



POPULATION PROJECTIONS FOR CANBERRA 1979-89

This pamphlet contains the National Capital Development Commission's annual revision of population projections for Canberra. The projections represent a further reduction compared with those published in the Commission's Technical Paper No. 12, entitled 'Population Projections for Canberra 1976-86'.

Population, housing and labourforce projections are vital to the Commission in carrying out its charter to plan, develop and construct Canberra. Relatively small variations between actual and projected annual increases in population can result in either a shortage of facilities or their provision in advance of actual requirement. The projected age structure of the population also has major implications for planning as age structure changes result in demands for different facilities in differing locations.

For further information please phone NCDC on (062)46-8319 or write to the Secretary Manager, NCDC, P.O. Box 373, CANBERRA CITY 2601.

BACKGROUND TO THE PROJECTION

Canberra's population growth during 1978-79 reflected its adjustment to the depressed economic situation. Significant movements in the Canberra economy during the year to June 1979 included:

A net migration gain of only 1,000, resulting in annual growth of 4,500 (2 per cent). The projected increase of 6,000 was not achieved. Natural increase (births minus deaths) of 3,500 accounted for 78 per cent of the annual increase.

Government employment increased by 700 during the year, but was more than offset by losses from the Private sector, which declined by 1,200. The construction industry shed 1,000 jobs during 1978-79.

Registered unemployment in Canberra-Queanbeyan increased by 1,300 during 1978-79. At the end of June 1979 there were 6,900 persons registered as unemployed, median duration of unemployment was 3.7 months and 32 persons were registered for each unfilled vacancy.

Private and public capital investment in building declined 15 per cent from the 1977-78 level.

Reduced investment in building, the loss of jobs from the construction industry and the change in local unemployment point to a continuing loss of skilled building workers and young people.

PROSPECTS FOR THE 1980s

In the longer term, economic recovery depends on both private sector investment and government expenditure. In the short term however, the major private sector industries — construction and retailing — are particularly sensitive to government employment growth.

Scheduled transfers of Public Service positions and recruitment could increase local employment by government by 2 per cent during 1979-80. This would not be sufficient to absorb the potential labourforce growth resulting from Canberra's current age-structure.

With work nearing completion on the High Court and other projects, the timing of construction of new works (such as the Archives, National Museum and permanent Parliament House) will largely contribute to the timing of local economic recovery.

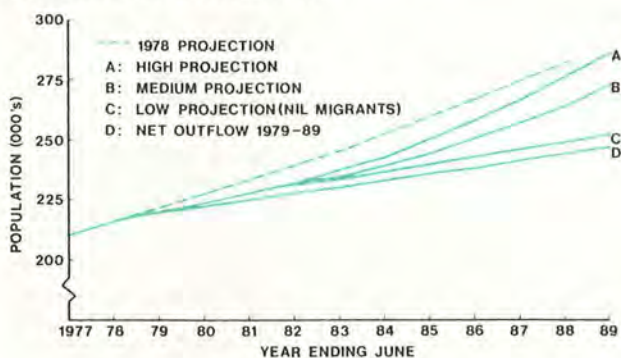
Private sector response to the Government's development programme, the impact of the Canberra Development Board in facilitating private sector projects, and the success of developments such as the convention centre-casino will determine both the extent of local economic recovery and the degree of diversification of local employment.

RANGE OF PROJECTED GROWTH

Given differing possibilities as to the timing and extent of recovery and the degree of employment diversification achieved, a range of projections has been adopted by the Commission.

This range defines the probable limits of future population trends, and provides upper and lower levels of growth which should be used to assess both infrastructure and long-term planning decisions.

PROJECTED POPULATION UNDER A RANGE OF MIGRATION ASSUMPTIONS



The "upper" projection (B) is based on the assumption that private-sector expansion, capital works expenditure and government employment growth could promote a recovery from 1982-83. Annual growth and its components are summarised in the table below:

SUMMARY OF 1979-89 PROJECTIONS

	WITHOUT MIGRATION			WITH MIGRATION FROM 1982-83		
	Population at end of year	Annual Increase	Percent Growth	Population at end of year	Annual Increase	Percent Growth
1979-80	222 400	3,600	1.7			
1980-81	225 800	3,400	1.5			
1981-82	229 200	3,400	1.5			
1982-83	232 400	3,200	1.3	232 800	3,600	1.6
1983-84	235 500	3,100	1.3	237 200	4,400	1.9
1984-85	238 400	2,900	1.2	242 300	5,100	2.1
1985-86	241 300	2,900	1.2	248 100	5,800	2.4
1986-87	244 100	2,800	1.2	254 600	6,500	2.6
1987-88	246 900	2,800	1.2	261 900	7,300	2.9
1988-89	249 500	2,600	1.1	270 100	8,200	3.1

* discrepancies due to rounding

This "lower" projection (C) illustrates the effect of nil net migration to Canberra. Natural increase continues to be the only source of growth, with any migration induced through employment growth being offset by losses of local school-leavers. Increased private sector activity would be necessary to compensate for continued restraint in government expenditure and employment.

IMPLICATIONS FOR PLANNING

Even with reduced levels of population growth, changes in the age structure of the population and its distribution throughout Canberra will place continued demands on facilities and infrastructure.

Age Structure Changes

The population pyramid shows the projected age-structure changes for each of the projections outlined above. The major changes in five-year age groups are summarised in the following table.

AGE-STRUCTURE CHANGES 1979-89

WITHOUT MIGRATION

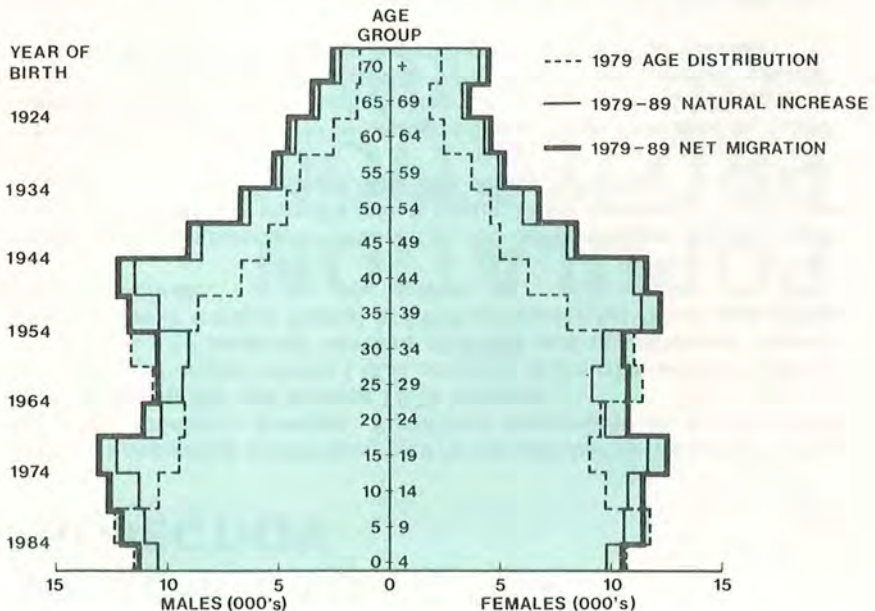
June	0-14	15-29	30-44	45-59	60+	Total
1979	66 400	59 450	52 600	28 250	12 150	218 800
1984	67 750	57 250	61 350	32 350	16 750	235 500
1989	63 700	62 350	62 000	38 700	21 800	250 000

WITH MIGRATION FROM 1982-83

1984	68 350	57 600	61 900	32 500	16 850	237 200
1989	69 800	68 450	69 050	40 300	22 550	270 000

* discrepancies due to rounding

AGE STRUCTURE OF THE PROJECTED POPULATION IN 1989



Although less apparent in the comparison of total population changes, age-structure changes have an impact on school-age population, the numbers seeking to enter the labourforce, potential housing demand and births during subsequent periods.

An outflow of 15-19-year olds is assumed in the light of adverse employment opportunities in the local area. Some 3,200 young people aged 15-24 could be seeking work each year to 1984. This exceeds the number of jobs becoming available through both new employment opportunities and retirement. The impact of early retirement on net labourforce growth and on the non-employed population over 50 years is unclear.

The population aged 60 years and over almost doubles during the decade, but the impact of this change should be kept in perspective.

The dependent population (aged 0-14 and 60+) remains only one-third of the total population. The under 15-years population stabilises while the 'aged' component of the dependent population increases from one-sixth in 1979 to about one-quarter by 1989. Some changes in planning emphasis will be necessary to accommodate this upward shift in the age pyramid, but society will have the necessary resources. On current labourforce participation rates, the ratio of persons in the labourforce to population aged 60 and over would only fall from 8:1 in 1979 to 6:1 by 1989.

While evident at the metropolitan scale, age-structure changes and declining average household size are of much greater significance at the suburban scale. Gains to the population of 'secondary' school age may more than match the reduction in 'primary' school age population, but each requires different facilities in differing locations. Under-utilization of older facilities will increase, but new facilities will be required in developing suburbs.

Suburban Population Changes

Short-term estimates of suburban population reflect the decline in average occupancy rates in developed areas. Average household size is projected to decline from 3.3 in 1979 to 3.1 by 1989. In older districts such as North Canberra, South Canberra and Woden, average household size will fall below three.

The ageing of established households with the subsequent formation of new households is an inevitable product of age structure changes. A decline in completed family size and intra-urban population movements reinforce these changes in age structure.

Population turnover can either moderate or exacerbate the process of ageing. Redevelopment and 'regeneration' may provide a replacement population in older areas, but this would be more than offset by declining occupancy rates in existing dwellings.

An analysis of 1976 Census data reveals a marked contrast between 1975-76 'movers' and 'non-movers'. Adults 35 years and over and 5-14 year-old children were largely 'non-movers' (85 per cent of population of these ages). Adults 20-29 were predominantly 'movers' with more than 40 per cent changing residence during 1975-76. The latter age group also accounted for 43 per cent of movement *within* the ACT during the year.

Both the origin and destination of intra-urban moves have major planning implications. The age structure of 'one-year-old' suburbs confirms the developing suburbs as the main destination of movers.

AGE-STRUCTURE IN NEW SUBURBS

Suburb	Year of Survey	Percentage of Population	
		0-4	20-29
Kambah	1975	19.6	41.0
Wanniassa	1976	17.4	35.2
Giralang	1976	18.2	44.2
Monash	1979	20.3	47.4
South-West Evatt	1979	16.9	41.6

The Monash mini-count (73 per cent coverage) recorded previous residence in 1976, and 30 per cent originated from Inner Canberra and Woden. Elsewhere in Canberra-Queanbeyan accounted for 29 per cent, and outside the urban area 41 per cent. The South-West Evatt mini-count (59 per cent response) sought immediate prior residence. Inner Canberra accounted for 16 per cent, Belconnen 57 per cent, 14 per cent from elsewhere in Canberra-Queanbeyan and 13 per cent from outside the urban area. The Monash and Evatt data is not directly comparable, as several intermediate moves could have occurred during 1976-79 for Monash residents.

PROJECTION METHODOLOGY

The Commission's projection model (POPMOD 2) operates with two components: natural increase (births — deaths) to the survivors of an initial population; and the size and age structure of the net migrant population. The major assumptions in the projection are:

- base population by age (from 1976 Census data)
- migrant population
- migrant age structure

Assumptions with only a minor impact on the projected population include:

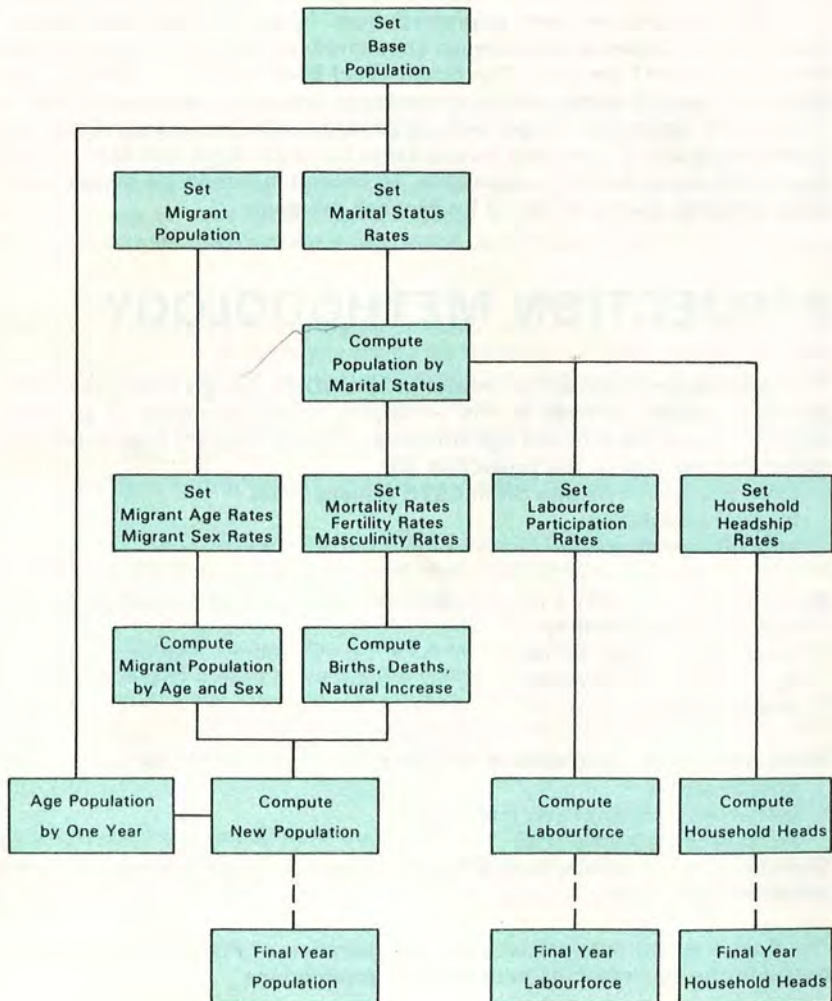
- age — specific fertility
- masculinity of live births
- age — specific mortality
- migrant sex

Three descriptive assumptions complete the projection model.

- marital status
- labourforce participation rates
- household headship rates

Changes in these assumptions affect the composition but *not* the size of the projected population.

The flow diagram overleaf sets out the operation of POPMOD 2 as well as detailing the relationships between the assumptions.



This outlook is subject to revision with changes in both economic circumstances and in numbers of children being born and movements of people to and from the ACT.