



BUILDING ACTIVITY WESTERN AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) FRI 2 MAY 2003

DECEMBER QTR KEY FIGURES

SEASONALLY ADJUSTED	Dec qtr 02	Sep qtr 02 to Dec qtr 02 % change	Dec qtr 01 to Dec qtr 02 % change
Value of work done(a) (\$m)	1 042.8	0.5	10.3
New residential building (\$m)	654.4	0.3	11.4
Alterations and additions(b) (\$m)	70.6	-4.1	2.5
Non-residential building (\$m)	317.8	2.1	9.9
Total dwelling units commenced (no.)	4 405	-15.9	-11.5
New private sector houses (no.)	3 537	-15.2	-13.8

(a) Chain volume measures, reference year 2000-01. (b) To residential buildings.

DECEMBER QTR KEY POINTS

VALUE OF WORK DONE, SEASONALLY ADJUSTED, VOLUME TERMS

- In seasonally adjusted terms, total building work done rose 0.5% in the December quarter 2002 to \$1,042.8m, a level exceeded only by the March and June quarters 2000.
- New residential work done rose marginally, by 0.3%, to \$654.4m, the highest level since the June quarter 2000. New houses also rose marginally, by 0.4%, to \$560.8m, a level exceeded only by the March and June quarters 2000. New other residential buildings fell marginally to \$93.6m. Alterations and additions fell 4.1% to \$70.6m.
- Non-residential building work rose 2.1% to \$317.8m, the highest level since the June quarter 2000.

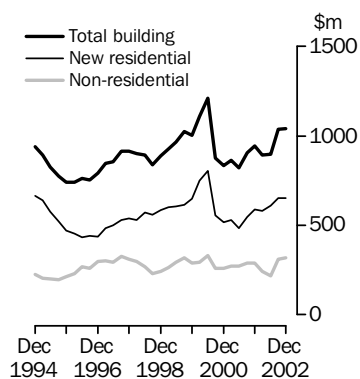
VALUE OF WORK COMMENCED, ORIGINAL, VOLUME TERMS

- Total building work commenced fell 37.0% in the December quarter to \$918.0m, following a record level in the previous quarter.
- New residential commencements fell 17.8% to \$620.7m, to be 8.3% below the level of a year earlier. New houses were down 18.6% to \$522.9m and new other residential buildings were down 13.2% to \$97.8m. Alterations and additions rose 15.2% to \$73.1m, to be 4.9% above the level of a year earlier.
- Non-residential commencements fell from the previous quarter's \$639.3m (the second highest level on record) to \$224.2m, to be 12.8% below the level of a year earlier.

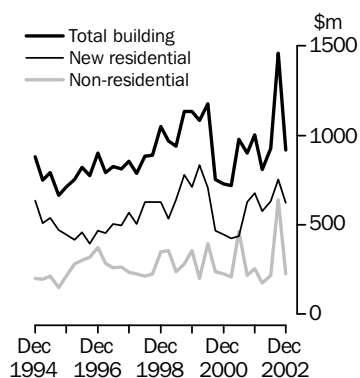
NUMBER OF DWELLING UNITS COMMENCED, SEASONALLY ADJUSTED

- In seasonally adjusted terms, the total number of dwellings commenced fell 15.9% in the December quarter to 4,405 and new private sector houses fell 15.2% to 3,537, both being the lowest number since the June quarter 2001.

Value of work done

Volume terms
Seasonally adjusted

Value of work commenced

Volume terms
Original

- 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

<i>ISSUE (Quarter)</i>	<i>RELEASE DATE</i>
March 2003	31 July 2003
June 2003	24 October 2003

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 December quarter 2002 will be released in *Building Activity, Western Australia* (cat. no. 8752.5) on 31 July 2003.

SIGNIFICANT REVISIONS THIS ISSUE

The seasonally adjusted series have been revised as a result of the annual re-analysis of seasonal factors. See also paragraphs 27–29 of the Explanatory Notes.

Compared with the estimates in original terms published in the previous issue of this publication:

- the total number of dwellings commenced during the September quarter 2002 has been revised upwards by 67 (+1.2%), and
- the total value of building work commenced during the September quarter has been revised upwards by \$35.9m (+2.4%), with increases of \$10.8m (+1.3%) in residential building and \$25.1m (+3.9%) in non-residential building.

DATA NOTES

Building activity data now includes activity in the External Territories of Australia, with Christmas Island and Cocos–Keeling Islands included in Western Australia. This has resulted in some minor revisions to data from the September quarter 2002. See also paragraph 7 of the Explanatory Notes.

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	
1999-2000	2,480.6	554.0	3,033.9	296.9	716.1	1,231.0	4,522.0
2000-2001	1,439.1	333.0	1,772.0	276.3	899.5	1,134.2	3,182.5
2001-2002	2,145.0	367.1	2,512.2	262.4	659.9	868.3	3,642.8
2001 Sep. qtr	526.9	98.7	625.6	58.9	178.7	218.0	902.5
Dec. qtr	565.7	110.9	676.7	69.7	171.3	257.1	1,003.5
2002 Mar. qtr	516.9	60.2	577.1	57.8	119.2	175.0	809.9
Jun qtr	535.5	97.3	632.8	76.0	190.7	218.2	926.9
Sep. qtr	642.7	112.7	755.3	63.5	467.6	639.3	1,458.1
Dec. qtr	522.9	97.8	620.7	73.1	201.4	224.2	918.0

(a) Reference year for chain volume measures is 2000-2001. See paragraphs 30 and 31 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							
1999-2000	2,358.7	456.9	2,815.0	316.9	895.3	1,230.4	4,348.4
2000-2001	1,684.7	398.7	2,083.6	247.8	686.1	1,064.4	3,395.7
2001-2002	1,939.6	388.3	2,327.9	281.5	780.0	1,032.8	3,642.2
2001 Sep. qtr	444.2	101.4	545.6	67.5	220.5	301.3	914.4
Dec. qtr	500.3	111.8	612.1	73.8	227.0	295.5	981.4
2002 Mar. qtr	481.1	87.9	569.0	64.1	167.3	219.8	852.9
Jun qtr	514.0	87.2	601.2	76.1	165.2	216.2	893.5
Sep. qtr	557.5	92.6	650.1	70.5	226.2	328.8	1,049.4
Dec. qtr	585.9	96.4	682.3	75.6	257.8	325.7	1,083.6
SEASONALLY ADJUSTED							
2001 Sep. qtr	445.9	102.8	548.8	70.8	207.3	286.6	906.2
Dec. qtr	478.6	108.9	587.5	68.9	224.4	289.3	945.7
2002 Mar. qtr	490.5	91.2	581.7	67.8	186.1	241.9	891.4
Jun qtr	524.6	85.4	610.0	73.9	162.3	215.1	898.9
Sep. qtr	558.3	94.0	652.3	73.6	212.1	311.2	1,037.1
Dec. qtr	560.8	93.6	654.4	70.6	254.4	317.8	1,042.8

(a) Reference year for chain volume measures is 2000-2001. See paragraphs 30 to 32 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	
2001 Sep. qtr	449.7	103.9	553.6	71.3	207.8	287.0	911.9
Dec. qtr	485.6	110.5	596.1	69.8	225.5	290.4	956.3
2002 Mar. qtr	500.6	93.5	594.2	69.1	188.2	244.3	907.6
Jun qtr	537.8	88.4	626.2	75.7	165.4	219.0	920.8
Sep. qtr	574.5	98.2	672.6	75.8	218.8	320.9	1,069.4
Dec. qtr	581.4	98.4	679.8	73.2	264.0	329.7	1,082.7

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 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
2001 Sep. qtr	3,698	3,184	3,747	n.a.	4,364	3,874	4,667	4,066
Dec. qtr	4,103	3,319	4,254	n.a.	4,682	3,801	4,979	4,037
2002 Mar. qtr	4,117	3,513	4,276	n.a.	4,480	3,840	4,732	4,086
Jun qtr	3,999	3,748	4,102	n.a.	4,675	4,710	4,874	4,992
Sep. qtr	4,173	3,545	4,331	n.a.	4,944	3,987	5,237	4,245
Dec. qtr	3,537	4,185	3,644	n.a.	4,181	4,824	4,405	5,039

TABLE 5. 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											
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
2000-2001	10,590	1,967	234	12,793	1,403.8	272.8	1,676.6	250.0	1,926.6	899.4	2,826.0
2001-2002	15,875	2,246	69	18,191	2,128.1	321.4	2,449.5	259.7	2,709.2	676.0	3,385.2
2001 Sep. qtr	4,005	527	12	4,544	519.4	67.1	586.5	57.7	644.2	181.0	825.2
Dec. qtr	4,242	738	4	4,984	555.0	106.3	661.3	68.1	729.4	174.8	904.2
2002 Mar. qtr	3,772	395	10	4,177	517.4	53.0	570.3	57.4	627.7	122.6	750.3
Jun qtr	3,856	586	43	4,486	536.4	95.0	631.4	76.6	708.0	197.6	905.5
Sep. qtr	4,537	625	—	5,161	629.8	98.3	728.1	63.8	791.9	486.8	1,278.7
Dec. qtr	3,654	741	57	4,452	531.5	98.2	629.6	75.0	704.7	211.5	916.2
PUBLIC SECTOR											
1999-2000	340	652	36	1,028	38.6	52.2	90.9	5.9	96.8	510.5	607.2
2000-2001	305	624	170	1,099	35.2	60.3	95.4	26.3	121.7	234.7	356.4
2001-2002	448	593	7	1,048	52.6	56.1	108.7	8.0	116.7	213.3	330.0
2001 Sep. qtr	106	350	1	457	11.7	33.2	44.8	1.9	46.8	39.9	86.6
Dec. qtr	123	82	1	206	18.8	7.4	26.2	2.9	29.0	87.6	116.6
2002 Mar. qtr	93	104	—	197	9.9	9.3	19.2	1.8	20.9	57.4	78.4
Jun qtr	126	57	5	188	12.2	6.3	18.5	1.5	19.9	28.4	48.3
Sep. qtr	228	238	—	466	31.4	20.0	51.3	1.7	53.0	179.1	232.1
Dec. qtr	83	59	—	142	10.6	5.3	15.9	1.2	17.0	24.0	41.0
TOTAL											
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
2000-2001	10,895	2,591	404	13,892	1,439.0	333.1	1,772.1	276.2	2,048.3	1,134.2	3,182.4
2001-2002	16,324	2,839	76	19,240	2,180.7	377.5	2,558.2	267.7	2,825.9	889.3	3,715.2
2001 Sep. qtr	4,112	877	13	5,002	531.0	100.3	631.4	59.6	691.0	220.9	911.8
Dec. qtr	4,365	820	5	5,190	573.8	113.7	687.5	71.0	758.4	262.4	1,020.8
2002 Mar. qtr	3,865	499	10	4,374	527.3	62.2	589.5	59.1	648.7	180.0	828.7
Jun qtr	3,982	643	48	4,674	548.6	101.2	649.9	78.0	727.9	226.0	953.9
Sep. qtr	4,764	863	—	5,627	661.2	118.2	779.4	65.5	844.9	665.9	1,510.8
Dec. qtr	3,737	800	57	4,595	542.0	103.5	645.5	76.2	721.7	235.5	957.2

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 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>Entertainment and recreational</i>	<i>Miscellaneous</i>	<i>Total non-residential building</i>
PRIVATE SECTOR											
1999-2000	41.5	171.5	94.6	85.7	122.6	61.5	30.1	47.9	33.0	20.8	709.2
2000-2001	21.6	182.6	67.4	268.0	102.1	100.4	5.5	33.3	69.2	49.2	899.4
2001-2002	37.4	151.2	66.8	160.5	112.9	59.6	9.2	41.0	24.7	12.7	676.0
2001 Sep. qtr	2.8	59.7	22.1	43.8	16.9	13.6	1.2	5.1	9.0	6.7	181.0
Dec. qtr	18.0	27.4	27.8	19.9	43.2	19.4	6.6	8.4	3.7	0.3	174.8
2002 Mar. qtr	8.5	30.5	4.8	48.7	11.1	11.1	0.4	3.6	0.4	3.5	122.6
Jun qtr	8.1	33.6	12.1	48.0	41.7	15.4	1.0	23.8	11.6	2.2	197.6
Sep. qtr	70.7	120.1	19.7	159.0	49.6	14.5	5.0	8.7	18.4	21.1	486.8
Dec. qtr	24.9	45.6	36.9	31.7	37.2	14.4	2.0	—	11.5	7.3	211.5
PUBLIC SECTOR											
1999-2000	0.6	2.6	5.3	34.4	7.6	200.0	—	69.1	23.5	167.2	510.5
2000-2001	0.2	0.8	2.4	37.3	15.1	71.4	—	22.5	56.5	28.6	234.7
2001-2002	0.5	2.5	3.9	34.4	4.6	104.8	—	8.6	33.3	20.6	213.3
2001 Sep. qtr	0.4	0.6	3.7	7.7	0.3	15.1	—	2.3	2.2	7.6	39.9
Dec. qtr	—	1.2	0.2	22.2	1.1	47.1	—	3.1	10.6	2.1	87.6
2002 Mar. qtr	—	—	—	3.3	0.4	28.5	—	1.8	17.8	5.6	57.4
Jun qtr	0.2	0.6	—	1.3	2.9	14.1	—	1.4	2.7	5.2	28.4
Sep. qtr	—	0.3	—	9.6	1.0	23.0	—	5.5	118.4	21.3	179.1
Dec. qtr	0.1	—	—	2.5	2.7	5.0	—	6.8	3.7	3.2	24.0
TOTAL											
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
2000-2001	21.9	183.4	69.8	305.3	117.2	171.8	5.5	55.8	125.8	77.7	1,134.2
2001-2002	37.9	153.7	70.7	194.9	117.6	164.4	9.2	49.6	58.0	33.3	889.3
2001 Sep. qtr	3.1	60.3	25.8	51.5	17.2	28.8	1.2	7.4	11.1	14.3	220.9
Dec. qtr	18.0	28.6	28.0	42.1	44.2	66.5	6.6	11.5	14.4	2.4	262.4
2002 Mar. qtr	8.5	30.5	4.8	52.0	11.5	39.6	0.4	5.5	18.2	9.1	180.0
Jun qtr	8.2	34.2	12.1	49.3	44.6	29.5	1.0	25.2	14.3	7.5	226.0
Sep. qtr	70.7	120.3	19.7	168.6	50.5	37.6	5.0	14.2	136.9	42.4	665.9
Dec. qtr	25.0	45.6	36.9	34.2	39.9	19.4	2.0	6.8	15.2	10.6	235.5

TABLE 7. NUMBER AND VALUE OF BUILDING UNDER CONSTRUCTION AT END OF PERIOD(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											
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
2000-2001	4,597	1,963	180	6,740	757.2	417.7	1,175.0	124.7	1,299.6	616.0	1,915.6
2001-2002	6,588	1,814	58	8,461	1,065.0	351.8	1,416.8	130.4	1,547.2	632.7	2,179.9
2001 Sep. qtr	5,642	1,837	163	7,642	871.2	362.7	1,233.9	122.5	1,356.4	672.0	2,028.4
Dec. qtr	6,322	2,056	139	8,516	977.1	417.8	1,394.9	135.7	1,530.5	633.0	2,163.5
2002 Mar. qtr	6,724	2,027	131	8,882	1,070.9	421.5	1,492.4	139.9	1,632.2	559.4	2,191.6
Jun qtr	6,588	1,814	58	8,461	1,065.0	351.8	1,416.8	130.4	1,547.2	632.7	2,179.9
Sep. qtr	7,824	1,995	49	9,869	1,264.1	398.1	1,662.3	120.6	1,782.9	976.6	2,759.5
Dec. qtr	7,028	2,016	90	9,134	1,173.3	325.8	1,499.1	125.1	1,624.2	953.7	2,577.8
PUBLIC SECTOR											
1999-2000	90	410	10	510	11.1	37.9	49.0	2.1	51.1	433.4	484.5
2000-2001	59	315	153	527	8.1	31.0	39.0	21.9	60.9	279.4	340.3
2001-2002	226	249	154	629	21.9	24.4	46.3	21.5	67.8	161.9	229.7
2001 Sep. qtr	94	549	150	793	10.3	52.1	62.4	21.2	83.5	275.1	358.7
Dec. qtr	142	415	153	710	19.3	39.0	58.3	22.2	80.5	302.3	382.8
2002 Mar. qtr	165	323	150	638	17.1	30.4	47.5	22.5	70.0	234.7	304.7
Jun qtr	226	249	154	629	21.9	24.4	46.3	21.5	67.8	161.9	229.7
Sep. qtr	325	413	101	839	39.3	35.8	75.2	17.2	92.4	298.7	391.1
Dec. qtr	281	326	101	708	32.4	27.8	60.2	16.2	76.4	299.8	376.2
TOTAL											
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
2000-2001	4,656	2,278	333	7,266	765.3	448.7	1,214.0	146.5	1,360.5	895.4	2,256.0
2001-2002	6,814	2,063	212	9,089	1,086.9	376.2	1,463.1	151.9	1,615.0	794.6	2,409.6
2001 Sep. qtr	5,737	2,386	313	8,436	881.5	414.8	1,296.2	143.7	1,439.9	947.1	2,387.1
Dec. qtr	6,463	2,471	292	9,226	996.3	456.8	1,453.2	157.9	1,611.0	935.3	2,546.4
2002 Mar. qtr	6,889	2,350	281	9,519	1,088.0	451.9	1,539.9	162.3	1,702.2	794.1	2,496.3
Jun qtr	6,814	2,063	212	9,089	1,086.9	376.2	1,463.1	151.9	1,615.0	794.6	2,409.6
Sep. qtr	8,150	2,408	150	10,709	1,303.5	434.0	1,737.4	137.8	1,875.3	1,275.3	3,150.6
Dec. qtr	7,309	2,342	191	9,842	1,205.7	353.6	1,559.3	141.3	1,700.6	1,253.5	2,954.0

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 of the Explanatory Notes.

**TABLE 8. VALUE OF NON-RESIDENTIAL BUILDING UNDER CONSTRUCTION AT END OF PERIOD: 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											
1999-2000	23.9	164.8	43.4	47.8	50.5	29.4	22.7	36.8	17.9	10.5	447.7
2000-2001	14.9	101.1	26.7	220.3	51.2	75.6	3.5	29.8	57.6	35.4	616.0
2001-2002	35.4	85.1	29.1	282.9	62.6	49.7	6.1	42.1	16.3	23.4	632.7
2001 Sep. qtr	12.2	113.2	41.8	244.5	36.5	86.7	3.5	32.8	60.2	40.7	672.0
Dec. qtr	21.8	103.5	48.0	229.9	48.0	63.9	8.6	37.8	38.9	32.4	633.0
2002 Mar. qtr	28.7	81.5	39.9	264.2	28.6	40.3	6.5	37.0	5.3	27.3	559.4
Jun. qtr	35.4	85.1	29.1	282.9	62.6	49.7	6.1	42.1	16.3	23.4	632.7
Sep. qtr	96.2	188.2	41.6	398.2	86.4	36.7	9.7	41.8	33.7	44.1	976.6
Dec. qtr	109.0	178.7	58.8	408.8	70.9	31.0	4.5	35.2	33.4	23.5	953.7
PUBLIC SECTOR											
1999-2000	—	—	4.7	22.6	6.5	161.5	—	64.7	17.6	155.7	433.4
2000-2001	—	—	2.5	33.6	4.9	73.3	—	52.5	41.0	71.5	279.4
2001-2002	0.2	0.6	—	24.4	2.9	89.2	—	4.3	25.2	15.2	161.9
2001 Sep. qtr	0.4	—	6.1	35.4	0.1	79.8	—	50.4	42.2	60.6	275.1
Dec. qtr	0.4	0.3	0.1	53.9	0.9	116.4	—	48.5	27.0	54.8	302.3
2002 Mar. qtr	—	—	—	36.3	0.9	110.6	—	42.7	28.9	15.3	234.7
Jun. qtr	0.2	0.6	—	24.4	2.9	89.2	—	4.3	25.2	15.2	161.9
Sep. qtr	0.2	0.3	—	25.8	3.7	98.9	—	6.5	135.3	28.0	298.7
Dec. qtr	—	—	—	26.7	5.5	93.0	—	11.4	136.2	27.0	299.8
TOTAL											
1999-2000	23.9	164.8	48.1	70.4	57.1	190.9	22.7	101.6	35.5	166.1	881.1
2000-2001	14.9	101.1	29.2	254.0	56.1	148.9	3.5	82.3	98.7	106.9	895.4
2001-2002	35.6	85.7	29.1	307.3	65.5	138.9	6.1	46.4	41.4	38.6	794.6
2001 Sep. qtr	12.6	113.2	47.9	279.9	36.6	166.5	3.5	83.2	102.4	101.3	947.1
Dec. qtr	22.2	103.9	48.0	283.8	48.9	180.3	8.6	86.3	66.0	87.3	935.3
2002 Mar. qtr	28.7	81.5	39.9	300.6	29.5	150.9	6.5	79.7	34.2	42.7	794.1
Jun. qtr	35.6	85.7	29.1	307.3	65.5	138.9	6.1	46.4	41.4	38.6	794.6
Sep. qtr	96.3	188.4	41.6	424.0	90.1	135.6	9.7	48.4	169.0	72.1	1,275.3
Dec. qtr	109.0	178.7	58.9	435.5	76.3	124.0	4.5	46.5	169.6	50.5	1,253.5

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											
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
2000-2001	14,179	2,234	164	16,577	1,825.5	272.1	2,097.6	244.2	2,341.8	733.3	3,075.1
2001-2002	13,797	2,276	185	16,257	1,837.4	396.5	2,233.8	257.5	2,491.3	668.8	3,160.1
2001 Sep. qtr	2,946	651	29	3,626	411.0	129.3	540.3	60.5	600.8	141.9	742.6
Dec. qtr	3,524	535	24	4,083	453.3	57.8	511.1	58.1	569.2	217.7	786.9
2002 Mar. qtr	3,348	290	16	3,654	428.1	45.7	473.8	52.1	525.9	181.9	707.9
Jun qtr	3,979	800	116	4,894	544.9	163.7	708.7	86.8	795.4	127.3	922.8
Sep. qtr	3,262	449	9	3,720	430.3	52.3	482.6	76.9	559.6	162.2	721.8
Dec. qtr	4,448	721	17	5,185	630.5	148.5	779.0	71.7	850.7	261.7	1,112.4
PUBLIC SECTOR											
1999-2000	436	513	26	975	45.0	36.0	81.0	6.1	87.1	219.2	306.3
2000-2001	334	698	27	1,059	38.3	67.1	105.5	7.0	112.4	388.0	500.4
2001-2002	281	650	9	940	39.0	61.5	100.6	8.3	108.8	336.6	445.5
2001 Sep. qtr	71	110	4	185	9.4	11.5	21.0	2.3	23.3	44.4	67.7
Dec. qtr	76	213	1	290	9.9	20.0	29.9	2.1	32.0	63.2	95.1
2002 Mar. qtr	69	196	3	268	12.1	17.8	29.9	1.5	31.4	127.4	158.8
Jun qtr	65	131	1	197	7.6	12.2	19.8	2.3	22.1	101.7	123.8
Sep. qtr	124	74	53	251	13.8	8.4	22.2	5.8	28.0	43.5	71.4
Dec. qtr	128	146	—	274	17.7	13.2	30.9	2.2	33.1	22.7	55.8
TOTAL											
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
2000-2001	14,513	2,932	191	17,636	1,863.8	339.2	2,203.1	251.1	2,454.2	1,121.3	3,575.5
2001-2002	14,078	2,926	194	17,197	1,876.4	458.0	2,334.4	265.8	2,600.2	1,005.4	3,605.6
2001 Sep. qtr	3,017	761	33	3,811	420.4	140.8	561.2	62.8	624.1	186.3	810.3
Dec. qtr	3,600	748	25	4,373	463.2	77.8	540.9	60.2	601.2	280.8	882.0
2002 Mar. qtr	3,417	486	19	3,922	440.3	63.5	503.7	53.7	557.4	309.3	866.7
Jun qtr	4,044	931	117	5,091	552.5	176.0	728.5	89.1	817.6	229.0	1,046.6
Sep. qtr	3,386	523	62	3,971	444.1	60.7	504.9	82.7	587.6	205.6	793.2
Dec. qtr	4,576	867	17	5,459	648.2	161.7	809.9	73.9	883.8	284.4	1,168.2

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 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											
1999-2000	82.0	315.4	97.9	78.8	144.4	49.1	11.7	42.8	77.2	26.9	926.2
2000-2001	29.8	256.5	84.7	93.0	99.9	52.3	25.2	39.6	27.0	25.4	733.3
2001-2002	17.8	178.4	68.9	104.3	79.2	90.1	6.1	29.4	62.5	31.9	668.8
2001 Sep. qtr	5.9	48.1	7.9	25.9	31.9	5.6	1.2	2.2	6.8	6.4	141.9
Dec. qtr	7.2	47.8	22.4	30.9	24.9	43.2	1.3	3.4	25.7	10.8	217.7
2002 Mar. qtr	1.9	52.5	15.7	17.0	14.7	35.3	2.3	4.7	29.3	8.5	181.9
Jun qtr	2.7	29.9	22.9	30.5	7.8	6.0	1.4	19.3	0.7	6.2	127.3
Sep. qtr	11.8	23.3	8.1	44.6	22.6	28.1	1.8	17.6	0.8	3.5	162.2
Dec. qtr	12.5	57.1	19.3	34.3	54.5	20.2	7.1	7.2	11.8	37.7	261.7
PUBLIC SECTOR											
1999-2000	0.6	2.8	0.9	29.3	6.2	88.9	—	20.8	31.2	38.6	219.2
2000-2001	0.2	0.8	4.7	26.8	16.5	162.6	—	32.3	32.1	112.1	388.0
2001-2002	0.4	1.9	6.5	44.2	6.8	92.8	—	56.9	47.4	79.8	336.6
2001 Sep. qtr	—	0.6	0.1	6.1	5.1	7.8	—	5.0	0.8	18.9	44.4
Dec. qtr	—	0.9	6.4	3.8	0.3	11.5	—	5.2	25.9	9.3	63.2
2002 Mar. qtr	0.4	0.3	0.1	21.2	0.5	37.5	—	6.8	15.2	45.4	127.4
Jun qtr	—	—	—	13.0	0.9	36.1	—	39.8	5.6	6.2	101.7
Sep. qtr	—	0.5	—	8.7	0.2	13.8	—	3.1	8.4	8.8	43.5
Dec. qtr	0.2	0.3	—	1.6	0.6	10.7	—	2.1	2.7	4.5	22.7
TOTAL											
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
2000-2001	30.0	257.2	89.4	119.8	116.3	214.9	25.2	71.9	59.1	137.5	1,121.3
2001-2002	18.2	180.3	75.4	148.6	85.9	182.9	6.1	86.3	109.9	111.7	1,005.4
2001 Sep. qtr	5.9	48.8	8.0	32.0	37.0	13.3	1.2	7.2	7.5	25.3	186.3
Dec. qtr	7.2	48.8	28.8	34.8	25.1	54.7	1.3	8.6	51.5	20.1	280.8
2002 Mar. qtr	2.2	52.9	15.8	38.2	15.1	72.8	2.3	11.5	44.5	53.9	309.3
Jun qtr	2.7	29.9	22.9	43.5	8.7	42.0	1.4	59.1	6.3	12.5	229.0
Sep. qtr	11.8	23.8	8.1	53.3	22.8	41.9	1.8	20.7	9.3	12.2	205.6
Dec. qtr	12.7	57.3	19.3	35.9	55.2	30.9	7.1	9.2	14.5	42.2	284.4

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>
PRIVATE SECTOR							
1999-2000	2,055.8	362.1	2,417.9	275.0	2,692.9	880.7	3,573.5
2000-2001	1,645.5	336.9	1,982.4	240.5	2,222.9	686.1	2,909.0
2001-2002	1,926.7	335.1	2,261.8	273.1	2,534.8	788.3	3,323.1
2001 Sep. qtr	440.1	82.7	522.8	65.0	587.7	221.2	808.9
Dec. qtr	491.6	93.6	585.3	72.1	657.4	228.5	885.8
2002 Mar. qtr	480.0	77.7	557.7	62.7	620.4	169.7	790.1
Jun qtr	514.9	81.1	596.1	73.3	669.3	169.0	838.3
Sep. qtr	553.4	84.7	638.1	68.5	706.6	233.0	939.6
Dec. qtr	588.4	90.6	679.0	74.5	753.5	267.1	1,020.6
PUBLIC SECTOR							
1999-2000	41.0	47.7	88.7	6.8	95.5	329.6	425.1
2000-2001	39.3	61.9	101.2	7.3	108.5	378.3	486.7
2001-2002	45.1	61.4	106.6	13.0	119.6	255.4	374.9
2001 Sep. qtr	7.6	19.8	27.4	3.0	30.4	81.0	111.4
Dec. qtr	15.6	19.9	35.5	2.7	38.2	69.1	107.2
2002 Mar. qtr	10.6	12.5	23.0	2.6	25.7	53.2	78.9
Jun qtr	11.4	9.3	20.7	4.6	25.3	52.1	77.4
Sep. qtr	20.1	11.9	32.0	4.0	35.9	105.7	141.6
Dec. qtr	18.8	10.7	29.5	3.8	33.3	70.4	103.7
TOTAL							
1999-2000	2,096.8	409.7	2,506.5	281.8	2,788.3	1,210.3	3,998.6
2000-2001	1,684.8	398.8	2,083.6	247.8	2,331.4	1,064.4	3,395.8
2001-2002	1,971.8	396.6	2,368.4	286.1	2,654.4	1,043.7	3,698.1
2001 Sep. qtr	447.7	102.4	550.1	68.0	618.1	302.2	920.3
Dec. qtr	507.2	113.5	620.7	74.8	695.5	297.6	993.1
2002 Mar. qtr	490.6	90.2	580.7	65.4	646.1	222.9	869.0
Jun qtr	526.3	90.4	616.7	77.9	694.7	221.1	915.7
Sep. qtr	573.5	96.5	670.0	72.5	742.5	338.7	1,081.2
Dec. qtr	607.2	101.2	708.4	78.3	786.7	337.5	1,124.2

(a) From the September quarter 2000, data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 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>
PRIVATE SECTOR											
1999-2000	62.3	302.3	101.6	85.6	129.9	51.5	18.6	45.7	58.8	24.3	880.7
2000-2001	19.5	197.8	70.2	111.4	97.6	72.3	17.3	26.2	38.9	34.8	686.1
2001-2002	33.7	181.4	74.5	187.5	86.5	91.2	8.3	44.9	46.4	34.0	788.3
2001 Sep. qtr	6.0	60.4	16.5	39.3	24.2	24.6	1.5	9.3	20.4	19.0	221.2
Dec. qtr	6.7	53.2	27.1	46.7	24.8	29.0	2.9	10.7	19.6	7.8	228.5
2002 Mar. qtr	9.8	38.0	17.5	53.9	10.5	21.5	1.8	9.6	3.2	3.9	169.7
Jun. qtr	11.2	29.9	13.5	47.5	27.0	16.1	2.0	15.2	3.1	3.4	169.0
Sep. qtr	14.3	51.2	14.1	55.8	39.1	16.3	4.6	14.6	10.6	12.4	233.0
Dec. qtr	13.3	67.1	26.7	60.7	37.6	16.6	3.1	8.6	10.9	22.6	267.1
PUBLIC SECTOR											
1999-2000	0.6	2.7	4.3	29.0	7.6	138.1	—	29.2	31.0	87.1	329.6
2000-2001	0.2	0.8	2.3	36.8	15.9	118.3	—	59.6	40.5	104.0	378.3
2001-2002	0.4	2.1	5.2	36.7	3.6	106.2	—	17.4	43.5	40.2	255.4
2001 Sep. qtr	0.1	0.6	3.1	12.1	1.3	25.8	—	7.9	14.6	15.5	81.0
Dec. qtr	0.2	1.1	2.1	8.2	0.7	28.1	—	4.7	12.3	11.7	69.1
2002 Mar. qtr	—	0.2	—	9.2	0.6	25.4	—	1.8	8.7	7.3	53.2
Jun. qtr	—	0.3	—	7.3	0.9	27.0	—	3.0	7.9	5.7	52.1
Sep. qtr	0.1	0.4	—	9.6	1.3	30.5	—	1.6	43.2	18.8	105.7
Dec. qtr	0.1	0.1	—	7.8	3.7	26.4	—	2.9	21.2	8.1	70.4
TOTAL											
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
2000-2001	19.7	198.6	72.5	148.2	113.4	190.5	17.3	85.8	79.4	138.8	1,064.4
2001-2002	34.0	183.6	79.8	224.2	90.0	197.4	8.3	62.2	89.9	74.2	1,043.7
2001 Sep. qtr	6.1	61.0	19.6	51.4	25.5	50.4	1.5	17.2	35.0	34.5	302.2
Dec. qtr	6.9	54.3	29.2	54.9	25.5	57.1	2.9	15.4	32.0	19.4	297.6
2002 Mar. qtr	9.8	38.1	17.5	63.2	11.1	46.9	1.8	11.4	12.0	11.1	222.9
Jun. qtr	11.2	30.1	13.6	54.8	27.9	43.1	2.0	18.2	11.0	9.1	221.1
Sep. qtr	14.4	51.7	14.2	65.4	40.4	46.9	4.6	16.2	53.8	31.2	338.7
Dec. qtr	13.4	67.3	26.7	68.5	41.3	43.0	3.1	11.5	32.1	30.7	337.5

**TABLE 13. VALUE OF BUILDING WORK YET TO BE DONE AT END OF PERIOD(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>
PRIVATE SECTOR							
1999-2000	579.8	206.4	786.2	44.4	830.6	176.0	1,006.7
2000-2001	346.4	185.7	532.1	63.7	595.8	394.5	990.3
2001-2002	564.9	183.6	748.4	56.5	804.9	291.3	1,096.2
2001 Sep. qtr	430.8	179.2	610.0	57.4	667.3	371.0	1,038.3
Dec. qtr	498.8	197.7	696.5	57.0	753.4	319.0	1,072.5
2002 Mar. qtr	540.7	170.4	711.1	52.4	763.5	257.8	1,021.3
Jun qtr	564.9	183.6	748.4	56.5	804.9	291.3	1,096.2
Sep. qtr	642.4	197.4	839.9	55.0	894.8	565.1	1,459.9
Dec. qtr	593.6	183.0	776.7	57.2	833.9	536.9	1,370.7
PUBLIC SECTOR							
1999-2000	5.9	16.6	22.5	0.6	23.1	261.1	284.2
2000-2001	1.8	16.1	17.9	19.9	37.8	116.4	154.2
2001-2002	9.4	9.6	19.0	14.8	33.8	79.9	113.7
2001 Sep. qtr	5.9	28.9	34.8	18.5	53.3	75.6	128.9
Dec. qtr	9.2	16.0	25.3	19.0	44.2	96.6	140.9
2002 Mar. qtr	8.6	12.7	21.3	18.1	39.4	103.1	142.6
Jun qtr	9.4	9.6	19.0	14.8	33.8	79.9	113.7
Sep. qtr	20.7	17.6	38.4	12.3	50.7	154.4	205.1
Dec. qtr	12.6	12.2	24.8	9.7	34.5	107.8	142.3
TOTAL							
1999-2000	585.7	223.0	808.7	45.0	853.7	437.1	1,290.8
2000-2001	348.2	201.8	550.0	83.6	633.6	510.9	1,144.5
2001-2002	574.3	193.2	767.4	71.3	838.8	371.2	1,209.9
2001 Sep. qtr	436.7	208.1	644.8	75.9	720.7	446.6	1,167.3
Dec. qtr	508.0	213.7	721.7	75.9	797.6	415.7	1,213.3
2002 Mar. qtr	549.3	183.1	732.4	70.5	802.9	361.0	1,163.9
Jun qtr	574.3	193.2	767.4	71.3	838.8	371.2	1,209.9
Sep. qtr	663.1	215.1	878.2	67.3	945.5	719.5	1,665.0
Dec. qtr	606.3	195.3	801.5	66.9	868.4	644.7	1,513.1

(a) Data is inclusive of non-deductible GST payable on residential buildings. See paragraphs 10 and 11 of the Explanatory Notes.

TABLE 14. VALUE OF NON-RESIDENTIAL BUILDING WORK YET TO BE DONE AT END OF PERIOD: 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>
PRIVATE SECTOR											
1999-2000	6.5	50.8	15.1	21.3	22.0	18.8	13.0	17.5	8.1	2.9	176.0
2000-2001	8.5	45.4	13.0	177.9	25.0	44.3	1.7	23.9	36.1	18.6	394.5
2001-2002	13.5	26.5	10.0	157.8	29.2	17.3	2.3	20.9	10.8	2.9	291.3
2001 Sep. qtr	5.6	45.8	19.7	188.4	17.8	36.3	1.4	19.8	25.1	11.1	371.0
Dec. qtr	16.1	29.5	21.4	158.2	29.5	27.8	5.0	17.5	9.7	4.4	319.0
2002 Mar. qtr	14.9	22.1	11.7	155.4	14.4	18.0	3.3	11.8	2.3	4.0	257.8
Jun. qtr	13.5	26.5	10.0	157.8	29.2	17.3	2.3	20.9	10.8	2.9	291.3
Sep. qtr	71.8	101.5	16.4	262.4	37.0	16.1	3.1	23.4	18.4	14.8	565.1
Dec. qtr	83.8	81.9	26.6	246.6	38.5	14.0	1.9	15.3	19.0	9.3	536.9
PUBLIC SECTOR											
1999-2000	—	—	1.0	14.5	2.1	87.5	—	49.6	8.1	98.2	261.1
2000-2001	—	—	1.2	15.5	1.1	43.2	—	9.9	23.5	22.0	116.4
2001-2002	0.1	0.4	—	13.7	2.2	45.8	—	1.0	11.7	4.9	79.9
2001 Sep. qtr	0.2	—	1.8	11.4	0.1	31.9	—	4.8	11.1	14.4	75.6
Dec. qtr	—	0.2	—	25.5	0.4	51.8	—	3.3	9.4	6.0	96.6
2002 Mar. qtr	—	—	—	19.9	0.2	58.1	—	2.6	17.7	4.6	103.1
Jun. qtr	0.1	0.4	—	13.7	2.2	45.8	—	1.0	11.7	4.9	79.9
Sep. qtr	—	0.1	—	14.2	1.9	38.7	—	4.8	87.1	7.6	154.4
Dec. qtr	—	—	—	8.8	0.6	17.1	—	8.8	69.5	3.1	107.8
TOTAL											
1999-2000	6.5	50.8	16.1	35.8	24.0	106.3	13.0	67.2	16.3	101.1	437.1
2000-2001	8.5	45.4	14.2	193.5	26.1	87.5	1.7	33.8	59.6	40.6	510.9
2001-2002	13.6	26.9	10.0	171.5	31.4	63.2	2.3	21.9	22.5	7.8	371.2
2001 Sep. qtr	5.9	45.8	21.4	199.8	17.9	68.2	1.4	24.6	36.1	25.5	446.6
Dec. qtr	16.1	29.7	21.5	183.6	29.9	79.6	5.0	20.9	19.1	10.4	415.7
2002 Mar. qtr	14.9	22.1	11.7	175.3	14.6	76.2	3.3	14.3	20.0	8.6	361.0
Jun. qtr	13.6	26.9	10.0	171.5	31.4	63.2	2.3	21.9	22.5	7.8	371.2
Sep. qtr	71.8	101.7	16.5	276.6	39.0	54.8	3.1	28.2	105.5	22.5	719.5
Dec. qtr	83.8	81.9	26.6	255.4	39.1	31.1	1.9	24.0	88.5	12.3	644.7

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, DECEMBER QUARTER 2002
(Percentage)**

<i>Stage of construction</i>	<i>New residential building</i>						<i>Value</i>		
	<i>Houses</i>		<i>Other residential</i>		<i>Total</i>		<i>Alterations and additions to residential buildings</i>	<i>Non-residential</i>	<i>Total building</i>
	<i>Number</i>	<i>Value</i>	<i>Number of dwelling units</i>	<i>Value</i>	<i>Number of dwelling units</i>	<i>Value</i>			
Commenced	3.6	3.8	1.1	0.9	3.0	3.2	4.8	2.0	2.2
Under construction at end of period	2.6	2.4	0.7	0.5	2.0	1.9	3.7	0.5	1.0
Completed	3.4	3.9	1.7	0.9	2.9	3.1	6.6	2.1	2.3
Value of work done	..	2.3	..	0.8	..	2.0	4.0	1.3	1.4
Value of work yet to be done	..	2.9	..	0.7	..	2.2	4.4	0.5	1.2

**TABLE 16. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, NON-RESIDENTIAL: DECEMBER QUARTER 2002
(Percentage)**

<i>State of construction</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>
Value of work commenced	6.8	5.0	8.2	10.6	8.2	8.7	22.8	—	—	14.8	2.0
Value of work under construction	2.7	1.2	6.4	0.7	5.1	1.7	19.0	1.4	—	2.7	0.5
Value of work completed	7.4	7.3	13.3	8.0	4.7	3.4	21.4	—	7.8	2.8	2.1
Value of work done	11.8	4.4	9.4	4.3	5.8	3.6	28.3	0.8	1.5	4.8	1.3
Value of work yet to be done	1.2	1.3	7.4	0.5	5.5	2.8	9.6	1.2	—	3.2	0.5

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 were compiled on the basis of returns collected from builders and other individuals and organisations engaged in building activity. From the March quarter 2002, the quarterly survey consists of:

- a sample survey of private sector jobs involving residential building jobs valued at \$10,000 or more and non-residential building jobs valued at \$50,000 or more; and
- a complete enumeration of all such public sector building jobs.

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 building activity are generally available only at state, territory and Australia levels. Although subject to higher relative standard errors (refer to paragraphs 24–26), a range of sub-state estimates of building activity may be available. For further information on the availability of Building Activity estimates, contact the ABS in Adelaide on 08 8237 7316. Detailed data on building approvals, based on information reported by local government and other reporting authorities, are available for regions below state and territory level from the Building Approvals series compiled by the ABS.

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 compiled from the ABS Engineering Construction Survey (ECS). Results from the Building Activity Survey, together with estimates from the ECS, provide a complete quarterly picture of building and construction.

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 to 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.

7 From the September quarter 2002, building activity in the External Territories of Australia is included in these statistics, with Christmas Island and Cocos–Keeling Islands included in Western Australia.

TREATMENT OF GST

8 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).

9 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.

10 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.

11 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

12 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.

13 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.

14 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.).

DEFINITIONS *continued*

15 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.

16 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.

17 *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).

18 *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.

19 *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

20 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

21 *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.

22 *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.

23 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

24 Since the figures for private sector building activity (including alterations and additions) 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 tables 15 and 16.

25 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.

26 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

27 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*

28 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. Some of the component series shown have 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. Therefore, figures should not be derived using the adjusted totals. (For example, seasonally adjusted public sector dwelling units should not be derived by subtracting seasonally adjusted private sector dwellings units from the seasonally adjusted total). In table 3, the components of the current price value series have, however, been seasonally adjusted dependently, and the seasonally adjusted components of series in that table add to the seasonally adjusted total.

29 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

30 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'.

31 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 2000–01). 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. 2000–01). 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).

32 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

33 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

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

Building Activity, Australia (cat. no. 8752.0) Quarterly

Construction Work Done, Australia, Preliminary (cat. no. 8755.0) Quarterly

Building Activity, Australia: Dwelling Unit Commencements, Preliminary
(cat. no. 8750.0) Quarterly

Building Approvals, Australia (cat. no. 8731.0) Monthly

Building Approvals, Western Australia (cat. no. 8731.5) Quarterly

Engineering Construction Activity, Australia (cat. no. 8762.0) Quarterly

Housing Finance for Owner Occupation, Australia (cat. no. 5609.0) Monthly.

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ABA DATA AVAILABLE ON REQUEST

36 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
qtr	quarter
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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