,943	397	3,459	232	1,854	4,995	147	933	683	1,039
	August	14,848	6,385	433	3,728	250	1,975	5,511	182	954	670	1,146
	September	14,493	6,061	444	3,405	272	1,939	5,551	181	944	655	1,100
	October	13,810	5,821	427	3,123	265	2,006	5,037	173	957	666	1,156
	November	12,471	5,419	369	2,875	266	1,909	4,328	199	900	606	1,019
	December	11,002	5,104	363	2,720	241	1,780	3,419	177	835	526	940
2000:	January	9,741	4,951	331	2,690	223	1,707	2,625	134	693	500	838
	February	9,324	5,013	308	2,698	222	1,786	2,072	158	690	529	861
	March	10,510	5,194	367	2,802	235	1,791	2,912	134	779	506	984
	April	11,574	5,577	405	2,992	249	1,931	3,415	132	916	579	954
	May	12,468	5,924	390	3,277	296	1,962	3,903	138	886	612	1,005
	June	13,020	6,225	412	3,560	277	1,977	4,112	131	969	565	1,018
	July	13,507	6,280	354	3,751	275	1,901	4,371	135	861	526	1,333
	August ^f	15,649	6,886	378	4,188	271	2,050	5,552	140	943	629	1,498
	September ^f	15,270	6,667	400	3,916	294	2,057	5,277	156	938	647	1,587
	October ^p	14,240	6,458	362	3,703	278	2,114	4,378	185	898	690	1,632
		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
1998:	October	860	402	32	53	-	83	234	(NA)	146	184	101
	November	1,165	440	45	84	1	59	253	(NA)	175	300	228
	December	1,156	455	38	73	1	46	298	(NA)	183	280	221
1999:	January	921	364	24	58	3	74	205	(NA)	135	232	177
	February	1,049	424	24	63	1	112	225	(NA)	161	281	171
	March	1,058	421	34	77	1	74	235	(NA)	172	315	136
	April	1,063	387	39	68	1	54	224	(NA)	163	276	218
	May	949	378	30	75	1	61	213	(NA)	163	254	130
	June	1,082	406	36	65	1	63	241	(NA)	168	314	165
	July	1,102	428	35	80	2	77	234	(NA)	176	309	158
	August	1,066	371	30	62	3	41	234	(NA)	128	368	167
	September	1,444	527	41	99	1	65	321	(NA)	186	538	159
	October	881	373	28	40	-	44	261	(NA)	129	219	127
	November	1,112	400	34	63	-	38	265	(NA)	148	312	227
	December	1,096	418	29	77	1	60	251	(NA)	180	326	152
2000:	January	850	341	22	81	-	51	187	(NA)	119	256	122
	February	937	343	24	84	-	49	186	(NA)	180	279	123
	March	1,085	368	28	80	-	35	225	(NA)	171	315	216
	April	935	359	26	79	6	59	189	(NA)	149	286	123
	May	958	343	27	77	1	37	203	(NA)	165	265	160
	June	1,075	381	28	84	2	53	214	(NA)	162	325	177
	July	917	329	28	84	1	39	178	(NA)	155	254	150
	August ^f	1,113	390	26	94	2	47	220	(NA)	174	338	179
	September ^f	1,444	469	26	107	4	61	271	(NA)	224	535	183
	October ^p	887	388	25	65	2	34	261	(NA)	110	251	107

- Less than \$0.5 million. 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 11. Indexes Used in Deriving Estimates of the Value of Construction Put in Place in Constant Dollars

[1996 = 100]

Period	U.S. Census Bureau		Engineering News-Record		U.S. Census Bureau 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														
1995.....	97.7	97.8	97.1	97.3	98.1	98.1	99.8	98	97	97	98	99	98	96
1996.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100	100	100
1997.....	103.2	103.3	105.0	103.6	102.9	102.9	107.5	103	104	103	102	102	102	102
1998.....	106.0	106.1	105.8	105.3	105.6	105.6	105.2	105	109	104	104	104	104	102
1999.....	110.3	110.4	107.9	107.8	110.4	110.4	112.7	107	113	107	105	107	107	101
Monthly indexes							Quarterly indexes			Semiannual indexes				
1999: January	108.4	108.5	106.9	106.7	108.5	108.5								
February	108.6	108.6	106.7	106.6	108.7	108.6	107.1	105	111					
March.....	109.0	108.9	106.5	106.5	109.0	108.9				105	105	105	106	102
April.....	109.3	109.3	106.8	106.9	109.5	109.4								
May.....	109.7	109.8	106.8	106.8	109.8	109.8	117.5	106	112					
June.....	110.4	110.4	107.2	107.4	110.4	110.4								
July.....	110.6	110.6	108.0	108.1	110.8	110.9								
August.....	110.8	110.8	108.5	108.3	110.9	111.0	108.0	108	114					
September	110.9	110.9	109.4	109.0	111.0	111.1				106	105	106	106	100
October.....	111.4	111.4	109.4	109.1	111.5	111.5								
November.....	112.0	111.9	109.2	109.0	112.1	112.0	118.1	109	115					
December.....	112.3	112.3	109.2	109.0	112.3	112.4								
2000: January	112.6	112.8	109.4	109.0	112.6	112.8								
February.....	112.9	113.1	110.0	109.6	112.8	112.9	113.2	109	116					
March.....	113.3	113.3	110.4	110.3	113.3	113.5				109	106	110	108	100
April.....	113.8	113.9	110.3	110.3	113.6	113.6								
May.....	114.1	114.2	111.1	110.9	113.8	113.9	128.4	111	117					
June.....	114.4	114.5	110.9	111.0	114.3	114.5								
July.....	114.7	114.7	110.7	110.7	114.7	114.8								
August.....	^r 114.7	^r 114.6	110.7	110.9	^r 114.8	^r 114.8	(NA)	111	119					
September.....	^r 114.9	^r 114.8	110.5	110.7	^r 115.2	^r 115.1				110	107	112	109	103
October.....	^P 115.2	^P 115.2	110.5	110.7	^P 115.5	^P 115.4								
November.....			110.6	111.4			(NA)	(NA)	(NA)					

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	Oct. 2000 ^P	Sep. 2000 ^f	Aug. 2000 ^f	July 2000	June 2000	May 2000	Apr. 2000	Mar. 2000	Feb. 2000	Jan. 2000	Dec. 1999	Oct. 1999
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	109.2	111.8	112.9	111.7	108.2	102.7	96.9	91.9	77.3	82.2	89.7	109.9
2 units or more	105.3	103.9	106.4	104.0	107.1	104.6	100.0	96.0	88.9	88.2	94.6	105.0
Nonresidential buildings:												
Industrial	107.7	106.6	104.2	100.3	102.1	99.1	97.2	95.5	90.6	89.3	104.8	108.0
Office	104.0	104.1	104.7	99.5	102.3	104.1	98.3	97.9	96.7	91.6	97.1	102.5
Hotels, motels	102.3	100.4	104.8	101.0	105.4	101.9	99.3	99.8	97.3	91.2	99.1	99.6
Other commercial	110.8	111.7	111.1	106.5	105.2	100.7	95.1	90.5	84.6	83.9	94.3	110.7
Religious	114.1	107.8	111.0	98.2	97.5	97.5	93.9	91.4	91.8	89.3	100.0	109.9
Educational	99.8	106.5	119.1	117.8	115.2	103.1	96.1	90.5	84.1	82.8	87.6	99.3
Hospital and institutional	104.9	103.7	102.3	97.0	99.7	100.6	101.9	99.3	94.5	93.3	100.6	104.8
Miscellaneous nonresidential	106.7	104.4	103.7	101.3	102.1	100.7	102.7	97.5	89.9	88.9	98.4	107.1
Telecommunications	107.6	102.8	110.7	97.8	108.8	103.3	92.6	103.4	88.3	77.6	108.8	105.0
All other private	117.9	110.5	116.9	108.7	101.0	96.6	92.7	90.2	77.6	82.9	97.4	117.5
PUBLIC CONSTRUCTION												
State and Local												
Buildings:												
Housing and redevelopment	109.0	109.1	103.3	99.7	104.1	102.1	96.9	94.1	89.1	90.0	98.2	109.2
Educational	105.0	114.4	126.6	119.9	112.6	96.6	92.4	84.9	81.3	83.1	89.4	104.7
Hospital	109.2	108.4	101.6	100.3	106.2	99.6	94.9	96.6	90.5	90.8	99.4	107.8
Other buildings	108.8	106.7	107.3	102.8	104.0	103.7	98.9	92.6	89.0	88.3	94.6	108.8
Highways and streets	129.5	138.7	146.5	122.5	118.8	104.2	84.0	66.8	52.9	55.9	76.6	133.1
Conservation and development	119.0	118.9	122.1	113.8	108.3	101.1	95.4	82.5	77.2	77.1	87.0	118.2
Sewer systems	114.5	114.5	114.4	104.4	109.3	102.6	93.3	89.4	78.9	80.9	92.6	114.0
Water supply facilities	117.8	110.2	109.5	108.8	104.4	103.4	96.6	85.4	81.7	81.5	93.4	118.4
Miscellaneous construction	119.0	118.9	122.1	113.8	108.3	101.1	95.4	82.5	77.2	77.1	87.0	118.2
Federal												
Buildings:												
Housing and redevelopment	84.7	138.0	98.1	100.1	106.1	98.9	94.1	102.4	91.3	88.9	107.1	84.7
Industrial	84.7	138.0	98.1	100.1	106.1	98.9	94.1	102.4	91.3	88.9	107.1	84.7
Educational	84.7	138.0	98.1	100.1	106.1	98.9	94.1	102.4	91.3	88.9	107.1	84.7
Hospital	84.7	138.0	98.1	100.1	106.1	98.9	94.1	102.4	91.3	88.9	107.1	84.7
Other buildings	84.7	138.0	98.1	100.1	106.1	98.9	94.1	102.4	91.3	88.9	107.1	84.7
Military	81.7	128.3	103.9	102.3	104.3	101.8	94.4	103.5	81.7	90.7	104.8	82.2
Conservation and development	70.0	165.0	107.8	100.8	100.7	98.0	94.3	95.5	85.8	84.6	97.7	70.1
Miscellaneous construction	70.0	165.0	107.8	100.8	100.7	98.0	94.3	95.5	85.8	84.6	97.7	70.1

^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 71 percent of total construction in 1999 (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 54 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 that 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 (k1 or k2) for the change and apply the following formula:

$$\text{Standard error of a change} = k (100 + \text{percent change shown in Tables 3 through 6})$$

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. Nonsampling 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, 32 percent; private residential construction of 2 units or more, 43 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 1997. (Outlays are included if a government agency's fiscal year ending date falls within July 1996 to June 1997 inclusive, and for three state agencies with fiscal years ending in August or September 1997.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1997 through April 2001. 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 -0.7 percent to 1.0 percent with a median of 0.2 percent. The range of the difference between first revision and second revision was from -0.2 to 1.1 percent, with a median of 0.2 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	.01
Private construction	3	1	1	.04	.02
Residential buildings	5	2	2	.06	.03
New housing units	2	1	1	.01	.01
1 unit	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	5	5	.09	.07
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	5	5	.11	.07
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 1999 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.