# **Housing and Transport**

# Introduction

This chapter contains data pertaining to housing and transport and their effects on the way in which people live and travel in Victoria. The housing section includes information about the number of building approvals, the value of residential building work done, details of housing loans, house price index data and housing occupancy and costs. The transport section looks at the Victorian road network, the number of vehicle registrations and driver licences, public transport, and air transport.

The data in this chapter is sourced from surveys conducted by the ABS, as well as contributions made by the Roads Corporation (VicRoads), the Victorian Department of Infrastructure (DOI) and the Department of Transport and Regional Services.

# **Residential building**

# **Building** approvals

The number of dwellings approved decreased in 2000–01 (down 29.1%), following record levels achieved in 1999–2000 (table 9.1). There was a 32.6% decrease in the number of approvals of private sector new houses, which accounted for almost two-thirds of the overall decline.

Much of the high levels achieved in 1999–2000 are thought to be associated with increased activity by builders and owners aiming to complete construction prior to the introduction of the GST, which was introduced on 1 July 2000.

9.1 DWELLING UNITS APPROVED, By Type and Ownership

|           |            | Priv                           | ate sector |               | Publ                           | ic sector |                    |                            |
|-----------|------------|--------------------------------|------------|---------------|--------------------------------|-----------|--------------------|----------------------------|
|           | New houses | New other residential building | Total      | New<br>houses | New other residential building | Total     | Other approvals(a) | Total<br>dwelling<br>units |
|           | no.        | no.                            | no.        | no.           | no.                            | no.       | no.                | no.                        |
| 1995–96   | 18 425     | 3 218                          | 21 643     | 464           | 937                            | 1 401     | 663                | 23 707                     |
| 1996–97   | 19 593     | 6 421                          | 26 014     | 212           | 384                            | 596       | 1 240              | 27 850                     |
| 1997–98   | 27 367     | 6 811                          | 34 178     | 570           | 601                            | 1 171     | 1 089              | 36 438                     |
| 1998–99   | 28 701     | 8 511                          | 37 212     | 544           | 350                            | 894       | 1 616              | 39 722                     |
| 1999-2000 | 35 967     | 11 765                         | 47 732     | 507           | 280                            | 787       | 1 614              | 50 133                     |
| 2000-01   | 24 232     | 9 547                          | 33 779     | 275           | 190                            | 465       | 1 297              | 35 541                     |

(a) Includes non-residential buildings, alterations and additions to residential buildings, and conversions.

Source: Building Approvals, Victoria (Cat. no. 8731.2).

# **Building activity**

In 2000–01, the value of residential building work done declined for the first time since 1995–96 (table 9.2). Overall, there was a 6.0% decline in the value of residential building work done between 1999–2000 and 2000–01. In contrast, the value of new housing construction on new other residential buildings increased by 13.3%. The construction of new houses accounted for 59.0% of the value of residential building work done in 2000–01.

#### 9.2 VALUE OF RESIDENTIAL BUILDING WORK DONE

|                  | New houses | New other<br>residential<br>buildings | Alterations and additions to residential buildings | Total   |
|------------------|------------|---------------------------------------|--|---------|
| Type of building | \$m        | \$m                                   | \$m  | \$m     |
| 1995–96          | 2 111.1    | 452.0                                 | 698.1  | 3 261.2 |
| 1996-97          | 1 988.8    | 621.4                                 | 775.3  | 3 385.5 |
| 1997-98          | 2 808.4    | 760.2                                 | 911.5  | 4 480.1 |
| 1998-99          | 3 366.2    | 948.0                                 | 998.1  | 5 312.2 |
| 1999-2000        | 4 468.4    | 1 351.6                               | 1 269.4  | 7 089.4 |
| 2000-01          | 3 927.6    | 1 531.4                               | 1 202.2  | 6 661.3 |

Source: Building Activity, Victoria (Cat. no. 8752.2).

#### **Housing loans**

The value of total housing loan commitments decreased by 3.7% in 2000–01, following a series high in 1999–2000. There was a decrease of 10.4% in the value of new loan commitments by banks, whereas commitments made by permanent building societies and other lenders increased (27.2% and 52.9% respectively).

The number and value of commitments for purchases of new dwellings have decreased by almost 25%, respectively. In contrast, there has been a slight increase of more than 2% in the number and value of commitments to purchase established dwellings. In terms of total value, 82.8% of total loan commitments were for the purpose of purchasing established dwellings (up from 77.9% in 1999–2000), while 17.2% went to new dwellings (a decrease from 22.1% in 1999–2000).

9.3 NEW HOUSING LOAN COMMITMENTS, By Type of Lender

|           |        |            |             | Purpose      |           |                                    |                  |             |
|-----------|--------|------------|-------------|--------------|-----------|------------------------------------|------------------|-------------|
|           | New dw | ellings(a) | Established | dwellings(b) |           |                                    | Тур              | e of lender |
|           |        |            |             |              | All banks | Permanent<br>building<br>societies | Other<br>lenders | Total(c)    |
|           | no.    | \$m        | no.         | \$m          | \$m       | \$m                                | \$m              | \$m         |
| 1995–96   | 16 848 | 1 577      | 89 902      | 7 829        | 8 443     | 177                                | 786              | 9 406       |
| 1996-97   | 20 849 | 2 038      | 92 640      | 8 615        | 9 333     | 210                                | 1 110            | 10 653      |
| 1997-98   | 26 897 | 2 952      | 92 793      | 9 639        | 10 816    | 240                                | 1 535            | 12 591      |
| 1998-99   | 27 859 | 3 383      | 94 170      | 10 993       | 12 771    | 240                                | 1 366            | 14 376      |
| 1999-2000 | 28 518 | 3 828      | 101 830     | 13 482       | 15 421    | 125                                | 1 764            | 17 310      |
| 2000-01   | 21 232 | 2 874      | 105 220     | 13 792       | 13 811    | 159                                | 2 697            | 16 667      |

<sup>(</sup>a) Includes construction of new dwellings and purchases of newly erected dwellings. (b) Includes purchase of established dwellings and refinancing of existing housing loans. (c) Sum of components may not equal total due to rounding.

Source: ABS data available on request, Housing Finance for Owner Occupation Survey.

# **House prices**

In Melbourne, the House Price Index increased by 10.0% for established homes and 12.2% for project homes from 1999–2000 to 2000–01 (table 9.4). The increase in the price index of established homes for Melbourne was the highest recorded of all capital cities. When compared to 1995–96, the price index for Melbourne has increased by 63.0% for established homes and 27.6% for project homes.

9.4 HOUSE PRICE INDEX(a)

|                    | Sydney | Melbourne | Brisbane | Adelaide | Perth | Hobart | Darwin | Canberra |
|--------------------|--------|-----------|----------|----------|-------|--------|--------|----------|
| Established houses |        |           |          |          |       |        |        |          |
| 1995–96            | 115.8  | 97.6      | 136.8    | 108.3    | 108.2 | 129.8  | 188.0  | 112.7    |
| 1996–97            | 118.9  | 101.4     | 137.2    | 108.2    | 109.2 | 128.5  | 196.9  | 126.4    |
| 1997–98            | 128.5  | 114.3     | 138.9    | 112.1    | 113.3 | 125.4  | 198.9  | 126.2    |
| 1998–99            | 137.9  | 126.8     | 141.0    | 114.1    | 118.9 | 123.2  | 193.6  | 128.2    |
| 1999–2000          | 153.1  | 144.6     | 142.2    | 123.2    | 125.9 | 129.0  | 199.2  | 137.0    |
| 2000–01            | 163.8  | 159.1     | 149.4    | 131.1    | 133.9 | 134.2  | 198.7  | 149.1    |
| Project homes      |        |           |          |          |       |        |        |          |
| 1995–96            | 110.2  | 107.3     | 113.7    | 112.8    | 101.6 | 123.4  | 129.9  | 109.5    |
| 1996–97            | 110.4  | 107.7     | 112.7    | 108.3    | 101.3 | 123.3  | 136.0  | 123.6    |
| 1997–98            | 112.2  | 108.6     | 112.4    | 113.1    | 102.2 | 123.3  | 137.3  | 123.5    |
| 1998–99            | 115.2  | 112.5     | 113.4    | 117.0    | 106.1 | 123.3  | 139.0  | 124.4    |
| 1999–2000          | 123.1  | 122.0     | 118.2    | 127.2    | 114.8 | 126.2  | 143.2  | 131.9    |
| 2000-01            | 138.4  | 136.9     | 132.0    | 141.9    | 126.2 | 140.7  | 156.8  | 153.5    |

<sup>(</sup>a) Base of each index: 1989–90=100.0. Weighted average of capital city.

Source: House Price Indexes: Eight Capital Cities (Cat. no. 6416.0).

# **Housing costs**

The average cost of housing for Melbourne in 1999–2000 was \$123 per week (table 9.5). For households which were being purchased in Melbourne, average weekly housing costs were \$225. For those in private rental accommodation, average weekly housing costs were almost \$60 cheaper in Melbourne than in Sydney.

When housing costs are expressed as a proportion of household income, the proportions are similar across Australia. However, there are marked differences by type of tenure. In Melbourne, owners with a mortgage had average weekly housing costs of \$225 per week, accounting for 17% of their household income. However, households paying rent to a State housing authority paid an average of \$76 per week in housing costs, which was 19% of their household income.

9.5 COST OF HOUSING, By Tenure Type — 1999–2000

|           |                       |                           |                      |                     | Renters          |       |
|-----------|-----------------------|---------------------------|----------------------|---------------------|------------------|-------|
|           | Owners                |                           | State                |                     |                  |       |
|           | without a<br>mortgage | Owners with<br>a mortgage | housing<br>authority | Private<br>landlord | Total<br>renters | Total |
|           |                       | MEAN WEEK                 | LY HOUSING           | COSTS (\$)          |                  |       |
| Sydney    | 26                    | 277                       | 78                   | 227                 | 195              | 155   |
| Melbourne | 24                    | 225                       | 76                   | 168                 | 152              | 123   |
| Brisbane  | 24                    | 198                       | 70                   | 156                 | 139              | 126   |
| Adelaide  | 21                    | 163                       | 70                   | 143                 | 114              | 98    |
| Perth     | 18                    | 211                       | 65                   | 142                 | 126              | 129   |
| Hobart    | 20                    | 144                       | *78                  | *122                | 109              | 87    |
| Canberra  | 30                    | 259                       | *73                  | 169                 | 134              | 161   |
|           | MEAN HOU              | ISING COSTS               | AS A PROPO           | ORTION OF IN        | NCOME (%)        |       |
| Sydney    | 3                     | 19                        | 16                   | 21                  | 21               | 14    |
| Melbourne | 2                     | 17                        | 19                   | 18                  | 18               | 12    |
| Brisbane  | 3                     | 14                        | 19                   | 20                  | 18               | 13    |
| Adelaide  | 3                     | 15                        | 18                   | 17                  | 18               | 12    |
| Perth     | 2                     | 17                        | 20                   | 18                  | 18               | 13    |
| Hobart    | 3                     | 13                        | *17                  | *20                 | 19               | 11    |
| Canberra  | 3                     | 18                        | *19                  | 16                  | 16               | 14    |

Source: ABS data available on request, Survey of Income and Housing Costs.

In 1999–2000, the average value of separate houses in Melbourne was \$221,300, ranking third behind Sydney (\$352,000) and Perth (\$237,600) (table 9.6). Almost one-quarter of separate houses in Melbourne were worth more than \$250,000, compared with Sydney where more than half were worth over \$250,000.

9.6 VALUE OF SEPARATE HOUSES, Capital City Households — 1999-2000

|                        | Unit   | Sydney | Melbourne | Brisbane | Adelaide | Perth | Hobart | Canberra |
|------------------------|--------|--------|-----------|----------|----------|-------|--------|----------|
| Less than \$75,001     | %      | n.p.   | *1.4      | *4.0     | *5.3     | *1.3  | *17.6  | n.p.     |
| \$75,001 to \$100,000  | %      | *1.5   | 8.0       | 12.9     | 24.7     | 8.7   | *23.6  | **4.9    |
| \$100,001 to \$125,000 | %      | 2.6    | 11.3      | 16.1     | 16.8     | 10.3  | *18.9  | *12.7    |
| \$125,001 to \$150,000 | %      | 6.9    | 15.7      | 19.3     | 16.9     | 15.0  | *12.3  | *24.5    |
| \$150,001 to \$200,000 | %      | 18.4   | 25.1      | 22.4     | 21.5     | 21.8  | *20.6  | *23.2    |
| \$200,001 to \$250,000 | %      | 11.0   | 14.6      | 8.5      | *6.7     | 13.1  | **5.8  | *13.0    |
| \$250,001 to \$300,000 | %      | 15.6   | 8.5       | 7.2      | *4.0     | 9.6   | n.p.   | *10.2    |
| Greater than \$300,000 | %      | 43.6   | 15.6      | 9.6      | *4.0     | 20.3  | n.p.   | *10.6    |
| Mean value             | \$'000 | 352.0  | 221.3     | 194.1    | 152.6    | 237.6 | 126.4  | 206.9    |

Source: ABS data available on request, Survey of Income and Housing Costs.

# **Transport**

In Victoria, an extensive transport infrastructure is supported by both government and business. Road, rail and air transport modes are all important to the movement of people for commercial and domestic purposes.

#### **Road network**

There are a number of National Highways within Victoria which are fully funded by the Commonwealth. These are the Hume Highway, Western Highway, the Sturt Highway between the South Australian border and Mildura, the Goulburn Valley Highway between Seymour and the New South Wales border at Tocumwal and the Western Ring Road in Melbourne between the Hume and Western Highways. A lower level of Commonwealth funding is provided for Roads of National Importance. The Victorian Government is responsible for funding other declared arterial roads. Local government is responsible for maintaining most local roads. There are more than 150,000 kilometres of road in Victoria (table 9.7). VicRoads is responsible for the maintenance and improvement of arterial roads (just over 22,000 kilometres) and bridges in Victoria.

A number of major projects have been completed or continued construction during 2000–01. These include:

- the completion of the Woodend Bypass on the Calder Freeway, which opened to traffic in December 2001;
- continuation of work on the 6.5km Carlsruhe section of the Calder Freeway, north of Woodend. When completed (scheduled for late 2003), it will provide the final link in a continuous freeway between the Melbourne suburb of Keilor, and Kyneton;
- continuation of work on the Hallam Bypass, an extension of the Monash Freeway from Doveton to the Princes Highway (M1) at Berwick, which is scheduled for completion in late 2004;
- continuation of work on the Eastern Freeway extension from Springvale Road to Ringwood, scheduled for completion in 2005;
- continuation of work on the upgrade of the Geelong Road/Princes
  Freeway between Laverton North and Corio. This is scheduled for
  completion in mid 2002, and will provide four lanes of traffic each way
  between the Western Ring Road (M80) to the Maltby Bypass, and three
  lanes each way between Werribee and Corio and,
- continuation of work on the Goulburn Valley Highway duplication between the Hume Freeway to Tocumwal, on the New South Wales border. In the long term, this project will include bypasses at Shepparton and Strathmerton.

#### 9.7 ROADS

| Road type                        | Kilometres |
|----------------------------------|------------|
| Declared roads (at October 2000) |            |
| National highways                | 1 004      |
| State highways and freeways      | 6 524      |
| Main roads                       | 12 704     |
| Tourist roads                    | 1 694      |
| Forest roads                     | 312        |
| Total declared roads(a)          | 22 238     |
| Other roads (at 30 June 1999)    |            |
| Sealed roads                     | 51 985     |
| Formed and surfaced roads        | 52 132     |
| Natural surface                  | 29 843     |
| Total other roads                | 133 960    |
| Total roads open for traffic     | 156 198    |

<sup>(</sup>a) Excludes several thousand of kilometres of unclassified roads in forest areas that are the responsibility of the Victorian Government.

Source: VicRoads, Information Services Department.

# Motor vehicle registrations and driver licences

The total number of licences in Victoria continued to grow steadily, increasing by 2.7% from 1999 to 2000 (table 9.8). The relative proportions of driver and rider licences in 2000 remained similar to previous years, with 93.5% of all licences being driver licences.

| 98 | MOTOR | VFHICI F | LICENCES | — 30 June |
|----|-------|----------|----------|-----------|
|    |       |          |          |           |

| Type of licence(a) | 1998      | 1999      | 2000      |
|--------------------|-----------|-----------|-----------|
| Driver             | 3 055 847 | 3 134 004 | 3 215 197 |
| Rider              | 204 332   | 214 663   | 224 984   |
| Total              | 3 260 179 | 3 348 667 | 3 440 181 |

<sup>(</sup>a) Licence holders may hold both a driver and a rider licence and therefore be counted in both categories.

Source: VicRoads, Information Services Department.

At 31 March 2001, there were over 3.2 million motor vehicles registered in Victoria, with passenger vehicles accounting for 83.2% of the total (table 9.9). Between 31 October 1999 and 31 March 2001, the number of motor vehicles (excluding motor cycles) registered in Victoria increased by 1.4%. Increases in the number of vehicles on the register were recorded for buses (3.1%), light commercial vehicles (2.2%), and articulated trucks (0.8%) from 1999 to 2001, while non-freight carrying truck recorded the largest decrease (3.8%). The number of motor cycles registered in Victoria showed stronger growth than that of other motor vehicles, increasing by 7.7% between 1999 and 2001.

| 9.9 | VFHICI F |  |
|-----|----------|--|
|     |          |  |

| 1998      | 1999  | 2001   |
|-----------|---|--|
|           |   |  |
| 2 574 621 | 2 644 962   | 2 682 536  |
| 7 137     | 7 266   | 7 202  |
| 390 753   | 401 995   | 410 807  |
| 85 044    | 85 469  | 83 161   |
| 17 326    | 18 121  | 18 262   |
| 5 643     | 5 704   | 5 489  |
| 14 542    | 15 021  | 15 484   |
|           |   |  |
| 3 095 066 | 3 178 538   | 3 222 941  |
| 82 324    | 87 954  | 94 741   |
|           | 2 574 621<br>7 137<br>390 753<br>85 044<br>17 326<br>5 643<br>14 542<br>3 095 066 | 2 574 621 2 644 962<br>7 137 7 266<br>390 753 401 995<br>85 044 85 469<br>17 326 18 121<br>5 643 5 704<br>14 542 15 021<br>3 095 066 3 178 538 |

<sup>(</sup>a) The Motor Vehicle Census was taken at 31 October 1998 and 1999, and at 31 March 2001. Source: Motor Vehicle Census, Australia (Cat. no. 9309.0).

There were over 2.6 million motor vehicles on register at 31 March 2001 (table 9.10). Five makes of vehicles comprise three-quarters of these — Ford, Holden, Toyota, Mitsubishi and Nissan.

9.10 PASSENGER VEHICLES ON REGISTER, By Year of Manufacture and Make of Vehicle

|                    | 1985 and earlier | 1986–1990 | 1991–95 | 1996–99 | 2000    | 2001   | Not<br>Stated | Total     |
|--------------------|------------------|-----------|---------|---------|---------|--------|---------------|-----------|
| Make of Vehicle    | no.              | no.       | no.     | no.     | no.     | no.    | no.           | no.       |
| Audi               | 393              | 432       | 1 635   | 2 749   | 889     | 150    | 1             | 6 249     |
| BMW                | 7 049            | 5 625     | 9 244   | 10 782  | 3 130   | 897    | 14            | 36 741    |
| Chrysler           | 16 429           | 10        | 13      | 2 226   | 727     | 236    | 5             | 19 646    |
| Daewoo             | _                | _         | 2 609   | 16 910  | 5 434   | 842    | _             | 25 795    |
| Daihatsu           | 2 153            | 4 108     | 7 649   | 3 197   | 924     | 246    | 3             | 18 280    |
| Ford               | 167 326          | 152 776   | 137 760 | 125 583 | 28 318  | 5 441  | 131           | 617 335   |
| Holden             | 168 972          | 109 232   | 113 164 | 124 794 | 38 329  | 7 782  | 93            | 562 366   |
| Honda              | 11 890           | 18 175    | 21 138  | 24 905  | 7 797   | 1 608  | 22            | 85 535    |
| Hyundai            | _                | 4 707     | 19 142  | 46 635  | 10 117  | 2 055  | 1             | 82 657    |
| Jaguar             | 4 910            | 1 310     | 356     | 649     | 227     | 33     | 6             | 7 491     |
| Jeep               | 379              | 17        | 1 478   | 4 992   | 896     | 215    | _             | 7 977     |
| Kia                | _                | _         | _       | 4 069   | 2 240   | 570    | _             | 6 879     |
| Land Rover         | 443              | 114       | 3 585   | 6 007   | 1 389   | 378    | _             | 11 916    |
| Mazda              | 44 325           | 18 702    | 24 411  | 22 042  | 5 586   | 1 342  | 19            | 116 427   |
| Mercedes-Benz      | 17 344           | 6 129     | 5 078   | 8 208   | 2 897   | 724    | 29            | 40 409    |
| Mitsubishi         | 38 249           | 59 284    | 72 559  | 63 363  | 15 804  | 3 225  | 42            | 252 526   |
| Nissan             |                  |           |         |         |         |        |               |           |
| (including Datsun) | 58 146           | 58 418    | 32 141  | 27 069  | 9 457   | 2 330  | 53            | 187 614   |
| Peugot             | 4 978            | 1 226     | 2 499   | 3 429   | 913     | 189    | 3             | 13 237    |
| Saab               | 1 036            | 2 749     | 4 092   | 3 983   | 983     | 232    | 2             | 13 077    |
| Subaru             | 7 621            | 5 295     | 10 377  | 16 346  | 5 958   | 1 277  | 6             | 46 880    |
| Suzuki             | 1 497            | 3 256     | 6 661   | 5 785   | 1 292   | 342    | 2             | 18 835    |
| Toyota             | 100 773          | 89 297    | 90 635  | 86 824  | 29 632  | 4 938  | 58            | 402 157   |
| Volkswagen         | 9 027            | 237       | 1 041   | 5 128   | 2 406   | 656    | 10            | 18 505    |
| Volvo              | 11 255           | 4 120     | 2 737   | 3 309   | 728     | 193    | 6             | 22 348    |
| Other/not stated   | 37 093           | 7 364     | 6 086   | 7 935   | 2 512   | 523    | 141           | 61 654    |
| Total              | 711 288          | 552 583   | 576 090 | 626 919 | 178 585 | 36 424 | 647           | 2 682 536 |

Source: ABS data available on request, Motor Vehicle Census.

Motor cycles manufactured by Honda were the most common motor cycle on register in 2001, accounting for 29.2% of the total (table 9.11). Those manufactured by Yamaha were the second most common, accounting for 20.9% of the total. These proportions remain similar regardless of the year of manufacture.

9.11 MOTOR CYCLES ON REGISTER, By Year of Manufacture and Make of Vehicle

|                  | 1985 and earlier | 1986–1990 | 1991–1995 | 1996–1999 | 2000   | 2001  | Not<br>stated | Total  |
|------------------|------------------|-----------|-----------|-----------|--------|-------|---------------|--------|
| Make of vehicle  | no.              | no.       | no.       | no.       | no.    | no.   | no.           | no.    |
| BMW              | 1 216            | 601       | 635       | 642       | 248    | 72    | 5             | 3 419  |
| Ducati           | 487              | 100       | 311       | 648       | 247    | 64    | 5             | 1 862  |
| Harley Davidson  | 2 036            | 992       | 2 382     | 2 394     | 648    | 101   | 24            | 8 577  |
| Honda            | 7 383            | 3 494     | 4 694     | 8 472     | 2 915  | 560   | 110           | 27 628 |
| Kawasaki         | 2 900            | 2 255     | 3 141     | 3 089     | 801    | 178   | 50            | 12 414 |
| Suzuki           | 3 486            | 1 733     | 2 105     | 3 570     | 1 272  | 312   | 73            | 12 551 |
| Triumph          | 770              | 9         | 259       | 624       | 242    | 64    | 6             | 1 974  |
| Yamaha           | 4 496            | 2 862     | 3 739     | 5 805     | 2 284  | 518   | 92            | 19 796 |
| Other/not stated | 1 690            | 313       | 558       | 2 284     | 1 348  | 290   | 37            | 6 520  |
| Total            | 24 464           | 12 359    | 17 824    | 27 528    | 10 005 | 2 159 | 402           | 94 741 |

Source: ABS data available on request, Motor Vehicle Census.

#### **Public Transport**

Victoria's public transport services are extensive, servicing metropolitan and regional communities. An integrated network of train, tram, bus services (and one ferry service) operate under contract with the State Government. Melbourne's electrified suburban train network is an extensive system by world standards, radiating from the central city on 15 main routes which extend to outer suburban locations up to 55 kilometres from the central business district. Melbourne has the largest tram network outside Europe, servicing 28 main routes up to a distance of approximately 20 kilometres (on some routes) from the Central Business District (CBD). Regional services provided by V/Line Passenger comprise a number of long-distance rail and coach services between Melbourne and regional Victorian centres.

With effect from 1 July 1998, the State Government legislated to corporatise the Public Transport Corporation's (PTC) passenger transport services through the establishment of five business corporations, namely Bayside Trains, Hillside Trains, Swanston Trams, Yarra Trams and V/Line Passenger. On 29 August 1999, following a competitive bidding process, these businesses were franchised to successful bidders. Each operator entered into 'franchise' contracts with the Government for periods of 15 years for the two metropolitan train franchises, 12 years for the two tram franchises, and 10 years for V/Line Passenger. The principal contracts are the franchise agreement and infrastructure lease. These contracts set out, among other things, the overall levels of service the companies are expected to provide, the tickets they must offer, the maximum fares they can charges for these tickets, and other performance standards. Hillside Trains now operates under the Connex brand and on 1 October 2001, Bayside Trains and Swanston Trams became M>Train and M>Tram respectively.

There is continual monitoring of many aspects of service performance for all franchise operators. Reliability of a public transport service is considered important by its users and the State Government requires the operators to publish the results monthly (at railway stations and on trams). One measure of reliability is the percentage of services which run on time. Punctuality varies considerably between modes of public transport (table 9.12), with trains and buses performing better than trams. However, it is expected that there will be differences between the modes, and the performance of trams is particularly affected by operating constraints such as sharing road space with cars.

9.12 ON-TIME PERFORMANCE FOR TRAINS, TRAMS AND BUSES(a) — Services

|               | M>Train | Connex | V/Line<br>Passenger | M>Tram(b) | Yarra<br>Trams(b) | Metro<br>buses |
|---------------|---------|--------|---------------------|-----------|-------------------|----------------|
| Apr-Jun 2000  | 94.6    | 95.0   | 91.4                | 69.2      | 77.7              | 93.1           |
| Jul-Sept 2000 | 96.1    | 97.0   | 94.1                | 71.6      | 78.0              | 95.1           |
| Oct-Dec 2000  | 96.5    | 96.7   | 92.0                | 70.7      | 75.2              | 91.0           |
| Jan-Mar 2001  | 96.8    | 96.3   | 91.6                | 71.1      | 72.9              | 96.4           |
| Apr-Jun 2001  | 96.4    | 96.5   | 92.9                | 71.4      | 73.3              | 91.7           |
| Jul-Sept 2001 | 97.2    | 96.8   | 93.8                | 72.3      | 72.4              | 92.6           |
|               |         |        |                     |           |                   |                |

(a) Trains and trams are considered to be on time if they arrive at their destination not more than 59 seconds before, or not later than 5 minutes and 59 seconds after, the scheduled time. For buses, on time is defined as not more than 2 minutes early or 5 minutes late at scheduled destination. V/Line Passenger trains are considered on time if they arrive earlier than scheduled or not later than 5 minutes and 59 seconds after the scheduled time. (b) Removal of trips affected by the World Economic Forum in September 2000 increases the September quarter 2000 on time performance for M>Tram and Yarra Trams to 71.9% and 78.3% respectively.

Source: Victorian Department of Infrastructure, Track Record.

The number of public transport services cancelled can also be considered an important measure of reliability (table 9.13). A reduction in services cancelled represents an improvement in performance. Since the October–December 2000 reporting quarter, less than 1.0% of services scheduled by all operators have been cancelled.

9.13 CANCELLATIONS OF TRAINS, TRAMS AND BUSES(a), Services Scheduled

|               | M>Train | Connex | V/Line<br>Passenger(b) | M>Tram(c) | Yarra<br>Trams(c) | Metro<br>buses |
|---------------|---------|--------|------------------------|-----------|-------------------|----------------|
|               | %       | %      | %                      | %         | %                 | %              |
| Apr-Jun 2000  | 1.9     | 0.7    | 0.3                    | 1.0       | 0.2               | 0.1            |
| Jul-Sept 2000 | 1.0     | 0.3    | 0.1                    | 1.4       | 0.3               | 0.1            |
| Oct-Dec 2000  | 0.8     | 0.5    | 0.8                    | 1.3       | 0.2               | 0.1            |
| Jan-Mar 2001  | 0.6     | 0.7    | 0.2                    | 0.6       | 0.2               | 0.1            |
| Apr-Jun 2001  | 0.7     | 0.4    | 0.2                    | 0.7       | 0.2               | 0.1            |
| Jul-Sept 2001 | 0.4     | 0.3    | 0.4                    | 0.4       | 0.2               | 0.1            |

(a) Franchisees may use different methodologies to calculate reliability. (b) V/Line Passenger services for the Melbourne-Geelong corridor were affected by the Corio overpass collapse in October 2000. The service cancellation figure of 0.8% relates to V/Line services excluding the effect of the overpass collapse. (c) Cancellations for M>Tram and Yarra Trams were adjusted for the months of June to December 2000 to take into account the temporary withdrawal of W-class trams for safety reasons.

Source: Victorian Department of Infrastructure, Track Record.

#### Air

Victoria's major airport, Melbourne Airport, is located at Tullamarine, 22 kilometres northwest of Melbourne's CBD, and is accessed via the Tullamarine Freeway. The airport is privately operated by a majority Australian-owned company with headquarters in Melbourne. The airport is open twenty-four hours a day for aircraft movements.

In 2000, passenger movements increased significantly from 1999 levels; domestic and regional traffic was up by 8.7% and international traffic was up by 14.6%. The average number of passenger movements per aircraft movement decreased over this period from 94.8 to 92.2 for domestic and regional traffic, whereas the comparable figures for international traffic showed a slight increase (140.6 to 140.9).

The volume of freight moved in 2000 was up 14,005 tonnes (7.6%) for international traffic, but down 4,584 tonnes (6.0%) for domestic and regional traffic.

9.14 MELBOURNE AIRPORT (TULLAMARINE), Passenger and Freight Movements

| Movements                     |        |            |            |            |            |  |
|-------------------------------|--------|------------|------------|------------|------------|--|
|                               | Unit   | 1997       | 1998       | 1999       | 2000       |  |
| Domestic and regional traffic |        |            |            |            |            |  |
| Passenger movements           | no.    | 11 227 713 | 11 429 141 | 11 902 182 | 12 939 135 |  |
| Aircraft movements            | no.    | 119 984    | 121 928    | 125 573    | 140 327    |  |
| Freight                       | tonnes | 81 161     | 79 704     | 76 752     | 72 168     |  |
| International traffic         |        |            |            |            |            |  |
| Passenger movements           | no.    | 2 370 948  | 2 489 132  | 2 654 807  | 3 043 169  |  |
| Aircraft movements            | no.    | 17 392     | 17 732     | 18 879     | 21 598     |  |
| Freight                       | tonnes | 162 500    | 152 634    | 185 432    | 199 437    |  |

Source: Department of Transport and Regional Services.

#### Water

At 30 June 2001, there were 139,001 recreational vessels registered, an increase of 3.2% on the previous year (table 9.15). This represents an average of just over 58 vessels for every thousand persons in Victoria — this ratio has been increasing steadily since June 1999.

The most numerous vessel on register was the open type (75.0% of all vessels), followed by the half cabin (15.6%). The largest proportional increase from 2000 to 2001 was in personal water craft, increasing by 17.2%.

9.15 REGISTRATIONS OF RECREATIONAL VESSELS — 30 June

|                                    | 1999    | 2000    | 2001    |
|------------------------------------|---------|---------|---------|
|                                    | no.     | no.     | no.     |
| Open type                          | 98 557  | 101 412 | 104 281 |
| Half cabin                         | 20 173  | 20 843  | 21 643  |
| Cabin cruiser                      | 4 730   | 4 829   | 4 911   |
| Personal water craft               | 2 776   | 3 106   | 3 640   |
| Trailer sailer                     | 2 452   | 2 458   | 2 463   |
| Yacht                              | 1 793   | 1 806   | 1 870   |
| Air cushion                        | 187     | 187     | 193     |
| Total                              | 130 668 | 134 641 | 139 001 |
| Registrations per 1,000 population | 56.1    | 57.1    | 58.1    |

Source: Marine Board of Victoria, Annual Report.

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