

Value of Construction Put in Place: August 2002

Issued October 2002

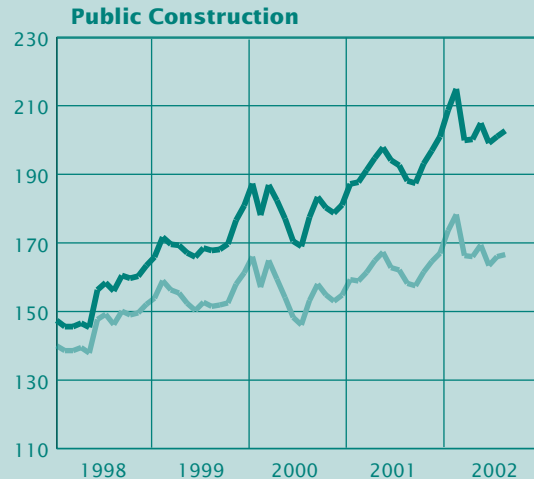
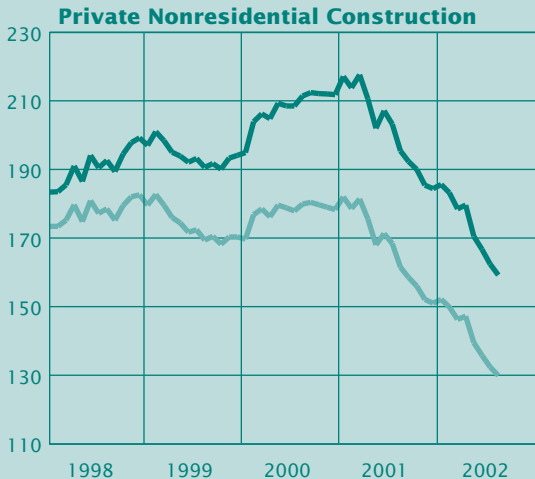
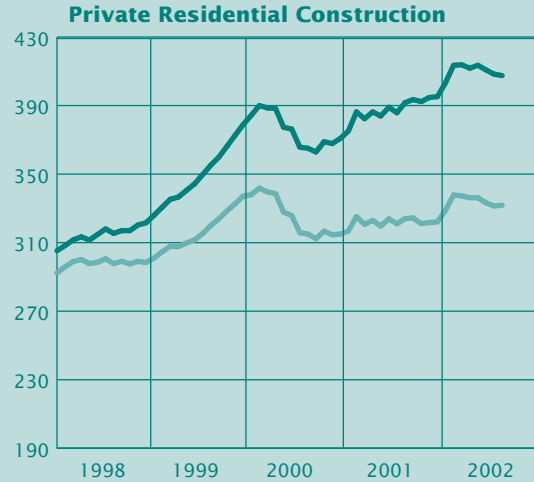
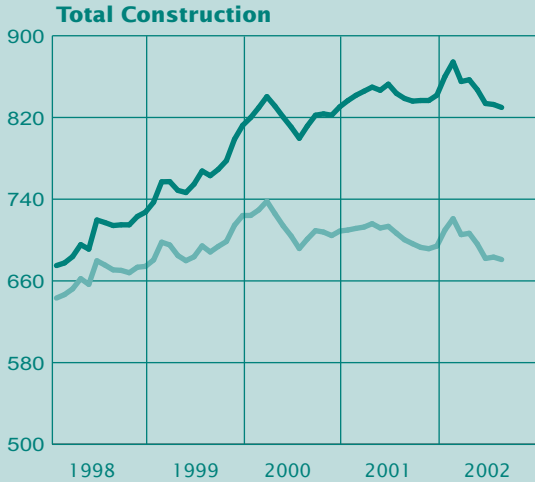
C30/02-8

Current Construction Reports

Monthly Value of Construction Put in Place

Seasonally adjusted annual rate in billions of dollars

— Current dollars
— 1996 dollars



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: 301-763-1605.

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VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during August 2002 was estimated at a seasonally adjusted annual rate of \$829.8 billion, 0.4 (± 4.8) percent below the revised July estimate of \$832.7 billion. The August figure is 1.1 (± 4.7) percent below August 2001.

During the first 8 months of this year, \$553.7 billion of construction was put in place, 0.1 (± 3.2) percent above the \$553.2 billion for the same period in 2001.

In constant (1996) dollars, the August annual rate was \$680.9 billion, 0.4 (± 4.8) percent below the revised estimate of \$683.3 billion for July.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$292.9 billion in August, 0.1 (± 1.6) percent below the revised July estimate of \$293.2 billion. Nonresidential building construction was at a rate of \$159.2 billion, 2.0 (± 3.1) percent below the revised July estimate of \$162.4 billion.

In August, the estimated seasonally adjusted annual rate of public construction put in place was \$202.7 billion, 0.8 (± 4.8) percent above the revised July estimate of \$201.0 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 2002*, C30/02-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2002; contains annual data for 1997 to 2001 and monthly data for 1998 to 2001.
- Current Construction Reports, *Value of Construction Put in Place: June 2002*, C30/02-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2002; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1995 to 2001.
- 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: 1997-2001

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Total construction	653,429	705,685	765,876	820,345	842,539	632,680	665,156	694,123	711,328	704,747
Private construction	502,734	551,383	596,331	641,783	650,030	487,197	519,859	540,220	556,426	542,782
Residential buildings	289,014	314,607	350,562	374,457	388,705	280,720	297,960	317,236	323,977	322,305
New housing units	198,063	223,983	251,272	265,047	279,772	192,386	212,068	227,467	229,324	232,008
1 unit	175,179	199,409	223,837	236,788	249,086	170,154	188,785	202,620	204,867	206,557
2 units or more	22,883	24,574	27,434	28,259	30,686	22,232	23,283	24,848	24,457	25,451
Improvements	90,951	90,624	99,290	109,410	108,933	88,334	85,892	89,769	94,653	90,297
Nonresidential buildings	173,875	190,710	193,935	208,241	201,094	167,610	177,644	173,429	178,074	166,587
Industrial	37,624	40,484	32,639	31,801	29,046	36,267	37,720	29,206	27,194	24,072
Office	34,305	42,226	47,582	55,605	52,020	33,058	39,333	42,552	47,534	43,112
Hotels, motels	12,898	14,816	15,951	16,293	14,421	12,438	13,794	14,274	13,944	11,948
Other commercial	51,809	53,598	56,915	60,381	60,297	49,948	49,915	50,870	51,635	49,933
Religious	5,777	6,594	7,371	8,019	8,310	5,565	6,139	6,590	6,858	6,880
Educational	8,693	9,698	9,645	11,375	12,629	8,375	9,039	8,621	9,726	10,454
Hospital and institutional	13,546	13,793	13,530	14,434	15,114	13,066	12,853	12,102	12,342	12,518
Miscellaneous ¹	9,223	9,501	10,301	10,332	9,259	8,892	8,850	9,214	8,841	7,670
Farm nonresidential	3,815	4,284	5,059	5,988	6,134	3,675	3,989	4,519	5,115	5,076
Public utilities	33,638	39,212	44,066	50,144	51,114	32,883	37,818	42,534	46,641	46,230
Telecommunications	12,416	12,458	18,404	18,799	18,538	12,159	12,188	18,305	18,272	17,440
Other public utilities	21,222	26,754	25,662	31,345	32,576	20,725	25,631	24,229	28,370	28,789
Railroads	4,922	5,736	4,670	4,263	4,149	4,745	5,463	4,311	3,781	3,595
Electric light and power	11,325	12,381	14,585	21,149	22,515	11,122	11,883	13,892	19,280	19,990
Gas	4,006	7,372	4,918	4,930	4,969	3,911	7,072	4,625	4,411	4,374
Petroleum pipelines	969	1,265	1,489	1,003	943	947	1,213	1,401	897	830
All other private ²	2,392	2,570	2,709	2,954	2,983	2,309	2,447	2,501	2,619	2,584
Public construction	150,695	154,302	169,545	178,561	192,509	145,483	145,297	153,904	154,902	161,965
Buildings	69,860	72,418	80,418	88,566	96,967	67,400	67,517	71,928	75,772	80,280
Housing and redevelopment ..	5,299	5,187	4,653	4,308	4,751	5,150	4,913	4,218	3,726	3,940
Industrial	999	1,010	925	1,157	1,556	965	941	827	990	1,288
Educational	33,552	35,001	42,427	49,814	55,752	32,340	32,589	37,904	42,588	46,148
Hospital	4,977	3,923	4,026	4,135	4,053	4,802	3,656	3,600	3,538	3,355
Other ³	25,033	27,297	28,387	29,151	30,855	24,144	25,418	25,378	24,930	25,549
Highways and streets	42,602	44,676	48,851	49,262	54,026	41,093	42,249	44,559	42,764	45,415
Military facilities	2,556	2,530	2,125	2,441	2,843	2,466	2,377	1,922	2,105	2,372
Conservation and development ..	5,625	5,466	6,088	6,063	7,122	5,431	5,237	5,682	5,494	6,371
Sewer systems	10,515	9,943	9,864	8,807	8,751	10,152	9,526	9,214	7,982	7,828
Water supply facilities	6,493	6,678	6,541	5,993	7,152	6,347	6,405	6,147	5,327	6,138
Miscellaneous public ⁴	13,045	12,591	15,658	17,429	15,648	12,594	11,985	14,453	15,459	13,561

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: 1997-2001

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Total public construction	150,695	154,302	169,545	178,561	192,509	145,483	145,297	153,904	154,902	161,965
State and local construction	136,608	139,984	155,519	164,396	177,527	131,891	131,792	141,107	142,484	149,147
Total buildings	63,752	66,392	74,948	83,408	91,852	61,508	61,894	67,031	71,356	76,044
Housing and redevelopment	4,622	4,649	4,229	3,926	4,330	4,492	4,403	3,834	3,395	3,591
Educational	33,533	34,986	42,411	49,785	55,718	32,322	32,575	37,890	42,563	46,119
Hospital	3,725	2,914	3,175	3,413	3,389	3,596	2,715	2,838	2,920	2,805
Other ¹	21,872	23,844	25,133	26,284	28,415	21,099	22,200	22,469	22,478	23,528
Highways and streets	42,347	44,419	48,600	48,925	53,743	40,847	42,006	44,330	42,471	45,177
Conservation and development ..	2,256	1,930	2,053	2,003	2,427	2,178	1,849	1,916	1,815	2,172
Sewer systems	10,515	9,943	9,864	8,807	8,751	10,152	9,526	9,214	7,982	7,828
Water supply facilities	6,493	6,678	6,541	5,993	7,152	6,347	6,405	6,147	5,327	6,138
Miscellaneous nonbuilding ²	11,245	10,622	13,513	15,260	13,602	10,859	10,112	12,469	13,534	11,788
Federal construction	14,087	14,318	14,025	14,165	14,981	13,592	13,505	12,796	12,418	12,818
Total buildings	6,107	6,026	5,469	5,158	5,115	5,892	5,624	4,896	4,416	4,236
Housing	677	538	424	382	421	658	510	384	331	349
Industrial	999	1,010	925	1,157	1,556	965	941	827	990	1,288
Educational	19	15	15	29	35	19	14	14	25	29
Hospital	1,251	1,009	850	722	664	1,206	941	762	618	550
Other ³	3,161	3,454	3,255	2,867	2,440	3,045	3,217	2,909	2,452	2,021
Highways and streets	255	257	251	337	283	246	243	229	292	238
Military facilities	2,556	2,530	2,125	2,441	2,843	2,466	2,377	1,922	2,105	2,372
Conservation and development ..	3,368	3,536	4,035	4,061	4,695	3,252	3,387	3,766	3,679	4,200
Miscellaneous public ⁴	1,800	1,969	2,145	2,169	2,046	1,735	1,873	1,983	1,925	1,773

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																			
August 2001	553,206	428,401	252,889	182,918	162,805	20,113	136,670	20,436	36,440	9,910	39,966	5,406	8,161	10,047	6,304	(NA)	12,295	1,858	
August 2002	553,660	421,860	268,991	192,716	170,164	22,552	113,288	11,329	26,200	7,262	37,197	5,514	9,100	11,002	5,684	(NA)	(NA)	1,933	
Percent change	0.1	-1.5	6.4	5.4	4.5	12.1	-17.1	-44.6	-28.1	-26.7	-6.9	2.0	11.5	9.5	-9.8	(NA)	(NA)	4.0	
MONTHLY DATA																			
2000: August	77,601	59,180	34,773	24,286	21,903	2,384	18,892	2,820	4,970	1,376	5,609	734	1,207	1,260	916	(NA)	1,583	308	
September	76,882	58,419	34,049	23,806	21,491	2,315	18,744	2,793	5,151	1,329	5,628	710	993	1,271	870	(NA)	1,891	307	
October	75,163	58,297	33,981	23,335	20,961	2,374	18,770	2,842	5,076	1,330	5,613	761	990	1,299	859	(NA)	1,655	310	
November	70,689	55,671	32,004	22,684	20,286	2,398	18,138	2,791	5,111	1,310	5,121	696	961	1,307	843	(NA)	1,764	288	
December	62,052	49,021	26,484	19,681	17,385	2,296	16,933	2,633	4,879	1,214	4,686	623	877	1,276	745	(NA)	2,040	257	
2001: January	57,605	45,545	25,535	18,736	16,512	2,223	16,219	2,600	4,670	1,206	4,328	608	874	1,225	708	(NA)	1,392	199	
February	55,427	43,641	24,034	18,253	15,992	2,262	15,933	2,361	4,453	1,218	4,523	604	848	1,191	736	(NA)	1,311	200	
March	63,253	50,136	28,735	21,316	18,909	2,407	17,223	2,659	4,871	1,228	4,787	637	921	1,285	836	(NA)	1,432	192	
April	67,269	52,384	30,741	22,423	19,960	2,463	17,149	2,564	4,632	1,213	5,033	665	966	1,263	814	(NA)	1,527	200	
May	73,402	56,612	34,051	24,133	21,437	2,696	17,210	2,446	4,582	1,235	5,116	682	1,031	1,301	818	(NA)	1,837	218	
June	77,893	59,744	36,315	25,391	22,686	2,704	17,906	2,676	4,684	1,276	5,273	702	1,149	1,299	847	(NA)	1,596	246	
July	78,176	59,659	36,265	26,138	23,511	2,627	17,597	2,601	4,369	1,286	5,443	734	1,146	1,239	780	(NA)	1,503	294	
August	80,180	60,679	37,213	26,528	23,797	2,731	17,433	2,530	4,179	1,249	5,464	775	1,227	1,245	766	(NA)	1,697	310	
September	77,939	59,252	36,844	25,978	23,380	2,598	16,972	2,527	4,010	1,193	5,393	751	1,146	1,253	698	(NA)	1,474	306	
October	77,060	58,967	36,544	25,475	22,793	2,682	16,883	2,214	4,173	1,159	5,354	752	1,148	1,311	772	(NA)	1,639	283	
November	71,783	55,295	34,215	24,456	21,761	2,694	15,846	1,924	3,889	1,120	5,058	738	1,114	1,247	758	(NA)	1,578	265	
December	62,551	48,115	28,214	20,946	18,347	2,598	14,723	1,944	3,508	1,040	4,526	662	1,060	1,256	727	(NA)	1,553	270	
2002: January	58,703	45,304	27,355	19,821	17,148	2,674	13,810	1,568	3,437	969	4,312	656	1,003	1,194	671	(NA)	1,190	208	
February	57,051	43,613	25,681	19,279	16,768	2,511	13,636	1,439	3,216	954	4,395	643	1,022	1,275	692	(NA)	1,208	220	
March	63,375	49,765	30,951	22,771	20,088	2,683	14,038	1,454	3,318	919	4,644	661	1,051	1,323	668	(NA)	1,274	234	
April	68,232	52,928	33,118	23,978	21,080	2,899	14,755	1,426	3,431	973	4,929	720	1,153	1,393	731	(NA)	1,422	254	
May	73,303	55,924	36,557	25,475	22,466	3,009	14,448	1,379	3,287	949	4,732	702	1,221	1,446	732	(NA)	1,473	234	
June ^f	76,250	57,829	38,506	26,519	23,639	2,881	14,368	1,435	3,177	853	4,761	694	1,202	1,499	748	(NA)	1,510	251	
July ^f	77,533	58,077	38,220	27,384	24,526	2,858	14,087	1,347	3,231	838	4,662	694	1,199	1,422	696	(NA)	1,521	251	
August ^P	79,214	58,420	38,604	27,488	24,451	3,038	14,147	1,281	3,104	807	4,763	745	1,249	1,452	746	(NA)	(NA)	282	
PERCENT CHANGE																			
July 2002- August 2002	2.2	0.6	1.0	0.4	-0.3	6.3	0.4	-4.9	-3.9	-3.7	2.2	7.3	4.2	2.1	7.2	(NA)	(NA)	12.4	

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													
August 2001	124,805	62,903	3,048	954	36,197	2,610	20,094	35,014	1,879	4,527	5,703	4,570	10,210
August 2002	131,800	70,050	3,547	1,282	41,633	3,235	20,353	33,720	1,858	5,021	6,175	4,687	10,288
Percent change	5.6	11.4	16.4	34.4	15.0	23.9	1.3	-3.7	-1.1	10.9	8.3	2.6	0.8
MONTHLY DATA													
2000: August	18,421	8,634	384	109	5,198	356	2,586	6,091	211	525	808	567	1,586
September	18,463	8,371	402	125	4,793	399	2,651	5,859	271	789	793	568	1,813
October	16,866	8,004	418	75	4,407	344	2,761	4,989	146	479	805	597	1,844
November	15,018	7,343	402	93	3,986	357	2,505	4,015	280	484	745	542	1,609
December	13,031	7,068	375	99	3,971	290	2,332	2,913	210	500	620	471	1,249
2001: January	12,060	6,650	375	123	3,623	302	2,227	2,431	216	529	608	426	1,200
February	11,786	6,484	350	102	3,518	289	2,225	2,387	195	537	595	458	1,130
March	13,118	6,938	362	114	3,776	294	2,392	3,089	214	578	648	509	1,141
April	14,885	7,628	389	133	4,181	310	2,615	3,943	258	505	723	597	1,232
May	16,790	8,028	417	108	4,468	338	2,696	5,146	232	607	764	603	1,410
June	18,149	8,567	412	125	4,917	375	2,737	5,918	258	567	792	661	1,387
July	18,518	9,069	367	125	5,670	345	2,562	5,946	239	540	751	654	1,319
August	19,501	9,539	374	125	6,045	356	2,639	6,154	269	665	822	661	1,391
September	18,687	9,144	403	211	5,418	383	2,728	5,466	303	901	777	693	1,403
October	18,093	8,884	444	77	5,205	356	2,802	5,634	196	517	811	657	1,394
November	16,488	8,228	427	115	4,629	350	2,707	4,601	245	607	803	649	1,355
December	14,436	7,809	429	198	4,304	353	2,525	3,310	220	570	659	583	1,286
2002: January	13,399	7,523	375	112	4,228	421	2,386	2,978	188	577	656	491	986
February	13,439	7,646	378	174	4,311	383	2,402	2,767	183	613	661	494	1,074
March	13,610	7,632	377	154	4,287	393	2,421	2,761	222	665	691	503	1,136
April	15,303	8,348	415	171	4,809	398	2,554	3,512	214	628	731	573	1,298
May	17,379	8,924	431	165	5,329	400	2,599	4,652	264	619	835	655	1,430
June ^e	18,421	9,417	488	164	5,682	395	2,689	5,226	260	611	853	664	1,391
July ^r	19,456	9,916	515	155	6,277	418	2,550	5,780	283	605	822	622	1,429
August ^p	20,794	10,644	568	187	6,711	427	2,751	6,044	245	704	925	686	1,545
PERCENT CHANGE													
July 2002- August 2002	6.9	7.3	10.3	20.6	6.9	2.2	7.9	4.6	-13.4	16.4	12.5	10.3	8.1

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

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													
2000: August	811,750	634,278	365,074	258,607	231,775	26,832	211,435	31,985	57,291	15,862	60,744	7,898	12,170	14,811	10,673	(NA)	17,062	3,164	
September	822,205	638,837	362,935	258,680	231,503	27,177	212,371	31,413	59,840	16,001	60,949	7,982	11,197	14,879	10,112	(NA)	21,877	3,269	
October	823,532	643,194	368,932	259,274	231,831	27,443	212,091	31,754	58,681	15,721	61,180	8,075	11,872	14,990	9,818	(NA)	18,185	3,245	
November	822,182	643,472	367,806	261,190	232,949	28,241	211,994	32,641	59,948	15,427	59,313	7,619	11,985	15,166	9,895	(NA)	19,402	3,277	
December	830,419	649,303	370,758	265,148	235,994	29,154	211,828	30,800	61,306	15,164	60,140	7,825	11,881	15,492	9,221	(NA)	23,703	2,994	
2001: January	836,473	649,245	375,088	271,550	241,940	29,610	217,071	34,591	60,134	15,284	61,537	7,941	12,453	15,640	9,490	(NA)	19,883	2,827	
February	841,671	654,012	386,317	277,753	247,291	30,462	213,796	32,086	57,898	15,559	63,327	8,152	12,057	15,103	9,614	(NA)	18,794	2,966	
March	845,710	654,467	382,301	275,296	245,307	29,989	217,623	33,947	60,132	14,660	62,775	8,213	12,253	15,542	10,100	(NA)	17,831	2,618	
April	849,713	654,974	386,325	276,878	246,933	29,945	210,578	32,250	55,922	14,426	62,976	8,434	12,191	14,900	9,479	(NA)	19,573	2,660	
May	846,591	648,790	383,942	279,266	248,546	30,720	201,972	29,057	52,413	14,470	60,726	8,311	11,927	15,442	9,625	(NA)	21,483	2,746	
June	852,562	658,421	388,982	280,286	249,757	30,528	207,149	30,995	54,998	14,982	60,031	8,722	12,028	15,463	9,929	(NA)	18,578	2,922	
July	843,603	651,016	385,816	280,964	250,562	30,402	203,223	30,210	51,854	15,230	61,044	8,728	11,744	15,192	9,220	(NA)	17,987	3,283	
August	838,638	650,576	391,687	282,284	251,596	30,688	195,449	29,026	48,167	14,593	59,125	8,627	12,369	14,641	8,901	(NA)	18,098	3,166	
September	835,965	648,548	393,476	281,648	251,174	30,474	192,259	28,611	46,996	14,312	58,297	8,309	12,927	14,672	8,134	(NA)	18,064	3,256	
October	836,571	643,432	392,337	281,554	250,931	30,623	190,048	24,599	47,739	13,581	58,459	8,008	13,725	15,128	8,809	(NA)	17,280	2,969	
November	836,550	639,681	394,732	282,237	250,130	32,107	185,395	22,459	45,614	13,314	58,534	8,206	13,896	14,468	8,903	(NA)	17,071	3,019	
December	841,809	640,795	395,218	283,115	250,190	32,925	184,358	23,011	44,036	12,651	58,021	8,092	14,306	15,253	8,989	(NA)	18,249	3,143	
2002: January	860,238	651,536	403,277	286,931	251,555	35,376	185,613	20,883	44,158	12,261	61,311	8,406	14,223	15,358	9,012	(NA)	16,993	2,972	
February	874,310	659,372	413,482	293,819	259,961	33,858	183,208	19,552	41,677	12,177	61,473	8,678	14,427	16,184	9,040	(NA)	17,210	3,247	
March	855,224	655,341	413,815	295,407	261,730	33,677	178,545	18,463	40,963	11,440	60,838	8,792	13,951	15,998	8,098	(NA)	16,488	3,163	
April ^f	856,914	656,682	411,828	295,645	260,509	35,136	179,575	17,548	40,800	11,285	61,416	8,919	14,539	16,520	8,549	(NA)	17,448	3,388	
May ^f	847,098	642,165	413,524	294,897	260,473	34,424	170,498	16,613	37,890	11,202	56,160	8,822	14,107	17,114	8,589	(NA)	17,279	2,962	
June ^f	833,700	634,564	410,802	292,801	260,004	32,797	166,684	16,738	37,853	10,070	54,408	8,454	12,651	17,770	8,741	(NA)	18,392	2,993	
July ^f	832,712	631,686	408,345	293,172	260,225	32,948	162,370	15,606	38,088	9,844	52,576	8,276	12,378	17,337	8,266	(NA)	17,465	2,815	
August ^p	829,781	627,116	407,458	292,867	258,283	34,584	159,166	14,886	36,336	9,443	51,819	8,245	12,637	17,114	8,686	(NA)	(NA)	2,888	
PERCENT CHANGE																			
July 2002- August 2002	-0.4	-0.7	-0.2	-0.1	-0.7	5.0	-2.0	-4.6	-4.6	-4.1	-1.4	-0.4	2.1	-1.3	5.1	(NA)	(NA)	2.6	

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						
2000:	August	177,472	88,172	4,601	1,331	48,929	4,209	29,102	50,238	2,439	5,643	8,601	6,210	16,167
	September	183,368	89,374	4,423	1,116	50,181	4,316	29,339	52,543	2,590	6,351	8,417	6,187	17,906
	October	180,338	90,947	4,652	1,007	50,127	3,948	31,213	46,234	2,148	6,781	8,513	6,141	19,574
	November	178,709	89,425	4,720	1,130	50,237	4,243	29,095	46,826	3,261	5,692	8,532	6,139	18,835
	December	181,115	92,444	4,601	1,158	53,538	3,592	29,556	48,553	2,450	6,485	8,362	6,161	16,659
2001:	January	187,227	92,952	4,885	1,610	52,569	3,855	30,032	50,901	2,839	7,412	8,828	6,313	17,984
	February	187,660	92,155	4,727	1,362	52,241	3,842	29,984	52,754	2,684	7,589	8,876	6,595	17,007
	March	191,243	93,607	4,550	1,380	53,734	3,658	30,286	55,917	2,493	7,479	8,668	7,032	16,048
	April	194,739	96,586	4,669	1,636	54,887	3,826	31,568	56,199	3,262	6,553	9,022	7,318	15,799
	May	197,802	97,062	4,867	1,365	55,444	4,017	31,369	57,932	2,754	7,384	8,952	6,960	16,757
	June	194,141	94,894	4,769	1,454	52,634	4,308	31,730	57,828	2,965	6,586	8,691	7,581	15,596
	July	192,587	96,819	4,418	1,469	56,614	4,087	30,230	56,181	2,802	6,432	8,469	7,233	14,652
	August	188,062	96,884	4,463	1,509	56,856	4,198	29,858	50,965	3,110	7,005	8,744	7,231	14,124
	September	187,417	97,807	4,473	1,896	56,727	4,184	30,527	49,432	2,900	7,564	8,235	7,546	13,932
	October	193,140	100,977	5,000	1,048	59,262	4,025	31,642	51,612	2,894	7,239	8,586	6,772	15,060
	November	196,869	100,295	5,008	1,417	58,347	4,145	31,377	54,183	2,838	7,115	9,218	7,381	15,840
	December	201,014	102,071	5,267	2,308	58,088	4,385	32,023	55,250	2,559	7,461	8,881	7,636	17,155
2002:	January	208,702	104,647	4,943	1,470	61,052	5,375	31,808	61,726	2,481	8,159	9,536	7,270	14,884
	February	214,938	108,858	5,172	2,321	63,861	5,068	32,435	61,726	2,533	8,661	9,884	7,197	16,078
	March	199,882	103,940	4,806	1,876	60,875	5,017	31,366	52,418	2,609	8,693	9,334	6,935	15,953
	April ^f	200,232	105,468	5,096	2,097	62,789	4,845	30,641	51,456	2,720	7,885	9,192	7,091	16,419
	May ^f	204,932	108,406	5,137	2,056	65,856	4,759	30,599	51,881	3,094	7,378	9,773	7,572	16,827
	June ^f	199,136	104,528	5,672	1,896	61,156	4,657	31,148	51,401	2,962	7,343	9,376	7,570	15,957
	July ^f	201,027	105,847	6,176	1,819	62,725	4,908	30,218	52,784	3,289	7,014	9,303	6,872	15,917
	August ^p	202,665	107,894	6,629	2,227	63,116	5,115	30,806	51,295	2,821	7,594	9,793	7,457	15,812
PERCENT CHANGE														
	July 2002- August 2002	0.8	1.9	7.3	22.4	0.6	4.2	1.9	-2.8	-14.2	8.3	5.3	8.5	-0.7

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

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																		
		Total ¹	Residential buildings					Nonresidential buildings										Public utilities ⁴		All other private ⁵
			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														
2000: August	701,025	547,866	314,990	223,129	199,978	23,151	179,945	27,221	48,758	13,499	51,697	6,722	10,358	12,605	9,083	(NA)	16,597	2,793		
September	709,170	551,173	312,336	222,616	199,228	23,388	180,434	26,689	50,841	13,595	51,783	6,781	9,513	12,641	8,591	(NA)	21,260	2,880		
October	707,770	552,919	316,680	222,553	198,997	23,556	179,738	26,910	49,730	13,323	51,848	6,844	10,061	12,703	8,321	(NA)	17,485	2,847		
November	704,393	551,380	314,633	223,430	199,272	24,158	179,049	27,568	50,632	13,029	50,096	6,435	10,122	12,809	8,357	(NA)	18,549	2,872		
December	708,777	553,955	315,002	225,275	200,505	24,770	178,306	25,926	51,604	12,764	50,623	6,586	10,001	13,040	7,762	(NA)	22,617	2,626		
2001: January	709,814	550,532	316,797	229,349	204,341	25,008	181,953	28,995	50,406	12,812	51,582	6,656	10,439	13,109	7,955	(NA)	18,954	2,469		
February	711,412	552,520	325,182	233,799	208,158	25,641	178,609	26,805	48,369	12,998	52,905	6,810	10,073	12,617	8,032	(NA)	17,882	2,577		
March	712,678	551,286	320,722	230,953	205,795	25,158	181,352	28,289	50,110	12,217	52,313	6,844	10,211	12,952	8,417	(NA)	16,933	2,267		
April	716,029	551,191	323,015	231,503	206,466	25,038	175,628	26,898	46,640	12,032	52,523	7,034	10,167	12,427	7,906	(NA)	18,588	2,317		
May	711,763	544,487	319,685	232,528	206,949	25,579	168,030	24,174	43,605	12,039	50,521	6,914	9,923	12,847	8,007	(NA)	20,325	2,392		
June	713,399	550,625	323,882	233,377	207,958	25,419	171,339	25,637	45,491	12,392	49,653	7,214	9,949	12,790	8,213	(NA)	17,331	2,517		
July	706,674	544,590	320,979	233,747	208,455	25,292	168,370	25,029	42,961	12,618	50,575	7,231	9,730	12,586	7,639	(NA)	16,826	2,845		
August	700,283	542,067	323,976	233,485	208,103	25,383	161,528	23,988	39,808	12,060	48,863	7,130	10,222	12,100	7,356	(NA)	16,930	2,748		
September	696,376	538,850	324,383	232,191	207,068	25,123	158,499	23,587	38,743	11,799	48,060	6,850	10,657	12,095	6,706	(NA)	16,882	2,829		
October	692,794	531,338	321,061	230,405	205,345	25,060	156,033	20,196	39,195	11,150	47,996	6,575	11,268	12,420	7,232	(NA)	16,149	2,566		
November	691,484	526,856	321,705	230,022	203,855	26,167	152,088	18,424	37,419	10,922	48,018	6,732	11,400	11,869	7,304	(NA)	16,044	2,614		
December	694,083	527,116	322,101	230,738	203,904	26,833	150,989	18,846	36,066	10,361	47,519	6,627	11,716	12,492	7,362	(NA)	16,976	2,689		
2002: January	709,933	536,341	328,937	234,038	205,184	28,854	152,142	17,118	36,195	10,050	50,255	6,891	11,658	12,589	7,387	(NA)	15,837	2,549		
February	720,947	542,691	337,812	240,048	212,387	27,661	149,925	16,000	34,106	9,965	50,305	7,102	11,806	13,244	7,398	(NA)	15,936	2,773		
March	705,281	538,997	337,257	240,755	213,309	27,446	146,348	15,134	33,576	9,377	49,868	7,207	11,436	13,113	6,638	(NA)	15,338	2,710		
April ^f	706,625	540,593	336,186	241,342	212,660	28,682	147,193	14,384	33,443	9,250	50,341	7,311	11,917	13,541	7,007	(NA)	16,231	2,886		
May ^f	696,048	526,634	336,199	239,753	211,767	27,987	139,524	13,595	31,007	9,167	45,958	7,219	11,544	14,005	7,029	(NA)	16,088	2,512		
June ^f	681,990	518,589	333,173	237,471	210,871	26,600	135,847	13,642	30,850	8,207	44,342	6,890	10,310	14,482	7,124	(NA)	16,983	2,511		
July ^f	683,287	517,315	331,449	237,965	211,222	26,743	132,439	12,729	31,067	8,030	42,884	6,750	10,096	14,141	6,742	(NA)	16,399	2,392		
August ^p	680,888	514,258	331,806	238,491	210,328	28,163	129,931	12,151	29,662	7,709	42,301	6,731	10,316	13,970	7,091	(NA)	(NA)	2,427		
PERCENT CHANGE																				
July 2002- August 2002	-0.4	-0.6	0.1	0.2	-0.4	5.3	-1.9	-4.5	-4.5	-4.0	-1.4	-0.3	2.2	-1.2	5.2	(NA)	(NA)	1.5		

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						
2000:	August	153,159	75,094	3,970	1,133	41,641	3,582	24,768	43,384	2,092	5,097	7,770	5,453	14,269
	September	157,997	75,982	3,806	948	42,635	3,667	24,927	45,295	2,216	5,722	7,583	5,423	15,776
	October	154,851	77,125	3,993	853	42,481	3,346	26,451	39,618	1,831	6,098	7,656	5,354	17,170
	November	153,013	75,579	4,038	955	42,430	3,584	24,573	40,022	2,770	5,119	7,672	5,343	16,507
	December	154,821	77,851	3,909	975	45,065	3,024	24,879	41,534	2,080	5,843	7,534	5,367	14,613
2001:	January	159,282	77,945	4,126	1,350	44,065	3,232	25,173	43,100	2,391	6,677	7,953	5,508	15,707
	February	158,892	77,019	3,979	1,138	43,643	3,209	25,049	44,294	2,248	6,825	7,982	5,750	14,776
	March	161,392	78,031	3,817	1,150	44,778	3,048	25,239	46,753	2,081	6,720	7,788	6,125	13,894
	April	164,838	80,565	3,904	1,364	45,778	3,191	26,329	47,385	2,737	5,904	8,128	6,358	13,762
	May	167,276	80,754	4,053	1,136	46,126	3,342	26,097	48,929	2,309	6,634	8,043	6,010	14,597
	June	162,774	78,516	3,971	1,203	43,535	3,563	26,245	48,351	2,467	5,844	7,712	6,452	13,434
	July	162,084	80,229	3,676	1,217	46,905	3,386	25,046	47,370	2,340	5,732	7,548	6,166	12,697
	August	158,216	80,073	3,691	1,247	46,988	3,470	24,676	43,081	2,600	6,249	7,800	6,154	12,260
	September	157,526	80,632	3,687	1,563	46,766	3,449	25,167	41,856	2,423	6,748	7,346	6,417	12,104
	October	161,456	82,891	4,091	861	48,656	3,305	25,978	43,262	2,401	6,457	7,660	5,768	13,017
	November	164,629	82,249	4,082	1,163	47,865	3,400	25,740	45,341	2,352	6,381	8,267	6,325	13,714
	December	166,967	83,575	4,292	1,890	47,574	3,592	26,227	45,624	2,105	6,621	7,881	6,488	14,675
2002:	January	173,592	85,756	4,032	1,205	50,043	4,405	26,072	51,098	2,043	7,259	8,484	6,187	12,765
	February	178,255	89,075	4,226	1,899	52,259	4,147	26,543	50,845	2,080	7,671	8,755	6,099	13,730
	March	166,284	85,174	3,917	1,538	49,897	4,113	25,710	43,357	2,147	7,734	8,304	5,897	13,670
	April ^f	166,032	86,432	4,160	1,719	51,467	3,971	25,115	42,316	2,233	6,965	8,121	5,979	13,986
	May ^f	169,414	88,685	4,176	1,682	53,892	3,895	25,040	42,491	2,534	6,489	8,596	6,347	14,272
	June ^f	163,401	85,167	4,600	1,545	49,842	3,795	25,385	41,654	2,406	6,379	8,146	6,261	13,387
	July ^f	165,972	86,311	5,013	1,484	51,162	4,004	24,648	43,337	2,691	6,174	8,190	5,746	13,523
	August ^p	166,630	88,063	5,398	1,818	51,524	4,175	25,148	41,670	2,297	6,615	8,530	6,168	13,287
PERCENT CHANGE														
	July 2002- August 2002	0.4	2.0	7.7	22.5	0.7	4.3	2.0	-3.8	-14.6	7.1	4.2	7.3	-1.7

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

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																		
August 2001	465,040	359,715	211,147	152,743	135,941	16,802	113,677	16,999	30,315	8,242	33,235	4,496	6,784	8,358	5,244	(NA)	11,604	1,614
August 2002	455,173	346,247	218,963	156,882	138,521	18,363	92,650	9,266	21,429	5,940	30,421	4,510	7,441	8,997	4,649	(NA)	(NA)	1,642
Percent change	-2.1	-3.7	3.7	2.7	1.9	9.3	-18.5	-45.5	-29.3	-27.9	-8.5	0.3	9.7	7.6	-11.3	(NA)	(NA)	1.7
MONTHLY DATA																		
2000: August	67,024	51,129	30,003	20,955	18,898	2,057	16,078	2,400	4,230	1,171	4,773	625	1,027	1,073	780	(NA)	1,539	272
September	66,312	50,393	29,302	20,487	18,495	1,992	15,925	2,373	4,377	1,129	4,781	603	844	1,080	739	(NA)	1,837	270
October	64,596	50,114	29,168	20,030	17,993	2,038	15,907	2,408	4,302	1,127	4,757	645	839	1,101	728	(NA)	1,591	272
November	60,574	47,711	27,377	19,405	17,353	2,051	15,320	2,357	4,316	1,106	4,325	588	811	1,104	712	(NA)	1,686	252
December	52,989	41,852	22,501	16,721	14,771	1,951	14,253	2,217	4,107	1,022	3,944	524	738	1,074	627	(NA)	1,947	225
2001: January	48,864	38,604	21,566	15,824	13,946	1,878	13,595	2,179	3,915	1,011	3,628	509	732	1,027	593	(NA)	1,327	174
February	46,853	36,867	20,231	15,365	13,461	1,904	13,311	1,972	3,720	1,017	3,778	505	708	995	615	(NA)	1,247	174
March	53,314	42,236	24,106	17,882	15,863	2,019	14,353	2,216	4,059	1,023	3,989	531	768	1,071	696	(NA)	1,360	166
April	56,675	44,074	25,704	18,749	16,689	2,059	14,303	2,138	3,863	1,012	4,197	555	806	1,053	679	(NA)	1,450	174
May	61,705	47,504	28,352	20,094	17,849	2,245	14,318	2,035	3,812	1,027	4,256	567	857	1,082	681	(NA)	1,738	190
June	65,172	49,959	30,237	21,141	18,890	2,252	14,810	2,213	3,874	1,055	4,361	581	950	1,074	701	(NA)	1,489	212
July	65,487	49,908	30,171	21,746	19,560	2,186	14,579	2,155	3,619	1,065	4,510	608	949	1,027	646	(NA)	1,406	255
August	66,970	50,563	30,780	21,942	19,683	2,259	14,408	2,091	3,453	1,032	4,516	640	1,014	1,029	633	(NA)	1,587	269
September	64,926	49,201	30,374	21,416	19,275	2,142	13,992	2,084	3,306	983	4,446	619	945	1,033	576	(NA)	1,377	266
October	63,818	48,691	29,905	20,847	18,652	2,195	13,861	1,818	3,426	951	4,396	617	943	1,076	633	(NA)	1,531	245
November	59,346	45,552	27,885	19,931	17,735	2,196	13,000	1,578	3,190	918	4,150	605	914	1,023	621	(NA)	1,483	230
December	51,616	39,622	22,994	17,071	14,953	2,118	12,058	1,592	2,873	851	3,706	542	868	1,029	596	(NA)	1,444	231
2002: January	48,431	37,286	22,312	16,168	13,987	2,181	11,319	1,285	2,817	794	3,535	537	822	979	550	(NA)	1,109	179
February	47,060	35,909	20,981	15,750	13,699	2,052	11,158	1,177	2,632	781	3,597	526	836	1,043	567	(NA)	1,118	188
March	52,263	40,935	25,225	18,558	16,371	2,187	11,506	1,192	2,720	753	3,807	542	861	1,084	548	(NA)	1,185	200
April ^f	56,259	43,565	27,035	19,574	17,208	2,366	12,095	1,169	2,812	798	4,040	590	945	1,142	599	(NA)	1,323	217
May ^f	60,221	45,854	29,721	20,711	18,265	2,447	11,823	1,128	2,690	777	3,872	575	1,000	1,183	599	(NA)	1,372	198
June ^f	62,343	47,237	31,230	21,508	19,172	2,336	11,710	1,170	2,589	696	3,880	566	979	1,221	610	(NA)	1,394	210
July ^f	63,613	47,560	31,023	22,228	19,908	2,320	11,491	1,099	2,635	683	3,802	566	978	1,160	567	(NA)	1,428	213
August ^p	64,983	47,901	31,436	22,385	19,911	2,474	11,548	1,046	2,534	658	3,888	608	1,020	1,185	609	(NA)	(NA)	237
PERCENT CHANGE																		
July 2002- August 2002	2.2	0.7	1.3	0.7	(Z)	6.6	0.5	-4.8	-3.8	-3.7	2.3	7.4	4.3	2.2	7.4	(NA)	(NA)	11.3

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													
August 2001	105,326	52,307	2,547	794	30,087	2,171	16,711	29,480	1,571	4,057	5,106	3,939	8,863
August 2002	108,926	57,264	2,887	1,047	34,040	2,646	16,645	27,616	1,521	4,425	5,435	3,933	8,734
Percent change	3.4	9.5	13.3	31.9	13.1	21.9	-0.4	-6.3	-3.2	9.1	6.4	-0.2	-1.5
MONTHLY DATA													
2000: August	15,895	7,352	332	93	4,424	303	2,201	5,260	181	474	730	498	1,400
September	15,918	7,116	346	106	4,072	339	2,253	5,050	232	710	715	498	1,597
October	14,481	6,788	359	63	3,735	292	2,339	4,275	125	431	724	521	1,618
November	12,863	6,206	344	78	3,366	302	2,116	3,432	238	436	670	472	1,410
December	11,137	5,952	319	84	3,343	244	1,963	2,492	178	451	559	410	1,095
2001: January	10,261	5,576	317	103	3,037	253	1,866	2,058	182	476	548	372	1,048
February	9,986	5,419	295	85	2,939	242	1,859	2,004	163	483	535	399	981
March	11,078	5,783	304	95	3,146	245	1,994	2,583	178	520	582	444	988
April	12,601	6,363	326	111	3,487	258	2,181	3,325	216	455	651	519	1,073
May	14,201	6,679	347	90	3,717	282	2,243	4,347	194	546	686	521	1,228
June	15,213	7,088	343	104	4,067	311	2,264	4,948	214	503	702	563	1,195
July	15,579	7,515	305	103	4,698	286	2,123	5,013	199	481	669	558	1,143
August	16,407	7,884	310	103	4,996	294	2,181	5,202	225	593	733	563	1,207
September	15,725	7,538	333	174	4,467	316	2,249	4,629	253	804	693	589	1,219
October	15,127	7,292	363	63	4,273	293	2,300	4,723	162	461	723	560	1,205
November	13,794	6,747	348	95	3,797	287	2,220	3,850	203	545	720	556	1,173
December	11,993	6,394	350	162	3,525	289	2,068	2,734	181	506	584	495	1,100
2002: January	11,145	6,165	306	92	3,466	345	1,956	2,465	154	513	584	418	845
February	11,151	6,257	308	142	3,528	313	1,965	2,280	150	543	586	419	917
March	11,328	6,254	307	126	3,514	322	1,985	2,283	183	592	615	428	973
April ^r	12,694	6,841	339	140	3,942	327	2,094	2,888	176	555	646	483	1,106
May ^r	14,367	7,300	351	135	4,361	327	2,127	3,810	216	545	734	549	1,213
June ^r	15,106	7,673	395	133	4,631	322	2,192	4,235	211	531	741	549	1,167
July ^r	16,053	8,086	418	127	5,120	341	2,080	4,745	232	533	723	520	1,214
August ^p	17,082	8,688	463	152	5,478	349	2,246	4,910	199	613	806	567	1,299
PERCENT CHANGE													
July 2002- August 2002	6.4	7.4	10.8	19.7	7.0	2.3	8.0	3.5	-14.2	15.0	11.5	9.0	7.0

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.05 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					
2000:	August	17,126	8,172	353	5,196	293	2,330	6,048	153	808	567	1,379
	September	16,768	7,809	368	4,788	317	2,336	5,820	183	793	568	1,596
	October	15,864	7,585	387	4,407	300	2,491	4,952	206	805	597	1,717
	November	13,815	6,940	367	3,981	298	2,294	3,986	182	745	542	1,419
	December	11,876	6,650	330	3,967	242	2,112	2,894	179	620	471	1,062
2001:	January	10,914	6,246	339	3,621	260	2,027	2,416	191	608	426	1,027
	February	10,686	6,120	318	3,516	252	2,035	2,372	187	595	458	954
	March	11,920	6,516	333	3,771	243	2,171	3,072	206	648	509	969
	April	13,719	7,231	364	4,177	267	2,423	3,922	196	723	597	1,051
	May	15,573	7,634	378	4,465	279	2,512	5,130	226	764	603	1,216
	June	16,865	8,108	376	4,915	290	2,527	5,888	200	792	661	1,216
	July	17,330	8,638	333	5,668	280	2,358	5,915	203	751	654	1,169
	August	18,181	9,108	341	6,042	297	2,428	6,119	232	822	661	1,239
	September	16,906	8,565	372	5,413	287	2,494	5,435	203	777	693	1,233
	October	17,015	8,507	400	5,202	313	2,592	5,603	189	811	657	1,248
	November	15,250	7,833	390	4,628	303	2,511	4,577	215	803	649	1,174
	December	13,167	7,346	390	4,301	318	2,338	3,293	179	659	583	1,108
2002:	January	12,222	7,124	341	4,224	346	2,214	2,964	195	656	491	791
	February	12,133	7,199	329	4,309	307	2,254	2,753	198	661	494	827
	March	12,247	7,212	337	4,285	338	2,252	2,745	211	691	503	886
	April	13,972	7,899	372	4,804	349	2,374	3,492	236	731	573	1,042
	May	15,973	8,460	399	5,323	336	2,403	4,626	226	835	655	1,171
	June ^f	17,029	8,971	443	5,677	334	2,517	5,197	207	853	664	1,137
	July ^f	18,080	9,461	479	6,273	344	2,365	5,748	226	822	622	1,202
	August ^p	19,381	10,177	523	6,708	353	2,593	6,010	241	925	686	1,342
		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
2000:	August	1,295	462	31	109	2	63	256	(NA)	211	372	207
	September	1,695	562	34	125	5	83	316	(NA)	271	606	217
	October	1,002	419	31	75	-	44	269	(NA)	146	273	127
	November	1,204	403	35	93	5	59	211	(NA)	280	302	190
	December	1,155	417	46	99	4	48	220	(NA)	210	321	187
2001:	January	1,145	404	36	123	2	42	200	(NA)	216	337	173
	February	1,100	364	33	102	2	37	190	(NA)	195	351	176
	March	1,198	421	30	114	5	51	222	(NA)	214	373	173
	April	1,166	397	26	133	4	43	193	(NA)	258	309	181
	May	1,217	394	40	108	2	59	184	(NA)	232	381	194
	June	1,284	459	37	125	2	85	210	(NA)	258	366	171
	July	1,187	431	34	125	3	65	204	(NA)	239	337	150
	August	1,320	431	33	125	3	59	211	(NA)	269	433	152
	September	1,781	579	32	211	5	97	234	(NA)	303	698	171
	October	1,078	377	44	77	3	44	210	(NA)	196	328	146
	November	1,237	395	37	115	1	46	196	(NA)	245	392	181
	December	1,269	463	40	198	3	36	187	(NA)	220	391	178
2002:	January	1,177	399	34	112	5	75	173	(NA)	188	382	195
	February	1,306	448	49	174	2	76	148	(NA)	183	415	247
	March	1,363	420	41	154	2	54	169	(NA)	222	454	250
	April	1,331	448	44	171	5	49	180	(NA)	214	392	257
	May	1,406	464	33	165	6	64	196	(NA)	264	393	259
	June ^f	1,392	446	44	164	5	61	172	(NA)	260	404	253
	July ^f	1,376	454	36	155	4	74	186	(NA)	283	379	227
	August ^p	1,412	467	45	187	3	74	159	(NA)	245	463	204

- Less than \$0.5 million. 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 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					
2000:	August	162,665	82,553	4,220	48,901	3,448	25,984	49,884	1,537	8,601	6,210	13,879
	September	169,313	84,350	4,119	50,138	3,577	26,515	52,193	1,865	8,417	6,187	16,302
	October	165,316	85,294	4,241	50,125	3,350	27,579	45,891	2,089	8,513	6,141	17,387
	November	164,395	84,509	4,296	50,174	3,519	26,520	46,487	2,133	8,532	6,139	16,594
	December	167,030	87,578	4,068	53,488	3,036	26,987	48,237	2,407	8,362	6,161	14,286
2001:	January	171,998	87,676	4,410	52,542	3,305	27,419	50,586	2,921	8,828	6,313	15,675
	February	172,680	87,286	4,292	52,210	3,345	27,438	52,422	2,863	8,876	6,595	14,638
	March	176,709	88,489	4,187	53,674	3,036	27,592	55,609	2,960	8,668	7,032	13,952
	April	179,850	91,681	4,349	54,844	3,296	29,192	55,900	2,500	9,022	7,318	13,430
	May	182,782	92,089	4,368	55,413	3,268	29,039	57,752	2,672	8,952	6,960	14,357
	June	179,180	89,573	4,342	52,612	3,322	29,297	57,535	2,235	8,691	7,581	13,566
	July	178,321	91,733	4,012	56,581	3,316	27,824	55,888	2,222	8,469	7,233	12,776
	August	173,149	91,680	4,064	56,819	3,487	27,309	50,675	2,338	8,744	7,231	12,483
	September	172,200	92,606	4,187	56,681	3,315	28,423	49,152	2,073	8,235	7,546	12,588
	October	177,164	95,866	4,404	59,226	3,434	28,801	51,328	1,926	8,586	6,772	12,686
	November	182,169	95,443	4,556	58,337	3,576	28,973	53,900	2,512	9,218	7,381	13,715
	December	185,409	96,669	4,804	58,051	3,971	29,843	54,966	2,399	8,881	7,636	14,857
2002:	January	192,959	99,431	4,494	60,992	4,396	29,549	61,436	3,026	9,536	7,270	12,260
	February	197,152	102,866	4,520	63,836	4,054	30,457	61,414	3,053	9,884	7,197	12,738
	March	183,124	98,830	4,313	60,848	4,357	29,311	52,115	3,060	9,334	6,935	12,850
	April ^f	183,624	99,969	4,562	62,733	4,240	28,434	51,163	2,995	9,192	7,091	13,214
	May ^f	187,926	102,634	4,730	65,778	3,970	28,157	51,591	2,649	9,773	7,572	13,706
	June ^f	182,563	99,359	5,158	61,096	3,951	29,153	51,116	2,328	9,376	7,570	12,815
	July ^f	184,872	100,517	5,759	62,682	4,037	28,040	52,492	2,479	9,303	6,872	13,209
	August ^p	186,548	102,318	6,091	63,082	4,232	28,913	51,007	2,435	9,793	7,457	13,539
		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
2000:	August	14,807	5,619	381	1,331	28	761	3,118	(NA)	2,439	4,106	2,289
	September	14,055	5,024	303	1,116	43	739	2,824	(NA)	2,590	4,486	1,604
	October	15,022	5,653	412	1,007	3	598	3,634	(NA)	2,148	4,692	2,187
	November	14,314	4,916	424	1,130	62	724	2,574	(NA)	3,261	3,559	2,241
	December	14,085	4,866	533	1,158	50	556	2,569	(NA)	2,450	4,079	2,373
2001:	January	15,229	5,276	475	1,610	27	550	2,613	(NA)	2,839	4,491	2,309
	February	14,980	4,870	435	1,362	31	496	2,546	(NA)	2,684	4,726	2,369
	March	14,534	5,118	363	1,380	60	622	2,694	(NA)	2,493	4,519	2,096
	April	14,889	4,905	320	1,636	43	530	2,377	(NA)	3,262	4,054	2,369
	May	15,020	4,973	499	1,365	30	749	2,329	(NA)	2,754	4,712	2,400
	June	14,961	5,321	427	1,454	22	986	2,432	(NA)	2,965	4,351	2,030
	July	14,266	5,086	406	1,469	33	772	2,406	(NA)	2,802	4,210	1,876
	August	14,913	5,204	398	1,509	36	711	2,550	(NA)	3,110	4,667	1,641
	September	15,217	5,201	286	1,896	47	868	2,104	(NA)	2,900	5,491	1,344
	October	15,976	5,112	595	1,048	37	591	2,841	(NA)	2,894	5,312	2,374
	November	14,700	4,852	452	1,417	10	569	2,404	(NA)	2,838	4,603	2,124
	December	15,605	5,402	463	2,308	37	414	2,180	(NA)	2,559	5,063	2,298
2002:	January	15,743	5,216	449	1,470	60	979	2,259	(NA)	2,481	5,132	2,623
	February	17,785	5,992	653	2,321	25	1,014	1,979	(NA)	2,533	5,608	3,340
	March	16,759	5,110	492	1,876	27	660	2,055	(NA)	2,609	5,633	3,103
	April ^f	16,608	5,499	534	2,097	56	605	2,207	(NA)	2,720	4,890	3,205
	May ^f	17,007	5,772	407	2,056	78	790	2,442	(NA)	3,094	4,729	3,121
	June ^f	16,574	5,169	513	1,896	60	705	1,995	(NA)	2,962	5,015	3,142
	July ^f	16,154	5,330	418	1,819	43	872	2,178	(NA)	3,289	4,535	2,708
	August ^p	16,117	5,576	539	2,227	35	882	1,894	(NA)	2,821	5,159	2,273

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 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					
2000:	August	140,246	70,308	3,641	41,618	2,935	22,114	43,077	1,389	7,770	5,453	12,249
	September	145,752	71,710	3,545	42,598	3,039	22,527	44,994	1,680	7,583	5,423	14,363
	October	141,794	72,329	3,640	42,479	2,839	23,372	39,324	1,879	7,656	5,354	15,252
	November	140,633	71,422	3,675	42,377	2,972	22,399	39,733	1,918	7,672	5,343	14,544
	December	142,614	73,751	3,456	45,023	2,555	22,716	41,263	2,168	7,534	5,367	12,531
2001:	January	146,136	73,520	3,725	44,042	2,770	22,983	42,834	2,631	7,953	5,508	13,690
	February	145,987	72,948	3,613	43,618	2,795	22,922	44,015	2,575	7,982	5,750	12,718
	March	148,912	73,764	3,512	44,728	2,530	22,994	46,496	2,660	7,788	6,125	12,080
	April	152,043	76,474	3,636	45,742	2,749	24,347	47,133	2,252	8,128	6,358	11,699
	May	154,353	76,616	3,637	46,101	2,718	24,159	48,777	2,400	8,043	6,010	12,507
	June	150,049	74,113	3,615	43,517	2,748	24,233	48,106	1,983	7,712	6,452	11,685
	July	149,903	76,015	3,338	46,877	2,747	23,052	47,123	1,980	7,548	6,166	11,071
	August	145,481	75,771	3,362	46,958	2,882	22,569	42,836	2,085	7,800	6,154	10,836
	September	144,512	76,344	3,452	46,728	2,733	23,432	41,619	1,849	7,346	6,417	10,937
	October	147,830	78,696	3,604	48,625	2,820	23,646	43,024	1,718	7,660	5,768	10,965
	November	152,096	78,272	3,713	47,857	2,934	23,768	45,105	2,253	8,267	6,325	11,875
	December	153,748	79,153	3,915	47,544	3,252	24,441	45,389	2,128	7,881	6,488	12,709
2002:	January	160,219	81,483	3,666	49,993	3,603	24,220	50,858	2,692	8,484	6,187	10,515
	February	163,196	84,172	3,692	52,239	3,318	24,924	50,588	2,704	8,755	6,099	10,878
	March	152,029	80,988	3,515	49,875	3,571	24,026	43,106	2,723	8,304	5,897	11,011
	April ^f	152,002	81,926	3,724	51,420	3,475	23,306	42,075	2,646	8,121	5,979	11,255
	May ^f	155,114	83,963	3,846	53,828	3,249	23,041	42,253	2,330	8,596	6,347	11,625
	June ^f	149,559	80,956	4,184	49,793	3,220	23,760	41,423	2,022	8,146	6,261	10,751
	July ^f	152,402	81,965	4,674	51,127	3,293	22,871	43,097	2,182	8,190	5,746	11,222
	August ^p	153,144	83,512	4,960	51,495	3,455	23,602	41,435	2,121	8,530	6,168	11,377
		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
2000:	August	12,914	4,787	329	1,133	24	647	2,654	(NA)	2,092	3,709	2,020
	September	12,244	4,272	261	948	36	628	2,399	(NA)	2,216	4,042	1,413
	October	13,057	4,795	353	853	2	507	3,079	(NA)	1,831	4,219	1,918
	November	12,380	4,157	363	955	53	612	2,174	(NA)	2,770	3,200	1,964
	December	12,208	4,101	453	975	42	468	2,163	(NA)	2,080	3,675	2,082
2001:	January	13,146	4,425	401	1,350	23	461	2,190	(NA)	2,391	4,046	2,017
	February	12,905	4,071	366	1,138	26	415	2,127	(NA)	2,248	4,250	2,058
	March	12,480	4,267	305	1,150	50	518	2,245	(NA)	2,081	4,060	1,815
	April	12,796	4,092	267	1,364	36	442	1,982	(NA)	2,737	3,652	2,063
	May	12,923	4,138	415	1,136	25	623	1,938	(NA)	2,309	4,234	2,091
	June	12,725	4,403	355	1,203	18	815	2,012	(NA)	2,467	3,861	1,749
	July	12,180	4,215	338	1,217	27	639	1,993	(NA)	2,340	3,752	1,626
	August	12,735	4,301	330	1,247	30	588	2,107	(NA)	2,600	4,163	1,425
	September	13,014	4,288	236	1,563	39	716	1,735	(NA)	2,423	4,898	1,168
	October	13,626	4,195	487	861	30	485	2,332	(NA)	2,401	4,739	2,052
	November	12,533	3,978	368	1,163	8	467	1,972	(NA)	2,352	4,128	1,839
	December	13,219	4,422	377	1,890	31	339	1,785	(NA)	2,105	4,492	1,966
2002:	January	13,373	4,274	366	1,205	49	802	1,851	(NA)	2,043	4,566	2,250
	February	15,059	4,903	533	1,899	21	830	1,619	(NA)	2,080	4,967	2,852
	March	14,255	4,186	401	1,538	22	541	1,684	(NA)	2,147	5,012	2,659
	April ^f	14,030	4,506	436	1,719	46	496	1,809	(NA)	2,233	4,320	2,730
	May ^f	14,300	4,722	331	1,682	64	646	1,999	(NA)	2,534	4,159	2,647
	June ^f	13,841	4,211	416	1,545	49	575	1,626	(NA)	2,406	4,357	2,636
	July ^f	13,570	4,346	339	1,484	35	711	1,777	(NA)	2,691	3,992	2,301
	August ^p	13,486	4,551	439	1,818	28	720	1,546	(NA)	2,297	4,494	1,910

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					
2000:	August	14,764	6,959	305	4,422	250	1,983	5,223	138	730	498	1,217
	September	14,438	6,638	317	4,068	269	1,984	5,017	165	715	498	1,406
	October	13,613	6,433	332	3,735	254	2,111	4,244	186	724	521	1,506
	November	11,822	5,865	314	3,362	252	1,938	3,407	164	670	472	1,243
	December	10,138	5,600	280	3,339	204	1,778	2,476	161	559	410	931
2001:	January	9,272	5,238	286	3,035	218	1,699	2,045	172	548	372	897
	February	9,038	5,115	267	2,937	211	1,700	1,992	168	535	399	829
	March	10,050	5,432	279	3,142	202	1,809	2,569	185	582	444	839
	April	11,600	6,031	304	3,484	223	2,021	3,307	176	651	519	915
	May	13,154	6,351	314	3,715	232	2,090	4,333	203	686	521	1,059
	June	14,122	6,708	313	4,065	240	2,090	4,923	178	702	563	1,048
	July	14,566	7,158	277	4,696	232	1,954	4,987	181	669	558	1,013
	August	15,278	7,528	282	4,993	245	2,007	5,172	207	733	563	1,075
	September	14,198	7,061	306	4,462	236	2,056	4,602	181	693	589	1,071
	October	14,210	6,983	327	4,271	257	2,128	4,697	169	723	560	1,078
	November	12,739	6,424	318	3,797	249	2,060	3,830	193	720	556	1,016
	December	10,920	6,014	317	3,522	260	1,915	2,720	159	584	495	948
2002:	January	10,146	5,838	278	3,462	283	1,815	2,454	174	584	418	678
	February	10,045	5,890	269	3,526	251	1,844	2,268	176	586	419	706
	March	10,169	5,910	274	3,512	277	1,846	2,270	188	615	428	759
	April ^f	11,570	6,474	304	3,938	286	1,946	2,872	209	646	483	887
	May ^f	13,185	6,921	324	4,356	275	1,966	3,789	199	734	549	993
	June ^f	13,945	7,310	359	4,627	272	2,051	4,211	179	741	549	954
	July ^f	14,898	7,715	389	5,117	280	1,929	4,719	199	723	520	1,021
	August ^p	15,900	8,307	426	5,476	288	2,116	4,882	210	806	567	1,127
		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
2000:	August	1,130	393	27	93	2	53	218	(NA)	181	336	183
	September	1,480	478	29	106	4	70	268	(NA)	232	546	191
	October	869	355	26	63	-	38	228	(NA)	125	245	112
	November	1,041	341	30	78	4	50	178	(NA)	238	271	167
	December	1,000	352	39	84	4	40	185	(NA)	178	289	164
2001:	January	989	339	31	103	2	35	168	(NA)	182	304	151
	February	948	304	27	85	2	31	159	(NA)	163	315	153
	March	1,028	351	25	95	4	43	185	(NA)	178	335	150
	April	1,001	331	22	111	3	36	161	(NA)	216	278	157
	May	1,047	328	33	90	2	49	153	(NA)	194	343	169
	June	1,091	380	31	104	2	70	174	(NA)	214	325	147
	July	1,013	357	29	103	2	54	169	(NA)	199	300	130
	August	1,129	356	27	103	2	49	175	(NA)	225	386	132
	September	1,527	477	26	174	4	80	193	(NA)	253	622	148
	October	917	309	36	63	2	36	172	(NA)	162	292	127
	November	1,055	324	30	95	1	38	161	(NA)	203	352	157
	December	1,073	379	32	162	3	29	153	(NA)	181	347	152
2002:	January	999	327	28	92	4	61	141	(NA)	154	339	167
	February	1,106	366	40	142	2	62	121	(NA)	150	367	211
	March	1,159	344	33	126	2	45	139	(NA)	183	404	214
	April ^f	1,124	367	36	140	4	40	147	(NA)	176	346	219
	May ^f	1,183	380	27	135	5	52	161	(NA)	216	346	220
	June ^f	1,162	364	36	133	4	50	140	(NA)	211	351	212
	July ^f	1,155	370	29	127	3	61	151	(NA)	232	334	193
	August ^p	1,182	381	37	152	2	60	129	(NA)	199	403	171

- 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 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													
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	111.9	107	113	107	105	107	107	101
2000.....	115.3	115.4	110.5	110.7	115.4	115.5	119.3	111	118	110	109	111	112	103
2001.....	119.6	119.6	111.6	112.8	120.6	120.5	118.7	112	121	113	113	114	116	106
	Monthly indexes						Quarterly indexes			Semiannual indexes				
2001: January	117.8	117.9	110.7	111.7	118.2	118.4								
February	118.3	118.3	110.4	111.6	118.7	118.8	123.9	112	121					
March.....	118.7	118.6	110.5	111.7	119.2	119.2				112	111	113	115	105
April.....	118.8	118.7	110.5	111.8	119.7	119.6								
May.....	119.2	119.0	110.7	111.8	120.3	120.1	111.9	112	121					
June.....	119.7	119.5	111.5	112.4	120.3	120.1								
July.....	119.6	119.4	113.2	113.9	120.5	120.2								
August.....	119.9	119.7	112.6	113.6	121.1	120.9	115.2	112	122					
September	120.2	120.0	112.3	113.7	121.4	121.3				114	112	114	117	106
October.....	120.9	120.8	112.4	113.8	122.3	122.2								
November.....	121.1	121.0	112.3	114.0	122.8	122.7	127.1	113	122					
December.....	121.5	121.2	111.7	113.7	122.9	122.7								
2002: January	121.5	121.2	111.8	114.9	123.0	122.6								
February.....	121.5	121.2	111.8	114.9	122.7	122.4	121.6	113	122					
March.....	121.3	121.3	112.3	115.6	122.6	122.7				114	114	115	117	107
April.....	^r 121.2	^r 121.3	111.8	115.3	^r 122.2	^r 122.5								
May.....	^r 121.6	^r 121.7	112.8	115.8	^r 122.7	^r 123.0	129.1	113	122					
June.....	^r 122.2	^r 122.3	113.1	116.2	^r 123.2	^r 123.3								
July.....	^r 121.9	^r 121.9	114.0	117.5	^r 123.2	^r 123.2								
August.....	^P 122.1	^P 121.9	113.9	116.0	^P 123.0	^P 122.8	(NA)	115	123					
September.....			114.1	117.2						117	117	117	120	107

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	Aug. 2002 ^P	July 2002 ^f	June 2002 ^f	May 2002 ^f	Apr. 2002 ^f	Mar. 2002	Feb. 2002	Jan. 2002	Dec. 2001	Nov. 2001	Oct. 2001	Aug. 2001
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	113.6	113.1	109.1	103.5	97.1	92.1	77.4	81.8	88.0	104.4	109.0	113.5
2 units or more.....	105.4	104.1	105.4	104.9	99.0	95.6	89.0	90.7	94.7	100.7	105.1	106.8
Nonresidential buildings:												
Industrial	103.3	103.6	102.9	99.6	97.5	94.5	88.3	90.1	101.4	102.8	108.0	104.6
Office	102.5	101.8	100.7	104.1	100.9	97.2	92.6	93.4	95.6	102.3	104.9	104.1
Hotels, motels	102.5	102.1	101.7	101.7	103.5	96.4	94.0	94.8	98.6	100.9	102.4	102.7
Other commercial	110.3	106.4	105.0	101.1	96.3	91.6	85.8	84.4	93.6	103.7	109.9	110.9
Religious	108.4	100.6	98.5	95.5	96.8	90.2	88.9	93.6	98.2	107.9	112.7	107.8
Educational.....	118.6	116.2	114.0	103.9	95.2	90.4	85.0	84.6	88.9	96.2	100.4	119.0
Hospital and institutional	101.8	98.4	101.2	101.4	101.2	99.2	94.5	93.3	98.8	103.4	104.0	102.0
Miscellaneous nonresidential	103.1	101.0	102.7	102.2	102.6	99.0	91.9	89.4	97.1	102.1	105.1	103.2
Telecommunications	108.2	104.5	98.5	102.3	97.8	92.7	84.2	84.0	102.1	110.9	113.8	112.5
All other private	117.1	106.9	100.5	94.6	90.1	88.6	81.2	84.1	103.2	105.4	114.5	117.4
PUBLIC CONSTRUCTION												
State and Local												
Buildings:												
Housing and redevelopment	103.1	99.9	103.1	101.1	97.8	93.7	87.3	91.0	97.3	102.8	108.9	100.8
Educational.....	127.6	120.1	111.5	97.1	91.9	84.5	81.0	83.1	88.9	95.2	105.4	127.6
Hospital	100.2	102.2	101.5	101.6	98.8	93.2	90.9	94.4	96.0	101.8	109.3	102.2
Other buildings.....	107.6	101.2	103.6	102.4	100.2	92.2	88.8	89.9	94.0	104.0	108.0	106.7
Highways and streets.....	141.4	131.4	122.0	107.6	81.9	63.2	53.8	57.9	71.9	101.9	131.0	144.9
Conservation and development	118.9	109.2	106.5	102.5	94.6	82.7	77.9	77.4	89.5	102.7	118.0	119.1
Sewer systems.....	113.4	106.0	109.2	102.5	95.4	88.8	80.3	82.6	89.0	104.5	113.3	112.8
Water supply facilities.....	110.4	108.6	105.2	103.8	96.9	87.0	82.4	81.1	91.6	105.5	116.5	109.7
Miscellaneous construction	118.9	109.2	106.5	102.5	94.6	82.7	77.9	77.4	89.5	102.7	118.0	119.1
Federal												
Buildings:												
Housing and redevelopment	100.5	102.3	103.6	96.5	97.8	98.7	89.7	91.7	102.9	97.7	88.5	99.4
Industrial	100.5	102.3	103.6	96.5	97.8	98.7	89.7	91.7	102.9	97.7	88.5	99.4
Educational.....	100.5	102.3	103.6	96.5	97.8	98.7	89.7	91.7	102.9	97.7	88.5	99.4
Hospital	100.5	102.3	103.6	96.5	97.8	98.7	89.7	91.7	102.9	97.7	88.5	99.4
Other buildings.....	100.5	102.3	103.6	96.5	97.8	98.7	89.7	91.7	102.9	97.7	88.5	99.4
Military	104.1	103.3	105.2	102.3	94.5	102.3	86.5	90.7	103.2	103.5	81.2	103.8
Conservation and development	107.6	100.4	96.7	99.7	96.1	96.8	88.7	89.2	92.7	102.3	74.0	111.2
Miscellaneous construction	107.6	100.4	96.7	99.7	96.1	96.8	88.7	89.2	92.7	102.3	74.0	111.2

^PPreliminary. ^fRevised.

Appendix A.

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 70 percent of total construction in 2001 (private multi-family 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 51 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 (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, 49 percent; state and locally owned public construction, 33 percent; private residential construction of 2 units or more, 42 percent; and private residential improvements, 15 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 25 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 1999. (Outlays are

included if a government agency's fiscal year ending date falls within July 1998 to June 1999 inclusive, and for three state agencies with fiscal years ending in August or September 1999.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1999 through April 2003. 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 effects 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 -1.5 percent to 1.0 percent with a median of -0.1 percent. The range of the difference between first revision and second revision was from -1.2 to 0.8 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	2	1	.04	.02
Residential buildings	5	3	2	.06	.03
New housing units	2	2	1	.01	.02
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	6	5	.09	.08
Other commercial	5	3	2	.06	.04
Religious	9	7	5	.12	.10
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 2001 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.