

10 Construction



INTRODUCTION

In May 1991 there were 124,471 persons employed in the construction industry in Victoria, a 7.0 per cent increase over the 116,326 persons employed in May 1986. Persons employed in the Victorian construction industry in May 1991 accounted for 22.9 per cent of the national construction industry total of 543,849. This represented a decrease from the 23.7 per cent contribution by the Victorian construction industry in May 1986.

In May 1991, persons employed in the Victorian construction industry accounted for 6.3 per cent of persons employed in all Victorian industries, the same proportion as in May 1986.

Construction industry activity

A survey of Construction Industry Activity was conducted in respect of the 1988-89 financial year. Some results from that Survey are shown in the first three tables of this chapter.

At 30 June 1989 an estimated 28,340 private sector construction establishments were operating in Victoria, constituting 29.3 per cent of the Australian total. Approximately three-quarters (75.4 per cent) of Victoria's construction establishments were engaged primarily in special trade construction, while the remaining 24.6 per cent were engaged primarily in general construction. Of the 6,985 general construction establishments, 86.2 per cent were engaged in building construction. Within the building construction category, 80.5 per cent were engaged in residential building construction.

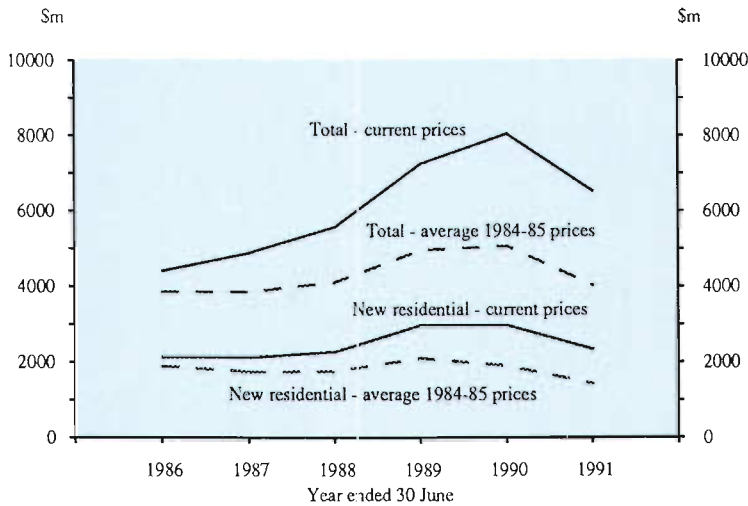
Building construction

At current prices the value of building work done in Victoria during 1990-91 was \$6,531.7m. The value of building work done represented a 19.0 per cent decrease over the previous year, and constituted 24.2 per cent of the total value of building work done in Australia during 1990-91. Between 1985-86 and 1990-91, Victoria's share of the value of building work done in Australia decreased from 26.3 per cent to 24.2 per cent.

Non-residential building

The commercial sector of non-residential building (i.e. hotels, shops, factories, offices, and other business premises) accounted for 45.3 per cent (\$3,255.8m) of the value of all building work completed in Victoria during 1990-91, with office construction being the largest component of this commercial sector activity. Building for community purposes accounted for 9.3 per cent of the value of building construction, with the largest component being building for education purposes.

VALUE OF BUILDING WORK DONE, VICTORIA



In the commercial sector, the value of shops completed increased by 5.3 per cent between 1989-90 and 1990-91 (from \$530.7m to \$558.7m) while the value of factories completed decreased by 30.7 per cent (from \$548.4m to \$379.8m). The value of other business premises completed increased by 6.1 per cent, while the value of offices completed increased by 41.0 per cent. The value of hotels completed increased by 26.3 per cent, from \$165.2m to \$208.6m.

In the community sector, the value of buildings completed for entertainment and recreation purposes increased by 80.3 per cent while the value of buildings completed for educational purposes increased by 51.2 per cent. The value of buildings completed for religious purposes increased by 53.6 per cent. Buildings completed for health purposes decreased by 25.5 per cent.

These changes in value of work done reflect not only changes in building activity but also increases in the cost of building due to inflation. It should also be noted that in any period where there are appreciable increases or decreases in the value of buildings completed for industrial, commercial, business, health, etc. purposes, this movement can be attributed, to some extent, to the completion of large-scale projects.

Residential building

Residential building (including alterations and additions) accounted for 44.5 per cent of the value of all building construction during 1990-91. Residential building's share of the value of all building work done varied widely between 1985-86 and 1990-91, with a peak of 58.5 per cent in 1985-86 and a low point of 44.5 per cent in 1990-91.

New house completions accounted for 74.7 per cent of the value of residential building work completed during 1990-91 while new 'other residential building' completions and 'alterations and additions' accounted for 6.5 per cent and 18.8 per cent respectively.

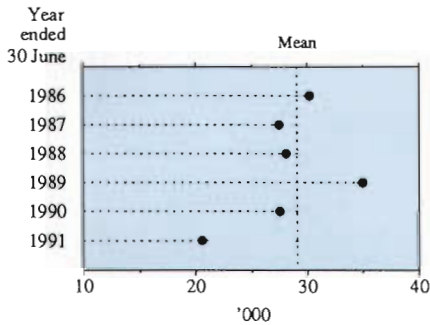
The number of new residential buildings completed during 1990-91 was 28,100, a decrease of 18.3 per cent over the previous year. Of these 28,100 buildings, 89.6 per cent were houses. Private sector activity accounted for at least 90 per cent of the number of new residential buildings completed each year from 1985-86 to 1990-91, ranging from a high of 95.4 per cent in 1989-90 to a low of 93.6 per cent in 1986-87. During 1990-91, private sector activity accounted for 93.7 per cent of all new residential buildings completed.

House commencements and housing loans

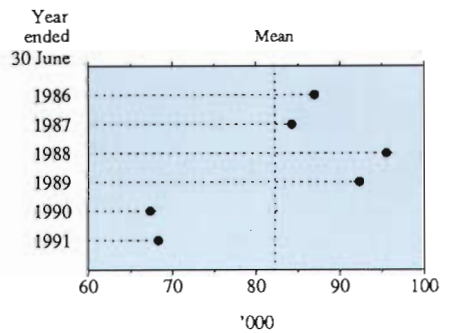
During 1990-91 there were 20,591 houses commenced in Victoria, which represented a decrease of 25.1 per cent over the previous year. The number of houses commenced each year between 1985-86 and 1990-91 followed a similar pattern to the number of housing loans approved.

At current prices the value of housing loans approved during 1990-91 was \$4,957m. This was a 3.2 per cent increase over the 1989-90 level and represented a 38.8 per cent increase over 1985-86, when the value of loans approved was \$3,572m.

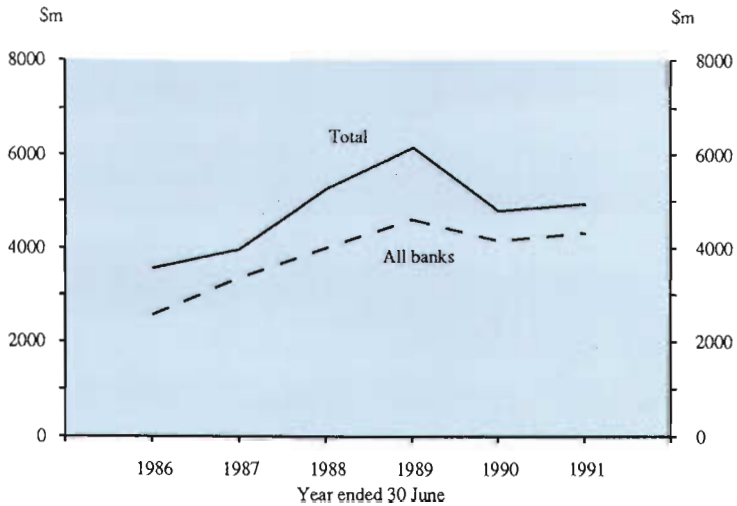
NUMBER OF NEW HOUSES COMMENCED, VICTORIA



NUMBER OF LOANS APPROVED, VICTORIA



VALUE OF HOUSING LOANS (OF ALL TYPES) APPROVED, VICTORIA



**TABLE 10.1 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS, SUMMARY OF OPERATIONS BY INDUSTRY CLASS,
VICTORIA, 1988-89 (a)**

Asic code	Industry Class	Establishments operating at 30 June 1989		Employment at 30 June 1989			Wages and Salaries \$'000	Turnover \$'000	Stocks		Purchases and selected expenses \$'000	Value added \$'000
		Vic. No.	Aust. No.	Males No.	Females No.	Persons No.			Opening \$'000	Closing \$'000		
	General construction -											
	Building construction -											
4111	House construction	4,385	13,785	8,580	3,381	11,962	152,010	2,110,368	232,199	390,542	882,231	536,972
4112	Residential building construction n.e.c.	464	1,770	1,031	355	1,386	23,750	246,234	37,180	51,421	95,4768	65,286
4113	Non-residential building construction	1,174	3,861	12,835	1,703	14,538	428,263	3,735,775	229,181	364,073	961,456	848,010
411	Total building construction	6,023	19,416	22,446	5,439	27,885	604,023	6,092,377	498,560	806,036	1,939,155	1,405,268
	Non-building construction -											
4121	Road and bridge construction	203	777	3,188	334	3,523	81,290	612,980	27,608	49,907	220,684	202,409
4122	Non-building construction n.e.c.	758	3,105	4,791	688	5,479	129,877	575,160	17,810	21,446	215,573	233,269
412	Total non-building construction	961	3,882	7,979	1,022	9,001	211,167	1,188,139	45,418	71,353	436,256	435,678
41	Total	6,984	23,298	30,425	6,462	36,887	815,191	7,280,516	543,978	877,389	2,375,411	1,885,947
	Special trade construction -											
4231	Concreting	1,371	4,056	3,885	1,062	4,946	86,945	499,193	7,412	12,157	224,531	200,285
4232	Bricklaying	2,158	7,507	4,752	1,062	5,815	63,867	219,416	2,777	2,839	26,679	161,607
4233	Roof tiling	196	1,431	814	158	972	17,503	87,715	1m726	1,819	40,927	31,710
4234	Floor and wall tiling	777	2,861	1,009	430	1,440	8,971	67,811	1,253	1,707	20,245	35,621
4241	Structural steel erection	269	1,178	1,276	155	1,430	49,719	112,950	5,423	3,568	20,426	79,248
4242	Plumbing	3,329	10,536	9,558	2,605	12,163	186,900	842,356	17,318	22,618	363,894	385,579
4243	Electrical work	2,499	8,311	8,819	2,328	11,147	189,667	722,158	17,254	21,483	314,557	335,406
4244	Heating and airconditioning	506	1,270	4,064	641	4,705	100,633	487,480	21,472	18,572	251,629	168,821
4245	Plastering and plaster fixing	1,402	4,438	3,976	964	4,939	61,229	292,818	5,587	8,597	111,502	133,012
4246	Carpentry	3,774	12,455	6,510	1,956	8,467	74,709	335,953	6,282	8,683	70,509	211,464
4247	Painting	2,284	8,769	5,341	1,125	6,466	76,560	291,066	3,886	4,348	44,951	185,420
4248	Earthmoving and dredging	991	4,427	2,413	740	3,153	53,760	301,228	6,445	4,426	61,477	149,323
4249	Special trades n.e.c.	1,799	6,063	6,158	1,375	7,534	146,606	586,843	12,977	20,906	176,918	299,604
42	Total	21,355	73,301	58,574	14,602	73,176	1,117,069	4,846,986	109,813	131,723	1,728,245	2,377,099
41-42	Total construction	28,339	96,600	89,000	21,063	110,063	1,932,259	12,127,501	653,791	1,009,112	4,103,656	4,263,046

CONSTRUCTION

(a) Fixed capital expenditure data not collected in 1988-89

TABLE 10.2 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: VALUE OF CONSTRUCTION WORK DONE (a) BY INDUSTRY CLASS AND BROAD COMMODITY, VICTORIA, 1988-89
(\$'000)

Industry	Building			Total building	Total non-building (b)	Total construction work done	
	Houses	Other residential buildings	Non-residential building			Victoria	Australia
Total general construction (41)	1,301,620	218,155	1,221,174	2,740,950	836,004	3,576,954	15,701,728
Special trade construction -							
Concreting (4231)	119,625	6,104	95,018	220,747	39,578	260,325	815,995
Bricklaying (4232)	83,270	7,108	30,116	120,494	3,462	123,956	434,845
Roof tiling (4233)	34,561	3,425	1,411	39,397	3,434	42,831	163,785
Floor and wall tiling (4234)	21,477	1,377	8,890	31,744	934	32,678	123,539
Structural steel erection (4241)	1,268	20	24,224	25,513	22,436	47,949	234,965
Plumbing (4242)	174,470	22,122	122,448	319,041	82,465	401,506	1,338,745
Electrical work (4243)	90,835	12,181	204,207	307,222	69,363	376,585	1,437,738
Heating and airconditioning (4244)	35,040	6,928	130,315	172,284	6,988	179,272	722,570
Plastering and plaster fixing (4245)	113,872	9,090	41,963	164,925	2,042	166,967	558,656
Carpentry (4246)	76,707	10,991	43,343	131,041	7,167	138,209	566,633
Painting (4247)	76,245	6,963	61,623	144,830	39,435	184,265	630,553
Earthmoving and dredging (4248)	23,185	502	26,601	50,288	143,460	193,748	876,126
Special trades n.e.c. (4249)	73,602	12,401	116,068	202,070	66,116	268,186	1,023,765
Total special trade construction (42)	924,157	99,212	906,226	1,929,596	486,881	2,416,477	8,927,917
Total construction (41-42)	2,225,778	317,368	2,127,400	4,670,546	1,322,885	5,993,431	24,629,645

(a) Comprises prime and subcontract, speculative, and capital work done for own use.

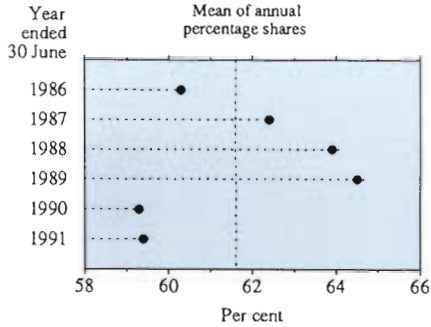
(b) Comprises engineering construction, repairs, maintenance, and demolition.

TABLE 10.3 PUBLIC SECTOR ENTERPRISES: CONSTRUCTION AND MAINTENANCE EXPENDITURE (a) BY LEVEL OF GOVERNMENT, VICTORIA, 1988-89
(\$'000)

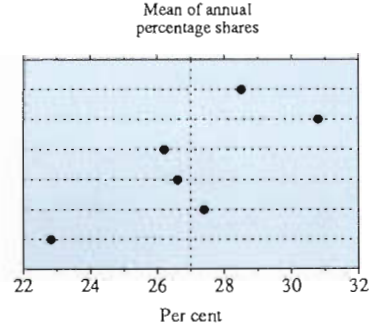
Level of government	Construction expenditure					Maintenance expenditure						
	Houses	Other residential buildings	Non-residential buildings	Engineering construction	Demolition	Total		Building maintenance	Road maintenance	Other maintenance	Total	
						Victoria	Australia				Victoria	Australia
Commonwealth	3,697	469	183,534	463,517	-	651,217	3,559,535	81,021	725	226,880	308,626	1,655,373
State	47,311	114,785	626,110	1,485,867	95	2,274,168	7,996,273	255,273	116,179	1,285,315	1,656,768	4,340,401
Local	971	2,368	77,188	272,790	24	353,341	1,750,751	25,463	189,771	23,509	238,743	1,264,969
Total	51,979	117,622	886,832	2,222,174	119	3,278,726	13,306,559	361,757	306,675	1,535,704	2,204,137	7,260,743

COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS

MSD AS A PERCENTAGE OF VICTORIA



VICTORIA AS A PERCENTAGE OF AUSTRALIA



PERCENTAGE CONTRIBUTION OF STATISTICAL DIVISIONS TO TOTAL VICTORIAN NEW RESIDENTIAL BUILDING COMMENCEMENTS, 1985-86 TO 1990-91

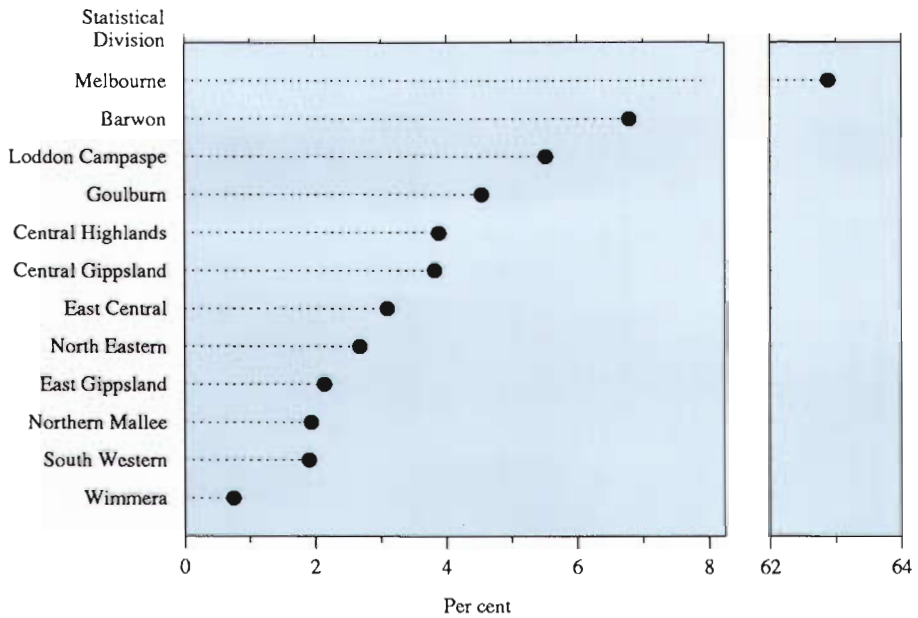
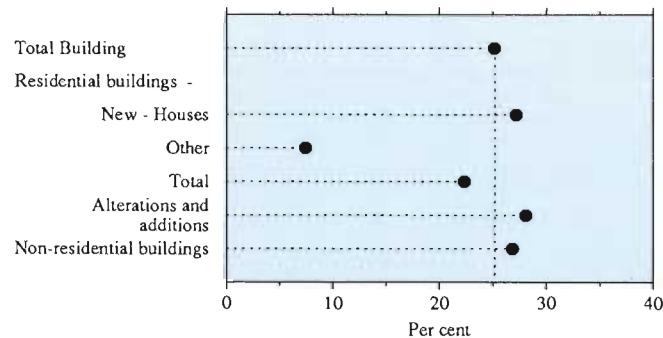


TABLE 10.5 VALUE OF BUILDING ACTIVITY COMPLETED-SUMMARY
(\$m)

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91		Victoria as a percentage of Australia
	Victoria					Victoria	Australia	
New residential buildings -								
Houses	1,741.0	1,790.5	1,979.1	2,421.7	2,758.2	2,392.4	8,816.2	27.1
Other	292.7	292.9	253.7	297.9	179.6	208.1	2,814.0	7.4
Total	2,033.7	2,083.5	2,232.8	2,719.6	2,937.8	2,600.5	11,630.2	22.4
Alterations and additions to residential buildings	292.2	354.8	393.9	483.7	612.6	600.2	2,140.4	28.0
Non-residential building	(a)1,648.1	1,887.7	2,393.1	3,401.0	3,515.3	3,989.0	14,882.0	26.8
Total all building -								
Victoria	(a)3,974.1	4,326.0	5,019.9	6,604.3	7,065.7	7,189.7
Australia	(a)15,436.8	15,612.6	18,362.7	24,396.4	29,023.8	..	28,652.6	..
Victoria as a percentage of Australia	25.7	27.7	27.3	27.1	24.3	25.1

(a) Break in series between 1984-85 and 1985-86. Refer to data sources at end of Chapter.

VALUE OF BUILDING ACTIVITY COMPLETED, 1990-91: VICTORIA AS A PERCENTAGE OF AUSTRALIA



VALUE OF BUILDING ACTIVITY COMPLETED: VICTORIA AS A PERCENTAGE OF AUSTRALIA

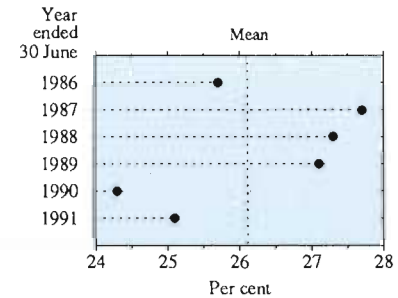


TABLE 10.6 VALUE OF BUILDINGS COMPLETED, CLASSIFIED BY TYPE, VICTORIA (\$'000)

<i>Type of building</i>	<i>1985-86</i>	<i>1986-87</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Houses	1,741,000	1,790,546	1,979,120	2,421,706	2,758,174	2,392,400
Other residential buildings	292,213	92,950	253,666	297,879	179,625	208,100
Alterations and additions to residential buildings	292,213	354,782	393,929	483,697	612,575	600,200
Hotels, guest houses, etc.	75,494	92,224	79,475	241,546	165,244	208,600
Shops	207,964	317,868	360,942	403,763	530,739	558,700
Factories	173,880	247,708	406,942	816,314	548,364	379,800
Offices	629,385	528,013	757,887	1,048,185	1,174,652	1,656,600
Other business premises	123,941	188,533	222,754	348,457	426,127	452,100
Education	177,289	208,533	225,846	296,765	176,369	266,800
Religious	10,110	14,199	12,986	14,360	15,289	23,500
Health	109,389	130,037	124,919	88,377	261,647	194,900
Entertainment and recreation	63,604	80,656	143,084	61,575	100,606	181,400
Miscellaneous	77,066	79,969	58,313	81,628	116,282	66,600
Total	3,974,083	4,326,017	5,019,862	6,604,253	7,065,692	7,189,700

TABLE 10.7 NUMBER OF NEW RESIDENTIAL BUILDINGS COMPLETED BY OWNERSHIP, VICTORIA

<i>Year</i>	<i>Private sector (a)</i>			<i>Public sector</i>			<i>Total Number</i>	<i>Private sector as a percentage of total</i>
	<i>Houses</i>	<i>Other</i>	<i>Total</i>	<i>Houses</i>	<i>Other</i>	<i>Total</i>		
1985-86	28,130	6,034	34,170	1,833	465	2,298	36,470	93.7
1986-87	26,100	5,436	31,540	1,607	563	2,170	33,710	93.6
1987-88	26,170	4,398	30,570	1,499	415	1,914	32,490	94.1
1988-89	29,630	3,579	33,210	906	798	1,704	34,910	95.1
1989-90	30,740	2,059	32,800	1,003	570	1,573	34,380	95.4
1990-91	23,980	2,342	26,320	1,205	580	1,785	28,100	93.7

(a) Houses and total residential buildings for the Private Sector are rounded to the nearest 10 units.

TABLE 10.8 NUMBER OF NEW HOUSES COMMENCED, CLASSIFIED BY MATERIAL OF OUTER WALLS, VICTORIA

<i>Year</i>	<i>Brick, concrete, and stone</i>	<i>Brick veneer</i>	<i>Timber</i>	<i>Fibre cement</i>	<i>Not stated and other</i>	<i>Total</i>
1985-86	1,170	19,797	2,613	1,141	5,469	30,190
1986-87	596	18,151	2,208	984	5,542	27,481
1987-88	567	17,856	1,916	838	6,879	28,103
1988-89	402	22,012	1,815	797	9,875	34,901
1989-90	389	17,375	1,761	564	7,411	27,500
1990-91	220	12,573	1,340	359	6,086	20,578

TABLE 10.9 NUMBER OF COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS BY TYPE OF BUILDING

<i>Year</i>	<i>Melbourne Statistical Division (MSD)</i>	<i>Victoria</i>	<i>MSD as a percentage of Victoria</i>	<i>Victoria as a percentage of Australia</i>
HOUSES				
1985-86	18,205	30,190	60.3	28.5
1986-87	17,144	27,482	62.4	30.8
1987-88	17,968	28,103	63.9	26.2
1988-89	22,516	34,901	64.5	26.6
1989-90	16,315	27,500	59.3	27.4
1990-91	12,235	20,591	59.4	22.8
OTHER				
1985-86	3,796	5,783	65.6	19.3
1986-87	3,407	4,798	71.0	18.3
1987-88	3,106	4,442	69.9	14.3
1988-89	2,569	3,473	74.0	8.1
1989-90	1,837	2,494	73.7	6.6
1990-91	1,752	2,433	72.0	7.9
TOTAL				
1985-86	22,001	35,973	61.2	26.4
1986-87	20,551	32,280	63.7	28.0
1987-88	21,074	32,545	64.8	23.5
1988-89	25,085	38,374	65.4	22.1
1989-90	18,152	29,994	60.5	21.8
1990-91	13,987	23,024	60.7	19.0

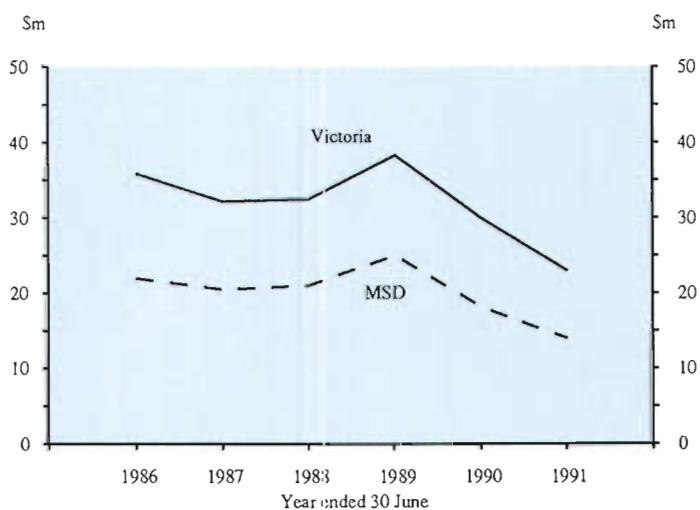
NUMBER OF NEW RESIDENTIAL BUILDINGS COMMENCED

TABLE 10.10 COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS, STATISTICAL REGIONS OF MELBOURNE STATISTICAL DIVISION

<i>Statistical region</i>	<i>1985-86</i>	<i>1986-87</i>	<i>1987-88</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
NUMBER						
Western Melbourne	5,013	4,756	4,580	5,811	5,164	4,156
Inner Melbourne	612	566	669	505	480	284
North Eastern Melbourne	2,559	2,307	2,560	3,261	1,906	1,621
Inner Eastern Melbourne	2,183	2,027	2,303	2,323	1,184	809
Southern Melbourne	1,079	1,022	1,086	1,268	1,122	718
Outer Eastern Melbourne	3,885	3,489	3,516	3,621	2,560	1,974
Mornington Peninsula	6,670	6,384	6,360	8,296	5,736	4,424
Total Melbourne Statistical Division	22,001	20,551	21,074	25,085	18,152	13,986
PERCENTAGE OF MELBOURNE STATISTICAL DIVISION						
Western Melbourne	22.8	23.1	21.7	23.2	28.4	29.7
Inner Melbourne	2.8	2.8	3.2	2.0	2.6	2.0
North Eastern Melbourne	11.6	11.2	12.1	13.0	10.5	11.6
Inner Eastern Melbourne	9.9	9.9	10.9	9.3	6.5	5.8
Southern Melbourne	4.9	5.0	5.2	5.1	6.2	5.1
Outer Eastern Melbourne	17.7	17.0	16.7	14.4	14.1	14.1
Mornington Peninsula	30.3	31.1	30.2	33.1	31.6	31.6
Total Melbourne Statistical Division	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 10.11 HOUSING LOANS APPROVED BY TYPE OF LENDER, VICTORIA

<i>Year</i>	<i>All banks</i>	<i>Permanent building societies</i>	<i>Other lenders</i>	<i>Total</i>
NUMBER				
1985-86 (a)	73,510	7,644	5,811	86,965
1986-87 (a)	75,999	4,431	3,756	84,186
1987-88	79,548	10,882	5,081	95,511
1988-89	77,061	9,396	5,858	92,315
1989-90	58,189	3,409	5,749	67,347
1990-91	59,092	2,891	6,302	68,285
VALUE (\$m)				
1985-86 (a)	2,574	386	279	3,572
1986-87 (a)	3,376	230	174	3,982
1987-88	4,012	635	278	5,273
1988-89	4,625	646	409	6,166
1989-90	4,162	232	408	4,802
1990-91	4,332	203	421	4,956

(a) Breaks in series between 1985-86 and 1986-87.

Public housing

Under the Commonwealth - State Housing Agreement (CSHA), which came into effect on 1 July 1984, the Federal Government provides financial assistance to the States and Northern Territory for public housing programs. The CSHA included the Australian Capital Territory from 1 July 1989.

Victoria was allocated \$234.6m in 1990-91, which represented a 2.1 per cent increase from the previous year. Victoria's share of the CSHA funds distributed was 22.5 per cent in 1989-90, a slight decrease from the 23.5 per cent recorded in 1988-89.

The CSHA funds are provided in the form of untied grants (for rental housing and home purchase assistance) and in the form of grants for specific programs. During 1989-90, untied grants accounted for 80.8 per cent of Victoria's allocation, which was a slight reduction on the 82.7 per cent in 1988-89.

Home purchase assistance

During 1989-90, Victoria had 12.6 per cent of the loans approved in Australia under the Home Purchase Assistance Program (16.4 per cent in 1988-89). The average value of loans approved under the program in Victoria for 1989-90 was \$64,736, a decrease of 3.7 per cent over 1988-89, whilst for Australia the average loan increased 16.3 per cent to \$67,000 over the same period. The ratio of the number of loan approvals per 1,000 people in Victoria for 1989-90 was 1.1 (0.9 in 1988-89) whilst for Australia the ratio was 2.2 (1.4 in 1988-89).

Rental housing assistance

Victoria's stock of public rental housing increased by 3.5 per cent between 1989-90 and 1990-91 - from 61,549 at 30 June 1990 to 63,684 at 30 June 1991. In 1989-90, Victoria accounted for 17.5 per cent of Australia's stock of public rental housing, 17.0 per cent of Australia's rental waiting list, 20.9 per cent of Australia's new applicants for public rental housing, and 16.7 per cent of Australia's allocations of public rental housing.

TABLE 10.12 ALLOCATION OF COMMONWEALTH FUNDS
(\$'000)

Program	Victoria		Australia	
	1988-89	1989-90	1988-89	1989-90
Untied funds	135,989	190,776	530,600	792,931
Rental assistance for pensioners	8,794	10,882	37,500	49,273
Rental assistance for Aborigines	3,417	3,638	70,000	91,000
Mortgage and rent relief	6,949	11,824	26,400	45,914
Crisis accommodation	5,131	12,787	19,500	49,655
Local government and community housing	4,200	6,284	16,000	24,403
Total	164,480	236,191	700,000	1,053,176

Source: Commonwealth Department of Health, Housing and Community Services.

TABLE 10.13 HOME PURCHASE ASSISTANCE PERFORMANCE INDICATORS,
VICTORIA, 1990-91

Item	Unit	
Loans current at end of period	number	31,107
Ratio - loans : 1,000 people	"	7.0
Loans approved	"	3,297
Ratio - approvals : 1,000 people	"	0.8
Total amount	\$'000	176,300
Average loan	\$'000	53.5
Loan waiting list	number	32,276
Ratio - applications : 1,000 people	"	7.3
Approvals : waiting list	per cent	10.2

Source: Ministry for Planning and Housing.

TABLE 10.14 PUBLIC RENTAL HOUSING PERFORMANCE INDICATORS, 1989-90

<i>Item</i>	<i>Unit</i>	<i>Victoria</i>	<i>Australia</i>
Stock	number	61,549	351,690
Ratio - dwellings : 1,000 people	"	14.1	20.6
Rental waiting list	"	33,130	195,019
Ratio - applications : 1,000 people	"	7.6	11.4
New applicants	"	22,928	109,736
Ratio - applicants : 1,000 people	"	5.2	6.4
Allocations	"	8,844	53,100
Allocations: new applicants	per cent	38.6	48.4
Allocations: waiting list	"	26.7	27.2

Source: Commonwealth Department of Health, Housing and Community Services.

Engineering construction

The Engineering Construction Survey was first conducted in respect of the September Quarter 1986, replacing the Construction (Other than Building) Survey as a medium for measuring the level of Non-Building (Engineering) Construction activity within the Construction sector.

During 1990-91, the value (at current prices) of engineering construction work done was \$2,317.2m, of which 61.3 per cent (\$1,419.8m) was done by the public sector. Construction of roads, highways, and subdivisions accounted for 17.3 per cent of the value of work done, telecommunications for 31.2 per cent, heavy industry for 9.2 per cent, and electricity generation, transmission, and distribution for 18.4 per cent.

TABLE 10.15 VALUE OF ENGINEERING CONSTRUCTION BY TYPE, 1990-91

<i>Type of construction</i>	<i>Commenced</i>		<i>Work done</i>		<i>Work yet to be done</i>
	<i>Victoria (\$m)</i>	<i>Victoria (\$m)</i>	<i>Australia (\$m)</i>	<i>Victoria as a percentage of Australia</i>	<i>Victoria (\$m)</i>
Roads, highways, and subdivisions	393.4	401.0	3,404.4	11.8	95.1
Bridges	66.9	39.4	240.0	16.4	35.0
Railways	13.1	48.4	424.4	11.4	40.7
Harbours	11.0	28.1	150.2	18.7	6.8
Water storage and supply	85.3	107.5	767.9	14.0	45.5
Sewerage and drainage	145.8	164.1	677.0	24.2	140.7
Electricity generation, transmission, and distribution	338.3	426.1	1,552.9	27.4	156.2
Pipelines	54.2	57.6	172.9	33.3	2.5
Recreation	95.1	93.6	482.1	19.4	10.5
Telecommunications	715.3	722.9	2,311.6	31.3	2.4
Heavy industry	221.5	213.5	1,455.2	14.7	136.1
Other	9.1	14.8	55.9	26.5	6.0
Total of all construction -					
By private sector	777.3	897.4	5,706.8	15.7	414.8
By public sector	1,371.9	1,419.8	5,987.7	23.7	262.6
Total	2,149.1	2,317.2	11,694.5	19.8	667.4

REFERENCES

Data sources

The Construction Industry Survey (CIS) consisted of separate collections for the private and public sectors. The private sector collection was conducted as a component of the ABS's integrated economic statistics program. This program has been developed so that data from each industry sector conform to the same basic conceptual standards, thereby allowing comparative analysis across different industry sectors. The results of this survey are therefore comparable with economic censuses undertaken annually for the mining and electricity and gas industries and periodically for the transport, manufacturing, wholesale, retail, and selected service industries. However, as the public sector collection used different concepts, the public sector results cannot validly be aggregated with those for the private sector.

The Building Activity Survey involves a sample survey of private sector house construction activity and complete enumeration of building jobs other than private sector house construction. From the September quarter in 1985, the scope of the Building Activity Survey changed in respect of non-residential building activity. Only non-residential building jobs (both new and alterations and additions) with an approval value of \$30,000 or more were included in the survey, whereas previously, jobs with an approval value of \$10,000 or more were included. From the September quarter 1990, this scope increased further to \$50,000 for non-residential and \$10,000 for residential building jobs (both new and alterations and additions). The building commencements collection is based on building permits issued by local government authorities, and contracts let by or day labour work authorised by Commonwealth, State, semi-government, and local government authorities.

The quarterly Engineering Construction Survey is based on a sample of all construction enterprises operating in Australia, in both private and public sectors. The survey aims to measure the value of all engineering construction work undertaken in Victoria. For the Engineering Construction Survey, all enterprises recorded on the ABS central register of economic units and classified to the construction industry, and all other units known to be undertaking engineering construction work (from trade journals, newspapers, etc.) are included in the survey framework.

ABS publications

Housing Finance for Owner Occupation, Australia (56090)
The Labour Force, Victoria (6202.2)
The Labour Force, Australia (6203.0)
Dwelling Unit Commencements Reported by Approving Authorities, Victoria (8741.2)
Building Activity, Australia: Dwelling Unit Commencements, Preliminary (8750.0)
Building Activity, Australia (8752.0)
Building Activity, Victoria (8752.2)
Engineering Construction, Australia (8762.0)
Private Sector Construction Establishments, Details of Operations, Australia, 1984-85 (8772.0)
Private Sector Construction Establishments, Details of Operations, Victoria, 1984-85 (8772.2)
Public Sector Construction Activity Survey, 1984-85 (8775.0)

Non - ABS sources

Commonwealth Department of Health, Housing and Community Services, Annual Report, 1989-90
Ministry for Planning and Housing, Annual Report, 1990-91