

# **BUILDING ACTIVITY** WESTERN AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) WED 1 AUG 2001

## MARCH QTR KEY FIGURES

SEASONALLY ADJUSTED	Mar qtr 01	Dec qtr 00 to Mar qtr 01 % change	Mar qtr 00 to Mar qtr 01 % change
Value of work done(a) (\$m)	737.1	1.2	-23.7
New residential building (\$m)	431.0	-1.2	-31.5
Alterations and additions(b) (\$m)	51.7	5.7	-9.6
Non-residential building (\$m)	254.5	4.4	-8.9
Total dwelling units commenced (no.)	3 287	-5.1	-51.7
New private sector houses (no.)	2 488	-8.5	-55.8

(a) Chain volume measures, reference year 1998-99. (b) To residential buildings.

## MARCH QTR KEY POINTS

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

- The seasonally adjusted estimate of total building work done rose 1.2% in the March quarter 2001 to \$737.1m. However, the level of activity in the December quarter was the lowest since the December quarter 1996.
- In the residential sector, work done on new residential buildings declined 1.2% to \$431.0m. A decrease of 3.0% in work done on new houses to \$342.8m, the lowest since the December quarter 1996, was only partly offset by a 6.7% increase in new other dwellings.
- Non-residential building work done rose 4.4% to \$254.5m.

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

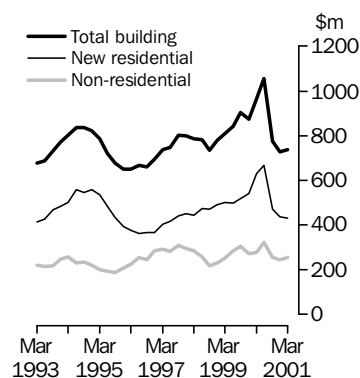
- Total building work commenced fell 5.3% in the March quarter 2001 to \$606.7m, the lowest since the September quarter 1995.
- New residential commencements fell 6.1% to \$352.9m, down 49.8% on the record level of a year earlier. Commencements of new houses fell 14.8% to \$269.1m, the lowest for nine years. The fall in new houses was only partly offset by a 39.4% increase in other new dwellings. However, alterations and additions rose 28.0% to a relatively high \$60.5m, a level which was 6.5% above that of a year earlier.
- Non-residential commencements fell 11.2% to \$193.4m, the lowest since the September quarter 1995.

### NUMBER OF DWELLING UNITS COMMENCED, SEASONALLY ADJUSTED

- In seasonally adjusted terms, the number of new private sector houses commenced fell 8.5% in the March quarter 2001 to 2,488. The total number of dwellings commenced fell 5.1% to 3,287, which was 51.7% fewer than the number for a year earlier and the lowest for 10 years.

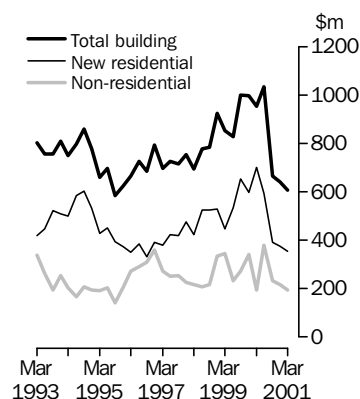
### Value of work done

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 and Referral Service on 1300 135 070.

## NOTES

### FORTHCOMING ISSUES

*ISSUE (Quarter)*

*RELEASE DATE*

June 2001

25 October 2001

September 2001

30 January 2002

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### ABOUT THIS ISSUE

This publication contains the first detailed estimates for Western Australia from the quarterly Building Activity Survey. The data are subject to revision when returns from the following quarter are processed. Final data for the March quarter 2001 will be released in *Building Activity, Western Australia* (Cat. no. 8752.5) on 25 October 2001.

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### SIGNIFICANT REVISIONS THIS ISSUE

Compared with the estimates in original terms published in the previous issue of this publication, the value of non-residential building work commenced during the December quarter 2000 has been revised upwards by \$18.7m (+9.1%), mainly in the public sector 'Offices' category.

Colin Nagle  
Regional Director  
Western Australia

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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	
1997-1998	1,624.2	218.8	1,843.0	194.9	706.6	905.7	2,942.8
1998-1999	1,773.6	264.7	2,038.4	226.6	939.2	1,129.8	3,394.9
1999-2000	2,074.6	476.3	2,550.9	247.7	691.5	1,189.2	3,987.9
1999 Dec. qtr	518.2	80.4	598.5	57.0	172.6	342.7	998.3
2000 Mar. qtr	576.1	126.3	702.4	56.8	150.8	194.7	954.0
Jun qtr	438.9	156.6	595.5	60.8	202.3	379.2	1,035.4
Sep. qtr	312.7	77.9	390.6	44.3	160.1	230.7	665.6
Dec. qtr	315.7	60.1	375.7	47.2	165.5	217.8	640.8
2001 Mar. qtr	269.1	83.7	352.9	60.5	150.0	193.4	606.7

(a) Reference year for chain volume measures is 1998-99. See paragraphs 29 and 30 of the Explanatory Notes.

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

	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
Period	Houses	Other residential building	Total		Private sector	Total	
ORIGINAL							
1997-1998	1,596.1	217.2	1,813.1	199.5	823.9	1,151.4	3,166.8
1998-1999	1,697.6	265.0	1,962.7	215.5	815.8	985.8	3,163.9
1999-2000	1,963.8	389.9	2,353.5	264.9	858.7	1,179.3	3,797.5
1999 Dec. qtr	478.1	84.2	562.3	65.0	207.6	284.7	911.9
2000 Mar. qtr	508.2	106.2	614.4	55.0	180.9	260.5	929.8
Jun qtr	542.9	124.6	667.4	71.8	213.1	316.8	1,056.0
Sep. qtr	384.9	76.5	461.4	47.2	155.7	262.8	771.4
Dec. qtr	369.1	84.1	453.2	52.6	155.5	254.4	760.2
2001 Mar. qtr	336.3	83.4	419.6	49.3	152.5	238.2	707.1
SEASONALLY ADJUSTED							
1999 Dec. qtr	458.2	82.4	540.7	59.9	200.5	272.8	873.4
2000 Mar. qtr	517.5	111.8	629.3	57.2	194.8	279.3	965.8
Jun qtr	542.9	123.0	665.9	68.1	218.8	321.2	1,055.1
Sep. qtr	395.7	74.5	470.1	51.6	147.6	253.1	774.8
Dec. qtr	353.5	82.6	436.1	48.9	149.9	243.6	728.6
2001 Mar. qtr	342.8	88.1	431.0	51.7	163.0	254.5	737.1

(a) Reference year for chain volume measures is 1998-99. See paragraphs 29 to 31 of the Explanatory Notes.

**TABLE 3. VALUE OF BUILDING WORK DONE(a):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	
1999 Dec. qtr	479.3	86.5	569.0	62.9	204.5	279.0	914.2
2000 Mar. qtr	562.5	119.0	678.4	62.5	200.1	287.9	1,030.2
Jun. qtr	601.1	131.4	726.8	75.9	226.1	333.1	1,140.9
Sep. qtr	475.5	87.0	566.4	61.8	154.4	264.4	884.1
Dec. qtr	422.5	96.1	521.1	58.2	156.9	254.9	837.7
2001 Mar. qtr	409.0	102.9	509.0	61.5	170.6	266.2	836.1

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**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
1999 Dec. qtr	4,461	3,679	4,546	n.a.	5,111	4,102	5,460	4,292
2000 Mar. qtr	5,624	4,735	5,752	n.a.	6,523	5,147	6,805	5,270
Jun. qtr	3,629	4,396	3,701	n.a.	4,544	5,546	4,730	5,906
Sep. qtr	2,741	3,699	2,841	n.a.	3,313	4,304	3,705	4,569
Dec. qtr	2,720	3,981	2,845	n.a.	3,223	4,587	3,465	4,817
2001 Mar. qtr	2,488	3,745	2,528	n.a.	3,083	4,347	3,287	4,539

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

TABLE 3. NUMBER AND VALUE OF BUILDING COMMENCED (a). 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
PRIVATE SECTOR											
1997-1998	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
1998-1999	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
1999-2000	18,310	3,264	230	21,804	2,169.2	459.4	2,628.6	259.0	2,887.6	709.2	3,596.8
1999 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	5,231	810	61	6,102	619.7	125.8	745.4	61.6	807.1	154.9	962.0
Jun qtr	3,695	892	35	4,622	475.7	164.1	639.8	64.6	704.4	208.1	912.6
Sep. qtr	2,774	488	55	3,317	361.1	59.1	420.2	50.3	470.5	165.1	635.6
Dec. qtr	2,832	527	18	3,378	364.0	62.9	426.9	55.1	482.0	171.2	653.2
2001 Mar. qtr	2,314	563	6	2,883	318.9	91.8	410.7	55.5	466.2	156.3	622.5
PUBLIC SECTOR											
1997-1998	620	505	—	1,125	59.1	30.9	90.0	2.6	92.6	195.1	287.7
1998-1999	565	425	—	990	51.1	33.2	84.2	5.2	89.4	190.7	280.1
1999-2000	340	652	36	1,028	38.6	52.2	90.9	5.9	96.8	510.5	607.2
1999 Dec. qtr	60	182	4	246	6.6	15.7	22.3	0.5	22.8	174.4	197.2
2000 Mar. qtr	72	124	17	213	7.0	10.7	17.7	1.1	18.8	45.1	63.9
Jun qtr	75	127	6	208	10.5	10.1	20.7	2.3	23.0	182.0	205.0
Sep. qtr	141	325	17	483	15.0	30.3	45.3	2.9	48.2	72.8	121.0
Dec. qtr	112	67	—	179	13.4	6.4	19.8	1.4	21.2	54.1	75.3
2001 Mar. qtr	16	46	105	167	2.2	5.6	7.8	16.9	24.7	45.2	69.9
TOTAL											
1997-1998	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
1998-1999	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
1999-2000	18,650	3,916	266	22,832	2,207.8	511.6	2,719.4	265.0	2,984.4	1,219.7	4,204.1
1999 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	5,303	934	78	6,315	626.7	136.4	763.1	62.8	825.9	200.0	1,025.9
Jun qtr	3,770	1,019	41	4,830	486.2	174.3	660.5	66.9	727.4	390.2	1,117.6
Sep. qtr	2,915	813	72	3,800	376.2	89.4	465.6	53.2	518.8	237.9	756.6
Dec. qtr	2,944	594	18	3,557	377.4	69.3	446.7	56.5	503.2	225.3	728.6
2001 Mar. qtr	2,330	609	111	3,050	321.1	97.5	418.6	72.4	490.9	201.5	692.4

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**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>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
PRIVATE SECTOR											
1997-1998	54.6	176.0	89.1	79.8	144.9	36.9	6.6	45.9	36.6	22.8	693.2
1998-1999	50.7	377.9	85.9	74.7	155.9	47.8	5.5	37.1	84.0	19.8	939.2
1999-2000	41.5	171.5	94.6	85.7	122.6	61.5	30.1	47.9	33.0	20.8	709.2
1999 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	11.5	42.4	23.6	20.9	31.6	6.4	4.0	7.8	3.0	3.7	154.9
Jun. qtr	5.9	47.1	21.0	35.3	39.2	20.9	12.9	8.4	12.8	4.6	208.1
Sep. qtr	3.2	61.6	20.1	22.1	15.9	21.9	1.6	3.3	8.3	7.0	165.1
Dec. qtr	4.5	59.0	15.7	15.3	31.7	31.6	1.2	1.7	3.0	7.4	171.2
2001 Mar. qtr	9.9	23.4	14.5	14.5	17.0	8.0	1.9	6.3	56.8	4.0	156.3
PUBLIC SECTOR											
1997-1998	1.4	0.8	2.1	47.3	6.7	84.5	—	4.6	27.6	20.3	195.1
1998-1999	0.6	2.4	4.1	26.9	7.2	60.9	—	20.3	32.0	36.2	190.7
1999-2000	0.6	2.6	5.3	34.4	7.6	200.0	—	69.1	23.5	167.2	510.5
1999 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
Jun. qtr	—	1.2	2.0	10.4	1.9	33.0	—	53.0	7.7	73.0	182.0
Sep. qtr	0.2	0.2	—	3.7	8.9	26.5	—	5.5	24.5	3.2	72.8
Dec. qtr	—	0.5	—	17.3	3.3	7.1	—	1.3	12.7	11.9	54.1
2001 Mar. qtr	—	0.1	2.1	7.6	1.0	8.4	—	14.2	7.5	4.2	45.2
TOTAL											
1997-1998	56.0	176.7	91.2	127.1	151.6	121.4	6.6	50.4	64.2	43.1	888.3
1998-1999	51.3	380.3	90.0	101.6	163.0	108.7	5.5	57.5	116.0	56.0	1,129.9
1999-2000	42.2	174.1	99.9	120.1	130.3	261.5	30.1	117.0	56.5	188.0	1,219.7
1999 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	11.5	42.5	23.7	24.1	34.1	25.2	4.0	18.6	8.2	8.1	200.0
Jun. qtr	5.9	48.3	23.0	45.7	41.1	53.9	12.9	61.4	20.5	77.6	390.2
Sep. qtr	3.5	61.8	20.1	25.8	24.8	48.5	1.6	8.9	32.8	10.2	237.9
Dec. qtr	4.5	59.5	15.7	32.6	35.0	38.7	1.2	3.1	15.7	19.3	225.3
2001 Mar. qtr	9.9	23.5	16.6	22.0	18.0	16.4	1.9	20.5	64.3	8.3	201.5

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

	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
PRIVATE SECTOR											
1997-1998	5,756	1,251	101	7,108	736.8	142.4	879.2	75.6	954.7	395.2	1,350.0
1998-1999	6,300	1,307	59	7,666	860.2	178.0	1,038.2	110.0	1,148.2	622.6	1,770.8
1999-2000	8,285	2,240	122	10,647	1,175.2	373.8	1,548.9	110.2	1,659.1	447.7	2,106.8
1999 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	9,295	2,360	177	11,832	1,247.7	334.6	1,582.3	113.1	1,695.3	433.0	2,128.4
Jun qtr	8,285	2,240	122	10,647	1,175.2	373.8	1,548.9	110.2	1,659.1	447.7	2,106.8
Sep. qtr	7,471	2,193	153	9,817	1,137.2	371.3	1,508.6	116.6	1,625.2	354.1	1,979.2
Dec. qtr	6,098	2,058	130	8,286	962.5	365.5	1,328.0	107.4	1,435.4	364.0	1,799.4
2001 Mar. qtr	4,923	2,042	92	7,057	824.7	398.8	1,223.6	113.5	1,337.0	375.3	1,712.3
PUBLIC SECTOR											
1997-1998	174	360	—	534	14.8	21.0	35.8	1.2	37.0	194.6	231.6
1998-1999	187	304	—	491	17.7	20.7	38.4	2.4	40.8	137.1	177.9
1999-2000	90	410	10	510	11.1	37.9	49.0	2.1	51.1	433.4	484.5
1999 Dec. qtr	149	414	5	568	15.7	32.9	48.6	1.2	49.8	357.3	407.1
2000 Mar. qtr	134	486	9	629	13.5	39.0	52.5	1.0	53.5	299.5	353.0
Jun qtr	90	410	10	510	11.1	37.9	49.0	2.1	51.1	433.4	484.5
Sep. qtr	164	588	15	767	18.9	57.8	76.7	1.7	78.3	474.8	553.2
Dec. qtr	158	482	—	640	19.1	43.2	62.2	1.6	63.9	433.6	497.5
2001 Mar. qtr	100	385	105	590	11.8	36.1	47.9	18.4	66.2	361.3	427.6
TOTAL											
1997-1998	5,930	1,611	101	7,642	751.6	163.4	915.0	76.8	991.8	589.9	1,581.6
1998-1999	6,487	1,611	59	8,157	877.9	198.8	1,076.6	112.5	1,189.1	759.7	1,948.8
1999-2000	8,375	2,650	132	11,157	1,186.3	411.6	1,597.9	112.3	1,710.2	881.1	2,591.3
1999 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	9,429	2,846	186	12,461	1,261.2	373.6	1,634.8	114.1	1,748.9	732.5	2,481.4
Jun qtr	8,375	2,650	132	11,157	1,186.3	411.6	1,597.9	112.3	1,710.2	881.1	2,591.3
Sep. qtr	7,635	2,781	168	10,584	1,156.1	429.1	1,585.2	118.3	1,703.5	828.9	2,532.4
Dec. qtr	6,256	2,540	130	8,926	981.5	408.7	1,390.2	109.0	1,499.2	797.6	2,296.8
2001 Mar. qtr	5,023	2,427	197	7,647	836.6	434.9	1,271.5	131.8	1,403.3	736.6	2,139.9

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.



**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>
PRIVATE SECTOR											
1997-1998	49.2	77.5	33.7	35.5	60.7	9.9	3.3	83.0	23.3	19.2	395.2
1998-1999	58.0	290.7	42.9	38.0	68.5	15.9	3.8	29.5	58.9	16.4	622.6
1999-2000	23.9	164.8	43.4	47.8	50.5	29.4	22.7	36.8	17.9	10.5	447.7
1999 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	38.1	150.4	54.1	38.7	52.6	19.3	13.4	43.2	13.9	9.2	433.0
Jun. qtr	23.9	164.8	43.4	47.8	50.5	29.4	22.7	36.8	17.9	10.5	447.7
Sep. qtr	11.3	97.2	33.5	42.7	46.7	41.2	16.0	33.5	19.8	12.2	354.1
Dec. qtr	12.6	121.7	30.3	30.3	36.7	64.3	12.7	26.2	13.2	16.0	364.0
2001 Mar. qtr	18.0	117.3	26.7	21.8	33.6	41.0	14.2	24.8	63.5	14.3	375.3
PUBLIC SECTOR											
1997-1998	0.7	—	—	30.3	2.8	50.4	—	66.9	38.8	4.8	194.6
1998-1999	—	0.1	0.3	16.9	4.8	46.3	—	17.6	26.7	24.5	137.1
1999-2000	—	—	4.7	22.6	6.5	161.5	—	64.7	17.6	155.7	433.4
1999 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	19.7	4.6	152.6	—	14.2	13.3	91.8	299.5
Jun. qtr	—	—	4.7	22.6	6.5	161.5	—	64.7	17.6	155.7	433.4
Sep. qtr	0.2	0.2	1.9	22.8	14.8	177.5	—	61.1	40.4	156.0	474.8
Dec. qtr	—	0.2	1.9	37.7	5.3	143.3	—	55.6	35.5	154.2	433.6
2001 Mar. qtr	—	—	3.8	25.8	4.3	76.3	—	63.9	40.9	146.4	361.3
TOTAL											
1997-1998	49.9	77.5	33.7	65.8	63.5	60.2	3.3	149.9	62.0	24.1	589.9
1998-1999	58.0	290.8	43.2	54.9	73.3	62.2	3.8	47.1	85.6	40.8	759.7
1999-2000	23.9	164.8	48.1	70.4	57.1	190.9	22.7	101.6	35.5	166.1	881.1
1999 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	38.6	150.4	56.9	58.4	57.2	171.9	13.4	57.4	27.3	100.9	732.5
Jun. qtr	23.9	164.8	48.1	70.4	57.1	190.9	22.7	101.6	35.5	166.1	881.1
Sep. qtr	11.6	97.4	35.4	65.5	61.5	218.7	16.0	94.7	60.2	168.2	828.9
Dec. qtr	12.6	121.9	32.2	68.0	42.0	207.6	12.7	81.7	48.8	170.1	797.6
2001 Mar. qtr	18.0	117.3	30.5	47.6	37.9	117.3	14.2	88.7	104.4	160.7	736.6

**TABLE 9. NUMBER AND VALUE OF BUILDING COMPLETED(a): 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
PRIVATE SECTOR											
1997-1998	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
1998-1999	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
1999-2000	16,284	2,312	167	18,763	1,871.2	279.7	2,150.9	266.3	2,417.2	926.2	3,343.4
1999 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	4,356	426	24	4,806	478.7	43.3	521.9	57.0	578.9	274.8	853.7
Jun. qtr	4,665	1,012	90	5,767	549.9	133.3	683.2	70.9	754.1	204.1	958.2
Sep. qtr	3,578	537	21	4,136	412.7	72.3	485.0	47.4	532.4	251.6	784.0
Dec. qtr	4,185	653	41	4,879	535.2	80.5	615.7	67.7	683.4	163.5	846.9
2001 Mar. qtr	3,441	575	43	4,059	450.1	61.4	511.5	50.9	562.4	142.3	704.7
PUBLIC SECTOR											
1997-1998	582	264	—	846	58.4	15.4	73.8	2.3	76.1	335.5	411.6
1998-1999	542	477	—	1,019	47.8	29.7	77.4	3.9	81.3	247.3	328.6
1999-2000	436	513	26	975	45.0	36.0	81.0	6.1	87.1	219.2	306.3
1999 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	103.8	117.9
Jun. qtr	118	196	5	319	12.7	14.0	26.7	1.2	27.9	51.9	79.8
Sep. qtr	67	144	12	223	7.8	11.5	19.3	3.4	22.6	24.2	46.9
Dec. qtr	118	173	15	306	13.1	21.8	34.9	1.7	36.6	99.9	136.5
2001 Mar. qtr	74	125	—	199	9.2	10.7	19.9	0.2	20.1	118.1	138.1
TOTAL											
1997-1998	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
1998-1999	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
1999-2000	16,720	2,825	193	19,738	1,916.2	315.7	2,231.9	272.4	2,504.3	1,145.5	3,649.8
1999 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	4,443	464	37	4,944	487.9	46.9	534.7	58.3	593.0	378.6	971.6
Jun. qtr	4,783	1,208	95	6,086	562.6	147.3	709.9	72.1	782.0	256.0	1,037.9
Sep. qtr	3,645	681	33	4,359	420.5	83.7	504.2	50.8	555.0	275.8	830.9
Dec. qtr	4,303	826	56	5,185	548.3	102.3	650.6	69.4	720.0	263.4	983.4
2001 Mar. qtr	3,515	700	43	4,258	459.3	72.1	531.4	51.1	582.5	260.4	842.9

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**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>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
PRIVATE SECTOR											
1997-1998	80.1	215.2	108.2	95.2	145.4	40.3	7.6	51.3	37.6	20.0	800.9
1998-1999	44.8	177.1	78.6	73.0	150.9	44.1	5.2	94.2	48.6	21.4	737.8
1999-2000	82.0	315.4	97.9	78.8	144.4	49.1	11.7	42.8	77.2	26.9	926.2
1999 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	11.5	130.7	24.1	14.1	22.1	22.6	3.2	4.8	36.1	5.5	274.8
Jun. qtr	22.6	34.2	33.1	28.2	42.6	11.2	3.8	15.9	9.1	3.5	204.1
Sep. qtr	14.6	130.1	29.3	23.7	18.5	9.8	8.2	5.4	6.6	5.4	251.6
Dec. qtr	3.5	39.6	18.2	28.5	40.4	8.0	5.0	9.9	6.8	3.7	163.5
2001 Mar. qtr	4.6	26.0	19.0	22.8	20.5	28.7	0.4	7.8	6.2	6.2	142.3
PUBLIC SECTOR											
1997-1998	0.6	1.7	6.5	45.2	34.3	112.7	0.2	83.0	26.4	24.8	335.5
1998-1999	1.3	2.3	3.8	38.2	5.2	65.9	—	70.5	43.0	17.1	247.3
1999-2000	0.6	2.8	0.9	29.3	6.2	88.9	—	20.8	31.2	38.6	219.2
1999 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	14.3	0.9	38.3	—	14.6	13.9	21.2	103.8
Jun. qtr	0.5	1.2	0.1	8.2	0.1	26.4	—	2.7	3.4	9.2	51.9
Sep. qtr	—	—	2.8	3.4	0.6	8.3	—	5.2	1.1	2.9	24.2
Dec. qtr	0.2	0.5	—	2.1	12.4	45.0	—	10.0	16.9	12.9	99.9
2001 Mar. qtr	—	0.3	0.2	19.5	2.4	75.5	—	6.1	2.2	11.9	118.1
TOTAL											
1997-1998	80.7	216.8	114.7	140.3	179.7	153.0	7.8	134.4	64.1	44.8	1,136.4
1998-1999	46.1	179.4	82.3	111.2	156.1	110.0	5.2	164.7	91.6	38.5	985.1
1999-2000	82.6	318.1	98.8	108.1	150.6	138.0	11.7	63.6	108.4	65.5	1,145.5
1999 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	11.5	130.8	24.7	28.4	23.1	60.9	3.2	19.4	50.0	26.8	378.6
Jun. qtr	23.1	35.4	33.1	36.5	42.7	37.6	3.8	18.6	12.5	12.7	256.0
Sep. qtr	14.6	130.1	32.0	27.1	19.1	18.1	8.2	10.7	7.7	8.4	275.8
Dec. qtr	3.7	40.0	18.2	30.6	52.7	52.9	5.0	19.9	23.7	16.6	263.4
2001 Mar. qtr	4.6	26.3	19.2	42.3	22.9	104.2	0.4	13.9	8.4	18.1	260.4

**TABLE 11. VALUE OF BUILDING WORK DONE(a): 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>							
1997-1998	1,489.9	191.6	1,681.5	191.2	1,872.7	812.3	2,684.9
1998-1999	1,646.7	233.8	1,880.5	211.1	2,091.5	815.7	2,907.3
1999-2000	2,055.8	362.1	2,417.9	275.0	2,692.9	880.7	3,573.5
1999 Dec. qtr	489.3	78.3	567.5	66.9	634.4	212.3	846.7
2000 Mar. qtr	543.3	99.2	642.5	58.4	701.0	186.7	887.6
Jun. qtr	591.1	118.5	709.6	77.1	786.7	221.3	1,008.0
Sep. qtr	452.4	72.1	524.5	53.7	578.2	162.3	740.5
Dec. qtr	428.6	77.2	505.8	61.6	567.4	162.3	729.7
2001 Mar. qtr	392.7	85.0	477.7	57.9	535.6	159.1	694.8
<b>PUBLIC SECTOR</b>							
1997-1998	57.6	21.1	78.7	2.2	80.8	323.0	403.8
1998-1999	50.9	31.3	82.2	4.4	86.6	170.0	256.7
1999-2000	41.0	47.7	88.7	6.8	95.5	329.6	425.1
1999 Dec. qtr	10.7	9.8	20.5	1.1	21.6	78.9	100.4
2000 Mar. qtr	8.9	13.3	22.2	1.3	23.5	82.1	105.6
Jun. qtr	9.8	14.1	23.9	2.3	26.2	107.7	133.9
Sep. qtr	10.6	17.1	27.7	3.1	30.8	111.6	142.5
Dec. qtr	12.9	20.6	33.5	1.3	34.8	103.3	138.1
2001 Mar. qtr	8.8	12.3	21.1	1.0	22.1	89.5	111.5
<b>TOTAL</b>							
1997-1998	1,547.5	212.6	1,760.2	193.3	1,953.5	1,135.2	3,088.7
1998-1999	1,697.6	265.0	1,962.7	215.5	2,178.2	985.8	3,164.0
1999-2000	2,096.8	409.7	2,506.5	281.8	2,788.3	1,210.3	3,998.6
1999 Dec. qtr	500.0	88.1	588.0	67.9	656.0	291.2	947.2
2000 Mar. qtr	552.2	112.5	664.8	59.7	724.5	268.7	993.3
Jun. qtr	600.9	132.5	733.5	79.4	812.9	328.9	1,141.8
Sep. qtr	463.0	89.3	552.2	56.8	609.0	274.0	883.0
Dec. qtr	441.5	97.9	539.3	62.9	602.3	265.5	867.8
2001 Mar. qtr	401.5	97.4	498.8	58.8	557.7	248.6	806.3

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**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>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1997-1998	80.2	196.8	104.5	85.2	145.6	40.2	7.2	89.4	38.9	24.3	812.3
1998-1999	56.7	265.6	83.5	72.1	159.3	46.4	6.1	43.7	63.8	18.6	815.7
1999-2000	62.3	302.3	101.6	85.6	129.9	51.5	18.6	45.7	58.8	24.3	880.7
1999 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	15.3	49.3	30.8	19.8	27.1	15.1	5.3	11.0	9.1	3.8	186.7
Jun. qtr	14.8	50.1	30.7	33.3	43.3	10.8	6.1	13.4	12.7	6.0	221.3
Sep. qtr	4.2	49.1	19.9	24.2	22.1	14.9	6.1	8.7	7.5	5.7	162.3
Dec. qtr	4.6	46.8	17.9	24.1	25.9	19.1	5.8	8.6	4.8	4.6	162.3
2001 Mar. qtr	5.9	52.1	19.3	16.9	20.5	18.1	4.4	3.6	11.6	6.7	159.1
<b>PUBLIC SECTOR</b>											
1997-1998	0.9	1.4	4.4	46.2	14.0	89.7	0.2	96.1	42.4	27.6	323.0
1998-1999	1.0	2.4	4.0	31.8	6.4	58.2	—	15.9	28.0	22.3	170.0
1999-2000	0.6	2.7	4.3	29.0	7.6	138.1	—	29.2	31.0	87.1	329.6
1999 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	9.8	2.1	39.2	—	5.3	5.1	18.7	82.1
Jun. qtr	0.1	1.2	2.4	7.7	3.0	40.6	—	13.5	8.5	30.8	107.7
Sep. qtr	0.2	—	0.6	10.4	6.2	44.1	—	12.8	8.9	28.4	111.6
Dec. qtr	—	0.6	0.2	8.5	5.4	35.6	—	14.2	11.0	27.7	103.3
2001 Mar. qtr	—	0.2	0.7	8.8	2.0	24.7	—	17.5	10.0	25.6	89.5
<b>TOTAL</b>											
1997-1998	81.1	198.2	108.9	131.4	159.5	129.9	7.4	185.6	81.3	52.0	1,135.2
1998-1999	57.7	268.0	87.5	103.9	165.6	104.7	6.1	59.6	91.7	40.9	985.8
1999-2000	63.0	304.9	105.9	114.6	137.5	189.6	18.6	74.9	89.8	111.5	1,210.3
1999 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	15.6	49.4	32.2	29.6	29.2	54.3	5.3	16.3	14.1	22.6	268.7
Jun. qtr	14.9	51.3	33.1	41.0	46.3	51.3	6.1	26.9	21.2	36.8	328.9
Sep. qtr	4.4	49.2	20.5	34.6	28.3	59.0	6.1	21.5	16.3	34.1	274.0
Dec. qtr	4.7	47.4	18.1	32.6	31.3	54.8	5.8	22.8	15.9	32.3	265.5
2001 Mar. qtr	5.9	52.3	20.0	25.6	22.4	42.8	4.4	21.1	21.7	32.3	248.6

**TABLE 13. VALUE OF BUILDING WORK YET TO BE DONE AT END OF PERIOD(a): 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>							
1997-1998	362.2	76.3	438.5	31.7	470.2	155.4	625.7
1998-1999	448.5	89.0	537.4	52.0	589.5	305.0	894.4
1999-2000	579.8	206.4	786.2	44.4	830.6	176.0	1,006.7
1999 Dec. qtr	614.3	118.7	733.1	48.8	781.8	202.5	984.3
2000 Mar. qtr	693.2	150.2	843.3	53.2	896.6	178.4	1,075.0
Jun qtr	579.8	206.4	786.2	44.4	830.6	176.0	1,006.7
Sep. qtr	502.5	204.5	707.1	45.1	752.1	175.1	927.2
Dec. qtr	435.3	202.3	637.6	42.0	679.6	186.7	866.3
2001 Mar. qtr	360.5	212.3	572.8	41.5	614.4	181.0	795.4
<b>PUBLIC SECTOR</b>							
1997-1998	8.3	12.2	20.5	0.8	21.3	55.4	76.7
1998-1999	8.5	10.5	19.0	1.5	20.5	75.2	95.7
1999-2000	5.9	16.6	22.5	0.6	23.1	261.1	284.2
1999 Dec. qtr	7.2	21.0	28.3	0.7	29.0	219.1	248.1
2000 Mar. qtr	5.3	17.7	23.1	0.6	23.7	182.9	206.6
Jun qtr	5.9	16.6	22.5	0.6	23.1	261.1	284.2
Sep. qtr	10.9	31.1	42.0	0.3	42.3	215.1	257.5
Dec. qtr	11.3	17.6	28.9	0.6	29.5	170.4	200.0
2001 Mar. qtr	4.4	9.8	14.2	16.6	30.9	126.5	157.4
<b>TOTAL</b>							
1997-1998	370.5	88.5	459.0	32.5	491.5	210.9	702.3
1998-1999	456.9	99.5	556.4	53.6	610.0	380.1	990.1
1999-2000	585.7	223.0	808.7	45.0	853.7	437.1	1,290.8
1999 Dec. qtr	621.6	139.8	761.3	49.5	810.9	421.5	1,232.4
2000 Mar. qtr	698.5	167.9	866.4	53.8	920.2	361.4	1,281.6
Jun qtr	585.7	223.0	808.7	45.0	853.7	437.1	1,290.8
Sep. qtr	513.4	235.6	749.1	45.4	794.5	390.2	1,184.7
Dec. qtr	446.6	219.9	666.5	42.6	709.1	357.1	1,066.2
2001 Mar. qtr	365.0	222.1	587.1	58.1	645.2	307.6	952.8

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 9 and 10 of the Explanatory Notes.

**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>
PRIVATE SECTOR											
1997-1998	24.1	38.9	13.8	14.8	25.8	4.0	1.5	16.0	10.3	6.3	155.4
1998-1999	20.9	163.5	18.1	18.2	25.3	7.7	1.1	13.1	30.8	6.2	305.0
1999-2000	6.5	50.8	15.1	21.3	22.0	18.8	13.0	17.5	8.1	2.9	176.0
1999 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	13.0	52.3	23.5	17.3	24.7	8.3	6.0	21.4	7.8	4.2	178.4
Jun. qtr	6.5	50.8	15.1	21.3	22.0	18.8	13.0	17.5	8.1	2.9	176.0
Sep. qtr	5.1	64.2	14.6	18.2	14.5	25.5	8.4	11.0	9.2	4.4	175.1
Dec. qtr	5.2	81.6	11.8	10.4	19.3	37.5	4.3	4.6	4.8	7.3	186.7
2001 Mar. qtr	9.4	51.1	8.0	7.8	16.2	24.7	1.8	7.3	49.6	5.1	181.0
PUBLIC SECTOR											
1997-1998	0.4	—	—	15.4	1.0	17.9	—	5.6	14.0	1.1	55.4
1998-1999	—	0.1	—	8.5	1.7	21.5	—	10.9	16.9	15.5	75.2
1999-2000	—	—	1.0	14.5	2.1	87.5	—	49.6	8.1	98.2	261.1
1999 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	11.0	3.0	92.8	—	9.9	8.9	55.9	182.9
Jun. qtr	—	—	1.0	14.5	2.1	87.5	—	49.6	8.1	98.2	261.1
Sep. qtr	—	0.1	0.4	7.6	4.8	67.6	—	38.5	23.1	73.0	215.1
Dec. qtr	—	0.1	0.2	16.3	2.5	42.5	—	28.4	24.0	56.5	170.4
2001 Mar. qtr	—	—	1.5	15.1	1.6	26.3	—	25.4	21.5	35.1	126.5
TOTAL											
1997-1998	24.5	38.9	13.8	30.2	26.8	21.9	1.5	21.6	24.3	7.4	210.9
1998-1999	20.9	163.5	18.1	26.7	27.1	29.2	1.1	24.0	47.8	21.7	380.1
1999-2000	6.5	50.8	16.1	35.8	24.0	106.3	13.0	67.2	16.3	101.1	437.1
1999 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	13.1	52.3	24.9	28.3	27.7	101.0	6.0	31.3	16.7	60.0	361.4
Jun. qtr	6.5	50.8	16.1	35.8	24.0	106.3	13.0	67.2	16.3	101.1	437.1
Sep. qtr	5.2	64.3	14.9	25.8	19.3	93.1	8.4	49.5	32.3	77.4	390.2
Dec. qtr	5.2	81.6	11.9	26.7	21.7	80.0	4.3	32.9	28.8	63.9	357.1
2001 Mar. qtr	9.4	51.1	9.5	22.9	17.8	51.0	1.8	32.7	71.1	40.2	307.6

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, MARCH QUARTER 2001**  
(Percentage)

(Percentage)						
Ownership and stage of construction	New residential building				Value	
	Houses		Total		Alterations and additions to residential buildings	Total building
	Number	Value	Number of dwelling units	Value		
TOTAL PRIVATE AND PUBLIC SECTORS						
Commenced	3.9	3.9	3.1	3.0	3.8	1.9
Under construction at end of period	3.3	2.9	2.2	1.9	3.6	1.2
Completed	4.6	4.9	3.8	4.3	7.2	2.7
Value of work done	..	2.8	..	2.3	4.0	1.4
Value of work yet to be done	..	3.2	..	2.0	3.8	1.3



## EXPLANATORY NOTES

### INTRODUCTION

- 1** This publication contains detailed estimates 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.

## TREATMENT OF GST

**7** Statistics on value of building work (current prices) show residential building on a GST inclusive basis and non-residential building on a GST exclusive basis. This approach is consistent with that adopted in the Australian National Accounts which is based on the conceptual framework described in the 1993 edition of the international statistical standard *System of National Accounts* (SNA93).

**8** SNA93 requires value added taxes (VAT), such as the GST, to be recorded on a net basis where:

- (a) both outputs of goods and services and imports are valued excluding invoiced VAT;
- (b) purchases of goods and services are recorded including non-deductible VAT.

Under the net system, VAT is recorded as being payable by purchasers, not sellers, and then only by those purchasers who are not able to deduct it. Almost all VAT is therefore recorded in the SNA93 as being paid on final uses—mainly on household consumption. Small amounts of VAT, may however, be paid by businesses in respect of certain kinds of purchases on which VAT may not be deductible.

**9** Within building activity statistics, purchasers of residential structures are unable to deduct GST from the purchase price. For non-residential structures, the reverse is true. While the ABS collects all building activity data on a GST inclusive basis, it publishes value data inclusive of GST in respect of residential construction and exclusive of GST in respect of non-residential construction.

**10** It is appropriate to add the residential and non-residential components to derive total building activity. Valuation of the components of the total is consistent, since, for both components, the value data is recorded inclusive of non-deductible GST paid by the purchaser. As such, total building activity includes the non-deductible GST payable on residential building.

## DEFINITIONS

**11** 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.

**12** 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.

**13** 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.).

## EXPLANATORY NOTES *continued*

### DEFINITIONS *continued*

**14** 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.

**15** 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.

**16** *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).

**17** *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.

**18** *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

**19** 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

**20** *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.

**21** *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.

**22** 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.
- *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

**23** 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.

**24** 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.

**25** 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

**26** Seasonally adjusted building statistics are shown in tables 2 to 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.

### SEASONAL ADJUSTMENT *continued*

**27** 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.

**28** 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

**29** 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 direct impact of the GST is a price change, and hence is removed from chain volume estimates. 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'.

**30** 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 1998–99). The reference year is 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. 1998–99). 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).

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

EXPLANATORY NOTES continued

ACKNOWLEDGMENT

**32** 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*.

RELATED PRODUCTS

**33** Users may also wish to refer to the following publications which are available from ABS Bookshops:

- Building Activity, Australia* (Cat. no. 8752.0)—issued quarterly
- Construction Work Done, Australia, 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
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ABA DATA AVAILABLE ON REQUEST

**35** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
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.

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