

CATALOGUE NO. 8752.5

EMBARGOED UNTIL 11.30 A.M. 17 JANUARY 1996

BUILDING ACTIVITY, WESTERN AUSTRALIA SEPTEMBER QUARTER 1995

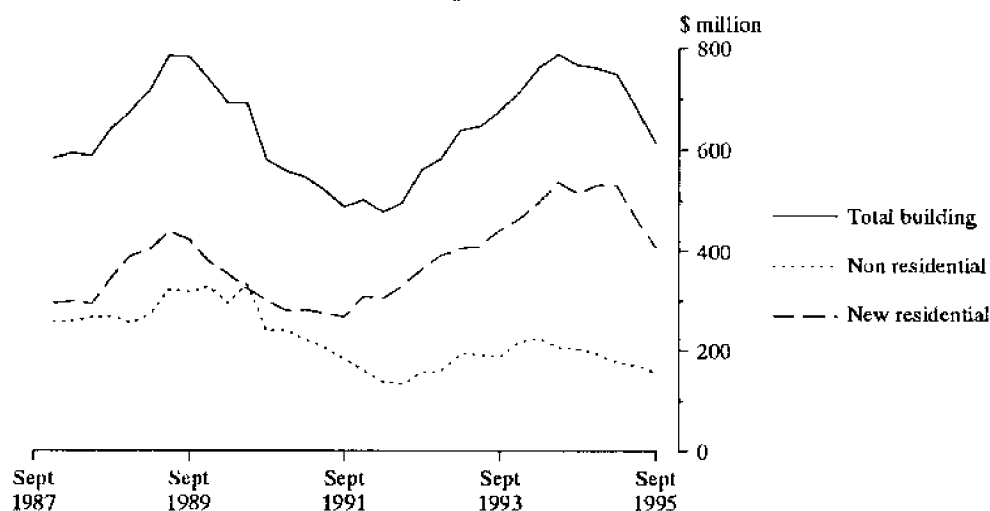
SUMMARY OF FINDINGS

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

	% change on	
	June quarter 1995	Sept quarter 1994
New residential building	-12.9	-20.7
Alterations and additions to residential buildings	10.5	0.9
Non-residential building	7.6	-22.6
Total building	-10.4	-20.0

- In seasonally adjusted average 1989-90 prices, the total value of building work done during the quarter fell by 10.4% to \$613.0 million. This level was 20.0% lower than a year earlier and the fifth consecutive quarterly decrease.
- The residential sector recorded most of the decrease. Work done on new residential buildings fell by \$60.2 million or 12.9% for the quarter and 20.7% on a year earlier. Work done on houses contributed most to these decreases. Alterations and additions increased for the quarter and showed stability over the year.
- Work done on non-residential buildings fell 7.6% for the quarter to \$157.5 million. This was down 22.6% on a year earlier and was the sixth consecutive quarterly decrease.

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



INQUIRIES

- for more information about statistics in this publication and the availability of related unpublished statistics, contact Rex Porter on Adelaide (08) 237 7496 or any ABS State Office.
- for information about other ABS statistics and services please contact Information Services on Adelaide (08) 237 7100, call at 55 Currie Street, Adelaide, or write to Information Services, ABS, GPO Box 2272, Adelaide SA 5001.

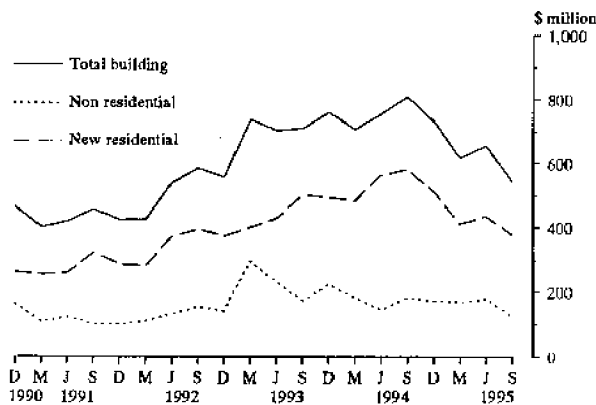
SUMMARY OF FINDINGS – continued

Value of building work commenced at average 1989–90 prices

	% change on	
	June quarter 1995	Sept quarter 1994
New residential building	-13.4	-35.2
Alterations and additions to residential buildings	9.0	1.4
Non-residential building	-31.2	-32.4
Total building	-16.9	-32.7

- In average 1989–90 prices, the total value of all building work commenced fell by \$110.9 million or 16.9% during the quarter and by 32.7% from the recent peak of a year earlier. These decreases represented falls in both the residential and non-residential sectors.
- Commencements of new residential buildings fell 13.4% for the quarter, largely because the value of new house commencements fell by \$55.5 million to \$294.6 million. Compared with the record high of a year earlier, new residential building commencements were down 35.2%. However, commencements of alterations and additions increased for the quarter and were comparable to a year ago.
- Non-residential buildings commenced dropped 31.2% to \$124.2 million for the quarter, the lowest since the March quarter 1992.

VALUE OF WORK COMMENCED AT AVERAGE 1989-90 PRICES

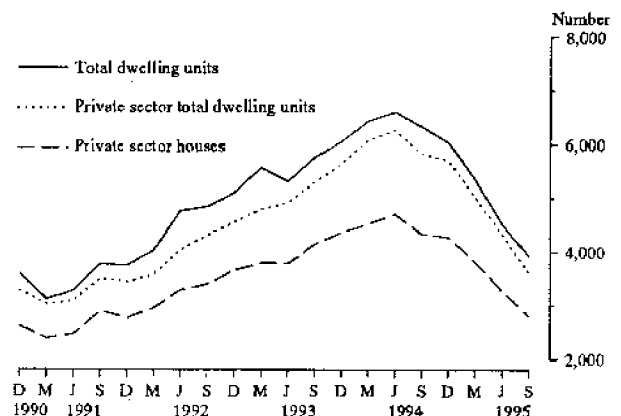


Number of dwelling units commenced, seasonally adjusted

	% change on	
	June quarter 1995	Sept quarter 1994
Private sector houses	-14.7	-35.4
Private sector dwelling units	-16.9	-38.2
Total dwelling units	-13.3	-38.0

- In seasonally adjusted terms, the estimate of the total number of dwelling units commenced during the quarter fell by 13.3% to 3,922 and by 38.0% on a year earlier.
- Commencements of private sector houses were down 14.7% for the quarter to 2,801, the fifth consecutive quarterly fall and the lowest level since the December quarter 1991.

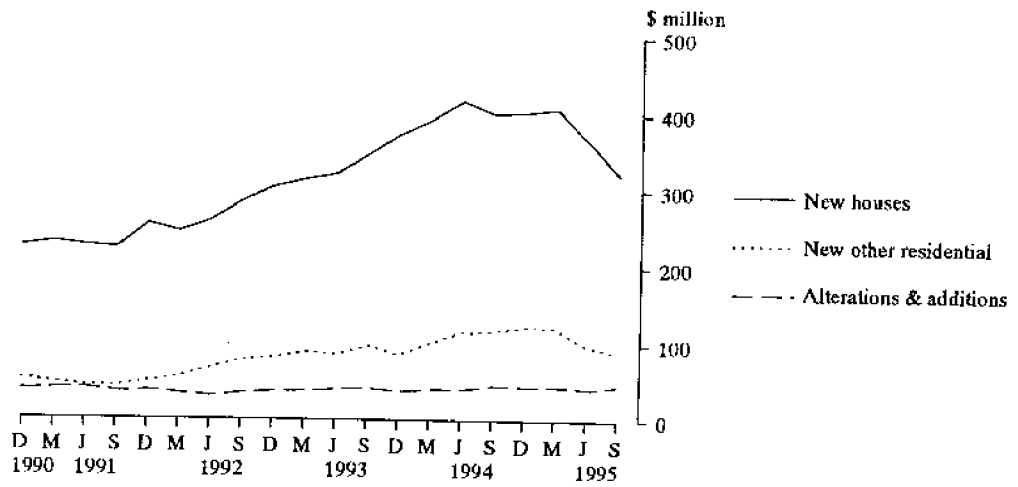
NEW DWELLING UNITS COMMENCED SEASONALLY ADJUSTED



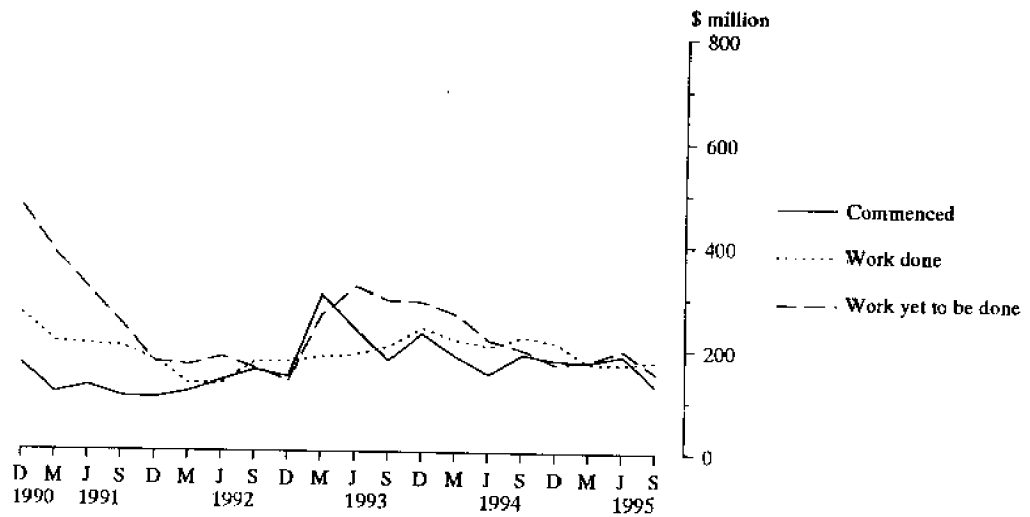
Original data

- The total value of all building work done during the quarter was down 3.9% to \$645.8 million.
- The total value of all building work commenced during the quarter was down 16.6% to \$549.2 million. Residential work commenced was down 10.9% and non-residential down 30.9%.
- The total number of dwelling units commenced fell by 384 or 8.3% to 4,239. A fall of 541 or 12.3% in the private sector was partially compensated for by an increase of 157 in the public sector.
- Work yet to be done on jobs under construction at the end of the quarter was down 12.5% to \$562.0 million or 0.87 times the work done for the September quarter 1995.

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



VALUE OF NON-RESIDENTIAL BUILDING



VALUE OF NON-RESIDENTIAL WORK DONE

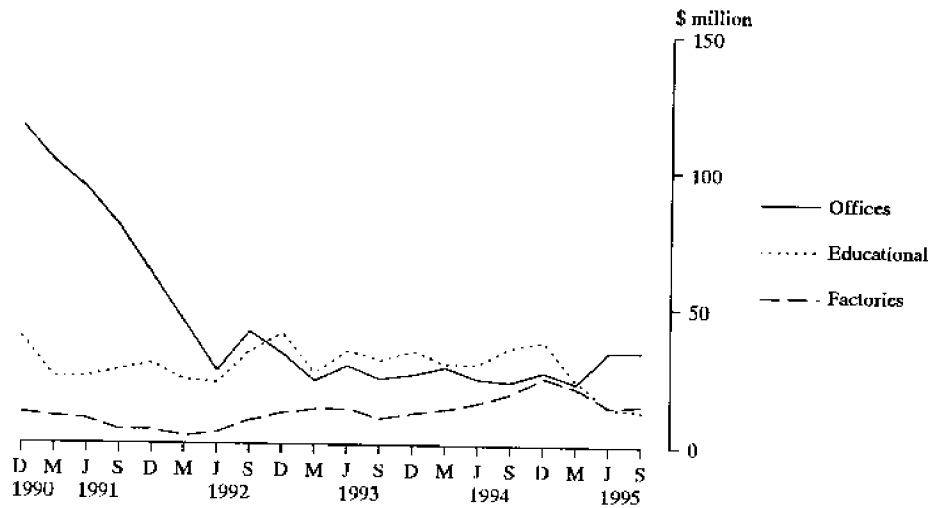


TABLE 1. SUMMARY OF BUILDING ACTIVITY, WESTERN AUSTRALIA

Period	Value (\$m)																								
	New residential building							Non-residential building																	
	Houses		Other residential buildings		Total			Alterations and additions to residential buildings						Other business premises					Health		Recreational		Miscellaneous		Total
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Value (\$m)	Hotels etc.	Shops	Factories	Offices	Business premises	Educational	Religious	Health	Recreational	Miscellaneous	Total							
COMPLETED																									
1992-93	15,011	1,134.3	5,778	341.6	20,789	1,475.9	142.9	12.8	212.8	43.7	117.8	69.0	134.7	10.0	83.1	70.3	87.9	842.1	2,460.9						
1993-94	18,118	1,485.3	6,682	441.1	24,800	1,926.3	151.1	31.5	167.7	54.7	108.5	101.5	107.5	6.4	70.3	47.8	48.2	744.0	2,821.5						
1994-95 r	16,225	1,462.2	6,073	442.4	22,298	1,904.6	161.3	54.5	140.1	78.7	115.8	97.4	85.8	6.2	34.6	31.8	87.4	732.3	2,798.2						
1994 June qtr	4,917	413.1	1,827	126.1	6,744	539.1	41.1	9.8	29.3	18.5	13.3	20.7	30.0	0.9	4.0	15.9	8.6	151.1	731.4						
Sept. qtr	4,850	423.0	1,986	141.9	6,836	565.0	41.5	10.0	30.0	24.0	31.2	32.8	36.0	3.4	8.9	4.6	8.6	189.5	796.0						
Dec. qtr	4,297	382.6	1,650	119.8	5,947	502.4	45.1	17.6	38.9	20.3	15.7	23.1	16.0	0.5	10.9	13.7	22.0	178.7	726.2						
1995 Mar. qtr	3,565	315.5	1,328	90.9	4,893	406.4	35.4	5.7	18.0	21.0	32.2	17.5	31.5	1.3	8.6	10.9	29.0	175.6	617.4						
June qtr r	3,514	341.0	1,109	89.8	4,623	430.8	39.2	21.2	53.3	13.4	36.7	24.0	2.3	1.0	6.2	2.6	27.9	188.5	658.5						
Sept. qtr	3,095	288.7	1,144	87.3	4,239	376.0	42.9	5.8	24.8	16.5	24.2	20.7	4.6	2.9	5.6	9.5	15.7	130.3	549.2						
UNDER CONSTRUCTION AT END OF PERIOD																									
1992-93	5,395	484.7	2,831	183.7	8,226	668.4	59.4	6.4	178.3	16.9	39.7	32.9	107.8	3.3	81.3	57.1	51.0	574.6	1,302.4						
1993-94	7,369	707.3	3,687	263.8	11,056	971.1	71.3	23.9	246.1	25.2	62.7	25.4	94.1	3.3	67.0	26.0	20.5	594.2	1,636.7						
1994-95 r	6,003	674.5	2,840	230.5	8,843	905.0	67.1	43.1	65.3	26.9	97.6	37.0	37.4	2.8	22.1	12.6	56.5	401.4	1,373.5						
1994 June qtr	7,369	707.3	3,687	263.8	11,056	971.1	71.3	23.9	246.1	25.2	62.7	25.4	94.1	3.3	67.0	26.0	20.5	594.2	1,636.7						
Sept. qtr	8,146	783.7	3,990	305.9	12,136	1,089.6	74.4	28.5	131.5	36.9	64.0	44.0	109.3	5.1	83.9	27.9	16.1	527.2	1,691.1						
Dec. qtr	7,619	757.0	3,712	288.6	11,331	1,045.6	70.5	35.3	94.6	33.4	59.9	34.1	54.9	3.8	39.8	23.3	29.5	408.6	1,524.7						
1995 Mar. qtr	6,818	695.3	3,282	255.7	10,100	950.9	67.2	33.6	57.9	27.1	80.4	31.8	52.3	5.1	36.1	30.6	43.8	398.6	1,416.7						
June qtr r	6,003	674.5	2,840	230.5	8,843	905.0	67.1	43.1	65.3	26.9	97.6	37.0	37.4	2.8	22.1	12.6	56.5	401.4	1,373.5						
Sept. qtr	5,441	616.6	2,739	230.2	8,180	846.8	67.2	46.0	71.8	33.8	106.7	40.2	25.0	4.7	15.4	18.1	57.9	419.4	1,333.4						
COMPLETED																									
1992-93	14,368	1,064.0	5,436	343.5	19,804	1,407.5	137.0	18.0	77.7	42.3	313.2	76.0	130.5	12.3	37.9	40.1	134.0	882.0	2,426.5						
1993-94	16,069	1,284.3	5,770	370.3	21,839	1,654.6	143.4	14.7	106.3	46.5	87.0	110.1	123.0	6.4	95.0	78.8	76.7	744.4	2,542.5						
1994-95 r	17,384	1,500.3	6,748	476.1	24,132	1,976.4	171.2	36.7	341.7	78.5	85.3	87.3	142.6	7.2	81.5	46.8	47.5	955.1	3,102.7						
1994 June qtr	4,619	371.6	1,454	101.3	6,073	472.9	32.9	4.1	21.2	13.2	17.0	44.1	21.6	1.9	31.1	26.8	6.0	187.1	692.9						
Sept. qtr	4,034	349.7	1,645	102.6	5,679	452.3	39.4	5.1	157.5	12.6	30.5	15.0	20.8	1.7	13.6	3.0	13.2	272.9	764.6						
Dec. qtr	4,822	413.3	1,838	132.7	6,660	545.9	50.4	11.3	77.8	24.2	21.4	32.4	69.9	1.7	36.2	18.1	8.5	301.5	897.8						
1995 Mar. qtr	4,290	379.9	1,728	124.0	6,018	503.9	40.9	7.7	57.8	28.1	12.3	20.2	35.3	0.2	12.9	3.8	12.3	190.6	735.3						
June qtr r	4,238	357.5	1,537	116.9	5,775	474.4	40.6	12.6	48.6	13.6	21.2	19.6	16.6	3.6	18.8	21.9	13.5	190.1	705.0						
Sept. qtr	3,645	350.6	1,241	95.1	4,886	445.7	44.8	3.4	20.3	9.7	12.2	18.5	17.2	1.1	13.1	4.0	14.4	114.0	604.5						

TABLE 2. SUMMARY OF PRIVATE SECTOR BUILDING ACTIVITY, WESTERN AUSTRALIA

Period	New residential building				Value (\$m)									
	Houses		Other residential buildings		Total		Non-residential building							
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Alterations and additions to residential buildings	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious
COMPLETED														
1992-93	14,615	1,103.2	3,955	231.1	18,570	1,334.3	139.1	12.6	211.3	39.0	49.6	56.1	30.0	10.0
1993-94	17,739	1,455.7	5,495	366.1	23,234	1,821.8	150.2	31.5	165.7	53.6	53.1	85.1	43.5	6.4
1994-95 r	15,731	1,424.1	5,227	385.9	20,958	1,810.1	161.0	52.9	136.1	78.1	85.7	91.5	34.6	6.2
1994 June qtr	4,845	406.9	1,489	105.8	6,334	512.7	40.9	9.8	29.1	18.1	12.9	20.7	18.5	0.9
Sept. qtr	4,630	406.9	1,589	115.9	6,219	522.8	41.4	10.0	29.4	24.0	28.9	26.0	10.3	3.4
Dec. qtr	4,255	379.3	1,520	111.9	5,775	491.2	45.1	17.6	38.1	20.3	10.8	22.1	6.8	0.5
1995 Mar. qtr	3,469	307.7	1,108	77.6	4,577	385.2	35.3	5.7	17.6	21.0	20.2	17.5	15.5	1.3
June qtr r	3,378	330.2	1,010	80.6	4,388	410.8	39.2	19.6	51.0	12.9	25.9	24.0	2.0	1.0
Sept. qtr	2,988	279.2	859	68.6	3,847	347.8	42.8	5.8	24.1	16.4	20.3	20.3	4.6	2.9
UNDER CONSTRUCTION AT END OF PERIOD														
1992-93	5,298	476.9	1,929	125.1	7,227	601.9	56.9	6.3	177.5	12.2	17.3	21.0	13.0	3.3
1993-94	7,278	699.5	2,967	212.1	10,245	911.7	71.2	23.9	244.4	24.9	24.9	24.6	25.4	3.3
1994-95 r	5,849	662.4	2,540	209.4	8,389	871.8	67.1	41.5	63.9	26.4	48.3	35.3	11.6	2.8
1994 June qtr	7,278	699.5	2,967	212.1	10,245	911.7	71.2	23.9	244.4	24.9	24.9	24.6	25.4	3.3
Sept. qtr	7,901	765.0	3,120	241.9	11,021	1,006.9	74.4	28.5	129.5	36.6	31.7	38.7	30.1	5.1
Dec. qtr	7,532	749.7	3,208	255.0	10,740	1,004.7	70.5	35.3	93.6	33.4	26.6	29.0	23.9	3.8
1995 Mar. qtr	6,704	686.0	2,850	227.2	9,554	913.2	67.2	33.6	57.6	27.1	35.4	29.8	18.7	5.1
June qtr r	5,849	662.4	2,540	209.4	8,389	871.8	67.1	41.5	63.9	26.4	48.3	35.3	11.6	2.8
Sept. qtr	5,297	603.7	2,347	202.0	7,644	805.8	67.1	44.4	71.3	33.2	56.8	39.0	10.3	4.7
COMPUTED														
1992-93	13,980	1,033.4	3,539	232.3	17,519	1,265.7	135.7	18.0	75.1	42.3	54.9	70.7	34.0	12.3
1993-94	15,684	1,254.6	4,403	287.7	20,087	1,542.3	140.0	14.5	105.3	41.0	45.7	82.3	30.6	6.4
1994-95 r	16,955	1,466.6	5,496	388.7	22,451	1,855.3	170.7	36.7	337.1	78.1	65.7	82.2	49.3	7.2
1994 June qtr	4,522	364.3	1,230	87.4	5,752	451.7	32.9	4.1	21.1	13.2	9.6	29.4	6.9	1.9
Sept. qtr	3,968	344.5	1,412	88.4	5,380	432.9	39.1	5.1	157.1	12.5	22.4	14.5	5.8	1.7
Dec. qtr	4,622	398.6	1,342	94.3	5,964	492.8	50.3	11.3	76.0	23.9	17.4	31.2	12.9	1.7
1995 Mar. qtr	4,221	374.0	1,436	105.7	5,657	479.6	40.8	7.7	56.6	28.0	11.8	17.2	21.2	0.2
June qtr r	4,144	349.6	1,306	100.4	5,450	449.9	40.5	12.6	47.4	13.6	14.1	19.4	9.4	3.6
Sept. qtr	3,529	342.0	1,048	83.4	4,577	425.4	44.8	3.3	18.7	9.6	9.0	17.5	5.6	1.1

TABLE 2. SUMMARY OF PRIVATE SECTOR BUILDING ACTIVITY, WESTERN AUSTRALIA—continued

Period	New residential building										Non-residential building									
	Houses					Other residential buildings					Total					Value (\$m)				
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Alterations and additions to residential buildings	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total	Total building	
VALUE OF WORK DONE DURING PERIOD																				
1992-93	..	1,070.4	..	232.4	..	1,302.8	137.9	15.1	100.7	42.6	56.7	62.3	33.2	12.2	60.3	23.6	40.3	447.0	1,887.8	
1993-94	..	1,382.3	..	327.0	..	1,709.3	147.7	21.7	246.7	48.4	54.2	84.6	34.0	6.9	60.3	20.7	40.1	617.5	2,474.5	
1994-95 I	..	1,483.6	..	408.5	..	1,892.1	170.9	45.6	175.9	78.3	71.4	89.3	45.9	6.5	36.9	36.5	36.8	623.0	2,686.0	
1994 June qtr	..	384.6	..	96.1	..	480.7	39.6	7.0	65.8	15.4	15.5	19.1	10.4	1.5	11.7	4.6	5.6	156.6	676.9	
Sept. qtr	..	381.3	..	102.8	..	484.1	42.5	10.6	71.3	18.5	17.1	24.6	13.5	1.9	10.8	7.5	7.7	183.5	710.1	
Dec. qtr	..	393.4	..	113.4	..	506.8	45.8	8.3	43.6	24.4	16.0	24.5	11.6	1.3	9.4	13.7	8.9	161.8	714.5	
1995 Mar. qtr	..	361.9	..	102.3	..	464.2	40.5	12.3	30.5	20.9	16.2	21.4	13.6	1.9	9.1	8.3	9.2	143.6	648.2	
June qtr r	..	347.0	..	89.9	..	437.0	42.1	14.4	30.4	14.5	22.1	18.7	7.1	1.4	7.5	7.0	11.0	134.1	613.2	
Sept. qtr	..	315.3	..	84.8	..	400.0	44.5	11.6	34.9	14.5	26.0	24.5	6.0	1.9	8.6	4.0	15.6	147.7	592.2	
VALUE OF WORK YET TO BE DONE																				
1992-93	..	252.6	..	59.1	..	311.7	24.2	2.7	133.6	6.4	9.0	12.3	6.2	1.9	15.3	6.6	7.2	201.2	537.2	
1993-94	..	350.1	..	108.7	..	458.9	30.9	13.2	59.9	11.7	8.1	13.6	15.5	1.3	9.8	13.2	7.1	153.4	643.2	
1994-95 I	..	307.7	..	93.0	..	400.7	27.1	21.8	41.2	13.2	25.6	17.9	5.1	1.5	6.8	3.7	12.5	149.4	577.2	
1994 June qtr	..	350.1	..	108.7	..	458.9	30.9	13.2	59.9	11.7	8.1	13.6	15.5	1.3	9.8	13.2	7.1	153.4	643.2	
Sept. qtr	..	381.4	..	124.7	..	506.2	30.9	12.3	30.8	17.5	20.2	17.6	12.4	2.9	7.9	10.2	4.9	136.8	673.8	
Dec. qtr	..	371.9	..	122.7	..	494.6	31.5	22.0	27.7	13.9	16.5	15.0	7.5	2.1	8.0	9.4	8.0	130.1	656.2	
1995 Mar. qtr	..	324.4	..	99.1	..	423.5	28.7	15.7	17.9	14.7	21.1	11.5	9.8	1.6	8.0	9.4	4.8	114.4	566.6	
June qtr r	..	307.7	..	93.0	..	400.7	27.1	21.8	41.2	13.2	25.6	17.9	5.1	1.5	6.8	3.7	12.5	149.4	577.2	
Sept. qtr	..	276.5	..	84.3	..	360.8	27.2	16.4	32.4	15.1	17.3	14.6	3.6	2.6	3.9	6.3	11.0	123.3	511.2	

TABLE 3. SUMMARY OF PUBLIC SECTOR BUILDING ACTIVITY, WESTERN AUSTRALIA

New residential building										Value (\$m)									
Houses					Other residential buildings					Total					Non-residential building				
Period	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Alterations and additions to residential buildings	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total	Total building
COMMENCED																			
1992-93	396	31.1	1,823	110.5	2,219	141.6	3.7	0.2	1.5	4.6	68.2	12.8	104.7	—	20.1	44.8	44.1	301.2	446.5
1993-94	379	29.6	1,187	75.0	1,566	104.6	1.0	—	2.0	1.1	55.4	16.4	64.0	—	25.4	20.6	9.4	194.3	299.8
1994-95 r	494	38.0	846	56.5	1,340	94.5	0.3	1.6	4.0	0.6	30.0	5.8	51.2	—	3.9	6.6	45.3	149.1	244.0
1994 June qtr	72	6.2	338	20.2	410	26.4	0.2	—	0.2	0.3	0.4	—	11.5	—	—	2.2	3.3	17.9	44.5
Sept. qtr	220	16.2	397	26.0	617	42.1	0.1	—	0.6	—	2.3	4.8	25.7	—	0.7	0.4	3.4	37.8	80.1
Dec. qtr	42	3.2	130	7.9	172	11.2	0.1	—	0.8	0.1	4.9	1.0	9.2	—	2.9	0.9	9.9	29.7	40.9
1995 Mar. qtr	96	7.8	220	13.4	316	21.2	0.1	—	0.4	—	12.1	—	16.0	—	0.1	2.8	22.7	54.0	75.3
June qtr r	136	10.8	99	9.2	235	20.0	—	1.6	2.3	0.5	10.8	—	0.3	—	0.2	2.5	9.3	27.6	47.6
Sept. qtr	107	9.5	285	18.6	392	28.1	0.1	—	0.7	0.1	3.8	0.4	—	—	0.7	2.9	1.7	10.3	38.6
UNDER CONSTRUCTION AT END OF PERIOD																			
1992-93	97	7.8	902	58.6	999	66.5	2.4	0.2	0.8	4.6	22.4	11.9	94.8	—	19.2	40.4	27.1	221.4	290.3
1993-94	91	7.8	720	51.7	811	59.5	0.2	—	1.8	0.3	37.8	0.9	68.6	—	41.0	6.7	5.3	162.4	222.0
1994-95 r	154	12.1	300	21.1	454	33.2	—	1.6	1.4	0.5	49.3	1.8	25.8	—	1.2	3.6	32.8	117.9	151.1
1994 June qtr	91	7.8	720	51.7	811	59.5	0.2	—	1.8	0.3	37.8	0.9	68.6	—	41.0	6.7	5.3	162.4	222.0
Sept. qtr	245	18.8	870	63.9	1,115	82.7	—	—	2.0	0.3	32.3	5.2	79.2	—	33.2	6.4	5.1	163.7	246.4
Dec. qtr	87	7.3	504	33.6	591	40.9	—	—	1.1	0.1	33.4	5.1	31.0	—	15.6	1.0	12.8	99.9	140.8
1995 Mar. qtr	114	9.3	432	28.5	546	37.7	0.1	—	0.3	—	45.0	2.0	33.6	—	15.2	3.1	30.7	129.9	167.7
June qtr r	154	12.1	300	21.1	454	33.2	—	1.6	1.4	0.5	49.3	1.8	25.8	—	1.2	3.6	32.8	117.9	151.1
Sept. qtr	144	12.9	392	28.1	536	41.0	0.1	1.6	0.5	0.5	49.9	1.1	14.7	—	1.0	4.8	33.7	107.8	148.9
COMPLETED																			
1992-93	388	30.6	1,897	111.2	2,285	141.8	1.3	0.1	2.6	—	258.2	5.4	96.5	—	20.3	24.0	99.8	506.9	650.0
1993-94	385	29.7	1,367	82.6	1,752	112.4	3.4	0.2	1.0	5.6	41.3	27.8	92.4	—	4.0	54.2	28.0	254.4	370.2
1994-95 r	429	33.8	1,252	87.4	1,681	121.2	0.5	—	4.6	0.4	19.6	5.1	93.3	—	43.0	9.5	14.0	189.5	311.1
1994 June qtr	97	7.3	224	13.9	321	21.2	0.1	—	—	—	7.4	14.7	14.7	—	1.1	22.7	1.4	62.1	83.4
Sept. qtr	66	5.2	233	14.2	299	19.4	0.3	—	0.4	0.1	8.1	0.5	15.0	—	9.5	0.7	3.6	37.9	57.6
Dec. qtr	200	14.7	496	38.4	696	53.1	0.1	—	1.8	0.3	4.0	1.3	57.0	—	20.6	6.0	2.3	93.2	146.4
1995 Mar. qtr	69	5.9	292	18.3	361	24.2	0.1	—	1.2	0.1	0.5	3.0	14.1	—	0.5	0.7	2.6	22.6	46.9
June qtr r	94	7.9	231	16.5	325	24.4	0.1	—	1.2	—	7.1	0.3	7.3	—	12.5	2.1	5.4	35.8	60.2
Sept. qtr	116	8.6	193	11.7	309	20.3	—	0.1	1.6	0.1	3.2	1.0	11.6	—	0.9	1.7	0.8	21.0	41.3

TABLE 3. SUMMARY OF PUBLIC SECTOR BUILDING ACTIVITY, WESTERN AUSTRALIA—continued

Period	New residential building					Value (\$m)													
	Houses		Other residential buildings		Total	Non-residential building													
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)		Alterations and additions to residential buildings	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total	Total building	
VALUE OF WORK DONE DURING PERIOD																			
1992-93	..	31.6	..	113.7	..	145.4	2.9	0.2	2.4	4.0	68.9	6.9	100.7	—	12.2	35.6	43.9	274.8	423.1
1993-94	..	29.8	..	84.1	..	113.9	1.9	—	2.3	1.6	47.3	23.3	89.6	—	32.2	36.1	17.4	249.9	363.7
1994-95 r	..	36.3	..	71.3	..	107.6	0.4	0.9	3.7	0.3	34.9	5.9	64.8	—	14.0	8.1	26.7	159.2	267.2
1994 June qtr	..	5.5	..	19.7	..	25.2	0.2	—	0.6	0.1	8.5	4.6	19.2	—	8.0	5.4	2.3	48.6	74.0
Sept. qtr	..	11.3	..	24.6	..	35.9	0.2	—	0.7	0.1	5.9	1.9	22.0	—	4.3	2.9	3.5	41.3	77.4
Dec. qtr	..	9.4	..	22.3	..	31.6	0.1	—	0.9	0.1	10.6	2.8	26.1	—	5.3	1.5	4.0	51.4	83.1
1995 Mar. qtr	..	6.0	..	13.5	..	19.4	0.1	—	0.3	—	6.3	1.1	9.9	—	2.6	1.4	7.0	28.5	48.0
June qtr r	..	9.6	..	11.0	..	20.6	0.1	0.9	1.8	—	12.1	0.2	6.8	—	1.7	2.2	12.3	38.0	58.7
Sept. qtr	..	9.8	..	14.1	..	24.0	—	0.6	1.2	0.2	8.2	0.5	6.4	—	0.2	2.2	10.1	29.6	53.6
VALUE OF WORK YET TO BE DONE																			
1992-93	..	4.3	..	31.7	..	36.0	0.8	—	0.5	0.6	12.6	6.7	47.4	—	17.4	19.8	13.5	118.7	155.4
1993-94	..	4.2	..	23.3	..	27.5	—	—	0.2	0.2	22.1	0.1	24.0	—	11.1	4.1	2.4	64.2	91.7
1994-95 r	..	6.0	..	9.0	..	15.0	—	0.7	0.7	0.5	18.2	0.3	9.7	—	0.2	2.4	17.5	50.2	65.2
1994 June qtr	..	4.2	..	23.3	..	27.5	—	—	0.2	0.2	22.1	0.1	24.0	—	11.1	4.1	2.4	64.2	91.7
Sept. qtr	..	9.1	..	25.3	..	34.3	—	—	0.2	0.1	18.7	3.2	27.6	—	8.3	1.7	2.3	62.1	96.4
Dec. qtr	..	3.0	..	11.1	..	14.0	..	—	0.1	—	13.1	1.5	10.3	—	6.0	0.7	8.2	40.0	54.1
1995 Mar. qtr	..	4.9	..	10.8	..	15.7	0.1	—	0.2	—	18.9	0.5	17.1	—	3.4	2.1	22.3	64.6	80.3
June qtr r	..	6.0	..	9.0	..	15.0	—	0.7	0.7	0.5	18.2	0.3	9.7	—	0.2	2.4	17.5	50.2	65.2
Sept. qtr	..	5.6	..	13.5	..	19.1	0.1	0.1	0.2	0.4	13.8	0.2	3.8	—	0.7	3.2	9.1	31.5	50.7

TABLE 4. NUMBER OF DWELLING UNITS BY STAGE OF CONSTRUCTION, WESTERN AUSTRALIA
SEASONALLY ADJUSTED SERIES

Period	Houses				Total			
	Private sector		Total		Private sector		Total	
	Commenced	Completed	Commenced	Completed	Commenced	Completed	Commenced	Completed
1994 June qtr	4,715	4,417	4,764	n.a.	6,263	5,606	6,607	5,940
Sept. qtr	4,339	4,329	4,560	n.a.	5,824	5,758	6,326	6,137
Dec. qtr	4,276	4,025	4,352	n.a.	5,704	5,253	6,037	5,905
1995 Mar. qtr	3,816	4,648	3,888	n.a.	5,037	6,271	5,357	6,519
June qtr r	3,284	4,032	3,405	n.a.	4,336	5,298	4,526	5,636
Sept. qtr	2,801	3,862	2,908	n.a.	3,602	4,905	3,922	5,281

TABLE 5. VALUE OF BUILDING WORK DONE, WESTERN AUSTRALIA
SEASONALLY ADJUSTED SERIES
(\$ million)

(\$ million)							
Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential buildings	Total		Private sector	Total	
1994 June qtr	390.7	118.8	511.1	38.5	170.9	214.3	767.6
Sept. qtr	380.8	121.8	496.5	43.7	174.2	212.3	757.1
Dec. qtr	387.6	127.6	520.0	43.2	144.0	201.9	757.9
1995 Mar. qtr	394.8	126.2	521.5	43.5	158.0	185.3	747.9
June qtr r	357.1	103.6	462.1	40.9	146.6	180.1	687.6
Sept. qtr	315.7	94.5	405.0	45.5	140.0	167.5	620.6

TABLE 6. VALUE OF BUILDING WORK COMMENCED, AT AVERAGE 1989-90 PRICES (a), WESTERN AUSTRALIA
(\$ million)

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential buildings	Total		Private sector	Total	
1992-93	1,266.1	336.9	1,603.0	158.5	530.3	825.6	2,587.1
1993-94	1,611.7	433.9	2,045.6	162.4	536.8	726.6	2,934.6
1994-95 r	1,518.3	429.1	1,947.4	165.7	561.8	705.5	2,818.6
1994 June qtr	442.7	123.4	566.1	43.6	129.6	147.0	756.7
Sept. qtr	445.4	138.5	583.9	42.9	147.1	183.8	810.6
Dec. qtr	396.8	116.4	513.2	46.6	143.8	172.5	732.3
1995 Mar. qtr	326.0	87.9	413.9	36.3	116.9	168.8	619.0
June qtr r	350.1	86.3	436.4	39.9	154.0	180.4	656.7
Sept. qtr	294.6	83.5	378.1	43.5	114.4	124.2	545.8

(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 7. VALUE OF BUILDING WORK DONE, AT AVERAGE 1989-90 PRICES (a), WESTERN AUSTRALIA
ORIGINAL AND SEASONALLY ADJUSTED SERIES
(\$ million)

(\$ million)							
Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential buildings	Total		Private sector	Total	
ORIGINAL							
1992-93	1,229.5	337.5	1,567.0	157.0	429.6	693.6	2,417.6
1993-94	1,530.8	402.0	1,932.8	162.2	594.0	834.5	2,929.5
1994-95 r	1,577.4	462.9	2,040.3	177.8	593.9	745.6	2,963.7
1994 June qtr	417.7	112.9	530.6	42.6	150.4	197.1	770.3
Sept. qtr	413.3	123.7	537.0	44.9	175.9	215.5	797.4
Dec. qtr	418.3	131.1	549.4	47.7	154.4	203.4	800.5
1995 Mar. qtr	380.1	111.5	491.6	41.9	136.6	163.7	697.2
June qtr r	365.7	96.6	462.3	43.3	127.0	163.0	668.6
Sept. qtr	331.7	94.1	425.8	45.4	138.9	166.7	637.9
SEASONALLY ADJUSTED							
1994 June qtr	418.3	115.9	536.1	41.2	164.1	205.8	787.4
Sept. qtr	400.9	118.2	512.7	46.0	166.9	203.5	766.7
Dec. qtr	402.6	123.3	530.6	44.9	137.4	192.6	760.7
1995 Mar. qtr	407.9	121.6	530.1	45.0	150.3	176.3	748.9
June qtr r	366.1	99.1	466.9	42.0	138.9	170.5	684.2
Sept. qtr	322.1	89.9	406.7	46.4	131.6	157.5	613.0

(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 8. NUMBER OF DWELLING UNITS BY OWNERSHIP,
CLASS OF BUILDER AND STAGE OF CONSTRUCTION,
WESTERN AUSTRALIA**

WESTERN AUSTRALIA											
Period	Private sector					Public sector			Total		
	Houses			Other residential buildings	Total	Houses	Other residential buildings	Total	Houses	Other residential buildings	Total
	Contractor-built	Other	Total								
COMMENCED											
1992-93	12,704	1,911	14,615	3,955	18,570	396	1,823	2,219	15,011	5,778	20,789
1993-94	15,718	2,021	17,739	5,495	23,234	379	1,187	1,566	18,118	6,682	24,800
1994-95 r	14,004	1,727	15,731	5,227	20,958	494	846	1,340	16,225	6,073	22,298
1994 June qtr	4,434	411	4,845	1,489	6,334	72	338	410	4,917	1,827	6,744
Sept. qtr	4,287	343	4,630	1,589	6,219	220	397	617	4,850	1,986	6,836
Dec. qtr	3,684	571	4,255	1,520	5,775	42	130	172	4,297	1,650	5,947
1995 Mar. qtr	3,061	408	3,469	1,108	4,577	96	220	316	3,565	1,328	4,893
June qtr r	2,972	405	3,378	1,010	4,388	136	99	235	3,514	1,109	4,623
Sept. qtr	2,582	406	2,988	859	3,847	107	285	392	3,095	1,144	4,239
UNDER CONSTRUCTION AT END OF PERIOD											
1992-93	3,470	1,828	5,298	1,929	7,227	97	902	999	5,395	2,831	8,226
1993-94	5,355	1,922	7,278	2,967	10,245	91	720	811	7,369	3,687	11,056
1994-95 r	4,202	1,647	5,849	2,540	8,389	154	300	454	6,003	2,840	8,843
1994 June qtr	5,355	1,922	7,278	2,967	10,245	91	720	811	7,369	3,687	11,056
Sept. qtr	6,149	1,752	7,901	3,120	11,021	245	870	1,115	8,146	3,990	12,136
Dec. qtr	5,637	1,894	7,532	3,208	10,740	87	504	591	7,619	3,712	11,331
1995 Mar. qtr	4,929	1,775	6,704	2,850	9,554	114	432	546	6,818	3,282	10,100
June qtr r	4,202	1,647	5,849	2,540	8,389	154	300	454	6,003	2,840	8,843
Sept. qtr	3,803	1,494	5,297	2,347	7,644	144	392	536	5,441	2,739	8,180
COMPLETED											
1992-93	12,053	1,927	13,980	3,539	17,519	388	1,897	2,285	14,368	5,436	19,804
1993-94	13,837	1,847	15,684	4,403	20,087	385	1,367	1,752	16,069	5,770	21,839
1994-95 r	15,068	1,887	16,955	5,496	22,451	429	1,252	1,681	17,384	6,748	24,132
1994 June qtr	3,966	556	4,522	1,230	5,752	97	224	321	4,619	1,454	6,073
Sept. qtr	3,457	511	3,968	1,412	5,380	66	233	299	4,034	1,645	5,679
Dec. qtr	4,232	390	4,622	1,342	5,964	200	496	696	4,822	1,838	6,660
1995 Mar. qtr	3,719	502	4,221	1,436	5,657	69	292	361	4,290	1,728	6,018
June qtr r	3,660	484	4,144	1,306	5,450	94	231	325	4,238	1,537	5,775
Sept. qtr	2,981	548	3,529	1,048	4,577	116	193	309	3,645	1,241	4,886

**TABLE 9. NUMBER AND VALUE OF NEW HOUSES BUILT BY CONTRACT BUILDERS FOR PRIVATE OWNERSHIP, BY COMPLETION VALUE RANGE AND STAGE OF CONSTRUCTION
WESTERN AUSTRALIA**

Period	Commenced				Under construction at end of period				Completed			
	Less than \$40,000	\$40,000 to \$59,999	\$60,000 and over	Total	Less than \$40,000	\$40,000 to \$59,999	\$60,000 and over	Total	Less than \$40,000	\$40,000 to \$59,999	\$60,000 and over	Total
NUMBER												
1992-93	732	4,604	7,367	12,704	165	831	2,474	3,470	651	4,728	6,673	12,053
1993-94	276	4,391	11,051	15,718	165	973	4,217	5,355	222	4,312	9,303	13,837
1994-95	225	2,642	11,136	14,004	-	404	3,798	4,202	304	3,401	11,364	15,068
1994 June qtr	151	1,062	3,222	4,434	165	973	4,217	5,355	38	1,137	2,792	3,966
Sept. qtr	113	854	3,320	4,287	100	1,082	4,966	6,149	115	846	2,495	3,457
Dec. qtr	75	754	2,855	3,684	63	892	4,683	5,637	88	1,007	3,137	4,232
1995 Mar. qtr	—	656	2,406	3,061	—	732	4,197	4,929	50	816	2,853	3,719
June qtr r	38	379	2,555	2,972	—	404	3,798	4,202	51	732	2,878	3,660
Sept. qtr	50	414	2,118	2,582	37	414	3,351	3,803	13	416	2,552	2,981
VALUE (\$m)												
1992-93	25.3	234.6	702.7	962.5	5.9	43.3	285.2	334.4	22.4	239.3	622.0	883.7
1993-94	9.3	231.4	1,050.0	1,290.7	5.9	51.6	479.1	536.5	7.2	225.5	869.4	1,102.1
1994-95	7.9	138.1	1,121.8	1,267.8	—	21.1	490.0	511.1	10.7	178.9	1,112.9	1,302.5
1994 June qtr	5.3	55.6	312.5	373.5	5.9	51.6	479.1	536.5	1.0	59.7	257.5	318.2
Sept. qtr	4.3	44.7	326.9	375.9	3.8	57.2	557.6	618.6	4.0	43.8	249.2	297.1
Dec. qtr	2.4	39.8	283.4	325.5	2.0	47.2	533.6	582.8	3.2	53.7	311.2	368.1
1995 Mar. qtr	—	34.3	237.5	271.8	—	38.5	490.4	528.9	1.7	42.8	281.7	326.3
June qtr r	1.2	19.4	273.9	294.5	—	21.1	490.0	511.1	1.7	38.6	270.7	311.0
Sept. qtr	1.8	21.7	222.1	245.6	1.4	21.9	441.6	464.9	0.5	21.7	271.9	294.1

**TABLE 10. SUMMARY OF BUILDING ACTIVITY, WESTERN AUSTRALIA
RELATIVE STANDARD ERRORS (PER CENT)
SEPTEMBER QUARTER 1995**

SEPTEMBER-QUARTER 1995

Ownership and stage of construction	New residential building				Value	
	Houses		Total		Alterations and additions to residential buildings	Total building
	Number	Value	Number of dwelling units	Value		
PRIVATE SECTOR						
Commenced	4.0	4.3	3.1	3.5	8.9	2.5
Under construction at end of period	3.4	3.4	2.4	2.6	6.7	1.8
Completed	4.8	5.4	3.7	4.3	8.8	3.3
Value of work done	..	3.0	..	2.3	7.8	1.7
Value of work yet to be done	..	4.2	..	3.2	7.5	2.3
TOTAL PRIVATE AND PUBLIC SECTORS						
Commenced	3.9	4.2	2.8	3.2	8.9	2.3
Under construction at end of period	3.3	3.4	2.2	2.4	6.7	1.6
Completed	4.7	5.2	3.5	4.1	8.8	3.1
Value of work done	..	2.9	..	2.2	7.8	1.5
Value of work yet to be done	..	4.2	..	3.1	7.4	2.1

EXPLANATORY NOTES

Introduction

This publication contains detailed results from the quarterly Building Activity Survey. Users should note that data for the latest quarter is subject to revision.

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 available only at the State/Territory and Australia levels with the exception of the Northern Territory. However, dwelling unit commencement data for regions below State level are shown in the monthly series of dwelling unit commencements compiled by State offices of the ABS. Data from this series, unlike those compiled from the Building Activity Survey, 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. The number of dwelling units created by alterations and additions to existing buildings, and through the construction of new non-residential buildings, is not included in the tables but is shown as a footnote to Table 1.

11. *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).

12. *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.

13. *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

14. 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 is the value of the building at the end of the period.

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.

Building classification

15. *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.

16. *Builder type.* Houses are classified according to the type of builder as follows.

- (a) *Contractor-built houses* are those constructed by a private recognised building contractor, either under contract, or in anticipation of sale or rental.
- (b) *Houses built by other than contract builders* are those constructed by an owner (other than a recognised building contractor) or under the owner's direction, without the services of a single contractor responsible for the whole job. Houses built by businesses (other than recognised building contractors) and public sector organisations are also included in this category.

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.
- (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.

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 10.

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 2) and that the associated relative standard error is 2.5 per cent (for actual percentage see Table 10). 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 4, 5 and 7. 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 6 and 7. 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 the contact shown at the front of this publication.

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

Building Approvals, Australia (8731.0) – monthly (\$13.50)

Building Approvals, Western Australia (8731.5) – monthly (\$12.00)

Dwelling Unit Commencements Reported by Approving Authorities, Western Australia (8741.5) – monthly (\$13.00)

Building Activity, Australia: Dwelling Unit Commencements, Preliminary (8750.0) – quarterly (\$11.00)

Engineering Construction Activity, Australia (8762.0) – quarterly (\$11.00)

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

.. not applicable
— nil or rounded to zero
r figure or series revised since previous issue
p preliminary – series subject to revision

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

MIKE KONRATH
Acting Deputy Commonwealth Statistician

