



## World population prospects – 2050 and beyond

### *Long-term world population growth.*

The world population reached approximately 6,100,000,000 (6.1 billion) in mid-2000, according to the United Nations Population Division's recently released *World Population Prospects: the 2000 Revision*. The world population is growing at a rate of 1.2 per cent or 77 million people per year. This growth is equivalent to more than four times the population of Australia in 2000.

Forecasts for the world population in 2050 are 7.9 billion (low growth estimate) and 10.9 billion (high growth estimate), with the medium estimate producing 9.3 billion.

Taking the medium projection, the developing regions of the world, including Africa, south Asia and south-east Asia, will contribute basically all of the population growth over the next 50 years. The population of these areas will rise from 4.9 billion in 2000 to 8.1 billion in 2050, while the population of the more developed regions will remain steady at 1.2 billion.

Ageing of the population will be a worldwide phenomenon in 2050, with a threefold increase in those aged 60 years or more, and a fivefold increase in those aged 80 years or more, compared to 2000. These figures equate to two persons aged 60 years or more for every child, in the more developed regions in 2050.

### *World population – will it peak?*

Researchers from Austria's International Institute for Applied Systems Analysis (IIASA) have developed mathematical models to determine how the world's population will change this century. Their projections produce probabilities of particular scenarios occurring by a specific date.

This research shows that the world's population could rise from its present level of 6.1 billion, reaching a peak at just under 8.9 billion people in 2070, then falling by 500 million people to 8.4 billion by 2100. The decline will be mainly due to fertility rates dropping below replacement levels<sup>1</sup> as more women focus on careers, and the growing success of family planning programs.



<sup>1</sup> The replacement fertility rate is an average of 2.1 births per female. It represents the number of births needed to maintain a steady population (without any migration).

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These projections indicate an 85 per cent probability that the population will stop growing by 2100, a 60 per cent probability that the world's population will not exceed 10 billion people before 2100, but only a 15 per cent probability that the world's population will be lower than it is today by 2100.

When it comes to ageing and the geographic redistribution of the population, the UN figures and the IIASA agree: Europe's share of population is expected to drop while; Africa's will soar, despite a high number of deaths from AIDS. Population growth in Asia (south and south-east Asia, in particular) and sub-Saharan Africa will take longer to slow.

## References

UN World Population Prospects: The 2000 Revision, 28 February 2001, pp. v, vii.

Lutz, Sanderson, Scherbov, The End of World Population, *Nature* 412, pp. 542-545 (2001).

October 21 to 27, 2001 is World Population Awareness Week. Details are available from the Population Institute:

<http://www.populationinstitute.org/>

Further information on world population growth is available at:

United Nations [www.un.org](http://www.un.org)  
 UN Population Division [www.un.org/esa/population](http://www.un.org/esa/population)  
 UN Centre for Human Settlements (Habitat) [www.unchc.org](http://www.unchc.org)  
*Nature* journal is also available online at: [www.nature.com](http://www.nature.com)

For information on Victorian population projections contact Anne Barlow, Research Officer, tel. (03) 9655 6355.

## Peak population: a critical planning variable

### Resident and peak populations

Population counts are usually based on permanent resident populations. Yet there are other ways in which population might be counted.

Some locations such as coastal resorts have a high proportion of unoccupied dwellings because of holiday homes. They also have a range of tourist accommodation that can boost population numbers during certain seasons.

As the census is taken mid-week and in winter, coastal towns record resident population numbers much lower than their peak population levels. Conversely, alpine areas are likely to show populations that are higher than they would be if the census were taken in summer.

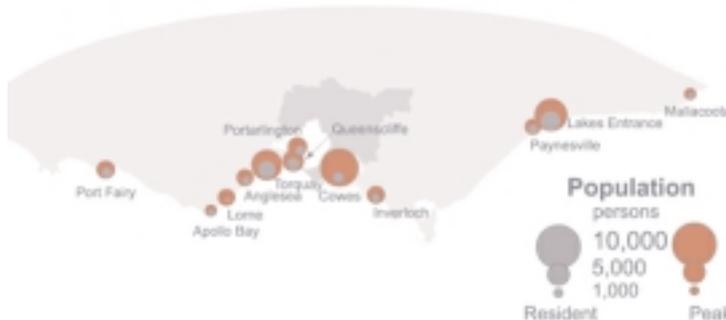
### Issues surrounding peak populations

Those towns, which have large differences between their resident and peak populations, may face infrastructure and environmental issues. For example, sewerage and water systems need to be built for the peak population capacity rather than the permanent resident population. This can place cost burdens on small communities.

### Coastal Victoria – resident and estimated peak populations

Selected coastal settlements	Resident population	Estimated peak population*
Lakes Entrance	5,248	13,343
Cowes	3,060	14,914
Port Fairy	2,625	7,383
Anglesea	1,995	7,936
Lorne	1,082	6,922
Mallacoota	982	3,883

\* Figures are estimates only. They take into account the potential capacity of unoccupied dwellings and tourist accommodation. They do not take into account day visitor numbers.



### Today's visitors, tomorrow's residents?

An interesting issue for planners and policy makers is whether holiday homes will be converted to permanent homes as people retire. With a large proportion of the population retiring in the next decade, will some of these coastal areas become home to much larger permanent populations?

Peak population is just one of the many issues covered in *Regional Matters: an Atlas of Regional Victoria*, which is now available on the Research Unit web site: [www.doi.vic.gov.au/research](http://www.doi.vic.gov.au/research).

## How incomes vary in Victoria

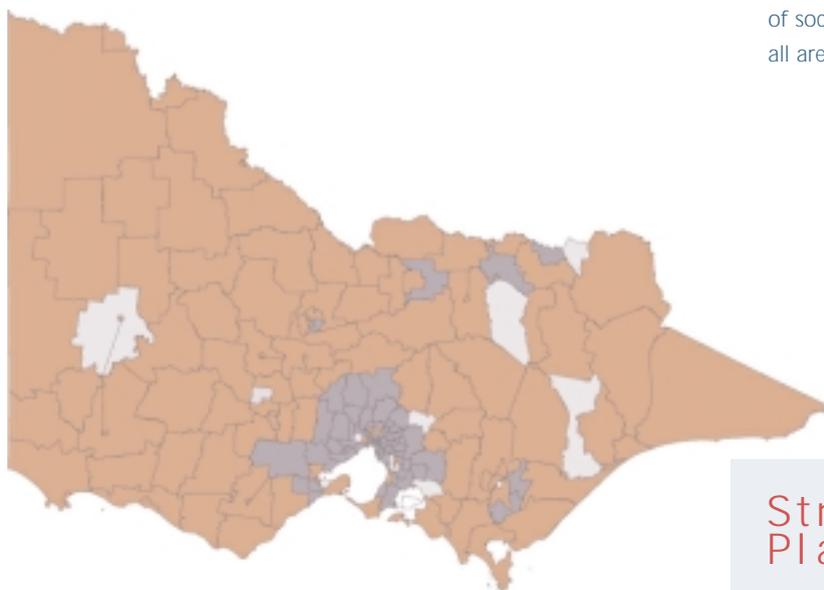
There has been a good deal of interest in recent times in how well off some parts of Victoria are in relation to others. The Research Unit at the Department of Infrastructure (DOI) has used the results of the 1996 Census to put together a picture of how Victoria looks in terms of one measure of welfare – household incomes (certainly not the only one). The results show a great range of variations in household incomes by statistical local area (SLA), from more than three times the State median in the south-west of Nillumbik to less than 33 per cent of the State median in Loddon South.

The first map below shows that most of Victoria, apart from Melbourne and Geelong and their immediate surrounds, has household incomes below the State median. Most of the regional centres (Horsham, Ballarat, Bendigo, Shepparton, Wangaratta, Wodonga) have household incomes equal to or above the State median – but only on their outskirts. This at first sight puzzling finding is explained (at least partly) by unemployed people on low

incomes moving to the centre of regional towns in order to look for work. Another part of Victoria that has done well is the Traralgon part of the Latrobe Valley, which has benefited from its position as the main business centre of the region.

The second map below provides a closer look at Melbourne. Most SLAs in and around Melbourne and Geelong have household incomes above the state median, reflecting the better employment opportunities and the higher salaries in the capital city. The few areas with low incomes (Maribyrnong, Dandenong, and parts of Moreland and Darebin) are mainly traditionally industrial areas that have suffered significant employment losses in recent times.

The most striking feature, however, of the spatial distribution of income is the divide between Melbourne and the rest of Victoria. Melbourne, with its expanding knowledge economy and its ability to attract a highly qualified and dynamic workforce, is outpacing the rest of Victoria, while rural communities have been experiencing hard times. These have been caused by falls in many commodity prices, and by shrinking job opportunities caused by the mechanisation of farms and the closure of services. All of this is reflected in low household incomes in most of rural and regional Victoria. It will be interesting to see what further changes are revealed by the 2001 Census.



■ Above Victorian median  
■ Equal to Victorian median  
■ Below Victorian median



## What is place management?

The term 'place management' has gained much interest lately and its use is on the increase. It is a term applied to a range of approaches used to address people's well-being and sense of place. It focuses on improving outcomes for people within geographic areas (place). It has both urban design and community building components, but has the capacity to meld those approaches in a new way.

Place management acknowledges the importance, in a complex society, of looking at a place and its needs in a holistic way, and of having structures that allow for the delivery of services and infrastructure according to local priorities. The community plays an important part, particularly in the setting of priorities.

The elements, which can set the management of social place apart from the management of physical place, include the need for new forms of governance and the support of different funding arrangements to assist an overall focus on place. These elements arise because traditional approaches to addressing local needs tend to be program-driven and to lack connectedness on the ground. Such approaches can also fail to balance local priorities, and a place-based approach can help reorient program inputs.

Place management is an approach most often applied to areas of social and economic disadvantage, but has applicability across all areas.

## Strategic Approaches to Place forum

The Strategic Approaches to Place forum was conducted in June to discuss key elements of place management and community building. It heard from people operating innovative programs at the local level, as well as from those responsible for policy-making and program delivery at State government level. It also looked at issues for future policy and program design for Victoria.

Visit our web sites at [www.doi.vic.gov.au/research](http://www.doi.vic.gov.au/research) to view presentations from the day and the background paper on *Place Management*.

For further information on Strategic Approaches to Place, please contact Christine Kilmartin, tel. (03) 9655 6934, or Christina Inbakaran, tel. (03) 9655 6054.

## Know Your Area

Another project nearly completed (Stage 1) is Know Your Area, which will soon be online. Know Your Area is an online tool that will allow the public to search a geographic area (Local Government Areas – LGAs - in Stage 1) for a range of data. It is an excellent way of finding out a range of information and statistics about a particular area all from one source, in an easy-to-access format.

Stage 1 includes the following statistics based on Australian Bureau of Statistics (ABS) data and DOI demographic projections:

- DOI population projections
- DOI household projections
- ABS estimated resident population
- ABS census data – industries and occupation of employed population
- ABS census data – income distribution
- Suburbs and towns data
- Useful links including links to:
  - DOI's Environment, Local Government, Planning and Transport Projects.
  - Department of Employment, Work Relations and Small Business's unemployment data
  - Department of Justice's Local Safety Surveys
  - General council information.

For further information on Know Your Area or Strategic Approaches to Place, please email [christina.inbakaran@doi.vic.gov.au](mailto:christina.inbakaran@doi.vic.gov.au) or [christine.kilmartin@doi.vic.gov.au](mailto:christine.kilmartin@doi.vic.gov.au).

## Regional Matters – an Atlas of Regional Victoria

Are you interested in issues affecting regional Victoria? The Research Unit has just released the first stage of its online project Regional Matters. An atlas of regional Victoria. This atlas presents a series of regional issues through the use of maps, charts, commentary, and benchmarks. The objectives of the atlas are to:

- identify policy issues and contribute to policy development via a spatial perspective on social, demographic and economic variables
- present issues of interest and importance to regional Victoria
- be issues-led rather than data-led (what needs to be known rather than what is easy to map)
- be readily accessible and easy to understand.

Stage 1 comprises demographic and economic information under the themes of population growth and decline; fertility decline; the ageing of the population, and regional economy. Stage 2 of the Atlas is already being planned and will include input from a number of State government departments and agencies. Stage 2 will expand the content of the atlas beyond demographic matters to issues of infrastructure, the regional economy, services, health, community, and environment.

The atlas is a dynamic product that will be added to and updated over time. Of key importance is its ability to reflect current issues of concern to planners, policy makers and researchers dealing with regional Victoria, as well as to interested members of the general community.

We are keen to receive feedback on Stage 1 of the regional atlas. If you have any comments, ideas or suggestions, please let us know via our web site ([www.doi.vic.gov.au/research](http://www.doi.vic.gov.au/research)) or by contacting either Fiona McKenzie, tel. (03) 9655 8806, or Dee Johnson, tel. (03) 9655 8804.

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Department of Infrastructure, Level 20, Nauru House  
80 Collins Street, Melbourne 3000  
Tel: (03) 9655 8814  
Email: [research.unit@doi.vic.gov.au](mailto:research.unit@doi.vic.gov.au)  
Internet: [www.doi.vic.gov.au/research](http://www.doi.vic.gov.au/research)  
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