

CATALOGUE NO. 8752.5

EMBARGOED UNTIL 9.30 A.M. 21 APRIL 1995

**BUILDING ACTIVITY, WESTERN AUSTRALIA
DECEMBER QUARTER 1994**

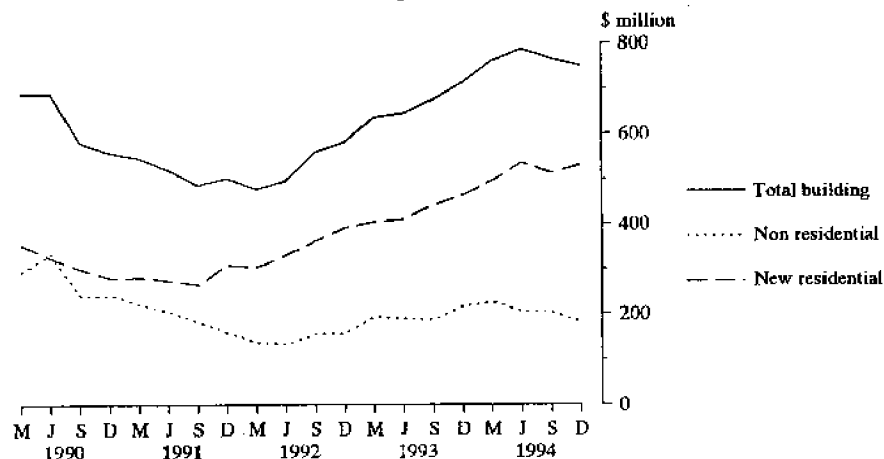
SUMMARY OF FINDINGS

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

	Percentage change on	
	Sept. quarter 1994	Dec. quarter 1993
New residential building	3.8	14.7
Alterations and additions to residential buildings	-5.2	13.2
Non-residential building	-10.2	-16.0
Total building	-2.1	5.3

- In seasonally adjusted average 1989-90 prices the total value of building work done for the December quarter 1994 was \$750.9 million. This was a decrease of 2.1% from the previous quarter, the second consecutive quarterly fall.
- The value of work done on new residential building rose by 3.8% to \$532.0 million for the December quarter, 14.7% above the level of a year earlier.
- Work done on non-residential building fell 10.2% from the previous quarter to \$182.7 million, down 16.0% on the level of a year earlier.

**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- for more information about statistics in this publication and the availability of related unpublished statistics, contact Rex Porter on Adelaide (08) 237 7496 or any ABS State Office.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.

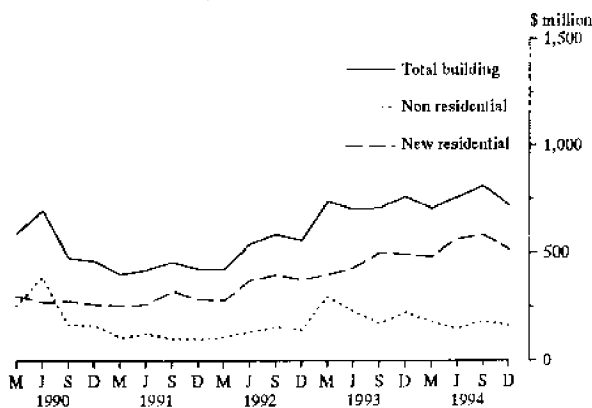
SUMMARY OF FINDINGS — continued

Value of building work commenced at average 1989–90 prices

	Percentage change on	
	Sept. quarter 1994	Dec. quarter 1993
New residential building	-11.9	4.1
Alterations and additions to residential buildings	5.1	7.4
Non-residential building	-13.3	-28.8
Total building	-11.3	-5.4

- In average 1989–90 prices (but not seasonally adjusted) the total value of building work commenced during the December quarter 1994 was \$719.3 million. This was a decrease of \$91.7 million or 11.3% from the previous quarter.
- The value of new residential building commenced fell by \$69.4 million or 11.9% from the September quarter 1994 which had been a record since the series began with the September quarter 1969. However, at \$514.6 million for the December quarter 1994, it was still 4.1% above the level of a year earlier.
- For the December quarter 1994, non-residential commencements fell by \$24.5 million or 13.3% to a level of \$159.6 million. This was 28.8% below that of the December quarter 1993.

VALUE OF WORK COMMENCED AT AVERAGE 1989-90 PRICES

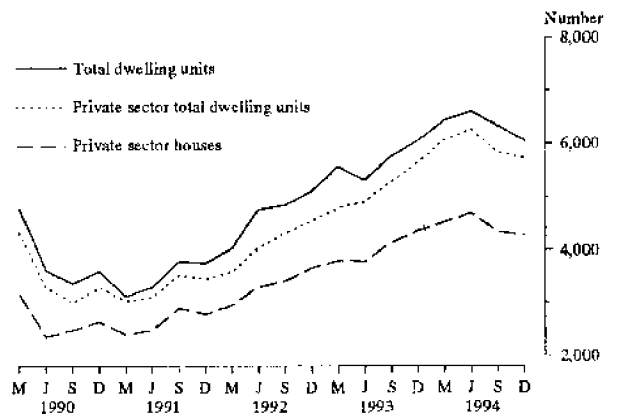


Number of dwelling units commenced, seasonally adjusted

	Percentage change on	
	Sept. quarter 1994	Dec. quarter 1993
Private sector houses	-1.5	-2.2
Private sector dwelling units	-1.8	1.4
Total dwelling units	-4.3	0.0

- In seasonally adjusted terms the estimate of the total number of dwelling units commenced during the December quarter 1994 was 6,055, a decrease of 4.3% from the previous quarter. The latest figure is a decrease of 552 or 8.4% from the 6,607 commenced in the June quarter 1994 which had been greater than any quarter since the June quarter 1989.

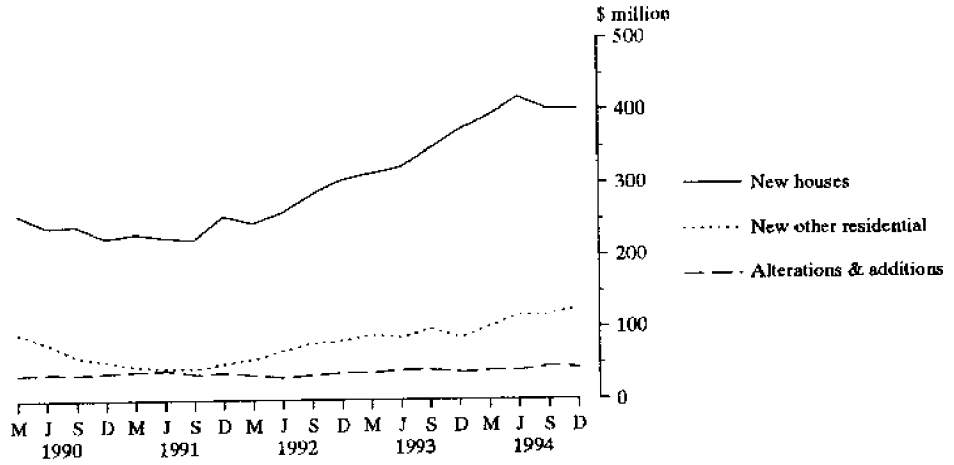
NEW DWELLING UNITS COMMENCED SEASONALLY ADJUSTED



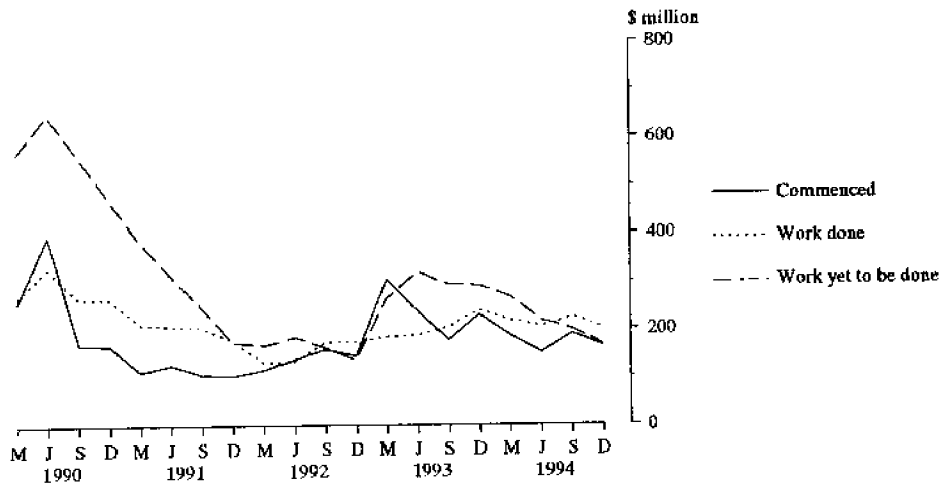
Original unadjusted data

- The total value of building work commenced (unadjusted, at current prices) during the December quarter 1994 was \$711.8 million, a decrease of \$84.2 million or 10.6% from the previous quarter. Of this total, \$503.6 million was for new residential building resulting in 5,964 dwelling units, 872 or 12.8% less than the previous quarter.
- The total value of work done during the December quarter was virtually unchanged at \$786.5 million while the value of work yet to be done on jobs under construction at the end of December 1994 fell \$60.6 million to \$709.6 million.

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



VALUE OF NON-RESIDENTIAL BUILDING



VALUE OF NON-RESIDENTIAL WORK DONE

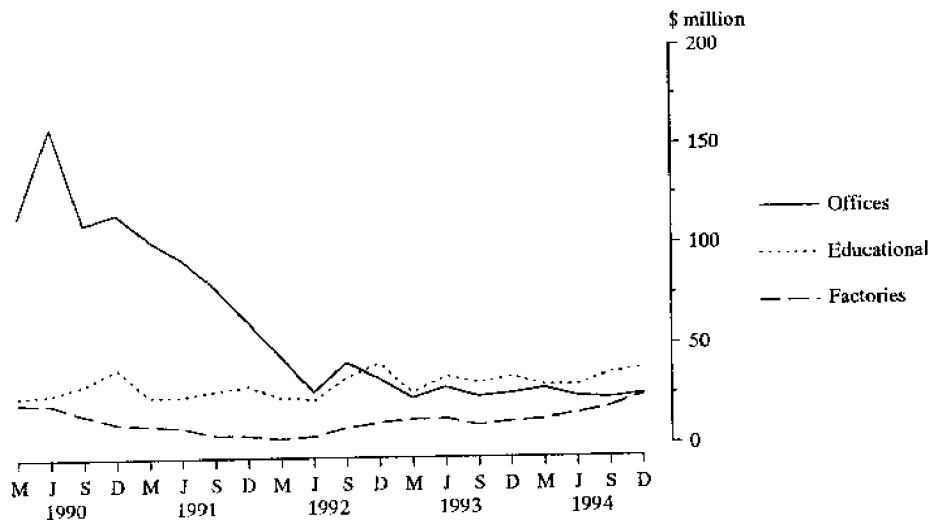


TABLE 1. SUMMARY OF BUILDING ACTIVITY, WESTERN AUSTRALIA

Period	New residential building										Non-residential building										Total building											
	Houses					Other residential buildings					Total					Alterations and additions to residential buildings						Other business premises					Enter-tainment and recreational					Total
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Houses etc.	Shops	Factories	Offices	Educational	Religious	Health	Miscellaneous	Health	Recreational		Miscellaneous	Total									
COMMENCED																																
1991-92	12,279	914.1	4,044	233.3	16,323	1,147.4	118.6	11.3	69.3	19.4	68.4	62.3	107.6	7.7	39.2	33.0	44.2	462.3	1,728.3													
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													
1993 Sept. qtr	4,531	361.7	1,683	106.5	6,214	468.2	32.4	6.9	33.6	9.3	14.7	22.6	22.8	1.6	29.7	13.2	22.6	177.0	677.6													
Dec. qtr	4,449	363.9	1,512	98.6	5,961	462.5	38.9	5.8	64.1	13.2	51.9	31.6	14.1	2.4	25.1	9.9	11.3	229.4	730.9													
1994 Mar. qtr	4,221	346.7	1,660	109.8	5,881	456.5	38.7	9.1	40.7	13.8	28.6	26.5	40.6	1.4	11.4	8.8	5.6	186.5	681.7													
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	4,880	423.0	1,986	141.9	6,866	565.0	41.5	10.0	30.0	24.0	31.2	33.8	36.0	3.4	8.9	4.6	8.6	189.5	796.0													
Dec. qtr	4,296	382.3	1,668	121.3	5,964	503.6	43.6	17.4	35.0	19.6	12.6	22.3	16.0	0.5	10.4	13.1	17.9	164.6	711.8													
UNDER CONSTRUCTION AT END OF PERIOD																																
1991-92	4,795	405.1	2,539	185.4	7,334	590.5	50.5	13.2	44.2	13.3	231.2	39.7	98.4	4.2	34.7	23.7	97.1	599.6	1,240.6													
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													
1993 Sept. qtr	6,292	569.8	2,885	196.5	9,177	766.3	53.5	10.8	187.6	13.2	30.7	41.6	117.1	3.7	108.2	55.5	48.2	616.6	1,436.4													
Dec. qtr	6,500	587.7	2,912	205.2	9,412	792.9	53.5	14.2	218.7	16.5	60.7	53.4	83.2	4.0	129.6	38.5	36.1	654.9	1,501.4													
1994 Mar. qtr	7,096	659.4	3,314	235.1	10,410	894.4	61.8	18.2	236.7	20.1	66.0	47.4	85.7	4.2	92.4	37.1	17.9	625.6	1,581.9													
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	315.5	36.9	64.0	44.0	109.3	5.1	63.9	27.9	16.1	527.2	1,691.1													
Dec. qtr	7,672	762.1	3,877	302.0	11,549	1,064.1	72.0	35.4	93.9	32.9	60.1	34.8	70.0	3.8	39.2	23.8	25.4	418.4	1,554.4													
COMPLETED																																
1991-92	11,539	892.7	3,377	195.5	14,916	1,088.2	139.6	21.6	91.5	19.1	611.6	97.7	91.6	7.1	49.1	35.4	56.4	1,081.0	2,308.9													
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													
1993 Sept. qtr	3,609	282.0	1,627	96.3	5,236	378.3	38.6	2.5	25.9	13.1	23.5	14.1	14.5	1.3	3.1	15.0	22.6	135.5	552.5													
Dec. qtr	4,240	350.7	1,485	92.5	5,725	443.2	40.2	2.9	33.5	10.0	21.7	19.8	49.9	1.9	9.8	26.4	23.2	199.1	681.5													
1994 Mar. qtr	3,601	280.0	1,204	80.2	4,805	360.2	31.7	5.2	25.6	10.2	24.7	32.1	36.9	1.2	51.1	10.6	24.9	222.7	614.6													
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	372.9	764.6													
Dec. qtr	4,768	408.7	1,754	127.0	6,522	535.7	47.6	11.0	75.0	24.0	18.3	30.5	54.8	1.7	36.8	18.0	8.5	278.7	862.0													

TABLE 1. SUMMARY OF BUILDING ACTIVITY, WESTERN AUSTRALIA—continued

Period	New residential building										Non-residential building														
	Houses					Other residential buildings					Total					Alterations and additions to residential buildings					Enter-tainment and recreational				
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Houses etc.	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Miscellaneous	Total	Total building					
VALUE OF WORK DONE DURING PERIOD																									
1991-92	..	871.8	..	227.5	..	1,099.4	..	127.1	15.3	65.0	17.6	210.9	63.6	101.7	7.3	30.6	30.8	100.2	642.9	1,869.4					
1992-93	..	1,102.1	..	346.1	..	1,448.2	..	140.8	15.3	103.0	46.7	125.7	69.2	133.9	12.2	72.4	59.3	84.2	721.8	2,310.8					
1993-94	..	1,412.1	..	411.2	..	1,823.2	..	149.6	21.7	249.1	50.0	101.5	107.9	123.6	6.9	92.5	56.8	57.5	867.4	2,840.2					
1993 Sept. qtr	..	327.5	..	105.4	..	432.9	..	37.0	2.9	54.1	9.7	23.9	22.5	30.6	1.1	21.1	18.6	21.3	205.9	675.9					
Dec. qtr	..	355.9	..	94.2	..	450.1	..	37.6	6.5	61.7	11.7	25.5	32.8	33.8	2.2	29.9	16.4	18.2	238.9	726.5					
1994 Mar. qtr	..	338.4	..	95.9	..	434.3	..	35.2	5.3	66.8	13.0	28.1	29.0	29.6	2.1	21.8	11.8	10.0	217.4	686.9					
June qtr	..	390.2	..	115.7	..	505.9	..	39.8	7.0	66.4	15.6	23.9	23.6	29.6	1.5	19.7	10.0	8.0	205.3	750.9					
Sept. qtr	..	392.6	..	127.4	..	520.0	..	42.6	10.6	72.0	18.6	23.0	26.4	35.5	1.9	15.1	10.4	11.2	224.8	787.5					
Dec. qtr	..	401.0	..	138.7	..	539.7	..	44.6	8.1	40.9	24.1	24.9	25.9	37.5	1.3	13.7	15.0	10.9	202.3	786.5					
VALUE OF WORK YET TO BE DONE																									
1991-92	..	214.7	..	94.0	..	308.7	..	19.1	6.7	25.2	7.8	24.8	19.0	47.6	2.6	20.6	12.2	16.7	183.3	511.2					
1992-93	..	256.9	..	90.7	..	347.7	..	25.0	2.7	134.2	7.0	21.6	19.0	53.6	1.9	32.7	26.4	20.7	319.9	692.6					
1993-94	..	354.3	..	132.0	..	486.3	..	31.0	13.2	60.1	11.9	30.2	13.7	39.5	1.3	20.9	17.4	9.5	217.6	734.9					
1993 Sept. qtr	..	296.8	..	95.2	..	391.9	..	20.9	6.7	116.1	6.6	12.3	19.3	46.8	2.5	41.5	21.2	19.2	292.2	705.1					
Dec. qtr	..	309.7	..	102.3	..	412.0	..	23.5	6.5	119.0	8.3	38.5	18.0	29.0	2.5	42.8	14.1	12.1	290.8	716.4					
1994 Mar. qtr	..	323.2	..	117.7	..	440.9	..	28.3	10.5	95.8	9.1	40.4	15.2	39.2	1.7	34.9	11.6	8.8	267.3	736.5					
June qtr	..	354.3	..	132.0	..	486.3	..	31.0	13.2	60.1	11.9	30.2	13.7	39.5	1.3	20.9	17.4	9.5	217.6	734.9					
Sept. qtr	..	390.5	..	150.0	..	540.5	..	30.9	12.3	31.0	17.5	39.0	20.8	40.1	2.9	16.2	11.9	7.2	198.9	770.2					
Dec. qtr	..	376.8	..	134.9	..	511.7	..	31.5	22.0	27.6	13.4	28.5	16.3	18.1	2.1	14.7	9.7	14.2	166.5	709.6					

NOTE: The number of self-contained dwelling units commenced as part of the construction of non-residential building and alterations and additions to existing buildings (including conversions to dwelling units) are excluded from this table. There were 38 such dwelling units commenced in the December quarter 1994.

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

Period	New residential building			Non-residential building										Total building					
	Houses			Other residential buildings			Total								Enter- tainment and recrea- tional	Miscel- laneous	Total		
	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	business premises	Educa- tional					Reli- gious	Health
COMMENCED																			
1991-92	11,921	889.9	2,657	153.7	14,578	1,043.6	117.9	11.1	66.9	19.3	43.6	50.0	30.3	7.7	21.1	9.3	25.9	285.2	1,446.6
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	63.0	25.5	43.9	540.9	2,014.4
1993-94	17,739	1,455.7	5,405	366.1	23,234	1,821.8	150.2	31.5	165.7	53.6	53.1	85.1	43.5	6.4	44.9	27.2	38.8	549.7	2,571.6
1993 Sept. qtr	4,420	352.0	1,234	79.0	5,654	431.0	32.2	6.9	37.5	8.7	13.4	20.3	6.7	1.6	18.9	3.3	19.6	131.8	595.0
Dec. qtr	4,344	356.4	1,359	89.0	5,703	445.3	38.5	5.8	63.5	13.0	17.0	26.3	8.4	2.4	10.5	7.1	10.2	164.2	648.1
1994 Mar. qtr	4,130	340.4	1,413	92.3	5,543	432.7	38.5	9.1	40.7	13.8	9.8	17.9	9.8	1.4	11.4	3.0	3.6	120.5	591.7
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	4.0	13.7	5.3	133.2	686.9
Sept. qtr	4,630	406.9	1,589	115.9	6,219	522.8	41.4	10.0	29.4	24.0	28.9	28.0	10.3	3.4	8.2	4.2	5.2	151.7	715.9
Dec. qtr	4,254	379.0	1,538	113.4	5,792	492.4	43.6	17.4	34.2	19.6	7.7	21.3	6.8	0.5	7.5	12.2	9.1	136.2	672.1
UNDER CONSTRUCTION AT END OF PERIOD																			
1991-92	4,706	397.8	1,554	126.4	6,260	524.2	50.4	13.2	42.3	13.3	19.2	35.1	14.8	4.2	16.3	4.9	14.2	177.5	752.1
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	62.1	16.7	23.9	353.2	1,012.1
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	26.0	19.3	15.2	431.8	1,414.6
1993 Sept. qtr	6,182	559.9	2,032	137.6	8,214	697.5	53.4	10.8	185.6	12.6	21.1	29.0	17.8	3.7	78.1	9.8	30.4	398.9	1,149.8
Dec. qtr	6,362	576.5	2,279	158.4	8,641	755.0	53.1	14.2	216.7	16.5	19.1	36.3	20.0	4.0	85.7	14.2	23.4	450.2	1,238.2
1994 Mar. qtr	6,980	650.4	2,708	189.7	9,688	840.1	61.8	18.2	235.0	20.1	21.2	32.1	13.8	4.2	50.3	9.6	14.4	419.0	1,330.9
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	26.0	19.3	15.2	431.8	1,414.6
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	90.7	21.5	11.0	363.5	1,444.7
Dec. qtr	7,584	754.7	3,344	266.5	10,928	1,021.2	72.0	35.4	92.9	32.9	26.8	29.8	24.5	3.8	23.7	21.8	13.8	305.3	1,398.5
COMPLETED																			
1991-92	11,172	869.2	2,815	164.4	13,987	1,033.6	139.0	21.4	89.8	19.0	567.9	31.5	27.5	7.1	27.5	17.7	20.1	829.7	2,002.3
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	17.5	16.1	34.2	375.1	1,776.5
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	91.0	24.6	48.8	490.0	2,172.2
1993 Sept. qtr	3,511	274.4	1,131	68.3	4,642	342.7	36.0	2.3	25.9	8.4	9.6	12.4	2.0	1.3	3.1	10.2	13.1	88.4	467.0
Dec. qtr	4,163	344.5	1,412	70.7	5,275	415.2	40.1	2.9	32.9	9.2	18.3	18.8	6.4	1.9	8.8	2.3	17.1	118.5	573.8
1994 Mar. qtr	3,488	271.4	930	61.3	4,418	332.7	31.1	5.2	25.4	10.2	8.2	21.6	15.3	1.2	49.1	8.0	13.9	158.1	521.9
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	30.0	4.1	4.6	124.9	609.5
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	4.1	2.3	9.5	235.0	707.0
Dec. qtr	4,569	394.0	1,287	90.2	5,856	484.2	47.6	11.0	73.3	23.7	14.4	29.3	12.3	1.7	16.2	12.0	6.2	200.0	731.7

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

Period	New residential building										Non-residential building																																												
	Houses					Other residential buildings					Total					Alterations and additions to residential buildings					Other business premises					Educational					Religious					Health					Entertainment and recreational					Miscellaneous					Total building				
	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Hotels etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total building																																		
VALUE OF WORK DONE DURING PERIOD																																																							
1991-92	..	849.7	..	1,027.9	126.4	15.1	63.1	17.6	130.1	40.2	30.4	7.3	18.0	10.2	27.5	359.6	1,513.9																																						
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	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	40.1	617.5	2,474.5																																						
1993 Sept. qtr	..	318.9	..	74.3	393.2	35.9	2.9	53.9	8.9	14.3	18.9	6.2	1.1	12.7	5.2	15.0	139.1	566.2																																					
Dec. qtr	..	349.2	..	74.8	424.0	37.3	6.5	60.5	11.1	13.3	25.4	9.0	2.2	20.8	6.2	12.8	167.8	629.0																																					
1994 Mar. qtr	..	329.6	..	81.9	411.4	34.9	5.3	66.5	13.0	11.2	21.2	8.4	2.1	15.1	4.7	6.7	154.0	600.4																																					
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	..	391.6	..	116.2	507.8	44.5	8.1	40.0	24.1	14.3	23.2	11.6	1.3	8.3	13.5	6.9	151.2	703.6																																					
VALUE OF WORK YET TO BE DONE																																																							
1991-92	..	209.9	..	269.5	19.1	6.7	23.8	7.8	12.0	18.0	7.2	2.6	12.2	2.4	3.7	96.4	385.0																																						
1992-93	..	252.6	..	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	..	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																																						
1993 Sept. qtr	..	291.4	..	357.6	20.9	6.7	114.6	6.3	8.1	13.8	6.8	2.5	21.7	4.8	11.8	197.0	578.5																																						
Dec. qtr	..	303.5	..	386.6	23.4	6.5	118.0	8.3	11.2	14.6	6.4	2.5	17.2	5.3	9.1	199.1	609.1																																						
1994 Mar. qtr	..	319.5	..	414.5	28.3	10.5	95.2	9.1	10.4	10.8	7.3	1.7	15.9	4.0	7.4	172.4	615.2																																						
June qtr	..	350.1	..	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	..	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	..	373.8	..	497.5	31.5	22.0	27.5	13.4	15.4	14.8	7.5	2.1	8.7	9.0	7.0	127.4	656.4																																						

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

Period	New residential building										Non-residential building														
	Houses					Other residential buildings					Total					Houses					Total				
	Number of dwelling units	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	Business premises	Educational	Religious	Health	Recreational	Miscellaneous	Total					
COMMENCED																									
1991-92	358	24.3	1,387	79.6	1,745	103.9	0.7	0.2	2.4	—	24.9	12.3	77.3	—	18.1	23.8	18.3	177.1	281.6						
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						
1993 Sept. qtr	111	9.6	449	27.6	560	37.2	0.2	—	1.2	0.6	1.3	2.3	16.1	—	10.8	9.9	3.0	45.2	82.5						
1993 Dec. qtr	105	7.5	153	9.7	258	17.2	0.4	—	0.6	0.2	34.9	5.4	5.7	—	14.6	2.7	1.1	65.2	82.8						
1994 Mar. qtr	91	6.3	247	17.5	338	23.8	0.2	—	—	—	18.8	8.7	30.7	—	—	5.8	1.9	66.0	90.0						
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						
1994 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						
1994 Dec. qtr	42	3.2	130	7.9	172	11.2	0.1	—	0.8	—	4.9	1.0	9.2	—	2.9	0.8	8.8	28.4	39.6						
UNDER CONSTRUCTION AT END OF PERIOD																									
1991-92	89	7.3	985	59.1	1,074	66.4	0.1	—	1.8	—	212.0	4.6	83.5	—	18.4	18.8	82.9	422.1	488.5						
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						
1993 Sept. qtr	110	9.9	853	58.9	963	68.8	0.1	—	1.9	0.6	9.7	12.6	99.3	—	30.0	45.7	17.9	217.7	286.6						
1993 Dec. qtr	138	11.2	633	46.8	771	58.0	0.4	—	1.9	—	41.7	17.0	63.2	—	44.0	24.2	12.7	204.8	263.7						
1994 Mar. qtr	116	9.0	606	45.3	722	54.4	—	—	1.6	—	44.8	15.3	71.9	—	42.1	27.5	3.5	206.6	261.0						
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						
1994 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						
1994 Dec. qtr	88	7.4	533	35.4	621	42.9	—	—	1.1	—	33.4	5.1	45.5	—	15.6	0.9	11.6	113.0	155.9						
COMPLETED																									
1991-92	367	23.5	562	31.1	929	54.6	0.6	0.2	1.6	—	43.8	66.2	64.1	—	21.5	17.8	36.2	251.4	306.6						
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						
1993 Sept. qtr	98	7.6	496	28.0	594	35.7	2.7	0.2	—	4.6	13.9	1.6	12.5	—	—	4.8	9.4	47.1	85.5						
1993 Dec. qtr	77	6.2	373	21.8	450	28.0	0.1	—	0.5	0.9	3.4	0.9	43.5	—	1.0	24.1	6.1	80.6	108.7						
1994 Mar. qtr	113	8.6	274	18.9	387	27.5	0.5	—	0.3	—	16.5	10.5	21.7	—	1.9	2.7	11.0	64.6	92.6						
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						
1994 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						
1994 Dec. qtr	199	14.6	467	36.9	666	51.5	—	—	1.8	0.3	4.0	1.3	42.6	—	30.6	6.0	2.3	78.7	130.2						

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

New residential building																	
Houses				Other residential buildings				Total									
Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Number of dwelling units	Value (\$m)	Alterations and additions to residential buildings	Hoisis etc.	Shops	Factories	Offices	Other business premises	Educational	Religious	Health	Entertainment and recreational	Miscellaneous	Total building
Period																	
VALUE OF WORK DONE DURING PERIOD																	
1991-92	22.1	..	49.4	..	71.5	0.7	0.2	1.8	—	80.8	23.3	71.2	—	12.5	20.6	72.7	283.3
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	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
1993 Sept. qtr	8.6	..	31.1	..	39.7	1.1	—	0.2	0.8	9.7	3.6	24.5	—	8.4	13.4	6.3	66.9
Dec. qtr	6.7	..	19.4	..	26.1	0.3	—	1.2	0.6	12.2	7.4	24.8	—	9.1	10.3	5.5	71.1
1994 Mar. qtr	8.9	..	14.0	..	22.9	0.3	—	0.3	—	16.9	7.8	21.2	—	6.7	7.1	3.3	63.3
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
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	77.4
Dec. qtr	9.4	..	22.5	..	31.9	—	—	0.9	—	10.6	2.8	25.9	—	5.3	1.5	4.0	51.0
VALUE OF WORK YET TO BE DONE																	
1991-92	4.8	..	34.4	..	39.3	—	—	1.3	—	12.9	1.0	40.3	—	8.5	9.8	13.0	86.9
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	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
1993 Sept. qtr	5.4	..	29.0	..	34.4	—	—	1.5	0.3	4.2	5.5	40.0	—	19.9	16.4	7.5	95.2
Dec. qtr	6.2	..	19.2	..	25.4	0.2	—	0.9	—	27.3	3.4	22.7	—	25.7	8.8	2.9	91.8
1994 Mar. qtr	3.7	..	22.7	..	26.4	—	—	0.6	—	30.1	4.4	31.8	—	19.0	7.6	1.4	94.9
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
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
Dec. qtr	3.0	..	11.2	..	14.1	—	—	0.1	—	13.1	1.5	10.6	—	6.0	0.7	7.1	39.1

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

Period	Houses				Total			
	Private sector		Total		Private sector		Total	
	Commenced	Completed	Commenced	Completed	Commenced	Completed	Commenced	Completed
1993 Sept. qtr	4,141	3,807	4,266	n.a.	5,299	4,956	5,755	5,657
Dec. qtr	4,370	3,633	4,513	n.a.	5,641	4,648	6,052	5,078
1994 Mar. qtr	4,532	3,826	4,594	n.a.	6,088	4,885	6,432	5,191
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	4,275	3,979	4,351	n.a.	5,721	5,158	6,055	5,783

(a) Series have been revised due to annual re-analysis of seasonal adjustment factors.

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

Period	New residential building			Alterations and additions to residential buildings	Non-residential building		Total building
	Houses	Other residential buildings	Total		Private sector	Total	
1993 Sept. qtr	317.1	100.9	412.9	38.2	132.4	194.5	650.4
Dec. qtr	343.5	88.6	435.3	35.4	149.6	226.0	690.8
1994 Mar. qtr	362.9	104.4	467.9	37.8	169.4	234.9	738.5
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	385.9	130.4	521.2	42.0	134.5	191.5	747.4

(a) Series have been revised due to annual re-analysis of seasonal adjustment factors.

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	
1991-92	1,037.5	227.6	1,265.1	133.9	277.6	450.0	1,849.0
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	536.9	726.7	2,934.7
1993 Sept. qtr	396.9	105.2	502.1	35.3	129.1	173.4	710.8
Dec. qtr	396.9	97.3	494.2	42.0	160.5	224.2	760.4
1994 Mar. qtr	375.2	108.0	483.2	41.5	117.6	182.0	706.7
June qtr	442.7	123.4	566.1	43.6	129.7	147.1	756.8
Sept. qtr	445.4	138.6	584.0	42.9	147.4	184.1	811.0
Dec. qtr	396.5	118.1	514.6	45.1	132.1	159.6	719.3

(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 7. VALUE OF BUILDING WORK DONE, AT AVERAGE 1989-90 PRICES (a), WESTERN AUSTRALIA
ORIGINAL AND SEASONALLY ADJUSTED SERIES
(\$ 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							
1991-92	986.1	219.6	1,205.7	143.8	344.0	614.9	1,964.4
1992-93	1,228.5	337.5	1,566.0	156.8	429.6	693.6	2,416.4
1993-94	1,530.8	402.0	1,932.8	162.2	594.0	834.5	2,929.5
1993 Sept. qtr	359.5	103.3	462.8	40.6	134.0	198.5	701.9
Dec. qtr	387.3	92.1	479.4	40.9	161.5	229.9	750.2
1994 Mar. qtr	366.3	93.7	460.0	38.1	148.1	209.0	707.1
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	416.9	134.0	550.9	46.3	144.3	193.0	790.2
SEASONALLY ADJUSTED							
1993 Sept. qtr	348.0	98.9	441.4	41.9	127.5	187.4	675.5
Dec. qtr	373.8	86.6	463.7	38.5	144.0	217.5	713.3
1994 Mar. qtr	392.8	102.1	495.6	40.9	162.9	225.9	760.3
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	401.2	126.0	532.0	43.6	128.4	182.7	750.9

(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

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											
1991-92	9,811	2,110	11,921	2,657	14,578	358	1,387	1,745	12,279	4,044	16,323
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
1993 Sept. qtr	3,878	542	4,420	1,234	5,654	111	449	560	4,531	1,683	6,214
Dec. qtr	3,722	622	4,344	1,359	5,703	105	153	258	4,449	1,512	5,961
1994 Mar. qtr	3,684	446	4,130	1,413	5,543	91	247	338	4,221	1,660	5,881
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	3,657	596	4,254	1,538	5,792	42	130	172	4,296	1,668	5,964
UNDER CONSTRUCTION AT END OF PERIOD											
1991-92	2,800	1,906	4,706	1,554	6,260	89	985	1,074	4,795	2,539	7,334
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
1993 Sept. qtr	4,231	1,952	6,182	2,032	8,214	110	853	963	6,292	2,885	9,177
Dec. qtr	4,352	2,010	6,362	2,279	8,641	138	633	771	6,500	2,912	9,412
1994 Mar. qtr	4,913	2,067	6,980	2,708	9,688	116	606	722	7,096	3,314	10,410
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	5,651	1,933	7,584	3,344	10,928	88	533	621	7,672	3,877	11,549
COMPLETED											
1991-92	9,398	1,774	11,172	2,815	13,987	367	562	929	11,539	3,377	14,916
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
1993 Sept. qtr	3,116	394	3,511	1,131	4,642	98	496	594	3,609	1,627	5,236
Dec. qtr	3,633	531	4,163	1,112	5,275	77	373	450	4,240	1,485	5,725
1994 Mar. qtr	3,122	366	3,488	930	4,418	113	274	387	3,601	1,204	4,805
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	4,154	415	4,569	1,287	5,856	199	467	666	4,768	1,754	6,522

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											
1991-92	327	4,362	5,122	9,811	84	961	1,755	2,800	300	4,211	4,887	9,398
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
1993 Sept. qtr	25	1,348	2,505	3,878	40	1,084	3,108	4,231	50	1,158	1,908	3,116
Dec. qtr	49	921	2,752	3,722	36	845	3,471	4,352	87	1,159	2,386	3,633
1994 Mar. qtr	51	1,061	2,572	3,684	65	1,048	3,800	4,913	47	858	2,218	3,122
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	2,829	3,657	63	892	4,697	5,651	88	994	3,072	4,154
VALUE (\$m)												
1991-92	11.8	221.1	491.6	724.5	3.1	48.8	192.3	244.2	11.0	212.6	505.0	728.5
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
1993 Sept. qtr	0.9	70.7	236.8	308.4	1.3	57.2	343.8	402.3	1.8	60.0	182.1	243.9
Dec. qtr	1.4	48.5	259.3	309.3	1.1	44.9	373.3	419.4	2.8	60.6	232.9	296.2
1994 Mar. qtr	1.6	56.6	241.3	299.5	2.0	56.2	419.7	477.8	1.7	45.2	196.9	243.8
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	281.2	323.3	2.0	47.2	533.8	583.0	3.2	52.9	305.5	361.7

**TABLE 10. SUMMARY OF BUILDING ACTIVITY, WESTERN AUSTRALIA
RELATIVE STANDARD ERRORS (PER CENT)
DECEMBER QUARTER 1994**

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	3.2	3.4	2.4	2.6	5.4	2.0
Under construction at end of period	2.8	2.9	1.9	2.1	5.8	1.6
Completed	4.1	4.6	3.2	3.7	7.1	2.5
Value of work done	..	2.5	..	1.9	5.1	1.4
Value of work yet to be done	..	3.3	..	2.5	6.7	1.9
TOTAL PRIVATE AND PUBLIC SECTORS						
Commenced	3.2	3.4	2.3	2.6	5.4	1.9
Under construction at end of period	2.7	2.8	1.8	2.0	5.8	1.4
Completed	3.9	4.4	2.9	3.4	7.1	2.1
Value of work done	..	2.4	..	1.8	5.1	1.3
Value of work yet to be done	..	3.3	..	2.4	6.7	1.8

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 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.

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. In this publication (*i.e.* the December quarter issue) the seasonally adjusted series have been revised as a result of the annual re-analysis of seasonal factors. Details of the methods used in seasonally adjusting the series are given in *Seasonally Adjusted Indicators, Australia* (1308.0).

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.

Australian Standard Geographical Classification

27. Area statistics are classified according to the Australian Standard Geographical Classification. Figures previously published for local government areas and statistical divisions are directly comparable with this classification except for the cities of Perth, Fremantle and Stirling which are obtained by aggregating the component statistical local areas.

Unpublished data and related publications

28. 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.

29. 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)

30. 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 *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications 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

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

P.C. KELLY
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