



Bus Users in Sydney

Bus Users in Sydney presents the latest information on bus travel and bus travellers living in the Sydney Statistical Division (population 4 million), which includes the Central Coast and Blue Mountains (see map). The report covers the role of buses in Sydney's transport system, the characteristics of bus trips and the personal and household characteristics of bus users.

The report does not cover the role of buses in carrying visitors and tourists, which is a significant task for State Transit buses in central and eastern Sydney, and for many private operators in the outer areas for tourist locations such as the Blue Mountains.

Bus services in Sydney are provided by government (State Transit) and a number of private operators. The areas they each cover are illustrated in the map.

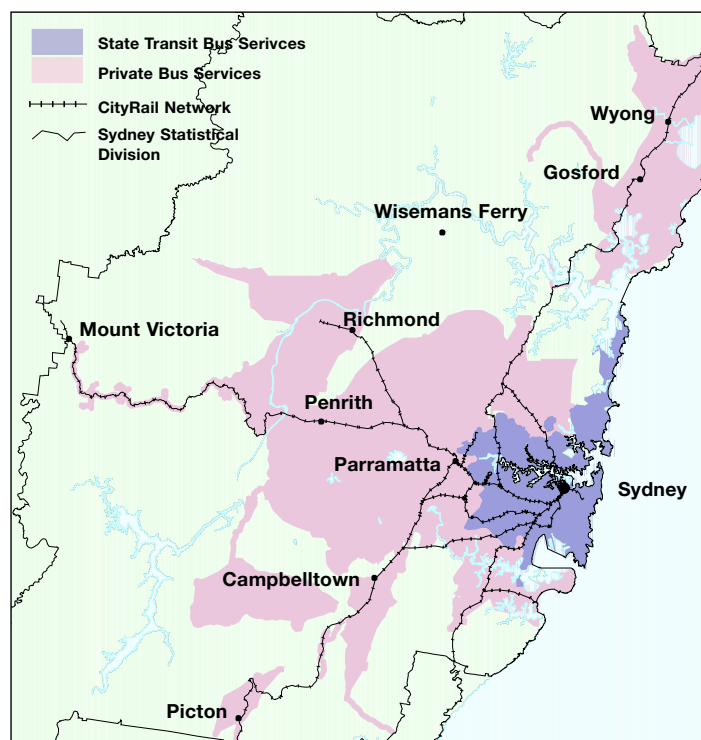
State Transit buses mainly serve eastern Sydney, however during 2000 there was a shift in the ownership of some private bus services in north-western Sydney to State Transit. State Transit's area stretches from Palm Beach in the north to Carlingford, Parramatta and Bankstown in the west, and Miranda and Hurstville in the south. This area generally encompasses higher density, older established suburbs. It also includes a number of significant commercial centres – Sydney CBD, the Central Industrial Area/Airport, North Sydney/Milsons Point, St. Leonards/Crows Nest, Chatswood and Macquarie/North Ryde. In 2000, State Transit bus services covered approximately 1,300 route kilometres in Sydney.

Private bus operators provide services over western, north-western and south-western Sydney, as well as the Central Coast and Blue Mountains. This area includes the lower density residential areas and new urban fringe suburbs. It also incorporates the commercial centres of Bankstown, Blacktown, Campbelltown, Hornsby, Liverpool, Parramatta and Penrith. Private bus services covered approximately 4,000 route kilometres in 2000.

Although this publication presents the average findings for private bus use in Sydney as a whole, the private bus sector in Sydney is made up of approximately 30 operators, each serving different markets, ranging from predominantly school services to a mix of school services and scheduled route services.

Both State Transit and private buses operate under the NSW Passenger Transport Act (1990) and its regulations. The Act was introduced to ensure the delivery of quality, cost-effective and safe public passenger services.

Sydney Statistical Division – areas serviced by State Transit and private buses, 2000



Bus operators are required to provide a minimum level of service frequency and quality.

The NSW Government reimburses both State Transit and private bus operators for offering free transport to eligible students to and from school and for concessions offered to target groups such as pensioners. In addition, the Government reimburses State Transit for offering fares below industry standards and for offering more generous concessions than the private bus operators.

As a result of the different markets served by State Transit and the private operators, the characteristics of bus use vary considerably. A summary of the main features of travel provided by State Transit and the private operators is presented in the following tables, with more detail given in the remainder of the paper.

SOURCE OF DATA The main source of data in this publication is the Household Travel Survey (HTS) of 1998/99, 1999/2000 and 2000/01. Data from waves 2 to 4 of the HTS has been pooled to represent the travel patterns of bus users in 2000. The publication also makes some comparisons with data from the 1991/92 Home Interview Survey (HIS). In this document data from the HIS is referred to as "1991" and data from the HTS as "2000". A brief discussion of the HTS is included at the end of this document.

SYDNEY'S BUS NETWORK, 2000

	STATE TRANSIT	PRIVATE BUSES
Number of buses	1,700	1,700
Number of bus routes	300	310
Number of bus stops	8,600	20,000
Bus route road coverage	1,300km	4,000km



BUS TRAVEL IN SYDNEY, 2000*

	STATE TRANSIT	PRIVATE BUSES
Number of bus passenger trips		
Average Weekday	554,000	367,000
Average Weekend day	243,000	65,000
Proportion of bus passenger trips		
Average Weekday	60%	40%
Average Weekend day	79%	21%
Bus trips by type on an average weekday		
Scheduled services	94%	70%
School services	6%	30%
Purpose of bus passenger trips** on an average weekday		
Work	34%	15%
Education	21%	52%
Social/Recreation	18%	10%
Shopping	12%	12%
Other	15%	11%
Average distance of bus passenger trips on an average weekday	6.2km	8.8km
Average duration of bus passenger trips on an average weekday	21mins	23mins
Fares used for bus trips on an average weekday		
Full fare	47%	20%
Concession	33%	20%
School pass	13%	44%
Other	7%	16%
Labour force status of bus users		
School children	19%	55%
Full time workers	37%	17%
Part time workers	9%	5%
Pensioners	18%	13%
Other	17%	10%

* For residents of Sydney only, excludes bus travel by visitors and tourists

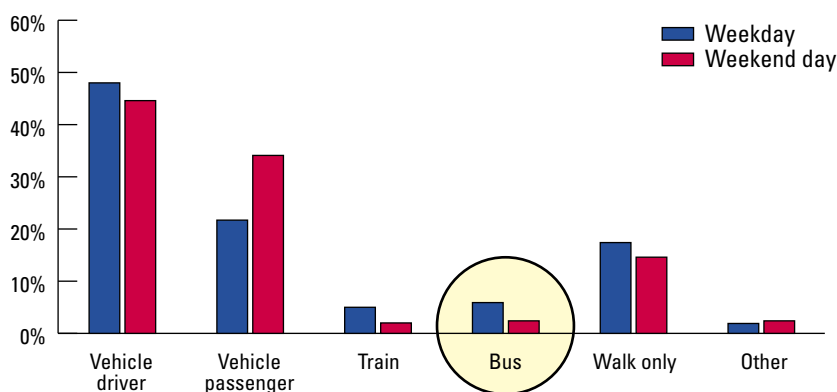
** Trips to return home are allocated to a "priority purpose".

THE ROLE OF BUSES IN SYDNEY

Bus travel on weekdays (Monday to Friday) & weekends (Saturday & Sunday)

- Buses account for 6% of all trips by residents of the Sydney Statistical Division on an average weekday. On weekends 2% of all trips are by bus.
- On an average weekday in 2000 Sydney's residents made 921,000 trips by bus, and 308,000 trips by bus on an average weekend day.
- While the **proportion** of trips by bus on weekdays has declined slightly since 1991 from 7% to 6%, the **number** of trips by bus increased slightly over the period from an average of 917,000 each weekday in 1991 to 921,000 in 2000.
- 60% of all bus trips on an average weekday are by State Transit (scheduled services and school buses), up from 56% in 1991.
- Private buses account for 40% of weekday trips by bus (scheduled services and school buses), down from 44% in 1991.
- On weekends, 79% of bus trips are by State Transit buses, up from 71% in 1991, while private buses account for 21% of weekend day bus trips, down from 29% in 1991.

Proportion of trips by mode, 2000





CHARACTERISTICS OF BUS TRIPS

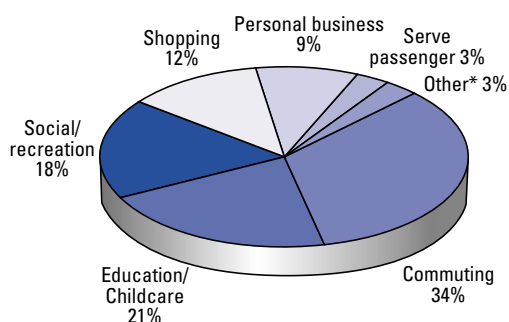
This section looks at the characteristics of bus trips in Sydney on both State Transit and private operators' services.

The analysis includes why people travel by bus, time of day, average distance and duration of bus trips, how people get to the bus stop, fare and ticket type, and the reasons why people travel to work by bus.

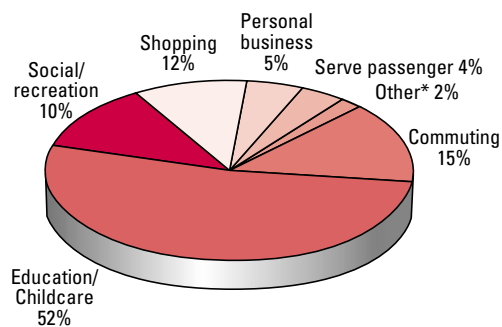
Why people travel by bus* – weekdays

- The most noticeable difference in the use of State Transit and private buses is that trips by State Transit buses are for a diverse range of purposes while school trips represent a more significant proportion of the trips on private buses.
- Education/childcare trips make up 52% of all private bus trips but only 21% of all State Transit bus trips.
- Commuting trips comprise 34% of all State Transit bus trips and 15% of all private bus trips.

Purpose of State Transit bus passenger trips, average weekday 2000



Purpose of private bus passenger trips, average weekday 2000

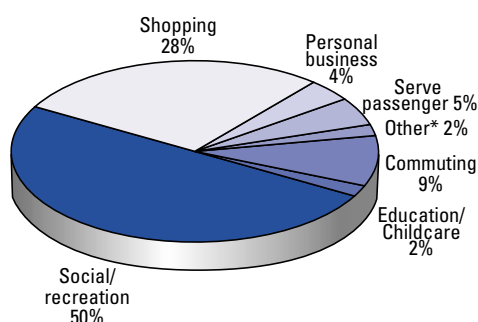


**Other includes work related travel*

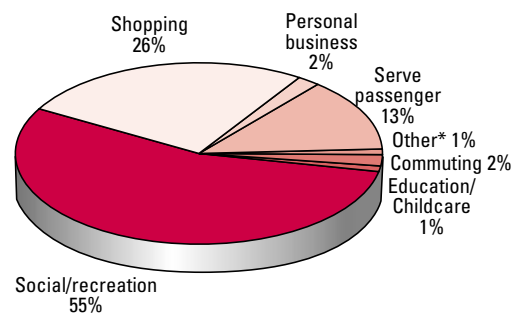
Why people travel by bus* – weekends

- On weekends most trips by both State Transit and private bus are for social/recreation purposes, followed by shopping.

Purpose of State Transit bus passenger trips, average weekend day 2000



Purpose of private bus passenger trips, average weekend day 2000



**Other includes work related travel*

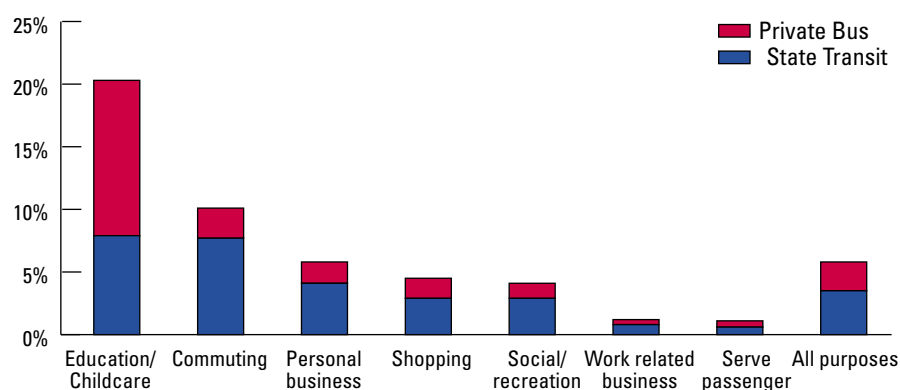
**Trips to return home have been allocated to the "priority purpose", based on the hierarchy of trip purposes:*

1. commuting, 2. other work related travel, 3. education, 4. purpose with the longest activity time, 5. serve passenger.

Bus usage for different trip purposes

- 20% of all education/childcare trips made by students on weekdays are by bus, and most are by private bus (12%).
- For all other trip purposes, a greater proportion of trips are by State Transit bus than private bus.
- Around 10% of all commuting trips are by bus, made up of 8% by State Transit bus and 2% by private bus.

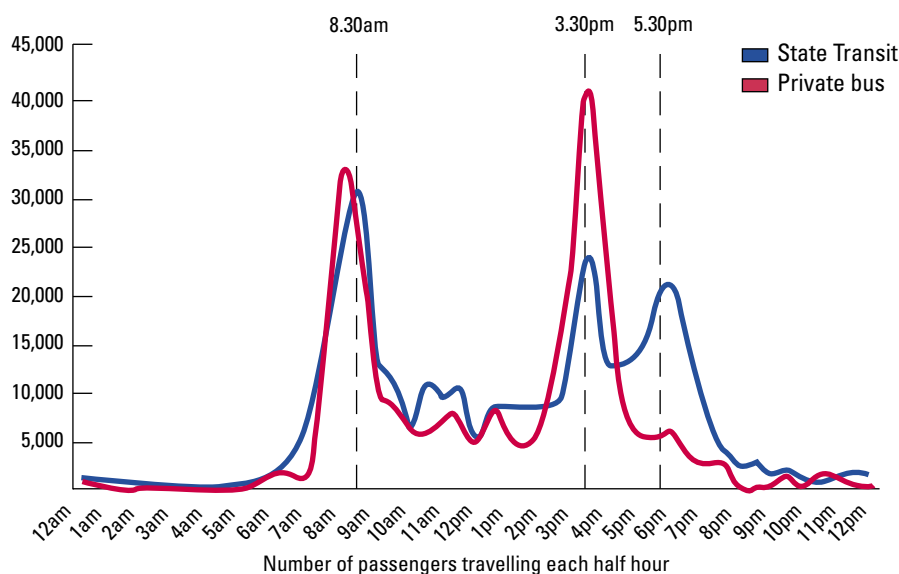
Proportion of trips for each purpose by bus, average weekday 2000



Bus travel during an average weekday

- While the number of people travelling by State Transit and private buses is similar for the morning peak, the patterns are very different in the afternoon.
- Trips by private bus peak sharply at 3.30pm when school finishes.
- There are two smaller afternoon peaks for State Transit buses, firstly at 3.30pm associated with the end of the school day, and later at 5.30pm with the end of the business day.
- On weekend days most bus travel occurs between 9.30am and 5.30pm. The total number of bus travellers on State Transit and private buses combined peaks on weekends at around 12.30pm with 15,000 people.

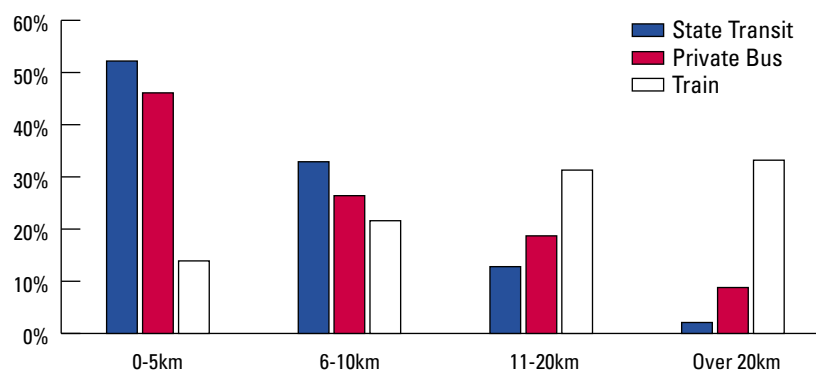
Number of Sydney residents travelling by bus on an average weekday, 2000



Distance* of bus passenger trips

- On average, trips by private bus passengers are longer than those by State Transit passengers. The average distance of passenger trips by State Transit bus is 6.2km, up slightly from 5.7km in 1991. Private bus passenger trips are 8.8km on average, up from 7.6km in 1991.
- On weekends the average distance of State Transit bus trips is slightly shorter at 5.6km, while the average distance of private bus trips is slightly longer at 11.0km.
- Trips of less than 5km account for 52% of passenger trips on State Transit buses on weekdays, 46% on private buses and only 14% by train. By comparison, trips of more than 10km account for 15% of State Transit passenger trips on weekdays, 28% of those by private bus and 65% of trips by train.

Proportion of bus & train passenger trips by distance (in kms), average weekday 2000

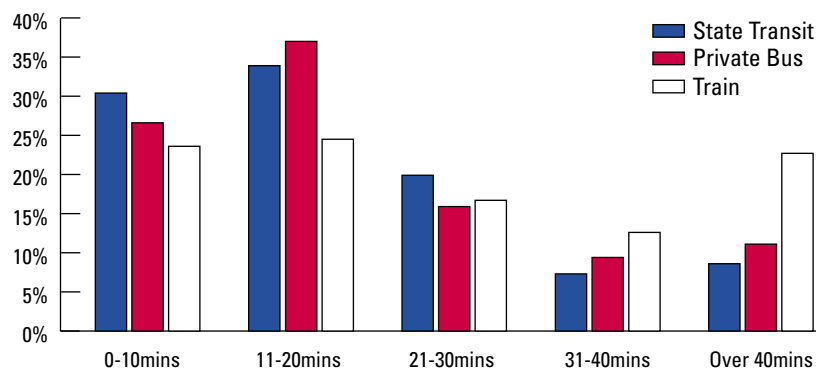


*The distance of trips is the road network distance from the origin travel zone centroid to the destination travel zone centroid. It excludes any distance travelled on another mode either before or after the bus or train trip.

Duration* of bus passenger trips

- The duration of passenger trips on State Transit and private buses follows a similar pattern.
- The average duration of passenger trips by State Transit bus is 21 minutes on an average weekday and 23 minutes for private bus. In 1991 the average duration of passenger trips on both State Transit and private buses was 20 minutes. The increase in the length of private bus trips over time may reflect the growth in cross-regional bus routes. The average train trip is 28 minutes, down from 29 minutes in 1991.
- On weekends the average State Transit bus trip has a duration of 20 minutes, while the average duration of private bus trips is 28 minutes.

Proportion of bus & train passenger trips by duration (in mins), average weekday 2000



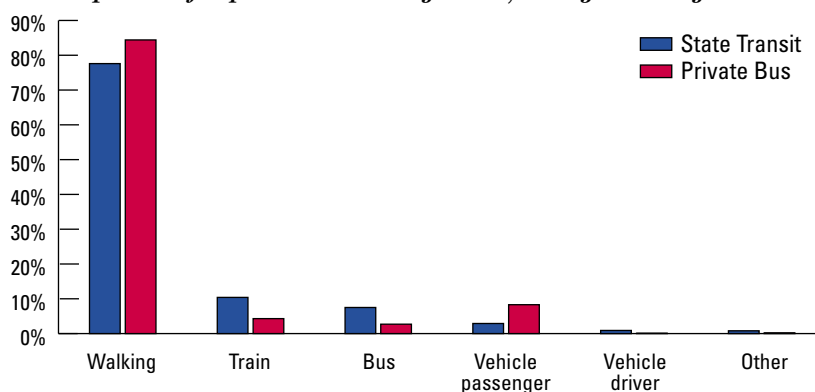
*The duration of trips is the time reported by respondents and excludes any time spent on another mode either before or after the bus or train trip.



How do people get from home to the bus stop?

- For 78% of State Transit and 84% of private bus trips from home, people walk to the bus stop.
- In 10% of State Transit bus trips from home, users catch a train to the bus stop, while this occurs for 4% of private bus trips.
- In 7% of State Transit bus trips and 3% of private bus trips from home there is a need to change to another bus.
- Passengers are dropped off by car at the bus stop for 3% of State Transit and 8% of private bus trips from home.

Proportion of trips to access bus by mode, average weekday 2000*

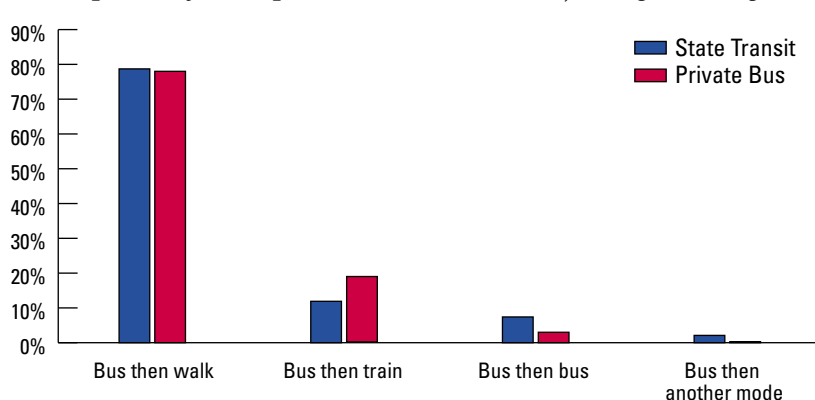


**Trips starting from home (approx. 43% of bus trips)*

What mode is used after the bus?

- For 79% of State Transit bus trips and 78% of private bus trips from home people walk to their final destination after getting off the bus.
- 12% of State Transit and 19% of private bus trips from home are to a railway station to catch a train.
- Around 7% of State Transit and 3% of private bus trips involve changing to another bus to get to the final destination.
- Only a very small proportion of all bus trips use another mode (e.g. ferry, taxi or a private vehicle) to get to their final destination.

Proportion of bus trips to access another mode, average weekday 2000*

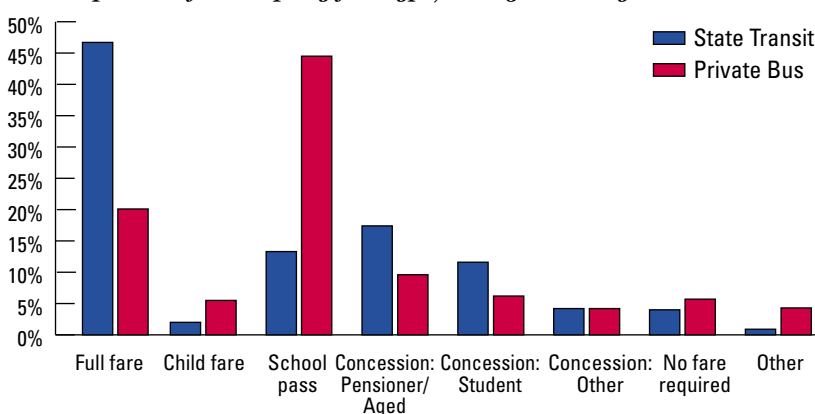


**Trips starting from home (approx. 43% of bus trips)*

Fare type

- For State Transit 47% of trips are by full fare paying passengers. Of the remaining fares, concession fares account for 33% of trips and school passes for 13%.
- For the private bus companies only 20% of trips are by full fare paying passengers, with the remaining trips being mostly by school pass (45%) and concession fares (20%).

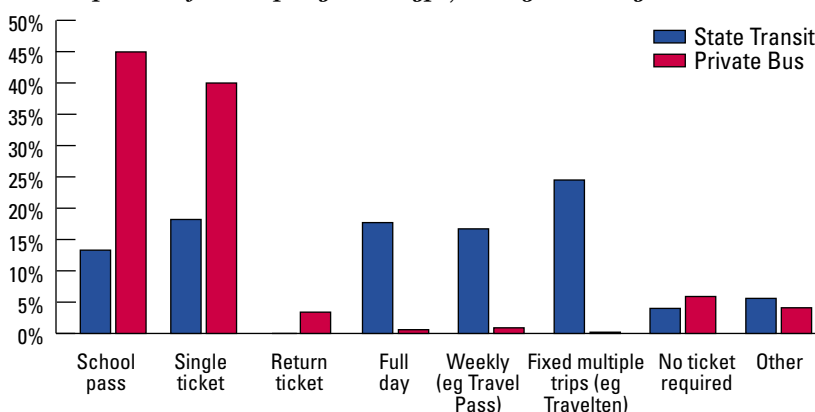
Proportion of bus trips by fare type, average weekday 2000



Ticket type

- Most private bus trips are made by passengers using a school pass (45%) or a single trip ticket (40%).
- Trips by State Transit passengers are more likely to be made using periodical tickets such as TravelTens (25%) or weekly tickets (17%), while only 13% are by school passes and 18% by single tickets.

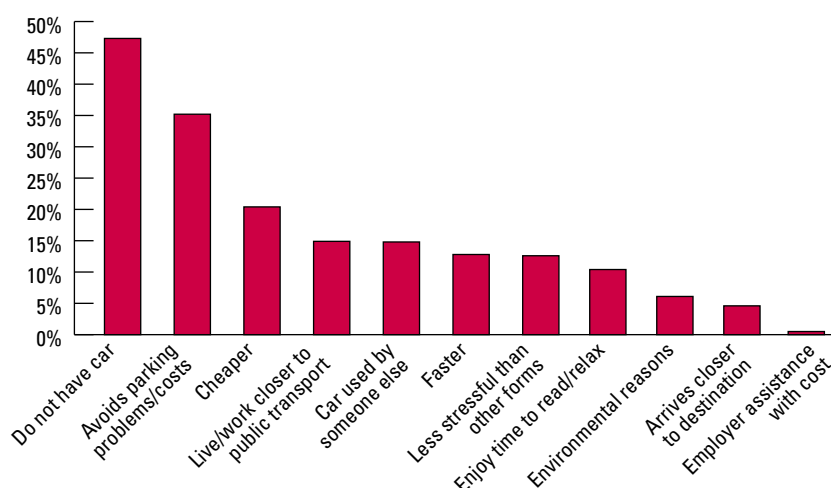
Proportion of bus trips by ticket type, average weekday 2000



Why people travel to work by bus

- 62% of all bus users said lack of access to a private vehicle (not owning a car or car being used by someone else) was the main reason they travelled to work by bus. These reasons were given equally by State Transit and private bus users.
- Avoiding parking problems or parking costs was a reason given by 35% of all bus users. However, more State Transit bus users reported parking as an issue (38%) than private bus users (22%), reflecting that many State Transit bus services are to the Sydney CBD.
- 20% of all bus users said they travel by bus to work because it is cheaper than the alternatives. This reason was given equally by State Transit and private bus users.
- Overall 13% of bus commuters say they use bus because it is faster than the alternatives.
- There have been no significant changes in the reasons people travel to work by bus between 1991 and 2000.

Reasons for choosing bus to travel to work*, 2000



*Respondents could give more than one response, therefore percentages add to more than 100%

SYDNEY'S BUS USERS

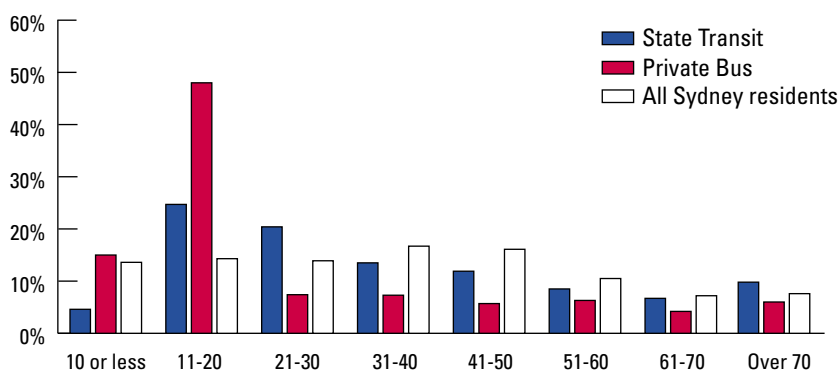
Approximately 10% of all Sydney residents use buses on an average day, and 18% of households have one or more residents that use buses. By service area, 15% of people living in the State Transit service area use buses, compared to only 7% of people living in the area serviced by private buses.

Sydney's bus users are from a broad cross-section of the community. However State Transit and private buses serve different demographic and socio-economic markets, in general reflecting the different geographic regions they cover.

Age of bus users

- State Transit bus users are older on average than private bus travellers. The average age of State Transit passengers is 36 years, while for private bus users the average age is 26 years. The average age of Sydney's population is 36 years.
- The single largest group of users of both State Transit and private buses are people aged 11 to 20 years, followed by those aged 21 to 30 years for State Transit buses and 10 years or under for private buses.
- Slightly more than half of all bus passengers on both State Transit and private buses are females.

Age of bus users (years), 2000



Trip rates per person

- Another way to measure the level of bus travel is to look at trip rates, which are defined as the number of bus trips per person on an average weekday.
- Residents living in the State Transit service area are more likely to use buses than people living in the private bus service area.
- People without a drivers licence and without a vehicle in their household are more likely to travel by bus.

Average weekday trip rates per person	Average State Transit bus trip rate per resident of State Transit service area	Average private bus trip rate per resident of private bus service area	Average total bus trip rate per Sydney resident	Average total trip rate by all modes per Sydney resident
Total population	0.35	0.11	0.19	3.77
Drivers licence holding*				
Yes	0.27	0.04	0.12	4.24
No	0.72	0.21	0.42	2.51
Household vehicles				
Zero	0.78	0.31	0.55	2.74
One	0.35	0.10	0.20	3.57
Two or more	0.21	0.08	0.12	4.10

*For people of licence holding age.



Labour force status

- The labour force profile of State Transit users is similar to Sydney's total population, and quite different from that of private bus users.
- School children are the largest group of users on private buses (55%), and the second largest group of State Transit bus passengers (19%).
- The largest users of State Transit buses are full-time workers. They comprise 37% of all State Transit bus travellers and 17% of private bus users.

Labourforce status of bus users, 2000

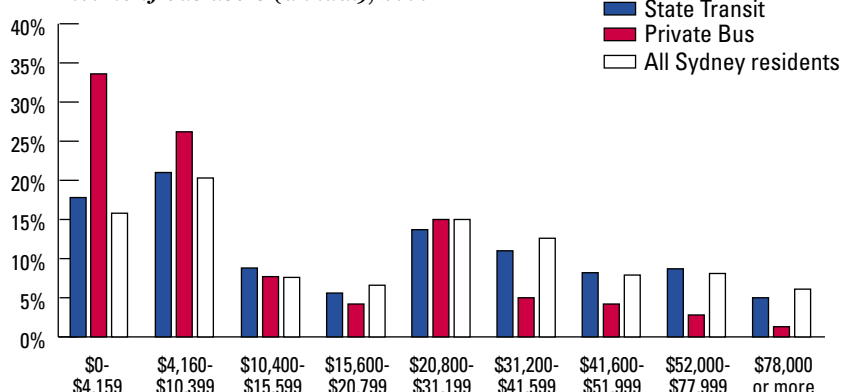


Personal income*

- On average people who use private bus have lower incomes than people who use State Transit buses.
- The average private bus user has an annual income of between \$4,160 and \$10,399, while the average State Transit bus user is a person with an income of between \$10,400 and \$15,599 per annum. The median income for all Sydney residents aged 15 years and over is between \$10,400 and \$15,599 per annum.
- 72% of private users have an annual income of less than \$20,800, compared with 53% of State Transit passengers and 50% of Sydney's population aged 15 years and over.

*Excludes people aged less than 15 years.

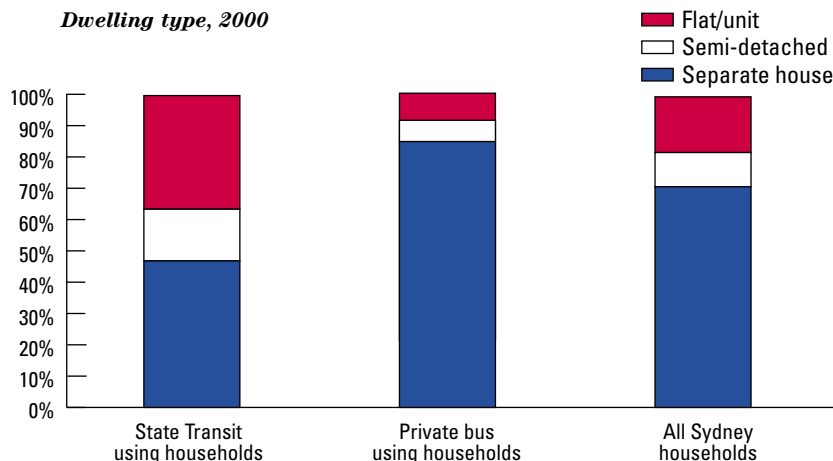
Income of bus users (annual), 2000



Dwelling structure

- The type of dwellings lived in by households using State Transit and private buses reflects the geographic coverage of each service in Sydney, with State Transit buses generally serving higher density, inner areas while private buses tend to serve lower density, middle and outer suburbs.
- 85% of households with residents who use private buses live in detached houses, compared to 47% of households with residents who use State Transit buses.
- 36% of all households using State Transit buses live in flats or units, and those living in semi-detached dwellings account for a further 16%. Only 15% of households using private bus live in flats/units or semi-detached houses.

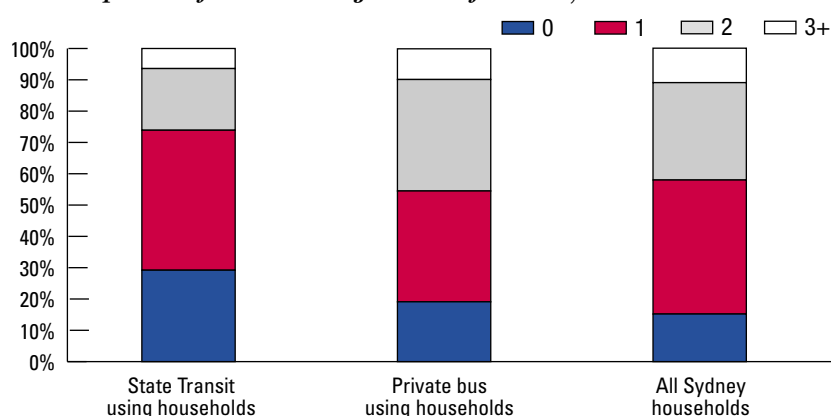
Dwelling type, 2000



Household vehicles*

- In general households using State Transit buses have fewer vehicles than households using private buses. This may reflect that State Transit buses generally serve higher density, inner areas, well served by public transport, while private buses tend to serve lower density, middle and outer suburbs with more limited public transport.
- 29% of households with residents that use State Transit buses do not have a vehicle, compared to 19% of private bus using households, while only 15% of all Sydney households overall are without a vehicle.
- 45% of private bus using households have 2 or more vehicles compared to 26% of households using State Transit services. Around 42% of all households in Sydney have two or more vehicles.

Proportion of households by number of vehicles, 2000



*The number of vehicles per household is a record of the number of vehicles used by a household and usually parked there overnight, both privately and company owned.

Greater Metropolitan Region and the Sydney Statistical Division



About this publication

This publication presents information on bus travel by people living in Sydney in 2000. It updates "Bus Users in Sydney" published in November 2000, which presented information on Sydney's bus travellers in 1998.

The 2000 data presented in this publication is based on pooling three waves of data from the HTS (1998/99, 1999/2000 and 2000/01), while the 1998 data presented in the previous publication was based on two waves of HTS data (1997/98 and 1998/99). As a result the 2000 data set is larger than the 1998 data set and therefore provides outputs with smaller standard errors. TDC has also refined some analysis techniques to further improve the accuracy of outputs.

Acknowledgements

This publication was produced with the assistance of State Transit and the NSW Bus and Coach Association, and it was jointly funded by State Transit and Transport NSW.

© 2002 Crown Copyright

Subject to copyright. All rights are reserved. Except as permitted under the Copyright Act 1968, no part covered by copyright may be reproduced or copied by any process or any means, electronically or otherwise, without written permission of the copyright owner.

The Household Travel Survey

The Household Travel Survey (HTS) is a continuous survey of the travel patterns of residents of the Greater Metropolitan Region, which includes the Sydney Statistical Division, the Newcastle Statistical Subdivision and the Illawarra Statistical Division (see map).

The HTS is the only comprehensive source of information on the day-to-day travel patterns of the GMR's residents. The HTS does not capture travel information on people who live outside the GMR.

The first wave of the HTS was conducted by TDC during 1997/98, and wave 2 followed during 1998/99, wave 3 in 1999/2000 and wave 4 in 2000/01. Prior to the HTS the last major travel survey to be conducted in the GMR was the 1991/92 Home Interview Survey (HIS).

The HTS is a personal interview survey carried out each day from June to June each year. The data is collected through face-to-face interviews to ensure data of the highest quality, and to maximise response rates. The survey instrument is a travel diary which collects information on all travel undertaken for a nominated 24 hour period by all members (including children of all ages) of each selected household. For each trip, information is collected on the mode of travel used, the purpose of the trip, location of origin and destination, and time of departure and arrival. Detailed socio-demographic information is also collected on the household, such as dwelling type and household structure, as well as information for each member of the household, including age, gender, employment status, occupation and income.

Waves 2 to 4 of the HTS sampled a total of 14,500 households in the GMR. Responses were obtained from 10,200 households (70%). In total 26,500 people were interviewed in waves 2 to 4, giving a total of 110,200 trips.

To maximise the statistical reliability of HTS results for a given year, each annual HTS estimate of travel consists of three years of pooled data weighted to the Estimated Resident Population (ERP) from the Australian Bureau of Statistics for the given year.

Further Information

Contact the TDC's Client Services Team at:

Transport Data Centre
Transport NSW
Level 17, 227 Elizabeth Street, Sydney
GPO Box 1620, Sydney NSW, 2001
Telephone (02) 9268 2858 Fax (02) 9268 2853
Email tdccdata@transport.nsw.gov.au
Website www.transport.nsw.gov.au/tdc

Disclaimer

While all care is taken in producing and publishing this work, no responsibility is taken or warranty made with respect to the accuracy of any information, data or representation. The authors (including copyright owners) and publishers expressly disclaim all liability in respect of anything done or omitted to be done and the consequences upon the reliance of the contents of this information.