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U.S. Department of Housing and
Urban Development

Housing Completions

DECEMBER 1995/JANUARY 1996

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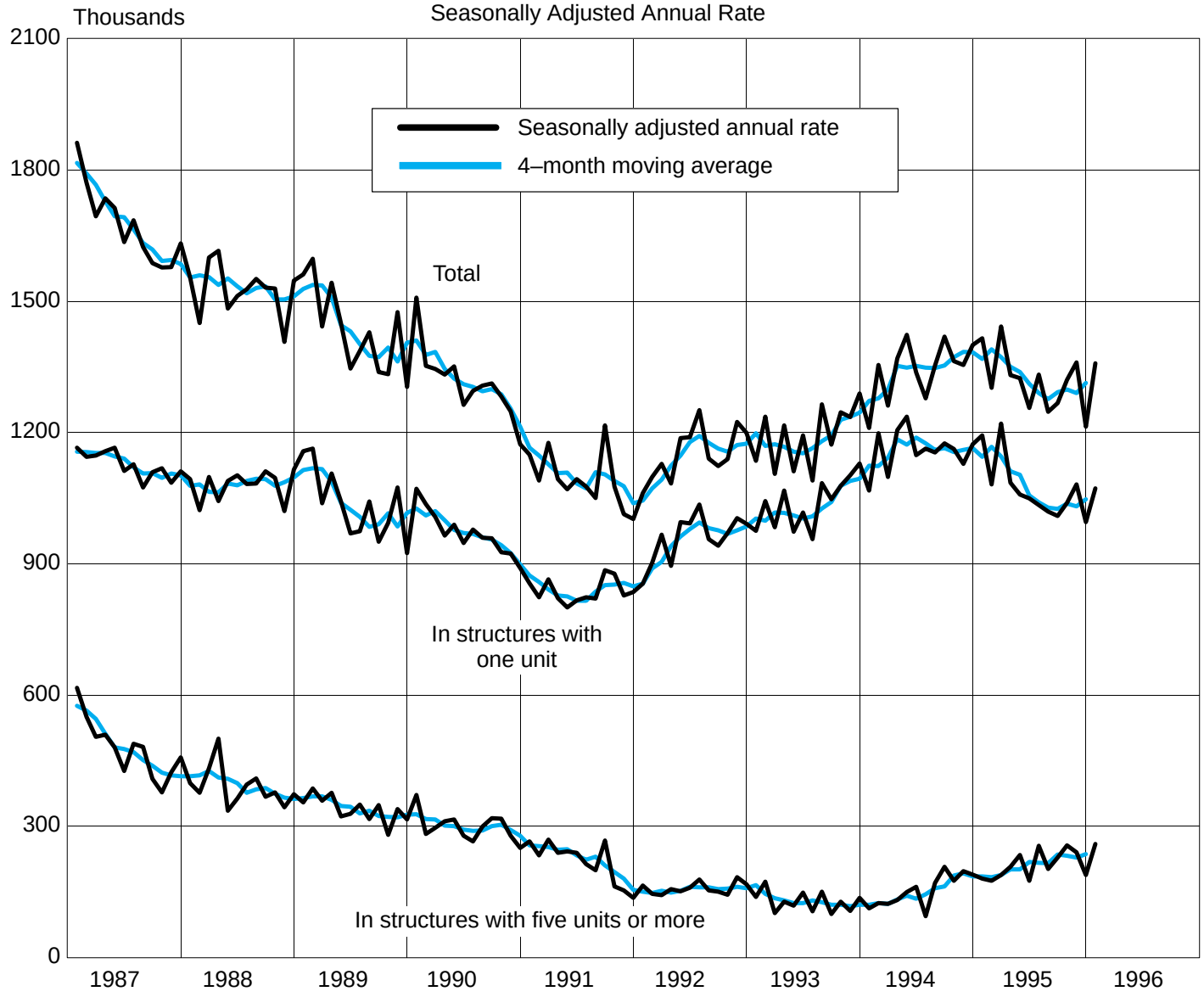
This issue contains revised seasonally adjusted annual rates for January 1993 through November 1995 for new privately owned housing units completed (see table 1). Seasonally adjusted estimates of new privately owned housing units under construction are also contained in this issue (see table 3). The appendix to this report includes information on survey definitions, sample design, data compilation, seasonal adjustment, and the reliability of the data.

New Privately Owned Housing Units Completed



Note: Total includes units in structures with 2 to 4 units.

Questions regarding these data may be directed to **Margaret Bates,** Construction Starts Branch, Telephone 301-457-4703.

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

Privately owned housing units were completed in January 1996 at a seasonally adjusted annual rate of 1,358,000. This is 12 (± 8) percent above the December rate of 1,213,000. The December rate is 11 (±7) percent below the revised November rate of 1,360,000.

The January rate of single-family housing completions was 1,072,000; this is 8 (±9) percent above the December rate of 995,000. The January rate for units in buildings with five units or more was 259,000; this is 38 percent above the December rate of 188,000. The January rate for units in buildings with two to four units was 27,000; the December rate was 30,000.

An estimated 1,311,300 housing units were completed in 1995. This is 3 (±1) percent below the 1994 figure of 1,346,900.

The seasonally adjusted estimate of housing units under construction at the end of January was 813,000; this is 1 (±1) percent above the December figure of 803,000. Of the housing units under construction at the end of January, 578,000 were single-family structures, 214,000 were in buildings with five units or more, and 21,000 were in buildings with two to four units.

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 3 months to establish an underlying trend for total completions.

The statistics in this release 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 (±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. The appendix to this report includes explanations of confidence intervals and sampling variability. On average, the preliminary seasonally adjusted estimates of total housing completions are revised about ±1 percent.

Housing completions and under construction statistics do not include mobile home units.

NOTICE TO SUBSCRIBERS

Because of the partial Government shutdown, we were unable to publish a December 1995 report based on preliminary December data. The first published data for December are found in this report. Your subscription will automatically be extended by 1 month to cover this missing issue.

HISTORICAL DATA

Housing completions data have been collected only since 1968; however housing starts are available from 1889 to the present date. Historical data on housing starts and residential permit authorizations are available from Construction Starts Branch, Manufacturing and Construction Division, Bureau of the Census, Washington, DC 20233. 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 MSA's[1]	Outside MSA's[1]	North-east	Midwest	South	West
		1 unit	2 units	3 and 4 units	5 units or more						
ANNUAL DATA											
1986	1,756.4	1,120.2	35.0	51.0	550.1	1,502.1	254.3	254.0	269.8	763.8	468.8
1987	1,668.8	1,122.8	29.0	42.4	474.6	1,420.4	248.4	257.4	302.3	660.4	448.7
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*	1,311.3	1,064.6	14.8	19.9	212.0	1,064.1	247.2	126.9	287.1	580.4	316.9
MONTHLY DATA											
Not Seasonally Adjusted											
1995: January	100.2	84.8	1.6	1.5	12.3	79.5	20.7	11.4	22.7	45.0	21.2
February	86.1	71.9	1.1	1.6	11.4	69.5	16.6	8.3	18.8	38.7	20.2
March	105.1	89.1	1.1	1.7	13.2	83.8	21.3	9.9	20.7	46.6	27.8
April	101.5	82.1	1.3	1.8	16.3	82.6	18.9	7.2	25.9	44.5	23.9
May	107.8	86.8	1.3	1.4	18.4	88.1	19.7	11.2	24.8	46.9	24.9
June	108.7	89.4	1.3	1.5	16.6	87.7	21.0	10.3	24.7	48.1	25.7
July	115.5	88.2	1.8	2.4	23.1	98.4	17.0	13.3	25.9	48.9	27.4
August	115.5	92.1	0.7	1.7	21.0	93.2	22.3	8.8	25.8	53.5	27.3
September	115.5	91.9	1.4	1.0	21.2	92.8	22.7	11.1	27.0	49.7	27.7
October[r]	125.4	100.1	1.0	1.2	23.0	101.3	24.0	12.7	25.9	56.2	30.6
November[r]	116.0	92.6	1.4	2.6	19.4	95.0	21.0	9.7	25.0	51.1	30.3
December*	114.0	95.7	0.9	1.4	16.0	92.2	21.8	12.9	20.0	51.3	29.8
1996: January[p]	95.9	76.4	0.7	1.3	17.5	79.0	16.9	7.7	18.6	43.2	26.5
Seasonally Adjusted Annual Rate											
1993:[r] January	1,135	975	22		138	(NA)	(NA)	108	239	495	293
February	1,236	1,043	20		173	(NA)	(NA)	145	329	495	267
March	1,105	983	21		101	(NA)	(NA)	96	247	500	262
April	1,216	1,067	22		127	(NA)	(NA)	147	278	485	306
May	1,111	973	20		118	(NA)	(NA)	94	239	513	265
June	1,193	1,017	28		148	(NA)	(NA)	102	276	469	346
July	1,090	956	29		105	(NA)	(NA)	100	239	502	249
August	1,264	1,084	30		150	(NA)	(NA)	137	287	539	301
September	1,172	1,047	26		99	(NA)	(NA)	98	268	518	288
October	1,246	1,078	41		127	(NA)	(NA)	116	302	517	311
November	1,235	1,102	27		106	(NA)	(NA)	142	274	532	287
December	1,289	1,129	24		136	(NA)	(NA)	127	295	567	300
1994:[r] January	1,210	1,067	31		112	(NA)	(NA)	105	265	531	309
February	1,354	1,198	32		124	(NA)	(NA)	116	315	551	372
March	1,261	1,098	41		122	(NA)	(NA)	103	302	537	319
April	1,369	1,205	33		131	(NA)	(NA)	128	291	612	338
May	1,423	1,236	38		149	(NA)	(NA)	144	319	587	373
June	1,337	1,148	28		161	(NA)	(NA)	120	325	574	318
July	1,278	1,163	21		94	(NA)	(NA)	122	282	533	341
August	1,353	1,154	29		170	(NA)	(NA)	149	309	551	344
September	1,419	1,175	37		207	(NA)	(NA)	131	322	633	333
October	1,363	1,162	26		175	(NA)	(NA)	124	309	611	319
November	1,354	1,128	29		197	(NA)	(NA)	114	301	613	326
December	1,400	1,173	38		189	(NA)	(NA)	119	329	616	336
1995:[r] January	1,415	1,193	42		180	(NA)	(NA)	153	337	632	293
February	1,302	1,081	46		175	(NA)	(NA)	134	314	559	295
March	1,442	1,220	34		188	(NA)	(NA)	142	321	603	376
April	1,331	1,085	39		207	(NA)	(NA)	101	346	581	303
May	1,324	1,058	32		234	(NA)	(NA)	141	316	565	302
June	1,256	1,049	32		175	(NA)	(NA)	119	273	549	315
July	1,332	1,034	43		255	(NA)	(NA)	148	307	568	309
August	1,247	1,019	26		202	(NA)	(NA)	101	266	573	307
September	1,267	1,009	30		228	(NA)	(NA)	124	277	559	307
October	1,320	1,039	25		256	(NA)	(NA)	127	255	604	334
November	1,360	1,081	39		240	(NA)	(NA)	104	270	630	356
December*	1,213	995	30		188	(NA)	(NA)	136	216	555	306
1996: January[p]	1,358	1,072	27		259	(NA)	(NA)	103	284	608	363
AVERAGE RELATIVE STANDARD ERRORS[2]											
Annual (percent)	1	1	13	7	2	1	4	3	2	2	2
Monthly (percent)	3	3	25	24	9	3	9	10	7	5	6

NA Not available. [p]Preliminary. [r]Revised. *Although released for the first time, the December 1995 data include late reports and corrections normally associated with the first revision.

[1]Metropolitan statistical areas.

[2]Average Relative Standard Errors (Avg. RSE): Annual—Avg. RSE for the last 2 years; 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 MSA's[1]			Outside MSA's[1]			Northeast			Midwest			South			West		
		In structures with—			In structures with—			In structures with—			In structures with—			In structures with—			In structures with—			In structures with—	
	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more
ANNUAL DATA																					
1976	1,377	1,034	266	950	672	221	427	363	45	170	121	41	356	271	63	513	410	85	338	232	76
1977	1,657	1,258	304	1,162	838	254	495	421	50	177	135	33	400	300	78	636	512	102	444	311	92
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*	1,311	1,065	212	1,064	848	191	247	217	21	127	108	16	287	232	44	580	472	98	317	253	54
QUARTERLY DATA																					
1992: 1st quarter	234	194	32	188	154	28	46	39	4	28	24	3	47	37	8	97	84	10	62	49	11
2nd quarter	282	233	39	219	181	32	63	53	7	34	25	7	63	53	7	114	98	13	70	57	11
3rd quarter	317	262	45	249	205	38	68	58	8	34	30	3	75	61	11	127	108	16	80	63	15
4th quarter	325	274	42	254	212	35	71	62	6	40	34	4	83	67	14	124	110	12	78	63	12
1993: 1st quarter	245	212	28	194	167	24	51	45	5	24	21	2	51	42	9	109	99	9	60	50	8
2nd quarter	286	247	33	222	191	27	64	56	6	27	24	2	64	55	7	121	105	14	74	62	10
3rd quarter	317	275	34	255	220	29	63	55	6	29	26	2	74	63	9	139	123	13	74	63	9
4th quarter	345	305	32	273	240	27	73	66	5	37	34	3	83	73	8	143	128	13	82	71	8
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*	355	288	59	289	229	54	67	60	5	35	30	4	71	61	7	159	126	30	91	71	17
AVERAGE RELATIVE STANDARD ERRORS[3]																					
Annual (percent)	1	1	2	1	1	2	4	4	8	3	3	8	2	2	4	2	3	3	2	2	3
Quarterly (percent)	2	2	5	2	2	4	6	6	28	4	5	15	4	4	8	3	4	8	3	3	8

[p]Preliminary. [r]Revised. *See footnote on page 3.

[1]Metropolitan statistical areas.
[2]Includes units completed in structures with 2 to 4 units.
[3]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-quarter 2 or quarter 3-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 MSA's[1]	Outside MSA's[1]	North-east	Midwest	South	West
		1 unit	2 units	3 and 4 units	5 units or more						
ANNUAL DATA											
1986	1,073.5	583.1	19.3	28.4	442.7	899.7	173.8	218.9	165.7	387.3	301.5
1987	987.3	590.6	17.3	22.5	356.9	820.6	166.7	221.7	158.7	342.5	264.4
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*	778.2	549.2	8.4	11.9	208.8	622.1	156.2	86.2	173.1	331.9	187.1
MONTHLY DATA											
Not Seasonally Adjusted											
1995: January	743.4	535.1	8.3	12.9	187.1	587.4	156.0	91.4	162.6	309.5	179.9
February	736.0	526.2	8.6	12.3	188.9	584.6	151.4	88.9	156.0	308.9	182.2
March	732.3	520.5	8.7	12.3	190.9	584.5	147.8	88.7	155.3	310.6	177.7
April	747.4	530.6	8.5	11.9	196.4	595.7	151.7	90.8	155.8	319.2	181.6
May	764.1	543.2	8.6	12.2	200.2	609.9	154.2	91.6	156.2	327.4	188.9
June	775.7	551.4	8.9	12.9	202.4	617.6	158.0	94.7	162.0	327.2	191.7
July	787.7	564.3	8.9	11.8	202.8	621.9	165.8	92.0	162.7	339.1	193.9
August	808.1	579.7	8.9	12.6	206.9	638.8	169.3	94.8	171.8	341.7	199.9
September	813.4	584.7	9.1	12.7	206.8	645.3	168.1	94.4	172.8	343.1	203.0
October[r]	811.1	583.5	8.9	13.3	205.5	643.6	167.5	93.6	176.7	338.2	202.6
November[r]	800.5	571.9	8.7	12.1	207.8	635.8	164.7	92.5	176.3	337.5	194.2
December*	778.2	549.2	8.4	11.9	208.8	622.1	156.2	86.2	173.1	331.9	187.1
1996: January[p]	772.0	541.3	8.0	11.8	210.9	619.7	152.3	83.8	169.3	331.1	187.9
Seasonally Adjusted											
1993:[r] January	636	500	18		118	(NA)	(NA)	84	146	243	163
February	640	507	18		115	(NA)	(NA)	82	146	246	166
March	633	500	19		114	(NA)	(NA)	82	143	243	165
April	636	505	19		112	(NA)	(NA)	80	139	249	168
May	648	518	19		111	(NA)	(NA)	83	145	252	168
June	654	523	20		111	(NA)	(NA)	84	147	256	167
July	663	530	21		112	(NA)	(NA)	87	148	260	168
August	665	537	20		108	(NA)	(NA)	86	148	261	170
September	677	543	19		115	(NA)	(NA)	89	152	264	172
October	687	551	21		115	(NA)	(NA)	90	156	270	171
November	695	559	20		116	(NA)	(NA)	90	158	273	174
December	703	565	19		119	(NA)	(NA)	90	159	278	176
1994:[r] January	709	570	18		121	(NA)	(NA)	90	160	281	178
February	716	574	18		124	(NA)	(NA)	91	161	284	180
March	734	585	19		130	(NA)	(NA)	91	164	297	182
April	741	586	18		137	(NA)	(NA)	92	169	297	183
May	751	586	18		147	(NA)	(NA)	93	171	305	182
June	754	588	17		149	(NA)	(NA)	94	170	307	183
July	763	590	17		156	(NA)	(NA)	94	174	310	185
August	770	589	19		162	(NA)	(NA)	94	174	319	183
September	772	588	20		164	(NA)	(NA)	91	174	322	185
October	778	586	20		172	(NA)	(NA)	93	174	324	187
November	786	586	22		178	(NA)	(NA)	95	179	324	188
December	786	580	22		184	(NA)	(NA)	98	177	325	186
1995:[r] January	783	570	22		191	(NA)	(NA)	95	175	327	186
February	795	578	21		196	(NA)	(NA)	95	178	325	197
March	769	553	21		195	(NA)	(NA)	95	170	320	184
April	762	545	20		197	(NA)	(NA)	95	164	319	184
May	755	537	21		197	(NA)	(NA)	93	155	318	189
June	755	533	22		200	(NA)	(NA)	92	157	317	189
July	762	539	21		202	(NA)	(NA)	90	155	328	189
August	772	547	21		204	(NA)	(NA)	90	159	331	192
September	783	555	21		207	(NA)	(NA)	90	162	336	195
October	781	560	21		200	(NA)	(NA)	90	165	333	193
November	790	562	20		208	(NA)	(NA)	89	170	339	192
December*	803	572	21		210	(NA)	(NA)	88	176	346	193
1996: January[p]	813	578	21		214	(NA)	(NA)	87	182	349	195
AVERAGE RELATIVE STANDARD ERRORS[2]											
End of period (percent)	1	2	11	7	2	1	4	4	2	2	3

NA Not available. [p]Preliminary. [r]Revised. *See footnote on page 3.

[1]Metropolitan statistical areas.

[2]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 MSA's[1]			Outside MSA's[1]			Northeast			Midwest			South			West		
		In structures with—			In structures with—			In structures with—			In structures with—			In structures with—			In structures with—			In structures with—	
	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more	Total[2]	1 unit	5 units or more
QUARTERLY DATA																					
1987: 1st quarter	1,034.1	582.5	402.2	870.2	453.7	376.5	164.0	128.8	25.7	202.6	136.6	56.3	154.7	84.2	60.4	378.4	226.7	135.9	298.4	135.1	149.6
2nd quarter	1,087.4	646.0	391.9	908.8	501.9	367.0	178.6	144.1	24.8	218.7	152.7	55.6	180.9	101.6	69.2	386.9	246.4	125.0	300.9	145.3	142.0
3rd quarter	1,088.6	662.4	380.1	899.7	505.4	356.9	188.9	157.0	23.1	233.9	161.3	62.2	182.4	105.0	67.6	376.6	253.0	109.6	295.7	143.0	140.6
4th quarter	987.3	590.6	356.9	820.6	453.4	335.3	166.7	137.2	21.6	221.7	153.3	59.3	158.7	89.3	60.5	342.5	226.6	104.0	264.4	121.4	133.1
1988: 1st quarter	948.5	577.7	332.3	793.8	449.8	312.3	154.7	127.9	20.0	221.2	152.2	60.7	140.3	83.1	49.2	326.0	217.2	96.6	261.0	125.3	125.7
2nd quarter	1,009.6	635.3	335.2	836.8	490.2	315.0	172.7	145.1	20.2	226.6	159.4	58.9	162.5	102.7	51.0	346.2	235.1	99.2	274.3	138.2	126.0
3rd quarter	994.6	629.7	324.5	818.3	483.1	302.7	176.4	146.5	21.8	226.2	158.9	58.4	161.0	103.0	48.7	332.3	224.8	95.7	275.2	142.9	121.7
4th quarter	919.4	569.6	309.5	757.5	438.2	287.9	161.9	131.4	21.6	201.6	140.4	52.8	148.1	90.4	47.7	308.2	201.7	94.9	261.6	137.1	114.2
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*	778.2	549.2	208.8	622.1	418.6	188.3	156.2	130.5	20.4	86.2	70.1	14.3	173.1	125.9	40.6	331.9	227.4	98.4	187.1	125.7	55.4
AVERAGE RELATIVE STANDARD ERRORS[3]																					
End of period . (percent). .	2	2	2	1	2	2	5	5	13	4	5	5	2	3	4	3	3	4	3	4	3

[p]Preliminary. *See footnote on page 3.

[1]Metropolitan statistical areas.
[2]Includes units under construction in structures with 2 to 4 units.
[3]Average Relative Standard Errors: Average for the latest 2-quarter period (quarter 1-quarter 2 or quarter 3-quarter 4).

Table 5. **Selected Characteristics of New One-Family Houses Completed**

[Detail may not add to total because of rounding. Percents computed from unrounded figures]

Period	Total	Central air-conditioning		Heating fuel				Heating system				Fireplaces		
		Installed	Not installed	Gas	Electric	Oil	Other or none	Warm-air furnace	Heat pump[1]	Hot water or steam	Other or none[2]	None	1[3]	2 or more
	Number of units (thousands)													
ANNUAL DATA														
1992	964	738	225	623	283	36	22	633	228	55	47	353	556	55
1993	1,039	806	234	682	303	34	20	691	246	55	48	381	605	53
1994	1,160	912	248	772	333	39	16	778	281	60	41	417	680	63
1995*	1,065	846	219	707	305	37	16	705	264	55	39	394	615	56
QUARTERLY DATA														
1992: 1st quarter	194	150	44	120	62	7	4	124	51	10	8	71	109	13
2nd quarter	233	180	54	151	69	8	6	154	55	12	12	81	138	14
3rd quarter	262	202	61	171	76	10	5	174	61	16	12	98	151	14
4th quarter	274	207	67	181	76	11	7	182	62	16	14	101	159	14
1993: 1st quarter	212	167	45	136	67	7	3	139	54	10	9	77	125	11
2nd quarter	247	187	60	162	71	8	5	164	58	13	12	91	141	14
3rd quarter	275	214	61	184	77	9	5	185	63	15	12	100	162	14
4th quarter	305	236	69	200	89	11	6	203	72	17	14	113	178	15
1994: 1st quarter	238	189	49	156	72	8	3	160	60	11	8	86	140	12
2nd quarter	291	226	64	195	83	9	3	196	69	15	11	102	169	19
3rd quarter	308	243	65	208	85	11	5	208	74	17	10	108	184	16
4th quarter	323	254	69	214	93	11	5	215	78	18	12	119	188	16
1995: 1st quarter	246	192	54	160	72	11	3	159	63	15	9	92	141	13
2nd quarter	258	209	49	176	71	8	4	174	63	12	9	86	157	15
3rd quarter[r]	272	214	58	179	80	9	4	180	68	14	10	105	154	13
4th quarter*	288	231	57	193	81	10	4	192	70	15	11	111	164	14
AVERAGE RSE's[4]														
Annual (percent)	1	3	7	2	6	14	19	2	5	15	16	4	3	5
Quarterly (percent)	2	3	7	3	7	15	23	2	6	13	17	4	3	8
	Percent distribution													
ANNUAL DATA														
1992	100	77	23	65	29	4	2	66	24	6	5	37	58	6
1993	100	78	22	66	29	3	2	67	24	5	5	37	58	5
1994	100	79	21	67	29	3	1	67	24	5	4	36	59	5
1995*	100	80	20	67	29	3	1	67	25	5	4	37	58	5
QUARTERLY DATA														
1992: 1st quarter	100	78	22	62	32	4	2	64	26	5	4	37	57	7
2nd quarter	100	78	22	65	30	3	3	66	24	5	5	35	59	6
3rd quarter	100	77	23	65	29	4	2	66	23	6	5	37	58	5
4th quarter	100	76	24	66	28	4	3	67	23	6	5	37	58	5
1993: 1st quarter	100	79	21	64	31	3	1	66	25	5	4	36	59	5
2nd quarter	100	76	24	66	29	3	2	67	23	5	5	37	57	6
3rd quarter	100	78	22	67	28	3	2	67	23	5	5	36	59	5
4th quarter	100	78	22	66	29	4	2	67	23	5	5	37	58	5
1994: 1st quarter	100	79	21	66	30	3	1	67	25	5	3	36	59	5
2nd quarter	100	78	22	67	28	3	1	68	24	5	4	35	58	7
3rd quarter	100	79	21	68	28	3	2	68	24	5	3	35	60	5
4th quarter	100	79	21	66	29	3	1	67	24	5	4	37	58	5
1995: 1st quarter	100	78	22	65	29	4	1	65	26	6	4	37	57	5
2nd quarter	100	81	19	68	27	3	2	67	24	4	4	33	61	6
3rd quarter[r]	100	79	21	66	29	3	2	66	25	5	4	38	57	5
4th quarter*	100	80	20	67	28	3	1	67	24	5	4	38	57	5

NA Not available. *See footnote on page 3. [r]Revised.

[1]Data prior to 1992 exclude small number of gas heat pumps. [2]Includes electric baseboard, panel, radiant heat, room or space heater, floor or wall furnace, solar heating, other types of heating systems or none. [3]Quarterly data prior to 1992 include 2 or more fireplaces. [4]Average RSE's (Avg. RSE): Annual-Avg. RSE for the last 2 years; Quarterly-Avg. RSE for the latest 2-quarter period (quarter 1-quarter 2 or quarter 3-quarter 4).

Table 6. **Selected Characteristics of New One-Family Houses Completed**

[Detail may not add to total because of rounding. Percents computed from unrounded figures]

Period	Total	Stories			Bedrooms			Bathrooms				Principal exterior wall material					
		1	2 or more[1]	Split level	2 or less	3	4 or more	1-1/2 or less	2	2-1/2[2]	3 or more	Brick	Wood	Stucco	Vinyl siding	Aluminum siding	Other[3]
	Number of units (thousands)																
ANNUAL DATA																	
1992	964	465	452	47	119	566	278	129	382	316	137	200	315	139	222	47	40
1993	1,039	499	498	43	129	602	308	122	417	354	146	215	325	146	259	48	46
1994	1,160	571	549	40	142	669	350	128	469	392	171	247	313	175	322	45	57
1995*	1,065	520	510	35	137	609	318	120	434	348	163	217	264	164	324	33	62
QUARTERLY DATA																	
1992: 1st quarter	194	90	93	10	23	116	54	26	77	60	30	40	65	31	38	10	9
2nd quarter	233	116	105	12	27	140	66	30	96	73	34	49	78	34	51	11	10
3rd quarter	262	129	121	12	33	153	77	37	104	87	34	54	86	37	62	13	10
4th quarter	274	129	132	13	35	158	81	35	105	95	39	56	86	37	71	12	12
1993: 1st quarter	212	106	99	7	27	125	60	24	89	71	28	46	69	31	48	9	9
2nd quarter	247	118	119	10	32	140	74	29	97	82	38	49	83	35	59	10	10
3rd quarter	275	130	133	13	32	160	84	31	112	97	36	59	83	36	71	14	12
4th quarter	305	145	147	13	38	177	90	38	119	104	44	60	90	44	81	15	15
1994: 1st quarter	238	121	110	7	27	140	71	26	101	78	34	53	65	39	58	9	12
2nd quarter	291	141	138	11	38	164	89	31	116	98	46	66	84	43	73	12	13
3rd quarter	308	152	145	11	39	176	94	35	124	104	46	66	80	45	91	12	13
4th quarter	323	157	156	10	37	190	96	36	128	113	46	63	84	49	99	12	17
1995: 1st quarter	246	119	119	8	31	143	72	29	99	81	36	55	60	36	71	9	14
2nd quarter	258	121	128	9	31	148	79	27	100	87	44	51	70	40	76	9	12
3rd quarter[r]	272	135	129	9	37	152	83	33	111	88	40	54	67	40	86	8	17
4th quarter*	288	144	135	9	39	166	84	31	124	92	42	57	68	47	91	8	18
AVERAGE RSE's[4]																	
Annual (percent)	1	3	2	10	5	2	3	5	4	3	3	7	7	7	5	13	13
Quarterly (percent)	2	4	3	13	7	3	3	7	4	4	4	8	7	8	6	18	13
	Percent distribution																
ANNUAL DATA																	
1992	100	48	47	5	12	59	29	13	40	33	14	21	33	14	23	5	4
1993	100	48	48	4	12	58	30	12	40	34	14	21	31	14	25	5	4
1994	100	49	47	3	12	58	30	11	40	34	15	21	27	15	28	4	5
1995*	100	49	48	3	13	57	30	11	41	33	15	20	25	16	30	3	6
QUARTERLY DATA																	
1992: 1st quarter	100	47	48	5	12	60	28	13	40	31	16	21	34	16	19	5	5
2nd quarter	100	50	45	5	12	60	28	13	41	31	15	21	34	14	22	5	4
3rd quarter	100	49	46	5	12	58	29	14	40	33	13	21	33	14	24	5	4
4th quarter	100	47	48	5	13	58	30	13	38	34	14	21	31	13	26	5	4
1993: 1st quarter	100	50	46	3	13	59	28	11	42	33	13	22	32	15	23	4	4
2nd quarter	100	48	48	4	13	57	30	12	40	33	15	20	34	14	24	4	4
3rd quarter	100	47	48	5	12	58	30	11	41	35	13	22	30	13	26	5	4
4th quarter	100	48	48	4	13	58	29	13	39	34	14	20	30	15	26	5	5
1994: 1st quarter	100	51	46	3	12	59	30	11	42	33	14	22	28	17	24	4	5
2nd quarter	100	49	47	4	13	56	31	11	40	34	16	23	29	15	25	4	5
3rd quarter	100	49	47	4	13	57	31	11	40	34	15	21	26	15	30	4	4
4th quarter	100	49	48	3	11	59	30	11	40	35	14	19	26	15	31	4	5
1995: 1st quarter	100	49	48	3	12	58	29	12	40	33	15	22	25	15	29	4	6
2nd quarter	100	47	50	3	12	57	31	10	39	34	17	20	27	16	29	3	5
3rd quarter[r]	100	50	47	3	13	56	31	12	41	32	15	20	25	15	31	3	6
4th quarter*	100	50	47	3	13	57	29	11	43	32	15	20	24	16	31	3	6

NA Not available. [p]Preliminary. [r]Revised. X Not applicable. *See footnote on page 3.

[1]Includes a small number of houses with one and one-half, two and one-half or three stories. [2]Quarterly data prior to 1992 include 3 or more bathrooms. [3]Includes cinder block, stone, and other types. Data prior to 1992 include vinyl siding. [4]Average RSE's (Avg. RSE): Annual-Avg. RSE for the last 2 years; Quarterly-Avg. RSE for the latest 2-quarter period (quarter 1-quarter 2 or quarter 3-quarter 4).

Table 7. **Selected Characteristics of New One-Family Houses Completed**

[Detail may not add to total because of rounding. Percents computed from unrounded figures]

Period	Total	Foundation			Parking facility					Square feet of floor area							
		Full or partial basement	Slab	Crawl space	Garage: 1 car	Garage: 2 cars[1]	Garage: 3 cars or more	Carport	No garage or carport	Under 1,200	1,200 to 1,599	1,600 to 1,999	2,000 to 2,399	2,400 to 2,999	3,000 or more	Median	Average
	Number of units (thousands)																
ANNUAL DATA																	
1992	964	404	367	192	81	615	102	20	145	93	207	218	164	153	128	1,920	2,095
1993	1,039	417	414	208	77	671	121	21	149	95	217	237	183	171	136	1,945	2,095
1994	1,160	453	478	229	92	749	152	19	148	101	242	275	209	178	154	1,940	2,100
1995*	1,065	412	449	204	84	673	141	17	150	103	229	245	185	161	141	1,920	2,095
QUARTERLY DATA																	
1992: 1st quarter	194	78	76	39	17	123	18	5	31	21	40	43	31	31	27	1,925	2,115
2nd quarter	233	95	92	47	22	148	24	6	34	22	51	54	40	35	32	1,900	2,085
3rd quarter	262	110	97	55	21	169	28	4	41	27	59	59	43	42	33	1,895	2,070
4th quarter	274	121	101	52	21	175	32	6	39	23	58	62	49	46	36	1,945	2,115
1993: 1st quarter	212	80	89	43	18	139	21	6	29	19	44	48	41	33	27	1,945	2,090
2nd quarter	247	99	96	52	20	159	30	4	34	24	51	56	40	40	35	1,945	2,120
3rd quarter	275	113	108	54	20	177	33	5	40	23	59	62	48	46	36	1,945	2,100
4th quarter	305	126	120	59	19	196	38	6	47	28	63	70	54	51	38	1,945	2,085
1994: 1st quarter	238	87	103	48	19	157	29	4	29	20	53	55	43	38	29	1,910	2,090
2nd quarter	291	113	118	59	22	187	40	4	38	25	60	68	52	44	41	1,945	2,110
3rd quarter	308	123	127	58	25	199	41	4	40	27	63	75	56	47	40	1,930	2,095
4th quarter	323	128	131	64	26	207	43	6	42	29	66	76	58	49	44	1,945	2,110
1995: 1st quarter	246	95	103	48	21	157	32	3	33	22	50	58	44	37	34	1,945	2,110
2nd quarter	258	102	107	49	20	163	36	4	35	24	54	60	43	40	37	1,930	2,125
3rd quarter[r]	272	104	115	53	20	170	36	5	41	30	62	61	46	41	33	1,870	2,060
4th quarter*	288	110	124	54	24	183	37	5	41	28	63	66	52	43	37	1,915	2,080
AVERAGE RSE's[2]																	
Annual (percent)	1	4	5	8	6	2	4	17	6	5	3	3	3	3	4	1	1
Quarterly (percent)	2	4	5	8	8	3	5	19	6	8	4	4	4	5	5	1	1
	Percent distribution																
ANNUAL DATA																	
1992	100	42	38	20	8	64	11	2	15	10	22	23	17	16	13	(X)	(X)
1993	100	40	40	20	7	65	12	2	14	9	21	23	18	16	13	(X)	(X)
1994	100	39	41	20	8	65	13	2	13	9	21	24	18	15	13	(X)	(X)
1995*	100	39	42	19	8	63	13	2	14	10	22	23	17	15	13	(X)	(X)
QUARTERLY DATA																	
1992: 1st quarter	100	40	39	20	8	64	9	2	16	11	21	22	16	16	14	(X)	(X)
2nd quarter	100	41	39	20	9	64	10	2	14	10	22	23	17	15	14	(X)	(X)
3rd quarter	100	42	37	21	8	64	11	1	16	10	23	23	16	16	13	(X)	(X)
4th quarter	100	44	37	19	8	64	12	2	14	9	21	23	18	17	13	(X)	(X)
1993: 1st quarter	100	38	42	20	8	65	10	3	14	9	21	22	20	16	13	(X)	(X)
2nd quarter	100	40	39	21	8	65	12	2	14	10	21	23	16	16	14	(X)	(X)
3rd quarter	100	41	39	20	7	64	12	2	14	8	22	23	18	17	13	(X)	(X)
4th quarter	100	41	39	19	6	64	12	2	15	9	21	23	18	17	12	(X)	(X)
1994: 1st quarter	100	37	43	20	8	66	12	2	12	8	22	23	18	16	12	(X)	(X)
2nd quarter	100	39	41	20	7	64	14	1	13	9	21	23	18	15	14	(X)	(X)
3rd quarter	100	40	41	19	8	65	13	1	13	9	20	24	18	15	13	(X)	(X)
4th quarter	100	40	40	20	8	64	13	2	13	9	21	24	18	15	14	(X)	(X)
1995: 1st quarter	100	39	42	19	8	64	13	1	13	9	20	24	18	15	14	(X)	(X)
2nd quarter	100	40	42	19	8	63	14	2	14	9	21	23	17	16	14	(X)	(X)
3rd quarter[r]	100	39	42	20	7	62	13	2	15	11	23	22	17	15	12	(X)	(X)
4th quarter*	100	39	43	19	8	63	13	2	14	10	22	23	18	15	13	(X)	(X)

NA Not available. [p]Preliminary. [r]Revised. X Not applicable. *See footnotes on page 3.

[1]Data prior to 1992 include garages for 3 cars or more. [2]Average RSE's (Avg. RSE): Annual-Avg. RSE for the last 2 years; Quarterly- Avg. RSE for the latest 2-quarter period (quarter 1-quarter 2 or quarter 3-quarter 4).

Table 8. **Selected Characteristics of Housing Units in New Privately Owned Buildings Completed With 2 Units or More**

[Detail may not add to total because of rounding. Percents computed from unrounded figures]

Period	Total	Number of floors per building		Number of units per building						Number of bedrooms per unit				Number of bathrooms per unit			Square feet per unit[1]	
		1 to 3	4 or more	2 to 4	5 to 9	10 to 19	20 to 29	30 to 49	50 or more	Efficiency	1	2	3 or more	1	1-1/2	2 or more	Median	Average
	Number of units (thousands)																	
ANNUAL DATA																		
1992	194	167	27	36	43	40	27	18	29	3	51	115	24	95	18	81	985	1,040
1993	153	138	16	26	38	37	23	14	16	4	37	87	26	73	10	69	1,005	1,065
1994	187	173	14	32	42	49	28	21	14	4	51	104	29	89	15	82	1,015	1,035
1995*	248	229	19	35	45	69	54	24	21	5	66	138	39	106	21	121	1,035	1,070
QUARTERLY DATA																		
1992: 1st quarter	40	34	6	8	8	8	5	6	5	1	10	25	4	20	4	17	970	1,035
2nd quarter	49	39	10	10	10	8	6	5	10	1	14	29	5	26	4	19	980	1,010
3rd quarter	54	47	7	9	12	12	10	5	7	2	14	31	8	25	4	25	980	1,055
4th quarter	51	47	3	9	13	12	8	3	6	(Z)	13	31	7	24	6	20	1,010	1,060
1993: 1st quarter	33	28	5	4	7	7	7	3	4	(Z)	10	17	5	15	2	16	965	1,040
2nd quarter	39	36	4	6	9	12	5	2	4	(Z)	10	24	5	19	3	17	1,015	1,040
3rd quarter	42	38	4	8	11	10	6	5	3	2	8	23	9	20	3	18	1,040	1,110
4th quarter	40	35	4	8	10	7	6	3	5	1	9	23	6	18	3	19	1,000	1,060
1994: 1st quarter	32	29	3	7	6	8	4	3	3	1	8	19	4	14	3	16	1,025	1,070
2nd quarter	46	43	3	8	8	11	5	8	5	1	12	26	6	23	4	18	975	1,010
3rd quarter	53	47	6	8	13	14	8	6	5	1	13	29	10	23	3	27	1,015	1,040
4th quarter	56	53	3	8	15	15	11	5	2	1	15	31	9	29	5	22	1,025	1,030
1995: 1st quarter	46	43	3	9	10	12	8	4	2	1	10	28	7	20	4	21	1,065	1,095
2nd quarter	60	58	2	9	12	18	12	5	4	2	14	34	10	27	5	27	1,040	1,075
3rd quarter[r]	74	68	6	9	12	21	17	10	5	2	18	42	13	29	4	41	1,055	1,095
4th quarter*	68	62	6	9	11	18	17	5	9	1	22	35	10	28	8	32	990	1,025
AVERAGE RELATIVE STANDARD ERRORS[2]																		
Annual (percent)	2	2	5	7	7	7	8	16	10	16	5	3	7	4	12	5	1	1
Quarterly (percent)	4	5	9	10	10	9	8	18	13	18	9	5	10	7	18	7	2	2
	Percent distribution																	
ANNUAL DATA																		
1992	100	86	14	18	22	21	14	9	15	2	26	59	12	49	9	42	(X)	(X)
1993	100	90	10	17	25	24	15	9	10	2	24	56	17	48	7	45	(X)	(X)
1994	100	92	8	17	23	26	15	11	8	2	27	56	15	48	8	44	(X)	(X)
1995*	100	92	8	14	18	28	22	9	8	2	26	56	16	43	8	49	(X)	(X)
QUARTERLY DATA																		
1992: 1st quarter	100	84	16	20	20	21	12	14	13	2	25	62	11	50	9	41	(X)	(X)
2nd quarter	100	80	20	20	20	16	13	10	22	1	29	59	10	53	8	39	(X)	(X)
3rd quarter	100	88	12	16	22	22	18	9	13	3	26	57	14	46	8	46	(X)	(X)
4th quarter	100	93	7	18	26	24	15	5	11	1	25	61	13	48	12	40	(X)	(X)
1993: 1st quarter	100	85	15	13	22	22	20	11	12	1	32	51	16	46	5	49	(X)	(X)
2nd quarter	100	91	9	16	23	32	13	6	10	1	25	61	14	49	8	44	(X)	(X)
3rd quarter	100	91	9	18	26	23	13	11	8	4	20	55	21	49	7	44	(X)	(X)
4th quarter	100	89	11	21	26	19	15	8	12	3	23	58	16	46	7	47	(X)	(X)
1994: 1st quarter	100	91	9	23	20	26	14	8	9	2	26	58	14	43	8	49	(X)	(X)
2nd quarter	100	94	6	19	18	25	11	17	10	1	27	58	14	51	9	40	(X)	(X)
3rd quarter	100	89	11	14	24	27	15	11	9	3	25	54	18	43	6	51	(X)	(X)
4th quarter	100	95	5	15	27	26	20	8	3	2	27	55	16	52	10	39	(X)	(X)
1995: 1st quarter	100	94	6	19	23	25	19	10	5	2	22	61	16	45	10	46	(X)	(X)
2nd quarter	100	96	4	14	20	31	20	8	7	3	24	56	17	46	8	46	(X)	(X)
3rd quarter[r]	100	91	9	12	17	28	23	13	6	2	24	57	17	39	6	55	(X)	(X)
4th quarter*	100	91	9	13	16	26	25	7	13	1	33	51	15	41	12	47	(X)	(X)

[p]Preliminary. [r]Revised. X Not applicable. *See footnote on page 3.

[1]Figures based on exterior dimensions times number of floors divided by number of units.
[2]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-quarter 2 or quarter 3-quarter 4).

Table 9. **Selected Characteristics of New Privately Owned Buildings Completed With 2 Units or More**
[Detail may not add to total because of rounding. Percents computed from unrounded figures]

Period	Total	Number of units per building						Number of floors per building	
		2 to 4	5 to 9	10 to 19	20 to 29	30 to 49	50 or more	1 to 3	4 or more
	Number of buildings (thousands)								
ANNUAL DATA									
1992	24	13	6	3	1	1	(Z)	24	(Z)
1993	19	9	5	3	1	(Z)	(Z)	19	(Z)
1994	23	11	6	4	1	1	(Z)	23	(Z)
1995*	27	13	6	5	2	1	(Z)	27	(Z)
QUARTERLY DATA									
1992: 1st quarter	5	3	1	1	(Z)	(Z)	(Z)	5	(Z)
2nd quarter	6	4	1	1	(Z)	(Z)	(Z)	6	(Z)
3rd quarter	6	3	2	1	(Z)	(Z)	(Z)	6	(Z)
4th quarter	7	4	2	1	(Z)	(Z)	(Z)	7	(Z)
1993: 1st quarter	3	2	1	1	(Z)	(Z)	(Z)	3	(Z)
2nd quarter	5	2	1	1	(Z)	(Z)	(Z)	5	(Z)
3rd quarter	5	3	1	1	(Z)	(Z)	(Z)	5	(Z)
4th quarter	5	3	1	1	(Z)	(Z)	(Z)	5	(Z)
1994: 1st quarter	4	2	1	1	(Z)	(Z)	(Z)	4	(Z)
2nd quarter	6	3	1	1	(Z)	(Z)	(Z)	6	(Z)
3rd quarter	6	3	2	1	(Z)	(Z)	(Z)	6	(Z)
4th quarter	7	3	2	1	(Z)	(Z)	(Z)	7	(Z)
1995: 1st quarter	6	3	1	1	(Z)	(Z)	(Z)	6	(Z)
2nd quarter	7	3	2	1	1	(Z)	(Z)	7	(Z)
3rd quarter[r]	8	3	2	2	1	(Z)	(Z)	7	(Z)
4th quarter*	7	3	1	1	1	(Z)	(Z)	7	(Z)
AVERAGE RELATIVE STANDARD ERRORS[1]									
Annual (percent)	4	9	7	7	8	16	11	4	8
Quarterly (percent)	6	11	10	9	8	18	11	6	10
	Percent distribution								
ANNUAL DATA									
1992	100	55	25	12	5	2	1	98	2
1993	100	49	28	15	5	2	1	98	2
1994	100	50	25	16	5	3	1	98	2
1995*	100	47	23	19	9	2	1	98	2
QUARTERLY DATA									
1992: 1st quarter	100	58	21	12	4	3	1	97	3
2nd quarter	100	59	24	10	4	2	1	98	2
3rd quarter	100	50	26	14	7	2	1	98	2
4th quarter	100	53	27	14	5	1	1	99	1
1993: 1st quarter	100	43	28	16	8	3	1	96	4
2nd quarter	100	46	27	21	5	1	1	99	1
3rd quarter	100	51	28	14	4	2	1	99	1
4th quarter	100	54	27	11	5	2	1	99	1
1994: 1st quarter	100	57	22	15	4	2	(Z)	99	1
2nd quarter	100	56	20	15	4	4	1	99	1
3rd quarter	100	46	28	17	5	2	1	98	2
4th quarter	100	44	31	16	7	2	(Z)	99	1
1995: 1st quarter	100	54	23	14	6	2	(Z)	99	1
2nd quarter	100	47	24	20	7	2	1	99	1
3rd quarter[r]	100	43	22	21	10	4	(Z)	98	2
4th quarter*	100	46	21	19	11	2	1	98	2

[r]Revised. Z Fewer than 500 buildings or less than 0.5 percent. *See footnote on page 3.

[1]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-quarter 2 or quarter 3-quarter 4).

Appendix A.
Definitions and Survey Description

DEFINITIONS

One-unit structures are defined as completed when all finish flooring has been installed (or carpeting, if used in place of finish flooring). If the building is occupied before all construction is finished, it is classified as completed at the time of occupancy. In buildings with two or more housing units, all the units in the building are counted as completed when 50 percent or more of the units are occupied or available for occupancy. All units in a residential building are counted as started when excavation is started for the footings or foundations of the building. Beginning with statistics for September 1992, estimates of housing starts include units in residential structures being totally rebuilt on an existing foundation. Housing units are counted as under construction between start and completion, as defined above.

A housing unit is a single room or group of rooms intended for occupancy as separate living quarters by a family, by a group of unrelated persons living together, or by a person living alone. Separate living quarters are those in which the occupants do not live and eat with any other persons in the structure and which have direct access from the outside of the building or through a common hall which is used or intended to be used by the occupants of another unit or by the general public.

A housekeeping residential building is one consisting primarily of housing units. New housing units exclude group quarters (such as dormitories and rooming houses), transient accommodations (such as transient hotels, motels, and tourist courts), mobile homes (trailers), moved or relocated buildings, and housing units created in an existing residential or nonresidential structure. However, in a building combining substantial residential and nonresidential floor areas, every effort is made to include the residential units in these statistics, even though the primary function of the entire building is for nonresidential purposes.

Housing units, as distinguished from mobile homes, include conventional ''stick-built'' units, prefabricated, panelized, componentized, sectional, and modular units.

Housing completions exclude dormitories and rooming houses, and transient accommodations such as transient hotels, motels, and tourist courts. Mobile homes (trailers) are also excluded.

The standard Census geographic regions are used in the tables of this report. States contained in each region are as follows: **Northeast** — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania; **Midwest** — Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; **South** — Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas; **West** — Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

The distribution of housing completions between units inside and outside metropolitan statistical areas (MSA's) is based on definitions published by the Office of Management and Budget in *Metropolitan Statistical Areas*. Data for the period beginning January 1994 are based on the 1992 definitions, as amended June 1993; data for the period January-December 1993 are based on the 1992 definitions; data for January 1984-December 1992 are based on the 1974 definitions, as amended June 1983; data for January 1976-December 1983 are based on the 1974 definitions, as amended August 1975; data for January 1975-December 1975 are based on the 1967 definitions, as amended April 1974; data for January 1974-December 1974 are based on the 1967 definitions, as amended November 1973; data for April 1973-December 1973 are based on the 1967 definitions, as amended February 1973; data for April 1968-March 1973 are based on the 1967 definitions.

SAMPLE DESIGN AND SELECTION

The sample design for the Survey of Construction (SOC) is a stratified multistage cluster design derived from the Current Population Survey (CPS), 1980 design. Each State was divided into areas made up of counties (towns in New England) and independent cities. These areas were grouped within each state to form strata for the CPS according to metropolitan status and the 1980 labor force, race/ethnic origin, population change, and family and housing characteristics. One area from each of the strata was selected with probability proportional to the number of persons 16 years of age and older. The CPS strata were further stratified into 169 strata according to Census region, metropolitan status, building permit activity in 1982, population, and the percent of the population in areas which do not issue permits. One of the CPS selected areas was chosen from each of these 169 strata with probability proportional to the number of persons 16 and older.

Within each of these 169 areas, the sample was selected from two different sample frames: permit-issuing places and land areas not covered by building permit systems.

Each of the 17,000 permit-issuing places was assigned to one of six size classes based on a weighted average of 1978, 1981, and 1982 permit activity. The permit places in each of the 169 areas were grouped into these six size classes and a systematic sample of places was selected from each one of them. Places were selected at different sampling rates in each of the classes so that larger proportions of the places were selected from the larger size classes. For example, all places in the largest size classes fell into sample if they were in the 169 areas, whereas, only an expected 1 in 40 of the places in the smallest size class fell into sample. Approximately 840 permit-issuing places were selected.

Monthly, census field representatives sample permits from these 840 permit-issuing places. They select permits for one-to-four-unit buildings with probability proportional to the number of units at an overall rate of 1 in 40. All permits for buildings with five units or more are selected.

Within each of the 169 areas, the land not covered by building permit systems, called nonpermit areas, was identified. Small land areas (1980 Census enumeration districts) in these nonpermit areas were grouped into two strata according to the 1980 population. Overall, 1 out of every 120 land areas was selected from the strata with the larger areas and 1 out of 600 was selected from the strata with the smaller areas. Monthly, census field representatives intensively canvassed about 130 selected land areas looking for all housing units started.

In January 1995, the area covered by building permit systems was expanded to 19,000 pemit-issuing places. Canvassing was stopped in those selected land areas now represented by permit-issuing places. Census field representatives continue to canvass monthly about 70 land areas still not covered by building permit systems.

HOUSING COMPLETIONS AND UNDER CONSTRUCTION COMPILATION

The housing completions and under construction series is a product of the housing starts survey and the compilation is basically the same as that used for housing starts.

1. An estimate is made monthly of the number of housing units for which building permits have been issued in all 19,000 permit-issuing places. The estimate of building permit authorizations is based on a sample of 8,300 of these 19,000 jurisdictions.

2. For each permit selected in the 840 permit-issuing places, inquiries are made of the owners or builders of units that are under construction to determine if these units have been completed. For those units not completed, inquiries are made in successive months to determine when they are completed. Ratios are then calculated (by type of structure) of the number of units completed and under construction to the number of units covered by permits. Separate ratios are calculated for units authorized from permits of that month and each preceding month. These ratios are then applied to the appropriate estimate of the number of units authorized by permits in the corresponding months to provide estimates of the total number of units completed and under construction for each month of authorization.

3. Having produced estimates of the number of units completed and under construction with permit authorization, an upward adjustment of 3.3 percent is made to the number of one-unit structures (single-family houses) to account for those units built within permit-issuing areas but without permit authorization. (A study spanning a 4-year period indicated that permits were obtained for all buildings with two housing units or more.) For housing completions, upward imputations are also made to account for late reports.

4. The total estimates of housing completions and under construction include estimates of the number of units completed and under construction in areas where building permit systems do not exist. All buildings within the sampled nonpermit areas are followed up for completion information provided by the owners, builders, or site inspection and weighted appropriately.

HOUSING COMPLETIONS AND UNDER CONSTRUCTION, BY TYPE OF STRUCTURE

A total of 14 different sets of rates that change from month to month are utilized to calculate the number of housing units completed and under construction (by type of structure) in permit places. Eight sets of rates are used for one-unit structures: separate sets of rates for metropolitan and nonmetropolitan areas within each of the four regions. For structures with five units or more, separate sets of rates are used for each of the four regions. Single sets of rates are used for all regions for structures with two units and for structures with three and four units.

Housing completions and under construction estimates (by type of structure) in nonpermit areas are calculated directly in the estimating procedure described above.

RELIABILITY OF DATA

The various estimates of privately owned housing units completed and under construction which are shown in this publication are based on sample surveys and may differ from statistics which would have been obtained from a complete census using the same schedules and procedures. An estimate based on a sample survey is subject to both sampling error and nonsampling error. The accuracy of a survey result is determined by the joint effects of these errors.

Measures of Sampling Errors

Sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. Each sample selected for this 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 each other. 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 have been computed from the sample data for selected statistics in this report. They are presented in the tables in the form of average relative standard errors. 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. For example, suppose table 1 of this report showed that an estimated 110,000 units in one-unit structures were completed in a particular month. Further, suppose that the average relative standard error of this estimate is 3 percent. Multiplying 110,000 by 0.03, we obtain 3,300 as the standard error. This means that we are confident, with 2 chances out of 3 of being correct, that the average estimate from all possible samples of one-unit structures completed during the particular month is between 113,300 and 106,700 units. To increase the probability to about 9 chances out of 10 that the interval contains the average value over all possible samples (this is called a 90-percent confidence interval), multiply 3,300 by 1.6 yielding limits of 115,280 and 104,720 (110,000 units plus or minus 5,280 units). The average estimate of one-unit structures completed during the specified month may or may not be contained in any one of these computed intervals; but for a particular sample, one can say that the average estimate from all possible samples is included in the constructed interval with a specified confidence of 90 percent.

Ranges of 90-percent confidence intervals for estimated percent changes are shown in the text. When the range of the confidence interval contains zero, it is unclear whether there was an increase or decrease; that is, the change is not statistically significant.

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.

As described in the section, ‘‘Housing Completions and Under Construction Compilation,’’ a potential source of bias is the upward adjustment of 3.3 percent made to account for one-unit structures completed and under construction in permit-issuing areas without permit authorization. Another source is the imputation for late-reported completions. The final estimates of housing units completed are imputed about 1 percent.

SEASONAL ADJUSTMENT

For analyzing general trends in the economy, seasonally adjusted data are usually preferred since seasonal adjustment eliminates the effects of changes that normally occur at about the same time and in about the same magnitude every year. For example, suppose that the normal month-to-month change in an unadjusted series between February and March was an increase of 20 percent. Then an increase in the unadjusted series of less than 20 percent would be viewed as a decrease in the seasonally adjusted series; an increase of exactly 20 percent would be viewed as no change in the adjusted series; and an increase of more than 20 percent would be viewed as an increase in the adjusted series.

The recurring changes in a series that are removed by seasonal adjustment result from such factors as normal changes in weather and differing lengths of months. It should be emphasized that seasonal adjustment does not account for abnormal weather conditions or for year-to-year changes in weather.

The seasonally adjusted housing completions series in this report is shown as a seasonally adjusted annual rate (SAAR). A SAAR is the seasonally adjusted monthly rate multiplied by 12. The seasonal adjustment indexes shown in this publication have been developed using the X-11-ARIMA, a modification of the X-11 Census Method II seasonal adjustment program. The computation of the monthly seasonal indexes uses trading-day adjustment factors to account for different patterns of activity among days of the week and the variation in the number of times each day of the week occurs in each particular month.

The X-11-ARIMA program also gives summary statistics which are used in determining the adequacy of the seasonal adjustment. These statistics are summarized in table A-3. A brief definition of each statistic is given below the table. A description of the X-11-ARIMA version appears in ''The X-11-ARIMA Seasonal Adjustment Method,'' by Estela Bee Dagum, Statistics Canada. This publication is available from Statistics Canada, 25-A Coats Building, Ottawa, Ontario, K1A0T6. A description of the test for the impact of trading days is found in Bureau of the Census Technical Paper No. 12, ''Estimating Trading-Day Variation in Monthly Economic Time Series'' (1967). This paper is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

An assumption underlying the seasonal adjustment process is that the original series can be separated into a seasonal component, a trading-day component, a trend-cycle component, and an irregular component. The seasonally adjusted series consists of the trend-cycle and irregular components taken together. The trend-cycle component includes the long-term trend and the business cycle. The irregular component is made up of residual variations, such as the sudden impact of political events and the effects of strikes, unusual weather conditions, reporting and sampling errors, etc.

Seasonal indexes are developed concurrently each month for total private housing completions and under construction, by region and by type of structure. With the concurrent seasonal adjustment procedure, each series is run through the X-11-ARIMA program each month as new data become available. The seasonally adjusted U.S. total is the sum of six seasonally adjusted components: single family structures in each of the four regions, U.S. total for two-to-four-unit structures, and U.S. total for structures with five units or more. Also, the unadjusted data for the four regions are seasonally adjusted and subsequently modified so that the seasonally adjusted U.S. total derived from the regions equals the seasonally adjusted U.S. total derived from the structures. The seasonal indexes for private housing completions shown in table A-1 and for housing under construction in table A-2 include trading-day adjustment factors which were estimated internally by the regression routine.

CENSUS BUREAU CONSTRUCTION REPORTS AND RELATED PUBLICATIONS

Current Construction Reports, Series C20: *Housing Starts* (monthly).

Current Construction Reports, Series C21: *New Residential Construction in Selected Metropolitan Statistical Areas* (quarterly).

Current Construction Reports, Series C25: *New One-Family Houses Sold and For Sale* (monthly).

Current Construction Reports, Series C30: *Value of New Construction Put in Place* (monthly).

Current Construction Reports, Series C50: *Expenditures for Residential Improvements and Repairs* (quarterly).

Construction Review: A quarterly publication of the International Trade Administration, U.S. Department of Commerce.

Table A-1. **Seasonal Indexes Used to Adjust Housing Units Completed**

Period	United States implicit index[1]	In structures with—						All units			
		1 unit				2 to 4 units	5 units or more				
		Northeast	Midwest	South	West			Northeast	Midwest	South	West
1993[r]											
January	85.3	89.6	78.8	87.3	87.3	84.1	83.8	85.9	80.2	84.6	86.6
February	79.2	81.6	70.0	84.0	79.9	68.6	78.8	74.5	70.9	82.5	82.8
March	89.5	86.2	76.9	96.4	88.8	93.7	87.7	86.8	76.5	95.5	91.9
April	89.6	82.8	87.3	88.5	93.5	101.7	96.0	89.7	91.4	91.8	92.5
May	97.5	90.4	94.6	98.8	102.5	98.1	93.2	92.2	94.5	98.1	98.4
June	105.3	104.7	106.7	107.6	97.5	106.1	112.0	103.9	104.8	107.8	99.9
July	103.2	99.3	101.9	101.6	105.7	115.8	107.5	108.0	103.6	100.6	102.2
August	109.9	101.5	109.6	109.8	105.4	110.4	124.3	104.4	114.5	113.5	108.8
September	110.2	100.1	120.4	106.2	113.4	99.0	111.6	108.2	122.3	109.2	110.0
October	113.7	123.6	120.9	111.9	110.8	105.5	107.0	116.3	121.9	108.5	110.0
November	103.3	122.1	113.6	96.1	100.3	115.4	95.9	115.0	107.9	98.8	101.0
December	112.5	120.9	117.9	110.7	113.4	100.0	103.3	115.7	110.5	108.0	114.0
1994[r]											
January	85.7	88.7	79.8	86.8	89.0	85.3	83.1	86.6	80.4	85.1	88.7
February	79.4	81.7	70.8	84.2	79.6	69.8	78.3	74.5	70.9	82.6	82.2
March	89.6	83.5	78.3	96.6	90.3	97.2	86.1	86.9	80.3	96.2	91.1
April	90.8	83.2	87.0	91.4	93.3	97.2	95.1	88.2	88.6	91.8	94.0
May	97.5	94.3	94.1	98.6	100.8	99.8	94.0	94.6	95.3	98.8	97.0
June	105.1	98.7	107.2	104.6	101.5	108.9	113.1	102.9	108.8	106.9	100.2
July	102.2	97.6	99.3	103.0	103.2	114.8	108.0	105.0	100.0	100.2	102.6
August	110.0	102.6	111.6	109.3	104.5	106.1	124.7	104.9	112.2	113.0	108.7
September	108.7	105.4	117.7	104.4	108.2	99.7	111.8	109.6	121.9	107.5	107.5
October	114.9	122.5	122.6	112.3	114.9	104.7	107.6	117.3	122.1	110.5	112.3
November	103.1	117.7	114.0	97.9	100.0	117.3	96.7	112.6	107.9	98.6	102.1
December	113.4	123.8	118.3	112.3	116.6	97.2	102.6	116.5	112.0	109.4	115.0
1995[r]											
January	85.0	91.6	79.4	86.2	86.7	87.4	82.2	88.9	80.5	85.2	86.9
February	79.3	81.9	71.5	84.1	79.8	71.2	78.3	74.5	71.2	82.5	81.7
March	87.5	82.6	77.3	94.6	87.6	95.0	84.7	85.2	78.4	93.8	89.8
April	91.5	78.1	87.1	92.6	96.6	98.3	94.4	86.6	91.0	92.9	95.5
May	97.7	95.6	95.8	99.3	100.7	100.1	94.4	95.0	93.9	99.4	98.5
June	103.9	102.5	104.9	102.7	99.1	108.1	113.4	104.3	108.8	105.1	97.9
July	104.0	97.4	100.2	102.5	106.3	116.6	108.8	105.9	99.4	101.7	104.6
August	111.1	99.5	112.6	108.9	107.2	106.0	124.9	105.1	117.7	113.1	107.6
September	109.4	106.6	117.2	107.6	106.2	98.3	111.6	107.8	118.1	107.4	109.3
October	114.0	126.6	122.4	111.6	112.6	104.7	108.2	120.4	121.9	111.6	109.8
November	102.3	112.4	114.6	95.6	103.5	120.2	97.3	111.5	111.1	97.8	102.7
December*	112.8	122.2	115.8	114.1	114.6	94.4	102.4	113.3	109.6	109.1	115.5
1996											
January[p]	84.8	92.0	80.7	86.8	85.5	86.8	81.2	89.3	78.9	85.6	87.8

[p]Preliminary. [r]Revised. *See footnote on page 3.

[1]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 A-2. **Seasonal Indexes Used to Adjust Housing Units Under Construction**

Period	United States implicit index[1]	In structures with—						All units			
		1 unit				2 to 4 units	5 units or more				
		Northeast	Midwest	South	West			Northeast	Midwest	South	West
1993[r]											
January	94.0	96.2	89.9	93.3	93.6	96.3	98.0	96.9	92.3	94.6	95.2
February	92.0	91.4	85.3	93.6	91.4	96.5	96.8	93.4	87.5	94.9	92.7
March	94.9	91.3	90.1	96.4	95.8	97.4	98.0	93.5	91.0	96.8	96.5
April	98.5	95.1	95.5	100.1	98.7	99.4	100.2	97.1	96.3	100.8	98.6
May	101.1	97.8	101.4	102.3	100.8	99.0	101.0	97.7	100.6	103.2	100.5
June	103.2	103.2	104.5	103.9	102.6	102.3	101.2	102.4	104.0	103.4	101.7
July	104.7	104.6	108.2	104.5	105.0	101.6	101.1	103.1	106.7	104.0	103.6
August	105.0	105.3	108.9	104.4	106.7	102.7	101.0	104.7	107.6	103.1	104.7
September	104.5	105.1	108.2	103.9	105.1	103.5	99.8	105.2	106.3	102.1	104.5
October	103.5	105.7	107.5	101.8	103.5	102.2	102.4	104.6	106.1	101.2	103.4
November	101.3	103.7	103.8	100.4	100.7	100.8	100.5	102.6	103.9	99.9	100.9
December	96.7	100.0	96.0	94.8	95.6	97.9	99.4	98.8	97.5	95.5	96.8
1994[r]											
January	94.2	96.3	90.8	93.3	94.0	96.4	97.6	95.8	92.4	94.6	95.7
February	92.2	91.5	85.6	93.7	91.2	96.6	96.6	93.3	87.6	94.9	92.5
March	94.8	91.3	90.0	96.6	95.7	97.1	97.9	93.6	91.0	96.9	96.8
April	98.2	95.4	95.1	99.6	98.2	99.1	100.3	96.8	96.1	100.5	98.6
May	101.1	97.5	101.4	102.4	101.0	99.0	101.6	98.4	100.7	103.3	100.3
June	103.0	102.9	103.8	103.7	102.6	102.4	100.8	102.4	103.2	103.2	101.8
July	104.1	103.7	107.0	104.1	104.4	100.3	101.0	102.9	105.9	103.6	103.0
August	104.9	105.3	109.0	104.6	106.2	103.5	101.2	104.8	107.8	103.1	104.0
September	104.4	105.2	108.4	104.0	105.9	104.1	100.1	105.8	106.6	102.5	104.8
October	103.4	105.5	107.3	101.9	103.9	102.3	102.0	103.5	106.2	101.2	103.9
November	101.4	104.3	104.2	100.3	100.1	100.2	100.5	103.7	104.0	99.6	100.7
December	97.0	100.5	96.7	95.0	95.7	98.4	99.3	98.3	97.9	95.9	96.8
1995[r]											
January	94.9	96.6	91.6	93.6	94.5	96.4	98.2	96.1	92.8	94.7	96.1
February	92.6	91.6	85.7	93.8	91.1	96.5	96.5	93.3	87.6	94.8	92.4
March	95.2	91.2	90.2	96.4	95.6	97.5	97.8	93.5	90.9	96.8	96.7
April	98.1	95.0	94.1	99.3	98.2	98.0	99.8	96.3	95.4	100.2	98.8
May	101.2	97.3	101.5	102.4	100.6	99.4	101.8	98.4	100.8	103.2	100.0
June	102.7	103.2	103.7	103.6	103.0	103.0	101.1	103.1	103.3	103.3	101.7
July	103.4	103.0	106.4	104.1	104.5	100.0	100.5	101.9	105.6	103.6	103.0
August	104.7	105.6	108.8	104.7	106.1	103.5	101.3	105.4	107.8	103.3	104.2
September	103.9	105.2	108.4	103.7	105.5	103.9	100.1	105.4	106.7	102.4	104.7
October	103.9	105.6	107.6	102.2	104.3	102.4	102.6	104.1	106.6	101.4	104.1
November	101.3	104.5	104.3	100.3	100.4	100.2	99.9	103.7	103.9	99.5	100.9
December*	96.9	100.3	96.8	94.9	95.4	97.8	99.4	98.2	97.8	95.7	96.4
1996											
January[p]	95.0	96.8	92.2	93.7	94.3	96.9	98.4	95.9	93.0	94.7	96.2

[p]Preliminary. [r]Revised. *See footnote on page 3.

[1]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.

Table A-3. **Average Percent Changes and Related Measures for Monthly Private Housing Units Completed and Under Construction**

Series	Average percentage change				Ratio of irregular component to cyclical component (I/C)	Number of months for cyclical dominance (MCD)
	Original series (O)	Seasonally adjusted series (CI)	Irregular component (I)	Cyclical component (C)		
PRIVATE HOUSING COMPLETIONS						
U.S. total	**9.51**	**5.26**	**5.05**	**1.31**	**3.86**	**4**
Northeast	18.60	16.48	16.49	1.90	8.70	9
Midwest	15.33	10.04	9.73	2.25	4.32	4
South	10.27	6.19	5.89	1.39	4.24	5
West	11.69	8.91	8.69	1.48	5.86	6
1 unit						
Northeast	15.91	11.67	11.29	2.15	5.26	6
Midwest	15.09	9.59	9.32	1.68	5.56	6
South	10.53	5.57	5.29	1.27	4.18	5
West	11.75	8.53	8.24	1.87	4.40	5
2 to 4 units	22.02	17.91	17.81	1.91	9.32	12
5 units or more	17.31	13.84	13.62	1.91	7.13	8
UNITS UNDER CONSTRUCTION						
U.S. total	**2.01**	**0.99**	**0.55**	**0.77**	**0.72**	**1**
Northeast	2.67	1.76	0.96	1.41	0.68	1
Midwest	3.57	1.60	1.09	1.01	1.08	2
South	2.02	1.31	0.82	1.04	0.78	1
West	2.03	1.26	0.87	0.80	1.09	2
1 unit						
Northeast	3.06	1.83	1.01	1.46	0.70	1
Midwest	4.46	1.59	1.10	0.92	1.19	2
South	2.41	1.27	0.84	0.87	0.97	1
West	2.62	1.44	0.99	0.90	1.09	2
2 to 4 units	3.17	2.83	2.15	1.78	1.21	2
5 units or more	2.26	2.15	1.11	1.81	0.61	1

Definitions of Summary Measures

The following are brief definitions of the measures shown here. More complete explanations appear in *Electronic Computers and Business Indicators* by Julius Shiskin, issued as Occasional Paper 57 by the National Bureau of Economic Research, 1957 (reprinted from the *Journal of Business*, October 1957).

'O' is the average month-to-month percentage change, without regard to sign, in the original series.

'CI' is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

'I' is the average month-to-month percentage change, without regard to sign, for the irregular component, which is obtained by dividing the cyclical component into the seasonally adjusted series.

'C' is the average month-to-month percentage change, without regard to sign, in the cyclical component. 'C' is a smooth, flexible moving average of the seasonally adjusted series.

'I/C' is the average month-to-month percentage change, without regard to sign, of the irregular component divided by the average month-to-month percentage change, without regard to sign, of the cyclical component. It serves as an indication of the series' relative smoothness (small values) or irregularity (large values).

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movement in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and in the cyclical component are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.), 2-month spans (Jan.-Mar., Feb.-Apr., etc.), up to 5-month spans. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; thus, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Appendix B.
Monthly Revisions to Estimates

Each month the Census Bureau publishes preliminary estimates of Housing Completions. The 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 -1.42 percent to 2.82 percent, with a median of 0.58 percent. The range of the difference between preliminary and final estimates was from -0.66 percent to 2.82 percent, with a median of 0.74 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			Range		
	From	To	Median	From	To	Median
HOUSING COMPLETIONS						
U.S. total	**-1.42**	**2.82**	**0.58**	**-0.66**	**2.82**	**0.74**
In structures with—						
1 unit	0.64	2.62	1.26	-1.14	2.64	1.62
2 to 4 units	-10.35	20.69	-1.35	-10.35	23.08	-2.20
5 units or more	- 9.29	4.62	-1.35	-5.46	4.05	-0.79
Northeast	-4.72	7.02	-0.37	-6.30	14.93	0.26
Midwest	-4.59	5.67	1.87	4.28	6.48	-2.39
South	-2.95	1.66	-0.48	-2.44	2.28	-0.09
West	0.63	6.59	2.88	0.63	7.74	3.38