

Transport Research and Policy Analysis Bulletin

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VISTA 07 Update

VISTA 07 - Survey Facts	
Collection period:	May 2007 - June 2008
Number of responding households:	17,115
Number of survey participants:	43,822
Individual trips reported: (includes multi-modal journeys)	128,658
Overall survey response rate:	47%
Areas surveyed:	Metropolitan Melbourne, Greater Geelong, Ballarat, Greater Bendigo, Greater Shepparton, Latrobe
Survey methodology:	Self-completion questionnaire, hand-delivered and hand-collected from the survey households. This process was supplemented by telephone motivational calls, telephone and postal reminders, and telephone clarification calls. Participants report all travel made by residents in a 24 hour period (starting from 4am) on a specified day of the year
Exclusions from the survey:	Visitor and tourist travel; Commercial and freight travel; Travel of households that are not located within a residential, rural or mixed use planning zone

Following 18 months of intensive data collection and processing, the Department of Transport now has access to the results of one of the largest surveys of personal travel in Australia: the 2007 Victorian Integrated Survey of Travel and Activity (VISTA 07). The primary purpose of VISTA 07 is to update the Melbourne Integrated Transport Model, used by the Department to analyse the transport impacts of infrastructure investments and changing demographic and land use patterns. VISTA 07 will also assist general transport planning by providing up-to-date information on how, where and for what reasons people travel, at different times of the day.

As an example of potential analyses, data from VISTA 07 was used to quantify the recent growth seen in public transport patronage. Public transport was shown to account for 13 per cent of all motorised trips made on an average weekday in Melbourne, increasing to 65 per cent when motorised travel to the CBD is specifically considered.

VISTA 07 also allows for detailed analyses of the specific methods of transport made on multi-modal journeys. For instance, although walking accounts for only 2.2 per cent of all kilometres travelled on an average weekday, it is shown to be a key method of transport, accounting for 24 per cent of the total number of trip-stages made. Early estimations from VISTA 07 suggest that Melbourne residents walk an average of 660 metres each weekday.

The department will release a summary of VISTA 07 figures for the Melbourne metropolitan area and aggregated regional areas shortly, and follow this up with publications and data releases on specific local government areas and different transport themes. To enable transport trends to be monitored over time, a second round of VISTA surveys is scheduled to commence in late 2009.

More information: www.transport.vic.gov.au/vista

From the Editors

Welcome to the first Transport Research and Policy Analysis Bulletin for 2009! This quarter we profile a number of exciting additions to the transport information available in Victoria. A new online transport statistics information portal – providing a single reference point for selected Department of Transport, Australian Bureau of Statistics and Department of Sustainability and Environment data – has recently been launched. In addition, results from the 2007 Victorian Integrated Survey of Travel and Activity are now available for analysis, with publicly available fact sheets and a web-analysis tool under development.

With the introduction of the Transport Statistics Portal, data previously included in the 'Focus on...' section of the bulletin can now be viewed online for every municipality in the state. To avoid duplication of information, the 'Focus on...' section now highlights more detailed suburb-level analyses.

After a year in publication we are very keen to hear your views on the bulletin: what you like, and what content you would prefer to see. Please take the time to complete the enclosed evaluation survey to help us continue to develop and refine the publication to meet your expectations.

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Victorian Transport Statistics Portal

A new web portal for providing transport-related data has been jointly developed by the Policy & Communications Division and Public Transport Division of the Department of Transport. It can be accessed at www.transport.vic.gov.au/statistics

The portal enables users to explore data from the Australian Bureau of Statistics (ABS), Department of Sustainability and Environment (DSE), and Department of Transport (DOT) at State Region, Local Government Area (LGA), and Statistical Local Area (SLA) levels. The site allows for profiling of individual geographic areas, as well as direct comparisons of areas. The datasets that are currently available include a selection of:

- ABS 2006 Census data such as key characteristics of usual-resident and working populations, motor vehicles, method of travel to work, and industry and occupation of employment
- DSE, Valuer General Property Sales
- VicRoads Crash Stats
- DOT's 2006 Market Segmentation research - Surveys of travel attitudes and behaviours across Metropolitan Melbourne.

This public access website allows users to complete their own analyses of interest. There is a wealth of data available and the possible profiles and comparisons that can be made (in both tabular and graphical format) are endless. For example:

- See how methods of travel to work differ between LGAs
- See which LGA in Melbourne has residents most likely to have reduced their car usage because of "environmental concerns"
- Track property sales data from 1996 to 2007 for every SLA in Victoria
- Create a graph showing the number of households in each Victorian LGA with 4 or more motor vehicles.

Suggestions or feedback regarding the useability and content of the portal at this early stage are welcomed, and will assist in the subsequent development and expansion of the site later in the year.

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Travel Assist: 'Keeping you on the move' Pilot Program

Private-vehicle travel forms an important mode of transport for people of all ages. However, as individuals become older, they may be confronted with the need to reduce or even cease their driving due to poor health. This transition from driving to non-driving can be stressful and difficult, particularly if people do not have knowledge of transport alternatives or the confidence to use them.

The Travel Assist: 'Keeping you on the move' Pilot Program is one of the outcomes of the 'Maintaining Mobility' report launched by Minister Kosky in November 2007. The program has been developed by the Department of Transport and the Department of Planning and Community Development, in partnership with VicRoads, the Transport Accident Commission, RACV, the Municipal Association of Victoria, Mornington Peninsula Shire Council and Monash City Council. It is a free service designed to assist older Victorians maintain their mobility and continue independent, active and rewarding lifestyles after they reduce or stop driving. A trained Travel Assist Advisor works directly with participants to assess their travel needs and develop a personalised Travel Assist plan. The plan focuses on travel needs for everyday activities such as visiting friends, going shopping, and attending appointments. It provides advice on available transport options, support services and programs, concessions, motorised mobility devices, and public and community transport.

The Pilot Program is being run in two target regions: the Mornington Peninsula Shire and the Monash City Council. Feedback from participants will be sought to ensure the program is effective and appropriate, after which a state-wide release will be considered.

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Reducing Carbon Emissions from Light Vehicles in Victoria

Carbon emissions and fuel efficiency vary considerably between small, medium, and large cars depending on vehicle weight, aerodynamic design, fuel type, and engine size and power. Generally, the larger the vehicle, the higher its fuel consumption, though there can be considerable variation within a given class of vehicle.

Federal Chamber of Automotive Industries (FCAI) data for Australian vehicle sales and

information from the Green Vehicle Guide shows that average fuel efficiency of light vehicles (below 3.5 tonne) has improved by 1.5 per cent per annum over the period from 1978 to 2007. A similar trend has occurred in Victoria. It is estimated that most of this improvement results from a shift towards smaller vehicles, rather than any underlying improvement in technologies. If efficiency trends were to continue, average carbon emissions for the Victorian passenger vehicle fleet would fall from the 2007 estimate of 219 g/km to 201 g/km by 2015 and 187 g/km by 2020. By comparison, 2007 European Union (EU) new passenger vehicle

fleet carbon efficiency has been estimated to be 158 g/km using CSIRO research. The existing Australia-wide voluntary carbon efficiency target developed by the FCAI was set to 252 g/km in 2002, reducing to 222 g/km by 2010. No Australia-wide targets have been set beyond this timeframe. In contrast, the EU has recently agreed to a mandatory new vehicle carbon emissions target of 130 g/km by 2015 and 97 g/km by 2020.

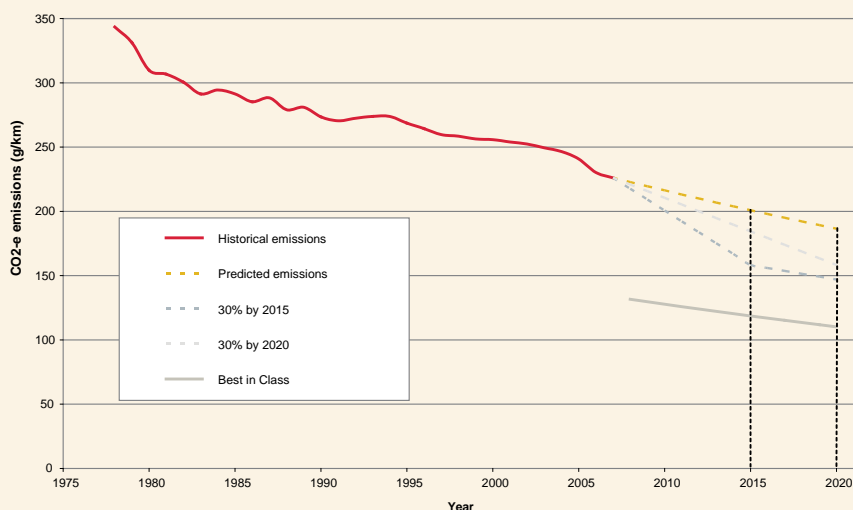
Currently, carbon emissions vary significantly within groups of vehicles of a similar size. If emissions were to be reduced to the best currently achieved for each class, the average carbon emissions for new light vehicles sold in Victoria would fall to 132 g/km, 42 per cent below the current level.

Reports suggest a further 30 per cent reduction in emissions is possible through adopting known, already developed technologies. Assuming the current mix of vehicle sizes does not change, a 30 per cent reduction in emissions for Victorian light vehicles would result in 158 g/km by 2015. If further improvements then continued along past trends, an overall reduction to 147 g/km (a 35 per cent improvement) by 2020 could be achieved, as illustrated in Figure 1.

Australian automotive manufacturers have already signalled their intention to build vehicles that are more efficient, including the Ford Focus, the hybrid Toyota Camry, and diesel Holden Commodore. These commitments are expected to result, in the short to medium term, in a significant reduction of the emissions from vehicles manufactured and sold locally.

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Figure 1
 CO₂-e emissions of new light vehicles, Victoria, 1978-2020



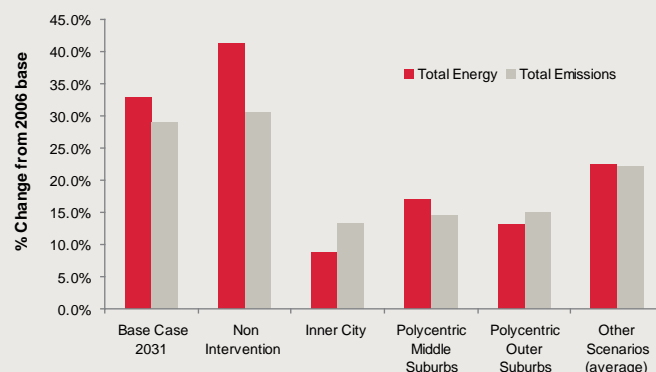
Macro-Urban Form, Transport Energy Use and Greenhouse Emissions: An Investigation for Melbourne

Work has been completed on the Department of Transport's study investigating the relationship between Melbourne's macro-urban form (i.e. the particular structure and layout of a city, as well as its prevailing infrastructure) and its transport-related energy consumption and greenhouse gas emissions.

A major component of the study has been the testing of a number of future scenarios for the evolution of Melbourne's urban form, to see what kind of development and infrastructure investment would produce the best energy and emissions outcomes. The project has shown the environmental benefits of focusing future urban development in already transport-rich areas, and in a select number of leading activity centres (the 'Inner City' and 'Polycentric' Scenarios illustrated in Figure 2).

It has also shown the benefits that can accrue from more intensive mixed-use development (i.e. homes closer to jobs), freeing the inner tram network from road congestion and improving bus services to larger activity centres. Above all, the study underlines the importance of integrated transport and land use planning in promoting Melbourne's ongoing sustainability.

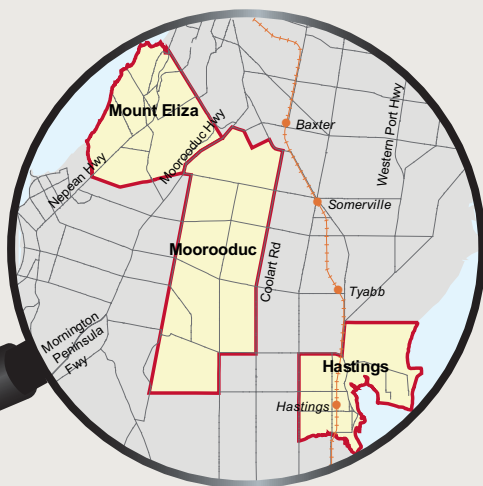
Figure 2
 Change in Melbourne's energy use and greenhouse gas emissions, 2006-2031, for different models of macro-urban form



A paper presenting some earlier findings of the study was recently awarded the John Taplin Prize for the best paper at the 2008 Australasian Transport Research Forum. It is anticipated that the full report will be made available on the Department's website in the near future.

More information: www.patrec.org/atrf

Focus on Mt Eliza, Moorooduc and Hastings 2006



Census Analysis of Walking and Cycling to Work

Walking and cycling to work, though still uncommon in Melbourne, are becoming increasingly popular. Between the 2001 and 2006 Censuses, the number of journeys to work on foot increased at an annualised 6.3 per cent, and the number of journeys to work by bicycle at 8.1 per cent, well above the 1.8 per cent annualised increase in the number of journeys to work made each day.

On Census Day 2006, 1.1 per cent of employed Melburnians used a bicycle to get to work (a greater proportion than in Sydney, Brisbane, Perth or Hobart) and 3.0 per cent walked to work. While most cycling commuters are male (76 per cent in Melbourne and 83 per cent in the rest of Victoria), the gender gap has narrowed since 1996 as the number of female cyclists in Melbourne more than doubled. There has also been a shift in the level of education of walking or cycling commuters. Those with post-secondary qualifications were under-represented in 1996, but over-represented in 2006, when they made up 56 per cent of commuters in Melbourne but 72 per cent of cyclists.

A summary report, 'Walking and Cycling: Census Analysis', based on Census data from 1996, 2001, and 2006 is available through the 'Publications > Research and Policy Development Publications' menu at www.transport.vic.gov.au

For more information

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Key Characteristics ^a

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Total population	16,710	917	6,879	3,592,592
Percentage aged 16 to 25	12	13	13	14
Percentage aged 65 and over	16	13	16	13
Median individual income (\$/week)	552	530	357	481
Median family income (\$/week)	1,596	1,480	836	1,242
Median household income (\$/week)	1,381	1,426	650	1,079
Proportion unemployed	3.4	2.3	9.0	5.3
Proportion of dwellings owned	45	39	27	35
Proportion of dwellings being purchased	42	43	30	36
Proportion of dwellings rented	9	15	39	25
Total occupied private dwellings	5,676	294	2,591	1,283,302
Average household size	2.7	3.0	2.4	2.6
Median housing loan repayment (\$/month)	1,517	1,800	1,127	1,300
Median rent (\$/week)	246	135	150	200
% dwellings with no vehicles ^b	2	1	13	10
% dwellings with 2+ vehicles ^b	69	83	41	52

Property Sales data ^c

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Percentage of dwellings purchased by buyers in the same suburb	34	0	20	N/A
25th percentile house price	\$390,000	\$654,750	\$170,000	\$260,000
Median house price	\$499,000	\$742,500	\$210,000	\$345,000
75th percentile house price	\$655,000	\$784,375	\$267,500	\$490,000

Crash Stats ^d

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Total road toll	1 across all three suburbs			143
Serious injuries ^e	39 across all three suburbs			4,916

Employment Characteristics ^f

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Total employed residents	7,966	501	2,459	1,677,938
Total journeys for work to the area ^{g,h}	10,542 across all three suburbs			1,381,977
% of people who travelled to go to work	80	72	86	86
% of people who worked at home	8	17	3	4
% of people who did not go to work	12	12	11	10

Method of travel to Work (% mode share) ⁱ

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Car driver	83	74	79	71
Public transport (as sole or combined method)	6	1	3	14
Walking or cycling (not combined with public transport)	2	8	5	5
Other / Not stated	10	17	14	10

Percentage of workers employed as.... ^j

	Mt Eliza	Moorooduc	Hastings	Metropolitan Melbourne
Managers or Professionals	44	35	16	35
Sales or Clerical & administrative workers	28	22	21	26
Technicians and trades workers	12	19	20	14
Labourers	5	10	19	9

For more data please visit the transport portal at www.transport.vic.gov.au/statistics

NOTES

- Source: ABS (2006) Census of Population and Housing, Basic Community Profile. Metropolitan Melbourne comparison is based on all 31 metropolitan councils, except for the 'Key Characteristics' section which uses Melbourne Statistical Division figures.
- Excludes motorbikes & scooters.
- Source: DSE, Valuer General (2006). Outputs generated using 2006 unit record data, which is based on DSE suburb boundaries. Medians derived from 3 or more sales.
- Source: VicRoads - CrashStats database (2006); <http://crashstat1.roads.vic.gov.au/crashstats/crash.htm>
- Includes 12 serious injuries from accidents on the boundary of the three-suburb area.
- Source: ABS (2006) Census of Population and Housing, Basic Community Profile. Figures relate to travel to work of employed residents on Census Day.
- Source: ABS (2006) Census of Population and Housing. Figures, generated January 2009 using data provided by the ABS, are not available for individual suburbs.
- Includes people who were working at home. Excludes people who did not travel to work on Census Day.
- Percentage calculations exclude people who stated that they worked at home or that they did not go to work on Census Day.
- Percentage calculations include people who did not state, or did not adequately describe, their occupations.