

U.S. Department of Commerce  
 Economics and Statistics Administration  
 BUREAU OF THE CENSUS

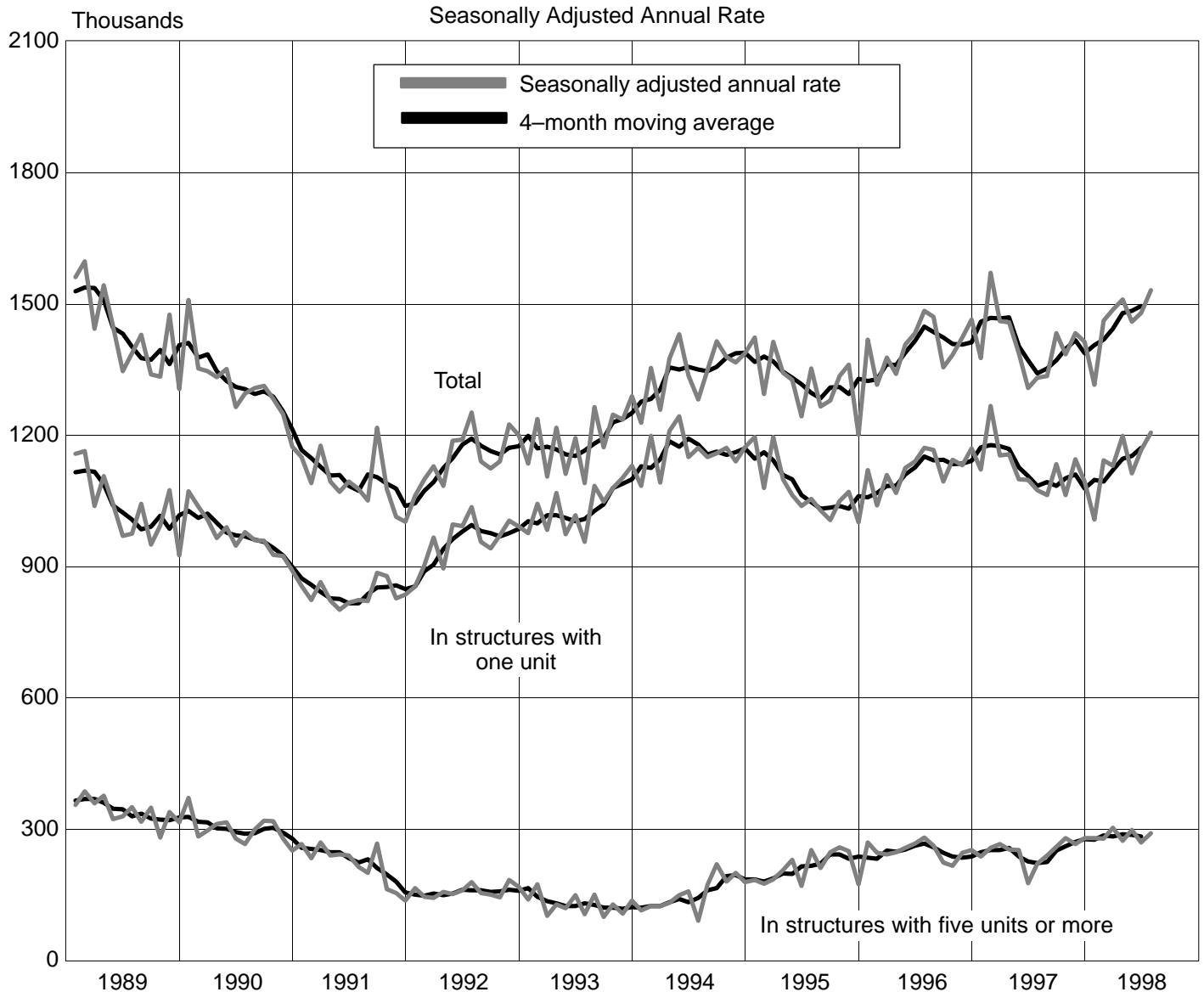
# Housing Completions

U.S. Department of Housing and  
 Urban Development

JULY 1998

C22/98-7  
 Issued September 1998

## New Privately Owned Housing Units Completed



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

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

## 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 Bureau of the Census and the U.S. Department of Housing and Urban Development.

Privately owned housing units were completed in July 1998 at a seasonally adjusted annual rate of 1,530,000. This is 4 ( $\pm 7$ ) percent above the revised June rate of 1,478,000, and 15 ( $\pm 8$ ) percent above the July 1997 rate of 1,331,000.

The July 1998 rate of single-family housing completions was 1,205,000. This is 3 ( $\pm 7$ ) percent above the revised June rate of 1,166,000. The rate for units in buildings with five units or more was 290,000, and the rate for units in buildings with two to four units was 35,000.

During the first 7 months of 1998, there were 792,700 housing units completed compared with 761,200 units completed during the same period of 1997. This is 4 ( $\pm 3$ ) percent above last year.

The seasonally adjusted estimate of housing units under construction at the end of July 1998 was 939,000. This is 1 ( $\pm 1$ ) percent above the revised June estimate of 929,000. Of these, 643,000 were single-family structures, 263,000 were in buildings with five units or more, and 33,000 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 1998 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 mobile home units.

## 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, Bureau of the Census, Washington, DC 20233-6900. Telephone: 301-457-4666.

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>											
1988	1,529.8	1,084.6	23.5	33.2	388.6	1,286.1	243.7	250.2	280.3	594.8	404.6
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
<b>MONTHLY DATA</b>											
<b>Not Seasonally Adjusted</b>											
1997: January	95.7	78.9	0.3	1.0	15.5	79.1	16.6	8.5	21.2	41.6	24.4
February	104.8	84.8	1.1	2.3	16.7	85.7	19.1	10.5	20.5	49.0	24.7
March	109.6	87.4	1.2	2.4	18.6	90.7	19.0	13.4	19.0	51.9	25.4
April	110.8	86.8	1.4	2.7	19.8	89.4	21.4	8.6	23.1	52.8	26.2
May	113.6	90.1	1.3	1.7	20.4	93.8	19.8	12.7	22.8	49.0	29.0
June	113.8	94.2	1.1	1.5	17.0	95.9	18.0	10.7	24.5	50.4	28.3
July	112.8	89.2	0.8	2.3	20.5	94.6	18.2	11.3	24.3	49.7	27.5
August	121.2	94.3	1.5	1.6	23.8	100.0	21.2	10.2	28.7	52.6	29.8
September	129.3	103.5	1.0	2.7	22.1	107.4	22.0	13.1	28.4	60.7	27.1
October	128.8	100.3	1.1	2.2	25.2	101.9	26.9	11.4	29.2	57.3	30.9
November	123.4	100.6	1.2	0.9	20.7	101.9	21.5	11.4	27.3	55.0	29.7
December	136.5	106.2	1.4	2.2	26.8	112.5	24.1	12.1	26.9	64.0	33.5
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 <sup>f</sup>	118.9	89.9	1.4	2.5	25.0	100.6	18.3	11.4	25.5	54.5	27.5
June <sup>f</sup>	127.3	100.6	1.6	1.7	23.4	105.7	21.6	11.9	26.5	59.1	29.7
July <sup>p</sup>	130.9	100.5	1.0	1.9	27.5	111.8	19.1	10.5	27.5	60.2	32.6
Year to date: 1997	761.2	611.5	7.3	13.8	128.6	629.1	132.0	75.8	155.4	344.5	185.5
1998	792.7	615.3	8.3	14.2	154.9	665.3	127.4	68.9	166.8	367.4	189.6
<b>Seasonally Adjusted Annual Rate</b>											
1997: January	1,375	1,121	18		236	(NA)	(NA)	118	323	590	344
February	1,570	1,266	48		256	(NA)	(NA)	151	333	723	363
March	1,460	1,153	42		265	(NA)	(NA)	208	284	635	333
April	1,457	1,155	49		253	(NA)	(NA)	126	305	680	346
May	1,387	1,098	38		251	(NA)	(NA)	151	284	603	349
June	1,307	1,097	34		176	(NA)	(NA)	125	277	577	328
July	1,331	1,074	36		221	(NA)	(NA)	131	291	589	320
August	1,335	1,062	34		239	(NA)	(NA)	122	297	587	329
September	1,433	1,133	41		259	(NA)	(NA)	140	308	672	313
October	1,384	1,063	42		279	(NA)	(NA)	118	296	632	338
November	1,432	1,145	22		265	(NA)	(NA)	126	289	669	348
December	1,413	1,094	40		279	(NA)	(NA)	119	291	665	338
1998: January	1,314	1,007	28		279	(NA)	(NA)	133	269	580	332
February	1,461	1,142	41		278	(NA)	(NA)	120	320	675	346
March	1,486	1,130	53		303	(NA)	(NA)	120	365	631	370
April	1,509	1,198	39		272	(NA)	(NA)	138	323	718	330
May <sup>f</sup>	1,458	1,112	49		297	(NA)	(NA)	133	318	677	330
June <sup>f</sup>	1,478	1,166	43		269	(NA)	(NA)	132	315	682	349
July <sup>p</sup>	1,530	1,205	35		290	(NA)	(NA)	125	325	716	364
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>2</sup></b>											
Annual . . . . . (percent) . .	1	1	8	7	3	1	4	3	3	2	1
Monthly . . . . . (percent) . .	3	3	24	34	10	3	11	10	9	5	4
Year to date . . . . . (percent) . .	1	1	10	11	4	1	4	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 (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-June or July-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	1 unit
<b>ANNUAL DATA</b>																						
1978	1,868	1,369	382	1,314	907	322	554	462	60	182	141	32	417	300	90	752	571	150	517	357	111	
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	
<b>QUARTERLY DATA</b>																						
1994:	1st quarter	270	238	25	219	193	21	51	46	3	22	21	1	57	47	7	119	107	10	73	63	8
	2nd quarter	336	291	37	274	236	32	63	55	5	31	27	3	76	62	12	146	130	13	83	72	9
	3rd quarter	361	308	45	292	246	40	70	62	6	35	32	3	84	72	11	152	131	18	90	74	14
	4th quarter	379	323	48	302	254	42	77	69	6	35	33	1	90	75	13	164	139	23	90	77	11
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	361	281	70	303	233	63	58	49	7	32	27	4	77	61	13	170	128	39	81	66	13
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>3</sup></b>																						
Annual	(percent)	1	1	3	1	1	3	4	4	12	3	3	12	3	2	9	2	2	4	1	1	2
Quarterly	(percent)	2	2	5	2	2	5	7	5	27	6	5	28	5	5	14	3	3	7	3	2	8

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

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

<sup>2</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>											
1988	919.4	569.6	16.1	24.1	309.5	757.5	161.9	201.6	148.1	308.2	261.6
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
<b>MONTHLY DATA</b>											
<b>Not Seasonally Adjusted</b>											
1997: January	777.2	536.2	9.1	19.0	212.8	621.7	155.5	84.8	167.0	335.8	189.6
February	763.7	524.1	9.1	17.5	213.1	615.2	148.5	80.1	162.3	333.1	188.2
March	772.9	530.7	8.7	17.5	216.0	625.5	147.4	77.8	164.9	336.6	193.6
April	799.8	551.2	8.9	16.5	223.2	649.2	150.6	82.1	169.6	348.4	199.7
May	820.0	566.6	8.9	16.2	228.3	663.7	156.3	81.4	178.0	356.3	204.3
June	845.0	579.7	8.7	17.3	239.3	680.0	165.0	82.2	185.5	367.1	210.1
July	864.9	596.9	9.5	16.0	242.6	694.7	170.2	85.3	190.9	375.4	213.3
August	869.6	601.8	9.4	16.4	242.0	698.3	171.3	86.5	190.0	379.1	214.1
September	877.0	605.2	10.5	15.8	245.5	703.0	174.0	86.7	190.9	380.4	219.0
October	886.4	603.3	11.0	18.0	254.1	711.6	174.8	86.4	195.7	383.3	221.0
November	877.9	586.7	11.0	20.3	260.0	706.3	171.6	90.1	190.1	378.1	219.7
December	846.7	554.6	11.2	20.7	260.2	683.5	163.2	87.1	181.9	364.8	213.0
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 <sup>f</sup>	918.1	628.4	11.3	19.9	258.5	747.9	170.3	95.0	184.9	400.8	237.5
June <sup>f</sup>	949.1	655.9	11.3	21.1	260.8	770.5	178.6	97.4	191.7	411.7	248.3
July <sup>p</sup>	972.6	674.6	11.7	21.2	265.1	788.1	184.5	101.6	195.5	421.5	254.0
<b>Seasonally Adjusted</b>											
1997: January	816	571	29		216	(NA)	(NA)	89	177	351	199
February	820	574	27		219	(NA)	(NA)	86	181	351	202
March	814	566	28		220	(NA)	(NA)	83	179	350	202
April	814	564	27		223	(NA)	(NA)	85	178	350	201
May	815	565	26		224	(NA)	(NA)	83	179	349	204
June	828	566	25		237	(NA)	(NA)	82	182	359	205
July	836	570	25		241	(NA)	(NA)	82	183	364	207
August	834	567	25		242	(NA)	(NA)	82	179	367	206
September	843	571	26		246	(NA)	(NA)	83	181	369	210
October	853	574	28		251	(NA)	(NA)	83	183	376	211
November	862	575	30		257	(NA)	(NA)	87	181	376	218
December	872	580	31		261	(NA)	(NA)	88	183	379	222
1998: January	888	593	34		261	(NA)	(NA)	90	189	383	226
February	907	609	34		264	(NA)	(NA)	93	196	390	228
March	911	616	32		263	(NA)	(NA)	95	190	397	229
April	911	619	31		261	(NA)	(NA)	94	191	393	233
May <sup>f</sup>	917	627	31		259	(NA)	(NA)	96	188	396	237
June <sup>f</sup>	929	639	31		259	(NA)	(NA)	97	188	402	242
July <sup>p</sup>	939	643	33		263	(NA)	(NA)	97	188	407	247
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>2</sup></b>											
End of period . . . . . (percent)	1	2	8	14	3	1	5	6	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-June or July-December).

**Table 4. New Privately Owned Housing Units Under Construction 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	1 unit
<b>QUARTERLY DATA</b>																						
1989:	1st quarter	894.2	548.1	303.5	739.2	425.0	281.0	155.0	123.1	22.5	182.3	123.7	50.0	139.5	80.4	48.8	310.9	204.8	93.5	261.5	139.2	111.2
	2nd quarter	942.9	597.0	303.5	765.8	453.0	280.0	177.0	144.0	23.5	180.8	128.5	44.2	157.8	95.7	52.0	323.0	215.1	95.2	281.3	157.7	112.1
	3rd quarter	925.2	593.6	289.6	747.8	449.3	266.2	177.3	144.2	23.4	176.2	124.9	43.5	157.9	102.1	45.0	309.4	205.5	91.7	281.7	161.0	109.4
	4th quarter	850.3	535.1	278.1	686.7	405.6	254.2	163.6	129.6	24.0	158.8	109.8	42.9	145.5	89.6	46.8	282.1	184.6	85.6	263.9	151.1	102.8
1990:	1st quarter	841.5	528.7	278.6	683.1	402.0	254.8	158.4	126.6	23.8	147.9	100.9	41.3	141.9	87.2	45.8	285.5	189.0	87.3	266.1	151.5	104.3
	2nd quarter	873.3	560.8	278.2	698.7	418.6	253.4	174.6	142.2	24.8	143.2	98.4	39.0	161.3	103.6	48.8	301.3	202.2	90.2	267.5	156.6	100.1
	3rd quarter	818.8	529.6	258.8	648.0	389.6	234.8	170.7	140.0	24.0	137.2	93.8	38.1	155.5	104.2	43.2	273.4	185.2	80.5	252.7	146.4	97.0
	4th quarter	711.4	449.1	236.3	553.9	321.2	212.8	157.5	127.9	23.5	121.6	80.1	37.3	133.4	86.8	39.3	242.3	160.3	75.4	214.1	121.9	84.4
1991:	1st quarter	644.8	412.6	207.8	497.4	293.8	185.6	147.5	118.8	22.3	105.1	68.1	33.3	119.9	77.6	35.2	229.8	153.0	70.5	190.1	114.0	68.9
	2nd quarter	675.1	465.3	185.0	518.4	336.5	163.9	156.6	128.7	21.1	112.2	77.0	31.6	136.1	97.3	31.4	231.2	165.8	58.8	195.5	125.2	63.1
	3rd quarter	657.1	476.7	157.3	502.6	347.7	138.3	154.5	129.0	19.0	110.3	78.4	28.9	135.1	102.5	25.2	222.5	172.4	44.2	189.3	123.4	59.0
	4th quarter	606.3	433.5	149.2	458.4	314.3	127.1	147.9	119.2	22.1	103.9	72.6	28.4	122.4	90.5	25.1	208.5	158.3	42.7	171.6	112.1	53.0
1992:	1st quarter	622.9	451.8	148.7	471.6	330.2	125.5	151.3	121.6	23.2	96.8	66.6	27.2	127.3	95.2	25.6	226.0	173.7	45.4	172.8	116.4	50.4
	2nd quarter	667.6	504.8	140.5	501.9	366.7	119.2	165.7	138.1	21.3	95.4	72.0	20.7	150.1	113.5	29.9	242.6	193.4	42.4	179.5	125.9	47.4
	3rd quarter	664.0	511.5	132.2	491.6	364.5	112.3	172.5	147.0	19.9	91.7	70.2	19.1	155.5	116.9	32.5	239.1	196.0	37.6	177.8	128.5	43.0
	4th quarter	612.4	472.7	122.8	453.1	336.8	104.2	159.4	135.8	18.7	81.4	62.7	16.8	137.8	104.2	28.4	228.4	186.1	38.0	164.8	119.7	39.6
1993:	1st quarter	600.9	471.1	111.7	451.6	344.0	94.7	149.3	127.1	17.0	76.9	58.9	16.0	130.4	101.9	22.9	234.8	192.6	37.5	158.8	117.7	35.4
	2nd quarter	675.3	542.5	112.7	513.1	401.8	96.9	162.2	140.7	15.8	86.0	68.1	16.0	153.0	120.2	26.4	265.7	223.8	36.5	170.6	130.5	33.9
	3rd quarter	707.6	572.4	114.4	538.5	423.7	100.0	169.1	148.7	14.4	94.3	76.1	16.2	161.9	129.6	25.6	271.1	228.0	37.1	180.3	138.7	35.5
	4th quarter	680.1	543.0	118.2	521.0	404.7	102.9	159.1	138.3	15.3	89.3	72.5	14.8	154.4	119.0	29.2	265.4	219.1	40.9	170.9	132.4	33.3
1994:	1st quarter	695.6	551.1	126.8	542.5	418.6	111.5	153.0	132.5	15.3	84.9	65.9	17.0	148.5	116.1	27.1	286.5	231.5	49.4	175.6	137.7	33.3
	2nd quarter	776.8	608.9	150.5	605.0	459.4	132.8	171.7	149.4	17.7	96.8	77.5	17.4	176.3	139.4	31.5	316.9	245.9	65.7	186.7	146.0	36.0
	3rd quarter	806.0	621.2	164.7	625.5	464.3	146.7	180.5	156.8	17.9	96.6	77.8	16.7	185.0	144.0	34.5	330.3	250.6	74.0	194.1	148.7	39.4
	4th quarter	762.2	557.8	182.5	597.6	417.9	163.9	164.5	139.9	18.5	96.3	77.0	17.2	173.5	128.1	38.2	312.1	223.4	82.8	180.3	129.2	44.3
1995:	1st quarter	732.3	520.5	190.9	584.5	396.7	172.5	147.8	123.7	18.4	88.7	69.9	16.7	155.3	111.4	37.6	310.6	216.3	87.9	177.7	122.9	48.7
	2nd quarter	775.7	551.4	202.4	617.6	417.2	184.3	158.0	134.2	18.2	94.7	73.2	19.4	162.0	121.4	33.8	327.2	226.3	94.3	191.7	130.5	54.9
	3rd quarter	813.4	584.7	206.8	645.3	441.8	187.3	168.1	143.0	19.5	94.4	76.4	16.1	172.8	131.4	34.2	343.1	237.9	98.8	203.0	139.0	57.7
	4th quarter	775.9	547.2	207.7	620.1	417.0	187.4	155.8	130.2	20.3	86.3	70.1	14.3	172.0	125.0	40.2	331.4	226.7	98.5	186.3	125.3	54.8
1996:	1st quarter	772.8	544.0	209.9	620.5	417.2	189.2	152.3	126.8	20.7	82.6	66.8	13.8	164.5	121.0	37.3	335.7	231.4	98.5	190.0	124.8	60.2
	2nd quarter	845.1	610.5	208.0	672.9	465.2	188.1	172.2	145.3	19.8	90.4	74.2	13.5	183.6	141.5	32.9	363.2	257.9	97.6	208.0	136.9	64.1
	3rd quarter	858.9	624.5	209.1	680.0	473.2	188.3	178.9	151.3	20.9	93.7	76.7	14.3	193.4	150.3	34.1	364.4	259.2	98.2	207.5	138.3	62.5
	4th quarter	792.3	550.0	214.3	629.9	417.2	191.6	162.4	132.9	22.7	85.2	68.1	14.0	178.0	128.7	39.4	337.6	230.3	99.5	191.4	122.9	61.3
1997:	1st quarter	772.9	530.7	216.0	625.5	411.5	194.2	147.4	119.2	21.8	77.8	60.2	14.6	164.9	119.5	36.2	336.6	223.4	105.9	193.6	127.6	59.3
	2nd quarter	845.0	579.7	239.3	680.0	446.0	214.6	165.0	133.8	24.7	82.2	63.1	16.2	185.5	134.9	41.6	367.1	242.4	116.9	210.1	139.3	64.6
	3rd quarter	877.0	605.2	245.5	703.0	461.8	221.5	174.0	143.3	24.0	86.7	65.7	18.0	190.9	143.9	37.9	380.4	248.7	123.7	219.0	146.9	65.8
	4th quarter	846.7	554.6	260.2	683.5	426.5	235.1	163.2	128.1	25.1	87.1	63.1	20.7	181.9	126.9	42.0	364.8	226.4	129.4	213.0	138.2	68.0
1998:	1st quarter	867.6	578.6	258.4	710.2	452.7	234.5	157.5	125.8	23.9	89.7	63.7	22.6	174.9	124.8	40.0	383.4	245.4	127.7	219.7	144.7	68.1
	2nd quarter	949.1	655.9	260.8	770.5	507.5	238.2	178.6	148.4	22.6	97.4	71.4	22.2	191.7	145.5	35.8	411.7	275.0	125.8	248.3	163.9	77.1
<b>AVERAGE RELATIVE STANDARD ERRORS<sup>3</sup></b>																						
End of period . . . (percent) . . .		1	1	3	1	1	3	4	5	11	6	3	23	4	4	9	2	2	4	2	3	2

<sup>P</sup>Preliminary. <sup>R</sup>Revised.

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

<sup>2</sup>Includes units under construction in structures with two to four units.

<sup>3</sup>Average Relative Standard Errors: Average for the latest 2-quarter period (quarter 1-quarter 2 or quarter 3-quarter 4).

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>1998</b>											
April.....	91.7	80.1	91.1	92.4	91.4	102.3	93.1	81.7	97.2	97.3	89.7
May <sup>f</sup> .....	97.8	94.5	93.6	98.0	99.6	98.0	101.1	102.1	95.7	96.0	99.6
June <sup>f</sup> .....	103.3	110.8	103.6	102.0	103.2	90.0	104.4	106.6	100.0	103.1	101.1
July <sup>p</sup> .....	102.7	94.9	97.8	101.9	100.7	99.8	113.5	99.0	99.8	99.0	105.3

<sup>p</sup>Preliminary. <sup>f</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>1998</b>											
April.....	98.3	96.5	94.5	99.1	98.8	97.0	99.8	97.6	95.3	99.3	99.0
May <sup>f</sup> .....	100.1	98.9	98.8	101.7	100.1	98.1	100.0	98.8	99.0	101.3	100.6
June <sup>f</sup> .....	102.2	100.8	102.9	103.1	102.7	102.1	100.8	100.5	101.8	102.7	102.9
July <sup>p</sup> .....	103.6	105.6	106.8	104.0	104.4	99.6	100.7	104.3	104.3	103.8	103.2

<sup>p</sup>Preliminary. <sup>f</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.

## Monthly Revisions To Estimates

Each month the Census Bureau publishes preliminary estimates of Housing Completions. The Census Bureau releases these estimates to provide government and private data users with early measures of new privately owned residential construction activity. A necessary part of the process of issuing these early data involves the issuance of subsequent revisions. The revisions to monthly housing completions are primarily the result of the replacement of imputed data with data which are reported in subsequent months.

For total housing completions, the range of the difference between the last 12 preliminary and first revision estimates for the same months was from -1.96 percent to 2.26 percent, with a median of 0.24 percent. The range of the difference between preliminary and final estimates was from -1.37 percent to 2.86 percent, with a median of 0.49 percent.

### Analysis of Revisions to Monthly Seasonally Adjusted Estimates of Housing Completions

Series	Percent changes between estimates— last 12 months					
	First revision versus preliminary			Final versus preliminary		
	Range		Median	Range		Median
	From	To		From	To	
<b>HOUSING COMPLETIONS</b>						
<b>U.S. total</b> .....	<b>-1.96</b>	<b>2.26</b>	<b>0.24</b>	<b>-1.37</b>	<b>2.86</b>	<b>0.49</b>
In structures with—						
1 unit .....	-1.90	2.93	0.24	-1.39	3.59	0.73
2 to 4 units .....	-8.00	5.00	0.00	-12.00	6.25	2.21
5 units or more.....	-5.17	4.10	0.18	-7.85	8.61	0.46
Northeast.....	-4.84	3.08	0.35	-4.03	5.36	0.36
Midwest.....	-3.69	4.35	-0.62	-4.30	5.43	-0.70
South.....	-3.23	2.63	-0.38	-3.36	3.56	0.52
West.....	-2.02	4.10	2.13	-2.31	6.07	2.61