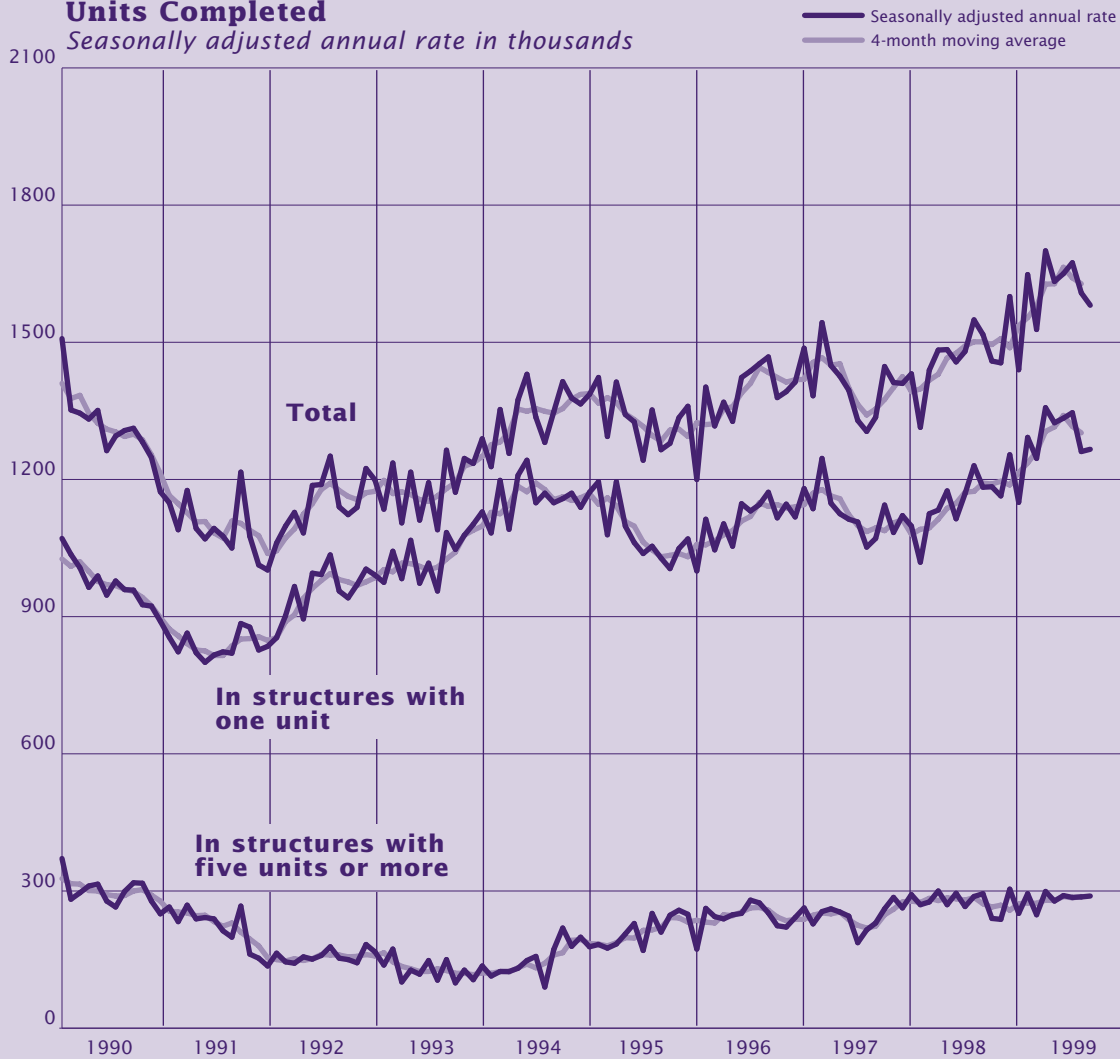


# Housing Completions

## New Privately Owned Housing Units Completed

Seasonally adjusted annual rate in thousands



Note: Total includes units started in structures with two to four units.

Source: U.S. Census Bureau, Housing Completions.

Questions regarding these data may be directed to **Dale R. Jacobson**, Residential Construction Branch, Manufacturing and Construction Division, telephone: 301-457-1321.

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## SUMMARY OF FINDINGS

This report provides monthly statistics on the number of new privately owned housing units completed and under construction. This report is released jointly by the U.S. Census Bureau and the U.S. Department of Housing and Urban Development.

Privately owned housing units were completed in August 1999 at a seasonally adjusted annual rate of 1,581,000. This is 2 ( $\pm 7$ ) percent below the revised July rate of 1,608,000, but 4 ( $\pm 7$ ) percent above the August 1998 rate of 1,517,000.

The August 1999 rate of single-family housing completions was 1,266,000. This is virtually unchanged ( $\pm 7$  percent) from the revised July rate of 1,261,000. The rate for units in buildings with five units or more was 289,000, and the rate for units in buildings with two to four units was 26,000.

Through the first eight months of this year, 1,035,400 housing units have been completed compared with 934,500 for the same period last year. This is an increase of 11 ( $\pm 3$ ) percent.

The seasonally adjusted estimate of housing units under construction at the end of August 1999 was 1,030,000. This is 1 ( $\pm 1$ ) percent above the revised July estimate of 1,021,000. Of these, 707,000 were single-family structures, 300,000 were in buildings with five units or more, and 23,000 were in buildings with two to four units.

## EXPLANATION

The statistics in this report are estimated from sample surveys and are subject to sampling variability as well as nonsampling error including bias and variance from response, nonreporting and undercoverage.

Estimated average relative standard errors of preliminary data are shown in the tables. Whenever a statement such as "2 ( $\pm 3$ ) percent above" appears in the text, this indicates the range (-1 to +5 percent) in which the actual percent change is likely to have occurred. All ranges given for percent changes are 90-percent confidence intervals and account only for sampling variability. If a range contains zero, it is unclear whether there was an increase or decrease; that is, the change is not statistically significant. For any comparison cited without a confidence interval, the change is statistically significant.

In interpreting changes in the seasonally adjusted rates of housing completions, note that month-to-month changes may reflect movements which may be irregular. It may take 4 months to establish an underlying trend for total completions.

The appendix in the January 1999 issue of this report includes explanations of confidence intervals and sampling variability. On average, the preliminary seasonally adjusted estimates of total housing completions are revised about  $\pm 1$  percent.

Housing completions and under construction statistics do not include HUD-coded manufactured homes.

## HISTORICAL DATA

Housing completions data have been collected since 1968. Housing starts are available from 1889 to the present date. Historical data for all these series are available from the Residential Construction Branch, Manufacturing and Construction Division, U.S. Census Bureau, Washington, DC 20233-6900. Telephone: 301-457-1321.

**Table 1. New Privately-Owned Housing Units Completed**

[Thousands of units. Detail may not add to total because of rounding]

Period	Total	In structures with—				Inside MSAs <sup>1</sup>	Outside MSAs <sup>1</sup>	North-east	Midwest	South	West
		1 unit	2 units	3 and 4 units	5 units or more						
<b>ANNUAL DATA</b>											
1989	1,422.8	1,026.3	24.1	34.6	337.9	1,181.2	241.7	218.8	267.1	549.4	387.5
1990	1,308.0	966.0	16.5	28.2	297.3	1,060.2	247.7	157.7	263.3	510.7	376.3
1991	1,090.8	837.6	16.9	19.7	216.6	862.1	228.7	120.1	240.4	438.9	291.3
1992	1,157.5	963.6	15.1	20.8	158.0	909.5	248.0	136.4	268.4	462.4	290.3
1993	1,192.7	1,039.4	9.5	16.7	127.1	943.0	249.8	117.6	273.3	512.0	290.0
1994	1,346.9	1,160.3	12.1	19.5	154.9	1,086.3	260.6	123.4	307.1	580.9	335.5
1995	1,312.6	1,065.5	14.8	19.8	212.4	1,065.0	247.6	126.9	287.9	581.1	316.7
1996	1,412.9	1,128.5	13.6	19.5	251.3	1,163.4	249.4	125.1	304.5	637.1	346.2
1997	1,400.5	1,116.4	13.6	23.4	247.1	1,152.8	247.7	134.0	295.9	634.1	336.4
1998	1,474.2	1,159.7	16.2	24.4	273.9	1,228.5	245.7	137.3	305.1	671.6	360.2
<b>MONTHLY DATA</b>											
<b>Not Seasonally Adjusted</b>											
1998: January	91.5	71.3	0.8	1.0	18.4	77.4	14.1	9.5	17.9	40.7	23.3
February	97.7	76.8	1.2	1.9	17.9	81.5	16.2	8.3	20.0	45.7	23.8
March	111.2	85.5	1.1	3.0	21.6	91.5	19.7	8.0	23.9	50.6	28.7
April	115.3	90.8	1.3	2.1	21.1	96.8	18.4	9.2	25.4	56.6	24.0
May	118.9	89.9	1.4	2.5	25.0	100.6	18.3	11.4	25.5	54.5	27.5
June	127.7	100.5	1.5	1.8	23.9	106.1	21.6	12.0	26.9	59.0	29.9
July	133.6	103.1	0.9	1.8	27.7	113.0	20.6	10.9	30.2	60.0	32.4
August	138.6	104.6	1.8	2.0	30.2	116.6	22.0	12.8	28.2	64.5	33.1
September	130.9	107.6	1.8	1.4	20.1	108.0	22.8	14.4	25.0	59.2	32.3
October	133.3	108.1	1.8	2.5	21.0	109.3	24.0	12.6	27.5	58.5	34.7
November	139.0	111.5	1.3	2.2	23.9	115.7	23.2	13.6	27.2	61.7	36.4
December	136.6	110.0	1.3	2.3	22.9	111.9	24.6	14.5	27.3	60.6	34.1
1999: January	114.9	90.2	0.8	3.7	20.2	97.5	17.4	8.9	20.4	57.5	28.0
February	103.0	84.9	1.2	1.4	15.6	85.6	17.4	8.2	18.8	51.9	24.1
March	130.6	103.9	0.7	3.8	22.2	108.6	22.0	11.2	26.4	59.3	33.7
April	125.3	100.9	1.0	1.5	21.8	104.3	21.0	12.3	25.1	55.6	32.3
May	136.1	109.1	0.7	1.2	25.2	117.0	19.1	14.9	28.6	61.7	31.0
June <sup>f</sup>	144.9	116.2	0.8	2.4	25.4	122.2	22.7	13.2	30.1	64.4	37.1
July <sup>f</sup>	138.4	105.8	1.5	3.2	27.8	117.7	20.7	13.5	27.2	63.3	34.3
August <sup>P</sup>	142.2	110.5	1.4	0.8	29.6	120.8	21.5	12.7	29.3	70.5	29.6
Year to date: 1998	934.5	722.5	10.0	16.1	185.9	783.5	150.9	82.2	198.0	431.6	222.7
1999	1,035.4	821.5	8.1	18.0	187.8	873.6	161.8	95.0	205.9	484.3	250.3
<b>Seasonally Adjusted Annual Rate</b>											
1998: January	1,314	1,019	25		270	(NA)	(NA)	136	273	575	330
February	1,439	1,125	38		276	(NA)	(NA)	119	326	650	344
March	1,483	1,133	50		300	(NA)	(NA)	120	349	642	372
April	1,484	1,175	39		270	(NA)	(NA)	135	322	699	328
May	1,457	1,114	48		295	(NA)	(NA)	133	319	678	327
June	1,480	1,169	45		266	(NA)	(NA)	134	310	686	350
July	1,549	1,230	31		288	(NA)	(NA)	133	337	711	368
August	1,517	1,183	40		294	(NA)	(NA)	151	296	702	368
September	1,459	1,184	35		240	(NA)	(NA)	150	255	685	369
October	1,455	1,164	53		238	(NA)	(NA)	131	288	661	375
November	1,600	1,254	42		304	(NA)	(NA)	147	303	734	416
December	1,440	1,150	39		251	(NA)	(NA)	146	295	633	366
1999: January	1,648	1,292	62		294	(NA)	(NA)	129	316	810	393
February	1,528	1,246	34		248	(NA)	(NA)	124	310	739	355
March	1,700	1,357	44		299	(NA)	(NA)	166	385	734	415
April	1,633	1,324	31		278	(NA)	(NA)	169	325	705	434
May	1,650	1,334	26		290	(NA)	(NA)	173	347	750	380
June <sup>f</sup>	1,674	1,346	42		286	(NA)	(NA)	154	337	757	426
July <sup>f</sup>	1,608	1,261	60		287	(NA)	(NA)	162	309	744	393
August <sup>P</sup>	1,581	1,266	26		289	(NA)	(NA)	152	316	779	334
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>2</sup></b>											
Annual . . . . . (percent)	1	1	7	10	3	1	4	3	3	2	1
Monthly . . . . . (percent)	3	3	25	31	9	3	9	9	9	4	4
Year to date . . . . . (percent)	1	1	9	10	4	1	4	4	3	2	1

NA Not available. <sup>P</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Metropolitan statistical areas.

<sup>2</sup>Average Relative Standard Errors (Avg. RSE): Annual—Avg. RSE for the last 2 years; Year to date—Avg. RSE for the current period and the same period last year; Monthly—Avg. RSE for the latest 6-month period (January through June or July through December).

Table 2. New Privately-Owned Housing Units Completed by Location and Type of Structure

[Thousands of units. Detail may not add to total because of rounding]

Period	United States			Inside MSAs <sup>1</sup>			Outside MSAs <sup>1</sup>			Northeast			Midwest			South			West		
	Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—		Total <sup>2</sup>	In structures with—	
		1 unit	5 units or more		1 unit	5 units or more		1 unit	5 units or more		1 unit	5 units or more		1 unit	5 units or more		1 unit	5 units or more		1 unit	5 units or more
<b>ANNUAL DATA</b>																					
1979	1,871	1,301	445	1,332	858	382	539	443	63	188	135	43	415	294	95	762	535	187	506	337	120
1980	1,502	957	426	1,079	633	359	423	324	67	146	100	38	274	170	80	696	455	196	386	233	113
1981	1,266	819	336	888	530	278	377	289	57	127	87	31	218	140	57	626	408	165	294	183	82
1982	1,006	632	293	708	409	241	297	223	52	120	79	35	143	92	38	539	340	156	203	121	64
1983	1,390	924	374	1,074	674	326	316	249	49	139	106	25	201	142	46	746	476	220	305	200	83
1984	1,652	1,025	515	1,317	771	460	336	255	55	168	129	30	221	156	50	867	508	298	396	233	137
1985	1,703	1,072	534	1,422	853	491	281	220	43	214	168	33	230	151	65	812	514	254	447	239	182
1986	1,756	1,120	550	1,502	918	513	254	202	37	254	193	47	270	170	84	764	505	226	469	253	193
1987	1,669	1,123	475	1,420	917	444	248	206	30	257	196	47	302	201	86	660	467	171	449	259	170
1988	1,530	1,085	389	1,286	876	365	244	208	24	250	188	50	280	191	76	595	457	121	405	248	142
1989	1,423	1,026	338	1,181	823	312	242	203	25	219	159	48	267	191	62	549	420	112	387	257	115
1990	1,308	966	297	1,060	759	267	248	207	30	158	127	23	263	195	57	511	389	109	376	255	108
1991	1,091	838	217	862	642	194	229	196	22	120	100	14	240	185	45	439	348	81	291	205	76
1992	1,158	964	158	910	752	133	248	212	25	136	114	18	268	218	40	462	400	52	290	232	49
1993	1,193	1,039	127	943	818	106	250	222	21	118	105	10	273	232	33	512	456	49	290	247	35
1994	1,347	1,160	155	1,086	929	135	261	232	20	123	113	7	307	255	42	581	507	64	336	285	42
1995	1,313	1,066	212	1,065	848	191	248	217	21	127	108	16	288	232	44	581	472	99	317	253	54
1996	1,413	1,129	251	1,163	913	226	249	215	25	125	108	14	304	245	48	637	507	120	346	269	69
1997	1,400	1,116	247	1,153	904	221	248	212	26	134	115	14	296	236	47	634	506	118	336	259	68
1998	1,474	1,160	274	1,229	951	248	246	208	26	137	116	16	305	244	47	672	517	142	360	283	69
<b>QUARTERLY DATA</b>																					
1995:																					
1st quarter	291	246	37	233	194	33	59	52	4	30	26	3	62	51	8	130	110	18	69	58	9
2nd quarter	318	258	51	258	207	45	60	52	6	29	25	3	75	59	14	140	114	22	74	60	12
3rd quarter	346	272	65	284	219	59	62	53	6	33	27	6	79	61	15	152	121	28	82	64	16
4th quarter	357	289	59	289	229	54	67	60	5	35	30	4	72	62	7	159	126	30	90	71	17
1996:																					
1st quarter	293	235	52	243	192	47	50	44	5	24	21	3	56	45	9	136	108	26	77	61	15
2nd quarter	342	270	66	285	222	59	57	48	7	29	25	3	73	55	16	156	124	30	84	66	17
3rd quarter	382	301	71	314	243	64	69	59	7	32	28	3	88	68	16	169	134	32	94	71	20
4th quarter	394	322	63	321	257	57	74	65	6	40	34	5	87	76	8	177	141	32	91	71	17
1997:																					
1st quarter	310	251	51	255	204	45	55	47	5	32	27	5	61	48	10	143	120	20	74	56	16
2nd quarter	338	271	57	279	221	51	59	51	6	32	28	3	70	57	10	152	121	28	83	65	16
3rd quarter	363	287	66	302	235	59	61	52	7	35	30	(S)	81	63	15	163	128	32	84	66	16
4th quarter	389	307	73	316	244	65	72	63	7	35	31	(S)	83	68	12	176	136	38	94	72	20
1998:																					
1st quarter	300	234	58	250	193	52	50	40	6	26	22	3	62	47	10	137	104	31	76	60	15
2nd quarter	362	281	70	304	233	63	58	49	7	33	27	4	78	61	13	170	128	39	81	65	14
3rd quarter	403	315	78	338	260	71	65	56	8	38	33	4	83	65	16	184	142	39	98	76	20
4th quarter	409	330	68	337	266	62	72	64	6	41	34	5	82	70	8	181	144	33	105	81	21
1999:																					
1st quarter	348	279	58	292	230	53	57	49	5	28	24	3	66	54	8	169	132	32	86	69	14
2nd quarter	406	326	72	343	270	67	63	56	5	40	33	6	84	71	10	182	144	36	100	78	20
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>3</sup></b>																					
Annual . . . . . (percent) . .	1	1	3	1	1	3	4	4	13	3	2	14	3	3	10	2	2	4	1	1	3
Quarterly . . . . . (percent) . .	2	2	6	2	2	6	6	6	25	6	6	14	5	5	18	3	3	9	3	3	7

<sup>1</sup>Revised. S Withheld because estimate did not meet publication standards on the basis of response rate, associated standard error, or a consistency review.

<sup>2</sup>Metropolitan statistical areas.

<sup>3</sup>Includes units completed in structures with two to four units.

<sup>3</sup>Average Relative Standard Errors (Avg. RSE): Annual—Avg. RSE for the last 2 years; Quarterly—Avg. RSE for the latest 2-quarter period (quarter 1 through quarter 2 or quarter 3 through quarter 4).

**Table 3. New Privately-Owned Housing Units Under Construction**

[Thousands of units. Detail may not add to total because of rounding]

Period	Total	In structures with—				Inside MSAs <sup>1</sup>	Outside MSAs <sup>1</sup>	North-east	Midwest	South	West
		1 unit	2 units	3 and 4 units	5 units or more						
<b>ANNUAL DATA</b>											
1989	850.3	535.1	11.9	25.1	278.1	686.7	163.6	158.8	145.5	282.1	263.9
1990	711.4	449.1	10.9	15.1	236.3	553.9	157.5	121.6	133.4	242.3	214.1
1991	606.3	433.5	9.1	14.5	149.2	458.4	147.9	103.9	122.4	208.5	171.6
1992	612.4	472.7	5.6	11.3	122.8	453.1	159.4	81.4	137.8	228.4	164.8
1993	680.1	543.0	6.5	12.4	118.2	521.0	159.1	89.3	154.4	265.4	170.9
1994	762.2	557.8	9.1	12.9	182.5	597.6	164.5	96.3	173.5	312.1	180.3
1995	775.9	547.2	8.4	12.7	207.7	620.1	155.8	86.3	172.0	331.4	186.3
1996	792.3	550.0	9.0	19.1	214.3	629.9	162.4	85.2	178.0	337.6	191.4
1997	846.7	554.6	11.2	20.7	260.2	683.5	163.2	87.1	181.9	364.8	213.0
1998	970.8	659.1	8.3	20.5	282.9	794.8	176.0	98.5	201.2	428.5	242.6
<b>MONTHLY DATA</b>											
<b>Not Seasonally Adjusted</b>											
1998: January	846.0	556.0	11.1	20.8	258.1	683.9	162.1	85.8	178.6	366.9	214.7
February	847.5	557.6	10.7	21.1	258.1	688.8	158.7	86.9	175.9	371.2	213.5
March	867.6	578.6	10.9	19.8	258.4	710.2	157.5	89.7	174.9	383.4	219.7
April	895.5	604.5	10.9	19.9	260.3	731.3	164.2	92.6	181.6	390.7	230.6
May	918.1	628.4	11.3	19.9	258.5	747.9	170.3	95.0	184.9	400.8	237.5
June	948.7	656.4	11.3	21.0	260.0	770.0	178.7	96.8	191.0	412.4	248.3
July	970.1	674.3	11.6	20.9	263.3	786.6	183.5	101.7	191.3	423.1	254.1
August	976.8	682.9	11.2	21.9	260.8	791.2	185.6	101.5	193.8	425.1	256.4
September	984.7	686.8	10.0	21.3	266.7	798.0	186.7	100.1	197.9	427.1	259.7
October	1,003.9	689.0	9.4	21.7	283.9	818.5	185.4	103.6	207.4	437.6	255.3
November	988.0	678.4	9.0	22.2	278.4	805.5	182.5	102.1	203.2	436.0	246.6
December	970.8	659.1	8.3	20.5	282.9	794.8	176.0	98.5	201.2	428.5	242.6
1999: January	962.2	650.7	8.1	18.7	284.6	790.9	171.3	96.0	194.5	427.9	243.7
February	971.3	655.0	7.5	17.8	291.1	803.0	168.3	97.9	191.9	437.9	243.7
March	991.4	673.0	7.9	15.6	294.8	820.8	170.6	99.1	194.6	452.9	244.9
April	1,013.1	690.6	8.5	15.3	298.7	839.4	173.6	99.3	203.1	461.6	249.2
May	1,031.5	710.8	8.9	15.1	296.7	853.6	177.9	99.2	209.3	466.7	256.4
June <sup>f</sup>	1,038.1	722.0	9.1	14.5	292.6	856.0	182.2	102.0	216.1	466.3	253.8
July <sup>f</sup>	1,055.1	738.9	8.6	14.9	292.8	868.1	187.1	105.7	221.0	469.4	259.0
August <sup>P</sup>	1,067.6	747.4	8.3	15.5	296.4	878.1	189.4	108.5	226.0	467.2	265.9
<b>Seasonally Adjusted</b>											
1998: January	887	595	32		260	(NA)	(NA)	90	188	384	225
February	906	610	33		263	(NA)	(NA)	92	195	391	228
March	911	617	32		262	(NA)	(NA)	95	189	398	229
April	911	618	32		261	(NA)	(NA)	94	190	394	233
May	916	626	32		258	(NA)	(NA)	96	187	396	237
June	930	639	32		259	(NA)	(NA)	97	188	403	242
July	938	642	33		263	(NA)	(NA)	97	185	410	246
August	939	644	32		263	(NA)	(NA)	97	184	411	247
September	946	648	31		267	(NA)	(NA)	97	187	414	248
October	968	659	30		279	(NA)	(NA)	100	193	428	247
November	971	667	30		274	(NA)	(NA)	98	195	434	244
December	999	688	29		282	(NA)	(NA)	101	202	444	252
1999: January	1,011	697	27		287	(NA)	(NA)	102	205	448	256
February	1,032	712	25		295	(NA)	(NA)	103	210	459	260
March	1,036	714	24		298	(NA)	(NA)	103	210	467	256
April	1,031	708	25		298	(NA)	(NA)	102	211	465	253
May	1,029	708	24		297	(NA)	(NA)	100	212	463	254
June <sup>f</sup>	1,017	702	22		293	(NA)	(NA)	102	212	456	247
July <sup>f</sup>	1,021	704	24		293	(NA)	(NA)	102	215	454	250
August <sup>P</sup>	1,030	707	23		300	(NA)	(NA)	104	217	453	256
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>2</sup></b>											
End of period . . . . . (percent)	1	2	9	12	3	1	5	4	4	2	2

NA Not available. <sup>P</sup>Preliminary. <sup>f</sup>Revised.

<sup>1</sup>Metropolitan statistical areas.

<sup>2</sup>Average Relative Standard Errors: Average for the latest 6-month period (January through June or July through December).



**Table 5. Seasonal Indexes Used to Adjust Housing Units Completed**

Period	United States implicit index <sup>1</sup>	In structures with—						All units			
		1 unit				2 to 4 units	5 units or more	North-east	Midwest	South	West
		North-east	Midwest	South	West						
<b>1999</b>											
May . . . . .	99.0	101.7	96.6	98.5	97.4	88.2	104.0	103.4	98.4	98.2	97.3
June <sup>e</sup> . . . . .	103.9	104.9	104.8	102.3	104.2	93.3	106.6	101.6	106.0	100.9	103.2
July <sup>f</sup> . . . . .	103.3	98.9	101.8	101.3	99.3	94.0	116.4	99.0	104.3	101.0	103.6
August <sup>g</sup> . . . . .	108.0	104.9	104.6	104.6	105.2	103.0	122.6	101.0	111.8	109.0	106.8

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>The implicit seasonal index is the ratio of the unadjusted number of housing units completed in the United States to the seasonally adjusted national total of housing units completed. It provides an indication of the overall seasonality for the particular month.

Note: These seasonal indexes include trading-day adjustment factors.

**Table 6. Seasonal Indexes Used to Adjust Housing Units Under Construction**

Period	United States implicit index <sup>1</sup>	In structures with—						All units			
		1 unit				2 to 4 units	5 units or more	North-east	Midwest	South	West
		North-east	Midwest	South	West						
<b>1999</b>											
May . . . . .	100.2	99.2	99.0	101.6	100.4	98.1	99.9	98.5	98.9	100.9	100.8
June <sup>e</sup> . . . . .	102.1	101.6	103.3	103.0	102.7	101.0	100.0	100.2	101.7	102.3	102.6
July <sup>f</sup> . . . . .	103.3	106.0	105.9	104.1	105.1	99.6	99.8	103.8	103.3	103.5	103.6
August <sup>g</sup> . . . . .	103.6	106.7	107.7	104.3	106.0	102.1	98.9	104.2	104.1	103.0	103.8

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>The implicit seasonal index is the ratio of the unadjusted number of housing units under construction in the United States to the seasonally adjusted national total of housing units under construction. It provides an indication of the overall seasonality for the particular month.

Note: These seasonal indexes include trading-day adjustment factors.