

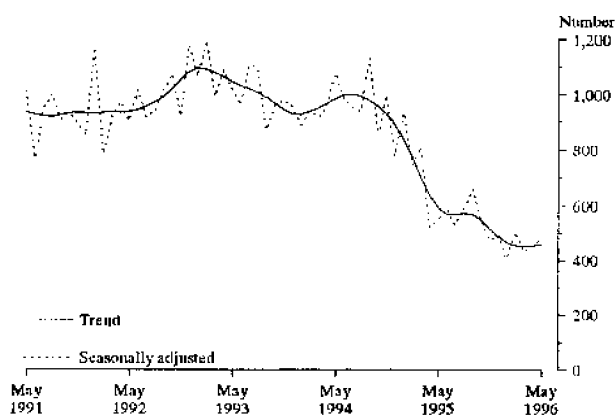
BUILDING APPROVALS, SOUTH AUSTRALIA, MAY 1996

MAIN FEATURES

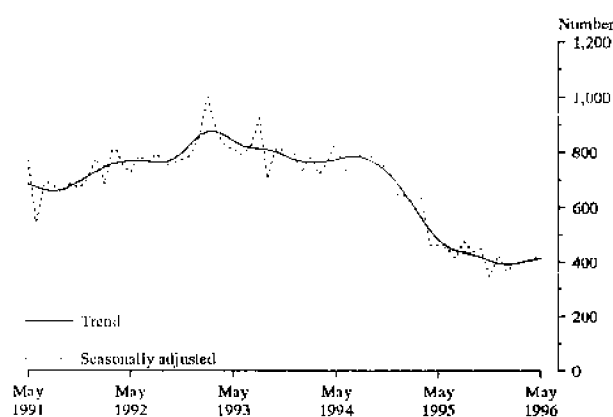
NUMBER OF DWELLING UNITS APPROVED

	May 1995	April 1996	May 1996	May 1995 to May 1996 change	April 1996 to May 1996 change
Original series	589	430	505	-14.3%	17.4%
Seasonally adjusted	590	452	479	-18.8%	6.0%
Trend estimate	570	454	459	-19.5%	1.1%

TOTAL DWELLING UNITS APPROVED



PRIVATE HOUSES APPROVED



Residential building

- The trend for the total number of dwelling unit approvals in May increased 1.1%. This follows an increase of 0.5% in April.
- The trend for the number of private sector houses approved increased by 2.2%. This follows increases of 1.5% in April and 1.5% in March.
- In original (unadjusted) figures the number of dwelling units approved was 505. Of the total, 464 were private sector houses. This is the highest number of private sector houses approved since August 1995.

- The value of new residential building approved was \$40.8 million this month, an increase of 27.9% from last month.
- The value of alterations and additions to residential buildings was \$10.0 million.

Non-residential building

- The value of non-residential projects approved in May was \$143.6 million. There were 5 projects in the \$5 million and over category and 3 projects in the \$1 million to \$5 million category. One shopping centre project, valued at \$110 million has been included under 3 categories, shops (\$81 million), other business premises (\$22 million) and entertainment and recreational (\$7 million).

INQUIRIES

- for more information about statistics in this publication and the availability of related unpublished statistics, contact Damian Sparkes on Adelaide (08) 237 7590 or any ABS State Office.
- for information about other ABS statistics and services please refer to the back of this publication.

would be classified to Factories. An exception to this rule is the treatment of group accommodation buildings e.g. a student accommodation building on a university campus would be classified to Educational.

Seasonal adjustment

16. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognised.

17. Table 3 shows seasonally adjusted estimates for both private and total dwellings. For the four series shown, account has been taken of normal seasonal factors and 'trading day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the effect of movement in the date of Easter which may, in successive years, affect figures for different months.

18. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of the approval of large projects or as a consequence of the administrative arrangements of approving authorities. These irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

19. Most of the component series have been seasonally adjusted independently. Therefore, 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 optimum 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.

20. As happens with all seasonally adjusted series, the seasonal factors are reviewed annually to take account of each additional year's data. For Building Approvals, the results of the latest review are shown in the July issue each year. Further information about seasonal adjustment can be obtained from the Assistant Director of Time Series Analysis, Canberra, on (06) 252 6345.

Trend estimates

21. Seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate.

22. Table 3 shows trend estimates for both private and total dwellings. These are obtained by applying a 13-term Henderson-weighted moving average to all months of the respective seasonally adjusted series except the last six months. Trend series are created for the last six months by applying surrogates of the Henderson moving average to the seasonally adjusted time series. For further information, see *A Guide to Interpreting Time Series - Monitoring Trends: an Overview* (1348.0).

23. While the smoothing technique described in paragraphs 21 and 22 enables trend estimates to be produced for the latest few months, it does result in revisions to the trend estimates as new data become available. Generally, revisions become smaller over time and after three months, usually have a negligible impact on the series. Revisions to the original data and re-analysis of seasonal factors may also lead to revisions to the trend.

Estimates at constant prices

24. Estimates of the quarterly value of building approvals at average 1989-90 prices are presented in Table 4. (Note: monthly value data at constant prices are not available.)

25. 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 are derived from the same price data underlying the deflators compiled for the dwelling and non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

26. 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).

Australian Standard Geographical Classification (ASGC)

27. Area statistics are now being classified to the *Australian Standard Geographical Classification, Edition 2.5* (1216.0) and ASGC terminology has been adopted in the presentation of building statistics.

Unpublished data and related publications

28. The ABS can also make available certain building approvals 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 and clerically extracted tabulation. A charge may be made for providing unpublished information in these forms.

29. Other ABS publications which may be of interest include:

Building Approvals, Australia (8731.0) - issued monthly
Dwelling Unit Commencements Reported by Approving Authorities, South Australia (8741.4) - issued monthly
Building Activity, Australia: Dwelling Unit Commencements, Preliminary (8750.0) - issued quarterly
Building Activity, South Australia (8752.4) - issued quarterly

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 *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

— nil or rounded to zero
 r figure or series revised since previous issue
 n.a. not available

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

P.M. GARDNER
 Deputy Commonwealth Statistician
 and Government Statist

RELIABILITY OF CONTEMPORARY TREND ESTIMATES

The tables below present trend estimates of selected building approvals series for the six months December 1995 to May 1996.

Analysis of building approvals series has shown that the original series can be volatile and that the initial estimates of a month's trend value can be revised substantially. In particular, some months can elapse before a turning point in the trend series is identified reliably. Generally, the size of revisions to the trend estimates tends to be larger, the greater the volatility of the original series. Revisions to trend estimates will also occur with revisions to original data and re-estimation of seasonal adjustment factors. See paragraphs 21 to 23 of the Explanatory Notes for more information.

To illustrate the possible impact of future months observations on the trend estimates for the latest months, the tables below show the revisions to the trend estimates which would result if the movements in the seasonally adjusted estimates for next month (June 1996) were to equal the average absolute monthly percentage change in the series over the last ten years.

For example, if the seasonally adjusted estimate for the number of private sector houses approved (the first table below) were to increase by 10% in June 1996, the trend estimate for that month would be 435, a movement of 1.7%. The movements in the trend estimates for March, April and May which are currently estimated to be 1.5%, 1.5% and 2.3% respectively, would be revised to 2.5%, 2.8% and 2.9%. On the other hand, a 10% seasonally adjusted decline in the number of private sector houses approved in June 1996 would produce a trend estimate for June of 401, a movement of -1.0%, with the movements in the trend estimates for March, April and May being revised to 1.2%, 0.7% and 0.4% respectively.

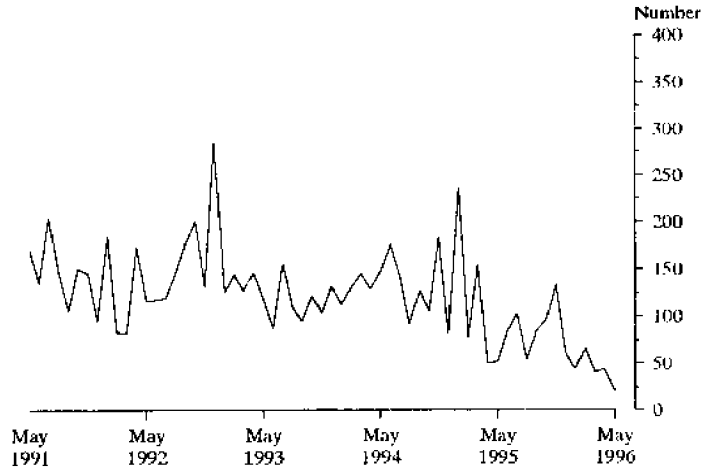
NUMBER OF PRIVATE SECTOR HOUSES APPROVED RELIABILITY OF TREND ESTIMATES

	Trend estimate		Revised trend estimate if June 1996 seasonally adjusted estimate			
			is up 10% on May 1996		is down 10% on May 1996	
	No.	% change on previous month	No.	% change on previous month	No.	% change on previous month
1995—						
December	396	-2.4	395	-2.7	396	-2.3
1996—						
January	393	-0.9	390	-1.1	393	-0.8
February	396	0.8	395	1.1	396	0.7
March	402	1.5	404	2.5	401	1.2
April	408	1.5	415	2.8	404	0.7
May	417	2.3	427	2.9	405	0.4
June	n.y.a.	n.y.a.	435	1.7	401	-1.0

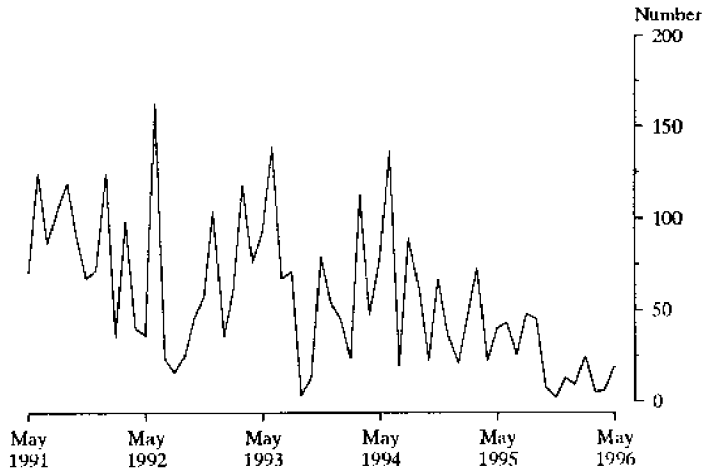
TOTAL NUMBER OF DWELLING UNITS APPROVED RELIABILITY OF TREND ESTIMATES

	Trend estimate		Revised trend estimate if June 1996 seasonally adjusted estimate			
			is up 11% on May 1996		is down 11% on May 1996	
	No.	% change on previous month	No.	% change on previous month	No.	% change on previous month
1995—						
December	486	-6.0	484	-6.4	486	-6.0
1996—						
January	464	-4.6	460	-5.0	464	4.6
February	454	-2.2	452	-1.8	454	-2.2
March	452	-0.4	457	1.2	453	-0.2
April	454	0.5	468	2.2	452	-0.2
May	459	1.1	480	2.6	450	-0.4
June	n.y.a.	n.y.a.	492	2.5	447	-0.6

**NEW OTHER RESIDENTIAL BUILDINGS APPROVED
PRIVATE SECTOR**



**TOTAL DWELLING UNITS APPROVED
PUBLIC SECTOR**



VALUE OF BUILDING WORK APPROVED

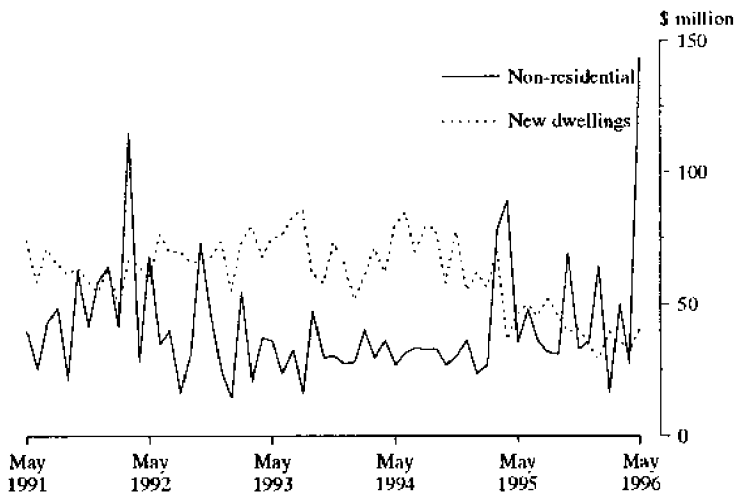


TABLE 2. VALUE OF BUILDING APPROVED
(\$ million)

Period	New residential building									Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses			Other residential buildings			Total				Private sector	Total	Private sector	Total
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total					
ADELAIDE STATISTICAL DIVISION														
1992-93	500.9	20.6	521.6	98.0	19.1	117.1	598.9	39.7	638.6	111.4	132.8	345.9	840.8	1,096.0
1993-94	494.3	25.7	520.0	86.3	17.0	103.3	580.6	42.7	623.3	98.7	167.2	314.2	846.0	1,036.2
1994-95	420.2	26.7	446.9	87.7	6.9	94.6	508.0	33.5	541.5	95.0	181.2	393.1	782.5	1,029.5
1994-95 July-May	392.9	23.6	416.5	82.9	6.8	89.6	475.8	30.3	506.1	88.2	152.2	359.0	715.0	953.3
1995-96 July-May	234.3	13.0	247.2	45.1	1.9	47.1	279.4	14.9	294.3	85.6	293.7	429.0	658.3	808.9
1995—														
March	36.2	4.5	40.6	9.9	0.3	10.1	46.0	4.7	50.8	10.1	13.1	68.6	69.2	129.5
April	22.1	1.5	23.6	2.4	—	2.4	24.5	1.5	25.9	4.9	17.1	80.1	46.5	110.9
May	27.8	2.0	29.8	2.9	0.3	3.2	30.7	2.3	33.0	7.0	16.3	26.1	53.8	66.1
June	27.3	3.1	30.4	4.9	0.1	5.0	32.2	3.2	35.4	6.8	29.0	34.1	67.6	76.2
July	24.0	1.1	25.1	6.4	0.4	6.8	30.4	1.5	31.9	7.7	21.0	29.0	59.1	68.6
August	29.4	3.0	32.4	2.2	0.3	2.5	31.6	3.3	34.9	8.9	14.0	26.2	54.4	70.1
September	23.8	2.7	26.5	5.1	1.1	6.2	28.9	3.8	32.7	9.4	19.5	27.7	57.8	69.8
October	22.7	0.6	23.4	4.1	—	4.1	26.8	0.6	27.4	8.3	33.7	62.8	68.6	98.4
November	18.4	0.1	18.5	8.1	—	8.1	26.5	0.1	26.6	7.6	8.3	26.8	42.4	61.0
December	17.7	0.8	18.5	3.7	—	3.7	21.3	0.8	22.2	6.5	9.4	20.7	37.3	49.4
1996—														
January	16.9	0.5	17.4	3.2	0.1	3.4	20.1	0.6	20.8	7.1	19.8	28.0	47.0	55.9
February	19.2	1.8	21.0	5.9	—	5.9	25.0	1.8	26.8	6.4	9.4	14.5	40.7	47.7
March	19.6	0.5	20.1	3.6	—	3.6	23.2	0.5	23.7	8.9	11.7	33.2	43.7	65.7
April	18.2	0.4	18.6	1.9	—	1.9	20.1	0.4	20.6	6.8	14.3	23.2	41.2	50.5
May	24.3	1.3	25.7	1.1	—	1.1	25.4	1.3	26.7	8.1	132.7	136.9	166.1	171.7
SOUTH AUSTRALIA														
1992-93	691.4	22.3	713.7	106.4	20.8	127.3	797.8	43.1	840.9	132.6	174.0	418.4	1,101.8	1,391.9
1993-94	695.1	27.5	722.6	98.5	17.8	116.3	793.6	45.3	838.9	122.2	208.4	375.2	1,122.8	1,336.3
1994-95	605.8	27.0	632.8	98.4	8.5	106.9	704.2	35.5	739.7	119.9	244.7	493.2	1,065.4	1,352.8
1994-95 July-May	564.5	23.9	588.4	92.8	8.4	101.2	657.3	32.3	689.6	110.7	208.7	445.3	973.8	1,245.6
1995-96 July-May	366.7	13.2	379.9	53.2	1.9	55.1	419.9	15.1	435.0	108.6	375.2	539.3	903.1	1,082.9
1995—														
March	54.1	4.5	58.5	11.2	0.5	11.7	65.3	5.0	70.2	12.6	19.5	78.1	96.5	160.9
April	32.1	1.5	33.6	2.8	—	2.8	34.9	1.5	36.4	6.6	25.4	89.3	66.8	132.2
May	40.4	2.1	42.5	3.2	0.6	3.8	43.6	2.7	46.3	9.3	20.2	35.4	72.8	91.0
June	41.3	3.1	44.4	5.6	0.1	5.7	46.9	3.2	50.1	9.2	35.9	47.9	91.6	107.2
July	36.7	1.1	37.9	7.0	0.4	7.4	43.7	1.5	45.2	9.0	25.0	36.3	77.8	90.6
August	45.5	3.0	48.5	3.4	0.3	3.8	48.9	3.3	52.3	11.2	18.2	31.5	78.2	94.9
September	35.6	2.7	38.2	5.7	1.1	6.8	41.3	3.8	45.0	12.1	22.3	31.1	75.7	88.2
October	33.9	0.6	34.6	4.6	—	4.6	38.5	0.6	39.2	10.4	37.5	69.2	86.3	118.8
November	31.3	0.1	31.4	9.5	—	9.5	40.7	0.1	40.8	10.3	11.8	33.1	62.9	84.2
December	29.1	1.0	30.1	4.4	—	4.4	33.5	1.0	34.5	8.9	13.4	36.1	55.6	79.5
1996—														
January	25.2	0.5	25.7	3.3	0.1	3.5	28.6	0.6	29.2	8.5	55.3	64.4	92.3	102.1
February	30.9	1.8	32.7	6.9	—	6.9	37.8	1.8	39.6	8.4	11.3	16.5	57.2	64.5
March	31.7	0.5	32.2	4.4	—	4.4	36.0	0.5	36.5	11.4	26.6	49.9	73.9	97.8
April	29.3	0.4	29.7	2.2	—	2.2	31.5	0.4	31.9	8.5	17.6	27.5	57.5	67.9
May	37.6	1.4	38.9	1.8	—	1.8	39.4	1.4	40.8	10.0	136.3	143.6	185.6	194.3

TABLE 1. DWELLING UNITS APPROVED

Period	New houses			New other residential buildings			Conversions, etc.	Total (a)		
	Private sector	Public sector	Total	Private sector	Public sector	Total		Private sector	Public sector	Total
ADELAIDE STATISTICAL DIVISION										
1992-93	6,843	352	7,195	1,647	386	2,033	20	8,510	738	9,248
1993-94	6,587	401	6,988	1,342	286	1,628	15	7,944	687	8,631
1994-95	5,256	384	5,640	1,213	120	1,333	59	6,515	517	7,032
1994-95 July-May	4,926	343	5,269	1,141	118	1,259	59	6,113	474	6,587
1995-96 July-May	2,788	174	2,962	627	29	656	41	3,456	203	3,659
1995—										
March	444	66	510	126	4	130	2	572	70	642
April	264	22	286	40	—	40	5	309	22	331
May	329	28	357	45	6	51	3	377	34	411
June	330	41	371	72	2	74	—	402	43	445
July	284	18	302	92	8	100	3	379	26	405
August	353	44	397	33	4	37	4	390	48	438
September	275	30	305	74	15	89	24	373	45	418
October	263	7	270	90	—	90	—	353	7	360
November	212	2	214	110	—	110	—	322	2	324
December	202	12	214	51	—	51	5	258	12	270
1996—										
January	197	7	204	42	2	44	1	240	9	249
February	243	25	268	50	—	50	1	294	25	319
March	224	5	229	31	—	31	3	258	5	263
April	230	6	236	37	—	37	—	267	6	273
May	305	18	323	17	—	17	—	322	18	340
SOUTH AUSTRALIA										
1992-93	9,710	377	10,087	1,809	416	2,225	29	11,548	793	12,341
1993-94	9,470	431	9,901	1,559	299	1,858	18	11,046	731	11,777
1994-95	7,757	390	8,147	1,387	151	1,538	77	9,208	554	9,762
1994-95 July-May	7,244	349	7,593	1,304	149	1,453	70	8,605	511	9,116
1995-96 July-May	4,527	176	4,703	748	29	777	52	5,327	205	5,532
1995—										
March	681	66	747	154	7	161	5	840	73	913
April	403	22	425	50	—	50	6	459	22	481
May	493	30	523	52	10	62	4	549	40	589
June	513	41	554	83	2	85	7	603	43	646
July	445	18	463	102	8	110	3	550	26	576
August	564	44	608	54	4	58	5	623	48	671
September	437	30	467	85	15	100	25	547	45	592
October	415	7	422	96	—	96	1	512	7	519
November	388	2	390	133	—	133	4	525	2	527
December	354	13	367	61	—	61	6	421	13	434
1996—										
January	299	7	306	44	2	46	3	346	9	355
February	393	25	418	66	—	66	2	461	25	486
March	388	5	393	41	—	41	3	432	5	437
April	380	6	386	44	—	44	—	424	6	430
May	464	19	483	22	—	22	—	486	19	505

(a) Includes Conversions, etc. See paragraphs 10-12 of the Explanatory Notes.

TABLE 5. VALUE OF BUILDING APPROVED, BY CLASS OF BUILDING AND OWNERSHIP
(\$ million)

Class of building	1993-94	1994-95	July-May		1996		
			1994-95	1995-96	March	April	May
PRIVATE SECTOR							
New houses	695.1	605.8	564.5	366.7	31.7	29.3	37.6
New other residential buildings	98.5	98.4	92.8	53.2	4.4	2.2	1.8
<i>Total new residential building</i>	<i>793.6</i>	<i>704.2</i>	<i>657.3</i>	<i>419.9</i>	<i>36.0</i>	<i>31.5</i>	<i>39.4</i>
Alterations and additions to residential buildings	120.7	116.6	107.8	107.9	11.4	8.5	9.9
Hotels, etc.	5.0	4.2	3.9	18.1	7.3	0.2	0.3
Shops	40.8	51.3	40.6	117.3	1.5	2.7	87.3
Factories	18.2	25.0	22.9	23.8	2.9	0.8	1.2
Offices	39.1	34.3	33.2	52.1	5.6	4.4	6.8
Other business premises	24.8	59.2	50.8	72.6	2.0	3.0	29.8
Educational	18.2	17.3	15.1	15.8	1.3	1.4	0.4
Religious	1.9	3.0	2.9	2.7	0.2	0.2	0.2
Health	26.9	26.5	16.7	41.8	0.6	3.5	0.3
Entertainment and recreational	15.9	9.7	9.7	22.3	5.0	0.9	7.2
Miscellaneous	17.6	14.0	12.7	8.6	0.3	0.5	2.9
<i>Total non-residential building</i>	<i>208.4</i>	<i>244.7</i>	<i>208.7</i>	<i>375.2</i>	<i>26.6</i>	<i>17.6</i>	<i>136.3</i>
Total	1,122.8	1,065.4	973.8	903.1	73.9	57.5	185.6
PUBLIC SECTOR							
New houses	27.5	27.0	23.9	13.2	0.5	0.4	1.4
New other residential buildings	17.8	8.5	8.4	1.9	—	—	—
<i>Total new residential building</i>	<i>45.3</i>	<i>35.5</i>	<i>32.3</i>	<i>15.1</i>	<i>0.5</i>	<i>0.4</i>	<i>1.4</i>
Alterations and additions to residential buildings	1.5	3.3	2.9	0.7	—	—	—
Hotels, etc.	0.9	0.4	0.4	—	—	—	—
Shops	3.0	3.1	3.0	7.9	0.4	5.3	1.7
Factories	3.2	5.5	5.5	6.7	—	—	0.7
Offices	25.0	92.5	91.5	42.3	12.0	2.8	0.2
Other business premises	7.0	13.2	12.7	13.7	6.8	—	—
Educational	100.2	92.5	89.9	41.1	3.2	0.9	3.0
Religious	—	—	—	1.0	—	—	1.0
Health	9.5	16.0	9.2	8.4	—	0.8	0.5
Entertainment and recreational	4.4	9.7	8.9	3.2	0.9	0.1	—
Miscellaneous	13.6	15.5	15.5	39.8	—	—	0.3
<i>Total non-residential building</i>	<i>166.8</i>	<i>248.6</i>	<i>236.6</i>	<i>164.0</i>	<i>23.3</i>	<i>9.9</i>	<i>7.3</i>
Total	213.5	287.4	271.8	179.8	23.8	10.3	8.7
TOTAL							
New houses	722.6	632.8	588.4	379.9	32.2	29.7	38.9
New other residential buildings	116.3	106.9	101.2	55.1	4.4	2.2	1.8
<i>Total new residential building</i>	<i>838.9</i>	<i>739.7</i>	<i>689.6</i>	<i>435.0</i>	<i>36.5</i>	<i>31.9</i>	<i>40.8</i>
Alterations and additions to residential buildings	122.2	119.9	110.7	108.6	11.4	8.5	10.0
Hotels, etc.	5.9	4.7	4.4	18.1	7.3	0.2	0.3
Shops	43.8	54.4	43.7	125.2	1.9	8.0	89.0
Factories	21.3	30.6	28.4	30.5	2.9	0.8	1.9
Offices	64.1	126.8	124.8	94.4	17.6	7.1	7.0
Other business premises	31.8	72.4	63.5	86.4	8.8	3.0	29.8
Educational	118.4	109.7	105.0	56.9	4.5	2.4	3.3
Religious	1.9	3.0	2.9	3.7	0.2	0.2	1.2
Health	36.4	42.6	25.9	50.2	0.6	4.3	0.8
Entertainment and recreational	20.4	19.4	18.6	25.5	5.9	1.0	7.2
Miscellaneous	31.2	29.6	28.2	48.3	0.3	0.5	3.2
<i>Total non-residential building</i>	<i>375.2</i>	<i>493.2</i>	<i>445.3</i>	<i>539.3</i>	<i>49.9</i>	<i>27.5</i>	<i>143.6</i>
Total	1,336.3	1,352.8	1,245.6	1,082.9	97.8	67.9	194.3

**TABLE 3. NUMBER OF DWELLING UNITS (a) APPROVED
SEASONALLY ADJUSTED AND TREND ESTIMATES (b)**

Period	Houses				Total			
	Private sector		Total		Private sector		Total	
	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate
<i>1995—</i>								
March	—	560	—	590	—	672	812	700
April	—	516	—	543	—	609	523	637
May	—	480	—	505	—	561	552	591
June	—	456	—	483	—	535	590	570
July	—	441	—	473	—	528	532	569
August	—	435	—	467	—	533	588	574
September	—	429	—	459	—	532	659	569
October	—	419	—	444	—	520	551	550
November	—	406	—	425	—	496	475	517
December	—	396	—	410	—	472	492	486
<i>1996—</i>								
January	—	393	—	403	—	455	407	464
February	—	396	—	405	—	446	504	454
March	—	402	—	411	—	443	430	452
April	—	408	—	417	—	444	452	454
May	—	417	—	426	—	447	479	459

(a) Includes Conversions, etc. See paragraphs 10-12 of the Explanatory Notes. (b) See paragraphs 16-23 of the Explanatory Notes.

**TABLE 4. VALUE OF BUILDING APPROVED AT AVERAGE 1989-90 PRICES (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	Private sector	Total
	Private sector	Total							
1992-93	652.7	673.8	119.1	793.0	125.1	163.6	393.3	1,038.5	1,311.3
1993-94	628.9	653.6	107.5	761.1	110.4	194.0	348.9	1,023.9	1,220.5
1994-95	527.5	551.0	97.3	648.3	104.4	224.5	452.5	944.9	1,205.2
<i>1994—</i>									
Dec. qtr.	137.1	141.7	24.5	166.3	26.3	53.3	85.7	239.6	278.3
<i>1995—</i>									
Mar. qtr.	120.4	128.6	35.7	164.3	24.2	39.9	117.7	219.1	306.2
June qtr.	98.6	104.4	11.1	115.5	21.7	74.4	157.5	205.0	294.7
Sept. qtr.	101.9	107.8	16.0	123.8	27.9	59.6	90.0	204.3	241.8
Dec. qtr.	82.6	84.1	16.4	100.4	26.0	56.8	125.5	181.9	251.9
<i>1996—</i>									
Mar. qtr.	77.2	79.7	13.0	92.7	24.8	84.2	118.3	199.4	235.8

(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 7. NUMBER AND VALUE OF DWELLING UNITS (a) APPROVED
BY MATERIAL OF OUTER WALLS
MAY 1996

Particulars	Private sector		Public sector		Total	
	Number	Value (\$'000)	Number	Value (\$'000)	Number	Value (\$'000)
ADELAIDE STATISTICAL DIVISION						
Houses —						
Brick, stone or concrete	15	1,446	—	—	15	1,446
Brick-veneer	229	18,395	18	1,336	247	19,731
Timber	—	—	—	—	—	—
Fibre cement	1	43	—	—	1	43
Steel, aluminium or other materials	—	—	—	—	—	—
Not stated	60	4,442	—	—	60	4,442
Total houses	305	24,325	18	1,336	323	25,661
<i>Other residential buildings</i>	<i>17</i>	<i>1,084</i>	—	—	<i>17</i>	<i>1,084</i>
Total residential buildings	322	25,409	18	1,336	340	26,745
REST OF SOUTH AUSTRALIA						
Houses —						
Brick, stone or concrete	9	1,476	—	—	9	1,476
Brick-veneer	81	7,096	—	—	81	7,096
Timber	20	1,017	1	35	21	1,052
Fibre cement	10	555	—	—	10	555
Steel, aluminium or other materials	—	—	—	—	—	—
Not stated	39	3,083	—	—	39	3,083
Total houses	159	13,226	1	35	160	13,261
<i>Other residential buildings</i>	<i>5</i>	<i>750</i>	—	—	<i>5</i>	<i>750</i>
Total residential buildings	164	13,976	1	35	165	14,011
TOTAL SOUTH AUSTRALIA						
Houses —						
Brick, stone or concrete	24	2,922	—	—	24	2,922
Brick-veneer	310	25,491	18	1,336	328	26,826
Timber	20	1,017	1	35	21	1,052
Fibre cement	11	598	—	—	11	598
Steel, aluminium or other materials	—	—	—	—	—	—
Not stated	99	7,524	—	—	99	7,524
Total houses	464	37,551	19	1,371	483	38,922
<i>Other residential buildings</i>	<i>22</i>	<i>1,834</i>	—	—	<i>22</i>	<i>1,834</i>
Total residential buildings	486	39,385	19	1,371	505	40,756

(a) Comprises new houses and dwelling units in new other residential buildings.

**TABLE 6. NON-RESIDENTIAL BUILDING JOBS APPROVED, BY CLASS OF BUILDING
AND VALUE SIZE GROUPS**

Period	\$50,000 to less than \$200,000		\$200,000 to less than \$500,000		\$500,000 to less than \$1m		\$1m to less than \$5m		\$5m and over		Total	
	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)
HOTELS, ETC.												
1996 March	3	0.3	—	—	—	—	—	—	1	7.0	4	7.3
April	2	0.2	—	—	—	—	—	—	—	—	2	0.2
May	—	—	1	0.3	—	—	—	—	—	—	1	0.3
SHOPS												
1996 March	8	0.7	2	0.7	1	0.5	—	—	—	—	11	1.9
April	4	0.4	1	0.4	2	1.7	3	5.5	—	—	10	8.0
May	24	2.5	5	1.6	3	2.6	1	1.2	1	81.0	34	89.0
FACTORIES												
1996 March	7	0.7	1	0.4	—	—	1	1.8	—	—	9	2.9
April	3	0.2	2	0.6	—	—	—	—	—	—	5	0.8
May	6	0.5	2	0.7	1	0.7	—	—	—	—	9	1.9
OFFICES												
1996 March	10	0.9	7	1.8	3	2.1	3	5.3	1	7.5	24	17.6
April	10	0.9	5	1.2	4	2.2	2	2.8	—	—	21	7.1
May	8	0.9	2	0.5	1	0.6	—	—	1	5.0	12	7.0
OTHER BUSINESS PREMISES												
1996 March	15	1.4	3	0.7	1	0.7	2	6.0	—	—	21	8.8
April	10	1.1	2	0.4	—	—	1	1.5	—	—	13	3.0
May	8	0.7	1	0.3	2	1.4	—	—	2	27.5	13	29.8
EDUCATIONAL												
1996 March	2	0.1	4	1.2	1	0.6	1	2.6	—	—	8	4.5
April	2	0.1	8	2.2	—	—	—	—	—	—	10	2.4
May	1	0.1	1	0.4	1	0.6	2	2.3	—	—	5	3.3
RELIGIOUS												
1996 March	—	—	1	0.2	—	—	—	—	—	—	1	0.2
April	—	—	1	0.2	—	—	—	—	—	—	1	0.2
May	—	—	1	0.2	—	—	1	1.0	—	—	2	1.2
HEALTH												
1996 March	3	0.3	1	0.3	—	—	—	—	—	—	4	0.6
April	2	0.3	—	—	1	0.5	1	3.5	—	—	4	4.3
May	2	0.3	2	0.5	—	—	—	—	—	—	4	0.8
ENTERTAINMENT AND RECREATIONAL												
1996 March	5	0.7	3	0.7	1	0.5	1	4.0	—	—	10	5.9
April	3	0.3	—	—	1	0.7	—	—	—	—	4	1.0
May	3	0.2	—	—	—	—	—	—	1	7.0	4	7.2
MISCELLANEOUS												
1996 March	3	0.3	—	—	—	—	—	—	—	—	3	0.3
April	3	0.2	1	0.2	—	—	—	—	—	—	4	0.5
May	4	0.5	3	1.0	—	—	1	1.8	—	—	8	3.2
TOTAL NON-RESIDENTIAL BUILDING												
1996 March	56	5.3	22	5.9	7	4.4	8	19.8	2	14.5	95	49.9
April	39	3.7	20	5.3	8	5.2	7	13.3	—	—	74	27.5
May	56	5.7	18	5.3	8	5.8	5	6.2	5	120.5	92	143.6

TABLE 9. NEW DWELLING UNITS (a) APPROVED, BY TYPE AND STATISTICAL DIVISION, MAY 1996

Statistical division	New other residential building								Total new residential building	
	New houses	Semi-detached, row or terrace houses, townhouses, etc. of			Flats, units or apartments in a building of			Total		
		1 storey	2 or more storeys	Total	1-2 storeys	3 storeys	4 or more storeys			Total
NUMBER OF DWELLING UNITS										
Adelaide	323	12	5	17	—	—	—	—	17	340
Outer Adelaide	73	—	2	2	—	—	—	—	2	75
Yorke and Lower North	13	—	—	—	—	—	—	—	—	13
Murray Lands	22	3	—	3	—	—	—	—	3	25
South East	24	—	—	—	—	—	—	—	—	24
Eyre	10	—	—	—	—	—	—	—	—	10
Northern	18	—	—	—	—	—	—	—	—	18
South Australia	483	15	7	22	—	—	—	—	22	505
VALUE (\$'000)										
Adelaide	25,661	726	359	1,084	—	—	—	—	1,084	26,745
Outer Adelaide	5,682	—	600	600	—	—	—	—	600	6,282
Yorke and Lower North	932	—	—	—	—	—	—	—	—	932
Murray Lands	1,675	150	—	150	—	—	—	—	150	1,825
South East	2,666	—	—	—	—	—	—	—	—	2,666
Eyre	973	—	—	—	—	—	—	—	—	973
Northern	1,332	—	—	—	—	—	—	—	—	1,332
South Australia	38,922	876	959	1,834	—	—	—	—	1,834	40,756

(a) Excludes Conversions, etc.

TABLE 8. SUMMARY OF BUILDING APPROVED BY STATISTICAL DIVISION, MAY 1996

Statistical division	<i>Dwelling units in new residential buildings (a)</i>						Alterations and additions to residential buildings (\$'000)	Non- residential building (\$'000)	Total (\$'000)
	Houses		Other residential buildings		Total				
	Number	Value (\$'000)	Number	Value (\$'000)	Number	Value (\$'000)			
PRIVATE SECTOR									
Adelaide	305	24,325	17	1,084	322	25,409	8,055	132,653	166,118
Outer Adelaide	72	5,647	2	600	74	6,247	648	1,547	8,442
Yorke and Lower North	13	932	—	—	13	932	107	250	1,288
Murray Lands	22	1,675	3	150	25	1,825	128	1,235	3,188
South East	24	2,666	—	—	24	2,666	469	55	3,190
Eyre	10	973	—	—	10	973	141	230	1,344
Northern	18	1,332	—	—	18	1,332	376	306	2,014
South Australia	464	37,551	22	1,834	486	39,385	9,923	136,275	185,584
PUBLIC SECTOR									
Adelaide	18	1,336	—	—	18	1,336	30	4,253	5,618
Outer Adelaide	1	35	—	—	1	35	—	2,636	2,671
Yorke and Lower North	—	—	—	—	—	—	—	138	138
Murray Lands	—	—	—	—	—	—	—	193	193
South East	—	—	—	—	—	—	—	—	—
Eyre	—	—	—	—	—	—	—	—	—
Northern	—	—	—	—	—	—	—	107	107
South Australia	19	1,371	—	—	19	1,371	30	7,326	8,727
TOTAL									
Adelaide	323	25,661	17	1,084	340	26,745	8,085	136,906	171,736
Outer Adelaide	73	5,682	2	600	75	6,282	648	4,183	11,113
Yorke and Lower North	13	932	—	—	13	932	107	388	1,426
Murray Lands	22	1,675	3	150	25	1,825	128	1,428	3,381
South East	24	2,666	—	—	24	2,666	469	55	3,190
Eyre	10	973	—	—	10	973	141	230	1,344
Northern	18	1,332	—	—	18	1,332	376	412	2,121
South Australia	483	38,922	22	1,834	505	40,756	9,953	143,602	194,311

(a) Excludes Conversions, etc.

EXPLANATORY NOTES

Introduction

This publication contains monthly details of building work approved.

2. For purposes of comparison, it should be noted that statistics of building approvals are affected from month to month by large projects (e.g. blocks of flats, multi-storey office buildings) approved in particular months and also by the administrative arrangements of government authorities.

Scope and coverage

3. Statistics of building work approved are compiled from:

- (a) permits issued by local authorities in areas subject to building control by those authorities; and
- (b) contracts let or day labour work authorised by Commonwealth, State, semi-government and local government authorities;
- (c) major building activity which takes place in areas not subject to the normal administrative approval processes (e.g. buildings on remote mine sites).

4. 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 from this publication, but can be found in the ABS publication *Engineering Construction Survey* (8762.0).

5. In relation to work carried out on existing buildings, the statistics include details of non-structural renovation and refurbishment work and the installation of integral building fixtures for which building approval was obtained.

6. From July 1990, the statistics cover:

- (a) all approved new residential building jobs valued at \$10,000 or more (previously \$5,000 or more)
- (b) approved alterations and additions to residential buildings valued at \$10,000 or more
- (c) all approved non-residential building jobs valued at \$50,000 or more (previously \$30,000 or more).

These changes in coverage do not have a statistically significant effect on broad building approvals aggregate data. However, care should be taken in interpreting data for specific classes of non-residential building.

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 buildings approved.

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 caretaker's 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 town-houses, duplexes, apartment buildings etc.).

10. From the January 1995 issue of this publication, the number of dwelling units approved as part of alterations and additions to or conversions of existing residential or non-residential buildings and as part of the construction of non-residential building is shown separately in Table 1 under the heading of 'Conversions, etc.', and is included in the total number of dwelling units shown in the table. Previously, such dwellings were only included as a footnote.

11. In addition, from the January 1995 issue, the seasonally adjusted and trend estimates for the number of dwelling units approved, shown in Table 3, include these conversions, etc. Previously, only dwelling units approved as part of the construction of new residential buildings were included in these estimates.

12. The value of new residential building approved continues to exclude the value of dwelling units approved as part of alterations and additions to or conversions of existing residential or non-residential building. Approved building work represented by these conversions, etc. jobs continues to be included in the value of alterations and additions to residential buildings or in the value of non-residential building as appropriate.

13. Value data are derived by aggregation of the estimated value (when completed) of building work (excluding value of land and landscaping but including site preparation) as reported on approval documents. For 'houses', these estimates are usually a reliable indicator of the completed value of the building. However, for 'other residential buildings' and 'non-residential buildings' these estimates can differ significantly from the completed value of the building.

Building classification

14. *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.

15. *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 e.g. a student accommodation building on a university campus would be classified to Educational.

Seasonal adjustment

16. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognised.

17. Table 3 shows seasonally adjusted estimates for both private and total dwellings. For the four series shown, account has been taken of normal seasonal factors and 'trading day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the effect of movement in the date of Easter which may, in successive years, affect figures for different months.

18. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of the approval of large projects or as a consequence of the administrative arrangements of approving authorities. These irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

19. Most of the component series have been seasonally adjusted independently. Therefore, 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 optimum 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.

20. As happens with all seasonally adjusted series, the seasonal factors are reviewed annually to take account of each additional year's data. For Building Approvals, the results of the latest review are shown in the July issue each year. Further information about seasonal adjustment can be obtained from the Assistant Director of Time Series Analysis, Canberra, on (06) 252 6345.

Trend estimates

21. Seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate.

22. Table 3 shows trend estimates for both private and total dwellings. These are obtained by applying a 13-term Henderson-weighted moving average to all months of the respective seasonally adjusted series except the last six months. Trend series are created for the last six months by applying surrogates of the Henderson moving average to the seasonally adjusted time series. For further information, see *A Guide to Interpreting Time Series - Monitoring 'Trends': an Overview* (1348.0).

23. While the smoothing technique described in paragraphs 21 and 22 enables trend estimates to be produced for the latest few months, it does result in revisions to the trend estimates as new data become available. Generally, revisions become smaller over time and after three months, usually have a negligible impact on the series. Revisions to the original data and re-analysis of seasonal factors may also lead to revisions to the trend.

Estimates at constant prices

24. Estimates of the quarterly value of building approvals at average 1989-90 prices are presented in Table 4. (Note: monthly value data at constant prices are not available.)

25. 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 are derived from the same price data underlying the deflators compiled for the dwelling and non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

26. 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).

Australian Standard Geographical Classification (ASGC)

27. Area statistics are now being classified to the *Australian Standard Geographical Classification, Edition 2.5* (1216.0) and ASGC terminology has been adopted in the presentation of building statistics.

Unpublished data and related publications

28. The ABS can also make available certain building approvals 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 and clerically extracted tabulation. A charge may be made for providing unpublished information in these forms.

29. Other ABS publications which may be of interest include:

Building Approvals, Australia (8731.0) - issued monthly
Dwelling Unit Commencements Reported by Approving Authorities, South Australia (8741.4) - issued monthly
Building Activity, Australia: Dwelling Unit Commencements, Preliminary (8750.0) - issued quarterly
Building Activity, South Australia (8752.4) - issued quarterly

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 *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

— nil or rounded to zero
 r figure or series revised since previous issue
 n.a. not available

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

P.M. GARDNER
 Deputy Commonwealth Statistician
 and Government Statist



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