



# BUILDING ACTIVITY

TASMANIA

EMBARGO: 11:30AM (CANBERRA TIME) WED 2 FEB 2000

## SEPTEMBER QTR KEY FIGURES

SEASONALLY ADJUSTED	Sept qtr 99	Jun qtr 99 to Sept qtr 99 % change	Sept qtr 98 to Sept qtr 99 % change
Value of work done(a) (\$m)	87.9	-2.2	3.8
New residential building (\$m)	36.6	5.2	4.9
Non-residential building (\$m)	39.9	-10.4	1.3
Total dwelling units commenced (no.)	349	5.9	4.5
New private sector houses (no.)	321	5.6	-1.5

(a) Chain volume measures, reference year 1997-98.

## SEPTEMBER QTR KEY POINTS

### VALUE OF WORK DONE, SEASONALLY ADJUSTED, VOLUME TERMS

- In seasonally adjusted terms, total building work done fell by 2.2% in the September quarter to \$87.9m. This was 3.8% above the level of a year earlier.
- Work done on new residential building rose by 5.2% to \$36.6m. However, this increase was from the lowest level since the December quarter 1982.
- Non-residential building work done fell by 10.4% to \$39.9m, still 1.3% above the level of a year earlier.

### VALUE OF WORK COMMENCED, ORIGINAL, VOLUME TERMS

- Total building work commenced fell by 11.1% in the September quarter to \$75.1m. This was 21.5% below the level of a year earlier and the lowest since the March quarter 1983.
- New residential building commencements fell by 4.5% to \$32.5m. Although this was still up by 10.9% compared with a year earlier, the September quarter 1998 was the lowest for the series. On the other hand, although alterations and additions to residential buildings also fell, by 3.4% to \$11.4m, this level was relatively high for that series.
- Non-residential building commencements were down by 19.4% to \$31.2m. This was the fourth consecutive quarterly fall totalling a fall of 44.9% when compared with a year earlier.

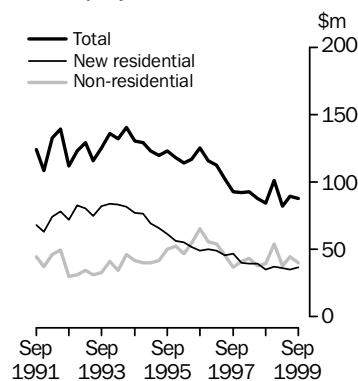
### NUMBER OF DWELLING UNITS COMMENCED, SEASONALLY ADJUSTED

- In seasonally adjusted terms, the total number of dwelling units commenced recovered by 5.9% to 349, although the previous quarter was the lowest for the series.

### VALUE OF WORK YET TO BE DONE, ORIGINAL

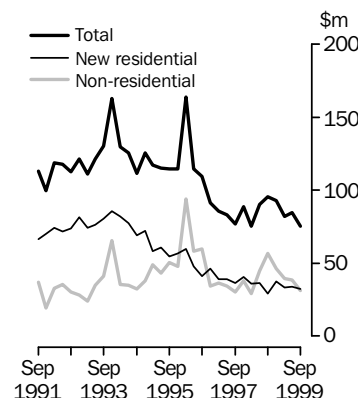
- Work yet to be done on jobs under construction at the end of September 1999 fell by 12.9% to \$79.3m. This was 0.88 times the value of work done for the quarter (1.14 for residential building and 0.60 for non-residential).

### Value of work done

Volume terms  
Seasonally adjusted

### Value of work commenced

Volume terms



- For further information about these and related statistics, contact Tony Bammann on Adelaide 08 8237 7316, or Client Services in any ABS office as shown on the back cover of this publication.

## NOTES

FORTHCOMING ISSUES	ISSUE	RELEASE DATE
	December 1999	3 May 2000
	March 2000	2 August 2000

CHANGES IN THIS ISSUE

There are no changes in this issue.

SYMBOLS AND OTHER USAGES	ABS	Australian Bureau of Statistics
	n.a.	not available
	RSE	relative standard error
	SE	standard error
	..	not applicable
	—	nil or rounded to zero

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

Stevan R. Matheson  
Regional Director  
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**TABLE 1. VALUE OF BUILDING WORK COMMENCED, CHAIN VOLUME MEASURES(a)**  
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
1996-97	141.8	23.8	165.4	39.0	121.9	164.8	369.3
1997-98	130.7	18.8	149.6	39.9	103.6	141.9	331.4
1998-99	127.5	6.6	134.1	39.9	116.9	181.1	355.0
1998 June qtr	33.5	3.1	36.6	9.0	33.9	44.6	90.2
Sept. qtr	28.7	0.6	29.3	9.9	20.0	56.6	95.7
Dec. qtr	34.4	3.3	37.7	8.8	37.7	46.2	92.7
1999 Mar. qtr	32.0	1.1	33.1	9.4	27.1	39.6	82.1
June qtr	32.4	1.6	34.0	11.8	32.1	38.7	84.5
Sept. qtr	31.0	1.4	32.5	11.4	24.0	31.2	75.1

(a) Reference year for chain volume measures is 1997-98. See paragraphs 25 and 26 of the Explanatory Notes.

**TABLE 2. VALUE OF BUILDING WORK DONE, CHAIN VOLUME MEASURES(a)**  
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
ORIGINAL							
1996-97	163.3	31.0	194.1	41.4	151.8	221.4	456.7
1997-98	137.4	29.0	166.4	41.4	115.8	159.1	366.9
1998-99	135.3	7.7	143.0	39.7	109.9	175.7	358.5
1998 June qtr	34.8	4.9	39.7	10.6	23.7	36.8	87.1
Sept. qtr	33.2	1.4	34.6	10.1	26.9	42.9	87.7
Dec. qtr	35.7	2.8	38.5	9.5	30.3	58.5	106.6
1999 Mar. qtr	33.1	1.8	34.9	8.8	25.1	32.0	75.6
June qtr	33.3	1.7	35.0	11.3	27.6	42.3	88.6
Sept. qtr	34.3	2.0	36.3	11.1	36.1	43.8	91.1
SEASONALLY ADJUSTED							
1998 June qtr	34.6	n.a.	39.4	n.a.	n.a.	38.1	87.9
Sept. qtr	34.2	n.a.	34.9	n.a.	n.a.	39.4	84.7
Dec. qtr	33.9	n.a.	37.2	n.a.	n.a.	54.3	101.4
1999 Mar. qtr	34.2	n.a.	36.1	n.a.	n.a.	37.6	82.5
June qtr	33.0	n.a.	34.8	n.a.	n.a.	44.5	89.8
Sept. qtr	35.3	n.a.	36.6	n.a.	n.a.	39.9	87.9

(a) Reference year for chain volume measures is 1997-98. See paragraphs 25 to 27 of the Explanatory Notes.

**TABLE 3. VALUE OF BUILDING WORK DONE: SEASONALLY ADJUSTED SERIES**  
(\$ million)

<i>Period</i>	<i>New residential building</i>		<i>Non-residential building</i>	<i>Total building</i>
	<i>Houses</i>	<i>Total</i>		
1998 June qtr	34.4	49.2	38.2	87.6
Sept. qtr	33.7	45.1	39.4	84.0
Dec. qtr	34.0	46.4	54.9	102.3
1999 Mar. qtr	34.3	45.4	37.4	82.6
June qtr	32.3	44.5	44.2	88.7
Sept. qtr	34.6	47.5	40.2	87.1

**TABLE 4. NUMBER OF DWELLING UNITS COMMENCED AND COMPLETED: SEASONALLY ADJUSTED SERIES**

<i>Period</i>	<i>New houses</i>				<i>Total dwelling units (includes conversions etc)</i>			
	<i>Private sector</i>		<i>Total</i>		<i>Private sector</i>		<i>Total</i>	
	<i>Commenced</i>	<i>Completed</i>	<i>Commenced</i>	<i>Completed</i>	<i>Commenced</i>	<i>Completed</i>	<i>Commenced</i>	<i>Completed</i>
1998 June qtr	340	350	345	357	381	425	389	439
Sept. qtr	326	355	330	361	324	411	334	424
Dec. qtr	300	333	297	329	358	369	358	366
1999 Mar. qtr	336	367	334	364	364	389	353	382
June qtr	304	302	307	304	329	352	330	354
Sept. qtr	321	315	336	321	326	362	349	372

**TABLE 5. NUMBER AND VALUE OF BUILDING COMMENCED: ORIGINAL**

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1996-97	1,543	246	12	1,801	140.3	19.4	159.7	37.0	196.7	120.6	317.3
1997-98	1,379	220	3	1,603	129.7	17.9	147.5	38.9	186.4	103.6	290.0
1998-99	1,263	107	6	1,376	127.3	6.8	134.0	38.3	172.3	117.6	289.9
1998 June qtr	339	37	3	380	33.4	2.6	36.0	8.6	44.6	34.0	78.6
Sept. qtr	297	12	2	311	28.5	0.6	29.1	8.6	37.7	20.0	57.7
Dec. qtr	332	54	3	389	34.4	3.4	37.8	8.7	46.4	38.0	84.4
1999 Mar. qtr	330	18	—	348	32.0	1.1	33.2	9.3	42.4	27.3	69.7
June qtr	304	23	1	328	32.4	1.7	34.0	11.7	45.7	32.4	78.1
Sept. qtr	292	18	4	314	30.0	1.5	31.5	11.4	42.9	24.3	67.3
<b>PUBLIC SECTOR</b>											
1996-97	17	45	18	80	1.6	4.1	5.7	2.1	7.8	42.5	50.2
1997-98	8	11	—	19	1.1	1.0	2.1	1.0	3.1	38.2	41.4
1998-99	1	—	—	1	0.2	—	0.2	1.5	1.7	64.5	66.3
1998 June qtr	2	5	—	7	0.1	0.5	0.6	0.5	1.1	10.7	11.9
Sept. qtr	1	—	—	1	0.2	—	0.2	1.2	1.4	36.8	38.2
Dec. qtr	—	—	—	—	—	—	—	0.1	0.1	8.5	8.6
1999 Mar. qtr	—	—	—	—	—	—	—	0.1	0.1	12.5	12.6
June qtr	—	—	—	—	—	—	—	0.2	0.2	6.7	6.8
Sept. qtr	12	—	—	12	1.0	—	1.0	—	1.0	7.3	8.4
<b>TOTAL</b>											
1996-97	1,560	291	30	1,881	141.9	23.5	165.4	39.1	204.5	163.1	367.6
1997-98	1,387	231	3	1,622	130.7	18.9	149.6	40.0	189.6	141.8	331.4
1998-99	1,264	107	6	1,377	127.5	6.8	134.2	39.8	174.0	182.1	356.2
1998 June qtr	341	42	3	387	33.5	3.1	36.6	9.0	45.7	44.7	90.4
Sept. qtr	298	12	2	312	28.7	0.6	29.3	9.8	39.1	56.8	96.0
Dec. qtr	332	54	3	389	34.4	3.4	37.8	8.8	46.5	46.5	93.0
1999 Mar. qtr	330	18	—	348	32.0	1.1	33.2	9.4	42.5	39.8	82.3
June qtr	304	23	1	328	32.4	1.7	34.0	11.8	45.9	39.1	84.9
Sept. qtr	304	18	4	326	31.0	1.5	32.5	11.4	43.9	31.7	75.6

**TABLE 6. VALUE OF NON-RESIDENTIAL BUILDING COMMENCED: ORIGINAL**  
(\$ million)

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	6.5	17.6	32.3	17.3	13.4	4.5	0.2	19.9	5.2	3.6	120.6
1997-98	10.6	14.4	8.9	9.9	34.1	5.6	1.1	7.2	3.6	8.1	103.6
1998-99	1.3	25.8	13.8	20.8	10.8	10.5	1.3	27.1	2.9	3.2	117.6
1998 June qtr	0.5	5.6	2.6	3.7	13.0	1.4	0.6	0.3	0.6	5.6	34.0
Sept. qtr	0.4	3.8	2.3	6.0	1.6	0.8	—	3.5	0.9	0.7	20.0
Dec. qtr	0.2	8.7	5.6	11.7	5.6	2.6	0.1	2.7	0.1	0.8	38.0
1999 Mar. qtr	0.4	1.2	2.0	1.8	2.4	1.4	1.0	15.8	0.3	0.9	27.3
June qtr	0.3	12.2	3.9	1.3	1.2	5.7	0.3	5.0	1.6	0.8	32.4
Sept. qtr	1.2	8.5	1.5	2.9	5.9	—	0.1	0.3	3.1	0.8	24.3
<b>PUBLIC SECTOR</b>											
1996-97	0.2	0.7	0.1	13.5	0.5	11.0	—	1.2	3.0	12.2	42.5
1997-98	—	0.1	0.3	9.7	3.1	20.1	—	2.2	1.0	1.8	38.2
1998-99	—	—	1.2	8.9	8.3	11.3	—	31.1	1.3	2.3	64.5
1998 June qtr	—	0.1	0.1	1.6	1.7	5.7	—	0.5	0.7	0.4	10.7
Sept. qtr	—	—	1.2	2.1	2.9	3.9	—	25.0	0.5	1.1	36.8
Dec. qtr	—	—	—	1.4	5.1	1.9	—	0.1	0.1	—	8.5
1999 Mar. qtr	—	—	—	3.5	—	2.5	—	6.0	0.4	0.1	12.5
June qtr	—	—	—	1.8	0.3	3.0	—	—	0.3	1.2	6.7
Sept. qtr	—	—	—	2.5	0.2	3.7	—	—	1.0	—	7.3
<b>TOTAL</b>											
1996-97	6.7	18.3	32.4	30.9	13.9	15.5	0.2	21.1	8.2	15.8	163.1
1997-98	10.6	14.5	9.2	19.7	37.3	25.7	1.1	9.5	4.5	9.9	141.8
1998-99	1.3	25.8	15.0	29.6	19.1	21.9	1.3	58.2	4.2	5.6	182.1
1998 June qtr	0.5	5.7	2.7	5.2	14.7	7.1	0.6	0.8	1.3	6.1	44.7
Sept. qtr	0.4	3.8	3.6	8.2	4.6	4.7	—	28.5	1.4	1.8	56.8
Dec. qtr	0.2	8.7	5.6	13.1	10.6	4.5	0.1	2.8	0.2	0.8	46.5
1999 Mar. qtr	0.4	1.2	2.0	5.3	2.4	4.0	1.0	21.9	0.7	1.0	39.8
June qtr	0.3	12.2	3.9	3.1	1.5	8.8	0.3	5.0	1.9	2.0	39.1
Sept. qtr	1.2	8.5	1.5	5.3	6.1	3.7	0.1	0.3	4.1	0.8	31.7

**TABLE 7. NUMBER AND VALUE OF BUILDING UNDER CONSTRUCTION AT END OF PERIOD: ORIGINAL**

	<i>Number of dwelling units</i>				<i>Value (\$m)</i>						
	<i>New houses</i>	<i>New other residential building</i>	<i>Conversions etc.</i>	<i>Total dwelling units</i>	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>											
1996-97	1,267	307	1	1,575	113.2	27.6	140.9	16.0	156.8	94.6	251.4
1997-98	1,119	183	4	1,307	103.9	12.1	116.0	16.2	132.2	36.7	168.9
1998-99	995	122	4	1,121	95.1	8.1	103.2	20.2	123.4	53.9	177.2
1998 June qtr	1,119	183	4	1,307	103.9	12.1	116.0	16.2	132.2	36.7	168.9
Sept. qtr	1,045	147	6	1,198	96.8	9.1	106.0	17.1	123.0	29.0	152.1
Dec. qtr	1,007	162	5	1,174	96.6	10.4	107.1	17.1	124.2	42.5	166.8
1999 Mar. qtr	994	133	4	1,131	93.3	8.4	101.7	18.1	119.8	44.8	164.6
June qtr	995	122	4	1,121	95.1	8.1	103.2	20.2	123.4	53.9	177.2
Sept. qtr	967	108	4	1,079	92.8	7.3	100.1	22.1	122.2	61.8	184.1
<b>PUBLIC SECTOR</b>											
1996-97	6	27	13	46	0.6	2.5	3.2	1.9	5.1	44.4	49.4
1997-98	—	2	—	2	—	0.2	0.2	0.4	0.6	47.7	48.3
1998-99	—	—	—	—	—	—	—	—	—	36.7	36.7
1998 June qtr	—	2	—	2	—	0.2	0.2	0.4	0.6	47.7	48.3
Sept. qtr	1	—	—	1	0.2	—	0.2	0.9	1.1	59.2	60.2
Dec. qtr	—	—	—	—	—	—	—	—	—	52.1	52.1
1999 Mar. qtr	—	—	—	—	—	—	—	0.1	0.1	39.1	39.2
June qtr	—	—	—	—	—	—	—	—	—	36.7	36.7
Sept. qtr	12	—	—	12	1.0	—	1.0	—	1.0	39.3	40.3
<b>TOTAL</b>											
1996-97	1,273	334	14	1,621	113.9	30.2	144.0	17.9	161.9	139.0	300.8
1997-98	1,119	185	4	1,309	103.9	12.2	116.1	16.6	132.8	84.4	217.2
1998-99	995	122	4	1,121	95.1	8.1	103.2	20.2	123.4	90.5	213.9
1998 June qtr	1,119	185	4	1,309	103.9	12.2	116.1	16.6	132.8	84.4	217.2
Sept. qtr	1,046	147	6	1,199	97.0	9.1	106.2	17.9	124.1	88.2	212.3
Dec. qtr	1,007	162	5	1,174	96.6	10.4	107.1	17.2	124.2	94.7	218.9
1999 Mar. qtr	994	133	4	1,131	93.3	8.4	101.7	18.2	119.9	83.9	203.8
June qtr	995	122	4	1,121	95.1	8.1	103.2	20.2	123.4	90.5	213.9
Sept. qtr	979	108	4	1,091	93.9	7.3	101.1	22.1	123.2	101.1	224.3



**TABLE 8. VALUE OF NON-RESIDENTIAL BUILDING UNDER CONSTRUCTION AT END OF PERIOD: ORIGINAL**  
**(\$ million)**

	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	1.2	8.6	43.0	11.7	3.4	6.2	0.9	17.1	1.8	0.8	94.6
1997-98	0.7	5.8	7.2	0.5	12.0	1.8	1.5	0.3	1.5	5.4	36.7
1998-99	0.8	11.7	3.6	0.3	1.4	4.7	2.2	26.2	2.4	0.6	53.9
1998 June qtr	0.7	5.8	7.2	0.5	12.0	1.8	1.5	0.3	1.5	5.4	36.7
Sept. qtr	1.1	3.8	2.4	5.5	7.1	1.7	1.5	3.3	1.9	0.7	29.0
Dec. qtr	0.6	7.8	4.1	10.3	5.6	4.4	1.6	5.7	1.9	0.4	42.5
1999 Mar. qtr	0.6	0.9	2.3	11.0	1.9	2.0	2.4	21.5	1.2	0.9	44.8
June qtr	0.8	11.7	3.6	0.3	1.4	4.7	2.2	26.2	2.4	0.6	53.9
Sept. qtr	1.1	16.2	3.9	2.3	3.8	4.4	2.2	22.0	5.4	0.6	61.8
<b>PUBLIC SECTOR</b>											
1996-97	0.2	0.1	—	7.1	0.2	—	—	15.1	11.4	10.3	44.4
1997-98	—	—	—	6.7	1.5	11.9	—	16.1	2.7	8.8	47.7
1998-99	—	—	1.2	3.8	—	5.5	—	24.5	0.5	1.1	36.7
1998 June qtr	—	—	—	6.7	1.5	11.9	—	16.1	2.7	8.8	47.7
Sept. qtr	—	—	1.2	1.7	3.9	8.5	—	40.1	2.2	1.6	59.2
Dec. qtr	—	—	1.2	1.2	2.2	7.7	—	39.6	0.2	—	52.1
1999 Mar. qtr	—	—	1.2	4.6	—	2.4	—	30.3	0.5	0.1	39.1
June qtr	—	—	1.2	3.8	—	5.5	—	24.5	0.5	1.1	36.7
Sept. qtr	—	—	1.2	3.9	0.2	8.2	—	24.5	1.2	0.1	39.3
<b>TOTAL</b>											
1996-97	1.4	8.6	43.0	18.8	3.6	6.2	0.9	32.2	13.2	11.1	139.0
1997-98	0.7	5.8	7.2	7.2	13.5	13.7	1.5	16.4	4.2	14.1	84.4
1998-99	0.8	11.7	4.8	4.1	1.4	10.1	2.2	50.7	2.9	1.7	90.5
1998 June qtr	0.7	5.8	7.2	7.2	13.5	13.7	1.5	16.4	4.2	14.1	84.4
Sept. qtr	1.1	3.8	3.6	7.2	11.0	10.2	1.5	43.4	4.1	2.2	88.2
Dec. qtr	0.6	7.8	5.3	11.5	7.8	12.1	1.6	45.3	2.1	0.4	94.7
1999 Mar. qtr	0.6	0.9	3.5	15.6	1.9	4.4	2.4	51.8	1.7	1.0	83.9
June qtr	0.8	11.7	4.8	4.1	1.4	10.1	2.2	50.7	2.9	1.7	90.5
Sept. qtr	1.1	16.2	5.1	6.2	4.0	12.6	2.2	46.5	6.5	0.6	101.1

**TABLE 9. NUMBER AND VALUE OF BUILDING COMPLETED: ORIGINAL**

Period	Number of dwelling units				Value (\$m)							
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings		Total residential building	Total non-residential building	Total building
								residential buildings	residential building			
<b>PRIVATE SECTOR</b>												
1996-97	1,781	252	11	2,044	169.5	18.5	188.1	40.7	228.8	122.3	351.0	
1997-98	1,506	348	—	1,854	142.8	33.8	176.7	40.2	216.8	161.9	378.8	
1998-99	1,355	160	6	1,521	138.4	10.3	148.7	35.4	184.1	101.4	285.6	
1998 June qtr	350	55	—	405	34.0	4.4	38.4	11.0	49.5	21.4	70.8	
Sept. qtr	356	44	—	400	35.1	3.3	38.3	7.9	46.3	25.6	71.9	
Dec. qtr	360	37	4	401	35.6	2.0	37.6	9.3	46.9	25.9	72.8	
1999 Mar. qtr	337	47	1	385	36.4	3.2	39.7	8.4	48.0	25.9	73.9	
June qtr	302	32	1	335	31.3	1.8	33.1	9.8	42.9	24.1	67.0	
Sept. qtr	316	32	4	352	32.6	2.3	34.8	9.9	44.7	17.2	61.9	
<b>PUBLIC SECTOR</b>												
1996-97	17	127	5	149	1.7	12.4	14.0	1.0	15.1	55.7	70.8	
1997-98	14	36	13	63	1.8	3.6	5.4	2.4	7.8	35.9	43.7	
1998-99	1	2	—	3	0.2	0.2	0.4	1.9	2.3	76.1	78.4	
1998 June qtr	5	7	—	12	0.8	0.6	1.4	0.4	1.8	5.9	7.7	
Sept. qtr	—	2	—	2	—	0.2	0.2	0.7	0.9	25.8	26.8	
Dec. qtr	1	—	—	1	0.2	—	0.2	1.0	1.1	15.4	16.6	
1999 Mar. qtr	—	—	—	—	—	—	—	—	—	25.8	25.8	
June qtr	—	—	—	—	—	—	—	0.2	0.2	9.0	9.3	
Sept. qtr	—	—	—	—	—	—	—	—	—	6.2	6.2	
<b>TOTAL</b>												
1996-97	1,798	379	16	2,193	171.2	30.9	202.1	41.7	243.8	178.0	421.8	
1997-98	1,520	384	13	1,917	144.6	37.4	182.0	42.6	224.7	197.8	422.5	
1998-99	1,356	162	6	1,524	138.6	10.5	149.1	37.4	186.4	177.5	364.0	
1998 June qtr	355	62	—	417	34.8	5.0	39.9	11.4	51.3	27.3	78.6	
Sept. qtr	356	46	—	402	35.1	3.4	38.5	8.7	47.2	51.5	98.7	
Dec. qtr	361	37	4	402	35.8	2.0	37.8	10.2	48.1	41.3	89.3	
1999 Mar. qtr	337	47	1	385	36.4	3.2	39.7	8.4	48.0	51.7	99.7	
June qtr	302	32	1	335	31.3	1.8	33.1	10.1	43.1	33.1	76.2	
Sept. qtr	316	32	4	352	32.6	2.3	34.8	9.9	44.7	23.4	68.1	

**TABLE 10. VALUE OF NON-RESIDENTIAL BUILDING COMPLETED: ORIGINAL**  
**(\$ million)**

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health recreational</i>	<i>Entertainment and</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	16.0	27.1	19.0	12.6	15.4	3.2	1.2	12.0	6.7	9.2	122.3
1997-98	11.1	17.3	49.1	20.2	24.5	10.0	0.4	20.8	4.7	3.6	161.9
1998-99	1.2	20.3	19.4	21.6	17.3	9.3	0.7	1.6	2.0	8.0	101.4
1998 June qtr	0.1	2.0	1.6	3.9	4.7	2.5	0.1	1.5	3.2	1.7	21.4
Sept. qtr	—	6.2	9.0	1.0	2.2	0.9	—	0.5	0.4	5.4	25.6
Dec. qtr	0.6	4.6	4.0	7.0	7.0	1.3	—	0.3	0.1	0.9	25.9
1999 Mar. qtr	0.4	8.1	3.8	1.4	6.2	4.0	0.2	0.2	1.1	0.6	25.9
June qtr	0.2	1.4	2.6	12.3	1.9	3.1	0.5	0.6	0.4	1.1	24.1
Sept. qtr	0.9	4.4	1.2	0.8	3.4	0.7	0.2	4.5	0.1	0.9	17.2
<b>PUBLIC SECTOR</b>											
1996-97	—	3.4	0.7	10.8	3.7	26.0	—	1.4	2.3	7.4	55.7
1997-98	0.3	0.1	0.3	10.3	1.9	7.9	—	2.0	9.9	3.2	35.9
1998-99	—	—	—	11.7	9.5	18.3	—	22.9	3.5	10.1	76.1
1998 June qtr	—	0.1	0.3	1.4	0.3	2.8	—	0.1	0.4	0.5	5.9
Sept. qtr	—	—	—	7.2	0.6	7.6	—	1.1	1.0	8.3	25.8
Dec. qtr	—	—	—	1.8	6.5	2.7	—	0.7	2.1	1.6	15.4
1999 Mar. qtr	—	—	—	0.2	2.2	8.0	—	15.3	0.1	—	25.8
June qtr	—	—	—	2.4	0.3	—	—	5.8	0.3	0.2	9.0
Sept. qtr	—	—	—	2.4	—	2.4	—	—	0.3	1.1	6.2
<b>TOTAL</b>											
1996-97	16.0	30.4	19.7	23.4	19.1	29.2	1.2	13.4	9.0	16.6	178.0
1997-98	11.4	17.4	49.4	30.6	26.4	17.9	0.4	22.8	14.6	6.9	197.8
1998-99	1.2	20.3	19.4	33.3	26.9	27.6	0.7	24.6	5.5	18.1	177.5
1998 June qtr	0.1	2.0	1.9	5.4	5.0	5.4	0.1	1.6	3.5	2.2	27.3
Sept. qtr	—	6.2	9.0	8.2	2.8	8.5	—	1.6	1.4	13.8	51.5
Dec. qtr	0.6	4.6	4.0	8.8	13.5	4.0	—	1.0	2.2	2.5	41.3
1999 Mar. qtr	0.4	8.1	3.8	1.5	8.4	12.0	0.2	15.5	1.2	0.6	51.7
June qtr	0.2	1.4	2.6	14.8	2.2	3.1	0.5	6.4	0.7	1.3	33.1
Sept. qtr	0.9	4.4	1.2	3.3	3.4	3.0	0.2	4.5	0.5	1.9	23.4

**TABLE 11. VALUE OF BUILDING WORK DONE: ORIGINAL**  
(\$ million)

<i>Period</i>	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>							
1996-97	160.4	23.4	183.7	39.0	222.7	149.5	372.2
1997-98	136.2	27.4	163.6	40.3	203.9	115.8	319.7
1998-99	134.1	7.7	141.8	37.5	179.3	110.6	290.0
1998 June qtr	34.1	4.2	38.4	10.2	48.6	23.8	72.3
Sept. qtr	32.6	1.3	33.9	8.9	42.8	26.9	69.7
Dec. qtr	35.7	2.9	38.6	9.1	47.7	30.8	78.5
1999 Mar. qtr	33.2	1.8	35.0	8.7	43.7	25.2	68.9
June qtr	32.6	1.7	34.3	10.9	45.2	27.7	72.9
Sept. qtr	33.2	2.0	35.2	10.9	46.0	36.3	82.3
<b>PUBLIC SECTOR</b>							
1996-97	1.5	7.4	9.0	2.1	11.0	68.6	79.6
1997-98	1.3	1.6	2.9	1.1	4.0	43.2	47.2
1998-99	0.2	0.1	0.3	1.8	2.1	66.6	68.7
1998 June qtr	0.5	0.6	1.1	0.3	1.4	13.0	14.5
Sept. qtr	0.1	0.1	0.2	1.1	1.3	16.1	17.4
Dec. qtr	0.1	—	0.1	0.5	0.6	28.8	29.4
1999 Mar. qtr	—	—	—	0.1	0.1	7.0	7.0
June qtr	—	—	—	0.2	0.2	14.7	14.9
Sept. qtr	0.3	—	0.3	—	0.3	7.7	8.0
<b>TOTAL</b>							
1996-97	161.9	30.8	192.7	41.1	233.7	218.1	451.8
1997-98	137.5	29.0	166.5	41.4	207.8	159.0	366.8
1998-99	134.3	7.8	142.1	39.3	181.4	177.3	358.7
1998 June qtr	34.6	4.8	39.4	10.6	50.0	36.8	86.8
Sept. qtr	32.7	1.4	34.1	9.9	44.1	43.1	87.1
Dec. qtr	35.8	2.9	38.7	9.6	48.3	59.6	107.8
1999 Mar. qtr	33.2	1.8	35.0	8.8	43.7	32.2	75.9
June qtr	32.6	1.7	34.3	11.0	45.3	42.5	87.8
Sept. qtr	33.5	2.0	35.5	10.9	46.4	44.0	90.4

**TABLE 12. VALUE OF NON-RESIDENTIAL BUILDING WORK DONE: ORIGINAL**  
(\$ million)

<i>Period</i>	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	12.3	26.9	44.6	16.3	15.6	6.7	0.6	13.5	7.1	5.9	149.5
1997-98	10.6	15.2	20.9	13.7	23.5	6.9	0.5	12.5	4.5	7.5	115.8
1998-99	1.2	22.8	15.6	21.4	17.0	10.6	1.2	14.7	1.9	4.2	110.6
1998 June qtr	0.2	2.9	3.9	3.9	3.8	2.3	0.2	0.8	0.6	5.0	23.8
Sept. qtr	0.3	6.5	5.6	5.2	5.2	1.4	0.1	0.8	0.3	1.6	26.9
Dec. qtr	0.4	7.9	5.4	5.5	6.6	2.0	0.1	1.6	0.6	0.7	30.8
1999 Mar. qtr	0.3	2.9	3.0	7.7	3.3	3.2	0.4	2.9	0.5	0.9	25.2
June qtr	0.2	5.5	1.7	2.9	1.9	4.0	0.6	9.4	0.5	1.0	27.7
Sept. qtr	1.1	11.1	2.8	2.4	5.3	2.4	0.5	8.8	1.2	0.7	36.3
<b>PUBLIC SECTOR</b>											
1996-97	0.1	2.6	0.5	17.2	1.5	16.7	—	10.8	8.0	11.2	68.6
1997-98	0.1	0.1	0.3	9.2	2.5	15.3	—	6.7	2.4	6.4	43.2
1998-99	—	—	1.1	7.7	8.8	14.6	—	29.1	3.0	2.4	66.6
1998 June qtr	—	0.1	0.2	3.7	1.0	5.1	—	0.8	1.0	1.2	13.0
Sept. qtr	—	—	0.1	2.6	1.7	5.1	—	4.1	1.4	1.2	16.1
Dec. qtr	—	—	0.4	1.7	6.7	4.3	—	14.5	1.0	0.2	28.8
1999 Mar. qtr	—	—	0.2	0.6	—	2.7	—	3.1	0.3	—	7.0
June qtr	—	—	0.4	2.8	0.3	2.5	—	7.4	0.3	1.0	14.7
Sept. qtr	—	—	—	3.2	0.1	1.7	—	2.0	0.4	0.2	7.7
<b>TOTAL</b>											
1996-97	12.5	29.5	45.1	33.5	17.1	23.4	0.6	24.4	15.1	17.1	218.1
1997-98	10.7	15.3	21.2	23.0	25.9	22.2	0.5	19.3	6.9	13.9	159.0
1998-99	1.2	22.8	16.7	29.1	25.8	25.2	1.2	43.8	4.9	6.6	177.3
1998 June qtr	0.2	3.0	4.2	7.6	4.8	7.4	0.2	1.6	1.6	6.1	36.8
Sept. qtr	0.3	6.5	5.6	7.8	6.8	6.5	0.1	4.9	1.7	2.7	43.1
Dec. qtr	0.4	7.9	5.8	7.2	13.4	6.2	0.1	16.1	1.6	0.9	59.6
1999 Mar. qtr	0.3	2.9	3.2	8.3	3.4	5.9	0.4	6.0	0.8	0.9	32.2
June qtr	0.2	5.5	2.1	5.7	2.2	6.5	0.6	16.8	0.8	2.0	42.5
Sept. qtr	1.1	11.1	2.8	5.6	5.4	4.1	0.5	10.8	1.6	1.0	44.0

**TABLE 13. VALUE OF BUILDING WORK YET TO BE DONE AT END OF PERIOD: ORIGINAL  
(\$ million)**

	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-resi- dential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>							
1996-97	47.7	14.2	61.8	6.0	67.8	32.1	99.9
1997-98	46.1	5.0	51.1	6.3	57.4	21.3	78.6
1998-99	42.6	3.8	46.4	8.4	54.8	29.2	84.0
1998 June qtr	46.1	5.0	51.1	6.3	57.4	21.3	78.6
Sept. qtr	42.0	4.1	46.2	6.3	52.5	12.2	64.8
Dec. qtr	42.1	4.6	46.7	6.6	53.4	20.9	74.2
1999 Mar. qtr	42.1	4.0	46.1	7.3	53.4	23.8	77.2
June qtr	42.6	3.8	46.4	8.4	54.8	29.2	84.0
Sept. qtr	39.8	3.3	43.1	9.3	52.4	18.1	70.5
<b>PUBLIC SECTOR</b>							
1996-97	0.2	0.4	0.6	0.2	0.8	12.5	13.3
1997-98	—	0.1	0.1	0.2	0.3	8.6	8.9
1998-99	—	—	—	—	—	7.0	7.0
1998 June qtr	—	0.1	0.1	0.2	0.3	8.6	8.9
Sept. qtr	0.1	—	0.1	0.4	0.5	29.8	30.3
Dec. qtr	—	—	—	—	—	9.4	9.4
1999 Mar. qtr	—	—	—	—	—	15.1	15.1
June qtr	—	—	—	—	—	7.0	7.0
Sept. qtr	0.7	—	0.7	—	0.7	8.1	8.8
<b>TOTAL</b>							
1996-97	47.8	14.6	62.4	6.2	68.6	44.6	113.2
1997-98	46.1	5.1	51.2	6.5	57.7	29.9	87.6
1998-99	42.6	3.8	46.4	8.4	54.8	36.2	91.0
1998 June qtr	46.1	5.1	51.2	6.5	57.7	29.9	87.6
Sept. qtr	42.1	4.1	46.3	6.8	53.0	42.0	95.0
Dec. qtr	42.1	4.6	46.7	6.6	53.4	30.2	83.6
1999 Mar. qtr	42.1	4.0	46.1	7.3	53.4	38.9	92.4
June qtr	42.6	3.8	46.4	8.4	54.8	36.2	91.0
Sept. qtr	40.5	3.3	43.7	9.3	53.1	26.2	79.3

**TABLE 14. VALUE OF NON-RESIDENTIAL BUILDING WORK YET TO BE DONE AT END OF PERIOD: ORIGINAL**  
 (\$ million)

	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	0.4	4.2	10.3	4.9	0.7	2.0	0.5	8.0	0.7	0.3	32.1
1997-98	0.4	3.6	2.6	0.1	10.8	0.8	1.2	0.1	0.6	1.1	21.3
1998-99	0.5	7.0	2.8	0.1	0.5	2.4	1.3	12.9	1.5	0.2	29.2
1998 June qtr	0.4	3.6	2.6	0.1	10.8	0.8	1.2	0.1	0.6	1.1	21.3
Sept. qtr	0.5	1.3	1.2	0.9	3.0	0.3	1.1	2.7	1.0	0.2	12.2
Dec. qtr	0.2	2.1	1.6	7.1	1.9	2.3	1.1	3.8	0.6	0.2	20.9
1999 Mar. qtr	0.4	0.3	0.6	1.5	1.0	0.6	1.6	17.0	0.4	0.4	23.8
June qtr	0.5	7.0	2.8	0.1	0.5	2.4	1.3	12.9	1.5	0.2	29.2
Sept. qtr	0.6	4.7	1.5	0.7	1.1	0.4	1.0	4.4	3.4	0.3	18.1
<b>PUBLIC SECTOR</b>											
1996-97	0.1	0.1	—	0.2	0.1	—	—	4.1	3.1	4.9	12.5
1997-98	—	—	—	0.9	0.7	4.6	—	0.3	1.9	0.2	8.6
1998-99	—	—	0.2	2.0	—	1.9	—	2.5	0.2	0.3	7.0
1998 June qtr	—	—	—	0.9	0.7	4.6	—	0.3	1.9	0.2	8.6
Sept. qtr	—	—	1.2	0.5	2.0	3.6	—	21.3	1.0	0.2	29.8
Dec. qtr	—	—	0.8	0.2	—	1.3	—	7.0	0.1	—	9.4
1999 Mar. qtr	—	—	0.6	3.1	—	1.3	—	9.9	0.2	—	15.1
June qtr	—	—	0.2	2.0	—	1.9	—	2.5	0.2	0.3	7.0
Sept. qtr	—	—	0.1	1.3	0.1	5.3	—	0.5	0.8	—	8.1
<b>TOTAL</b>											
1996-97	0.4	4.3	10.3	5.1	0.8	2.0	0.5	12.1	3.8	5.3	44.6
1997-98	0.4	3.6	2.6	1.0	11.6	5.4	1.2	0.4	2.4	1.3	29.9
1998-99	0.5	7.0	3.0	2.2	0.5	4.3	1.3	15.4	1.7	0.4	36.2
1998 June qtr	0.4	3.6	2.6	1.0	11.6	5.4	1.2	0.4	2.4	1.3	29.9
Sept. qtr	0.5	1.3	2.4	1.4	5.0	3.9	1.1	24.0	2.0	0.4	42.0
Dec. qtr	0.2	2.1	2.4	7.3	1.9	3.6	1.1	10.9	0.6	0.2	30.2
1999 Mar. qtr	0.4	0.3	1.2	4.6	1.0	2.0	1.6	26.9	0.6	0.4	38.9
June qtr	0.5	7.0	3.0	2.2	0.5	4.3	1.3	15.4	1.7	0.4	36.2
Sept. qtr	0.6	4.7	1.6	2.0	1.2	5.7	1.0	4.9	4.2	0.3	26.2

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, SEPTEMBER QUARTER 1999  
(Percentage)**

<i>Ownership and stage of construction</i>	<i>New residential building</i>				<i>Value</i>	
	<i>Houses</i>		<i>Total</i>		<i>Alterations and additions to residential buildings</i>	<i>Total building</i>
	<i>Number</i>	<i>Value</i>	<i>Number of dwelling units</i>	<i>Value</i>		
<b>TOTAL PRIVATE AND PUBLIC SECTORS</b>						
Commenced	1.5	1.6	1.4	1.5	3.9	0.9
Under construction at end of period	2.0	1.9	1.8	1.8	4.9	0.9
Completed	2.6	2.6	2.3	2.4	6.0	1.5
Value of work done	..	1.7	..	1.6	4.2	0.8
Value of work yet to be done	..	2.1	..	2.0	6.2	1.3



## EXPLANATORY NOTES

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### INTRODUCTION

**1** This publication contains detailed results from the quarterly Building Activity Survey. Each issue includes revisions to the previous quarter. Therefore data for the latest quarter should be considered to be preliminary only.

**2** The statistics are compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. The quarterly survey consists of two components:

- a sample survey of private sector house building activity involving new house construction or alterations and additions valued at \$10,000 or more to houses; and
- a complete enumeration of jobs involving construction of new residential buildings other than private sector houses, all alterations and additions to residential buildings (other than private sector houses) with an approval value of \$10,000 or more, and all non-residential building jobs with an approval value of \$50,000 or more.

**3** From the September quarter 1990, only non-residential building jobs (both new and alterations and additions) with an approval value of \$50,000 (previously \$30,000) or more are included in the survey.

**4** The use of sample survey techniques in the Building Activity Survey means that reliable estimates of private sector house building activity, including alterations and additions to houses, are generally only available at the State, Territory and Australia levels. The Northern Territory has been completely enumerated since the June quarter 1991 and small area data are available on request. Also, data for regions below State and Territory level are available from the building approvals series compiled by the ABS and based on information reported by local government and other reporting authorities.

### SCOPE AND COVERAGE

**5** The statistics relate to building activity which includes construction of new buildings and alterations and additions to existing buildings. Construction activity not defined as building (e.g. construction of roads, bridges, railways, earthworks, etc.) is excluded.

**6** Building jobs included in each quarter in the Building Activity Survey comprise those jobs selected in previous quarters which have not been completed (or commenced) by the end of the previous quarter and those jobs newly selected in the current quarter. The population list from which jobs are selected for inclusion comprises all approved jobs which were notified to the ABS (refer paragraph 2) up to but not including the last month of the reference quarter (e.g. up to the end of August in respect of the September quarter survey). This introduces a lag to the statistics in respect of those jobs notified *and* commenced in the last month of the reference quarter (e.g. for the month of September in respect of the September quarter survey). For example, jobs which were notified as approved in the month of June and which actually commenced in that month are shown as commencements in the September quarter. Similarly, building jobs which were notified in the month of September and which actually commenced in that month are shown as commencements in the December quarter.

### DEFINITIONS

**7** 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.

**8** 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. The value of units of this type is included in the appropriate category of non-residential building.

**9** 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 *house* 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 town houses, duplexes, apartment buildings, etc.).

**10** From the June quarter 1996 issue of this publication, the number of dwelling units created as part of alterations and additions to, or conversions of, existing residential or non-residential buildings, and as part of the construction of non-residential building is shown separately in tables 5, 7, and 9 under the heading of 'Conversions, etc.', and is included in the total number of dwelling units shown in these tables. Previously, such dwellings were only included as a footnote.

**11** In addition, the seasonally adjusted estimates for the total number of dwelling units commenced and completed, shown in table 4, include these conversions, etc. Previously, only dwelling units created as part of the construction of new residential buildings were included in these estimates.

**12** *Commenced*. A building job 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).

**13** *Under construction*. A building job is regarded as being under construction at the end of a period if it has been commenced but has not been completed, and work on it has not been abandoned.

**14** *Completed*. A building job is regarded as completed when building activity has progressed to the stage when the building can fulfil its intended function. In practice, the ABS regards buildings as completed when notified as such by respondents to the survey.

### VALUATION OF BUILDING JOBS

**15** The value series in this publication are derived from estimates reported on survey returns as follows.

- *Value of building commenced* or under construction represents the anticipated completion value based, where practicable, on estimated market or contract price of building jobs excluding the value of land and landscaping. Site preparation costs are included. Where jobs proceed over several quarters, the anticipated completion value reported on the return for the first (commencement) quarter may be amended on returns for subsequent (under construction) quarters as the job nears completion.
- *Value of building completed* represents the actual completion value based, where practicable, on the market or contract price of jobs including site preparation costs but excluding the value of land and landscaping.
- *Value of building work done during the period* represents the estimated value of building work actually carried out during the quarter on jobs which have commenced.
- *Value of building work yet to be done* represents the difference between the anticipated completion value and the estimated value of work done up to the end of the period on jobs commenced but not completed.

### BUILDING CLASSIFICATION

**16** *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.

**17** *Functional classification of buildings*. A building is classified according to its intended major function. Hence, a building which is ancillary to other buildings or forms a part of a group of related buildings is classified to the function of the building and not to the function of the group as a whole. An example of this can be seen in the treatment of building work approved for a factory complex. In this case a detached administration building would be classified to Offices, a detached cafeteria building to Shops, while factory buildings would be classified to Factories. An exception to this rule is the treatment of group accommodation buildings where, for example, a student accommodation building on a university campus would be classified to Educational.

**18** Examples of the types of buildings included under each main functional heading are shown in the following list.

- *Houses*. Includes cottages, bungalows, detached caretakers'/managers' cottages, rectories.
- *Other residential buildings*. Includes blocks of flats, home units, attached townhouses, villa units, terrace houses, semi-detached houses, maisonettes.
- *Hotels, etc.* Includes motels, hostels, boarding houses, guest houses, holiday apartment buildings.
- *Shops*. Includes retail shops, restaurants, cafes, taverns, dry cleaners, laundromats, hair salons, shopping arcades.
- *Factories*. Includes paper mills, oil refinery buildings, brickworks, foundries, powerhouses, manufacturing laboratories, workshops as part of a manufacturing process.

## EXPLANATORY NOTES *continued*

### BUILDING CLASSIFICATION *continued*

- *Offices*. Includes banks, post offices, council chambers, head and regional offices.
- *Other business premises*. Includes warehouses, storage depots, service stations, transport depots and terminals, car parks, electricity substation buildings, pumping station buildings, telephone exchanges, mail sorting centres, broadcasting stations, film studios.
- *Educational*. Includes schools, colleges, universities, kindergartens, libraries, museums, art galleries, research and teaching laboratories, theological colleges.
- *Religious*. Includes churches, chapels, temples.
- *Health*. Includes hospitals, nursing homes, surgeries, clinics, medical centres.
- *Entertainment and recreational*. Includes clubs, theatres, cinemas, public halls, gymnasiums, grandstands, squash courts, sports and recreation centres.
- *Miscellaneous*. Includes law courts, homes for the aged (where medical care is not provided as a normal service), orphanages, gaols, barracks, mine buildings, glasshouses, livestock sheds, shearing sheds, fruit and skin drying sheds, public toilets, and ambulance, fire and police stations.

### RELIABILITY OF THE ESTIMATES

**19** Since the figures for private sector house building activity (including alterations and additions to private sector houses) are derived from information obtained from a sample of approved building jobs, they are subject to sampling error; that is, they may differ from the figures that would have been obtained if information for all approved jobs for the relevant period had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of approved jobs was included. There are about two chances in three that a sample estimate will differ by less than one SE from the figure that would have been obtained if all approved jobs had been included, and about nineteen chances in twenty that the difference will be less than two SEs. Another measure of sampling variability is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate to which it refers. The RSEs of estimates provide an indication of the percentage errors likely to have occurred due to sampling, and are shown in table 15.

**20** An example of the use of RSEs is as follows. Assume that the estimate of the number of new private sector houses commenced during the latest quarter is 2,000 (for actual estimate see table 5) and that the associated RSE is 2.5 per cent (for actual percentage see table 15). There would then be about two chances in three that the number which would have been obtained if information had been collected about all approved private sector house jobs would have been within the range 1,950 to 2,050 (2.5 per cent of 2,000 is 50) and about nineteen chances in twenty that the number would have been within the range 1,900 to 2,100.

**21** The imprecision due to sampling variability, which is measured by the RSE, should not be confused with inaccuracies that may occur because of inadequacies in the source of building approval information, imperfections in reporting by respondents, and errors made in the coding and processing of data. Inaccuracies of this kind are referred to as non-sampling error, and may occur in any enumeration whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by the careful design of questionnaires, efforts to obtain responses for all selected building jobs, and efficient operating procedures.

### SEASONAL ADJUSTMENT

**22** Seasonally adjusted building statistics are shown in Tables 2-4. 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. Further information about seasonal adjustment can be obtained from the Assistant Director of Time Series Analysis on Canberra 02 6252 6345.

**23** 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 should not be used to represent seasonally adjusted public sector dwelling units.

**24** 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.

### CHAIN VOLUME MEASURES

**25** Chain volume estimates of the value of commencements and work done are shown in tables 1 and 2. While current price estimates of the value of commencements and work done reflect both price and volume changes, chain volume estimates measure changes in value after the direct effects of price changes have been eliminated and therefore only reflect volume changes. The deflators used to revalue the current price estimates in this publication are derived from the same price data underlying the deflators compiled for the dwellings and new other building components of the national accounts aggregate 'Gross fixed capital formation'.

**26** The chain volume measures of commencements and work done appearing in this publication are annually reweighted chain Laspeyres indexes referenced to current price values in a chosen reference year (currently 1997-98). The reference year will be updated annually in the June quarter publication. Each year's data in the value of commencements and work done series are based on the prices of the previous year, except for the quarters of the latest incomplete year which are based upon the current reference year (i.e. 1997-98). Comparability with previous years is achieved by linking (or chaining) the series together to form a continuous time series. Further information on the nature and concepts of chain volume measures is contained in the ABS *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0).

**27** The factors used to seasonally adjust the chain volume measures are identical to those used to adjust the corresponding current price series.

### ACKNOWLEDGMENT

**28** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

### UNPUBLISHED DATA AND RELATED PUBLICATIONS

**29** The ABS can also make available certain building approvals and activity data which are not published. Where it is not practicable to provide the required information by telephone, it can be provided via fax, photocopy, computer printout, floppy disk and email. A charge may be made for providing unpublished information in these forms. Inquiries should be made to Information Inquiries on Hobart 03 6222 5800 or any ABS State office.

**30** Users may also wish to refer to the following publications which are available on request:

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

*Building Activity, Australia: Building Work Done, Preliminary*  
(Cat. no. 8755.0) — issued quarterly

*Building Activity, Australia: Dwelling Unit Commencements, Preliminary*  
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*Building Approvals, Australia* (Cat. no. 8731.0) — issued monthly

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