



# BUILDING ACTIVITY WESTERN AUSTRALIA

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

## MARCH QTR KEY FIGURES

SEASONALLY ADJUSTED	Mar qtr 00	Dec qtr 99 to Mar qtr 00 % change	Mar qtr 99 to Mar qtr 00 % change
Value of work done(a) (\$m)	916.4	6.8	16.3
New residential building (\$m)	593.8	10.5	21.3
Alterations and additions(b) (\$m)	54.4	-5.9	2.1
Non-residential building (\$m)	268.8	2.5	9.3
Total dwelling units commenced (no.)	6 681	19.4	52.3
New private sector houses (no.)	5 700	26.6	55.5

(a) Chain volume measures, reference year 1997-98. (b) To residential buildings.

## MARCH QTR KEY POINTS

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

- The seasonally adjusted estimate of building work done rose by 6.8% in the March quarter 2000 to \$916.4m, a record high.
- Work done on new residential building rose 10.5% to a record \$593.8m. Work done on new houses was up by 9.5% to a record \$496.5m and on new other residential buildings by 16.7% to \$97.5m, the highest for 4½ years. However, alterations and additions fell 5.9% to \$54.4m.
- Work done on non-residential building also rose, by 2.5% to \$268.8m.

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

- New residential commencements rose 9.6% in the March quarter to a record \$639.1m. This was mainly due to a 10.2% increase in new houses to a record \$553.4m or 49.0% above the level of a year earlier.
- Overall, total building work commenced fell 9.4% to \$881.5m. The fall was due to non-residential work commenced falling to the lowest level for 4½ years. It dropped 43.7% to \$188.6m, mainly because the December quarter 1999 figure included significant public sector commencements in the Educational category.

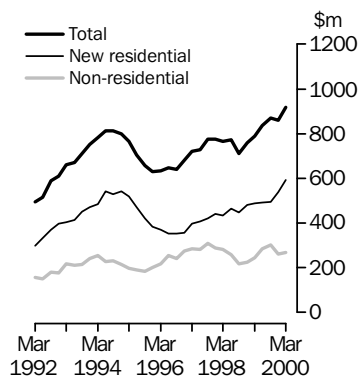
### NUMBER OF DWELLING UNITS COMMENCED, SEASONALLY ADJUSTED

- In seasonally adjusted terms, new private sector houses commenced surged by 26.6% to a record 5,700 or 55.5% more than for the March quarter 1999. The total number of dwelling units commenced rose 19.4% to 6,681, the most since the June quarter 1989.

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

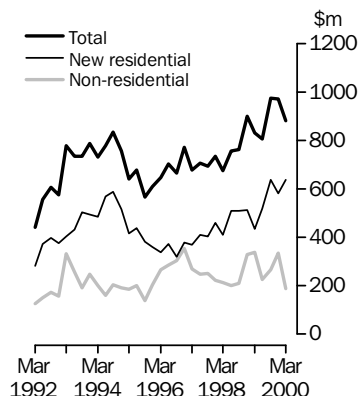
- Work yet to be done on jobs under construction at the end of March 2000 rose 2.2% to \$1,259.1m. This was 1.31 times the value of work done for the quarter (1.28 for residential building and 1.39 for non-residential).

### 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 the National Information Service on 1300 135 070.

## NOTES

### FORTHCOMING ISSUES

ISSUE (Quarter)	RELEASE DATE
June 2000	26 October 2000
September 2000	31 January 2001

### CHANGES IN THIS ISSUE

There are no changes in this issue.

### DATA NOTES

As reported in the March 2000 issue of *Building Approvals, Australia* (Cat. No. 8731.0), revised data relating to additional building approvals for earlier periods was received from a number of Councils, including Melville City Council in Western Australia. These reporting difficulties resulted in under-reporting in the Building Activity collection, but have now been resolved.

This issue includes revisions for this under-reporting. The additional building activity has been reflected in the December quarter 1999 and March quarter 2000 figures, although some of the work may actually have been undertaken in earlier quarters.

### SIGNIFICANT REVISIONS THIS ISSUE

The revisions outlined below are to the December quarter 1999 data and include both the under-reporting outlined above and revisions made as a result of the March quarter processing. In original terms:

- the total number of dwelling units commenced has been revised upwards by 192 (3.6%), and
- the value of residential building work commenced has been revised upwards by \$22.3m (3.4%).

### 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.

Colin Nagle  
Regional Director  
Western Australia

# LIST OF TABLES

---

Page

## CHAIN VOLUME ESTIMATES

- 1 Value of building work commenced, original ..... 4
- 2 Value of building work done, original, seasonally adjusted ..... 4

## SEASONALLY ADJUSTED

- 3 Value of building work done ..... 5
- 4 Number of dwelling units commenced and completed ..... 5

## PRIVATE AND PUBLIC SECTOR

- 5 Number and value of building commenced ..... 6
- 6 Value of non-residential building commenced ..... 7
- 7 Number and value of building under construction ..... 8
- 8 Value of non-residential building under construction ..... 9
- 9 Number and value of building completed ..... 10
- 10 Value of non-residential building completed ..... 11
- 11 Value of building work done ..... 12
- 12 Value of non-residential building work done ..... 13
- 13 Value of building work yet to be done ..... 14
- 14 Value of non-residential building work yet to be done ..... 15

## RELATIVE STANDARD ERRORS

- 15 Summary of building activity ..... 16

**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	1,283.4	198.0	1,481.1	174.9	831.2	1,174.1	2,825.9
1997-98	1,574.6	212.8	1,787.4	188.1	693.2	888.4	2,863.9
1998-99	1,719.4	261.9	1,981.3	218.9	921.3	1,108.0	3,308.2
1998 Dec. qtr	448.1	64.6	512.7	58.8	289.4	330.4	901.9
1999 Mar. qtr	371.3	65.2	436.5	57.8	267.9	338.9	833.2
Jun qtr	452.8	68.9	521.7	59.6	187.2	226.8	808.1
Sep. qtr	524.9	113.4	638.3	70.6	162.4	266.9	975.8
Dec. qtr	502.3	80.7	583.0	55.1	168.8	334.9	973.0
2000 Mar. qtr	553.4	85.7	639.1	53.8	145.9	188.6	881.5

(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	1,275.3	233.7	1,508.1	176.9	792.0	1,084.1	2,768.1
1997-98	1,547.5	212.6	1,760.2	193.4	812.3	1,135.2	3,088.7
1998-99	1,646.8	263.6	1,910.5	209.1	805.1	972.9	3,092.5
1998 Dec. qtr	429.5	63.3	492.8	57.1	194.2	238.1	788.0
1999 Mar. qtr	414.1	63.6	477.7	51.0	192.4	231.9	760.6
Jun qtr	414.6	74.7	489.3	56.9	232.9	278.8	825.0
Sep. qtr	421.7	74.9	496.6	70.9	251.8	310.7	878.2
Dec. qtr	463.9	85.1	549.1	63.0	203.2	278.6	890.7
2000 Mar. qtr	488.4	91.0	579.4	52.2	176.7	251.8	883.4
SEASONALLY ADJUSTED							
1998 Dec. qtr	419.7	61.9	482.1	52.6	177.6	223.1	758.0
1999 Mar. qtr	421.3	68.0	489.7	53.3	203.3	246.0	788.0
Jun qtr	416.7	74.3	491.3	55.0	243.2	285.7	836.0
Sep. qtr	422.9	72.0	494.1	77.7	246.2	303.7	868.4
Dec. qtr	453.2	83.5	537.3	57.8	186.8	262.3	858.5
2000 Mar. qtr	496.5	97.5	593.8	54.4	188.2	268.8	916.4

(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)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
1998 Dec. qtr	430.7	62.1	493.3	53.9	180.2	225.8	773.2
1999 Mar. qtr	436.9	68.4	505.9	55.1	207.8	250.8	810.9
Jun qtr	435.0	75.3	510.5	57.2	249.9	292.8	864.7
Sep. qtr	444.9	73.6	517.5	81.8	254.5	313.5	905.4
Dec. qtr	488.4	86.4	575.3	62.3	195.1	273.5	912.2
2000 Mar. qtr	555.8	101.5	657.3	60.9	197.1	281.1	999.2

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

Period	New houses				Total dwelling units (includes conversions etc)			
	Private sector		Total		Private sector		Total	
	Commenced	Completed	Commenced	Completed	Commenced	Completed	Commenced	Completed
1998 Dec. qtr	3,831	3,405	3,915	n.a.	4,268	3,834	4,515	4,045
1999 Mar. qtr	3,665	3,926	3,712	n.a.	4,135	4,528	4,388	4,826
Jun qtr	3,923	3,856	4,083	n.a.	4,526	4,380	4,752	4,622
Sep. qtr	4,621	3,464	4,634	n.a.	5,606	3,891	5,761	4,245
Dec. qtr	4,502	3,672	4,613	n.a.	5,209	4,135	5,596	4,271
2000 Mar. qtr	5,700	4,686	5,793	n.a.	6,387	5,094	6,681	5,222

**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	12,013	1,858	80	13,951	1,233.8	170.6	1,404.5	171.2	1,575.7	817.5	2,393.2
1997-98	14,170	1,855	115	16,140	1,515.5	181.9	1,697.4	185.5	1,882.9	693.2	2,576.1
1998-99	15,383	1,982	92	17,457	1,722.5	231.6	1,954.1	221.5	2,175.6	939.2	3,114.8
1998 Dec. qtr	3,946	398	37	4,381	456.2	55.5	511.7	60.0	571.7	293.7	865.3
1999 Mar. qtr	3,350	426	28	3,804	381.6	55.6	437.2	59.3	496.5	274.2	770.7
Jun qtr	4,038	615	15	4,668	460.2	61.5	521.7	59.8	581.5	193.1	774.6
Sep. qtr	4,746	869	119	5,734	538.3	101.2	639.5	72.8	712.3	169.1	881.4
Dec. qtr	4,638	693	15	5,346	535.5	68.3	603.8	60.0	663.8	177.1	840.9
2000 Mar. qtr	5,208	605	60	5,873	614.0	79.2	693.2	60.4	753.6	154.2	907.8
<b>PUBLIC SECTOR</b>											
1996-97	509	383	6	898	48.7	24.7	73.4	3.3	76.7	337.5	414.3
1997-98	620	505	—	1,125	59.1	30.9	90.0	2.6	92.6	195.1	287.7
1998-99	565	425	—	990	51.1	33.2	84.2	5.2	89.4	190.7	280.1
1998 Dec. qtr	41	90	—	131	4.4	9.5	13.8	0.7	14.5	41.7	56.2
1999 Mar. qtr	36	160	—	196	4.0	10.5	14.4	0.8	15.3	72.7	88.0
Jun qtr	119	116	—	235	13.0	9.0	21.9	2.5	24.4	40.9	65.3
Sep. qtr	133	219	9	361	14.5	15.7	30.2	2.0	32.2	108.9	141.1
Dec. qtr	60	182	4	246	6.6	15.7	22.3	0.5	22.8	174.4	197.2
2000 Mar. qtr	73	120	17	210	7.0	10.7	17.7	1.1	18.8	45.1	63.9
<b>TOTAL</b>											
1996-97	12,522	2,241	86	14,849	1,282.6	195.3	1,477.9	174.5	1,652.4	1,155.0	2,807.4
1997-98	14,790	2,360	115	17,265	1,574.6	212.8	1,787.4	188.1	1,975.5	888.3	2,863.8
1998-99	15,948	2,407	92	18,447	1,773.6	264.7	2,038.4	226.7	2,265.0	1,129.9	3,394.9
1998 Dec. qtr	3,987	488	37	4,512	460.5	65.0	525.5	60.7	586.2	335.3	921.5
1999 Mar. qtr	3,386	586	28	4,000	385.6	66.0	451.6	60.1	511.8	346.9	858.7
Jun qtr	4,157	731	15	4,903	473.2	70.4	543.6	62.3	605.9	234.0	839.9
Sep. qtr	4,879	1,088	128	6,095	552.8	117.0	669.8	74.7	744.5	278.0	1,022.5
Dec. qtr	4,698	875	19	5,592	542.1	84.0	626.1	60.5	686.6	351.5	1,038.1
2000 Mar. qtr	5,281	725	77	6,083	621.0	89.9	710.8	61.6	772.4	199.3	971.8

**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	79.2	173.8	105.2	105.7	141.3	40.8	5.7	89.9	41.2	34.7	817.5
1997-98	54.6	176.0	89.1	79.8	144.9	36.9	6.6	45.9	36.6	22.8	693.2
1998-99	50.7	377.9	85.9	74.7	155.9	47.8	5.5	37.1	84.0	19.8	939.2
1998 Dec. qtr	16.8	140.0	17.2	18.4	29.5	16.8	1.3	6.0	38.5	9.1	293.7
1999 Mar. qtr	20.6	128.6	24.2	25.3	31.4	7.3	2.0	9.9	21.9	3.0	274.2
Jun qtr	7.1	60.8	20.7	18.0	54.6	11.6	1.0	9.6	5.0	4.7	193.1
Sep. qtr	18.0	49.2	18.4	11.4	28.2	12.4	8.1	10.4	7.7	5.3	169.1
Dec. qtr	6.0	32.8	31.7	18.1	23.7	21.8	5.1	21.3	9.4	7.2	177.1
2000 Mar. qtr	11.3	41.7	23.6	20.9	31.8	6.4	4.0	7.8	3.0	3.7	154.2
<b>PUBLIC SECTOR</b>											
1996-97	—	2.7	6.9	40.3	33.9	58.1	0.2	135.2	41.2	19.0	337.5
1997-98	1.4	0.8	2.1	47.3	6.7	84.5	—	4.6	27.6	20.3	195.1
1998-99	0.6	2.4	4.1	26.9	7.2	60.9	—	20.3	32.0	36.2	190.7
1998 Dec. qtr	0.1	1.8	1.2	1.7	6.2	22.7	—	1.3	2.1	4.7	41.7
1999 Mar. qtr	—	0.1	0.3	12.4	—	16.0	—	17.6	20.4	6.0	72.7
Jun qtr	—	0.4	—	1.0	0.8	12.4	—	0.1	5.5	20.7	40.9
Sep. qtr	0.1	1.3	—	4.5	0.8	21.9	—	—	1.6	78.6	108.9
Dec. qtr	0.5	—	3.3	16.4	2.5	126.3	—	5.4	8.9	11.2	174.4
2000 Mar. qtr	—	0.1	—	3.2	2.5	18.9	—	10.7	5.3	4.4	45.1
<b>TOTAL</b>											
1996-97	79.2	176.5	112.1	146.0	175.3	98.9	5.8	225.1	82.5	53.7	1,155.0
1997-98	56.0	176.7	91.2	127.1	151.6	121.4	6.6	50.4	64.2	43.1	888.3
1998-99	51.3	380.3	90.0	101.6	163.0	108.7	5.5	57.5	116.0	56.0	1,129.9
1998 Dec. qtr	16.9	141.8	18.4	20.1	35.8	39.5	1.3	7.2	40.6	13.8	335.3
1999 Mar. qtr	20.6	128.7	24.5	37.8	31.4	23.4	2.0	27.4	42.2	9.0	346.9
Jun qtr	7.1	61.2	20.7	19.0	55.3	24.0	1.0	9.8	10.5	25.4	234.0
Sep. qtr	18.2	50.6	18.4	15.9	29.0	34.3	8.1	10.4	9.3	83.8	278.0
Dec. qtr	6.5	32.8	34.9	34.5	26.1	148.1	5.1	26.7	18.4	18.5	351.5
2000 Mar. qtr	11.3	41.8	23.7	24.1	34.3	25.2	4.0	18.6	8.2	8.1	199.3

**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	5,157	1,268	37	6,462	645.2	134.5	779.7	70.0	849.7	467.2	1,316.9
1997-98	5,756	1,251	101	7,108	736.8	142.4	879.2	75.6	954.7	395.2	1,350.0
1998-99	6,300	1,307	59	7,666	860.2	178.0	1,038.2	110.0	1,148.2	622.6	1,770.8
1998 Dec. qtr	6,568	1,318	69	7,955	837.3	177.2	1,014.4	85.9	1,100.3	455.9	1,556.3
1999 Mar. qtr	6,307	1,162	55	7,524	841.2	176.0	1,017.3	112.7	1,129.9	545.6	1,675.5
Jun qtr	6,300	1,307	59	7,666	860.2	178.0	1,038.2	110.0	1,148.2	622.6	1,770.8
Sep. qtr	7,648	1,756	160	9,564	1,018.3	240.1	1,258.4	121.2	1,379.6	583.8	1,963.4
Dec. qtr	8,420	1,984	140	10,544	1,104.5	247.7	1,352.2	107.1	1,459.3	545.3	2,004.6
2000 Mar. qtr	9,341	2,159	180	11,680	1,250.5	288.6	1,539.1	117.4	1,656.5	434.7	2,091.2
<b>PUBLIC SECTOR</b>											
1996-97	139	119	—	258	14.5	6.5	21.0	0.9	22.0	326.3	348.2
1997-98	174	360	—	534	14.8	21.0	35.8	1.2	37.0	194.6	231.6
1998-99	187	304	—	491	17.7	20.7	38.4	2.4	40.8	137.1	177.9
1998 Dec. qtr	342	228	—	570	25.8	17.9	43.8	0.9	44.6	139.5	184.2
1999 Mar. qtr	198	263	—	461	14.8	16.4	31.2	0.6	31.9	138.6	170.5
Jun qtr	187	304	—	491	17.7	20.7	38.4	2.4	40.8	137.1	177.9
Sep. qtr	191	400	1	592	20.9	28.2	49.1	3.0	52.1	209.3	261.4
Dec. qtr	149	414	5	568	15.7	32.9	48.6	1.2	49.8	357.3	407.1
2000 Mar. qtr	135	482	9	626	13.5	39.0	52.5	1.0	53.5	315.7	369.2
<b>TOTAL</b>											
1996-97	5,296	1,387	37	6,720	659.7	141.0	800.8	70.9	871.7	793.4	1,665.1
1997-98	5,930	1,611	101	7,642	751.6	163.4	915.0	76.8	991.8	589.9	1,581.6
1998-99	6,487	1,611	59	8,157	877.9	198.8	1,076.6	112.5	1,189.1	759.7	1,948.8
1998 Dec. qtr	6,910	1,546	69	8,525	863.1	195.1	1,058.2	86.8	1,145.0	595.5	1,740.4
1999 Mar. qtr	6,505	1,425	55	7,985	856.1	192.4	1,048.5	113.3	1,161.8	684.2	1,846.0
Jun qtr	6,487	1,611	59	8,157	877.9	198.8	1,076.6	112.5	1,189.1	759.7	1,948.8
Sep. qtr	7,839	2,156	161	10,156	1,039.2	268.3	1,307.5	124.2	1,431.7	793.0	2,224.7
Dec. qtr	8,569	2,398	145	11,112	1,120.2	280.6	1,400.8	108.3	1,509.1	902.6	2,411.7
2000 Mar. qtr	9,476	2,641	189	12,306	1,263.9	327.7	1,591.6	118.5	1,710.1	750.4	2,460.4



**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	62.5	108.9	47.3	48.0	64.0	12.7	4.0	84.5	19.3	16.0	467.2
1997-98	49.2	77.5	33.7	35.5	60.7	9.9	3.3	83.0	23.3	19.2	395.2
1998-99	58.0	290.7	42.9	38.0	68.5	15.9	3.8	29.5	58.9	16.4	622.6
1998 Dec. qtr	42.9	178.7	33.4	22.6	39.4	27.2	2.6	46.4	50.6	12.0	455.9
1999 Mar. qtr	55.2	254.6	39.8	28.2	39.0	21.7	3.9	23.2	67.6	12.4	545.6
Jun qtr	58.0	290.7	42.9	38.0	68.5	15.9	3.8	29.5	58.9	16.4	622.6
Sep. qtr	47.5	275.1	36.1	30.1	62.2	24.1	8.9	23.3	63.5	12.9	583.8
Dec. qtr	38.0	236.6	51.6	31.6	42.0	35.3	12.4	40.0	46.7	11.1	545.3
2000 Mar. qtr	38.9	150.0	54.1	39.1	53.4	19.3	13.4	43.2	13.9	9.2	434.7
<b>PUBLIC SECTOR</b>											
1996-97	—	0.9	4.8	25.6	29.8	75.4	0.2	143.3	37.1	9.1	326.3
1997-98	0.7	—	—	30.3	2.8	50.4	—	66.9	38.8	4.8	194.6
1998-99	—	0.1	0.3	16.9	4.8	46.3	—	17.6	26.7	24.5	137.1
1998 Dec. qtr	0.5	0.3	3.6	32.1	5.8	37.0	—	30.7	20.3	9.2	139.5
1999 Mar. qtr	—	—	1.3	16.7	4.2	48.0	—	18.8	39.6	10.0	138.6
Jun qtr	—	0.1	0.3	16.9	4.8	46.3	—	17.6	26.7	24.5	137.1
Sep. qtr	0.1	1.3	0.3	15.6	0.6	53.6	—	16.2	26.3	95.2	209.3
Dec. qtr	0.5	—	3.3	30.8	2.9	170.7	—	18.0	22.7	108.5	357.3
2000 Mar. qtr	0.5	—	2.8	19.8	4.6	158.3	—	14.2	23.8	91.8	315.7
<b>TOTAL</b>											
1996-97	62.5	109.8	52.1	73.6	93.9	88.1	4.2	227.8	56.3	25.1	793.4
1997-98	49.9	77.5	33.7	65.8	63.5	60.2	3.3	149.9	62.0	24.1	589.9
1998-99	58.0	290.8	43.2	54.9	73.3	62.2	3.8	47.1	85.6	40.8	759.7
1998 Dec. qtr	43.5	179.0	37.0	54.7	45.2	64.3	2.6	77.1	70.8	21.3	595.5
1999 Mar. qtr	55.2	254.6	41.1	45.0	43.3	69.7	3.9	41.9	107.1	22.4	684.2
Jun qtr	58.0	290.8	43.2	54.9	73.3	62.2	3.8	47.1	85.6	40.8	759.7
Sep. qtr	47.6	276.5	36.4	45.8	62.8	77.7	8.9	39.4	89.8	108.1	793.0
Dec. qtr	38.5	236.6	54.9	62.4	44.9	205.9	12.4	58.0	69.4	119.6	902.6
2000 Mar. qtr	39.4	150.0	56.9	59.0	58.0	177.6	13.4	57.4	37.7	100.9	750.4

**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
<b>PRIVATE SECTOR</b>											
1996-97	11,074	2,235	93	13,402	1,136.2	202.7	1,338.9	176.8	1,515.7	715.7	2,231.4
1997-98	13,542	1,856	50	15,448	1,453.3	192.1	1,645.4	186.2	1,831.7	800.9	2,632.6
1998-99	14,764	1,876	134	16,774	1,606.7	208.6	1,815.4	196.6	2,011.9	737.8	2,749.8
1998 Dec. qtr	3,583	433	27	4,043	385.7	44.6	430.3	50.8	481.1	235.5	716.6
1999 Mar. qtr	3,599	570	42	4,211	385.9	61.6	447.4	41.6	489.0	191.5	680.5
Jun qtr	4,044	461	11	4,516	446.4	60.3	506.7	57.9	564.6	124.5	689.1
Sep. qtr	3,398	411	18	3,827	386.8	40.5	427.3	63.1	490.5	219.7	710.2
Dec. qtr	3,865	463	35	4,363	455.9	62.6	518.5	75.3	593.8	227.6	821.4
2000 Mar. qtr	4,286	424	20	4,730	471.4	43.0	514.3	51.6	565.9	272.6	838.5
<b>PUBLIC SECTOR</b>											
1996-97	424	609	6	1,039	40.2	51.0	91.2	2.4	93.6	171.4	264.9
1997-98	582	264	—	846	58.4	15.4	73.8	2.3	76.1	335.5	411.6
1998-99	542	477	—	1,019	47.8	29.7	77.4	3.9	81.3	247.3	328.6
1998 Dec. qtr	157	173	—	330	16.4	11.0	27.4	1.4	28.8	35.2	64.0
1999 Mar. qtr	174	121	—	295	14.5	8.1	22.6	1.1	23.7	72.1	95.8
Jun qtr	129	75	—	204	10.1	4.8	14.8	0.8	15.6	42.5	58.1
Sep. qtr	130	123	8	261	11.3	8.3	19.6	1.4	20.9	34.9	55.8
Dec. qtr	101	156	—	257	11.7	10.2	21.9	2.3	24.1	28.7	52.8
2000 Mar. qtr	87	38	13	138	9.2	3.6	12.8	1.3	14.1	88.4	102.5
<b>TOTAL</b>											
1996-97	11,498	2,844	99	14,441	1,176.4	253.7	1,430.1	179.2	1,609.3	887.1	2,496.4
1997-98	14,124	2,120	50	16,294	1,511.7	207.5	1,719.2	188.6	1,907.8	1,136.4	3,044.1
1998-99	15,306	2,353	134	17,793	1,654.5	238.3	1,892.8	200.5	2,093.3	985.1	3,078.4
1998 Dec. qtr	3,740	606	27	4,373	402.1	55.6	457.7	52.2	509.9	270.7	780.6
1999 Mar. qtr	3,773	691	42	4,506	400.3	69.7	470.0	42.7	512.7	263.6	776.3
Jun qtr	4,173	536	11	4,720	456.5	65.1	521.6	58.6	580.2	167.0	747.2
Sep. qtr	3,528	534	26	4,088	398.1	48.8	446.9	64.5	511.4	254.6	766.0
Dec. qtr	3,966	619	35	4,620	467.6	72.8	540.3	77.6	617.9	256.3	874.3
2000 Mar. qtr	4,373	462	33	4,868	480.6	46.6	527.1	52.9	580.0	360.9	941.0

**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</i>	<i>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	121.9	126.3	99.2	89.8	110.8	40.4	4.8	21.8	35.0	65.7	715.7
1997-98	80.1	215.2	108.2	95.2	145.4	40.3	7.6	51.3	37.6	20.0	800.9
1998-99	44.8	177.1	78.6	73.0	150.9	44.1	5.2	94.2	48.6	21.4	737.8
1998 Dec. qtr	9.0	50.3	12.7	29.8	54.0	4.6	2.9	45.9	17.1	9.2	235.5
1999 Mar. qtr	10.2	52.9	18.9	20.1	32.2	14.3	0.8	34.0	5.3	2.7	191.5
Jun qtr	4.2	31.4	18.7	8.4	25.6	17.8	1.1	3.1	13.4	0.8	124.5
Sep. qtr	31.2	68.4	25.6	19.7	36.6	4.5	3.0	18.0	3.9	8.8	219.7
Dec. qtr	16.8	82.1	15.1	16.8	43.1	10.8	1.6	4.1	28.1	9.1	227.6
2000 Mar. qtr	10.4	130.4	24.1	13.8	21.6	22.6	3.2	4.8	36.1	5.5	272.6
<b>PUBLIC SECTOR</b>											
1996-97	—	1.9	2.2	40.6	17.3	50.1	—	7.4	24.9	26.9	171.4
1997-98	0.6	1.7	6.5	45.2	34.3	112.7	0.2	83.0	26.4	24.8	335.5
1998-99	1.3	2.3	3.8	38.2	5.2	65.9	—	70.5	43.0	17.1	247.3
1998 Dec. qtr	0.1	1.7	0.3	7.1	0.5	22.5	—	1.5	1.0	0.7	35.2
1999 Mar. qtr	0.5	0.4	2.4	26.5	1.6	5.0	—	29.5	1.0	5.2	72.1
Jun qtr	—	0.2	1.0	1.2	0.2	14.6	—	1.3	17.3	6.6	42.5
Sep. qtr	—	0.1	—	5.7	5.0	15.0	—	—	1.3	7.8	34.9
Dec. qtr	0.1	1.3	0.3	1.1	0.2	9.3	—	3.5	12.6	0.3	28.7
2000 Mar. qtr	—	0.1	0.5	14.2	0.9	32.7	—	14.6	4.1	21.2	88.4
<b>TOTAL</b>											
1996-97	121.9	128.2	101.4	130.4	128.1	90.5	4.8	29.2	60.0	92.5	887.1
1997-98	80.7	216.8	114.7	140.3	179.7	153.0	7.8	134.4	64.1	44.8	1,136.4
1998-99	46.1	179.4	82.3	111.2	156.1	110.0	5.2	164.7	91.6	38.5	985.1
1998 Dec. qtr	9.1	52.0	13.0	36.9	54.5	27.1	2.9	47.4	18.0	9.9	270.7
1999 Mar. qtr	10.7	53.3	21.3	46.6	33.8	19.3	0.8	63.5	6.3	7.9	263.6
Jun qtr	4.2	31.6	19.7	9.5	25.9	32.4	1.1	4.5	30.7	7.3	167.0
Sep. qtr	31.2	68.5	25.6	25.4	41.6	19.5	3.0	18.0	5.1	16.6	254.6
Dec. qtr	17.0	83.4	15.4	17.8	43.2	20.0	1.6	7.6	40.8	9.4	256.3
2000 Mar. qtr	10.4	130.5	24.7	28.0	22.5	55.3	3.2	19.4	40.2	26.8	360.9

**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	1,230.7	185.2	1,415.9	174.0	1,589.9	776.5	2,366.4
1997-98	1,489.9	191.6	1,681.5	191.2	1,872.7	812.3	2,684.9
1998-99	1,646.7	233.8	1,880.5	211.1	2,091.5	815.7	2,907.3
1998 Dec. qtr	425.2	57.0	482.3	57.5	539.8	196.0	735.8
1999 Mar. qtr	420.2	56.3	476.5	51.9	528.5	195.3	723.8
Jun qtr	423.4	67.4	490.7	58.1	548.8	237.5	786.3
Sep. qtr	432.1	66.1	498.2	72.6	570.8	260.4	831.2
Dec. qtr	489.3	78.3	567.5	66.9	634.4	212.3	846.7
2000 Mar. qtr	538.0	81.3	619.3	57.1	676.4	185.1	861.6
<b>PUBLIC SECTOR</b>							
1996-97	44.4	44.3	88.7	2.9	91.6	286.5	378.1
1997-98	57.6	21.1	78.7	2.2	80.8	323.0	403.8
1998-99	50.9	31.3	82.2	4.4	86.6	170.0	256.7
1998 Dec. qtr	15.7	6.3	22.0	1.0	23.1	44.3	67.4
1999 Mar. qtr	9.3	7.6	16.9	0.9	17.9	40.1	58.0
Jun qtr	9.4	8.2	17.7	1.3	19.0	46.8	65.8
Sep. qtr	11.6	10.5	22.0	2.1	24.1	61.0	85.1
Dec. qtr	10.7	9.8	20.5	1.1	21.6	78.9	100.4
2000 Mar. qtr	8.8	13.4	22.2	1.3	23.6	78.8	102.3
<b>TOTAL</b>							
1996-97	1,275.2	229.4	1,504.6	176.9	1,681.5	1,063.0	2,744.5
1997-98	1,547.5	212.6	1,760.2	193.3	1,953.5	1,135.2	3,088.7
1998-99	1,697.6	265.0	1,962.7	215.5	2,178.2	985.8	3,164.0
1998 Dec. qtr	440.9	63.4	504.3	58.6	562.9	240.3	803.2
1999 Mar. qtr	429.5	63.9	493.5	52.9	546.3	235.4	781.8
Jun qtr	432.8	75.6	508.4	59.4	567.8	284.3	852.1
Sep. qtr	443.7	76.6	520.3	74.7	594.9	321.4	916.3
Dec. qtr	500.0	88.1	588.0	67.9	656.0	291.2	947.2
2000 Mar. qtr	546.8	94.7	641.5	58.5	700.0	263.9	963.9

**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 recreational</i>	<i>Entertain- ment and</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1996-97	88.3	159.6	100.7	109.9	126.4	41.1	6.2	47.5	40.3	56.5	776.5
1997-98	80.2	196.8	104.5	85.2	145.6	40.2	7.2	89.4	38.9	24.3	812.3
1998-99	56.7	265.6	83.5	72.1	159.3	46.4	6.1	43.7	63.8	18.6	815.7
1998 Dec. qtr	11.4	59.4	18.5	19.3	43.4	15.3	0.9	10.2	13.3	4.4	196.0
1999 Mar. qtr	16.5	65.2	18.5	19.1	24.2	14.9	1.7	13.0	17.5	4.8	195.3
Jun qtr	15.6	87.5	25.7	16.5	50.0	10.2	2.0	7.2	18.6	4.1	237.5
Sep. qtr	21.8	115.4	18.4	16.6	32.9	9.8	2.9	12.1	23.9	6.6	260.4
Dec. qtr	10.5	87.5	21.7	15.8	26.5	15.9	4.3	9.2	13.1	7.8	212.3
2000 Mar. qtr	15.6	48.5	30.6	19.3	26.9	15.1	5.3	11.0	9.1	3.7	185.1
<b>PUBLIC SECTOR</b>											
1996-97	—	2.1	4.2	48.3	32.3	94.5	—	56.6	30.3	18.2	286.5
1997-98	0.9	1.4	4.4	46.2	14.0	89.7	0.2	96.1	42.4	27.6	323.0
1998-99	1.0	2.4	4.0	31.8	6.4	58.2	—	15.9	28.0	22.3	170.0
1998 Dec. qtr	0.4	1.7	2.2	8.1	2.7	18.6	—	2.4	4.5	3.7	44.3
1999 Mar. qtr	0.1	0.2	1.1	9.0	1.5	14.5	—	3.3	7.7	2.9	40.1
Jun qtr	—	0.3	0.3	4.2	1.2	13.9	—	4.9	8.5	13.5	46.8
Sep. qtr	0.1	0.7	—	5.6	2.1	22.4	—	5.0	9.4	15.7	61.0
Dec. qtr	0.2	0.6	0.5	6.0	0.4	35.9	—	5.4	8.0	21.9	78.9
2000 Mar. qtr	0.3	0.1	1.5	9.7	2.1	36.2	—	5.3	4.9	18.7	78.8
<b>TOTAL</b>											
1996-97	88.3	161.8	104.9	158.2	158.7	135.6	6.2	104.1	70.6	74.6	1,063.0
1997-98	81.1	198.2	108.9	131.4	159.5	129.9	7.4	185.6	81.3	52.0	1,135.2
1998-99	57.7	268.0	87.5	103.9	165.6	104.7	6.1	59.6	91.7	40.9	985.8
1998 Dec. qtr	11.8	61.1	20.7	27.3	46.1	33.9	0.9	12.6	17.8	8.1	240.3
1999 Mar. qtr	16.6	65.3	19.6	28.0	25.7	29.3	1.7	16.3	25.2	7.7	235.4
Jun qtr	15.6	87.9	26.0	20.8	51.3	24.1	2.0	12.1	27.0	17.6	284.3
Sep. qtr	21.8	116.1	18.4	22.2	35.0	32.1	2.9	17.1	33.3	22.3	321.4
Dec. qtr	10.7	88.1	22.1	21.8	26.9	51.8	4.3	14.6	21.1	29.7	291.2
2000 Mar. qtr	15.9	48.5	32.1	29.0	29.0	51.3	5.3	16.3	14.0	22.4	263.9

**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-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>							
1996-97	304.9	67.8	372.8	30.7	403.5	238.2	641.7
1997-98	362.2	76.3	438.5	31.7	470.2	155.4	625.7
1998-99	448.5	89.0	537.4	52.0	589.5	305.0	894.4
1998 Dec. qtr	435.7	88.3	524.0	38.0	562.0	255.1	817.1
1999 Mar. qtr	406.1	93.1	499.2	54.5	553.7	340.9	894.6
Jun qtr	448.5	89.0	537.4	52.0	589.5	305.0	894.4
Sep. qtr	561.5	126.8	688.3	54.2	742.6	225.6	968.2
Dec. qtr	614.3	118.7	733.1	48.8	781.8	202.5	984.3
2000 Mar. qtr	693.9	121.6	815.5	53.5	869.1	179.4	1,048.4
<b>PUBLIC SECTOR</b>							
1996-97	7.1	3.3	10.5	0.4	10.9	173.2	184.1
1997-98	8.3	12.2	20.5	0.8	21.3	55.4	76.7
1998-99	8.5	10.5	19.0	1.5	20.5	75.2	95.7
1998 Dec. qtr	10.3	10.5	20.9	0.3	21.2	49.8	71.1
1999 Mar. qtr	4.9	9.7	14.6	0.2	14.8	80.9	95.8
Jun qtr	8.5	10.5	19.0	1.5	20.5	75.2	95.7
Sep. qtr	11.4	15.7	27.2	1.4	28.6	121.2	149.7
Dec. qtr	7.2	21.0	28.3	0.7	29.0	219.1	248.1
2000 Mar. qtr	5.4	17.6	23.1	0.6	23.6	187.0	210.7
<b>TOTAL</b>							
1996-97	312.1	71.2	383.3	31.0	414.3	411.5	825.8
1997-98	370.5	88.5	459.0	32.5	491.5	210.9	702.3
1998-99	456.9	99.5	556.4	53.6	610.0	380.1	990.1
1998 Dec. qtr	446.0	98.9	544.9	38.4	583.2	304.9	888.2
1999 Mar. qtr	411.0	102.8	513.8	54.7	568.5	421.8	990.3
Jun qtr	456.9	99.5	556.4	53.6	610.0	380.1	990.1
Sep. qtr	572.9	142.6	715.5	55.6	771.1	346.8	1,118.0
Dec. qtr	621.6	139.8	761.3	49.5	810.9	421.5	1,232.4
2000 Mar. qtr	699.4	139.2	838.6	54.1	892.7	366.4	1,259.1

**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	37.2	51.9	23.7	17.3	29.2	6.7	1.8	55.6	7.6	7.3	238.2
1997-98	24.1	38.9	13.8	14.8	25.8	4.0	1.5	16.0	10.3	6.3	155.4
1998-99	20.9	163.5	18.1	18.2	25.3	7.7	1.1	13.1	30.8	6.2	305.0
1998 Dec. qtr	23.6	119.9	15.1	9.9	12.6	12.0	1.8	13.1	39.8	7.3	255.1
1999 Mar. qtr	29.5	183.6	22.0	16.6	20.2	5.9	2.1	10.8	44.6	5.6	340.9
Jun qtr	20.9	163.5	18.1	18.2	25.3	7.7	1.1	13.1	30.8	6.2	305.0
Sep. qtr	19.9	101.0	18.6	13.5	22.8	10.6	6.3	12.7	15.4	4.9	225.6
Dec. qtr	16.7	57.1	27.5	15.9	19.1	16.7	7.1	24.5	13.6	4.3	202.5
2000 Mar. qtr	12.4	52.5	23.6	17.9	25.2	8.3	6.1	21.4	7.8	4.3	179.4
<b>PUBLIC SECTOR</b>											
1996-97	—	0.6	2.7	11.8	7.7	19.9	0.2	93.8	28.3	8.2	173.2
1997-98	0.4	—	—	15.4	1.0	17.9	—	5.6	14.0	1.1	55.4
1998-99	—	0.1	—	8.5	1.7	21.5	—	10.9	16.9	15.5	75.2
1998 Dec. qtr	0.1	0.1	1.3	9.2	3.6	20.9	—	1.4	8.4	4.9	49.8
1999 Mar. qtr	—	—	0.3	11.3	2.2	22.5	—	15.6	21.0	7.9	80.9
Jun qtr	—	0.1	—	8.5	1.7	21.5	—	10.9	16.9	15.5	75.2
Sep. qtr	0.1	0.6	—	7.3	0.4	21.4	—	4.5	8.4	78.4	121.2
Dec. qtr	0.4	—	2.8	17.6	2.5	111.8	—	4.5	9.4	70.2	219.1
2000 Mar. qtr	0.1	—	1.4	11.2	3.0	95.9	—	9.9	9.7	55.9	187.0
<b>TOTAL</b>											
1996-97	37.2	52.5	26.5	29.1	36.8	26.6	1.9	149.4	35.8	15.5	411.5
1997-98	24.5	38.9	13.8	30.2	26.8	21.9	1.5	21.6	24.3	7.4	210.9
1998-99	20.9	163.5	18.1	26.7	27.1	29.2	1.1	24.0	47.8	21.7	380.1
1998 Dec. qtr	23.7	120.0	16.4	19.1	16.2	32.9	1.8	14.5	48.2	12.2	304.9
1999 Mar. qtr	29.5	183.6	22.3	28.0	22.4	28.4	2.1	26.4	65.6	13.6	421.8
Jun qtr	20.9	163.5	18.1	26.7	27.1	29.2	1.1	24.0	47.8	21.7	380.1
Sep. qtr	19.9	101.6	18.6	20.8	23.2	32.0	6.3	17.3	23.8	83.3	346.8
Dec. qtr	17.1	57.1	30.4	33.5	21.6	128.5	7.1	28.9	22.9	74.5	421.5
2000 Mar. qtr	12.5	52.5	24.9	29.1	28.2	104.2	6.1	31.3	17.5	60.1	366.4

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, MARCH QUARTER 2000  
(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>		
TOTAL PRIVATE AND PUBLIC SECTORS						
Commenced	4.2	3.9	3.7	3.4	5.5	2.5
Under construction at end of period	2.9	2.4	2.3	1.9	4.3	1.3
Completed	5.1	5.1	4.7	4.7	9.4	2.7
Value of work done	..	2.8	..	2.4	4.9	1.6
Value of work yet to be done	..	2.9	..	2.4	5.1	1.6



# EXPLANATORY NOTES

---

## 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 building 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 townhouses, 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.
- *Offices*. Includes banks, post offices, council chambers, head and regional offices.

## EXPLANATORY NOTES *continued*

### BUILDING CLASSIFICATION *continued*

- *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% (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% 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 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 6076.

**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.

## EXPLANATORY NOTES *continued*

---

### 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

**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.

### RELATED PUBLICATIONS

**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*  
(Cat. no. 8750.0)—issued quarterly

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

*Building Approvals, Western Australia* (Cat. no. 8731.5)—issued quarterly  
from March 2000

*Engineering Construction Activity, Australia* (Cat. no. 8762.0)—issued  
quarterly

*Estimated Stocks of Dwellings, Western Australia* (Cat. no. 8705.5)—the final  
issue was for the year ended 30 June 1996. More recent data is available  
from the ABS Information Consultancy Service.

*Housing Finance for Owner Occupation, Australia* (Cat. no. 5609.0)—issued  
monthly

**31** 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.



## FOR MORE INFORMATION...

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

## INFORMATION SERVICE

Data which have been published and can be provided within five minutes are free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user-pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.

- PHONE* **1300 135 070**
- EMAIL* **client.services@abs.gov.au**
- FAX* 1300 135 211
- POST* Client Services, ABS, GPO Box 796, Sydney 1041

## WHY NOT SUBSCRIBE?

ABS subscription services provide regular, convenient and prompt deliveries of ABS publications and products as they are released. Email delivery of monthly and quarterly publications is available.

- PHONE* 1300 366 323
- EMAIL* subscriptions@abs.gov.au
- FAX* 03 9615 7848
- POST* Subscription Services, ABS, GPO Box 2796Y, Melbourne 3001



2875250003006  
ISSN 0728-4055

RRP \$18.00