

Value of Construction Put in Place

April
2001

Issued June 2001

C30/01-4

Current Construction Reports

In the May 2001 press release, normal revisions to unadjusted and seasonally adjusted data will go back to January 1997. In addition, estimates to residential improvements, private industrial, electric light and power, and all other private will revise back to January 1993 due to new estimating methodologies and reclassifications of types of construction.

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 April 2001 was estimated at a seasonally adjusted annual rate of \$855.2 billion, nearly the same (± 5 percent) as the revised March estimate of \$852.9 billion. The April figure represents a 5 (± 5) percent increase over April 2000.

During the first 4 months of this year \$247.3 billion of construction was put in place, 5 percent above the \$235.0 billion for the same period in 2000.

In constant (1996) dollars, the April annual rate was \$725.4 billion, nearly the same (± 5 percent) as the revised estimate of \$724.6 billion for March.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$271.2 billion in April, 1 (± 2) percent above the revised March estimate of \$268.6 billion. Nonresidential building construction was at a rate of \$234.5 billion, 1 (± 3) percent below the revised March estimate of \$236.7 billion.

In April, the estimated seasonally adjusted annual rate of public construction put in place was \$196.4 billion, 1 (± 5) percent above the revised March estimate of \$194.6 billion.

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

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

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

ADDITIONAL DATA

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

- Current Construction Reports, *Value of Construction Put in Place: May 2000*, C30/00-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2000; contains annual data for 1994 to 1999 and monthly data for 1996 to 1999.
- Current Construction Reports, *Value of Construction Put in Place: June 2000*, C30/00-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2000; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1994 to 1999.
- 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 to 2000

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Total construction	613,535	656,630	711,759	764,233	807,582	613,454	635,765	670,859	692,477	704,028
Private construction	474,273	501,749	552,236	591,561	623,930	474,307	486,273	520,613	535,625	543,985
Residential buildings	281,115	289,014	314,607	348,826	358,620	281,229	280,748	297,886	315,757	312,800
New housing units	191,113	198,063	223,983	249,536	259,614	191,212	192,386	212,068	225,896	226,452
1 unit	170,790	175,179	199,409	222,280	231,692	170,865	170,154	188,785	201,210	202,091
2 units or more	20,324	22,883	24,574	27,256	27,922	20,347	22,232	23,283	24,686	24,361
Improvements	90,002	90,951	90,624	99,290	(NA)	90,018	88,362	85,818	89,860	(NA)
Nonresidential buildings	153,912	172,990	190,711	195,776	217,004	153,866	166,754	177,639	175,048	186,305
Industrial	36,220	36,739	40,484	34,894	40,462	36,215	35,411	37,715	31,214	34,721
Office	27,886	34,305	42,226	46,570	54,061	27,875	33,058	39,333	41,643	46,405
Hotels, motels	10,912	12,898	14,816	15,939	16,213	10,909	12,438	13,794	14,262	13,932
Other commercial	48,188	51,809	53,598	57,143	60,800	48,170	49,948	49,915	51,067	52,207
Religious	4,534	5,777	6,594	7,497	7,903	4,531	5,565	6,139	6,701	6,785
Educational	6,742	8,693	9,698	9,784	11,788	6,737	8,375	9,039	8,743	10,120
Hospital and institutional	11,780	13,546	13,793	13,624	15,377	11,778	13,066	12,853	12,183	13,202
Miscellaneous ¹	7,650	9,223	9,501	10,327	10,400	7,650	8,892	8,850	9,235	8,934
Farm nonresidential	3,658	3,815	4,284	4,451	(NA)	3,657	3,675	3,989	3,977	(NA)
Public utilities	33,156	33,638	40,028	39,607	(NA)	33,124	32,884	38,616	38,166	(NA)
Telecommunications	11,810	12,416	13,328	15,223	18,883	11,791	12,159	13,036	15,142	18,325
Other public utilities	21,346	21,222	26,700	24,384	(NA)	21,333	20,725	25,581	23,024	(NA)
Railroads	4,398	4,922	5,736	4,918	(NA)	4,391	4,745	5,463	4,540	(NA)
Electric light and power	11,211	11,325	12,381	14,057	(NA)	11,209	11,122	11,885	13,393	(NA)
Gas	4,722	4,006	7,318	3,920	(NA)	4,720	3,911	7,020	3,690	(NA)
Petroleum pipelines	1,015	969	1,265	1,489	(NA)	1,013	947	1,213	1,401	(NA)
All other private ²	2,431	2,292	2,606	2,901	3,171	2,431	2,212	2,482	2,678	2,812
Public construction	139,263	154,882	159,523	172,673	183,653	139,147	149,493	150,246	156,852	160,043
Buildings	63,471	71,867	73,277	77,690	86,875	63,446	69,319	68,334	69,497	74,652
Housing and redevelopment	5,048	5,230	5,124	5,618	5,448	5,046	5,084	4,853	5,088	4,753
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	828	995
Educational	28,590	34,385	36,234	39,725	46,415	28,577	33,136	33,743	35,497	39,834
Hospital	4,617	5,152	3,906	3,968	4,183	4,617	4,970	3,642	3,548	3,593
Other ³	23,826	26,100	27,004	27,454	29,670	23,815	25,164	25,155	24,537	25,477
Highways and streets	39,464	44,105	48,515	53,532	51,490	39,412	42,535	45,877	48,827	44,716
Military facilities	2,591	2,556	2,529	2,111	2,258	2,593	2,466	2,377	1,909	1,951
Conservation and development	6,008	5,739	5,447	6,003	5,984	6,000	5,541	5,219	5,602	5,423
Sewer systems	9,798	10,392	10,168	11,181	11,211	9,778	10,034	9,743	10,438	10,163
Water supply facilities	5,618	6,419	6,830	7,602	7,674	5,609	6,275	6,552	7,142	7,039
Miscellaneous public ⁴	12,313	13,803	12,755	14,555	18,160	12,310	13,323	12,145	13,436	16,098

NA Not available, but estimates are included in totals.

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 to 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	154,882	159,523	172,673	183,653	139,147	149,493	150,246	156,852	160,043
State and local construction	123,938	140,795	145,207	158,617	169,889	123,819	135,901	136,743	144,028	147,949
Total buildings	57,240	65,760	67,246	72,220	81,813	57,212	63,427	62,706	64,601	70,299
Housing and redevelopment	4,367	4,554	4,581	5,194	5,070	4,365	4,426	4,338	4,704	4,422
Educational.	28,578	34,366	36,219	39,709	46,388	28,565	33,118	33,729	35,483	39,811
Hospital.	3,457	3,901	2,897	3,118	3,551	3,457	3,764	2,701	2,785	3,050
Other ¹	20,838	22,939	23,550	24,199	26,805	20,826	22,120	21,938	21,628	23,016
Highways and streets.	39,096	43,850	48,264	53,214	51,168	39,045	42,289	45,640	48,537	44,437
Conservation and development	2,163	2,371	1,911	1,993	1,941	2,159	2,289	1,832	1,860	1,759
Sewer systems.	9,798	10,392	10,168	11,181	11,211	9,778	10,034	9,743	10,438	10,163
Water supply facilities.	5,618	6,419	6,830	7,602	7,674	5,609	6,275	6,552	7,142	7,039
Miscellaneous nonbuilding ²	10,022	12,002	10,787	12,407	16,080	10,017	11,587	10,271	11,450	14,252
Federal construction	15,325	14,087	14,317	14,056	13,764	15,328	13,592	13,503	12,824	12,094
Total buildings	6,230	6,107	6,031	5,470	5,062	6,234	5,892	5,628	4,896	4,353
Housing.	681	677	543	424	379	682	658	515	384	330
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	828	995
Educational.	12	19	15	15	28	12	19	14	14	24
Hospital.	1,159	1,251	1,009	850	632	1,161	1,206	941	762	543
Other ³	2,989	3,161	3,454	3,255	2,865	2,989	3,045	3,217	2,909	2,461
Highways and streets.	368	255	251	318	(NA)	368	246	237	290	(NA)
Military facilities	2,591	2,556	2,529	2,111	2,258	2,593	2,466	2,377	1,909	1,951
Conservation and development	3,845	3,368	3,536	4,009	4,043	3,841	3,252	3,387	3,743	3,664
Miscellaneous public ⁴	2,291	1,800	1,969	2,148	2,079	2,293	1,735	1,873	1,986	1,847

NA Not available, but estimates are included in totals.

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	New housing units		Total	Indus-trial	Office	Hotels, motels	Other com-mercial	Reli-gious	Educa-tional	Hospital and institu-tional	Mis-cella-neous ³	Total	Tele-com-muni-ca-tions					
			Total	1 unit	2 units or more															
YEAR TO DATE																				
April 2000	234,955	184,082	105,002	78,451	69,457	8,994	65,839	11,674	16,374	5,420	18,457	2,420	3,388	4,745	3,361	(NA)	5,252	824		
April 2001	247,331	194,069	106,929	78,786	69,509	9,278	72,259	14,288	19,018	4,936	19,248	2,447	3,738	5,224	3,360	(NA)	(NA)	811		
Percent change.....	5	5	2	(Z)	(Z)	3	10	22	16	-9	4	1	10	10	(Z)	(NA)	(NA)	-2		
MONTHLY DATA																				
1999:	April	60,957	47,711	27,997	19,980	17,710	2,269	16,050	2,892	3,786	1,389	4,538	598	823	1,125	900	(NA)	1,359	259	
	May	64,660	50,596	30,623	21,176	18,845	2,331	16,416	2,896	3,913	1,367	4,830	597	792	1,128	894	(NA)	1,114	249	
	June	69,001	53,214	32,642	22,372	19,954	2,418	16,698	2,954	3,942	1,300	4,991	634	947	1,090	840	(NA)	1,242	257	
	July	70,701	54,337	33,076	23,070	20,693	2,378	16,806	3,033	3,832	1,368	5,054	637	956	1,078	847	(NA)	1,344	273	
	August	72,608	55,012	33,477	23,372	20,910	2,462	17,057	2,977	4,090	1,288	5,090	683	941	1,143	846	(NA)	1,390	269	
	September	71,204	53,597	32,284	23,160	20,762	2,398	17,123	2,915	4,230	1,233	5,190	655	840	1,173	887	(NA)	1,270	253	
	October	69,170	52,843	32,059	22,754	20,409	2,345	16,929	2,822	4,108	1,218	5,152	702	830	1,219	878	(NA)	1,329	252	
	November	66,722	51,557	30,652	22,248	19,973	2,275	16,970	2,795	3,957	1,312	5,291	675	847	1,212	881	(NA)	1,365	255	
	December	60,055	46,498	26,374	19,536	17,342	2,194	16,236	2,905	3,740	1,309	4,791	625	827	1,157	882	(NA)	1,531	276	
2000:	January	54,051	42,130	24,274	18,320	16,223	2,097	14,900	2,526	3,675	1,307	4,182	563	760	1,107	781	(NA)	1,239	173	
	February	54,140	42,547	23,115	17,579	15,507	2,072	16,267	2,910	4,001	1,295	4,639	609	828	1,127	860	(NA)	1,173	202	
	March	61,785	48,680	27,703	20,829	18,459	2,370	17,243	3,106	4,290	1,429	4,785	631	888	1,232	882	(NA)	1,529	236	
	April	64,979	50,726	29,911	21,724	19,268	2,455	17,429	3,132	4,409	1,390	4,852	617	912	1,279	838	(NA)	1,312	214	
	May	69,773	54,419	32,416	22,811	20,346	2,465	18,207	3,288	4,521	1,432	5,141	619	1,046	1,260	900	(NA)	1,502	227	
	June	72,711	56,577	33,974	23,553	21,025	2,528	18,445	3,399	4,440	1,429	5,326	654	1,056	1,253	887	(NA)	1,624	231	
	July	73,140	56,601	33,646	23,575	21,286	2,289	18,477	3,524	4,375	1,364	5,272	699	1,110	1,271	861	(NA)	1,470	272	
	August	77,038	57,837	33,518	23,701	21,325	2,376	19,627	3,608	4,753	1,389	5,649	725	1,212	1,347	942	(NA)	1,592	358	
	September	76,203	57,006	32,411	23,268	20,967	2,301	19,788	3,624	4,986	1,389	5,695	711	1,053	1,428	901	(NA)	1,781	369	
	October	73,535	56,203	32,196	22,822	20,458	2,364	19,666	3,810	4,890	1,319	5,542	777	1,038	1,390	901	(NA)	1,723	343	
	November	69,485	53,965	30,293	22,169	19,813	2,355	19,249	4,025	4,968	1,278	5,038	692	978	1,398	874	(NA)	1,846	296	
	December	60,744	47,240	25,163	19,265	17,014	2,250	17,707	3,508	4,755	1,193	4,679	607	906	1,285	773	(NA)	2,093	252	
2001:	January	57,960	45,522	24,921	18,317	16,074	2,243	17,200	3,472	4,616	1,187	4,432	593	888	1,274	739	(NA)	1,693	201	
	February ^r	56,412	44,164	23,492	17,755	15,521	2,235	17,114	3,351	4,513	1,203	4,583	591	857	1,235	782	(NA)	1,595	202	
	March ^r	64,652	51,228	28,290	20,773	18,410	2,364	18,835	3,740	4,962	1,284	5,008	619	973	1,344	906	(NA)	1,967	198	
	April ^p	68,309	53,155	30,226	21,941	19,504	2,436	19,110	3,726	4,926	1,262	5,225	645	1,020	1,372	934	(NA)	(NA)	211	
PERCENT CHANGE																				
March 2001- April 2001	6	4	7	6	6	3	1	(Z)	-1	-2	4	4	5	2	3	(NA)	(NA)	7		

See footnotes at end of table.

6 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	Conserva- tion and develop- ment	Sewer systems	Water supply facilities	
		Housing and rede- velopment	Industrial	Educa- tional	Hospital	Other public buildings ⁶							
YEAR TO DATE													
April 2000	50,872	25,441	1,710	372	12,867	1,291	9,200	12,494	705	1,858	3,379	2,302	4,694
April 2001	53,262	27,385	1,750	470	14,217	1,258	9,689	11,991	719	2,060	3,180	2,511	5,416
Percent change	5	8	2	26	10	-3	5	-4	2	11	-6	9	15
MONTHLY DATA													
1999: April	13,246	6,090	473	76	3,053	283	2,205	3,837	179	443	877	605	1,216
May	14,063	6,187	515	83	3,103	314	2,173	4,524	179	413	954	638	1,168
June	15,787	6,995	479	73	3,810	344	2,289	5,166	186	496	1,028	669	1,247
July	16,364	7,136	479	89	3,881	346	2,341	5,514	195	491	1,003	724	1,300
August	17,596	7,587	514	70	4,194	327	2,483	6,099	142	594	1,031	713	1,430
September	17,607	7,398	539	112	3,828	379	2,540	6,139	207	776	1,019	697	1,371
October	16,327	6,992	508	45	3,529	349	2,561	5,618	145	423	1,034	711	1,404
November	15,165	6,603	451	72	3,266	344	2,469	4,849	166	554	975	648	1,369
December	13,557	6,289	441	88	3,101	343	2,316	3,844	204	546	906	565	1,203
2000: January	11,921	6,053	398	93	3,081	314	2,168	2,952	135	425	755	540	1,061
February	11,593	6,137	375	96	3,095	310	2,261	2,343	205	479	757	577	1,094
March	13,105	6,391	448	92	3,222	310	2,318	3,285	194	494	857	551	1,333
April	14,253	6,859	489	91	3,469	357	2,453	3,915	172	461	1,009	633	1,206
May	15,353	7,256	474	89	3,799	386	2,508	4,512	191	443	973	670	1,310
June	16,134	7,663	503	98	4,135	383	2,544	4,767	188	499	1,060	616	1,341
July	16,539	7,681	437	98	4,363	365	2,417	5,070	179	425	943	574	1,667
August	19,201	8,451	465	109	4,869	370	2,638	6,429	201	522	1,032	685	1,882
September	19,197	8,233	475	125	4,544	399	2,689	6,138	259	773	1,043	726	2,025
October	17,333	7,860	474	76	4,195	340	2,774	5,161	129	496	1,033	788	1,866
November	15,520	7,274	461	93	3,866	344	2,510	4,007	224	472	945	705	1,892
December	13,504	7,018	449	99	3,777	304	2,389	2,912	183	495	805	608	1,483
2001: January	12,437	6,557	436	124	3,450	310	2,237	2,461	171	511	749	543	1,445
February ^f	12,247	6,427	414	103	3,328	294	2,288	2,500	151	533	736	569	1,331
March ^f	13,424	6,904	436	114	3,548	324	2,481	3,102	182	533	804	637	1,263
April ^p	15,153	7,497	463	130	3,891	330	2,683	3,927	216	484	890	762	1,377
PERCENT CHANGE													
March 2001- April 2001	13	9	6	14	10	2	8	27	19	-9	11	20	9

NA Not available, but estimates are included in totals.

^PPreliminary.

^fRevised.

^Z Less than 0.5 percent.

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

Table 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				
		Residential buildings						Nonresidential buildings										Public utilities ⁴						
		Total ¹	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																			
1999:	April	766,495	591,532	347,724	248,952	221,611	27,341	196,287	35,699	45,251	16,351	57,261	7,598	10,285	13,352	10,490	(NA)	16,034	3,308					
	May	758,942	590,028	349,638	249,494	222,799	26,694	195,742	35,311	45,498	16,334	57,726	7,372	9,284	13,513	10,707	(NA)	14,121	3,071					
	June	755,587	587,457	350,485	249,468	222,329	27,140	193,312	34,953	46,062	14,946	56,821	7,803	9,771	13,129	9,827	(NA)	13,990	3,021					
	July	759,825	590,438	348,729	248,669	221,310	27,358	195,279	36,326	45,574	15,889	56,791	7,763	9,628	13,339	9,969	(NA)	15,709	3,002					
	August	755,253	584,016	348,084	248,363	220,876	27,487	191,317	34,279	47,235	14,851	54,731	7,526	9,470	13,364	9,860	(NA)	15,461	2,741					
	September	753,081	582,464	347,616	248,800	221,259	27,540	191,179	32,696	48,522	14,355	55,408	6,957	9,437	13,614	10,190	(NA)	14,669	2,732					
	October	756,854	584,860	349,968	249,644	222,844	26,800	191,463	31,354	48,089	14,678	55,846	7,670	10,033	13,959	9,834	(NA)	15,189	2,569					
	November	776,476	596,942	353,854	253,806	226,538	27,268	197,362	32,244	46,373	15,717	60,932	7,253	10,626	13,981	10,235	(NA)	15,213	3,014					
	December	791,698	605,802	358,223	259,835	232,004	27,831	199,689	33,262	46,224	15,848	60,963	7,498	11,332	13,806	10,756	(NA)	16,884	3,405					
	January	806,099	614,584	365,149	265,361	236,834	28,528	202,450	33,947	48,144	17,192	59,817	7,560	11,009	14,235	10,546	(NA)	19,155	2,497					
	February	816,012	629,590	368,745	268,696	240,727	27,970	215,499	38,538	49,644	15,969	65,796	7,959	11,812	14,309	11,473	(NA)	15,936	3,116					
	March	829,517	637,743	372,118	270,657	241,034	29,623	218,044	39,030	52,586	17,178	63,444	8,287	11,777	14,886	10,858	(NA)	17,748	3,138					
2000:	April	816,156	629,491	368,948	268,079	238,618	29,461	214,640	38,670	53,819	16,792	61,223	7,888	11,388	15,065	9,795	(NA)	16,998	2,772					
	May	811,816	629,820	367,653	266,017	237,737	28,280	215,604	39,814	52,119	16,868	61,262	7,618	12,169	15,033	10,720	(NA)	17,442	2,825					
	June	798,860	624,383	363,756	261,504	233,179	28,325	213,619	39,951	52,080	16,274	60,754	8,044	11,004	15,086	10,425	(NA)	17,916	2,745					
	July	793,036	619,046	355,196	254,402	227,860	26,543	216,047	42,081	52,707	16,163	59,407	8,534	11,321	15,658	10,176	(NA)	18,115	3,003					
	August	801,748	616,918	350,783	253,905	227,058	26,847	219,524	41,552	54,480	15,914	60,799	7,834	12,215	15,804	10,926	(NA)	17,242	3,637					
	September	813,477	625,317	351,682	252,481	225,856	26,624	222,660	40,872	57,477	16,655	60,968	7,882	11,885	16,542	10,380	(NA)	20,828	3,938					
	October	803,893	618,738	348,076	253,228	226,060	27,168	222,084	42,811	56,527	15,543	60,512	8,131	12,523	15,873	10,163	(NA)	19,177	3,478					
	November	808,948	624,580	348,998	255,434	227,087	28,347	224,501	46,894	58,043	15,323	58,181	7,477	12,325	16,050	10,208	(NA)	20,800	3,439					
	December	811,535	625,141	350,679	257,786	229,149	28,637	219,665	40,716	59,123	14,987	59,864	7,529	12,388	15,587	9,470	(NA)	24,989	3,084					
	January	835,772	643,319	359,890	263,831	233,519	30,312	231,602	46,549	59,375	15,345	63,239	7,850	12,879	16,351	10,014	(NA)	24,220	2,909					
	February ^f	843,595	649,824	369,620	269,564	239,700	29,864	229,068	44,529	58,109	15,438	64,620	8,034	12,202	15,730	10,406	(NA)	22,791	3,124					
	March ^f	852,910	658,306	369,992	268,647	239,347	29,300	236,725	46,503	61,195	15,194	65,749	8,049	12,780	16,175	11,080	(NA)	23,071	2,678					
	April ^p	855,247	658,820	372,674	271,216	242,040	29,176	234,540	46,144	59,650	15,058	65,657	8,227	12,719	16,216	10,870	(NA)	2,788						
PERCENT CHANGE																								
March 2001- April 2001		(Z)	(Z)	1	1	1	(Z)	-1	-1	-3	-1	(Z)	2	(Z)	(Z)	-2	(NA)	(NA)	4					

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	Conserva- tion and develop- ment	Sewer systems	Water supply facilities	Miscel- laneous public ⁷	
		Housing and rede- velopment	Industrial	Educa- tional	Hospital	Other public buildings ⁶								
1999:	April	174,962	77,075	5,753	920	40,077	3,426	26,899	55,809	2,268	5,635	11,172	7,548	15,456
	May	168,914	75,114	6,154	1,022	38,790	3,878	25,271	53,647	2,124	5,050	11,509	7,452	14,018
	June	168,130	77,152	5,547	848	40,536	3,912	26,308	50,074	2,140	5,814	11,359	7,641	13,950
	July	169,387	76,490	5,669	1,024	38,521	4,067	27,208	51,896	2,268	5,598	11,306	7,933	13,896
	August	171,237	78,764	6,101	891	39,545	3,995	28,232	51,542	1,646	6,373	10,857	7,791	14,264
	September	170,617	78,684	5,803	989	40,157	4,025	27,709	52,432	1,932	6,145	10,447	7,592	13,386
	October	171,994	79,978	5,678	640	40,448	4,035	29,176	50,646	2,114	5,941	10,885	7,202	15,228
	November	179,534	80,188	5,176	877	41,084	4,101	28,949	56,547	1,944	6,585	10,925	7,191	16,154
	December	185,895	81,004	5,359	986	41,628	4,079	28,952	60,218	2,332	7,001	11,740	7,255	16,346
2000:	January	191,515	84,659	5,307	1,253	44,487	4,165	29,448	63,368	1,782	6,223	11,199	7,955	16,329
	February	186,422	86,507	5,036	1,267	45,685	4,105	30,413	53,145	3,011	6,975	11,518	8,475	16,792
	March	191,774	85,849	5,685	1,077	45,540	3,825	29,722	59,007	2,249	6,494	11,507	7,748	18,919
	April	186,665	86,697	6,070	1,160	45,049	4,523	29,895	55,923	2,180	5,840	12,976	7,862	15,186
	May	181,995	87,658	5,581	1,081	47,186	4,651	29,159	51,966	2,246	5,363	11,375	7,770	15,618
	June	174,477	84,598	5,795	1,105	44,070	4,331	29,297	48,148	2,157	5,832	11,638	7,085	15,019
	July	173,990	82,760	5,239	1,167	43,708	4,347	28,299	49,262	2,100	4,875	10,817	6,324	17,853
	August	184,830	87,036	5,407	1,336	46,193	4,384	29,716	52,694	2,331	5,629	10,829	7,507	18,803
	September	188,160	87,723	5,171	1,087	47,740	4,281	29,444	53,183	2,418	6,158	10,913	7,917	19,848
	October	185,155	89,786	5,284	1,074	48,185	3,875	31,368	47,932	1,880	6,989	10,795	8,021	19,752
	November	184,368	88,689	5,286	1,134	48,681	4,080	29,507	46,825	2,612	5,603	10,671	7,871	22,097
	December	186,393	91,318	5,553	1,173	50,745	3,761	30,085	48,073	2,097	6,330	10,683	7,835	20,056
2001:	January	192,452	91,142	5,685	1,625	49,518	4,001	30,313	50,746	2,264	7,385	10,867	7,997	22,053
	February ^f	193,770	90,848	5,582	1,374	49,061	3,910	30,921	53,374	2,207	7,600	11,194	8,356	20,191
	March ^f	194,604	92,868	5,567	1,358	50,021	4,071	31,850	54,506	2,118	7,018	10,944	8,890	18,260
	April ^p	196,427	94,271	5,673	1,620	50,529	4,097	32,352	54,674	2,742	6,247	11,307	9,371	17,816
PERCENT CHANGE														
March 2001- April 2001	1	2	2	19	1	1	2	(Z)	29	-11	3	5	-2	

NA Not available, but estimates are included in totals.

^pPreliminary.

^rRevised.

^Z Less than 0.5 percent.

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

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

[Millions of dollars]

Period	Total construction	Private construction																		All other private ⁵				
		Residential buildings						Nonresidential buildings										Public utilities ⁴						
		Total ¹	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																			
1999:	April	701,320	540,570	317,846	227,561	202,569	24,992	177,154	32,219	40,840	14,758	51,679	6,857	9,282	12,050	9,468	(NA)	15,907	3,092					
	May	691,411	537,192	318,432	227,225	202,914	24,312	176,027	31,754	40,915	14,689	51,911	6,629	8,349	12,152	9,628	(NA)	14,065	2,843					
	June	684,295	531,889	317,468	225,968	201,385	24,583	172,754	31,236	41,163	13,357	50,779	6,973	8,732	11,733	8,782	(NA)	13,948	2,774					
	July	686,711	533,081	314,453	224,228	199,558	24,669	174,201	32,405	40,655	14,174	50,661	6,925	8,589	11,899	8,893	(NA)	15,709	2,764					
	August	681,219	526,376	313,589	223,751	198,987	24,763	170,211	30,498	42,024	13,212	48,693	6,696	8,425	11,889	8,772	(NA)	15,430	2,515					
	September	678,934	524,618	312,885	223,942	199,153	24,789	170,088	29,089	43,169	12,771	49,296	6,189	8,396	12,112	9,066	(NA)	14,640	2,509					
	October	679,390	524,712	313,872	223,896	199,860	24,036	169,437	27,747	42,557	12,990	49,421	6,787	8,878	12,353	8,703	(NA)	15,204	2,348					
	November	693,806	533,077	315,941	226,612	202,266	24,346	173,734	28,384	40,822	13,836	53,637	6,384	9,354	12,307	9,010	(NA)	15,229	2,742					
	December	705,174	539,263	318,704	231,170	206,409	24,761	175,166	29,177	40,547	13,902	53,477	6,577	9,940	12,110	9,435	(NA)	16,901	3,090					
	January	715,395	545,064	323,714	235,250	209,959	25,291	176,812	29,648	42,047	15,015	52,242	6,603	9,615	12,433	9,211	(NA)	19,079	2,260					
	February	722,124	556,969	326,612	237,995	213,221	24,774	187,881	33,599	43,282	13,922	57,363	6,939	10,298	12,475	10,002	(NA)	15,762	2,805					
	March	731,866	562,076	327,857	238,464	212,365	26,099	189,604	33,939	45,727	14,937	55,168	7,206	10,241	12,944	9,442	(NA)	17,555	2,825					
2000:	April	716,767	552,947	324,778	235,985	210,051	25,934	185,514	33,423	46,516	14,513	52,915	6,817	9,843	13,021	8,466	(NA)	16,616	2,475					
	May	711,128	551,996	322,786	233,553	208,724	24,829	186,026	34,352	44,969	14,554	52,858	6,573	10,499	12,971	9,249	(NA)	16,951	2,513					
	June	697,815	545,332	317,691	228,388	203,650	24,738	183,996	34,411	44,858	14,017	52,329	6,929	9,478	12,994	8,979	(NA)	17,377	2,446					
	July	689,991	538,794	309,405	221,605	198,484	23,121	185,131	36,059	45,165	13,850	50,906	7,313	9,701	13,417	8,720	(NA)	17,502	2,657					
	August	696,887	536,484	305,560	221,172	197,785	23,386	187,788	35,545	46,604	13,613	52,009	6,701	10,449	13,519	9,347	(NA)	16,643	3,210					
	September	704,745	541,832	304,750	218,788	195,716	23,071	189,821	34,844	49,000	14,199	51,976	6,720	10,132	14,102	8,849	(NA)	20,085	3,470					
	October	694,626	534,857	301,104	219,055	195,553	23,502	188,847	36,404	48,067	13,217	51,456	6,914	10,649	13,497	8,642	(NA)	18,457	3,051					
	November	695,672	537,050	299,827	219,445	195,092	24,353	190,094	39,707	49,147	12,975	49,264	6,331	10,436	13,590	8,643	(NA)	19,923	3,014					
	December	695,391	535,250	299,214	219,954	195,519	24,434	185,371	34,360	49,893	12,647	50,518	6,353	10,454	13,153	7,992	(NA)	23,890	2,705					
	January	713,135	547,762	304,733	223,397	197,730	25,667	194,952	39,183	49,979	12,917	53,231	6,608	10,841	13,763	8,429	(NA)	23,177	2,557					
	February ^f	717,264	551,123	311,653	227,288	202,108	25,180	192,171	37,356	48,749	12,952	54,211	6,740	10,237	13,196	8,730	(NA)	21,768	2,743					
	March ^f	724,603	557,923	311,703	226,324	201,641	24,684	198,595	39,012	51,338	12,747	55,159	6,752	10,721	13,570	9,295	(NA)	21,993	2,347					
	April ^p	725,408	557,340	313,435	228,104	203,566	24,538	196,432	38,646	49,958	12,612	54,989	6,890	10,652	13,581	9,104	(NA)	2,444						
PERCENT CHANGE																								
March 2001- April 2001		(Z)	(Z)	1	1	1	-1	-1	-1	-3	-1	(Z)	2	-1	(Z)	-2	(NA)	(NA)	4					

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	Conserva- tion and develop- ment	Sewer systems	Water supply facilities	Miscel- laneous public ⁷	
		Total	Housing and rede- velopment	Industrial	Educa- tional	Hospital	Other public buildings ⁶							
1999:	April	160,750	69,628	5,258	830	36,170	3,092	24,277	51,628	2,073	5,316	10,540	7,121	14,445
	May	154,219	67,619	5,605	919	34,883	3,487	22,725	49,172	1,927	4,724	10,766	7,031	12,980
	June	152,406	69,014	5,025	758	36,225	3,496	23,510	45,522	1,928	5,393	10,537	7,202	12,810
	July	153,630	68,288	5,111	914	34,363	3,628	24,271	47,308	2,045	5,202	10,507	7,484	12,796
	August	154,842	70,143	5,496	792	35,182	3,555	25,117	46,856	1,481	5,901	10,053	7,323	13,086
	September	154,315	70,064	5,223	880	35,726	3,581	24,653	47,709	1,739	5,695	9,682	7,135	12,292
	October	154,678	70,845	5,093	567	35,795	3,571	25,820	45,710	1,889	5,496	10,070	6,750	13,919
	November	160,729	70,653	4,621	772	36,166	3,610	25,484	50,760	1,728	6,080	10,088	6,721	14,699
	December	165,911	71,123	4,768	865	36,516	3,578	25,396	53,862	2,066	6,452	10,820	6,755	14,833
2000:	January	170,331	74,008	4,705	1,094	38,853	3,638	25,718	56,629	1,574	5,709	10,274	7,359	14,778
	February	165,154	75,490	4,461	1,105	39,830	3,579	26,515	47,282	2,651	6,353	10,490	7,775	15,114
	March	169,790	74,717	5,009	936	39,600	3,326	25,845	52,591	1,980	5,904	10,461	7,108	17,029
	April	163,820	75,030	5,343	1,003	38,936	3,909	25,838	49,055	1,899	5,304	11,786	7,187	13,559
	May	159,131	75,717	4,900	933	40,713	4,013	25,158	45,227	1,946	4,884	10,360	7,102	13,895
	June	152,483	72,936	5,061	952	37,959	3,730	25,234	41,832	1,866	5,331	10,638	6,494	13,386
	July	151,198	70,991	4,564	1,000	37,453	3,725	24,250	42,578	1,807	4,419	9,807	5,796	15,799
	August	160,402	74,538	4,710	1,143	39,515	3,750	25,420	45,505	2,003	5,085	9,783	6,893	16,596
	September	162,913	74,858	4,481	927	40,699	3,649	25,101	45,847	2,072	5,547	9,832	7,270	17,487
	October	159,769	76,427	4,571	913	40,974	3,295	26,673	41,073	1,605	6,285	9,708	7,346	17,326
	November	158,622	75,162	4,541	960	41,221	3,455	24,985	40,021	2,223	5,039	9,596	7,214	19,366
	December	160,141	77,114	4,738	990	42,823	3,174	25,389	41,123	1,782	5,703	9,624	7,202	17,593
2001:	January	165,373	76,747	4,814	1,368	41,681	3,368	25,516	43,484	1,922	6,659	9,799	7,384	19,379
	February ^f	166,141	76,238	4,707	1,152	41,159	3,280	25,940	45,658	1,870	6,847	10,085	7,716	17,727
	March ^f	166,680	77,929	4,690	1,139	41,964	3,416	26,720	46,586	1,793	6,317	9,851	8,201	16,003
	April ^p	168,068	78,974	4,772	1,356	42,319	3,431	27,096	46,730	2,320	5,618	10,168	8,645	15,614
PERCENT CHANGE														
March 2001- April 2001	1	1	2	19	1	(Z)	1	(Z)	29	-11	3	5	-2	

NA Not available, but estimates are included in totals.

^pPreliminary.^rRevised.

Z Less than 0.5 percent.

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

Table 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		
		Residential buildings			Nonresidential buildings										Public utilities ⁴						
		Total ¹	New housing units		Total	Indus-trial	Office	Hotels, motels	Other com-mercial	Reli-gious	Educa-tional	Hospital and institu-tional	Mis-cella-neous ³	Tele-com-muni-ca-tions	Total						
			Total	1 unit	2 units or more																
YEAR TO DATE																					
April 2000	207,378	162,421	92,731	69,286	61,343	7,943	57,253	10,151	14,239	4,713	16,052	2,104	2,945	4,126	2,923	(NA)	5,189	740			
April 2001	210,214	164,572	90,165	66,435	58,611	7,823	60,642	11,991	15,961	4,142	16,152	2,053	3,137	4,384	2,820	(NA)	(NA)	711			
Percent change.....	1	1	-3	-4	-4	-2	6	18	12	-12	1	-2	7	6	-4	(NA)	(NA)	-4			
MONTHLY DATA																					
1999:	April	55,761	43,594	25,591	18,263	16,189	2,074	14,485	2,610	3,417	1,253	4,096	539	743	1,015	813	(NA)	1,348	242		
	May	58,896	46,055	27,890	19,286	17,163	2,123	14,763	2,604	3,519	1,229	4,343	537	712	1,015	804	(NA)	1,110	231		
	June	62,497	48,187	29,567	20,264	18,074	2,190	14,922	2,639	3,523	1,162	4,460	567	846	974	751	(NA)	1,238	236		
	July	63,916	49,074	29,825	20,803	18,659	2,144	14,992	2,706	3,418	1,220	4,509	568	853	962	756	(NA)	1,344	252		
	August	65,516	49,602	30,159	21,056	18,837	2,218	15,175	2,648	3,639	1,146	4,528	608	837	1,017	752	(NA)	1,387	247		
	September	64,220	48,283	29,058	20,846	18,687	2,159	15,234	2,594	3,763	1,097	4,617	582	747	1,044	790	(NA)	1,268	233		
	October	62,094	47,403	28,752	20,407	18,304	2,103	14,981	2,497	3,635	1,078	4,559	622	735	1,079	777	(NA)	1,329	230		
	November	59,627	46,044	27,368	19,864	17,833	2,031	14,939	2,460	3,483	1,155	4,657	594	746	1,067	776	(NA)	1,367	232		
	December	53,499	41,402	23,465	17,381	15,429	1,952	14,242	2,548	3,281	1,148	4,202	548	726	1,015	774	(NA)	1,532	251		
2000:	January	47,927	37,335	21,519	16,241	14,382	1,859	13,013	2,206	3,210	1,141	3,653	491	663	967	682	(NA)	1,234	156		
	February	47,890	37,629	20,474	15,570	13,735	1,835	14,182	2,537	3,488	1,129	4,044	531	722	982	749	(NA)	1,160	181		
	March	54,511	42,916	24,408	18,352	16,264	2,088	14,994	2,701	3,731	1,242	4,161	549	772	1,071	767	(NA)	1,513	212		
	April	57,050	44,541	26,330	19,123	16,962	2,161	15,064	2,707	3,810	1,201	4,194	533	788	1,106	725	(NA)	1,282	191		
	May	61,119	47,693	28,460	20,028	17,863	2,164	15,709	2,837	3,901	1,236	4,436	534	902	1,087	776	(NA)	1,459	202		
	June	63,518	49,422	29,672	20,570	18,362	2,208	15,887	2,928	3,824	1,231	4,588	563	910	1,080	764	(NA)	1,576	206		
	July	63,644	49,279	29,309	20,536	18,542	1,994	15,833	3,020	3,749	1,169	4,518	599	951	1,089	738	(NA)	1,421	240		
	August	66,978	50,324	29,196	20,645	18,575	2,070	16,789	3,086	4,066	1,188	4,833	620	1,037	1,153	806	(NA)	1,537	316		
	September	66,030	49,404	28,086	20,163	18,169	1,994	16,869	3,090	4,251	1,184	4,855	606	898	1,217	768	(NA)	1,717	325		
	October	63,537	48,581	27,851	19,742	17,698	2,045	16,723	3,240	4,158	1,121	4,713	660	883	1,182	766	(NA)	1,658	301		
	November	59,765	46,405	26,025	19,045	17,022	2,023	16,299	3,408	4,206	1,082	4,265	586	828	1,183	740	(NA)	1,768	260		
	December	52,059	40,455	21,470	16,437	14,517	1,920	14,942	2,961	4,012	1,006	3,949	512	765	1,084	653	(NA)	2,001	221		
2001:	January	49,420	38,737	21,102	15,510	13,610	1,899	14,478	2,922	3,886	999	3,731	499	747	1,072	622	(NA)	1,620	176		
	February ^f	47,960	37,462	19,808	14,971	13,087	1,884	14,357	2,811	3,786	1,009	3,844	495	719	1,036	656	(NA)	1,524	178		
	March ^f	54,929	43,433	23,833	17,501	15,510	1,991	15,802	3,137	4,163	1,077	4,201	519	817	1,127	760	(NA)	1,875	173		
	April ^{lp}	57,905	44,940	25,422	18,453	16,404	2,049	16,005	3,121	4,126	1,057	4,376	540	854	1,149	782	(NA)	(NA)	184		
PERCENT CHANGE																					
March 2001- April 2001	5	3	7	5	6	3	1	-1	-1	-2	4	4	5	2	3	(NA)	(NA)	6			

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	Conserva- tion and develop- ment	Sewer systems	Water supply facilities	Miscel- laneous public ⁷
		Total	Housing and rede- velopment	Industrial	Educa- tional	Hospital	Other public buildings ⁶						
YEAR TO DATE													
April 2000	44,956	22,146	1,511	324	11,190	1,123	8,001	11,084	619	1,693	3,078	2,114	4,222
April 2001	45,643	22,989	1,477	395	11,932	1,056	8,130	10,256	609	1,855	2,863	2,317	4,752
Percent change	2	4	-2	22	7	-6	2	-7	-2	10	-7	10	13
MONTHLY DATA													
1999:													
April	12,167	5,502	432	68	2,755	256	1,990	3,549	163	418	827	571	1,137
May	12,841	5,570	469	75	2,791	282	1,954	4,147	163	386	893	602	1,081
June	14,310	6,257	434	65	3,405	307	2,046	4,696	168	460	954	630	1,145
July	14,842	6,371	432	80	3,462	308	2,089	5,026	176	457	933	683	1,197
August	15,915	6,756	463	62	3,731	291	2,209	5,545	128	550	954	670	1,312
September	15,937	6,587	485	99	3,406	337	2,260	5,586	186	719	944	655	1,259
October	14,691	6,194	455	40	3,123	309	2,267	5,070	129	391	957	666	1,284
November	13,583	5,818	403	63	2,875	303	2,174	4,353	148	512	900	606	1,246
December	12,097	5,522	393	77	2,721	301	2,031	3,438	180	504	835	526	1,092
2000:													
January	10,591	5,292	353	81	2,691	274	1,894	2,638	119	389	693	500	960
February	10,261	5,356	332	84	2,699	270	1,971	2,084	180	437	690	529	985
March	11,595	5,562	395	80	2,802	270	2,016	2,928	171	449	779	506	1,200
April	12,509	5,936	431	79	2,998	309	2,120	3,434	149	418	916	579	1,077
May	13,426	6,267	416	77	3,277	333	2,164	3,927	165	403	886	612	1,166
June	14,095	6,607	440	84	3,562	330	2,191	4,141	162	457	969	565	1,195
July	14,366	6,588	381	84	3,739	313	2,071	4,382	154	386	855	526	1,475
August	16,654	7,236	405	93	4,165	316	2,256	5,552	172	472	932	629	1,661
September	16,626	7,025	412	106	3,874	340	2,293	5,292	222	696	940	667	1,784
October	14,956	6,691	410	65	3,568	289	2,359	4,422	110	446	929	722	1,637
November	13,360	6,165	396	79	3,274	291	2,125	3,425	191	425	850	646	1,658
December	11,604	5,927	383	84	3,187	256	2,016	2,491	155	446	725	559	1,301
2001:													
January	10,683	5,522	370	104	2,904	261	1,883	2,109	145	461	675	501	1,270
February ^f	10,498	5,394	349	86	2,792	247	1,919	2,138	128	480	663	525	1,169
March ^f	11,496	5,793	368	96	2,977	272	2,081	2,652	154	479	724	588	1,106
April ^p	12,966	6,280	390	109	3,259	276	2,247	3,357	182	435	801	703	1,207
PERCENT CHANGE													
March 2001- April 2001	13	8	6	14	9	1	8	27	18	-9	11	20	9

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 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:	April	12,094	5,662	431	3,052	223	1,957	3,816	151	877	605
	May	13,026	5,768	483	3,103	247	1,936	4,497	142	954	638
	June	14,596	6,541	440	3,809	274	2,019	5,133	158	1,028	669
	July	15,152	6,657	441	3,878	260	2,079	5,480	159	1,003	724
	August	16,422	7,171	480	4,190	281	2,220	6,062	197	1,031	713
	September	16,017	6,806	493	3,828	306	2,180	6,101	196	1,019	697
	October	15,349	6,572	476	3,529	300	2,267	5,581	187	1,034	711
	November	13,930	6,150	413	3,266	302	2,169	4,821	216	975	648
	December	12,335	5,813	408	3,101	275	2,029	3,823	193	906	565
	Federally owned public construction										
	2000:	January	10,969	5,663	373	3,081	255	1,954	2,938	146	755
		February	10,538	5,745	347	3,095	254	2,048	2,329	174	757
		March	11,885	5,968	416	3,222	270	2,060	3,268	147	857
		April	13,194	6,445	460	3,462	288	2,234	3,894	146	1,009
		May	14,266	6,858	444	3,798	343	2,274	4,484	151	973
		June	14,916	7,221	472	4,133	322	2,295	4,733	144	1,060
		July	15,497	7,299	406	4,362	320	2,210	5,036	147	943
		August	17,938	7,997	434	4,867	315	2,382	6,391	153	1,032
		September	17,560	7,683	441	4,539	329	2,374	6,100	188	1,043
		October	16,339	7,439	443	4,193	301	2,503	5,125	209	1,033
		November	14,406	6,887	429	3,864	293	2,301	3,980	175	945
		December	12,381	6,609	404	3,774	261	2,170	2,891	163	805
2001:	January	11,336	6,154	400	3,448	269	2,037	2,446	174	749	543
	February ^r	11,182	6,062	382	3,326	257	2,098	2,485	183	736	569
	March ^r	12,255	6,478	401	3,543	275	2,259	3,084	162	804	637
	April ^P	14,046	7,107	435	3,887	294	2,491	3,905	174	890	762
	Federally owned public construction										
	2000:	January	952	390	25	93	-	59	214	(NA)	135
		February	1,055	393	27	96	-	56	213	(NA)	205
		March	1,220	423	32	92	-	40	259	(NA)	194
		April	1,059	414	29	91	7	69	218	(NA)	172
		May	1,087	397	30	89	1	43	235	(NA)	191
		June	1,218	442	32	98	3	62	249	(NA)	188
		July	1,042	382	32	98	1	45	207	(NA)	179
		August	1,263	454	31	109	2	55	256	(NA)	201
		September	1,637	550	34	125	5	71	316	(NA)	259
		October	993	421	31	76	3	40	272	(NA)	129
		November	1,114	387	31	93	2	52	209	(NA)	224
		December	1,123	409	46	99	3	43	219	(NA)	183
2001:	January	1,101	403	36	124	2	42	200	(NA)	171	337
	February ^r	1,065	365	33	103	2	37	190	(NA)	151	350
	March ^r	1,169	426	36	114	5	49	222	(NA)	182	371
	April ^P	1,108	390	29	130	4	36	193	(NA)	216	310

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

^PPreliminary. ^RRevised.

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

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

[Millions of dollars]

Period	State and locally owned public construction											
	Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction ²	
		Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹						
1999:	April	160,507	71,883	5,239	40,063	2,695	23,885	55,504	1,914	11,172	7,548	12,486
	May	156,206	69,946	5,755	38,781	3,049	22,360	53,326	1,692	11,509	7,452	12,280
	June	154,153	71,868	5,091	40,523	3,090	23,164	49,754	1,741	11,359	7,641	11,789
	July	155,344	70,992	5,227	38,491	3,081	24,193	51,576	1,667	11,306	7,933	11,870
	August	157,479	73,445	5,672	39,496	3,407	24,869	51,229	1,926	10,857	7,791	12,231
	September	157,713	73,440	5,400	40,149	3,375	24,516	52,107	1,982	10,447	7,592	12,145
	October	157,155	74,016	5,232	40,447	3,335	25,003	50,313	1,897	10,885	7,202	12,842
	November	164,718	74,669	4,713	41,083	3,581	25,292	56,220	2,540	10,925	7,191	13,172
	December	171,493	75,666	4,991	41,621	3,314	25,740	59,889	2,655	11,740	7,255	14,288
2000:	January	178,303	79,393	4,975	44,485	3,373	26,560	63,068	2,271	11,199	7,955	14,417
	February	171,739	81,348	4,679	45,681	3,372	27,616	52,827	2,697	11,518	8,475	14,874
	March	176,895	80,895	5,309	45,538	3,358	26,690	58,701	2,137	11,507	7,748	15,907
	April	173,141	81,411	5,700	44,956	3,646	27,110	55,623	1,831	12,976	7,862	13,436
	May	168,831	82,835	5,215	47,174	4,135	26,311	51,644	1,795	11,375	7,770	13,412
	June	160,369	79,595	5,439	44,042	3,634	26,481	47,805	1,592	11,638	7,085	12,654
	July	161,666	78,191	4,861	43,694	3,809	25,826	48,932	1,557	10,817	6,324	15,845
	August	170,278	81,490	5,025	46,165	3,714	26,585	52,383	1,506	10,829	7,507	16,563
	September	174,860	82,935	4,876	47,698	3,667	26,694	52,854	1,893	10,913	7,917	18,348
	October	170,080	83,837	4,853	48,147	3,311	27,526	47,598	2,118	10,795	8,021	17,711
	November	171,028	83,979	4,905	48,652	3,453	26,970	46,509	2,040	10,671	7,871	19,957
	December	172,815	86,487	5,014	50,713	3,258	27,502	47,726	2,226	10,683	7,835	17,856
2001:	January	177,439	85,832	5,207	49,490	3,452	27,683	50,437	2,692	10,867	7,997	19,614
	February ^r	179,067	85,968	5,148	49,030	3,412	28,378	53,054	2,817	11,194	8,356	17,678
	March ^r	180,329	87,809	5,145	49,963	3,486	29,215	54,186	2,394	10,944	8,890	16,105
	April ^p	182,324	89,402	5,315	50,486	3,653	29,948	54,361	2,255	11,307	9,371	15,628
Federally owned public construction												
Period	Total federal	Buildings						Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
		Total	Housing	Industrial	Educational	Hospital	Other buildings ³					
1999:	April	14,456	5,192	513	920	13	732	3,014	(NA)	2,268	3,721	2,969
	May	12,708	5,168	399	1,022	9	828	2,911	(NA)	2,124	3,357	1,739
	June	13,977	5,283	457	848	13	821	3,144	(NA)	2,140	4,073	2,160
	July	14,043	5,498	442	1,024	30	987	3,015	(NA)	2,268	3,931	2,027
	August	13,758	5,319	429	891	49	588	3,362	(NA)	1,646	4,447	2,033
	September	12,904	5,244	403	989	8	651	3,193	(NA)	1,932	4,162	1,241
	October	14,839	5,962	446	640	1	700	4,174	(NA)	2,114	4,043	2,386
	November	14,816	5,518	462	877	1	520	3,657	(NA)	1,944	4,045	2,982
	December	14,402	5,338	369	986	7	765	3,211	(NA)	2,332	4,346	2,057
2000:	January	13,212	5,266	332	1,253	1	792	2,887	(NA)	1,782	3,952	1,912
	February	14,683	5,159	358	1,267	4	733	2,797	(NA)	3,011	4,278	1,917
	March	14,879	4,955	376	1,077	2	468	3,032	(NA)	2,249	4,358	3,012
	April	13,524	5,286	370	1,160	93	877	2,785	(NA)	2,180	4,008	1,750
	May	13,165	4,823	366	1,081	12	516	2,848	(NA)	2,246	3,568	2,205
	June	14,108	5,002	356	1,105	28	697	2,816	(NA)	2,157	4,240	2,365
	July	12,324	4,569	378	1,167	14	537	2,473	(NA)	2,100	3,317	2,008
	August	14,552	5,547	382	1,336	28	670	3,131	(NA)	2,331	4,122	2,240
	September	13,300	4,788	295	1,087	42	614	2,750	(NA)	2,418	4,265	1,500
	October	15,075	5,949	431	1,074	38	564	3,842	(NA)	1,880	4,871	2,041
	November	13,340	4,710	381	1,134	29	628	2,538	(NA)	2,612	3,563	2,140
	December	13,579	4,831	540	1,173	32	503	2,583	(NA)	2,097	4,104	2,200
2001:	January	15,014	5,309	478	1,625	28	549	2,630	(NA)	2,264	4,693	2,439
	February ^r	14,703	4,880	434	1,374	31	498	2,543	(NA)	2,207	4,782	2,513
	March ^r	14,275	5,059	422	1,358	58	586	2,635	(NA)	2,118	4,624	2,154
	April ^p	14,103	4,869	358	1,620	44	443	2,404	(NA)	2,742	3,992	2,187

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 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:	April	147,417	64,937	4,789	36,158	2,432	21,557	51,345	1,805	10,540	7,121	
	May	142,596	62,967	5,242	34,875	2,742	20,108	48,879	1,583	10,766	7,031	
	June	139,698	64,287	4,611	36,214	2,762	20,700	45,231	1,615	10,537	7,202	
	July	140,866	63,380	4,713	34,337	2,748	21,582	47,016	1,549	10,507	7,484	
	August	142,358	65,406	5,110	35,139	3,032	22,126	46,572	1,783	10,053	7,323	
	September	142,615	65,394	4,860	35,719	3,002	21,812	47,413	1,837	9,682	7,135	
	October	141,285	65,564	4,692	35,794	2,951	22,126	45,408	1,755	10,070	6,750	
	November	147,396	65,789	4,208	36,165	3,152	22,264	50,467	2,345	10,088	6,721	
	December	152,992	66,436	4,440	36,510	2,907	22,579	53,568	2,447	10,820	6,755	
	Federally owned public construction											
	2000:	January	158,529	69,404	4,410	38,852	2,946	23,197	56,361	2,083	10,274	7,359
		February	152,096	70,988	4,144	39,827	2,940	24,077	46,999	2,456	10,490	7,775
		March	156,552	70,404	4,677	39,598	2,920	23,209	52,318	1,942	10,461	7,108
		April	151,880	70,455	5,018	38,856	3,151	23,431	48,792	1,663	11,786	7,187
		May	147,526	71,550	4,578	40,702	3,568	22,701	44,947	1,634	10,360	7,102
		June	140,022	68,623	4,750	37,934	3,130	22,809	41,533	1,455	10,638	6,494
		July	140,400	67,070	4,234	37,441	3,264	22,130	42,292	1,412	9,807	5,796
		August	147,678	69,788	4,377	39,491	3,177	22,742	45,236	1,361	9,783	6,893
		September	151,308	70,772	4,226	40,664	3,126	22,757	45,564	1,705	9,832	7,270
		October	146,642	71,361	4,198	40,941	2,816	23,407	40,786	1,905	9,708	7,346
		November	147,057	71,169	4,214	41,196	2,923	22,836	39,751	1,835	9,596	7,214
		December	148,354	73,032	4,278	42,796	2,750	23,209	40,826	2,006	9,624	7,202
2001:	January	152,340	72,276	4,409	41,658	2,906	23,302	43,219	2,427	9,799	7,384	17,235
	February ^r	153,386	72,142	4,341	41,133	2,862	23,807	45,384	2,538	10,085	7,716	15,521
	March ^r	154,318	73,683	4,335	41,915	2,924	24,509	46,313	2,155	9,851	8,201	14,115
	April ^P	155,895	74,895	4,470	42,283	3,060	25,082	46,462	2,028	10,168	8,645	13,697
	Federally owned public construction											
	Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴		
		Total	Housing	Industrial	Educa-tional	Hospital						
		13,333	4,692	469	830	12	660	2,720	(NA)	2,073	3,510	
		11,623	4,652	363	919	8	745	2,618	(NA)	1,927	3,141	
		12,708	4,727	414	758	11	734	2,810	(NA)	1,928	3,778	
		12,764	4,908	398	914	27	880	2,689	(NA)	2,045	3,653	
		12,485	4,737	387	792	43	523	2,991	(NA)	1,481	4,118	
		11,701	4,670	363	880	7	579	2,841	(NA)	1,739	3,858	
		13,393	5,281	400	567	1	619	3,694	(NA)	1,889	3,740	
		13,333	4,863	413	772	1	457	3,219	(NA)	1,728	3,735	
		12,919	4,687	328	865	6	671	2,817	(NA)	2,066	4,005	
2000:	January	11,802	4,603	294	1,094	1	692	2,522	(NA)	1,574	3,625	
	February	13,058	4,503	317	1,105	3	639	2,438	(NA)	2,651	3,896	
	March	13,237	4,313	331	936	2	407	2,636	(NA)	1,980	3,962	
	April	11,940	4,575	326	1,003	80	758	2,407	(NA)	1,899	3,641	
	May	11,605	4,167	322	933	10	445	2,457	(NA)	1,946	3,250	
	June	12,461	4,313	311	952	24	600	2,426	(NA)	1,866	3,876	
	July	10,797	3,921	329	1,000	12	460	2,119	(NA)	1,807	3,008	
	August	12,724	4,751	333	1,143	24	573	2,678	(NA)	2,003	3,724	
	September	11,606	4,086	256	927	36	523	2,344	(NA)	2,072	3,842	
	October	13,127	5,065	373	913	32	480	3,267	(NA)	1,605	4,381	
	November	11,565	3,993	327	960	25	532	2,149	(NA)	2,223	3,204	
	December	11,787	4,082	461	990	27	425	2,180	(NA)	1,782	3,697	
2001:	January	13,033	4,471	404	1,368	23	462	2,214	(NA)	1,922	4,231	
	February ^r	12,755	4,096	366	1,152	26	418	2,133	(NA)	1,870	4,308	
	March ^r	12,362	4,246	355	1,139	49	491	2,211	(NA)	1,793	4,162	
	April ^P	12,173	4,079	301	1,356	37	371	2,013	(NA)	2,320	3,590	

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:	April	11,104	5,115	394	2,754	201	1,766	3,530	142	827	571
	May	11,892	5,192	439	2,790	222	1,741	4,122	132	893	602
	June	13,228	5,851	398	3,404	244	1,804	4,666	146	954	630
	July	13,740	5,943	397	3,459	232	1,854	4,995	147	933	683
	August	14,848	6,385	433	3,728	250	1,975	5,511	182	954	670
	September	14,493	6,061	444	3,405	272	1,939	5,551	181	944	655
	October	13,810	5,821	427	3,123	265	2,006	5,037	173	957	666
	November	12,471	5,419	369	2,875	266	1,909	4,328	199	900	606
	December	11,002	5,104	363	2,720	241	1,780	3,419	177	835	526
2000:	January	9,741	4,951	331	2,690	223	1,707	2,625	134	693	500
	February	9,324	5,013	308	2,698	222	1,786	2,072	158	690	529
	March	10,510	5,194	367	2,802	235	1,791	2,912	134	779	506
	April	11,574	5,577	405	2,992	249	1,931	3,415	132	916	579
	May	12,468	5,924	390	3,277	296	1,962	3,903	138	886	612
	June	13,020	6,225	412	3,560	277	1,977	4,112	131	969	565
	July	13,453	6,260	354	3,738	274	1,894	4,353	134	855	526
	August	15,549	6,848	378	4,163	269	2,037	5,519	138	932	629
	September	15,194	6,556	382	3,870	280	2,023	5,259	169	940	667
	October	14,093	6,332	383	3,565	256	2,128	4,391	188	929	722
	November	12,394	5,837	369	3,272	248	1,949	3,402	157	850	646
	December	10,630	5,581	344	3,185	220	1,832	2,473	147	725	559
2001:	January	9,728	5,182	339	2,902	226	1,715	2,096	157	675	501
	February ^r	9,574	5,087	322	2,790	216	1,760	2,125	165	663	525
	March ^r	10,485	5,436	338	2,972	230	1,895	2,636	146	724	588
	April ^p	12,010	5,954	365	3,256	247	2,086	3,338	157	801	703
Federally owned public construction											
Period	Total federal	Buildings						Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴
		Total	Housing	Industrial	Educational	Hospital	Other buildings ³				
1999:	April	1,063	387	39	68	1	54	224	(NA)	163	276
		949	378	30	75	1	61	213	(NA)	163	254
		1,082	406	36	65	1	63	241	(NA)	168	314
	July	1,102	428	35	80	2	77	234	(NA)	176	309
	August	1,066	371	30	62	3	41	234	(NA)	128	368
	September	1,444	527	41	99	1	65	321	(NA)	186	538
	October	881	373	28	40	-	44	261	(NA)	129	219
	November	1,112	400	34	63	-	38	265	(NA)	148	312
	December	1,096	418	29	77	1	60	251	(NA)	180	326
2000:	January	850	341	22	81	-	51	187	(NA)	119	256
	February	937	343	24	84	-	49	186	(NA)	180	279
	March	1,085	368	28	80	-	35	225	(NA)	171	315
	April	935	359	26	79	6	59	189	(NA)	149	286
	May	958	343	27	77	1	37	203	(NA)	165	265
	June	1,075	381	28	84	2	53	214	(NA)	162	325
	July	912	328	28	84	1	38	177	(NA)	154	252
	August	1,105	389	27	93	2	47	219	(NA)	172	334
	September	1,432	469	29	106	4	60	269	(NA)	222	527
	October	863	358	26	65	2	34	231	(NA)	110	258
	November	966	328	27	79	2	44	177	(NA)	191	267
	December	974	346	39	84	2	36	185	(NA)	155	299
2001:	January	955	340	31	104	2	35	168	(NA)	145	304
	February ^r	924	307	27	86	2	31	160	(NA)	128	315
	March ^r	1,012	357	30	96	4	41	186	(NA)	154	334
	April ^p	956	327	24	109	3	30	161	(NA)	182	279

- 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 Adminis- tration compos- ite	Bureau of Reclama- tion	Turner Con- struction Company	Handy-Whitman public utility				C.A. Turner telephone plant
	Com- posite fixed- weighted	Implicit price deflator	Buildings	Construction	Fixed- weighted	Price deflator				Buildings	Electric	Gas	Water	
Annual indexes														
1996.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100	100	100
1997.....	103.2	103.3	105.0	103.6	102.9	102.9	107.5	103	104	103	102	102	102	102
1998.....	106.0	106.1	105.8	105.3	105.6	105.6	105.2	105	109	104	104	104	104	102
1999.....	110.3	110.4	107.9	107.8	110.4	110.4	112.7	107	113	107	105	107	107	101
2000.....	114.6	114.7	110.5	110.6	115.4	115.5	119.3	111	118	110	106	111	108	103
Monthly indexes														
1999: January	108.4	108.5	106.9	106.7	108.5	108.5	107.1	105	111	105	105	105	106	102
February	108.6	108.6	106.7	106.6	108.7	108.6								
March.....	109.0	108.9	106.5	106.5	109.0	108.9								
April	109.3	109.3	106.8	106.9	109.5	109.4								
May	109.7	109.8	106.8	106.8	109.8	109.8	117.5	106	112					
June.....	110.4	110.4	107.2	107.4	110.4	110.4								
July.....	110.6	110.6	108.0	108.1	110.8	110.9								
August.....	110.8	110.8	108.5	108.3	110.9	111.0	108.0	108	114					
September	110.9	110.9	109.4	109.0	111.0	111.1								
October	111.4	111.4	109.4	109.1	111.5	111.5								
November	112.0	111.9	109.2	109.0	112.1	112.0	118.1	109	115					
December	112.3	112.3	109.2	109.0	112.3	112.4								
2000: January	112.6	112.8	109.4	109.0	112.6	112.8	113.2	109	116					
February	113.0	113.1	110.0	109.6	112.8	112.9								
March.....	113.3	113.3	110.4	110.3	113.3	113.5								
April	113.8	113.9	110.3	110.3	113.6	113.6								
May	114.1	114.2	111.1	110.9	113.8	113.9	128.4	111	117					
June.....	114.4	114.5	110.9	111.0	114.3	114.5								
July.....	114.9	114.9	110.7	110.7	114.7	114.8								
August.....	115.0	115.0	110.7	110.9	114.8	114.8	113.0	111	119					
September	115.5	115.4	110.5	110.7	115.5	115.4								
October	115.8	115.7	110.5	110.7	115.7	115.6								
November	116.3	116.3	110.6	111.4	116.4	116.4	122.9	111	120					
December	116.9	116.7	110.8	111.7	117.3	117.2								
2001: January	117.4	117.3	110.7	111.7	118.2	118.1	(NA)	112	121					
February	117.8	117.6	110.4	111.6	118.7	118.6								
March.....	118.0	117.7	110.5	111.7	119.0	118.7								
April	P118.2	P118.0	110.5	111.8	P119.3	P118.9	(NA)	(NA)	(NA)					
May			110.7	111.8										

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	Apr. 2001 ^p	Mar. 2001 ^r	Feb. 2001 ^r	Jan. 2001	Dec. 2000	Nov. 2000	Oct. 2000	Sep. 2000	Aug. 2000	July 2000	June 2000	Apr. 2000
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	96.7	92.3	77.7	82.6	89.1	104.7	108.6	111.4	112.7	112.1	108.2	96.9
2 units or more.....	100.2	96.8	89.8	88.8	94.3	99.7	104.4	103.7	106.2	103.5	107.1	100.0
Nonresidential buildings:												
Industrial	96.9	96.5	90.3	89.5	103.4	103.0	106.8	106.4	104.2	100.5	102.1	97.2
Office	99.1	97.3	93.2	93.3	96.5	102.7	103.8	104.1	104.7	99.6	102.3	98.3
Hotels, motels	100.6	101.4	93.5	92.8	95.5	100.1	101.8	100.1	104.7	101.3	105.4	99.3
Other commercial	95.5	91.4	85.1	84.1	93.8	103.9	109.9	112.1	111.5	106.5	105.2	95.1
Religious	94.1	92.3	88.2	90.6	96.8	111.0	114.6	108.2	111.1	98.3	97.5	93.9
Educational.....	96.2	91.4	84.3	82.7	87.8	95.2	99.5	106.3	119.1	117.7	115.2	96.1
Hospital and institutional	101.5	99.7	94.2	93.5	98.9	104.5	105.1	103.6	102.3	97.4	99.7	101.9
Miscellaneous nonresidential	103.1	98.1	90.2	88.5	98.0	102.7	106.4	104.2	103.5	101.5	102.1	102.7
Telecommunications	94.7	102.3	84.0	83.9	100.5	106.5	107.8	102.6	110.8	97.4	108.8	92.6
All other private	90.6	88.5	77.7	82.7	97.9	103.4	118.3	112.4	118.1	108.5	101.0	92.7
PUBLIC CONSTRUCTION												
State and local												
Buildings:												
Housing and redevelopment	98.1	93.5	89.0	92.2	96.6	105.0	109.6	108.6	103.6	100.2	104.1	96.9
Educational.....	92.4	85.1	81.4	83.6	89.3	95.3	104.5	114.2	126.5	119.8	112.6	92.4
Hospital	96.7	94.5	90.4	93.4	96.2	101.7	108.9	107.6	101.7	100.9	106.2	94.9
Other buildings.....	99.8	92.8	88.7	88.3	94.7	102.4	109.1	106.7	107.5	102.7	104.0	98.9
Highways and streets.....	86.2	68.3	56.2	58.2	72.7	102.7	129.2	138.5	146.4	123.5	118.8	84.0
Conservation and development	92.7	81.2	77.9	77.7	87.7	103.0	118.3	119.0	121.8	113.5	108.3	95.4
Sewer systems.....	94.5	88.2	78.9	82.7	90.4	106.3	114.8	114.7	114.3	104.6	109.3	93.3
Water supply facilities.....	97.6	86.0	81.7	81.5	93.1	107.5	117.9	110.1	109.5	108.9	104.4	96.6
Miscellaneous construction	92.7	81.2	77.9	77.7	87.7	103.0	118.3	119.0	121.8	113.5	108.3	95.4
Federal												
Buildings:												
Housing and redevelopment	96.1	101.0	89.8	91.2	101.6	98.6	84.9	137.8	98.2	100.3	106.1	94.1
Industrial	96.1	101.0	89.8	91.2	101.6	98.6	84.9	137.8	98.2	100.3	106.1	94.1
Educational.....	96.1	101.0	89.8	91.2	101.6	98.6	84.9	137.8	98.2	100.3	106.1	94.1
Hospital	96.1	101.0	89.8	91.2	101.6	98.6	84.9	137.8	98.2	100.3	106.1	94.1
Other buildings.....	96.1	101.0	89.8	91.2	101.6	98.6	84.9	137.8	98.2	100.3	106.1	94.1
Military	94.4	102.9	82.1	90.6	104.7	103.1	82.1	128.4	103.3	102.4	104.3	94.4
Conservation and development	93.1	96.2	87.8	86.1	97.1	100.1	70.8	164.6	107.5	100.6	100.7	94.3
Miscellaneous construction	93.1	96.2	87.8	86.1	97.1	100.1	70.8	164.6	107.5	100.6	100.7	94.3

^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 1999 (private multifamily residential, private residential improvements, private nonresidential buildings, farm nonresidential construction, public utility construction, all other private construction, and virtually all of public construction). On a monthly basis, directly measured data are available for about 54 percent of the value-in-place estimates.

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

MEASURE OF SAMPLING ERRORS

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

Estimates of the standard errors for the monthly, year-to-date and annual estimates were computed from the sample data for selected statistics in this report.

They are presented in the form of relative standard errors in the following table. The relative standard error equals the standard error divided by the estimated value to which it refers.

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

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

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

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

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

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation estimates sampling variation but does not measure all nonsampling error in the data. Nonsampling error consists of both a variance component and a bias component. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. Nonsampling errors are usually attributed to many possible sources: (1) coverage error—failure to accurately represent all population units in the sample, (2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of coverage, collection and nonresponse, response, processing, or imputing for missing or inconsistent data. These nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For preliminary value-in-place estimates, the average imputation rates for major components are as follows: private nonresidential construction, 45 percent; state and locally owned public construction, 32 percent; private residential construction of 2 units or more, 43 percent; and private residential improvements, 13 percent. Each of these imputation rates is not an explicit indication of the potential error in statistics, but the degree of uncertainty regarding the accuracy of the statistics increases as the percentage of imputation increases.

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

For state and locally owned construction, construction outlays from the Survey of Government Finances are available only through Fiscal Year 1997. (Outlays are included if a government agency's fiscal year ending date falls within July 1996 to June 1997 inclusive, and for three state agencies with fiscal years ending in August or September 1997.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1997 through April 2001. The relationship between the state and locally owned value-in-place and the capital outlays estimate changes from year to year so that revisions of 4 to 5 percent are expected in state and local construction and substantially larger revisions can be expected in the individual types of construction. In addition, because of the definition of fiscal year for the Survey of Government Finances, the reported capital outlays do not correspond to any 12 month period but result from capital outlays made over a 26 month period. There are also definitional and timing differences between the concepts of capital outlays and value put in place.

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

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

MONTHLY REVISIONS TO ESTIMATES

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

For total construction, the range of the difference between the last 12 preliminary and second revision estimates for the same months was from -0.7 percent to 1.0 percent with a median of 0.2 percent. The range of the difference between first revision and second revision was from -0.2 to 1.1 percent, with a median of 0.2 percent.

Relative Standard Errors and Coefficients for Standard Errors of Changes

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