

# DWELLING UNIT COMMENCEMENTS

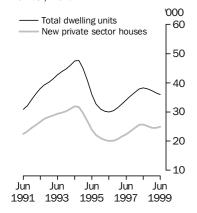
AUSTRALIA

PRELIMINARY

EMBARGO: 11:30AM (CANBERRA TIME) TUES 14 SEPT 1999

#### **Dwelling units commenced**

Number, Trend



# JUNE QTR KEY FIGURES

TREND ESTIMATES	Jun qtr 99	% change Mar qtr 99 to Jun qtr 99	% change Jun qtr 98 to Jun qtr 99
Dwelling units commenced			
New private sector houses	24 999	1.7	-2.6
Total dwelling units	35 905	-1.6	-6.2
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SEASONALLY ADJUSTED	Jun qtr 99	% change Mar qtr 99 to Jun qtr 99	% change Jun qtr 98 to Jun qtr 99
Dwelling units commenced			
New private sector houses	25 733	5.7	0.9
Total dwelling units	36 439	0.2	-3.7

# JUNE QTR KEY POINTS

## TREND ESTIMATES

- The trend for the number of new private sector houses commenced rose by 1.7% in the June quarter 1999, arresting the downward trend reported last quarter.
- However, the trend for the total number of dwelling unit commencements continued to fall. June quarter was down 1.6% on the March quarter, with the trend now 6.2% below the level of a year ago.

# SEASONALLY ADJUSTED ESTIMATES

■ The number of new private sector houses commenced during the June quarter rose by 1,398 to 25,733. This was an increase of 5.7% for the quarter but was only 0.9% above the figure for the previous June quarter. The total number of dwelling units commenced increased only marginally and was 3.7% below that of a year ago.

## ORIGINAL ESTIMATES

- The total number of dwelling units commenced during the June quarter was 37,151, an increase of 8.3% on the March quarter. New house commencements were up 16.8%, with increases in all States and Territories except Tasmania. The rise in house commencements was only partly offset by falls in new other dwellings (-6.0%) and in 'conversions etc.' (-43.1%).
- Total private sector commencements rose by 8.1% to 35,818 and public sector commencements by 13.4% to 1,333.

 For further information about these and related statistics, contact Roger Mableson on Adelaide 08 8237 7494, or Client Services in any ABS office as shown on the back cover of this publication.

# NOTES

#### FORTHCOMING ISSUES

ISSUE (Quarter)

RELEASE DATE

September 1999

December 1999

20 March 2000

# SIGNIFICANT REVISIONS THIS ISSUE

The total number of dwelling units commenced during the March quarter 1999 has been revised downwards by 361 (-1.0%) for Australia, including 216 (-3.5%) in Queensland and 357 (-2.8%) in New South Wales. Victoria was revised upwards by 255 (+2.9%).

DATA NOTES

The 1998–99 figures for Queensland may be an underestimate (and hence, to a lesser extent, for Australia) as a result of possible under-reporting of building approvals by some councils in Queensland. For more information, see *Building Approvals, Australia* (Cat. no. 8731.0) July 1999 issue.

SAMPLING ERRORS

The estimates in this publication are based on a sample survey of private sector house building activity and a complete enumeration of other building activity. Because data are not collected for all private sector house building jobs, the published estimates are subject to sampling variability. Relative standard errors give a measure of this variability and therefore indicate the degree of confidence that can be attached to the data.

RELATIVE STANDARD ERRORS

Relative standard errors for the number of new private sector houses and total dwelling units commenced in the June quarter 1999 are given below. There is 67% confidence that the actual value would be within one standard error of the sample estimate, and 95% confidence that it lies within two standard errors.

	New private	
	sector houses	Total dwellings
	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • •
New South Wales	3.4	2.0
Victoria	4.2	3.1
Queensland	3.0	2.1
South Australia	3.5	3.1
Western Australia	3.8	3.1
Tasmania	2.1	1.9
Northern Territory		
Australian Capital Territory	0.6	0.4
Australia	1.7	1.2

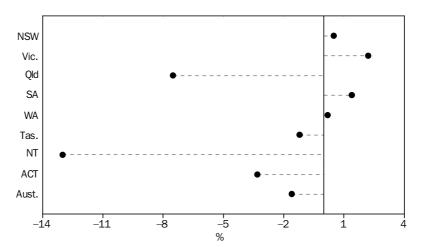
W. McLennan Australian Statistician

#### TOTAL NUMBER OF DWELLING UNITS COMMENCED

#### Trend estimates

- Victoria (+2.2%), South Australia (+1.4%), New South Wales (+0.5%) and Western Australia (+0.2%) recorded increases in the trend estimate of the number of dwelling units commenced in the June quarter.
- The largest fall occurred in the Northern Territory (-13.0%), followed by Queensland (-7.5%), the Australian Capital Territory (-3.3%) and Tasmania (-1.2%).

## Change from previous quarter



■ When compared with a year previously, the Australian Capital Territory (+63.0%) showed the largest increase, followed by Victoria (+6.7%) and South Australia (+5.4%). The largest fall was recorded by Queensland (-27.7%), followed by the Northern Territory (-27.0%), Tasmania (-8.4%), Western Australia (-4.8%) and New South Wales (-1.7%).

## Seasonally adjusted estimates

■ Western Australia showed the largest increase (+10.0%) in the number of dwelling units commenced in the June quarter, followed by South Australia (+9.4%) and Victoria (+4.4%). Falls occurred in the Australian Capital Territory (-44.7%), Queensland (-7.6%), Tasmania (-7.0%) and New South Wales (-1.6%).

## Original estimates

Percentage movements between 1997–98 and 1998–99 in the number of dwelling units commenced for each type of dwelling unit by State were:

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
New houses New other dwellings	3.4	11.3	-18.5	8.4	7.9	-9.0	16.4	32.8	1.5
(incl. conversions, etc.)	3.5	8.7	-23.4	35.8	-0.6	-51.7	-42.8	212.6	-2.0
Total dwellings	3.5	10.7	-20.1	11.8	6.6	-15.2	-9.7	66.7	0.4

TABLE 1. NUMBER OF DWELLING UNITS COMMENCED

	New houses		Total dwelling units (includes conversions etc)		
_	Private		Private		
Period	sector	Total	sector	Tota	
	0	RIGINAL			
1998 Mar. qtr	23,427	23,882	34,023	35,192	
June qtr	25,838	26,354	37,066	38,591	
Sept. qtr	26,239	27,326	37,915	39,723	
Dec. qtr	24,866	25,542	35,971	37,206	
1999 Mar. qtr	qtr 24,866 qtr 22,332 qtr 26,067		33,140	34,315	
June qtr	26,067	26,637	35,818	37,151	
	SEASONA	ALLY ADJUSTED			
1998 Mar. qtr	25,555	26,065	36,222	37,370	
June qtr	25,505	26,050	36,469	37,848	
Sept. qtr	25,704	26,602	37,710	39,179	
Dec. qtr	23,715	24,462	34,677	36,368	
1999 Mar. qtr	24,335	24,858	35,220	36,37	
June qtr	25,733	26,337	35,244	36,439	
	TRENI	D ESTIMATES			
1998 Mar. qtr	25,531	26,057	36,589	37,871	
June qtr	25,673	26,334	36,882	38,280	
Sept. qtr	25,009	25,754	36,443	37,932	
Dec. qtr	24,543	25,266	35,770	37,244	
1999 Mar. qtr	24,581	25,215	35,169	36,502	
June qtr	24,999	25,526	34,745	35,905	

TARIE 2	NUMBED	OF DWELLING	TINITE	COMMENCED	PERCENTAGE	CHANCE
IADLE 4.	. NUMBER	OF DWELLING	t UNITS	COMMENCED	, rekcentage	CHANGE

		New houses		Total dwelling units (includes conversions etc)			
Perio	d	Private sector	Total	Private sector	Total		
			C				
		ORIGINAL (% cha	nge from previous	quarter)			
1998	Mar. qtr	-10.7	-10.5	-9.9	-9.0		
	June qtr	10.3	10.4	8.9	9.7		
	Sept. qtr	1.6	3.7	2.3	2.9		
	Dec. qtr	-5.2	-6.5	-5.1	-6.3		
1999	Mar. qtr	-10.2	-10.7	-7.9	-7.8		
	June qtr	16.7	16.8	8.1	8.3		
		SEASONALLY ADJUSTE	D (% change from p	previous quarter)			
1998	Mar. qtr	2.0	1.9	-0.5	-1.2		
	June qtr	-0.2	-0.1	0.7	1.3		
	Sept. qtr	0.8	2.1	3.4	3.5		
	Dec. qtr	-7.7	-8.0	-8.0	-7.2		
1999	Mar. qtr	2.6	1.6	1.6	_		
	June qtr	5.7	6.0	0.1	0.2		
		TREND ESTIMATES (9	6 change from prev	vious quarter)			
1998	Mar. qtr	4.0	4.2	3.0	3.2		
	June qtr	0.6	1.1	0.8	1.1		
	Sept. qtr	-2.6	-2.2	-1.2	-0.9		
	Dec. qtr	-1.9	-1.9	-1.8	-1.8		
1999	Mar. qtr	0.2	-0.2	-1.7	-2.0		
	June qtr	1.7	1.2	-1.2	-1.6		

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TABLE 3. TOTAL NUMBER OF DWELLING UNITS (a) COMMENCED BY STATE

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia
			SEASON	ALLY ADJUS	STED				
1998 Mar. qtr	12,589	8,709	9,083	1,788	4,347	387	n.a.	349	37,370
June qtr	12,262	9,346	8,853	1,645	4,746	389	n.a.	243	37,848
Sept. qtr	13,433	9,662	7,808	1,906	4,927	334	n.a.	559	39,179
Dec. qtr	11,363	9,289	7,471	1,798	4,453	358	n.a.	381	36,368
1999 Mar. qtr	12,782	9,649	6,752	1,785	4,286	353	n.a.	793	36,374
June qtr	12,577	10,071	6,238	1,953	4,716	328	n.a.	438	36,439
			TREN	D ESTIMATI	ES				
1998 Mar. qtr	12,498	8,987	9,031	1,723	4,465	393	571	317	37,871
June qtr	12,651	9,273	8,689	1,780	4,711	371	578	346	38,280
Sept. qtr	12,522	9,429	8,049	1,790	4,715	357	569	434	37,932
Dec. qtr	12,376	9,537	7,379	1,819	4,575	350	535	538	37,244
1999 Mar. qtr	12,374	9,678	6,786	1,851	4,476	344	485	584	36,502
June qtr	12,434	9,894	6,279	1,877	4,483	340	422	564	35,905

<sup>(</sup>a) Includes conversions, etc.

TABLE 4. TOTAL NUMBER OF DWELLING UNITS (a) COMMENCED BY STATE, PERCENTAGE CHANGE

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia
	SE	ASONALLY	ADJUSTED (	% change fron	n previous qua	rter)			
1000 M	4.1	1.0	0.6	2.2	2.2	5.4		4.1	1.0
1998 Mar. qtr	4.1	-1.0	0.6	2.3	2.3	-5.4	n.a.	-4.1	-1.2
June qtr	-2.6	7.3	-2.5	-8.0	9.2	0.4	n.a.	-30.3	1.3
Sept. qtr	9.5	3.4	-11.8	15.9	3.8	-14.1	n.a.	129.9	3.5
Dec. qtr	-15.4	-3.9	-4.3	-5.7	-9.6	7.0	n.a.	-31.8	-7.2
1999 Mar. qtr	12.5	3.9	-9.6	-0.7	-3.7	-1.4	n.a.	108.0	_
June qtr	-1.6	4.4	-7.6	9.4	10.0	-7.0	n.a.	-44.7	0.2
		TREND EST	IMATES (% c	hange from pr	evious quarter	)			
1998 Mar. qtr	4.7	5.0	1.1	1.9	7.1	-4.7	3.4	-3.2	3.2
June qtr	1.2	3.2	-3.8	3.3	5.5	-5.7	1.3	9.0	1.1
Sept. qtr	-1.0	1.7	-7.4	0.6	0.1	-3.7	-1.7	25.4	-0.9
Dec. qtr	-1.2	1.1	-8.3	1.6	-3.0	-2.1	-6.0	23.9	-1.8
1999 Mar. qtr	_	1.5	-8.0	1.7	-2.2	-1.6	-9.3	8.5	-2.0
June qtr	0.5	2.2	-7.5	1.4	0.2	-1.2	-13.0	-3.3	-1.6

<sup>(</sup>a) Includes conversions, etc.

TABLE 5. TOTAL NUMBER OF DWELLING UNITS COMMENCED

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia
			NE	W HOUSES					
1996-97	23,385	18,652	22,870	5,112	12,522	1,560	985	1,157	86,246
1997-98	26,764	26,004	23,754	5,823	14,790	1,387	1,219	1,022	100,764
1998-99	27,680	28,949	19,370	6,310	15,952	1,262	1,419	1,357	102,303
1998 Mar. qtr	6,599	6,034	5,457	1,436	3,465	353	290	249	23,882
June qtr	6,902	7,165	5,941	1,397	4,024	341	344	239	26,354
Sept. qtr	7,471	7,362	5,368	1,610	4,418	298	374	424	27,326
Dec. qtr	6,239	7,399	5,159	1,699	3,987	332	450	276	25,542
1999 Mar. qtr	6,582	6,485	4,118	1,326	3,386	330	285	285	22,798
June qtr	7,388	7,703	4,725	1,675	4,161	302	310	372	26,637
		NE	W OTHER RE	SIDENTIAL	BUILDINGS				
1996-97	18,681	6,047	9,004	651	2,241	291	701	729	38,345
1997-98	19,852	7,598	11,222	741	2,360	231	952	236	43,192
1998-99	21,081	8,209	8,727	1,070	2,369	107	538	611	42,712
1998 Mar. qtr	4,985	1,924	2,575	145	561	29	309	40	10,568
June qtr	4,870	1,894	3,103	154	844	42	242	27	11,176
Sept. qtr	5,798	2,000	2,627	336	602	12	120	116	11,611
Dec. qtr	5,010	1,682	2,542	263	488	54	191	145	10,375
1999 Mar. qtr	5,436	2,159	1,820	302	586	18	124	240	10,685
June qtr	4,837	2,368	1,738	169	693	23	103	110	10,041
			CONV	ERSIONS, E	TC				
1996-97	1,667	1,131	535	26	86	30	40	65	3,580
1997-98	1,821	1,340	441	89	115	3	14	2	3,826
1998-99	1,356	1,509	212	57	91	6	15	133	3,380
1998 Mar. qtr	440	169	33	67	29	_	2	2	742
June qtr	400	473	144	7	28	3	6	_	1,062
Sept. qtr	406	299	30	34	12	2	3	_	786
Dec. qtr	488	653	101	3	37	3	4	_	1,289
1999 Mar. qtr	229	355	64	16	28	_	6	133	832
June qtr	233	202	17	4	14	1	2		473
				TOTAL					
1996-97	43,733	25,831	32,409	5,789	14,849	1,881	1,726	1,951	128,172
1997-98	48,437	34,942	35,418	6,653	17,265	1,622	2,185	1,260	147,781
1998-99	50,118	38,668	28,310	7,438	18,412	1,375	1,972	2,101	148,395
1998 Mar. qtr	12,024	8,127	8,065	1,648	4,055	382	601	291	35,192
June qtr	12,172	9,532	9,188	1,558	4,896	387	592	266	38,591
Sept. qtr	13,675	9,662	8,025	1,980	5,032	312	497	540	39,723
Dec. qtr	11,737	9,734	7,802	1,965	4,512	389	645	421	37,206
1999 Mar. qtr	12,248	8,999	6,003	1,645	4,000	348	415	658	34,315
June qtr	12,458	10,273	6,480	1,848	4,868	326	415	482	37,151

## TABLE 6. TOTAL NUMBER OF PRIVATE SECTOR DWELLING UNITS COMMENCED

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia
			NE	W HOUSES					
1996-97	23,180	18,395	22,523	5,057	12,013	1,543	815	1,116	84,645
1997-98	26,585	25,701	23,411	5,628	14,170	1,379	949	1,020	98,844
1998-99	27,287	28,299	18,937	6,105	15,387	1,261	931	1,293	99,504
1998 Mar. qtr	6,548	5,901	5,418	1,409	3,357	351	195	249	23,427
June qtr	6,827	7,092	5,819	1,334	3,892	339	295	239	25,838
Sept. qtr	7,252	7,164	5,269	1,563	4,049	297	221	423	26,239
Dec. qtr	6,181	7,214	5,019	1,644	3,946	332	256	273	24,866
1999 Mar. qtr	6,521	6,293	4,052	1,293	3,350	330	221	271	22,332
June qtr	7,333	7,628	4,597	1,605	4,042	302	233	326	26,067
		NE'	W OTHER RE	SIDENTIAL	BUILDINGS				
1996-97	16,878	5,636	8,314	647	1,858	246	685	711	34,975
1997-98	18,681	7,060	10,657	720	1,855	220	877	228	40,298
1998-99	19,933	7,823	8,057	1,047	1,944	107	491	607	40,298
1998 Mar. qtr	4,688	1,774	2,501	141	408	25	299	40	9,876
June qtr	4,552	1,734	2,798	149	640	37	235	27	10,172
Sept. qtr	5,461	1,905	2,425	332	543	12	106	116	10,900
Dec. qtr	4,785	1,592	2,442	244	398	54	187	145	9,847
1999 Mar. qtr	5,078	2,038	1,770	302	426	18	109	236	9,977
June qtr	4,609	2,288	1,420	169	577	23	89	110	9,285
			CONV	ERSIONS, E	TC				
1996-97	1,638	1,118	535	23	80	12	28	5	3,439
1997-98	1,807	1,317	419	89	115	3	14	2	3,767
1998-99	1,333	1,487	210	55	91	6	15	133	3,331
1998 Mar. qtr	439	148	33	67	29	_	2	2	720
June qtr	397	471	144	7	28	3	6	_	1,057
Sept. qtr	399	298	30	32	12	2	3	_	776
Dec. qtr	479	632	100	3	37	3	4	_	1,258
1999 Mar. qtr	228	355	64	16	28	_	6	133	831
June qtr	227	202	16	4	14	1	2		466
				TOTAL					
1996-97	41,696	25,150	31,372	5,727	13,951	1,801	1,528	1,832	123,060
1997-98	47,073	34,078	34,488	6,437	16,140	1,603	1,840	1,250	142,908
1998-99	48,554	37,610	27,205	7,208	17,422	1,374	1,437	2,033	142,844
1998 Mar. qtr	11,675	7,823	7,952	1,617	3,794	376	496	291	34,023
June qtr	11,776	9,297	8,761	1,490	4,560	380	536	266	37,066
Sept. qtr	13,112	9,368	7,724	1,927	4,604	311	330	539	37,915
Dec. qtr	11,445	9,438	7,561	1,891	4,381	389	447	418	35,971
1999 Mar. qtr	11,828	8,686	5,887	1,612	3,804	348	336	640	33,140
June qtr	12,169	10,118	6,033	1,778	4,633	326	324	436	35,818

TABLE 7. TOTAL NUMBER OF PUBLIC SECTOR DWELLING UNITS COMMENCED

Period	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia
			NEV	V HOUSES					
1996-97	205	257	347	55	509	17	170	41	1,601
1997-98	179	303	343	195	620	8	270	2	1,920
1998-99	393	650	433	205	565	1	488	64	2,799
1998 Mar. qtr	51	133	39	27	108	2	95	_	455
June qtr	75	73	122	63	132	2	49	_	516
Sept. qtr	219	198	99	47	369	1	153	1	1,087
Dec. qtr	58	185	140	55	41	_	194	3	676
1999 Mar. qtr	61	192	66	33	36	_	64	14	466
June qtr	55	75	128	70	119	_	77	46	570
		NEV	V OTHER RES	SIDENTIAL	BUILDINGS				
1996-97	1,803	411	690	4	383	45	16	18	3,370
1997-98	1,171	538	565	21	505	11	75	8	2,894
1998-99	1,148	386	670	23	425	_	47	4	2,703
1998 Mar. qtr	297	150	74	4	153	4	10	_	692
June qtr	318	160	305	5	204	5	7	_	1,004
Sept. qtr	337	95	202	4	59	_	14	_	711
Dec. qtr	225	90	100	19	90	_	4	_	528
1999 Mar. qtr	358	121	50	_	160	_	15	4	708
June qtr	228	80	318		116		14		756
			CONVE	ERSIONS, ET	ГС				
1996-97	29	13	_	3	6	18	12	60	141
1997-98	14	23	22	_	_	_	_	_	59
1998-99	23	22	2	2	_	_	_	_	49
1998 Mar. qtr	1	21	_	_	_	_	_	_	22
June qtr	3	2	_	_	_	_	_	_	5
Sept. qtr	7	1	_	2	_	_	_	_	10
Dec. qtr	9	21	1	_	_	_	_	_	31
1999 Mar. qtr	1	_	_	_	_	_	_	_	1
June qtr	6		1						7
			·	ГОТАL					
1996-97	2,037	681	1,037	62	898	80	198	119	5,112
1997-98	1,364	864	930	216	1,125	19	345	10	4,873
1998-99	1,564	1,058	1,105	230	990	1	535	68	5,551
1998 Mar. qtr	349	304	113	31	261	6	105	_	1,169
June qtr	396	235	427	68	336	7	56	_	1,525
Sept. qtr	563	294	301	53	428	1	167	1	1,808
Dec. qtr	292	296	241	74	131	_	198	3	1,235
1999 Mar. qtr	420	313	116	33	196	_	79	18	1,175
June qtr	289	155	447	70	235	_	91	46	1,333

#### INTRODUCTION

- **1** This publication contains preliminary estimates from the quarterly Building Activity Survey of the number of dwelling units commenced. More comprehensive updated results for the last two quarters will be available shortly in *Building Activity*, *Australia* (Cat. no. 8752.0).
- **2** The statistics were compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. The quarterly survey comprises a sample survey of private sector house building activity and a complete enumeration of other building activity. Estimates in respect of commencements of private sector houses are therefore subject to sampling variability. The relative standard errors for these estimates are shown on page 2. Also, some returns containing jobs not known to have commenced are not received in time for inclusion in these estimates. Allowance is made for a proportion of these jobs, based on past experience, to have commenced. Estimates in this issue are therefore subject to revision.
- **3** The use of sample survey techniques in the Building Activity Survey means that reliable estimates of private sector house commencements based on survey results are available only at the State, Territory and Australia levels. Further geographic disaggregations are not available. However, data for regions below State and Territory level are available from the building approvals series compiled by the Australian Bureau of Statistics (ABS) and based on information reported by local government and other reporting authorities.

#### **DEFINITIONS**

- **4** A *building* is defined as a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock. An integral feature of a building's design, to satisfy its intended use, is the provision for regular access by persons.
- **5** A *dwelling unit* is defined as a self-contained suite of rooms, including cooking and bathing facilities and intended for *long-term* residential use. Units (whether self-contained or not) within buildings offering institutional care, such as hospitals, or temporary accommodation, such as motels, hostels and holiday apartments, are not defined as dwelling units.
- **6** A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *houses* or *other residential buildings*.
- A *bouse* is defined as a detached building predominantly used for long-term residential purposes and consisting of only one dwelling unit. Thus, detached granny flats and detached dwelling units such as caretakers' residences associated with non-residential buildings are defined as houses for the purpose of these statistics.
- An other residential building is defined as a building which is predominantly used for long-term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes townhouses, duplexes, apartment buildings, etc.).

These statistics present the number of dwelling units in other residential buildings (and not the number of buildings).

#### **DEFINITIONS** continued

- **7** *Conversions, etc.* Dwelling units can also be created as part of alterations and additions to existing buildings (including conversions to dwelling units) and as part of the construction of non-residential buildings. Such dwelling units are referred to in this publication under the heading of Conversions, etc.
- **8** *Commenced*. A building is regarded as commenced when the first physical building activity has been performed on site in the form of materials fixed in place and/or labour expended (this includes site preparation but excludes delivery of building materials, the drawing of plans and specifications and the construction of non-building infrastructures, such as roads).
- **9** *Ownership.* The ownership of a building is classified as either public sector or private sector according to the sector of the intended owner of the completed building as evident at the time of approval. Residential buildings being constructed by private sector builders under government housing authority schemes whereby the authority has contracted, or intends to contract, to purchase the buildings on or before completion, are classified as public sector.

## SEASONAL ADJUSTMENT

- **10** Seasonally adjusted building statistics are shown in tables 1–4. In the seasonally adjusted series, account has been taken of normal seasonal factors and the effect of movement in the date of Easter which may, in successive years, affect figures for different quarters. Details regarding the methods used in seasonally adjusting the series are available on request.
- **11** Since seasonally adjusted statistics reflect both irregular and trend movements, an upward or downward movement in a seasonally adjusted series does not necessarily indicate a change of trend. Particular care should therefore be taken in interpreting individual quarter-to-quarter movements. Each of the component series shown has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series shown add to the totals, the adjusted components may not add to the adjusted totals. Further, the difference between independently seasonally adjusted series does not necessarily produce series which are optimal or even adequate adjustments of the similarly derived original series. Thus the figures which can be derived by subtracting seasonally adjusted private sector dwelling units from the seasonally adjusted total dwelling units should not be used to represent seasonally adjusted public sector dwelling units.
- **12** As happens with all seasonally adjusted series, the seasonal factors are reviewed annually to take account of each additional year's data. For the Building Activity Survey, the results of the latest review are shown in the December quarter issue each year.

## TREND ESTIMATES

- **13** Seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate.
- **14** The trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. The 7-term Henderson average (like all Henderson averages) is symmetric but, as the end of a time series is approached, asymmetric forms of the average are applied. Unlike weights of the standard 7-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series.

#### TREND ESTIMATES continued

**15** While the smoothing technique described in paragraphs 13 and 14 enables trend estimates to be produced for recent quarters, it does result in revisions to the estimates for the most recent three quarters as additional observations become available. There may also be revisions because of changes in the original data and as a result of the re-estimation of the seasonal factors. For further information, see *Information Paper: A Guide to Interpreting Time Series* — *Monitoring 'Trends': an Overview* (Cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on Canberra (02) 6252 6345.

#### **ACKNOWLEDGEMENT**

**16** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

#### RELATED PUBLICATIONS

17 Users may also wish to refer to the following publications:

Building Activity, Australia (Cat. no. 8752.0) – issued quarterly

Building Approvals, Australia (Cat. no. 8731.0) – issued monthly

House Price Indexes: Eight Capital Cities (Cat. no. 6416.0) – issued quarterly

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**18** Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office in your State or Territory.

#### UNPUBLISHED STATISTICS

**19** The ABS can also make available certain building approvals and activity data which are not published. A charge may be made for providing unpublished information.

## **ELECTRONIC SERVICES**

**20** A large range of data is available via on-line services, diskette, magnetic tape, tape cartridge and CD-ROM. For more details about our electronic data services, contact the ABS office in your State or Territory.

## SYMBOLS AND OTHER USAGES

ABS Australian Bureau of Statistics

n.a. not available

nil or rounded to zero

.. not applicable

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

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RRP \$15.00