# 10 Construction

In terms of the Victorian economy, the construction industry contributed 6.2 per cent of the State's Gross Domestic Product (GDP) at factor cost during 1986-87. By comparison, the national construction industry contributed 6.9 per cent of Australia's GDP at factor cost. Victoria's construction industry contributed 24.7 per cent of the GDP at factor cost generated by Australia's construction industry during 1986-87.

Construction At 30 June 1985 an estimated 29,616 private sector construction establishments were operating in Victoria. These establishments constituted 29.4 per cent of Australia's private sector construction and contributed 24.3 per cent of the value of work done in Australia during 1984-85. Almost three-quarters (73.5 per cent) of Victoria's construction establishments were engaged primarily in special trade construction, while the remaining 26.5 per cent were engaged Of the 7.851 general construction primarily in general construction. establishments, almost 90 per cent were engaged in building construction. Within the building construction category, 98.4 per cent were engaged in residential building construction.

> Although special trade construction establishments outnumbered general construction establishments, the value of work done by the latter category during 1984-85 was greater (\$3,577.0m) than for special trade construction establishments (\$2,416.5m). During 1984-85, Victoria's share of the value of private sector general construction work done in Australia was 22.8 per cent, while the share of special trade construction work done was 27.1 per cent. Victoria's share of Australia's public sector construction expenditure was 21.8 per cent.

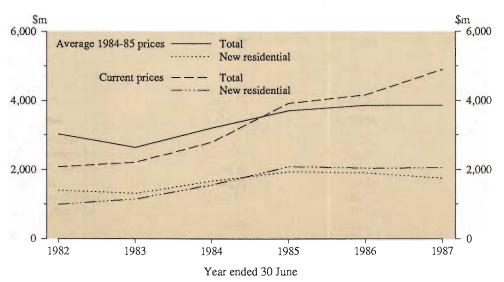
At current prices the value of building work completed in Victoria during 1986-87 (\$4,325.1m) represented 89.2 per cent of the value of all construction The value of building work completed work completed in Victoria. represented an 8.8 per cent increase over the previous year, and constituted 27.8 per cent of the total value of building work done in Australia during 1986-87. Between 1981-82 and 1986-87, Victoria's share of the value of building work done in Australia increased from 19.7 per cent to 27.8 per cent.

Non-residential The commercial sector of non-residential building (i.e. hotels, shops, factories, building offices, and other business premises) accounted for 31.8 per cent (\$1,374.3m) of the value of all building work completed in Victoria during 1986-87, with office construction being the largest component of this commercial sector activity. Building for community purposes accounted for 10.0 per cent of the value of building construction, with the largest component being building for education purposes.

> In the commercial sector, the value of shops completed increased by 152.8 per cent between 1985-86 and 1986-87 (from \$208.0m to \$317.9m) while the

industry activity

Building construction



#### VALUE OF BUILDING WORK DONE, VICTORIA

value of factories completed increased by 42.4 per cent (from \$173.9m to \$247.7m). The value of other business premises completed increased by 52.1 per cent, and the value of hotels completed increased by 22.1 per cent. In contrast, the value of offices completed declined by 16.1 per cent, from \$629.4m to \$528.0m.

In the community sector, the value of buildings completed for entertainment and recreation purposes increased by 26.9 per cent while the value of buildings completed for religious, health and educational purposes increased, respectively, by 40.5 per cent, 18.8 per cent, and 17.6 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 51.0 per cent of the value of all building construction during 1986-87. Residential building's share of the value of all building work done varied widely between 1980-81 and 1986-87, with a peak of 61.6 per cent in 1984-85 and a trough of 49.2 per cent in 1982-83.

New house completions accounted for 74.0 per cent of the value of residential building work completed during 1986-87 while new 'other residential building' completions and 'alterations and additions' accounted for 11.0 per cent and 14.9 per cent respectively.

The number of new residential buildings completed during 1986-87 was 33,710, a decrease of 7.6 per cent over the previous year. Of these 33,710 buildings, 82.2 per cent were houses. Private sector activity accounted for at least 90 per cent of the number of new residential buildings completed each

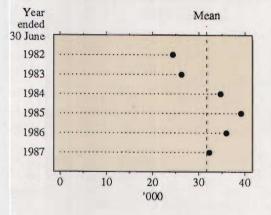
year from 1980-81 to 1986-87, ranging from a high of 94.5 per cent in 1980-81 to a low of 90.2 per cent in 1983-84. During 1986-87, private sector activity accounted for 93.3 per cent of all new residential buildings completed.

#### House commencements and housing loans

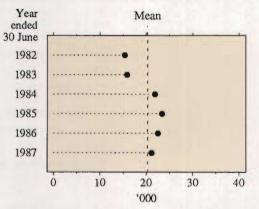
During 1986-87 there were 27,700 houses commenced in Victoria, which represented a decline of 9.3 per cent over the previous year. The number of houses commenced each year between 1980-81 and 1986-87 followed a similar pattern to the number of housing loans approved.

At current prices the value of housing loans approved during 1986-87 was \$3,982.3m. This was an 11.5 per cent increase over the 1985-86 level and represented a 107.9 per cent increase over 1981-82, when the value of loans approved was \$1,718m. Savings banks accounted for 84.8 per cent of the value of loans approved in 1986-87, an increase from the 53.8 per cent in 1980-81.

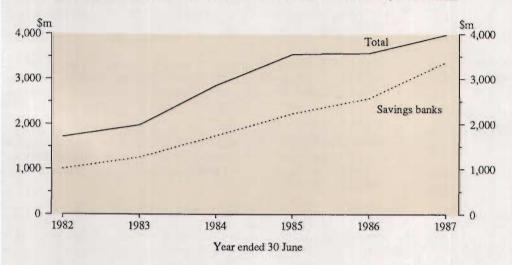
#### NUMBER OF NEW HOUSES COMMENCED, VICTORIA



#### NUMBER OF LOANS (a) APPROVED, VICTORIA



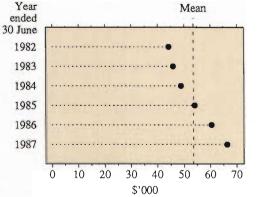
(a) For construction of dwellings and purchase of newly erected dwellings, for owner occupation.

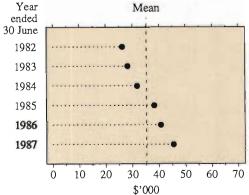


VALUE OF HOUSING LOANS (OF ALL TYPES) APPROVED, VICTORIA

#### **AVERAGE VALUE PER NEW HOUSE** COMMENCED, VICTORIA

#### AVERAGE VALUE PER LOAN APPROVED(a), VICTORIA





(a) For construction of dwellings and purchase of newly erected dwellings, for owner occupation.

#### TABLE 10.1 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS, VALUE OF **CONSTRUCTION WORK DONE BY INDUSTRY CLASS 1984-85**

\$('000)

ASIC code	Industry class	Victoria	Australia	Victoria as a percentage of Australia
	General construction -			
	Building construction -			
4111	House construction	1,371,182	5,104,658	26.9
4112	Residential building construction n.e.c.	166,398	879,636	18.9
4113	Non-residential building construction	1,271,163	5,678,401	22.4
411	Total building construction	2,808,743	11,662,695	24.1
	Non-building construction -			
4121	Road and bridge construction	308,309	1,605,043	19.2
4122	Non-building construction n.e.c.	459,909	2,433,990	18.9
412	Total non building construction	768,218	4,039,033	19.0
41	Total	3,576,954	15,701,728	22.8
	Special trade construction -	, .		
4231	Concreting	260,325	815,995	31.9
4232	Bricklaying	123,956	434,845	28.5
4233	Roof tiling	42,831	163,785	26.2
4234	Floor and wall tiling	32,678	123,539	26.5
4241	Structural steel erection	47,949	234,965	20.4
4242	Plumbing	401,506	1,338,745	30.0
4243	Electrical work	376,585	1,437,738	26.2
4244	Heating and airconditioning	179,272	722,570	24.8
4245	Plastering and plaster fixing	166,967	558,656	29.9
4246	Carpentry	138,209	566,633	24.4
4247	Painting	184,265	630,553	29.2
4248	Earthmoving and dredging	193,748	876,126	22.1
4249	Special trades n.e.c.	268,168	1,023,765	26.2
42	Total	2,416,477	8,927,917	27.1
41-42	Total construction	5,993,431	24,629,645	24.3

	Establi	and the second second		and the second distance of the second distanc				200 C				
	oper	shments rating une 1985		ge employn r whole yea	r Wages			Stocks			Fixed capital expenditure Value less	
Industry class	Vic.	Aust.	Males	Females	Persons	salaries	Turnover	Opening	Closing	expenses	added	disposals
and the state of t	No.	No.	No.	No.	No.	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
General construction -												
Building construction -												
House construction	5,778	19,438	8,718	4,668	13,386	71,795	1,368,566	145,027	208,402	1,114,260	317,681	24,730
Residential building												
construction n.e.c.	421	1,536	795	322	1,117	12,216	165,126	39,511	49,528	141,148	33,995	8,125
Non-residential building												
construction	799	2,987	6,785	940	7,725	157,842	1,275,921	60,483	70,593	1,008,038	277,993	17,085
Total building construction	6,998	23,961	16,297	5,930	22,228	241,854	2,809,613	245,021	328,523	2,263,445	629,669	49,939
Non-building construction -												
Road and bridge construction	267	844	1,937	246	2,183	41,095	311,578	25,544	27,600	222,087	91,548	7,896
Non-building												
construction n.e.c.	586	2,519	4,221	608	4,828	107,933	471,507	14,283	14,931	279,539	192,616	6,154
Total non-building												
construction	853	3,362	6,157	854	7,012	149,027	783,085	39,827	42,532	501,626	284,163	14,051
Total	7,851	27,323	22,455	6,784	29,239	390,881	3,592,697	284,849	371,054	2,765,071	913,832	63,990
Special trade construction -					,							
Concreting	1,128	4,459	2.819	998	3.817	38,565	261.054	3.672	6.436	171,916	91,901	9,263
Bricklaying	2,823	8,912	4,291	1,516							87,041	8,787
Roof tiling	189	1,035	600	196	796			487	638		18,483	678
Floor and wall tiling	631	3,029	782	333	1.115			633	959	16,919	17,080	357
Structural steel erection	343	1,206	1.055	416				1.522	945	20,656	27,454	*222
Plumbing	3,451											10,741
Electrical work												9,921
Heating and airconditioning	404	1,177										*880
Plastering and plaster fixing	1.682	4.551										4,742
												8,482
												7,684
											,	14,407
Special trades n.e.c.												7,235
			-									83,400
				,								147,390
	General construction - Building construction - House construction Residential building construction n.e.c. Non-residential building construction n.e.c. Non-building construction Non-building construction Non-building construction n.e.c. Total non-building construction Total Special trade construction - Concreting Bricklaying Roof tiling Floor and wall tiling Structural steel erection Plumbing Electrical work Heating and airconditioning Plastering and plaster fixing Carpentry Painting Earthmoving and dredging	Industry class         Vic.           No.         Seneral construction -           Building construction -         House construction ne.c.           House construction ne.c.         421           Non-residential building construction ne.c.         421           Non-residential building construction         6,998           Non-building construction -         6,998           Non-building construction -         799           Total building construction -         800           Road and bridge construction -         866           Total non-building construction ne.c.         586           Total non-building construction -         7,851           Special trade construction -         267           Concreting         1,128           Bricklaying         2,823           Roof tiling         189           Floor and wall tiling         631           Structural steel erection         343           Plumbing         3,451           Electrical work         2,309           Heating and plaster fixing         1,682           Carpentry         2,818           Painting         3,212           Earthmoving and dredging         980           Special trades n.e.c.         1,794 <td>Industry classVic.Aust.No.No.No.Building construction -House constructionHouse construction n.e.c.421I,536Non-residential building construction n.e.c.421I,536Non-residential building construction7992,987Total building construction -Road and bridge construction -Road and bridge construction -Road and bridge constructionRoad and bridge construction -Road and bridge constructionConstruction n.e.c.5862,519Total non-building construction n.e.c.Concreting1,1284,459Bricklaying2,8238,912Roof tiling1891,035Floor and wall tiling6313,029Structural steel erection3431,206Plumbing3,45110,396Electrical work2,3098,561Heating and airconditioning4041,177Plastering and plaster fixing1,6824,551Carpentry2,81810,528Painting3,2129,840Earthmoving and dredging9804,165Special trades n.e.c.1,7945,607Total21,76473,467</td> <td>Industry class         Vic.         Aust.         Males           No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718           Residential building construction n.e.c.         421         1,536         795           Non-residential building construction         6,998         23,961         16,297           Non-building construction -         6,998         23,961         16,297           Non-building construction -         Residential building construction -         864         1,937           Non-building construction -         Residential building construction -         866         2,519         4,221           Total non-building construction n.e.c.         586         2,519         4,221           Total non-building construction -         7,851         27,323         22,455           Special trade construction -         Concreting         1,128         4,459         2,819           Bricklaying         2,823         8,912         4,291         1,035         600           Floor and wall tiling         631         3,029         782         Structural steel erection         343         1,206         1,055           Plumbing</td> <td>Industry class         Vic.         Aust.         Males         Females           No.         No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718         4,668           Residential building construction n.e.c.         421         1,536         795         322           Non-residential building construction         6,998         23,961         16,297         5,930           Non-building construction -         Read and bridge construction -         267         844         1,937         246           Non-building construction -         27,323         22,455         6,784           Special trade construction -         Concreting         1,128         4,459         2,819</td> <td>Industry class         Vic.         Aust.         Males         Females         Persons           No.         No.         No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718         4,668         13,386           Residential building construction n.e.c.         421         1,536         795         322         1,117           Non-residential building construction         799         2,987         6,785         940         7,725           Total building construction -         6,998         23,961         16,297         5,930         22,228           Non-building construction -         Read and bridge construction -         866         2,519         4,221         608         4,828           Total non-building construction         853         3,362         6,157         854         7,012           Total         7,851         27,323         22,455         6,784         29,239           Special trade construction -         Concreting         1,128         4,459         2,819         998         3,817           Bricklaying         2,823         8,912         4,291         1,516         5,807</td> <td>Industry class         Vic.         Aust.         Males         Females         Persons         salaries           Ceneral construction -         No.         Science         Science<td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover           No.         No.<td>Vic.         Aust.         Males         Fenales         Persons         salaries         Turnover         Opening           Industry class         No.         Stoop         \$'000         \$'1150         \$'1150<!--</td--><td>Industry class         Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing           General construction - Building construction - Building construction - Building construction - Building construction - House construction n.e.c.         No.         No.         No.         No.         No.         No.         S'000         S'000</td><td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing         espenses           Construction -         No.         No.         No.         No.         No.         No.         No.         S000         \$'000</td><td>Industry class         Vic.         Auet.         Males         Pernols         and         Junney         Opening         Closing         espenses         added           Industry class         No.         No.         No.         No.         No.         No.         S'000         S'000</td></td></td></td>	Industry classVic.Aust.No.No.No.Building construction -House constructionHouse construction n.e.c.421I,536Non-residential building construction n.e.c.421I,536Non-residential building construction7992,987Total building construction -Road and bridge construction -Road and bridge construction -Road and bridge constructionRoad and bridge construction -Road and bridge constructionConstruction n.e.c.5862,519Total non-building construction n.e.c.Concreting1,1284,459Bricklaying2,8238,912Roof tiling1891,035Floor and wall tiling6313,029Structural steel erection3431,206Plumbing3,45110,396Electrical work2,3098,561Heating and airconditioning4041,177Plastering and plaster fixing1,6824,551Carpentry2,81810,528Painting3,2129,840Earthmoving and dredging9804,165Special trades n.e.c.1,7945,607Total21,76473,467	Industry class         Vic.         Aust.         Males           No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718           Residential building construction n.e.c.         421         1,536         795           Non-residential building construction         6,998         23,961         16,297           Non-building construction -         6,998         23,961         16,297           Non-building construction -         Residential building construction -         864         1,937           Non-building construction -         Residential building construction -         866         2,519         4,221           Total non-building construction n.e.c.         586         2,519         4,221           Total non-building construction -         7,851         27,323         22,455           Special trade construction -         Concreting         1,128         4,459         2,819           Bricklaying         2,823         8,912         4,291         1,035         600           Floor and wall tiling         631         3,029         782         Structural steel erection         343         1,206         1,055           Plumbing	Industry class         Vic.         Aust.         Males         Females           No.         No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718         4,668           Residential building construction n.e.c.         421         1,536         795         322           Non-residential building construction         6,998         23,961         16,297         5,930           Non-building construction -         Read and bridge construction -         267         844         1,937         246           Non-building construction -         27,323         22,455         6,784           Special trade construction -         Concreting         1,128         4,459         2,819	Industry class         Vic.         Aust.         Males         Females         Persons           No.         No.         No.         No.         No.         No.         No.           Building construction -         House construction         5,778         19,438         8,718         4,668         13,386           Residential building construction n.e.c.         421         1,536         795         322         1,117           Non-residential building construction         799         2,987         6,785         940         7,725           Total building construction -         6,998         23,961         16,297         5,930         22,228           Non-building construction -         Read and bridge construction -         866         2,519         4,221         608         4,828           Total non-building construction         853         3,362         6,157         854         7,012           Total         7,851         27,323         22,455         6,784         29,239           Special trade construction -         Concreting         1,128         4,459         2,819         998         3,817           Bricklaying         2,823         8,912         4,291         1,516         5,807	Industry class         Vic.         Aust.         Males         Females         Persons         salaries           Ceneral construction -         No.         Science         Science <td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover           No.         No.<td>Vic.         Aust.         Males         Fenales         Persons         salaries         Turnover         Opening           Industry class         No.         Stoop         \$'000         \$'1150         \$'1150<!--</td--><td>Industry class         Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing           General construction - Building construction - Building construction - Building construction - Building construction - House construction n.e.c.         No.         No.         No.         No.         No.         No.         S'000         S'000</td><td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing         espenses           Construction -         No.         No.         No.         No.         No.         No.         No.         S000         \$'000</td><td>Industry class         Vic.         Auet.         Males         Pernols         and         Junney         Opening         Closing         espenses         added           Industry class         No.         No.         No.         No.         No.         No.         S'000         S'000</td></td></td>	Vic.         Aust.         Males         Females         Persons         salaries         Turnover           No.         No. <td>Vic.         Aust.         Males         Fenales         Persons         salaries         Turnover         Opening           Industry class         No.         Stoop         \$'000         \$'1150         \$'1150<!--</td--><td>Industry class         Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing           General construction - Building construction - Building construction - Building construction - Building construction - House construction n.e.c.         No.         No.         No.         No.         No.         No.         S'000         S'000</td><td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing         espenses           Construction -         No.         No.         No.         No.         No.         No.         No.         S000         \$'000</td><td>Industry class         Vic.         Auet.         Males         Pernols         and         Junney         Opening         Closing         espenses         added           Industry class         No.         No.         No.         No.         No.         No.         S'000         S'000</td></td>	Vic.         Aust.         Males         Fenales         Persons         salaries         Turnover         Opening           Industry class         No.         Stoop         \$'000         \$'1150         \$'1150 </td <td>Industry class         Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing           General construction - Building construction - Building construction - Building construction - Building construction - House construction n.e.c.         No.         No.         No.         No.         No.         No.         S'000         S'000</td> <td>Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing         espenses           Construction -         No.         No.         No.         No.         No.         No.         No.         S000         \$'000</td> <td>Industry class         Vic.         Auet.         Males         Pernols         and         Junney         Opening         Closing         espenses         added           Industry class         No.         No.         No.         No.         No.         No.         S'000         S'000</td>	Industry class         Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing           General construction - Building construction - Building construction - Building construction - Building construction - House construction n.e.c.         No.         No.         No.         No.         No.         No.         S'000         S'000	Vic.         Aust.         Males         Females         Persons         salaries         Turnover         Opening         Closing         espenses           Construction -         No.         No.         No.         No.         No.         No.         No.         S000         \$'000	Industry class         Vic.         Auet.         Males         Pernols         and         Junney         Opening         Closing         espenses         added           Industry class         No.         No.         No.         No.         No.         No.         S'000         S'000

### TABLE 10.2 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS, SUMMARY OF OPERATIONS BY INDUSTRY CLASS, VICTORIA, 1984-85

	and the second	Building				Total construction	on work done
Industry	Houses	Other residential buildings	Non-residential building	Total building	Total non- building (b)	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 -					11000000-0		
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

### TABLE 10.3 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: VALUE OF CONSTRUCTION WORK DONE (a) BY INDUSTRY CLASS AND BROAD COMMODITY, VICTORIA, 1984-85 (\$'000)

(a) Comprises prime and subcontract, speculative, and capital work done for own use.
 (b) Comprises engineering construction, repairs, maintenance, and demolition.

# TABLE 10.4 PUBLIC SECTOR ENTERPRISES: CONSTRUCTION AND MAINTENANCE EXPENDITURE (a) BY LEVEL OF GOVERNMENT, VICTORIA, 1984-85 (\$'000)

				V.	¢ 000)							
		Construction expenditure							Maintenance expenditure			
	Houses	Other residential	Non- residential	Non- residential Engineering buildings construction	Pineering		Total		Other		nal	
Level of government		buildings b	buildings		Demolition	Victoria	Australia	maintenance	maintenance	Victoria	Australia	
Commonwealth	3,328	582	74.209	391,452	292	469,863	2,573,433	2,037	395,040	397,077	1,747,809	
State	48,077	45,685	243,494	1,107,549	235	1,445,040	5,950,460	99,378	514,353	613,731	2,217,520	
Local	2,318	23	54,476	244,532	116	301,465	1,638,613	127,277	76,516	203,792	1,223,954	
Total	53,723	46,290	372,179	1,743,533	643	2,216,368	10,162,506	228,692	985,909	1,214,600	5,189,285	

(a) There exists duplication of some expenditure data where construction contracts are let between public sector enterprises.

Material of outer walls

The prevalence of brick veneer houses commenced in Victoria generally declined, from 74.1 per cent of houses commenced in 1980-81 to 65.6 per cent in 1985-86, before increasing marginally to 66.0 per cent in 1986-87. In contrast, the proportion of timber houses increased from 4.9 per cent in 1980-81 to 8.7 per cent in 1985-86, before decreasing slightly to 8.0 per cent in 1986-87.

Regions

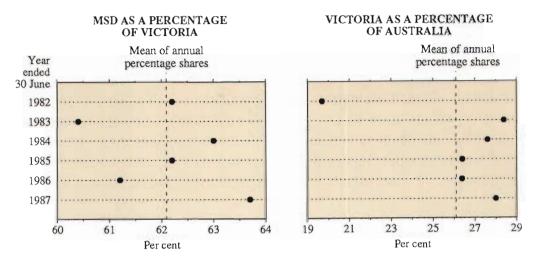
Commencements of new residential buildings in the Melbourne Statistical Division (MSD) accounted for 63.7 per cent of Victoria's commencements during 1986-87. Although this proportion was relatively stable between 1980-81 and 1986-87, it represented a substantial decline from 1970-71 and 1971-72 when MSD commencements accounted for 80.7 per cent of Victoria's commencements.

Within the MSD, the areas with an increasing share of commencements were the Western Melbourne region and the Mornington Peninsula. Areas with a declining share of MSD's commencements were the established regions: Inner Eastern Melbourne, Southern Melbourne, and North Eastern Melbourne.

<b>TABLE 10.5</b>	COMMENCEMENTS	OF NEW RESIDENTI.	AL	BUILDINGS,	VICTORIA

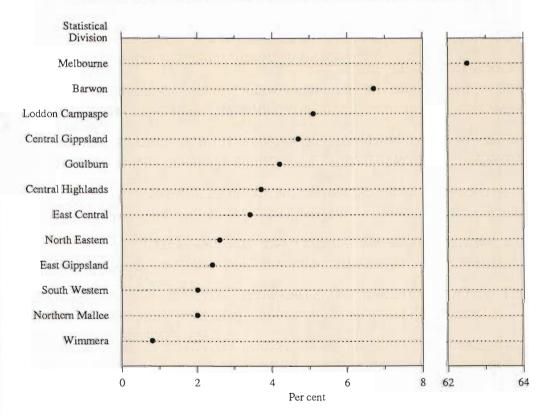
Statistical division	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
	NUN	ABER	-1.01			
Melbourne	15,110	16,454	21,889	24,345	22,001	20,551
Barwon	1,328	1,674	2,451	2,646	2,580	2,234
South Western	629	497	520	738	775	622
Central Highlands	698	919	1,375	1,465	1,383	1,211
Wimmera	217	192	267	318	302	233
NortherN Mallee	586	580	572	759	699	653
Loddon Campaspe	1,073	1,314	1,729	1,865	2,077	1,702
Goulburn	1,152	1,033	1,233	1,722	1,651	1,394
North Eastern	677	745	804	1,122	946	788
East Gippsland	696	667	823	922	861	675
Central Gippsland	1,479	1,272	1,661	1,812	1,532	1,206
East Central	673	912	1,409	1,408	1,166	1,011
Total Victoria	24,318	26,259	34,733	39,122	35,973	32,280
Ι	PERCENTAGE OF	TOTAL V	ICTORIA			
Melbourne	62.1	62.7	63.0	62.2	61.2	63.7
Barwon	5.5	6.4	7.1	6.8	7.2	6.9
South Western	2.6	1.9	1.5	1.9	2.2	1.9
Central Highlands	2.9	3.5	4.0	3.7	3.8	3.8
Wimmera	0.9	0.7	0.8	0.8	0.8	0.7
Northern Mallee	2.4	2.2	1.6	1.9	1.9	2.0
Loddon Campaspe	4.4	5.0	5.0	4.8	5.8	5.3
Goulburn	4.7	3.9	3.5	4.4	4.6	4.3
North Eastern	2.8	2.8	2.3	2.9	2.6	2.4
East Gippsland	2.9	2.5	2.4	2.4	2.4	2.1
Central Gippsland	6.1	4.8	4.8	4.6	4.3	3.7
East Central	2.8	3.5	4.1	3.6	3.2	3.1
Total Victoria	100.0	100.0	100.0	100.0	100.0	100.0

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#### COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS

#### PERCENTAGE CONTRIBUTION OF STATISTICAL DIVISIONS TO TOTAL VICTORIAN NEW RESIDENTAIL BUILDING COMMENCEMENTS, 1981-82 TO 1986-87



			(\$n	n)				
	1981-82	1982-83	1983-84	1984-85	1985-86	1986-8	37	Victoria as a percentage
and the second			Victoria	State 199	1 A	Victoria	Australia	of Australia
New residential buildings -								
Houses	870.5	866.2	1,205.4	1,524.8	1,741.0	1,790.5	5,456.0	32.8
Other	132.1	147.1	176.2	223.8	292.7	292.9	1,340.7	21.8
Total Alterations and additions	1,002.7	1,013.3	1,381.6	1,748.5	2,033.7	2,083.5	6,796.7	30.7
to residential buildings	159.8	167.3	178.6	240.1	292.2	354.8	1,056.5	33.6
Non-residential building	915.5	1,217.4	997.5	1,240.7	(a)1,648.1	1,887.7	7,759.4	24.3
Total all building -			-		10000	and the second second	And the second second	
Victoria	2,078.0	2,398.1	2,557.7	3,229.3	(a)3,974.1	4,326.0	15,612.6	27.7
Australia	10,547.7	10,550.6	10,268.5	12,605.5	(a)15,436.8	15,612.6		
Victoria as a percentage								
of Australia	19.7	22.7	24.9	25.6	25.7	27.7		

TABLE 10.6 VALUE OF BUILDING ACTIVITY COMPLETED-SUMMARY

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

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		(\$ 000)				
Type of building	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Houses	870,526	866,167	1,205,396	1,524,763	1,741,000	1,790,546
Other residential buildings	132,150	147,150	176,244	223,610	292,748	292,950
Alterations and additions						
to residential buildings	159,845	167,260	178,591	240,108	292,213	354,782
Hotels, guest houses, etc.	28,323	27,764	24,357	68,661	75,494	92,224
Shops	115,589	102,041	110,129	179,205	207,964	317,868
Factories	219,829	231,947	148,514	157,455	173,880	247,708
Offices	144,335	384,679	250,931	262,330	629,385	528,013
Other business premises	136,269	100,301	101,215	171,179	123,941	188,533
Education	94,835	118,448	132,203	108,954	177,289	208,533
Religious	11,165	9,243	9,280	6,669	10,110	14,199
Health	62,207	97,229	36,655	57,470	109,389	130,037
Entertainment and recreation	39,979	94,441	40,868	178,708	63,604	80,656
Miscellaneous	62,961	51,109	143,353	50,115	77,066	79,969
Total	2,078,012	2,397,778	2,557,736	3,229,225	3,974,083	4,326,017

### TABLE 10.7 VALUE OF BUILDINGS COMPLETED, CLASSIFIED BY TYPE, VICTORIA (\$'000)

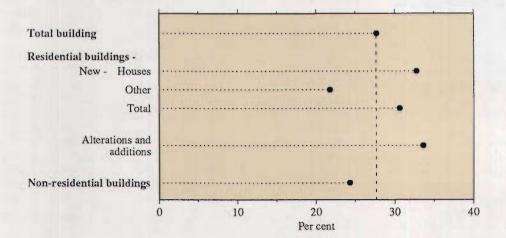
### TABLE 10.8 NUMBER OF NEW RESIDENTIAL BUILDINGS COMPLETED BY OWNERSHIP, VICTORIA

	Pri	vate sector		Public sector				Private sector	
Year	Houses	Other	Total	Houses	Other	Total	Total Number	as a percentage of total	
1981-82	18,960	3,684	22,640	1,004	846	1,850	24,490	92.4	
1982-83	17,700	4,040	21,740	1,145	966	2,111	23,860	91.1	
1983-84	23,330	4,477	27,810	2,472	553	3,025	30,830	90.2	
1984-85	27,860	5,544	33,410	1,789	310	2,099	35,510	94.1	
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	

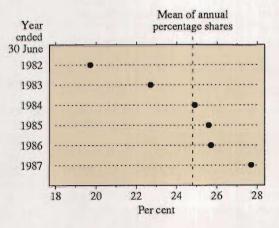
#### TABLE 10.9 NUMBER OF NEW HOUSES COMMENCED, CLASSIFIED BY MATERIAL OF OUTER WALLS, VICTORIA

Year	Brick, concrete, and stone	Brick veneer	Timber	Fibre cement	Other and not stated	Total
1981-82	1,581	14,015	1,088	898	1,649	19,231
1982-83	1,209	15,323	1,458	870	2,339	21,199
1983-84	1,359	20,285	2,067	1,292	3,901	28,904
1984-85	943	22,897	2,723	1,204	4,234	32,001
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

#### VALUE OF BUILDING ACTIVITY COMPLETED, 1986-87: VICTORIA AS A PERCENTAGE OF AUSTRALIA



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

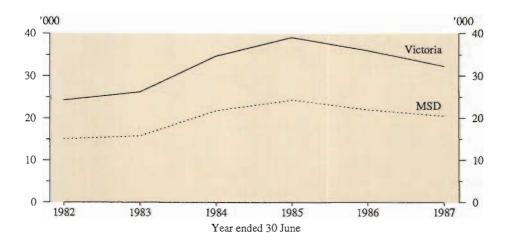


#### CONSTRUCTION

Year	Melbourne Statistical Division (MSD)	Victoria	MSD as a percentage of Victoria	Victoria as a percentage of Australia
		HOUSES		
1981-82	11,905	19,231	61.9	21.3
1982-83	12,519	21,199	59.1	26.5
1983-84	17,896	28,904	61.9	26.1
1984-85	19,502	32,001	60.9	27.4
1985-86	18,205	30,190	60.3	28.5
1986-87	17,144	27,482	62.4	30.8
		OTHER		
1981-82	3,205	5,087	63.0	11.4
1982-83	3,340	5,060	66.0	17.4
1983-84	3,993	5,829	68.5	16.9
1984-85	4,843	7,121	68.0	21.7
1985-86	3,796	5,783	65.6	19.3
1986-87	3,407	4,798	71.0	18.3
		TOTAL		
1981-82	15,110	24,318	62.2	19.7
1982-83	15,859	26,259	60.4	28.4
1983-84	21,889	34,733	63.0	27.6
1984-85	24,345	39,122	62.2	26.4
1985-86	22,001	35,973	61.2	26.4
1986-87	20,551	32,280	63.7	28.0

### TABLE 10.10 NUMBER OF COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS BY TYPE OF BUILDING

#### NUMBER OF NEW RESIDENTIAL BUILDINGS COMMENCED



Statistical region	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
	NUM	BER				
Western Melbourne	2,836	3,146	4,814	5,611	5,013	4,756
Inner Melbourne	670	803	452	682	612	566
North Eastern Melbourne	2,028	1,904	2,534	2,642	2,559	2,307
Inner Eastern Melbourne	2,346	2,017	2,529	2,491	2,183	2,027
Southern Melbourne	1,202	798	1,068	1,175	1,079	1,022
Outer Eastern Melbourne	2,538	2,567	3,748	4,285	3,885	3,489
Mornington Peninsula	3,490	4,624	6,744	7,459	6,670	6,384
Total Melbourne Statistical Division	15,110	15,859	21,889	24,345	22,001	20,551
PERCENTAGE OF M	ELBOUR	NE STATI	STICAL I	IVISION		
Western Melbourne	18.8	19.8	22.0	23.0	22.8	23.1
Inner Melbourne	4.4	5.1	2.1	2.8	2.8	2.8
North Eastern Melbourne	13.4	12.0	11.6	10.9	11.6	11.2
Inner Eastern Melbourne	15.5	12.7	11.6	10.2	9.9	9.9
Southern Melbourne	8.0	5.0	4.9	4.8	4.9	5.0
Outer Eastern Melbourne	16.8	16.2	17.1	17.6	17.7	17.0
Mornington Peninsula	23.1	29.2	30.8	30.6	30.3	31.1
<b>Total Melbourne Statistical Division</b>	100.0	100.0	100.0	100.0	100.0	100.0

### TABLE 10.11 COMMENCEMENTS OF NEW RESIDENTIAL BUILDINGS, STATISTICAL REGIONS OF MELBOURNE STATISTICAL DIVISION

#### TABLE 10.12 HOUSING LOANS APPROVED BY TYPE OF LENDER, VICTORIA

Year	Savings banks	Permanent building societies	Trading banks	Other lenders	Total
	market and the	NUMBE	R		
1981-82	42,100	9,838	7,543	6,392	65,873
1982-83	48,286	11,030	5,331	6,144	70,791
1983-84	59,704	18,668	5,563	6,473	90,408
1984-85 (a)	63,549	17,527	6,048	5,177	92,301
1985-86 (b)	66,456	7,644	7,054	5,811	86,965
1986-87 (b)	72,460	4,431	3,539	3,756	84,156
		VALUE (\$	m)		
1981-82	1,012	355	158	193	1,718
1982-83	1,260	410	114	191	1,975
1983-84	1,744	755	146	206	2,852
1984-85 (a)	2,234	846	259	209	3,548
1985-86 (b)	2,574	386	333	279	3,572
1986-87 (b)	3,376	230	203	174	3,982

(a) Break in series between 1983-84 and 1984-85.

(b) Breaks in series between 1984-85 and 1985-86, and 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.

#### CONSTRUCTION

Victoria was allocated \$165.3m in 1986-87, which represented a 6.1 per cent increase over the previous year. Victoria's share of the CSHA funds distributed was 23.8 per cent in both 1985-86 and 1986-87.

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 1986-87, untied grants accounted for 84.8 per cent of Victoria's allocation, which was almost the same proportion as for the previous year.

Home purchase assistance Under the Home Purchase Assistance Program, during 1986-87 Victoria had 31.7 per cent of Australia's loans outstanding, processed 16.1 per cent of Australia's loans approved, had 41.6 per cent of Australia's loan waiting list, and had twice Australia's estimated waiting time for loan approval (24 months compared with 12 months for Australia).

Rental housing assistance Victoria's stock of public rental housing increased by 5.7 per cent between 1985-86 and 1986-87; from 51,007 at 30 June 1986 to 53,902 at 30 June 1987. In 1986-87, Victoria accounted for 17.7 per cent of Australia's stock of public rental housing, 18.2 per cent of Australia's rental waiting list, 18.9 per cent of Australia's new applicants for public rental housing, and 19.5 per cent of Australia's allocations of public rental housing.

## TABLE 10.13 COMMONWEALTH-STATE HOUSING AGREEMENT, ALLOCATION OF COMMONWEALTH FUNDS

(\$'000)

and the second sec	Victoria		Australia	
Program	1985-86	1986-87	1985-86	1986-87
Untied funds	131,575	140,377	517,600	549,600
Rental assistance for pensioners	8,646	8,509	36,600	37,000
Rental assistance for Aboriginals	3,417	3,419	54,300	58,000
Mortgage and rent relief	6,043	6,400	22,700	24,100
Crisis accommodation	3,504	3,711	13,200	14,000
Local government and community housing	2,662	2,921	10,000	11,000
Total	155,847	165,335	654,400	693,700

Source: Commonwealth Department of Community Services and Health.

#### TABLE 10.14 HOME PURCHASE ASSISTANCE PERFORMANCE INDICATORS, 1986-87

Item	Unit	Victoria	Australia
Loans current at end of period	number	55,788	176,161
Ratio - loans : 1,000 people	"	13.3	11.0
Loans approved	17	2,255	14,004
Ratio - approvals : 1,000 people	11	0.5	0.9
Total amount	\$'000	125,872	611,563
Average loan	\$'000	55.8	43.7
Loan waiting list	number	26,526	63,784
Ratio - applications : 1,000 people	"	6.3	4.0
Approvals : waiting list	per cent	8.5	22.0
Estimated waiting time (months) (a)	number	24	12

(a) Waiting times vary considerably according to region and type of dwelling.

Source: Commonwealth Department of Community Services and Health.

Item	Unit	Victoria	Australia
Stock	number	53,902	304,174
Ratio - dwellings : 1,000 people		12.8	19.0
Rental waiting list		30,087	165,633
Ratio - applications : 1,000 people		7.1	10.4
New applicants		21,026	110,981
Ratio - applicants : 1,000 people		5.0	7.0
Allocations	"	9,254	47,338
Allocations: new applicants	per cent	44.0	42.7
Allocations: waiting list		30.8	28.6
Estimated waiting time (months) (a)	number	n.a.	n.a.

#### TABLE 10.15 PUBLIC RENTAL HOUSING PERFORMANCE INDICATORS, 1986-87

(a) See footnote (a) to previous table.

Source: Department of Community Services and Health.

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 1986-87, the value (at current prices) of engineering construction work done was \$1,694.5m, of which 54.3 per cent (\$920.7m) was done by the public sector. Construction of roads, highways, and subdivisions accounted for 28.0 per cent of the value of work done, telecommunications for 21.6 per cent, and electricity generation, transmission, and distribution for 14.2 per cent.

	Commenced	nmenced Work done			Work yet to be done
– Type of construction	Victoria (\$m)	Victoria (\$m)	Australia (Sm)	Victoria as a percentage of Australia	Victoria (\$m)
Roads, highways, and subdivisions	454.4	475.1	2,356.3	20.2	87.9
Bridges	58.8	66.6	239.4	27.8	42.9
Railways	75.8	48.1	335.2	14.3	35.3
Harbours	7.0	7.0	297.6	2.4	4.9
Water storage and supply	80.4	91.1	561.0	16.2	41.5
Sewerage and drainage	173.8	138.0	616.2	22.4	119.4
Electricity generation,					
transmission, and distribution	152.1	240.9	1,295.4	18.6	184.0
Pipelines	19.7	25.4	130.3	19.5	7.0
Recreation	52.4	45.8	239.0	19.2	8.8
Telecommunications	344.9	365.6	1,671.2	21.9	1.0
Heavy industry	198.7	176.9	1,125.1	15.7	134.3
Other	9.4	13.8	90.2	15.3	1.1
Total of all construction -					
By private sector	685.3	773.8	4,438.7	17.4	423.0
By public sector	941.1	920.7	4,518.2	20.4	245.1
Total	1,626.4	1,694.5	8,956.9	18.9	668.1

#### TABLE 10.16 VALUE OF ENGINEERING CONSTRUCTION BY TYPE, 1986-87

#### REFERENCES

Data sources The latest year for which ABS estimates are available for State Gross Domestic Product at factor cost is 1983-84. In order to bring the series up to 1986-87, use has been made of estimates for gross operating surplus prepared by the Victorian Department of Management and Budget.

> 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 are now included in the survey, whereas previously, jobs with an approval value of \$10,000 or more were included. 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.

Statistics drawn from the quarterly survey of Construction (Other Than Building) relate to work by private contractors on construction (other than building) prime contracts valued at \$100,000 or more. The prime contract is valued inclusive of all associated sub-contract work performed for the prime contractor. Alterations and additions undertaken as prime contracts and within the same value criterion are included in the statistics. The classification used is broadly compatible with that used for the Construction Industry Survey.

In contrast, the quarterly Engineering Construction Survey which supplanted the Construction (Other Than Building) collection 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 Australian National Accounts: State Accounts, 1986-87 (5220.0) Housing Finance for Owner Occupation, Australia (5609.0) Dwelling Unit Commencements Reported by Approving Authorities, Victoria (8741.2) Building Activity, Australia: Dwelling Unit Commencements, Preliminary

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 Community Services and Health, Annual Report, 1986-87

Department of Management and Budget, Victoria, Estimates of State Accounts compiled by the Policy Planning Division.

CONSTRUCT	ION
Background:	The West Gate Freeway, showing the eastern extension linking to King's Way -
	Road Construction Authority.
Inset: (Top)	National Tennis Centre, Flinders Park - Ministry of Housing and Construction.

(Below) Construction cranes reflected in city building - J.J. Moody.



