

Value of Construction Put in Place

September
2001

Issued November 2001

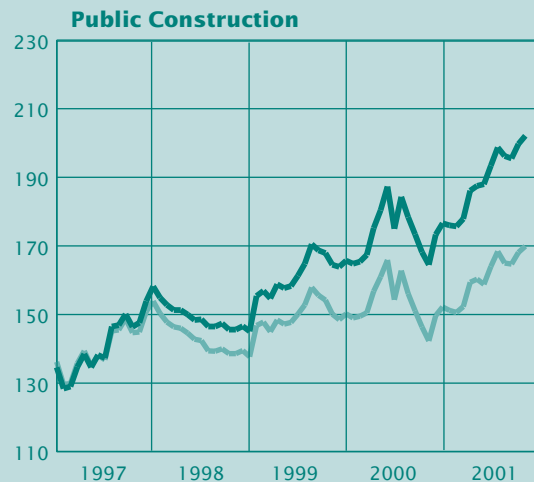
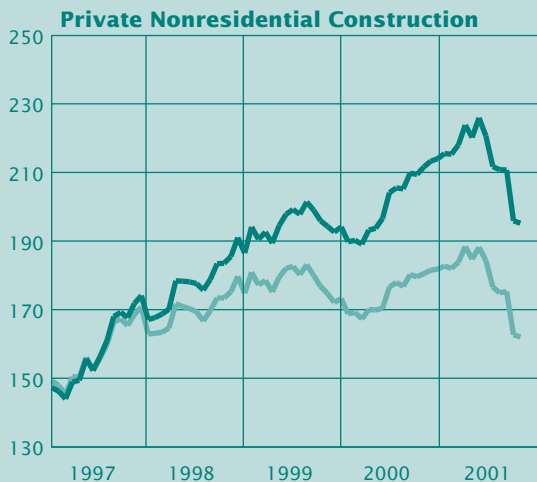
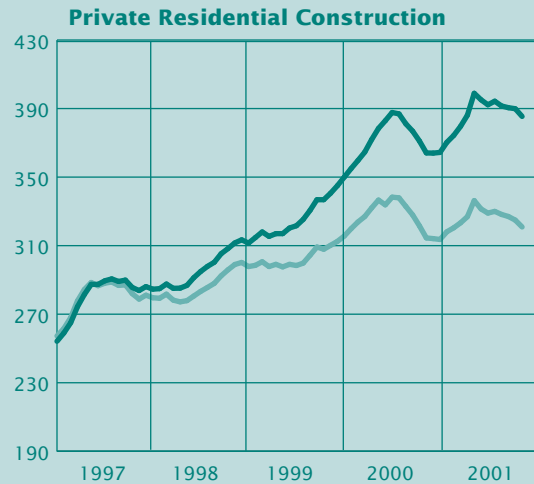
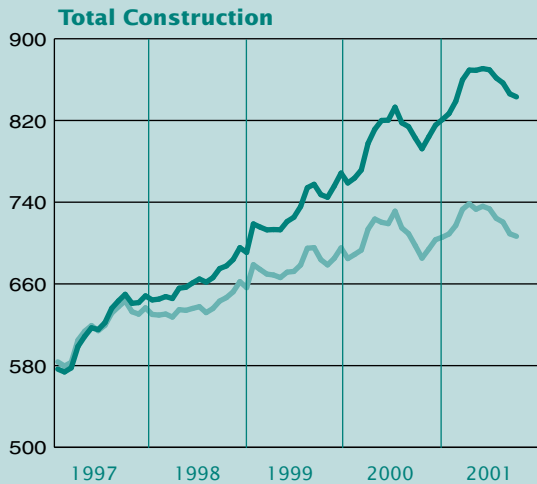
C30/01-9

**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: 301-457-1605.

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VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during September 2001 was estimated at a seasonally adjusted annual rate of \$843.1 billion, nearly the same (± 5 percent) as the revised August estimate of \$846.1 billion. The September figure represents a 3 (± 5) percent increase over September 2000.

During the first 9 months of this year \$642.6 billion of construction was put in place, 6 percent above the \$606.5 billion for the same period in 2000.

In constant (1996) dollars, the September annual rate was \$706.6 billion, nearly the same (± 5 percent) as the revised estimate of \$709.7 billion for August.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$278.3 billion in September, 1 (± 2) percent below the revised August estimate of \$280.0 billion. Nonresidential building construction was at a rate of \$195.2 billion, nearly the same (± 3 percent) as the revised August estimate of \$195.9 billion.

In September, the estimated seasonally adjusted annual rate of public construction put in place was \$202.1 billion, 1 (± 5) percent above the revised August estimate of \$199.7 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 2001*, C30/01-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2001; contains annual data for 1991 to 2000 and monthly data for 1998 to 2000.
- Current Construction Reports, *Value of Construction Put in Place: June 2001*, C30/01-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2001; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1993 to 2000.
- 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: 1996-2000

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Total construction	615,900	653,429	704,724	763,786	815,414	615,797	632,680	664,244	692,281	706,899
Private construction	476,638	502,734	551,383	596,280	640,554	476,650	487,197	519,859	540,159	555,089
Residential buildings	281,115	289,014	314,607	350,562	374,274	281,207	280,720	297,960	317,232	323,708
New housing units	191,113	198,063	223,983	251,272	264,864	191,212	192,386	212,068	227,461	229,103
1 unit	170,790	175,179	199,409	223,837	236,788	170,865	170,154	188,785	202,615	204,812
2 units or more	20,324	22,883	24,574	27,434	28,076	20,347	22,232	23,283	24,847	24,292
Improvements	90,002	90,951	90,624	99,290	109,410	89,996	88,334	85,892	89,771	94,605
Nonresidential buildings	155,858	173,875	190,710	193,935	210,140	155,813	167,610	177,644	173,418	179,654
Industrial	38,166	37,624	40,484	32,639	32,073	38,161	36,267	37,720	29,204	27,419
Office	27,886	34,305	42,226	47,582	55,686	27,875	33,058	39,333	42,549	47,594
Hotels, motels	10,912	12,898	14,816	15,951	16,396	10,909	12,438	13,794	14,273	14,027
Other commercial	48,188	51,809	53,598	56,915	61,453	48,170	49,948	49,915	50,867	52,539
Religious	4,534	5,777	6,594	7,371	8,068	4,531	5,565	6,139	6,590	6,898
Educational	6,742	8,693	9,698	9,645	11,356	6,737	8,375	9,039	8,621	9,707
Hospital and institutional	11,780	13,546	13,793	13,530	14,575	11,778	13,066	12,853	12,101	12,459
Miscellaneous ¹	7,650	9,223	9,501	10,301	10,533	7,650	8,892	8,850	9,214	9,010
Farm nonresidential	3,658	3,815	4,284	5,008	5,158	3,657	3,675	3,989	4,474	4,407
Public utilities	33,202	33,638	39,212	44,066	48,084	33,167	32,883	37,818	42,534	44,749
Telecommunications	11,810	12,416	12,458	18,404	17,994	11,791	12,159	12,188	18,305	17,497
Other public utilities	21,391	21,222	26,754	25,662	30,089	21,376	20,725	25,631	24,229	27,253
Railroads	4,398	4,922	5,736	4,670	4,226	4,391	4,745	5,463	4,311	3,750
Electric light and power	11,256	11,325	12,381	14,585	21,111	11,253	11,122	11,883	13,892	19,251
Gas	4,722	4,006	7,372	4,918	3,750	4,720	3,911	7,072	4,625	3,354
Petroleum pipelines	1,015	969	1,265	1,489	1,003	1,013	947	1,213	1,401	897
All other private ²	2,805	2,392	2,570	2,709	2,899	2,806	2,309	2,447	2,501	2,570
Public construction	139,263	150,695	153,341	167,507	174,860	139,147	145,483	144,385	152,121	151,810
Buildings	63,471	69,860	71,776	76,542	82,275	63,446	67,400	66,920	68,474	70,390
Housing and redevelopment ..	5,048	5,299	4,922	5,138	5,228	5,046	5,150	4,663	4,653	4,521
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	827	991
Educational	28,590	33,552	34,828	38,966	43,560	28,577	32,340	32,431	34,821	37,237
Hospital	4,617	4,977	3,906	3,932	4,007	4,617	4,802	3,641	3,516	3,427
Other ³	23,826	25,033	27,110	27,582	28,321	23,815	24,144	25,245	24,657	24,214
Highways and streets	39,464	42,602	45,565	51,374	52,088	39,412	41,093	43,085	46,858	45,230
Military facilities	2,591	2,556	2,530	2,130	2,337	2,593	2,466	2,377	1,926	2,016
Conservation and development ..	6,008	5,625	5,452	5,993	6,014	6,000	5,431	5,223	5,594	5,449
Sewer systems	9,798	10,515	9,367	10,343	10,287	9,778	10,152	8,976	9,653	9,324
Water supply facilities	5,618	6,493	6,290	6,844	6,928	5,609	6,347	6,035	6,431	6,160
Miscellaneous public ⁴	12,313	13,045	12,361	14,280	14,930	12,310	12,594	11,767	13,185	13,241

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: 1996-2000

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Total public construction	139,263	150,695	153,341	167,507	174,860	139,147	145,483	144,385	152,121	151,810
State and local construction	123,938	136,608	139,023	153,505	161,053	123,819	131,891	130,880	139,348	139,704
Total buildings	57,240	63,752	65,750	71,073	77,203	57,212	61,508	61,297	63,578	66,049
Housing and redevelopment	4,367	4,622	4,384	4,714	4,846	4,365	4,492	4,153	4,269	4,190
Educational	28,578	33,533	34,813	38,950	43,531	28,565	32,322	32,417	34,807	37,212
Hospital	3,457	3,725	2,897	3,081	3,372	3,457	3,596	2,700	2,754	2,884
Other ¹	20,838	21,872	23,656	24,327	25,454	20,826	21,099	22,027	21,749	21,763
Highways and streets	39,096	42,347	45,308	51,123	51,790	39,045	40,847	42,842	46,629	44,971
Conservation and development ..	2,163	2,256	1,915	1,988	1,985	2,159	2,178	1,836	1,855	1,798
Sewer systems	9,798	10,515	9,367	10,343	10,287	9,778	10,152	8,976	9,653	9,324
Water supply facilities	5,618	6,493	6,290	6,844	6,928	5,609	6,347	6,035	6,431	6,160
Miscellaneous nonbuilding ²	10,022	11,245	10,393	12,135	12,859	10,017	10,859	9,894	11,202	11,402
Federal construction	15,325	14,087	14,318	14,002	13,807	15,328	13,592	13,505	12,774	12,106
Total buildings	6,230	6,107	6,026	5,470	5,072	6,234	5,892	5,624	4,896	4,341
Housing	681	677	538	424	382	682	658	510	384	331
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	827	991
Educational	12	19	15	15	29	12	19	14	14	25
Hospital	1,159	1,251	1,009	850	634	1,161	1,206	941	762	543
Other ³	2,989	3,161	3,454	3,255	2,867	2,989	3,045	3,217	2,909	2,452
Highways and streets	368	255	257	251	298	368	246	243	229	258
Military facilities	2,591	2,556	2,530	2,130	2,337	2,593	2,466	2,377	1,926	2,016
Conservation and development ..	3,845	3,368	3,536	4,005	4,029	3,841	3,252	3,387	3,739	3,651
Miscellaneous public ⁴	2,291	1,800	1,969	2,145	2,071	2,293	1,735	1,873	1,983	1,839

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		
		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												
YEAR TO DATE																		
September 2000	606,489	280,266	199,278	178,155	21,123	23,600	40,362	12,449	45,610	5,960	8,509	10,589	7,961	(NA)	12,611	2,084		
September 2001	642,616	292,809	207,122	184,100	23,021	24,591	41,701	11,151	46,287	6,162	9,318	11,454	7,313	(NA)	(NA)	1,934		
Percent change	6	4	4	3	9	4	3	-10	1	3	10	8	-8	(NA)	(NA)	-7		
MONTHLY DATA																		
1999:																		
September	72,504	33,907	23,362	20,938	2,424	2,739	4,325	1,266	5,199	638	828	1,164	867	(NA)	1,694	232		
October	70,676	33,756	22,959	20,582	2,376	2,597	4,184	1,251	5,143	680	800	1,180	856	(NA)	1,818	226		
November	68,448	32,343	22,476	20,186	2,290	2,547	4,015	1,326	5,225	641	803	1,163	869	(NA)	1,934	237		
December	60,716	27,107	19,804	17,553	2,251	2,594	3,792	1,308	4,624	587	776	1,100	871	(NA)	1,994	254		
2000:																		
January	55,427	26,065	18,625	16,492	2,133	2,141	3,614	1,323	4,223	577	736	1,034	796	(NA)	1,166	173		
February	54,410	24,013	17,865	15,758	2,107	2,316	3,909	1,314	4,647	620	783	1,061	851	(NA)	1,112	197		
March	62,364	28,947	21,164	18,750	2,415	2,460	4,220	1,426	4,641	628	843	1,173	916	(NA)	1,484	216		
April	64,670	30,172	22,036	19,585	2,451	2,530	4,366	1,404	4,784	626	851	1,173	877	(NA)	1,213	204		
May	70,259	33,292	23,247	20,743	2,504	2,807	4,784	1,407	5,066	637	1,007	1,193	914	(NA)	1,443	215		
June	72,991	34,596	24,097	21,552	2,545	2,902	4,653	1,426	5,345	691	1,016	1,200	899	(NA)	1,597	233		
July	72,995	34,229	24,187	21,882	2,305	2,793	4,650	1,394	5,370	719	1,070	1,223	877	(NA)	1,332	241		
August	76,948	34,650	24,270	21,903	2,367	2,857	5,009	1,394	5,796	741	1,182	1,276	929	(NA)	1,447	304		
September	77,025	34,302	23,788	21,491	2,297	2,796	5,156	1,362	5,799	722	1,022	1,295	903	(NA)	1,818	302		
October	75,332	34,271	23,320	20,961	2,359	2,910	5,103	1,364	5,780	778	1,006	1,323	894	(NA)	1,631	300		
November	70,999	32,628	22,632	20,286	2,346	2,850	5,177	1,327	5,208	705	961	1,342	882	(NA)	1,753	277		
December	62,594	27,109	19,634	17,385	2,249	2,713	5,044	1,255	4,856	625	880	1,322	796	(NA)	1,999	238		
2001:																		
January	59,043	26,285	18,600	16,417	2,183	2,715	4,721	1,237	4,540	618	864	1,255	746	(NA)	1,675	193		
February	57,121	24,588	18,015	15,800	2,215	2,476	4,571	1,241	4,661	602	848	1,231	789	(NA)	1,604	196		
March	64,851	29,450	21,047	18,676	2,371	2,739	5,004	1,273	5,072	624	934	1,313	884	(NA)	1,780	191		
April	69,305	31,125	22,199	19,729	2,470	2,761	4,894	1,249	5,276	657	987	1,288	856	(NA)	1,773	208		
May	75,287	34,993	24,046	21,227	2,819	2,697	4,786	1,237	5,358	690	1,057	1,346	851	(NA)	2,097	210		
June	78,219	36,579	25,226	22,460	2,766	2,821	4,674	1,288	5,423	700	1,102	1,312	858	(NA)	1,934	213		
July ⁶	78,566	36,587	26,021	23,267	2,754	2,930	4,481	1,278	5,537	746	1,127	1,263	815	(NA)	1,841	227		
August	80,982	37,043	26,286	23,507	2,779	2,730	4,248	1,194	5,262	774	1,216	1,237	768	(NA)	2,114	253		
September ⁶	79,242	36,160	25,684	23,019	2,665	2,721	4,323	1,155	5,158	751	1,182	1,209	747	(NA)	(NA)	244		
PERCENT CHANGE																		
August 2001 - September 2001	-2	-2	-2	-2	-4	(Z)	2	-3	-2	-3	-3	-2	-3	(NA)	(NA)	-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						
YEAR TO DATE												
September 2000	130,851	3,793	890	32,797	3,035	20,827	39,612	1,800	4,546	7,757	5,095	10,700
September 2001	146,031	4,569	1,101	37,552	2,979	23,859	43,438	1,798	5,394	7,648	5,995	11,698
Percent change	12	20	24	14	-2	15	10	(Z)	19	-1	18	9
MONTHLY DATA												
1999:												
September	17,078	492	112	3,783	367	2,501	5,917	207	769	960	632	1,338
October	15,674	460	45	3,464	335	2,473	5,359	151	411	971	627	1,378
November	14,662	420	72	3,206	331	2,435	4,651	172	554	913	584	1,324
December	13,035	424	88	2,938	325	2,317	3,708	210	548	850	499	1,130
2000:												
January	11,441	361	93	2,992	306	2,071	2,924	139	425	720	500	911
February	11,095	342	96	3,016	300	2,127	2,349	212	478	713	512	950
March	12,667	409	92	3,151	308	2,185	3,318	212	499	794	498	1,200
April	13,582	431	91	3,237	344	2,323	3,928	180	462	930	564	1,092
May	14,633	436	89	3,509	367	2,348	4,490	198	440	903	607	1,247
June	15,651	450	98	4,008	360	2,403	4,855	196	501	981	565	1,235
July	15,655	427	98	4,180	334	2,295	5,095	188	427	873	542	1,197
August	18,097	457	109	4,547	342	2,502	6,474	206	518	927	652	1,363
September	18,031	480	125	4,157	374	2,573	6,179	269	797	918	654	1,506
October	16,485	497	76	3,797	336	2,693	5,271	129	502	679	619	1,446
November	14,748	488	93	3,522	341	2,486	4,181	225	479	867	619	1,446
December	12,775	451	99	3,444	295	2,315	3,024	183	488	737	535	1,203
2001:												
January	11,726	447	124	3,163	309	2,199	2,570	171	509	697	484	1,053
February	11,573	401	103	3,049	296	2,222	2,553	161	536	670	513	1,069
March	12,785	422	114	3,236	308	2,397	3,188	184	569	735	570	1,063
April	14,851	509	130	3,623	307	2,654	4,156	200	500	860	696	1,218
May	16,868	555	108	4,017	319	2,782	5,374	192	601	877	667	1,376
June	18,309	554	127	4,348	345	2,839	6,246	216	571	933	734	1,399
July ¹	18,802	511	124	4,973	331	2,718	6,395	203	535	881	725	1,407
August ²	20,829	590	125	5,712	359	2,988	6,839	220	662	985	795	1,556
September ³	20,287	581	147	5,430	405	3,061	6,119	253	912	1,012	811	1,557
PERCENT CHANGE												
August 2001 -	-3	-2	18	-5	13	2	-11	15	38	3	2	(Z)
September 2001												

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 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1996 Dollars

[Millions of dollars]

Period	Total construction	Private construction															
		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											
YEAR TO DATE																	
September 2000	527,702	243,239	172,968	154,627	18,341	20,257	34,642	10,692	39,143	5,115	7,301	9,090	6,836	(NA)	12,334	1,856	
September 2001	541,754	245,368	173,569	154,271	19,295	20,505	34,780	9,301	38,592	5,137	7,768	9,551	6,099	(NA)	(NA)	1,680	
Percent change	3	1	(Z)	(Z)	5	1	(Z)	-13	-1	(Z)	6	5	-11	(NA)	(NA)	-9	
MONTHLY DATA																	
1999:																	
September	65,420	30,520	21,028	18,846	2,182	2,437	3,848	1,127	4,625	568	737	1,035	772	(NA)	1,692	213	
October	63,501	30,274	20,591	18,460	2,131	2,298	3,702	1,107	4,551	602	708	1,044	757	(NA)	1,818	206	
November	61,241	28,877	20,068	18,023	2,045	2,242	3,535	1,167	4,600	564	707	1,023	765	(NA)	1,934	216	
December	54,164	24,117	17,619	15,616	2,003	2,275	3,326	1,147	4,056	514	680	965	764	(NA)	1,992	230	
2000:																	
January	48,634	22,724	16,238	14,378	1,859	1,855	3,132	1,146	3,659	500	638	896	690	(NA)	1,158	157	
February	47,684	20,954	15,589	13,751	1,838	2,003	3,382	1,137	4,019	536	677	918	736	(NA)	1,096	177	
March	54,746	25,281	18,484	16,375	2,109	2,130	3,654	1,235	4,018	544	730	982	793	(NA)	1,463	194	
April	56,530	26,351	19,245	17,105	2,141	14,307	3,761	1,210	4,120	539	733	1,010	756	(NA)	1,186	182	
May	61,208	28,975	20,232	18,053	2,179	2,412	4,110	1,209	4,353	547	865	1,025	785	(NA)	1,407	191	
June	63,419	29,979	20,881	18,676	2,205	2,488	3,991	1,223	4,584	592	871	1,029	771	(NA)	1,556	208	
July	62,592	29,558	20,887	18,896	1,991	2,383	3,968	1,189	4,581	613	913	1,044	748	(NA)	1,294	213	
August	66,447	29,897	20,940	18,898	2,042	2,432	4,263	1,186	4,882	630	1,006	1,086	790	(NA)	1,408	268	
September	66,442	29,520	20,472	18,495	1,977	2,375	4,381	1,157	4,927	614	868	1,100	767	(NA)	1,766	266	
October	64,772	29,442	20,035	18,008	2,027	2,466	4,324	1,156	4,898	659	852	1,121	758	(NA)	1,570	263	
November	60,882	27,935	19,377	17,368	2,009	2,409	4,376	1,122	4,402	596	813	1,134	745	(NA)	1,679	243	
December	53,543	23,091	16,724	14,808	1,915	2,288	4,253	1,058	4,094	527	742	1,114	671	(NA)	1,913	209	
2001:																	
January	50,313	22,256	15,749	13,901	1,848	2,285	3,974	1,041	3,822	520	727	1,056	628	(NA)	1,603	170	
February	48,527	20,732	15,190	13,322	1,867	2,077	3,835	1,041	3,910	505	712	1,033	662	(NA)	1,532	172	
March	54,718	24,706	17,657	15,667	1,989	2,283	4,170	1,061	4,226	520	778	1,094	736	(NA)	1,696	166	
April	58,579	26,112	18,623	16,551	2,072	2,307	4,088	1,044	4,408	549	825	1,076	715	(NA)	1,688	181	
May	63,499	29,282	20,122	17,763	2,359	2,249	3,991	1,032	4,468	575	882	1,123	710	(NA)	1,987	183	
June	65,725	30,661	21,145	18,826	2,318	2,341	3,879	1,068	4,500	581	915	1,089	712	(NA)	1,806	183	
July ⁶	66,054	30,642	21,793	19,486	2,307	2,438	3,728	1,063	4,606	621	938	1,050	678	(NA)	1,722	196	
August ⁶	67,927	30,869	21,905	19,589	2,316	2,267	3,528	992	4,371	643	1,010	1,027	638	(NA)	1,976	219	
September ⁶	66,412	30,108	21,385	19,166	2,219	2,258	3,587	959	4,281	623	981	1,003	620	(NA)	(NA)	210	
PERCENT CHANGE																	
August 2001 - September 2001	-2	-2	-2	-2	-4	-1	2	-3	-2	-3	-3	-2	-3	(NA)	(NA)	-4	

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											Miscellaneous public ⁷		
	Total	Buildings					Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities			
		Total	Housing and redevelopment	Industrial	Educational	Hospital							Other public buildings ⁶	
YEAR TO DATE														
September 2000	114,059	52,679	3,291	764	28,139	2,604	17,879	34,552	1,559	4,127	7,048	4,564	9,533	
September 2001	123,420	58,410	3,830	917	31,290	2,483	19,888	36,533	1,506	4,825	6,842	5,155	10,149	
Percent change	8	11	16	20	11	-5	11	6	-3	17	-3	13	6	
MONTHLY DATA														
1999:														
September	15,455	6,459	442	99	3,366	327	2,225	5,384	186	713	890	594	1,229	
October	14,101	6,002	413	40	3,065	296	2,188	4,837	135	380	899	588	1,260	
November	13,128	5,695	375	63	2,822	291	2,143	4,175	153	511	843	546	1,205	
December	11,628	5,348	377	77	2,577	285	2,033	3,316	186	505	784	465	1,025	
2000:														
January	10,117	5,047	314	80	2,593	265	1,795	2,613	123	389	659	463	824	
February	9,772	5,090	299	83	2,609	259	1,840	2,090	186	435	648	470	854	
March	11,180	5,324	357	80	2,728	267	1,892	2,957	186	453	722	457	1,080	
April	11,890	5,540	376	78	2,788	296	2,001	3,446	156	419	845	509	975	
May	12,754	5,803	380	77	3,014	315	2,017	3,907	171	400	822	541	1,109	
June	13,623	6,280	390	84	3,438	308	2,060	4,218	169	458	897	501	1,101	
July	13,541	6,262	368	83	3,567	285	1,958	4,404	161	387	791	477	1,060	
August	15,626	6,778	394	93	3,870	291	2,130	5,591	177	468	837	573	1,203	
September	15,556	6,555	413	106	3,532	318	2,186	5,326	230	718	827	573	1,327	
October	14,164	6,275	427	64	3,218	285	2,282	4,516	110	451	833	592	1,386	
November	12,645	5,863	417	79	2,978	288	2,102	3,574	192	431	779	539	1,268	
December	10,940	5,573	385	84	2,904	249	1,952	2,587	155	440	664	466	1,056	
2001:														
January	10,039	5,256	378	104	2,662	260	1,851	2,202	145	459	629	423	926	
February	9,887	5,095	338	86	2,558	248	1,864	2,184	136	483	604	447	939	
March	10,807	5,400	354	95	2,697	256	1,998	2,666	153	511	660	497	920	
April	12,598	6,035	427	108	3,027	256	2,217	3,504	168	450	774	605	1,061	
May	14,294	6,491	465	90	3,350	266	2,320	4,539	161	540	788	576	1,199	
June	15,385	6,820	464	105	3,608	287	2,356	5,222	180	506	828	624	1,205	
July ¹	15,827	7,205	428	103	4,137	276	2,261	5,360	169	476	784	618	1,215	
August ²	17,518	8,119	492	104	4,744	298	2,481	5,732	183	589	876	676	1,342	
September ³	17,065	7,989	484	122	4,507	336	2,540	5,124	211	811	899	689	1,342	
PERCENT CHANGE														
August 2001 -														
September 2001	-3	-2	-2	17	-5	13	2	-11	15	38	3	2	(Z)	

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					
1999:	September	15,497	6,663	446	3,782	294	2,140	5,888	189	960	632	1,165
	October	14,705	6,356	429	3,464	285	2,178	5,332	179	971	627	1,239
	November	13,428	6,011	382	3,206	288	2,134	4,629	216	913	584	1,076
	December	11,811	5,615	391	2,937	256	2,031	3,691	193	850	499	963
2000:	January	10,486	5,432	336	2,992	247	1,857	2,911	146	720	500	777
	February	10,035	5,490	315	3,015	245	1,915	2,336	172	713	512	813
	March	11,426	5,719	377	3,151	265	1,927	3,302	151	794	498	962
	April	12,516	6,011	402	3,230	275	2,104	3,908	148	930	564	955
	May	13,543	6,351	406	3,508	325	2,113	4,465	149	903	607	1,068
	June	14,430	6,875	418	4,006	298	2,154	4,825	146	981	565	1,038
	July	14,610	6,952	395	4,179	290	2,088	5,064	150	873	542	1,030
	August	16,832	7,504	426	4,545	288	2,246	6,436	150	927	652	1,163
	September	16,371	7,159	446	4,152	303	2,257	6,144	195	918	654	1,302
	October	15,518	6,982	466	3,797	296	2,424	5,238	232	927	679	1,460
	November	13,623	6,534	453	3,517	289	2,275	4,155	180	867	619	1,268
	December	11,663	6,193	406	3,440	253	2,095	3,006	167	737	535	1,025
2001:	January	10,631	5,837	410	3,161	268	1,999	2,555	173	697	484	884
	February	10,510	5,706	369	3,047	258	2,032	2,539	186	670	513	897
	March	11,621	6,051	386	3,231	258	2,175	3,171	198	735	570	895
	April	13,767	6,835	483	3,620	271	2,462	4,135	193	860	696	1,048
	May	15,723	7,400	516	4,015	272	2,598	5,348	225	877	667	1,206
	June	17,113	7,763	522	4,346	281	2,614	6,216	208	933	734	1,260
	July ^r	17,676	8,236	476	4,970	276	2,514	6,364	201	881	725	1,269
	August ^r	19,581	9,351	557	5,709	308	2,777	6,803	234	985	795	1,415
	September ^p	18,692	9,164	547	5,425	326	2,867	6,085	216	1,012	811	1,405
		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
1999:	September	1,581	592	46	112	1	73	360	(NA)	207	580	173
	October	969	421	32	45	-	49	295	(NA)	151	232	139
	November	1,234	453	38	72	-	43	301	(NA)	172	338	248
	December	1,224	476	33	88	1	68	287	(NA)	210	355	167
2000:	January	955	390	25	93	-	59	214	(NA)	139	279	134
	February	1,060	392	27	96	-	55	213	(NA)	212	307	137
	March	1,241	426	32	92	-	44	259	(NA)	212	348	238
	April	1,065	414	29	91	7	69	218	(NA)	180	314	137
	May	1,090	397	30	89	1	43	235	(NA)	198	291	179
	June	1,221	442	32	98	3	62	249	(NA)	196	355	197
	July	1,045	382	32	98	1	45	207	(NA)	188	277	167
	August	1,265	454	31	109	2	55	256	(NA)	206	368	200
	September	1,661	550	34	125	5	71	316	(NA)	269	602	205
	October	968	416	31	76	-	40	269	(NA)	129	270	120
	November	1,125	396	35	93	5	52	211	(NA)	225	299	179
	December	1,112	412	46	99	4	43	220	(NA)	183	321	178
2001:	January	1,095	403	36	124	2	42	200	(NA)	171	336	169
	February	1,063	365	33	103	2	37	190	(NA)	161	350	173
	March	1,165	426	36	114	5	49	222	(NA)	184	371	168
	April	1,084	387	26	130	4	36	193	(NA)	200	307	170
	May	1,145	381	40	108	2	47	184	(NA)	192	377	170
	June	1,197	449	32	127	2	65	225	(NA)	216	363	139
	July ^r	1,126	421	34	124	3	56	204	(NA)	203	334	138
	August ^r	1,248	423	33	125	3	51	211	(NA)	220	428	141
	September ^p	1,595	460	34	147	5	80	194	(NA)	253	696	152

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

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

Table 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					
1999:	September	152,260	71,959	4,879	39,780	3,296	24,004	49,754	1,908	9,952	6,910	11,777
	October	152,739	72,008	4,700	40,042	3,200	24,066	49,758	1,800	10,298	6,442	12,433
	November	159,949	73,179	4,346	40,843	3,389	24,601	54,886	2,494	10,358	6,585	12,448
	December	165,580	73,143	4,748	39,689	3,138	25,568	59,050	2,611	11,235	6,497	13,044
2000:	January	174,229	76,136	4,481	42,946	3,270	25,438	65,420	2,336	10,532	7,410	12,394
	February	160,106	77,390	4,132	44,234	3,063	25,961	49,261	2,700	10,495	7,468	12,791
	March	169,233	77,221	4,796	44,120	3,310	24,995	58,020	2,226	10,643	6,914	14,209
	April	164,802	75,862	4,982	41,990	3,434	25,456	55,899	1,891	12,013	6,920	12,216
	May	160,332	76,751	4,780	43,526	3,750	24,694	51,614	1,774	10,515	6,979	12,699
	June	154,205	75,610	4,863	42,614	3,452	24,682	48,132	1,625	10,809	6,491	11,538
	July	152,295	74,536	4,755	41,897	3,464	24,420	49,326	1,589	9,945	5,961	10,938
	August	158,889	76,544	4,967	43,011	3,399	25,168	52,467	1,490	9,719	7,137	11,533
	September	162,936	77,393	4,976	43,708	3,422	25,286	53,618	1,972	9,617	7,156	13,181
	October	161,188	79,062	5,070	44,017	3,220	26,755	48,459	2,328	9,703	7,000	14,637
	November	161,829	79,674	5,136	44,711	3,499	26,327	48,554	2,081	9,831	6,989	14,700
	December	164,146	81,197	5,025	46,693	3,128	26,351	49,890	2,260	10,009	6,950	13,840
2001:	January	171,341	82,174	5,386	45,974	3,339	27,475	55,045	2,740	10,166	7,239	13,978
	February	172,554	81,839	5,042	45,700	3,420	27,676	55,896	2,909	10,352	7,550	14,008
	March	173,723	82,513	4,973	45,888	3,370	28,281	57,137	2,910	10,076	7,919	13,168
	April	179,792	86,818	5,919	47,730	3,363	29,806	57,425	2,473	10,997	8,654	13,425
	May	184,888	89,711	6,048	49,924	3,268	30,472	60,145	2,673	10,282	7,716	14,362
	June	182,625	86,190	6,140	46,733	3,240	30,077	61,238	2,309	10,410	8,463	14,013
	July ^f	182,239	88,586	5,686	50,248	3,219	29,432	60,035	2,146	9,923	8,026	13,523
	August ^f	185,774	94,638	6,432	53,481	3,674	31,051	55,835	2,319	10,347	8,605	14,030
	September ^p	188,741	98,064	6,196	56,219	3,707	31,942	54,857	2,186	10,678	8,759	14,199
		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
1999:	September	13,101	5,351	411	1,009	8	664	3,258	(NA)	1,932	4,293	1,280
	October	14,625	5,996	449	643	1	704	4,199	(NA)	2,213	3,856	2,308
	November	15,264	5,732	481	910	1	540	3,800	(NA)	2,010	4,188	3,072
	December	14,794	5,476	378	1,011	7	785	3,294	(NA)	2,410	4,516	2,120
2000:	January	13,049	5,213	329	1,240	1	784	2,858	(NA)	1,849	3,846	1,850
	February	14,849	5,228	363	1,287	4	734	2,840	(NA)	3,100	4,322	1,925
	March	15,041	4,939	372	1,064	2	504	2,997	(NA)	2,467	4,364	2,989
	April	13,549	5,297	371	1,163	93	879	2,791	(NA)	2,289	3,954	1,723
	May	13,062	4,723	359	1,059	12	505	2,789	(NA)	2,329	3,539	2,182
	June	13,957	4,878	347	1,078	28	679	2,746	(NA)	2,262	4,189	2,329
	July	12,225	4,546	376	1,161	14	535	2,461	(NA)	2,196	3,229	1,952
	August	14,422	5,435	375	1,308	28	656	3,068	(NA)	2,386	4,078	2,214
	September	13,623	4,840	298	1,099	42	621	2,780	(NA)	2,509	4,454	1,514
	October	14,781	6,101	447	1,116	3	585	3,949	(NA)	1,883	4,487	2,004
	November	13,850	5,000	440	1,177	64	652	2,667	(NA)	2,629	3,708	2,211
	December	13,737	4,986	553	1,201	52	515	2,665	(NA)	2,107	4,080	2,265
2001:	January	14,759	5,184	466	1,587	27	536	2,568	(NA)	2,270	4,641	2,341
	February	14,954	4,946	440	1,392	31	505	2,577	(NA)	2,342	4,928	2,430
	March	14,241	5,034	420	1,351	58	583	2,622	(NA)	2,131	4,663	2,107
	April	13,605	4,789	320	1,605	43	439	2,381	(NA)	2,530	3,859	2,135
	May	13,848	4,694	487	1,329	30	577	2,272	(NA)	2,274	4,543	2,044
	June	13,624	4,929	348	1,388	21	709	2,465	(NA)	2,477	4,283	1,639
	July ^f	13,298	5,087	415	1,502	34	675	2,462	(NA)	2,385	3,917	1,617
	August ^f	13,958	4,790	374	1,415	34	576	2,391	(NA)	2,561	4,746	1,566
	September ^p	13,361	4,417	326	1,411	51	766	1,862	(NA)	2,369	5,142	1,126

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					
1999:	September	137,644	64,071	4,391	35,391	2,932	21,356	45,272	1,768	9,224	6,495	10,814
	October	137,281	63,780	4,215	35,435	2,832	21,298	44,908	1,665	9,526	6,037	11,365
	November	143,089	64,473	3,881	35,954	2,984	21,655	49,269	2,303	9,564	6,154	11,327
	December	147,685	64,220	4,224	34,815	2,753	22,428	52,817	2,407	10,355	6,050	11,837
2000:	January	154,308	65,999	3,907	37,215	2,834	22,044	58,463	2,139	9,645	6,855	11,206
	February	141,155	66,978	3,606	38,265	2,649	22,457	43,827	2,455	9,541	6,852	11,503
	March	149,437	66,894	4,189	38,199	2,866	21,641	51,711	2,023	9,676	6,343	12,790
	April	144,212	65,402	4,351	36,167	2,958	21,926	49,035	1,717	10,911	6,240	10,907
	May	139,622	65,991	4,160	37,394	3,222	21,215	44,921	1,616	9,576	6,220	11,298
	June	134,110	64,889	4,214	36,547	2,960	21,168	41,817	1,485	9,880	5,754	10,284
	July	131,663	63,646	4,107	35,748	2,955	20,836	42,632	1,440	9,017	5,248	9,680
	August	137,080	65,202	4,285	36,605	2,893	21,419	45,309	1,346	8,779	6,266	10,179
	September	140,356	65,809	4,282	37,135	2,907	21,484	46,222	1,776	8,664	6,272	11,613
	October	138,346	67,061	4,356	37,303	2,728	22,674	41,524	2,093	8,725	6,103	12,839
	November	138,583	67,405	4,397	37,795	2,958	22,255	41,499	1,872	8,841	6,083	12,884
	December	140,431	68,506	4,281	39,370	2,638	22,218	42,678	2,036	9,017	6,054	12,140
2001:	January	146,601	69,197	4,560	38,699	2,811	23,127	47,168	2,471	9,167	6,317	12,283
	February	147,321	68,678	4,251	38,339	2,869	23,218	47,815	2,621	9,326	6,583	12,298
	March	146,528	68,788	4,172	38,240	2,809	23,568	47,773	2,615	9,053	6,898	11,401
	April	152,318	72,551	4,966	39,874	2,810	24,901	48,419	2,228	9,907	7,518	11,695
	May	156,449	74,838	5,061	41,638	2,725	25,414	50,798	2,401	9,238	6,663	12,510
	June	153,340	71,579	5,147	38,783	2,689	24,960	51,203	2,049	9,237	7,203	12,070
	July ^r	153,305	73,730	4,762	41,804	2,678	24,486	50,323	1,910	8,829	6,836	11,678
	August ^r	156,114	78,621	5,360	44,419	3,052	25,790	46,802	2,063	9,206	7,317	12,105
	September ^p	158,457	81,398	5,159	46,654	3,076	26,508	45,943	1,943	9,491	7,441	12,240
		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
1999:	September	11,881	4,765	370	898	7	591	2,899	(NA)	1,739	3,979	1,175
	October	13,194	5,311	403	569	1	623	3,716	(NA)	1,977	3,567	2,110
	November	13,736	5,052	429	801	1	475	3,345	(NA)	1,787	3,867	2,796
	December	13,273	4,808	336	887	6	689	2,890	(NA)	2,135	4,162	1,924
2000:	January	11,600	4,519	287	1,075	1	680	2,477	(NA)	1,626	3,522	1,672
	February	13,148	4,526	317	1,113	3	635	2,457	(NA)	2,719	3,929	1,731
	March	13,353	4,279	325	922	2	436	2,594	(NA)	2,166	3,967	2,691
	April	11,936	4,567	324	1,002	80	757	2,404	(NA)	1,989	3,591	1,538
	May	11,491	4,061	312	909	10	434	2,396	(NA)	2,013	3,223	1,941
	June	12,305	4,187	301	924	24	583	2,355	(NA)	1,953	3,829	2,076
	July	10,684	3,883	325	990	12	456	2,100	(NA)	1,885	2,928	1,728
	August	12,581	4,630	323	1,113	23	559	2,611	(NA)	2,046	3,684	1,954
	September	11,872	4,116	257	934	36	527	2,362	(NA)	2,146	4,012	1,334
	October	12,836	5,176	384	946	2	496	3,347	(NA)	1,606	4,035	1,758
	November	11,997	4,231	376	995	54	551	2,254	(NA)	2,235	3,334	1,937
	December	11,915	4,209	471	1,013	44	435	2,247	(NA)	1,788	3,675	1,987
2001:	January	12,812	4,366	395	1,336	23	451	2,162	(NA)	1,927	4,185	2,057
	February	12,973	4,151	371	1,168	26	424	2,162	(NA)	1,985	4,440	2,133
	March	12,246	4,197	352	1,126	48	486	2,185	(NA)	1,779	4,189	1,824
	April	11,708	4,002	269	1,340	36	367	1,990	(NA)	2,125	3,477	1,859
	May	11,934	3,916	407	1,109	25	481	1,895	(NA)	1,908	4,082	1,781
	June	11,617	4,094	291	1,152	17	588	2,045	(NA)	2,064	3,801	1,412
	July ^r	11,352	4,235	348	1,249	28	561	2,048	(NA)	1,991	3,485	1,396
	August ^r	11,938	3,979	311	1,175	28	479	1,986	(NA)	2,138	4,222	1,351
	September ^p	11,439	3,666	272	1,171	42	636	1,546	(NA)	1,974	4,571	971

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					
1999:	September	14,018	5,932	401	3,365	261	1,904	5,357	175	890	594	1,070
	October	13,227	5,630	385	3,065	252	1,927	4,813	166	899	588	1,133
	November	12,018	5,296	341	2,822	254	1,879	4,155	199	843	546	979
	December	10,531	4,930	348	2,576	225	1,781	3,301	178	784	465	874
2000:	January	9,269	4,709	293	2,593	214	1,609	2,602	134	659	463	702
	February	8,835	4,751	275	2,608	212	1,656	2,078	156	648	470	731
	March	10,079	4,954	329	2,728	229	1,668	2,943	137	722	457	865
	April	10,951	5,183	351	2,782	237	1,813	3,428	134	845	509	853
	May	11,796	5,461	353	3,013	279	1,816	3,886	136	822	541	950
	June	12,548	5,900	362	3,435	256	1,847	4,192	134	897	501	925
	July	12,627	5,936	341	3,566	247	1,781	4,377	136	791	477	912
	August	14,521	6,392	367	3,868	245	1,912	5,558	136	837	573	1,026
	September	14,106	6,087	384	3,528	258	1,917	5,296	175	827	573	1,147
	October	13,325	5,923	400	3,217	251	2,054	4,488	209	833	592	1,281
	November	11,671	5,528	388	2,973	244	1,923	3,552	161	779	539	1,111
	December	9,977	5,225	346	2,900	213	1,766	2,571	151	664	466	899
2001:	January	9,090	4,916	347	2,661	225	1,682	2,189	156	629	423	777
	February	8,966	4,788	311	2,556	217	1,705	2,172	168	604	447	787
	March	9,806	5,045	324	2,693	215	1,813	2,651	178	660	497	775
	April	11,664	5,712	405	3,024	227	2,056	3,486	174	774	605	913
	May	13,307	6,173	431	3,348	227	2,167	4,517	202	788	576	1,051
	June	14,365	6,447	437	3,607	233	2,169	5,197	184	828	624	1,085
	July ^f	14,865	6,855	399	4,135	229	2,092	5,334	179	784	618	1,096
	August ^f	16,450	7,768	465	4,742	256	2,306	5,702	208	876	676	1,221
	September ^p	15,694	7,607	455	4,502	270	2,379	5,096	192	899	689	1,211
		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
1999:	September	1,436	527	41	99	1	65	321	(NA)	186	538	159
	October	873	373	28	40	-	44	261	(NA)	135	214	127
	November	1,111	400	34	63	-	38	265	(NA)	153	312	226
	December	1,097	418	29	77	1	60	251	(NA)	186	327	151
2000:	January	849	338	21	80	-	51	185	(NA)	123	255	121
	February	938	339	24	83	-	48	184	(NA)	186	279	123
	March	1,101	369	28	80	-	38	224	(NA)	186	316	215
	April	939	357	25	78	6	59	188	(NA)	156	285	122
	May	958	342	26	77	1	37	202	(NA)	171	265	159
	June	1,075	380	27	84	2	53	214	(NA)	169	324	176
	July	914	326	27	83	1	38	176	(NA)	161	251	148
	August	1,104	387	27	93	2	47	218	(NA)	177	332	176
	September	1,451	467	29	106	4	60	268	(NA)	230	542	180
	October	839	353	26	64	-	34	228	(NA)	110	242	106
	November	975	335	30	79	4	44	178	(NA)	192	269	156
	December	964	348	39	84	4	36	186	(NA)	155	289	156
2001:	January	949	340	31	104	2	35	168	(NA)	145	303	149
	February	922	307	27	86	2	31	160	(NA)	136	315	151
	March	1,001	355	30	95	4	41	185	(NA)	153	333	145
	April	933	323	22	108	3	30	161	(NA)	168	276	148
	May	987	318	33	90	2	39	154	(NA)	161	338	148
	June	1,020	373	27	105	2	54	186	(NA)	180	322	120
	July ^f	962	351	29	103	2	47	170	(NA)	169	297	119
	August ^f	1,068	352	27	104	2	42	175	(NA)	183	381	122
	September ^p	1,371	382	28	122	4	66	161	(NA)	211	619	131

- 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 site		Turner Construction Company	Handy-Whitman public utility			
	Com-posite fixed-weighted	Implicit price deflator	Buildings	Construc-tion	Fixed-weighted	Price deflator	Bureau of Reclama-tion	Buildings		Electric	Gas	Water	C.A. Turner telephone plant
1996.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100
1997.....	103.2	103.3	105.0	103.6	102.9	102.9	107.5	100	100	100	100	100	100
1998.....	106.0	106.1	105.8	105.3	105.6	105.6	107.5	103	104	102	102	102	102
1999.....	110.3	110.4	107.9	107.8	110.4	110.4	112.7	105	109	104	104	104	102
2000.....	115.3	115.4	110.5	110.6	115.5	115.6	119.3	107	113	107	105	107	101
								111	118	110	109	111	103
2000: January	113.9	114.0	109.4	109.0	114.5	114.7	113.2	109	116	109	106	110	108
February	114.1	114.1	110.0	109.6	114.5	114.6	113.2	109	116	109	106	110	108
March.....	114.0	113.9	110.4	110.3	114.4	114.5	128.4	111	117				101
April.....	114.5	114.4	110.3	110.3	114.5	114.5							
May.....	114.8	114.8	111.1	110.9	114.8	114.9							
June.....	115.0	115.1	110.9	111.0	115.2	115.4							
July.....	115.6	115.7	110.7	110.7	115.7	115.8							
August.....	115.7	115.8	110.7	110.9	115.8	115.9	113.0	111	119	111	110	111	113
September	116.1	115.9	110.5	110.7	116.2	116.2							
October.....	116.4	116.3	110.5	110.7	116.5	116.4							
November.....	116.7	116.6	110.6	111.4	116.8	116.8	122.9	111	120				
December.....	117.1	116.9	110.8	111.7	117.4	117.4							
2001: January	117.8	117.4	110.7	111.7	118.2	118.1							
February	118.3	117.7	110.4	111.6	118.7	118.6	123.9	112	121	112	111	113	115
March.....	118.8	118.5	110.5	111.7	119.4	119.2				112	111	113	104
April.....	118.7	118.3	110.5	111.8	119.5	119.2							
May.....	118.9	118.6	110.7	111.8	119.8	119.5	111.9	112	121				
June.....	119.2	119.0	111.5	112.4	119.9	119.3							
July.....	119.2	118.9	113.2	113.9	119.7	119.4							
August.....	119.5	119.2	112.6	113.6	120.2	120.0	(NA)	112	122	112	113	115	106
September	119.5	119.3	112.3	113.7	120.2	120.1				114	113	115	117
October.....			112.4	113.8									

NA Not available. P Preliminary. R Revised.

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

Type of construction	Sep. 2001 ^P	Aug. 2001 ^r	July 2001 ^r	June 2001	May 2001	Apr. 2001	Mar. 2001	Feb. 2001	Jan. 2001	Dec. 2000	Nov. 2000	Sep. 2000
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	111.7	113.4	112.5	108.9	103.2	96.7	91.7	77.2	82.2	88.8	104.9	111.8
2 units or more	103.2	106.6	103.8	106.9	105.8	99.2	96.5	89.1	89.1	94.3	101.0	103.3
Nonresidential buildings:												
Industrial	105.4	103.5	101.6	102.7	101.3	95.6	94.4	89.0	90.8	103.7	102.8	106.9
Office	102.7	103.9	100.4	102.0	104.4	99.8	97.1	93.1	93.1	95.9	102.6	104.2
Hotels, motels	99.9	102.8	102.7	103.3	102.3	100.6	101.0	93.4	93.1	96.2	100.4	100.4
Other commercial	111.4	110.9	106.9	105.2	101.1	95.8	90.9	85.2	84.4	93.8	104.1	112.3
Religious	108.6	107.6	101.1	96.2	98.8	94.1	92.6	88.7	91.7	96.3	110.4	107.5
Educational	107.5	119.2	117.1	114.3	104.0	95.3	90.4	84.3	83.6	87.6	95.3	106.9
Hospital and institutional	102.9	102.2	98.1	100.5	100.8	100.9	99.1	94.2	93.8	99.1	103.7	103.2
Miscellaneous nonresidential	102.9	103.0	101.8	102.5	101.7	103.1	98.8	91.4	89.2	96.9	102.4	103.8
Telecommunications	97.2	112.4	100.4	103.7	103.3	93.4	98.6	84.0	82.8	104.1	106.8	103.5
All other private	111.3	116.0	105.3	100.2	96.2	92.0	90.1	80.5	86.4	101.0	104.9	110.6
PUBLIC CONSTRUCTION												
State and Local												
Buildings:												
Housing and redevelopment	105.9	104.0	100.5	102.0	102.3	97.9	93.2	87.8	91.4	96.9	105.8	107.6
Educational	115.8	128.1	118.7	111.6	96.5	91.0	84.5	80.0	82.5	88.4	94.4	114.0
Hospital	105.4	100.5	102.7	104.0	100.0	96.8	92.0	90.6	96.2	96.9	99.1	106.4
Other buildings	107.7	107.3	102.5	104.3	102.3	99.1	92.3	88.1	87.3	95.4	103.7	107.1
Highways and streets	133.1	146.2	127.2	121.8	106.7	86.4	66.6	54.5	55.7	72.3	102.7	137.5
Conservation and development	118.7	121.0	112.6	107.9	100.8	93.7	81.6	76.8	75.9	88.9	103.5	118.5
Sewer systems	113.7	114.2	106.5	107.5	102.3	93.8	87.5	77.7	82.3	88.4	105.8	114.5
Water supply facilities	111.1	110.8	108.4	104.0	103.8	96.5	86.4	81.5	80.3	92.3	106.3	109.7
Miscellaneous construction	118.7	121.0	112.6	107.9	100.8	93.7	81.6	76.8	75.9	88.9	103.5	118.5
Federal												
Buildings:												
Housing and redevelopment	125.0	106.0	99.4	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	136.3
Industrial	125.0	106.0	99.4	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	136.3
Educational	125.0	106.0	99.4	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	136.3
Hospital	125.0	106.0	99.4	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	136.3
Other buildings	125.0	106.0	99.4	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	136.3
Military	128.0	103.0	102.0	104.4	101.2	94.8	103.4	82.5	90.5	104.3	102.9	128.7
Conservation and development	162.4	108.2	102.2	101.7	99.5	95.4	95.4	85.2	86.8	94.3	96.9	162.2
Miscellaneous construction	162.4	108.2	102.2	101.7	99.5	95.4	95.4	85.2	86.8	94.3	96.9	162.2

^PPreliminary. ^rRevised.

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 2000 (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 incomplete 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 27 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 1998. (Outlays are included if a government agency's fiscal year ending date falls within July 1997 to June 1998 inclusive, and for three state agencies with fiscal years ending in August or September 1998.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1998 through April 2002. 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 -2.4 percent to 1.1 percent with a median of -0.1 percent. The range of the difference between first revision and second revision was from -1.8 to 0.9 percent, with a median of 0.1 percent.

Relative Standard Errors and Coefficients for Standard Errors of Changes

Type of construction	Relative standard error (percent)			Coefficient for changes	
	Monthly estimate	Year-to-date estimate	Annual estimate	Month-to-month change (k1)	Year-to-date change (k2)
Total construction	2	1	1	.03	.02
Private construction	3	1	1	.04	.02
Residential buildings	5	2	2	.06	.03
New housing units	2	1	1	.01	.01
1 unit	2	2	2	.01	.01
2 units or more	4	3	3	.03	.03
Nonresidential buildings	2	1	1	.02	.01
Industrial	3	2	2	.04	.03
Office	4	2	2	.05	.03
Hotels, motels	7	6	5	.09	.08
Other commercial	5	3	2	.06	.04
Religious	9	6	5	.12	.09
Educational	7	5	5	.10	.07
Hospital and institutional	6	5	5	.07	.07
Miscellaneous buildings	7	4	4	.09	.06
Public construction	2	1	1	.03	.01
Housing and redevelopment	8	5	4	.11	.07
Industrial	(NA)	(NA)	(NA)	(NA)	(NA)
Educational	3	2	2	.04	.03
Hospital	6	4	4	.08	.06
Other public buildings	3	2	2	.04	.03
Highways and streets	4	2	2	.05	.03
Military facilities	(NA)	(NA)	(NA)	(NA)	(NA)
Conservation and development	4	2	2	.06	.03
Sewer systems	6	3	3	.08	.04
Water supply facilities	8	4	3	.11	.06
Miscellaneous public	8	4	4	.11	.06
State and local construction	2	1	1	.03	.01
Housing and redevelopment	8	5	5	.11	.07
Educational	3	2	2	.04	.03
Hospital	8	6	5	.11	.09
Other public buildings	4	3	2	.05	.04
Highways and streets	4	2	2	.05	.03
Conservation and development	16	9	9	.23	.13
Sewer systems	6	3	3	.08	.04
Water supply facilities	8	4	3	.11	.06
Miscellaneous public	9	5	4	.12	.07
Federal construction	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Note: All statistics are based upon 2000 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.