

**BUILDING ACTIVITY, WESTERN AUSTRALIA  
MARCH QUARTER 1997**

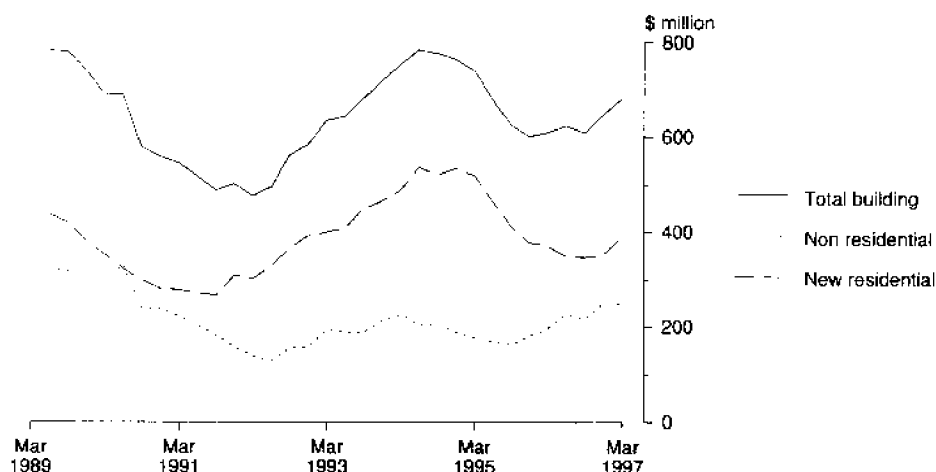
**SUMMARY OF FINDINGS**

**Value of building work done at average 1989-90 prices, seasonally adjusted**

	% change on	
	Dec. quarter 1996	Mar. quarter 1996
New residential building	11.6	5.9
Alterations and additions to residential buildings	-4.1	-2.0
Non-residential building	0.1	25.7
<b>Total building</b>	<b>5.3</b>	<b>11.6</b>

- In seasonally adjusted average 1989-90 prices, the value of work done on new residential building during the March quarter 1997 increased by 11.6% to \$391.9 million. The increase was attributable to new houses, which rose by 15.1% to \$340.7 million. On the other hand, work done on new other residential building fell by 6.4% to \$50.8 million, the lowest figure since the September quarter 1991.
- Work done on non-residential building was unchanged from the previous quarter, but was still 25.7% above the March quarter figure a year ago.
- The total value of all building work done rose by 5.3% during the March quarter 1997 to \$681.2 million, 11.6% higher than the figure a year earlier.

**VALUE OF WORK DONE  
AT AVERAGE 1989-90 PRICES  
SEASONALLY ADJUSTED**



**INQUIRIES**

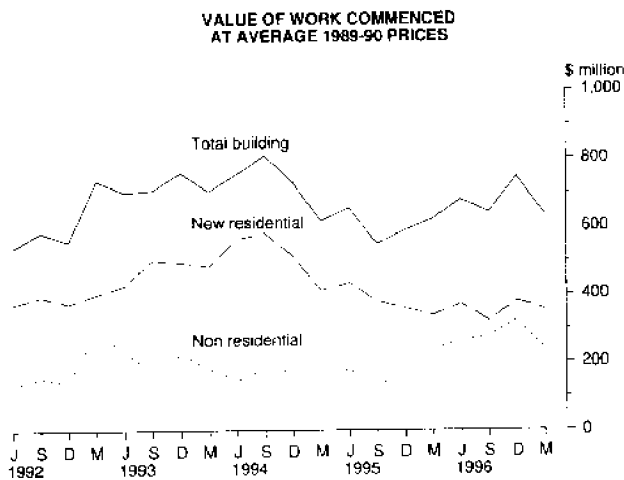
- for more information about statistics contained in this publication, the availability of related unpublished statistics and other ABS statistics and services, please contact Information Inquiries on Perth (09) 360 5140 (fax (09) 360 5955), call at Exchange Plaza, 2 The Esplanade, Perth or write to Information Inquiries, ABS, GPO Box K881, Perth WA 6001 or any ABS State office.
- for more detailed information about these statistics, contact Tony Bammann on Adelaide (08) 8237 7316 or any ABS State office.

## SUMMARY OF FINDINGS – continued

## Value of building work commenced at average 1989–90 prices

	% change on	
	Dec. quarter 1996	Mar. quarter 1996
New residential building	6.6	4.8
Alterations and additions to residential buildings	0.2	1.2
Non-residential building	26.6	-1.6
<b>Total building</b>	<b>-14.9</b>	<b>2.1</b>

- In average 1989–90 prices, the value of new residential building work commenced during the March quarter 1997 fell by 6.6% to \$354.3 million. Both new houses and other residential building fell, by 4.3% and 19.5% respectively.
- Non-residential commencements fell by 26.6% to \$238.7 million. The decline occurred in the private sector which fell by 44.2% to \$122.3 million, following high levels of commencements in the two previous quarters.
- The total value of all building work commenced during the March quarter 1997 fell by 14.9% to \$635.3 million, slightly higher than the level a year ago.

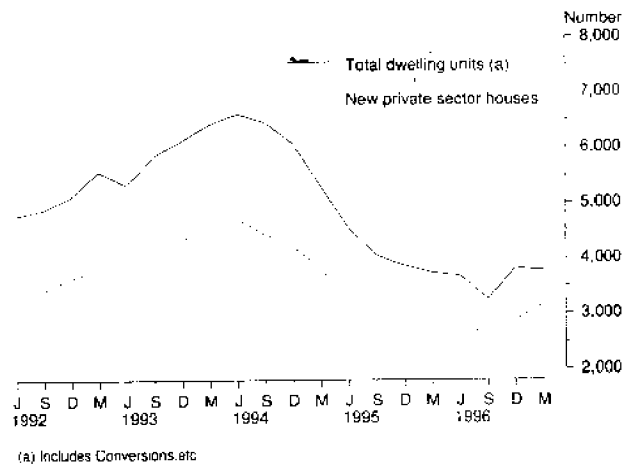


## Number of dwelling units commenced, seasonally adjusted

	% change on	
	Dec. quarter 1996	Mar. quarter 1996
New private sector houses	10.0	16.4
Private sector dwelling units	1.6	4.7
<b>Total dwelling units</b>	<b>-1.0</b>	<b>1.0</b>

- In seasonally adjusted terms, the total number of dwelling units commenced during the March quarter 1997 remained much the same as the previous quarter and was also practically the same level as that a year ago.
- The number of new private sector houses commenced during the quarter rose by 10.0% to 3,165. This followed an 8.0% rise in the previous quarter.

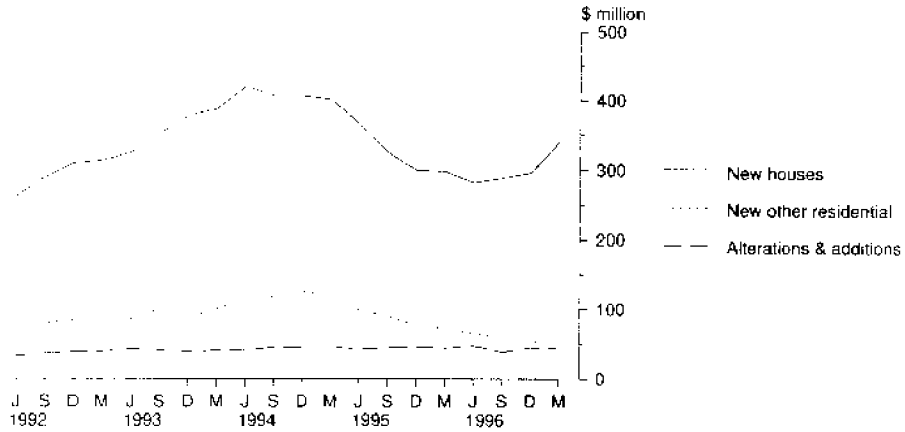
DWELLING UNITS COMMENCED SEASONALLY ADJUSTED



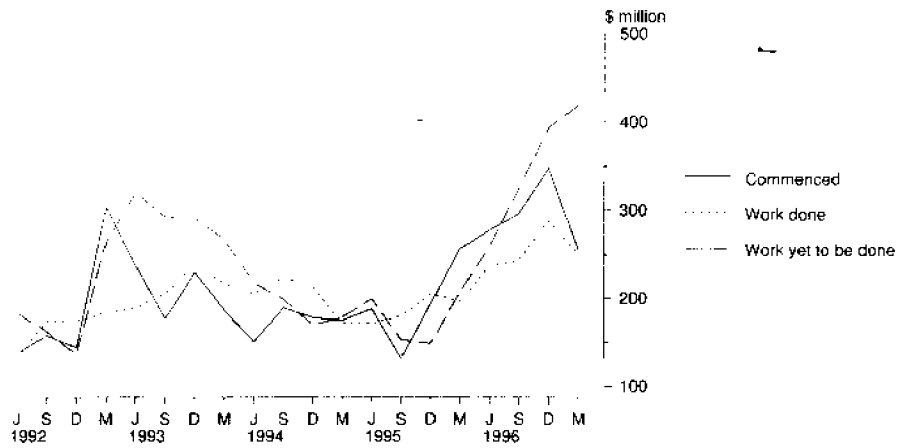
## Original data

- The total value of building work commenced during the March quarter 1997 fell by 15.2% to \$652.2 million. The decrease was confined to the private sector. Non-residential commencements contributed most of the decrease, falling 26.3% to \$256.3 million, with residential commencements falling 6.1% to \$395.8 million. The fall in non-residential commencements was largely attributable to the Health category, although this still remained at a high level compared with those prior to the December quarter 1996.
- The value of work done during the quarter decreased by 4.9% to \$663.9 million. Work done on residential building remained about the same, but that on non-residential building fell 12.8% to \$251.3 million. Work yet to be done on jobs under construction at the end of March 1997 rose by 3.1% to \$812.6 million or 1.22 times the work done during the quarter.

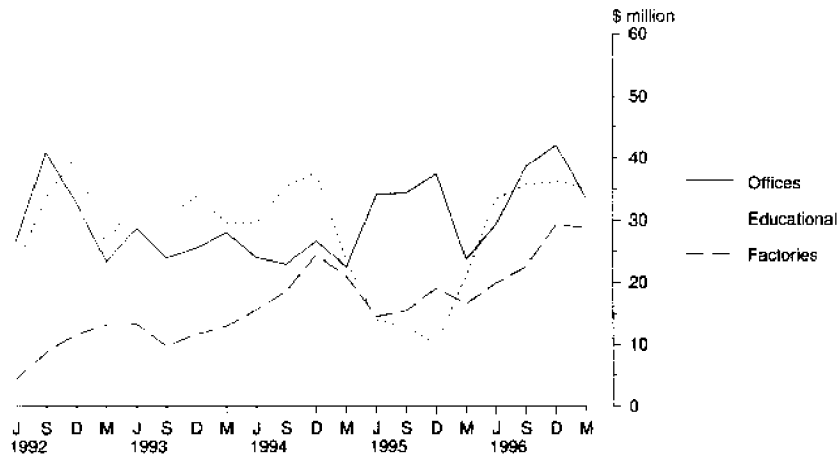
**VALUE OF RESIDENTIAL WORK DONE  
AT AVERAGE 1989-90 PRICES  
SEASONALLY ADJUSTED**



**VALUE OF NON-RESIDENTIAL BUILDING**



**VALUE OF NON-RESIDENTIAL WORK DONE**



**TABLE 1. VALUE OF BUILDING WORK COMMENCED, AVERAGE 1989-90 PRICES (a)**  
(*\$ million*)

<i>Period</i>	<i>New residential building</i>			<i>Alterations and additions to residential buildings</i>	<i>Non-residential building</i>		<i>Total building</i>
	<i>Houses</i>	<i>Other residential building</i>	<i>Total</i>		<i>Private sector</i>	<i>Total</i>	
1993-94	1,611.7	433.9	2,045.6	162.4	536.8	726.6	2,934.6
1994-95	1,518.3	429.1	1,947.4	165.7	561.4	705.1	2,818.2
1995-96	1,160.3	290.9	1,451.2	177.6	621.0	813.5	2,442.3
1995 Dec. qtr	291.7	68.2	359.9	45.9	172.6	183.6	589.4
1996 Mar. qtr	266.4	71.8	338.2	41.8	188.5	242.5	622.5
June qtr	304.7	68.0	372.7	45.9	143.9	261.3	679.9
Sept. qtr	285.7	36.2	321.9	42.2	241.4	278.1	642.2
Dec. qtr	322.6	56.8	379.4	42.2	219.3	325.1	746.7
1997 Mar. qtr	308.6	45.7	354.3	42.3	122.3	238.7	635.3

(a) See paragraphs 24 and 25 of the Explanatory Notes. Constant price estimates are subject to revision each quarter as more up to date information on prices and commodity compositions becomes available.

**TABLE 2. VALUE OF BUILDING WORK DONE, AVERAGE 1989-90 PRICES (a): ORIGINAL AND SEASONALLY ADJUSTED SERIES**  
(*\$ million*)

<i>Period</i>	<i>New residential building</i>			<i>Alterations and additions to residential buildings</i>	<i>Non-residential building</i>		<i>Total building</i>
	<i>Houses</i>	<i>Other residential building</i>	<i>Total</i>		<i>Private sector</i>	<i>Total</i>	
<b>ORIGINAL</b>							
1993-94	1,532.1	402.0	1,934.1	162.3	594.0	834.5	2,930.9
1994-95	1,577.8	462.9	2,040.7	177.9	593.9	745.6	2,964.2
1995-96	1,205.2	306.3	1,511.5	184.6	625.3	765.7	2,461.8
1995 Dec. qtr	309.1	80.3	389.4	48.5	169.0	192.3	630.2
1996 Mar. qtr	283.2	67.9	351.1	41.9	152.3	183.8	576.8
June qtr	282.0	64.8	346.8	48.4	162.5	220.1	615.3
Sept. qtr	293.6	62.4	356.0	38.8	166.7	225.7	620.5
Dec. qtr	305.2	56.7	361.9	48.2	210.2	266.2	676.3
1997 Mar. qtr	324.4	47.8	372.2	41.1	173.0	231.4	644.7
<b>SEASONALLY ADJUSTED</b>							
1995 Dec. qtr	299.8	76.8	377.9	46.0	154.5	180.2	602.5
1996 Mar. qtr	297.7	72.2	370.1	44.8	161.4	198.3	610.2
June qtr	281.8	66.3	349.0	48.1	176.0	228.2	623.4
Sept. qtr	288.9	60.2	347.0	38.6	161.0	217.3	608.5
Dec. qtr	296.1	54.3	351.2	45.8	192.2	249.5	646.7
1997 Mar. qtr	340.7	50.8	391.9	43.9	182.8	249.3	681.2

(a) See paragraphs 24 to 26 of the Explanatory Notes. Constant price estimates are subject to revision each quarter as more up to date information on prices and commodity compositions becomes available.

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

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential building	Total		Private sector	Total	
1995 Dec. qtr	295.9	80.9	378.1	45.4	164.8	192.3	614.4
1996 Mar. qtr	295.5	76.5	372.1	44.5	173.1	212.7	626.0
June qtr	278.8	70.6	350.1	47.6	189.7	246.0	641.3
Sept. qtr	286.2	64.2	348.4	38.3	174.0	234.9	627.6
Dec. qtr	292.7	58.1	351.7	45.2	208.0	270.2	667.8
1997 Mar. qtr	336.9	54.4	391.7	43.4	198.6	270.8	701.5

**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
1995 Dec. qtr	2,838	3,185	2,924	n.a.	3,686	4,310	3,861	4,640
1996 Mar. qtr	2,718	3,056	2,785	n.a.	3,471	3,848	3,733	4,141
June qtr	2,737	2,557	2,777	n.a.	3,407	3,327	3,676	3,524
Sept. qtr	2,664	2,887	2,778	n.a.	2,970	3,617	3,256	3,761
Dec. qtr	2,877	2,640	3,070	n.a.	3,576	3,200	3,809	3,521
1997 Mar. qtr	3,165	2,580	3,238	n.a.	3,633	3,040	3,771	3,343

TABLE 5. NUMBER AND VALUE OF BUILDING COMMENCED, PRIVATE AND PUBLIC SECTOR: ORIGINAL

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1993-94	17,739	5,495	182	23,416	1,455.7	366.1	1,821.8	150.2	1,971.9	549.7	2,521.6
1994-95	15,731	5,227	134	21,092	1,424.1	385.9	1,810.1	161.0	1,971.1	583.1	2,554.2
1995-96	11,228	2,920	104	14,252	1,120.6	246.4	1,367.0	175.9	1,542.9	657.0	2,199.8
1995 Dec. qtr	2,876	753	14	3,643	283.6	62.7	346.3	45.6	391.9	182.3	574.2
1996 Mar. qtr	2,481	723	21	3,225	259.2	59.4	318.6	41.6	360.1	199.8	560.0
June qtr	2,833	603	56	3,492	295.8	56.3	352.1	45.4	397.4	153.0	550.5
Sept. qtr	2,763	362	12	3,137	270.5	27.0	297.4	40.4	337.8	257.3	595.2
Dec. qtr	2,924	599	17	3,540	303.1	55.5	358.6	41.4	400.0	234.7	634.8
1997 Mar. qtr	2,887	464	27	3,378	298.5	46.0	344.5	41.7	386.2	131.3	517.5
<b>PUBLIC SECTOR</b>											
1993-94	379	1,187	14	1,580	29.6	75.0	104.6	1.0	105.5	194.3	299.8
1994-95	494	846	1	1,341	38.0	56.5	94.5	0.3	94.8	149.1	244.0
1995-96	282	801	—	1,083	25.2	59.1	84.3	0.5	84.8	204.2	289.0
1995 Dec. qtr	53	120	—	173	4.8	8.8	13.5	0.3	13.8	11.6	25.4
1996 Mar. qtr	71	172	—	243	5.4	16.2	21.6	—	21.6	57.2	78.8
June qtr	51	224	—	275	5.5	15.5	21.1	0.1	21.1	124.8	145.9
Sept. qtr	134	168	—	302	11.8	11.3	23.0	1.5	24.5	39.1	63.6
Dec. qtr	158	67	6	231	15.9	4.8	20.7	0.6	21.3	113.2	134.5
1997 Mar. qtr	79	49	—	128	6.7	2.7	9.4	0.3	9.7	125.0	134.7
<b>TOTAL</b>											
1993-94	18,118	6,682	196	24,996	1,485.3	441.1	1,926.3	151.1	2,077.4	744.0	2,821.5
1994-95	16,225	6,073	135	22,433	1,462.2	442.4	1,904.6	161.3	2,065.9	732.3	2,798.2
1995-96	11,510	3,721	104	15,335	1,145.8	305.5	1,451.3	176.4	1,627.6	861.2	2,488.8
1995 Dec. qtr	2,929	873	14	3,816	288.3	71.5	359.8	45.9	405.7	193.9	599.6
1996 Mar. qtr	2,552	895	21	3,468	264.6	75.6	340.2	41.6	381.8	257.0	638.8
June qtr	2,884	827	56	3,767	301.3	71.8	373.1	45.4	418.5	277.8	696.4
Sept. qtr	2,897	530	12	3,439	282.2	38.2	320.5	41.9	362.3	296.4	658.8
Dec. qtr	3,082	666	23	3,771	319.0	60.4	379.3	42.0	421.3	347.9	769.2
1997 Mar. qtr	2,966	513	27	3,506	305.1	48.7	353.9	42.0	395.8	256.3	652.2

TABLE 6. VALUE OF NON-RESIDENTIAL BUILDING COMMENCED, PRIVATE AND PUBLIC SECTOR: ORIGINAL  
(S million)

Period	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertain- ment and recreational	Miscel- laneous	Total non-resi- dential building
<b>PRIVATE SECTOR</b>											
1993-94	31.5	165.7	53.6	53.1	85.1	43.5	6.4	44.9	27.2	38.8	549.7
1994-95	52.9	136.1	78.1	85.7	91.5	34.6	6.2	30.7	25.2	42.1	583.1
1995-96	107.1	116.6	69.8	80.0	92.0	32.8	6.6	31.1	29.7	91.3	657.0
1995 Dec. qtr	39.1	15.7	15.8	22.7	31.0	11.0	1.5	7.9	8.7	29.0	182.3
1996 Mar. qtr	47.8	56.4	16.3	13.8	19.9	10.9	1.0	4.7	12.1	17.0	199.8
June qtr	14.4	20.0	20.7	22.8	20.7	6.2	1.2	13.1	2.3	31.7	153.0
Sept. qtr	15.4	43.0	23.5	51.7	54.8	15.9	1.7	13.4	25.7	12.3	257.3
Dec. qtr	17.7	50.0	31.9	21.3	23.2	10.8	0.5	60.7	4.6	14.0	234.7
1997 Mar. qtr	12.3	28.7	20.7	18.3	24.8	11.5	1.0	4.4	4.6	5.1	131.3
<b>PUBLIC SECTOR</b>											
1993-94	--	2.0	1.1	55.4	16.4	64.0	--	25.4	20.6	9.4	194.3
1994-95	1.6	4.0	0.6	30.0	5.8	51.2	--	3.9	6.6	45.3	149.1
1995-96	--	0.9	0.3	34.0	19.7	88.4	--	5.1	25.1	30.7	204.2
1995 Dec. qtr	--	0.1	--	1.7	3.0	0.1	--	--	2.8	3.9	11.6
1996 Mar. qtr	--	--	0.1	15.0	3.9	23.3	--	--	1.8	13.1	57.2
June qtr	--	0.1	0.2	13.5	12.4	65.0	--	4.4	17.6	11.8	124.8
Sept. qtr	--	1.4	0.2	7.4	0.8	21.0	--	2.1	1.4	5.0	39.1
Dec. qtr	--	--	1.8	12.5	8.0	13.5	--	74.0	2.6	0.8	113.2
1997 Mar. qtr	--	0.2	4.8	10.3	23.7	12.5	--	53.1	12.2	8.2	125.0
<b>TOTAL</b>											
1993-94	31.5	167.7	54.7	108.5	101.5	107.5	6.4	70.3	47.8	48.2	744.0
1994-95	54.5	140.1	78.7	115.8	97.4	85.8	6.2	34.6	31.8	87.4	732.3
1995-96	107.1	117.5	70.1	114.0	111.7	121.2	6.6	36.2	54.8	122.1	861.2
1995 Dec. qtr	39.1	15.9	15.8	24.4	34.0	11.1	1.5	7.9	11.5	32.9	193.9
1996 Mar. qtr	47.8	56.4	16.3	28.8	23.9	34.1	1.0	4.7	13.9	30.1	257.0
June qtr	14.4	20.0	20.8	36.3	33.1	71.1	1.2	17.5	19.9	43.4	277.8
Sept. qtr	15.4	44.3	23.7	59.1	55.5	36.9	1.7	15.5	27.1	17.2	296.4
Dec. qtr	17.7	50.1	33.7	33.8	31.2	24.3	0.5	134.7	7.2	14.8	347.9
1997 Mar. qtr	12.3	28.9	25.5	28.6	48.5	24.0	1.0	57.5	16.7	13.3	256.3

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

	<i>Number of dwelling units</i>				<i>Value (\$m)</i>						
	<i>New houses</i>	<i>New other residential building</i>	<i>Conversions etc.</i>	<i>Total dwelling units</i>	<i>New houses</i>	<i>New other residential building</i>	<i>New residential building</i>	<i>Alterations and additions to residential buildings</i>	<i>Total residential building</i>	<i>Total non-residential building</i>	<i>Total building</i>
<b>PRIVATE SECTOR</b>											
1993-94	7,278	2,967	107	10,352	699.5	212.1	911.7	71.2	982.9	431.8	1,414.6
1994-95	5,849	2,540	60	8,449	662.4	209.4	871.8	67.1	938.9	283.5	1,222.3
1995-96	4,345	1,691	50	6,086	532.6	160.6	693.2	70.6	763.9	326.9	1,090.8
1995 Dec. qtr	4,647	1,822	27	6,496	540.0	161.4	701.4	61.9	763.2	269.3	1,032.6
1996 Mar. qtr	4,181	1,792	31	6,004	505.3	158.2	663.4	71.1	734.5	315.1	1,049.6
June qtr	4,345	1,691	50	6,086	532.6	160.6	693.2	70.6	763.9	326.9	1,090.8
Sept. qtr	4,296	1,361	41	5,698	528.8	128.1	656.9	69.2	726.0	479.6	1,205.6
Dec. qtr	4,354	1,356	26	5,736	539.4	129.7	669.1	61.9	731.0	495.7	1,226.7
1997 Mar. qtr	4,804	1,393	36	6,233	593.1	143.5	736.6	66.2	802.8	473.1	1,276.0
<b>PUBLIC SECTOR</b>											
1993-94	91	720	13	824	7.8	51.7	59.5	0.2	59.6	162.4	222.0
1994-95	154	300	—	454	12.1	21.1	33.2	—	33.3	117.9	151.1
1995-96	57	348	—	405	6.0	31.5	37.5	—	37.5	153.3	190.8
1995 Dec. qtr	77	285	—	362	7.7	20.9	28.6	0.3	28.8	82.2	111.0
1996 Mar. qtr	86	243	—	329	7.3	23.3	30.6	0.3	30.9	89.1	120.0
June qtr	57	348	—	405	6.0	31.5	37.5	—	37.5	153.3	190.8
Sept. qtr	140	428	—	568	12.8	37.1	49.9	0.8	50.7	153.5	204.2
Dec. qtr	147	304	—	451	15.3	27.4	42.8	0.4	43.2	228.3	271.6
1997 Mar. qtr	151	137	—	288	15.1	9.3	24.3	0.6	24.9	340.1	365.1
<b>TOTAL</b>											
1993-94	7,369	3,687	120	11,176	707.3	263.8	971.1	71.3	1,042.5	594.2	1,636.7
1994-95	6,003	2,840	60	8,903	674.5	230.5	905.0	67.1	972.1	401.4	1,373.5
1995-96	4,402	2,039	50	6,491	538.6	192.1	730.7	70.6	801.3	480.2	1,281.6
1995 Dec. qtr	4,724	2,107	27	6,858	547.7	182.3	729.9	62.1	792.1	351.5	1,143.6
1996 Mar. qtr	4,267	2,035	31	6,333	512.6	181.5	694.1	71.3	765.4	404.2	1,169.6
June qtr	4,402	2,039	50	6,491	538.6	192.1	730.7	70.6	801.3	480.2	1,281.6
Sept. qtr	4,436	1,789	41	6,266	541.6	165.2	706.7	70.0	776.7	633.1	1,409.8
Dec. qtr	4,501	1,660	26	6,187	554.7	157.2	711.9	62.3	774.2	724.1	1,498.3
1997 Mar. qtr	4,955	1,530	36	6,521	608.2	152.7	760.9	66.8	827.8	813.3	1,641.0



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

	<i>Hotels etc.</i>	<i>Shops</i>	<i>Factories</i>	<i>Offices</i>	<i>Other business premises</i>	<i>Educational</i>	<i>Religious</i>	<i>Health</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
<b>PRIVATE SECTOR</b>											
1993-94	23.9	244.4	24.9	24.9	24.6	25.4	3.3	26.0	19.3	15.2	431.8
1994-95	41.5	63.9	26.4	48.3	35.3	11.6	2.8	21.0	9.0	23.7	283.5
1995-96	93.8	53.6	37.1	25.7	31.5	11.7	2.5	14.5	13.6	43.0	326.9
1995 Dec. qtr	61.3	34.1	24.6	40.1	26.2	16.5	3.8	12.9	14.9	35.0	269.3
1996 Mar. qtr	101.4	60.2	28.3	26.5	25.5	15.2	3.7	11.8	18.0	24.5	315.1
June qtr	93.8	53.6	37.1	25.7	31.5	11.7	2.5	14.5	13.6	43.0	326.9
Sept. qtr	102.7	76.6	38.2	65.2	70.5	25.3	4.0	24.5	34.2	38.4	479.6
Dec. qtr	76.2	87.0	46.7	58.4	45.2	23.4	3.2	82.9	29.4	43.5	495.7
1997 Mar. qtr	60.0	95.3	43.6	61.2	48.8	16.6	1.7	85.8	30.1	30.1	473.1
<b>PUBLIC SECTOR</b>											
1993-94	—	1.8	0.3	37.8	0.9	68.6	—	41.0	6.7	5.3	162.4
1994-95	1.6	1.4	0.5	49.3	1.8	25.8	—	1.2	3.6	32.8	117.9
1995-96	—	0.1	0.2	24.8	12.5	75.6	—	4.4	19.3	16.5	153.3
1995 Dec. qtr	—	0.1	0.5	49.0	3.0	9.3	—	0.7	5.9	14.1	82.2
1996 Mar. qtr	—	0.1	—	22.9	6.8	29.0	—	—	3.7	26.6	89.1
June qtr	—	0.1	0.2	24.8	12.5	75.6	—	4.4	19.3	16.5	153.3
Sept. qtr	—	—	0.2	27.0	0.8	84.7	—	5.9	18.6	16.2	153.5
Dec. qtr	—	—	0.9	25.5	7.6	91.8	—	76.0	19.8	6.7	228.3
1997 Mar. qtr	—	—	4.7	33.1	30.0	92.2	—	137.6	28.1	14.5	340.1
<b>TOTAL</b>											
1993-94	23.9	246.1	25.2	62.7	25.4	94.1	3.3	67.0	26.0	20.5	594.2
1994-95	43.1	65.3	26.9	97.6	37.0	37.4	2.8	22.1	12.6	56.5	401.4
1995-96	93.8	53.6	37.2	50.5	44.0	87.3	2.5	18.9	32.9	59.5	480.2
1995 Dec. qtr	61.3	34.3	24.6	89.1	29.2	25.7	3.8	13.7	20.9	49.1	351.5
1996 Mar. qtr	101.4	60.3	28.3	49.4	32.4	44.1	3.7	11.8	21.8	51.1	404.2
June qtr	93.8	53.6	37.2	50.5	44.0	87.3	2.5	18.9	32.9	59.5	480.2
Sept. qtr	102.7	76.6	38.4	92.2	71.3	110.0	4.0	30.5	52.9	54.7	633.1
Dec. qtr	76.2	87.0	47.6	83.8	52.8	115.2	3.2	158.9	49.2	50.2	724.1
1997 Mar. qtr	60.0	95.3	48.3	94.2	78.9	108.8	1.7	223.4	58.1	44.6	813.3

TABLE 9. NUMBER AND VALUE OF BUILDING COMPLETED, PRIVATE AND PUBLIC SECTOR: ORIGINAL

Period	Number of dwelling units				Value (\$m)						
	New houses	New other residential building	Conversions etc.	Total dwelling units	New houses	New other residential building	New residential building	Alterations and additions to residential buildings	Total residential building	Total non-residential building	Total building
<b>PRIVATE SECTOR</b>											
1993-94	15,684	4,403	116	20,203	1,254.6	287.7	1,542.3	140.0	1,682.3	490.0	2,172.2
1994-95	16,955	5,496	180	22,631	1,466.6	388.7	1,855.3	170.7	2,026.0	765.6	2,791.6
1995-96	12,579	3,737	113	16,430	1,256.7	305.6	1,562.3	179.6	1,741.9	627.5	2,369.4
1995 Dec. qtr	3,440	1,225	24	4,689	346.7	101.7	448.4	51.9	500.2	228.6	728.8
1996 Mar. qtr	2,870	744	17	3,631	290.0	62.8	352.8	35.6	388.4	153.1	541.5
June qtr	2,618	702	37	3,357	269.8	56.0	325.8	46.7	372.5	149.2	521.7
Sept. qtr	2,772	685	21	3,478	276.0	59.4	335.4	42.8	378.1	117.4	495.5
Dec. qtr	2,840	599	32	3,471	292.5	57.0	349.5	49.9	399.4	227.6	627.0
1997 Mar. qtr	2,425	427	17	2,869	251.9	37.1	289.0	39.1	328.1	164.1	492.2
<b>PUBLIC SECTOR</b>											
1993-94	385	1,367	1	1,753	29.7	82.6	112.4	3.4	115.8	254.4	370.2
1994-95	429	1,252	14	1,695	33.8	87.4	121.2	0.5	121.6	189.5	311.1
1995-96	378	753	-	1,131	31.0	49.1	80.1	0.5	80.6	168.1	248.7
1995 Dec. qtr	120	239	-	359	9.9	16.5	26.4	0.2	26.6	35.0	61.6
1996 Mar. qtr	62	214	-	276	5.7	13.8	19.6	-	19.6	48.0	67.6
June qtr	80	119	-	199	6.8	7.4	14.2	0.3	14.5	61.6	76.0
Sept. qtr	51	88	-	139	5.0	5.6	10.7	0.6	11.3	39.9	51.2
Dec. qtr	151	191	6	348	13.3	14.6	27.9	1.0	28.9	35.7	64.6
1997 Mar. qtr	73	213	-	286	7.0	22.1	29.1	0.1	29.2	23.9	53.2
<b>TOTAL</b>											
1993-94	16,069	5,770	117	21,956	1,284.3	370.3	1,654.6	143.4	1,798.1	744.4	2,542.5
1994-95	17,384	6,748	194	24,326	1,500.3	476.1	1,976.4	171.2	2,147.6	955.1	3,102.7
1995-96	12,957	4,490	113	17,561	1,287.8	354.6	1,642.4	180.1	1,822.5	795.6	2,618.1
1995 Dec. qtr	3,560	1,464	24	5,048	356.6	118.2	474.7	52.1	526.8	263.6	790.4
1996 Mar. qtr	2,932	958	17	3,907	295.7	76.7	372.4	35.6	408.0	201.1	609.3
June qtr	2,698	821	37	3,556	276.6	63.3	340.0	47.1	387.0	210.7	597.8
Sept. qtr	2,823	773	21	3,617	281.0	65.0	346.0	43.4	389.4	157.2	546.6
Dec. qtr	2,991	790	38	3,819	305.8	71.6	377.4	50.9	428.3	263.4	691.6
1997 Mar. qtr	2,498	640	17	3,155	258.9	59.2	318.2	39.2	357.4	188.0	545.4

TABLE 10. VALUE OF NON-RESIDENTIAL BUILDING COMPLETED, PRIVATE AND PUBLIC SECTOR: 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>											
1993-94	14.5	105.3	41.0	45.7	82.3	30.6	6.4	91.0	24.6	48.8	490.0
1994-95	36.7	337.1	78.1	65.7	82.2	49.3	7.2	38.5	37.3	33.5	765.6
1995-96	63.4	127.8	61.2	100.3	96.7	33.1	7.1	39.3	25.8	72.7	627.5
1995 Dec. qtr	25.0	52.4	24.1	40.5	44.3	5.1	2.4	9.7	7.0	18.1	228.6
1996 Mar. qtr	7.1	28.4	13.5	28.8	20.2	12.1	1.1	5.9	9.0	27.0	153.1
June qtr	27.9	27.5	12.9	21.6	14.7	10.1	2.5	11.0	7.4	13.6	149.2
Sept. qtr	15.1	21.3	23.1	12.9	16.0	2.4	0.5	3.5	5.1	17.6	117.4
Dec. qtr	45.0	43.2	25.0	28.3	49.1	12.9	1.5	2.3	8.3	12.1	227.6
1997 Mar. qtr	30.2	22.0	24.9	20.6	21.0	18.5	2.7	1.7	4.0	18.4	164.1
<b>PUBLIC SECTOR</b>											
1993-94	0.2	1.0	5.6	41.3	27.8	92.4	—	4.0	54.2	28.0	254.4
1994-95	—	4.6	0.4	19.6	5.1	93.3	—	43.0	9.5	14.0	189.5
1995-96	1.7	2.2	0.6	56.6	8.6	39.2	—	1.8	8.2	49.1	168.1
1995 Dec. qtr	0.9	0.5	0.5	2.6	0.8	5.6	—	0.2	1.6	22.4	35.0
1996 Mar. qtr	—	—	0.1	39.3	0.1	3.6	—	0.7	2.6	1.7	48.0
June qtr	—	0.1	—	11.6	6.7	18.4	—	—	2.3	22.5	61.6
Sept. qtr	—	1.4	0.2	5.4	12.8	12.0	—	0.6	2.3	5.2	39.9
Dec. qtr	—	—	1.1	13.2	1.2	4.2	—	3.8	1.4	10.8	35.7
1997 Mar. qtr	—	0.2	1.0	2.6	1.3	11.9	—	2.8	3.8	0.3	23.9
<b>TOTAL</b>											
1993-94	14.7	106.3	46.5	87.0	110.1	123.0	6.4	95.0	78.8	76.7	744.4
1994-95	36.7	341.7	78.5	85.3	87.3	142.6	7.2	81.5	46.8	47.5	955.1
1995-96	65.1	130.1	61.8	157.0	105.3	72.3	7.1	41.1	34.0	121.9	795.6
1995 Dec. qtr	25.9	52.8	24.6	43.1	45.1	10.7	2.4	9.9	8.7	40.5	263.6
1996 Mar. qtr	7.1	28.4	13.6	68.1	20.3	15.7	1.1	6.6	11.6	28.7	201.1
June qtr	27.9	27.7	12.9	33.1	21.4	28.6	2.5	11.0	9.7	36.1	210.7
Sept. qtr	15.1	22.7	23.2	18.3	28.8	14.4	0.5	4.0	7.4	22.8	157.2
Dec. qtr	45.0	43.2	26.0	41.5	50.2	17.1	1.5	6.1	9.7	22.9	263.4
1997 Mar. qtr	30.2	22.3	25.9	23.2	22.3	30.4	2.7	4.4	7.9	18.8	188.0

TABLE 11. VALUE OF BUILDING WORK DONE, PRIVATE AND PUBLIC SECTOR: 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>							
1993-94	1,382.3	327.0	1,709.3	147.7	1,857.0	617.5	2,474.5
1994-95	1,483.6	408.5	1,892.1	170.9	2,063.0	623.0	2,686.0
1995-96	1,161.8	276.5	1,438.3	181.9	1,620.2	669.3	2,289.5
1995 Dec. qtr	298.2	71.2	369.3	47.7	417.1	180.3	597.3
1996 Mar. qtr	275.6	62.6	338.2	41.5	379.7	163.3	543.1
June qtr	272.9	58.7	331.6	47.8	379.4	175.2	554.6
Sept. qtr	283.4	50.6	334.0	37.6	371.6	180.2	551.8
Dec. qtr	288.1	47.4	335.4	46.7	382.1	227.6	609.6
1997 Mar. qtr	310.8	42.1	352.9	40.5	393.4	187.9	581.2
<b>PUBLIC SECTOR</b>							
1993-94	29.8	84.1	113.9	1.9	115.8	249.9	365.7
1994-95	36.3	71.3	107.6	0.4	107.9	159.2	267.2
1995-96	28.1	47.0	75.1	0.5	75.7	150.6	226.3
1995 Dec. qtr	6.9	13.4	20.2	0.2	20.5	24.9	45.4
1996 Mar. qtr	5.4	9.3	14.8	0.1	14.9	33.8	48.7
June qtr	6.0	10.2	16.2	0.1	16.3	62.1	78.4
Sept. qtr	7.5	16.0	23.5	0.9	24.4	63.8	88.2
Dec. qtr	13.7	13.3	26.9	1.0	27.9	60.7	88.6
1997 Mar. qtr	10.0	9.1	19.1	0.1	19.3	63.4	82.7
<b>TOTAL</b>							
1993-94	1,412.1	411.2	1,823.2	149.6	1,972.8	867.4	2,840.2
1994-95	1,519.8	479.8	1,999.7	171.2	2,170.9	782.2	2,953.2
1995-96	1,189.9	323.5	1,513.4	182.5	1,695.9	819.9	2,515.8
1995 Dec. qtr	305.0	84.6	389.6	48.0	437.5	205.2	642.7
1996 Mar. qtr	281.1	72.0	353.0	41.6	394.6	197.1	591.8
June qtr	278.9	68.9	347.9	47.9	395.7	237.3	633.0
Sept. qtr	290.9	66.6	357.5	38.5	396.0	244.0	640.0
Dec. qtr	301.7	60.6	362.3	47.6	410.0	288.3	698.3
1997 Mar. qtr	320.8	51.2	372.0	40.6	412.6	251.3	663.9

TABLE 12. VALUE OF NON-RESIDENTIAL BUILDING WORK DONE, PRIVATE AND PUBLIC SECTOR: 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>											
1993-94	21.7	246.7	48.4	54.2	84.6	34.0	6.9	60.3	20.7	40.1	617.5
1994-95	45.6	175.9	78.3	71.4	89.3	45.9	6.5	36.9	36.5	36.8	623.0
1995-96	104.7	128.9	70.2	93.0	98.9	32.2	6.7	28.3	27.0	79.4	669.3
1995 Dec. qtr	18.0	36.1	18.7	27.9	31.7	8.1	1.9	6.2	7.4	24.3	180.3
1996 Mar. qtr	37.9	24.8	16.4	17.6	20.9	10.6	1.7	6.4	8.2	18.8	163.3
June qtr	37.3	33.0	19.9	21.2	21.4	7.2	0.8	6.7	7.3	20.5	175.2
Sept. qtr	28.5	27.5	22.5	26.2	29.2	9.8	1.9	3.7	8.8	22.0	180.2
Dec. qtr	17.6	52.9	28.1	31.0	35.2	16.4	1.5	15.0	12.2	17.6	227.6
1997 Mar. qtr	17.8	38.5	27.2	26.5	29.1	10.1	1.1	17.2	10.7	9.7	187.9
<b>PUBLIC SECTOR</b>											
1993-94	--	2.3	1.6	47.3	23.3	89.6	--	32.2	36.1	17.4	249.9
1994-95	0.9	3.7	0.3	34.9	5.9	64.8	--	14.0	8.1	26.7	159.2
1995-96	0.8	1.6	0.7	31.9	14.7	45.1	--	1.2	11.1	43.4	150.6
1995 Dec. qtr	0.2	0.3	0.3	9.6	1.4	1.9	--	0.5	2.3	8.5	24.9
1996 Mar. qtr	--	--	0.1	6.0	4.4	10.5	--	0.1	2.8	9.8	33.8
June qtr	--	0.1	0.1	8.2	8.4	26.3	--	0.4	3.9	14.8	62.1
Sept. qtr	--	1.4	0.2	12.4	5.7	26.0	--	4.8	7.0	6.2	63.8
Dec. qtr	--	--	1.3	11.1	2.5	19.9	--	15.0	5.8	5.1	60.7
1997 Mar. qtr	--	0.2	1.6	6.9	10.3	25.1	--	10.6	6.5	2.1	63.4
<b>TOTAL</b>											
1993-94	21.7	249.1	50.0	101.5	107.9	123.6	6.9	92.5	56.8	57.5	867.4
1994-95	46.5	179.5	78.6	106.3	95.2	110.7	6.5	50.9	44.6	63.5	782.2
1995-96	105.5	130.5	70.9	124.9	113.6	77.3	6.7	29.5	38.1	122.8	819.9
1995 Dec. qtr	18.2	36.4	19.0	37.5	33.1	40.0	1.9	6.7	9.7	32.7	205.2
1996 Mar. qtr	37.9	24.8	16.5	23.7	25.4	21.1	1.7	6.5	11.0	28.6	197.1
June qtr	37.3	33.1	19.9	29.4	29.9	33.5	0.8	7.0	11.2	35.2	237.3
Sept. qtr	28.5	28.9	22.7	38.7	34.9	35.9	1.9	8.5	15.8	28.2	244.0
Dec. qtr	17.6	52.9	29.4	42.2	37.7	36.3	1.5	30.0	18.0	22.7	288.3
1997 Mar. qtr	17.8	38.7	28.8	33.5	39.3	35.2	1.1	27.8	17.2	11.8	251.3

TABLE 13. VALUE OF BUILDING WORK YET TO BE DONE AT END OF PERIOD,  
PRIVATE AND PUBLIC SECTOR: 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>							
1993-94	350.1	108.7	458.9	30.9	489.8	153.4	643.2
1994-95	307.7	93.0	400.7	27.1	427.7	149.4	577.2
1995-96	280.3	75.0	355.3	28.1	383.4	155.1	538.5
1995 Dec. qtr	271.5	77.6	349.2	26.1	375.3	130.4	505.7
1996 Mar. qtr	254.4	75.2	329.6	29.5	359.1	167.0	526.1
June qtr	280.3	75.0	355.3	28.1	383.4	155.1	538.5
Sept. qtr	269.6	51.4	321.0	32.1	353.1	245.1	598.2
Dec. qtr	285.5	62.7	348.2	28.1	376.3	261.5	637.7
1997 Mar. qtr	280.6	71.4	352.0	31.0	383.0	215.1	598.2
<b>PUBLIC SECTOR</b>							
1993-94	4.2	23.3	27.5	—	27.5	64.2	91.7
1994-95	6.0	9.0	15.0	—	15.0	50.2	65.2
1995-96	2.9	21.4	24.3	—	24.3	104.0	128.3
1995 Dec. qtr	3.5	9.1	12.6	0.2	12.7	18.6	31.3
1996 Mar. qtr	3.3	16.1	19.5	—	19.5	40.3	59.8
June qtr	2.9	21.4	24.3	—	24.3	104.0	128.3
Sept. qtr	7.1	16.7	23.9	0.6	24.4	80.2	104.6
Dec. qtr	9.4	8.4	17.8	0.2	18.0	132.4	150.3
1997 Mar. qtr	6.1	3.4	9.5	0.3	9.8	204.7	214.5
<b>TOTAL</b>							
1993-94	354.3	132.0	486.3	31.0	517.3	217.6	734.9
1994-95	313.7	102.0	415.7	27.1	442.8	199.6	642.4
1995-96	283.2	96.4	379.6	28.1	407.7	259.0	666.8
1995 Dec. qtr	275.0	86.8	361.7	26.3	388.0	149.0	537.0
1996 Mar. qtr	257.8	91.4	349.1	29.5	378.6	207.3	585.9
June qtr	283.2	96.4	379.6	28.1	407.7	259.0	666.8
Sept. qtr	276.7	68.1	344.8	32.7	377.5	325.3	702.8
Dec. qtr	294.8	71.2	366.0	28.2	394.2	393.8	788.1
1997 Mar. qtr	286.7	74.8	361.5	31.3	392.8	419.8	812.6

TABLE 14. VALUE OF NON-RESIDENTIAL BUILDING WORK YET TO BE DONE AT END OF PERIOD,  
PRIVATE AND PUBLIC SECTOR: ORIGINAL  
(S 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 recreational</i>	<i>Entertain- ment and recreational</i>	<i>Miscel- laneous</i>	<i>Total non-resi- dential building</i>
PRIVATE SECTOR											
1993-94	13.2	59.9	11.7	8.1	13.6	15.5	1.3	9.8	13.2	7.1	153.4
1994-95	21.8	41.2	13.2	25.6	17.9	5.1	1.5	6.8	3.7	12.5	149.4
1995-96	33.6	29.8	14.9	13.0	12.2	6.4	1.6	11.3	7.1	25.1	155.1
1995 Dec. qtr	40.6	12.2	12.2	13.5	14.1	6.7	1.9	5.9	7.6	15.7	130.4
1996 Mar. qtr	50.6	41.9	13.0	11.1	13.0	6.9	1.2	4.3	11.5	13.6	167.0
June qtr	33.6	29.8	14.9	13.0	12.2	6.4	1.6	11.3	7.1	25.1	155.1
Sept. qtr	29.1	46.7	16.6	39.2	38.0	12.5	1.7	21.1	24.1	16.1	245.1
Dec. qtr	30.0	47.4	22.2	29.6	26.5	7.2	0.8	66.8	15.4	15.6	261.5
1997 Mar. qtr	26.2	39.3	16.8	26.5	22.2	8.8	0.9	54.2	9.4	10.9	215.1
PUBLIC SECTOR											
1993-94	...	0.2	0.2	22.1	0.1	24.0	...	11.1	4.1	2.4	64.2
1994-95	0.7	0.7	0.5	18.2	0.3	9.7	...	0.2	2.4	17.5	50.2
1995-96	...	...	0.1	18.4	5.3	53.5	...	4.0	15.8	6.9	104.0
1995 Dec. qtr	...	0.1	...	5.9	1.8	2.0	...	0.2	3.7	4.9	18.6
1996 Mar. qtr	...	...	...	13.0	1.3	14.8	...	...	1.8	9.3	40.3
June qtr	...	...	0.1	18.4	5.3	53.5	...	4.0	15.8	6.9	104.0
Sept. qtr	...	...	...	13.5	0.7	48.7	...	1.3	10.4	5.6	80.2
Dec. qtr	...	...	0.5	14.5	6.2	41.9	...	60.3	7.2	1.8	132.4
1997 Mar. qtr	...	...	3.6	17.7	19.6	29.0	...	114.0	12.8	7.8	204.7
TOTAL											
1993-94	13.2	60.1	11.9	30.2	13.7	39.5	1.3	20.9	17.4	9.5	217.6
1994-95	22.5	41.9	13.7	43.8	18.2	14.8	1.5	7.0	6.1	30.0	199.6
1995-96	33.6	29.8	15.0	31.3	17.4	59.9	1.6	15.4	22.9	32.0	259.0
1995 Dec. qtr	40.6	12.3	12.2	19.4	15.9	8.7	1.9	6.1	11.2	20.6	149.0
1996 Mar. qtr	50.6	41.9	13.0	24.1	14.3	21.7	1.2	4.3	13.3	22.8	207.3
June qtr	33.6	29.8	15.0	31.3	17.4	59.9	1.6	15.4	22.9	32.0	259.0
Sept. qtr	29.1	46.7	16.6	52.7	38.7	61.2	1.7	22.4	34.5	21.7	325.3
Dec. qtr	30.0	47.4	22.7	44.1	32.8	49.1	0.8	127.1	22.5	17.4	393.8
1997 Mar. qtr	26.2	39.3	20.4	44.3	41.8	37.8	0.9	168.2	22.2	18.8	419.8

**TABLE 15. BUILDING ACTIVITY RELATIVE STANDARD ERRORS, MARCH QUARTER 1997  
(Percentage)**

<i>Ownership and stage of construction</i>	<i>New residential building</i>				<i>Value</i>	
	<i>Houses</i>		<i>Total</i>		<i>Alterations and additions to residential buildings</i>	<i>Total building</i>
	<i>Number</i>	<i>Value</i>	<i>Number of dwelling units</i>	<i>Value</i>		
<b>TOTAL PRIVATE AND PUBLIC SECTORS</b>						
Commenced	3.9	4.0	3.3	3.5	6.0	1.9
Under construction at end of period	3.4	3.3	2.6	2.6	6.0	1.2
Completed	5.5	5.9	4.4	4.8	8.6	2.9
Value of work done	..	3.3	..	2.8	5.0	1.6
Value of work yet to be done	..	3.8	..	3.0	7.1	1.4



## EXPLANATORY NOTES

### Introduction

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

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

- (a) 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.
- (b) 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. Prior to the September quarter 1990, the cut-off for inclusion of non-residential building jobs (both new and alterations and additions) was \$30,000 or more and prior to the September quarter 1985 it was \$10,000 or more. Care should be taken in interpreting data for specific classes of non-residential building.

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. However, estimates for capital city Statistical Divisions can be made available. Also, data for regions below State/Territory level are available from the Building Approvals series and from the monthly series of dwelling unit commencements compiled for South Australia and Western Australia by the ABS. Unlike data in this publication compiled from the Building Activity Survey, the series for smaller geographic areas are based on information reported by local and other government 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 building jobs selected in previous quarters which have not been completed (or commenced) by the end of the previous quarter and those building jobs newly selected in the current quarter. The population list from which building jobs are selected for inclusion comprises all approved building jobs which were notified to the ABS 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 building 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, building jobs which were notified as approved in the month of June and which actually commenced in that month are shown as commencements in the September quarter. Similarly, building jobs which were notified in the month of September and which actually commenced in that month are shown as commencements in the December quarter.

### Definitions

7. A *building* is defined as a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock. An integral feature of a building's design, to satisfy its intended use, is the provision for regular access by persons.

8. A *dwelling unit* is defined as a self-contained suite of rooms, including cooking and bathing facilities and intended for *long-term* residential use. Units (whether self-contained or not) within buildings offering institutional care, such as hospitals, or temporary accommodation such as motels, hostels and holiday apartments, are not defined as dwelling units. The value of units of this type is included in the appropriate category of non-residential building.

9. A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *houses* or *other residential buildings*.

- (a) 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.

- (b) An *other residential building* is defined as a building which is predominantly used for long-term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes townhouses, duplexes, apartment buildings, etc.).

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

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

12. *Commenced.* A building job is regarded as commenced when the first physical building activity has been performed on site in the form of materials fixed in place and/or labour expended (this includes site preparation but excludes delivery of building materials, the drawing of plans and specifications and the construction of non-building infrastructures such as roads).

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

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

### Valuation of building jobs

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

- (a) *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 building 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.
- (b) *Value of building completed* represents the actual completion value based, where practicable, on the market or contract price of building jobs including site preparation costs but excluding the value of land and landscaping.
- (c) *Value of building work done during the period* represents the estimated value of building work actually carried out during the quarter on building jobs which have commenced.
- (d) *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 building jobs commenced but not completed.
- (e) *Factories.* Includes paper mills, oil refinery buildings, brickworks, foundries, powerhouses, manufacturing laboratories, workshops as part of a manufacturing process.
- (f) *Offices.* Includes banks, post offices, council chambers, head and regional offices.
- (g) *Other business premises.* Includes warehouses, storage depots, service stations, transport depots and terminals, electricity sub-station buildings, pumping station buildings, telephone exchanges, mail sorting centres, broadcasting stations, film studios.
- (h) *Educational.* Includes schools, colleges, kindergartens, libraries, museums, art galleries, research and teaching laboratories, theological colleges.
- (i) *Religious.* Includes churches, chapels, temples.
- (j) *Health.* Includes hospitals, nursing homes, surgeries, clinics, medical centres.
- (k) *Entertainment and recreational.* Includes clubs, theatres, cinemas, public halls, gymnasiums, grandstands, squash courts, sports and recreation centres.
- (l) *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.

### Building classification

16. *Ownership.* The ownership of a building is classified as either *public sector* or *private sector* according to the sector of the intended owner of the completed building as evident at the time of approval. Residential buildings being constructed by private sector builders under government housing authority schemes whereby the authority has contracted, or intends to contract, to purchase the buildings on or before completion, are classified as public sector.

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

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

- (a) *Houses.* Includes cottages, bungalows, detached caretakers'/managers' cottages, rectories.
- (b) *Other residential buildings.* Includes blocks of flats, home units, attached townhouses, villa units, terrace houses, semi-detached houses, maisonettes.
- (c) *Hotels, etc.* Includes motels, hostels, boarding houses, guest houses, holiday apartment buildings.
- (d) *Shops.* Includes retail shops, restaurants, cafes, taverns, dry cleaners, laundromats, hair salons, shopping arcades.

### Reliability of the estimates

19. Since the figures for private sector house 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*, 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 standard error 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 standard errors. Another measure of sampling variability is the *relative standard error*, which is obtained by expressing the standard error as a percentage of the estimate to which it refers. The relative standard errors of estimates provide an indication of the percentage errors likely to have occurred due to sampling, and are shown in Table 15.

20. An example of the use of relative standard errors 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 relative standard error is 2.5 per cent (for actual percentage see Table 15). There would then be about two chances in three that the number which would have been obtained if information had been collected about all approved private sector house jobs would have been within the range 1,950 to 2,050 (2.5 per cent of 2,000 is 50) and about nineteen chances in twenty that the number would have been within the range 1,900 to 2,100.

21. The imprecision due to sampling variability, which is measured by the relative standard error, should not be confused with inaccuracies that may occur because of inadequacies in the source of building approval information, imperfections in reporting by respondents, and errors made in the coding and processing of data. Inaccuracies of this kind are referred to as

non-sampling error, and may occur in any enumeration whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by the careful design of questionnaires, efforts to obtain responses for all selected building jobs, and efficient operating procedures.

### Seasonal adjustment

22. Seasonally adjusted building statistics are shown in Tables 2-4. In the seasonally adjusted series, account has been taken of normal seasonal factors and trading day effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the quarter) 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, Canberra on (06) 252 6345.

23. Since seasonally adjusted statistics reflect both irregular and trend movements, an upward or downward movement in a seasonally adjusted series does not necessarily indicate a change of trend. Particular care should therefore be taken in interpreting individual quarter to quarter movements. Each of the component series shown has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series shown add to the totals, the adjusted components may not add to the adjusted totals. Further, the difference between independently seasonally adjusted series does not necessarily produce series which are optimal or even adequate adjustments of the similarly derived original series. Thus the figures which can be derived by subtracting seasonally adjusted private sector dwelling units from the seasonally adjusted total should not be used to represent seasonally adjusted public sector dwelling units.

### Estimates at constant prices

24. Estimates of the value of commencements and work done at average 1989-90 prices are shown in Tables 1 and 2. Constant price estimates measure changes in value after the direct effects of price changes have been eliminated. 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 non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

25. Estimates at constant prices are subject to a number of approximations and assumptions. Further information on the nature and concepts of constant price estimates is contained in Chapter 4 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

26. The factors used to seasonally adjust the constant price series are identical to those used to adjust the corresponding current price series.

### Unpublished data and related publications

27. The ABS can also make available certain building approvals and activity data which are not published. Where it is not practicable to provide the required information by telephone, data can be provided in the following forms: microfiche, photocopy, computer printout, floppy disk and clerically extracted tabulation. Inquiries should be made to Information Inquiries on Perth (09) 360 5140 or any ABS State office.

28. Users may also wish to refer to the following building and construction publications which are available on request:

*Estimated Stocks of Dwellings, Western Australia* (8705.5)  
— issued annually

*Building Approvals, Australia* (8731.0) — issued monthly

*Building Approvals, Western Australia* (8731.5) — issued monthly

*Building Activity, Australia: Dwelling Unit Commencements, Preliminary* (8750.0) — issued quarterly

*Building Activity, Australia* (8752.0) — issued quarterly

29. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

### Symbols and other usages

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

P.C. Kelly  
Regional Director

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