Water and the Murray Darling Basin - A Statistical Profile

Australia

2000–01 to 2005-06

Chapter 2 — People in the Murray-Darling Basin

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CHAPTER 2 PEOPLE IN THE MURRAY-DARLING BASIN

INTRODUCTION

This chapter provides an overview of the social and living conditions of the people living within the Murray-Darling Basin (MDB). It presents a range of population statistics (e.g. size, composition, distribution etc.) to enable analysis of a number of social and economic issues that may affect the sustainability of rural and regional communities within the MDB.

The chapter is divided into four main sections: population characteristics, education, work and farmers in the MDB. Together these provide an indication of social wellbeing in the MDB, and enable comparisons with national level statistics.

All data presented in this chapter are from ABS Censuses of Population and Housing and relate to where people usually live. Census data are used as Census Collection Districts allow better aggregation to the MDB geographic area than other data sources such as Estimated Resident Population or ABS household survey estimates. Census data do however have some limitations. See Explanatory Notes for more detail.

POPULATION CHARACTERISTICS

Population size and density

In 2006, more than two million people were living within the MDB (as reported in the Census), around 10% of Australia's population. The largest shares of the Basin's population resided within the states of New South Wales (39%) and Victoria (29%) (table 2.1).

Less than 70,000 people (4%) in the MDB were identified as Indigenous (Aboriginal and/or Torres Strait Islander), a higher proportion than the national average of 2%. The majority of Indigenous people in the MDB (45,650 people) resided in New South Wales with fewer residing in Queensland (8,870) and Victoria (8,670).

2.1 POPULATION CHARACTERISTICS—2006

	MURRAY-DARLING BASIN						AUSTRALIA
	NSW	*Vic.*	*Qld*	*SA*	*ACT*	*Total MDB*	
Area covered(a) *(km^2)*	597 926	129 761	259 313	69 216	2 354	1 058 549	7 672 645
Population density *(persons/km^2)*	1.3	4.4	0.8	1.6	137.1	1.9	2.6
Indigenous status							
Non-Indigenous							
Number *(no.)*	695 330	543 120	198 500	104 510	304 510	1 845 970	18 266 810
Percent *(%)*	89.6	94.3	91.3	93.1	94.2	92.1	92.0
Indigenous							
Number *(no.)*	45 650	8 670	8 870	2 500	3 850	69 530	455 030
Percent *(%)*	5.9	1.5	4.1	2.2	1.2	3.5	2.3
Not stated							
Number *(no.)*	34 670	24 190	9 940	5 290	14 970	89 050	1 133 450
Percent *(%)*	4.5	4.2	4.6	4.7	4.6	4.4	5.7
Total Population(b) *(no.)*	**775 640**	**575 980**	**217 310**	**112 300**	**323 330**	**2 004 560**	**19 855 290**
State/territory population as a proportion of MDB population *(%)*	38.7	28.7	10.8	5.6	16.1	100.0	. .

. . not applicable
(a) BRS data, available on request, 2008.
(b) Components may not add to total due to rounding.

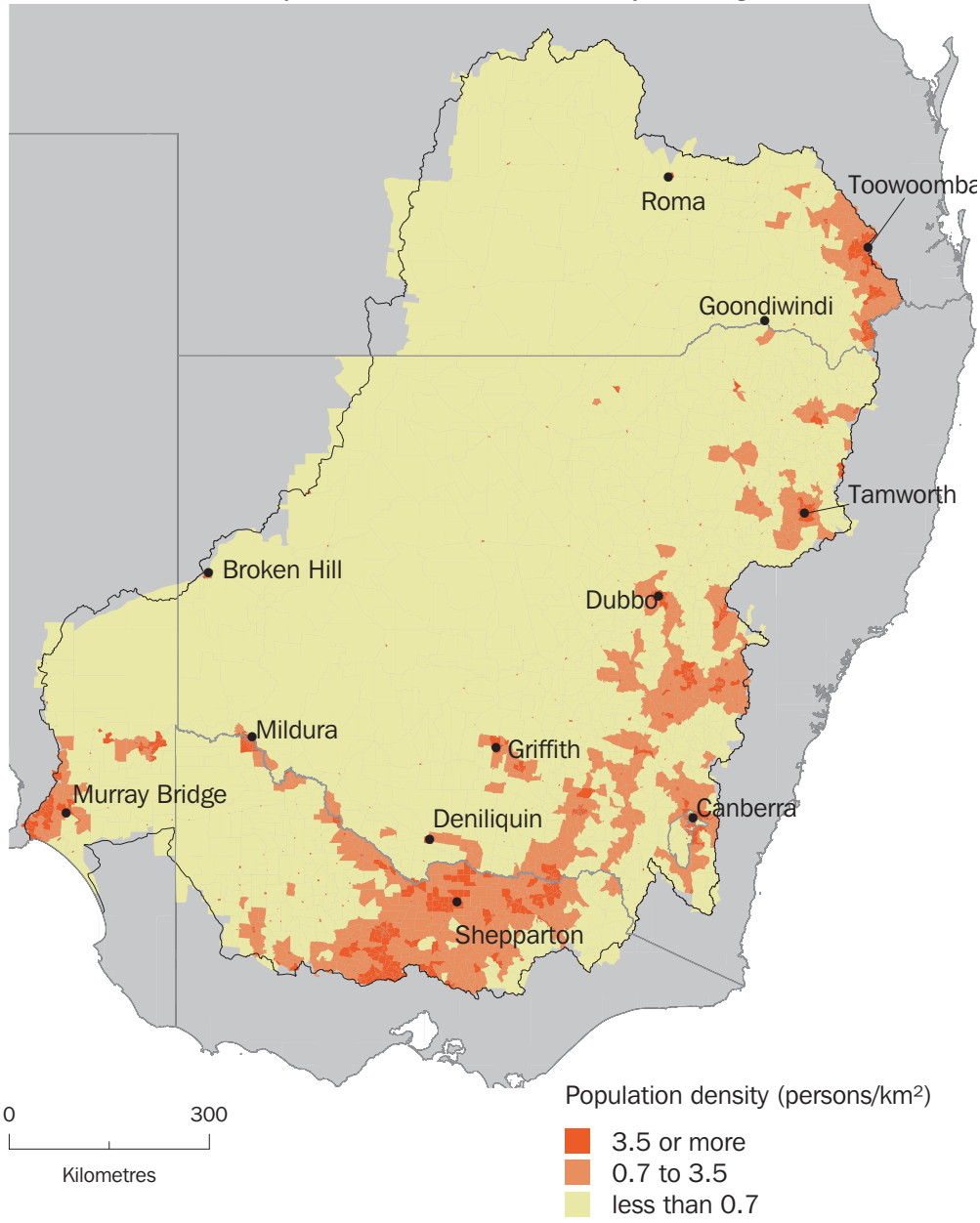
Source: ABS data available on request, ABS Census of Population and Housing, 2006; BRS data available on request, 2008

Population size and density continued

Overall, the MDB is sparsely populated with an average density of 1.9 persons per square kilometre, well below the national rate of 2.6 persons per square kilometre. The Australian Capital Territory (comprising mainly the city of Canberra) had the highest population density of 137 persons per square kilometre. Besides Victoria (4.4 persons per square kilometre), the population density in the other Basin states were all below the national average, reflecting that much of the area covered is classified as regional or remote.

Map 2.2 below shows the population density of the MDB in 2006 by Census Collection District (see map E.1 of the Expanatory Notes).

2.2 POPULATION DENSITY, by Collection District—Murray–Darling Basin—2006



Source: ABS data available on request, ABS Census of Population and Housing 2006, Geoscience Australia 2004

Urban Centres

Table 2.3 lists the 11 largest urban centres in the MDB (those with a population of 25,000 and over) in 2006. These centres were home to more than 830,000 people (as reported in the Census) or around two-fifths of the Basin's population. Canberra, with the adjoining New South Wales town of Queanbeyan, is the largest urban centre in the MDB, with a population of more than 350,000 people, or 18% of the Basin's population. Other major urban centres, with a population of more than 50,000 were: Toowoomba in Queensland (84,850), Bendigo in Victoria (76,050) and the adjoining towns of Albury-Wodonga in New South Wales and Victoria (73,500).

Urban Centres continued

2.3 POPULATION OF MAJOR URBAN CENTRES(a)—Murray-Darling Basin—2006

	State/territory	Population	Urban centre as a proportion of MDB population
		no.	%
Canberra-Queanbeyan	NSW/ACT	356 120	17.8
Toowoomba	Qld	84 850	4.2
Bendigo	Vic.	76 050	3.8
Albury-Wodonga	NSW/Vic.	73 500	3.7
Wagga-Wagga	NSW	46 740	2.3
Shepparton-Morroopna	Vic.	38 770	1.9
Tamworth	NSW	33 480	1.7
Orange	NSW	31 550	1.6
Dubbo	NSW	30 570	1.5
Mildura	Vic.	30 020	1.5
Bathurst	NSW	28 990	1.4

(a) Towns with population 25,000 or more.

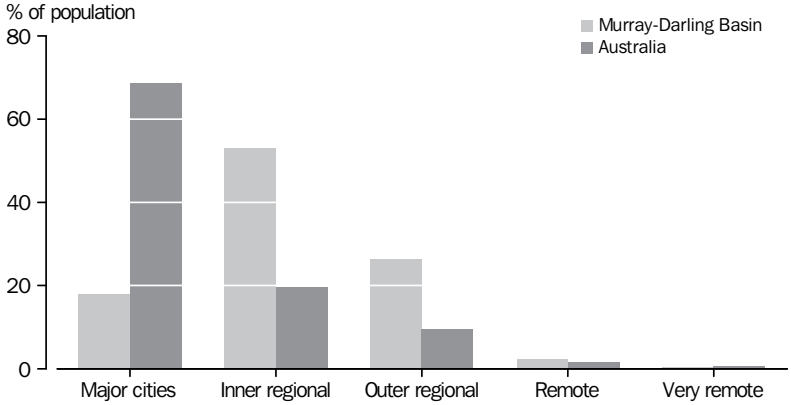
Source: ABS data available on request, ABS Census of Population and Housing, 2006

Remoteness

The Australian Standard Geographical Classification classifies remoteness areas into five categories; major cities, inner regional, outer regional, remote and very remote areas. The classification is based on the road distance to different sized population centres, where the population size is considered to govern the range and type of services available. For further information see *Statistical Geography: Volume 1 - Australian Standard Geographical Classification (ASGC) 2001* (ABS cat. no. 1216.0)

In 2006, the distribution of the MDB population by remoteness was quite different from that of Australia. In Australia, the majority of people were located in the major cities (68% of the total population), while in the MDB the majority of people lived in inner and outer regional areas (53% and 26% respectively) (graph 2.4).

2.4 POPULATION, by remoteness area—Murray-Darling Basin and Australia—2006



Source: ABS data available on request, ABS Census of Population and Housing, 2006

Population growth

The change in size and distribution of population has implications for service provision and delivery in areas such as health, education, housing and social welfare. Population increase, especially in the urban centres, also places pressure on water supplies and infrastructure.

Between 1996 and 2006, the number of people living in the Basin rose by 5% - this was well below the national growth rate of 12%. Much of the growth in the MDB occurred between 2001 and 2006 when the population rose by 4% compared to less than 1% between 1996 and 2001.

Population growth was observed in all Basin states between 1996 and 2006, although New South Wales experienced a decline in population (more than 1%) between 1996 and 2001. South Australia experienced the largest growth (12%) between 1996 and 2006, similar to the national rate. The Australian Capital Territory and Queensland both experienced increases of 9% (table 2.5).

2.5 POPULATION CHANGE—Murray-Darling Basin—1996–2006

	POPULATION			CHANGE		
	1996	*2001*	*2006*	*1996–2001*	*2001–2006*	*1996–2006*
	no.	no.	no.	%	%	%
New South Wales	765 690	755 010	775 640	–1.4	2.7	1.3
Victoria	542 770	550 700	575 980	1.5	4.6	6.1
Queensland	199 750	204 420	217 310	2.3	6.3	8.8
South Australia	100 210	103 530	112 300	3.3	8.5	12.1
Australian Capital Territory	297 180	308 180	323 330	3.7	4.9	8.8
Murray-Darling Basin	***1 905 600***	***1 921 840***	***2 004 560***	***0.9***	***4.3***	***5.2***
Total Australia	**17 752 830**	**18 769 250**	**19 855 290**	**5.7**	**5.8**	**11.8**

Source: ABS data available on request, ABS Census of Population and Housing, 1996, 2001 and 2006

The Basin's largest population growth occurred in the major urban centres, particularly those located in Victoria, namely, Bendigo (27% increase between 1996 and 2006), Mildura (25%) and Shepparton-Moroopna (22%). Other significant growth in the Basin was observed in Toowoomba (13%), Bathurst (12%) and Canberra-Queanbeyan (11%) (table 2.6).

2.6 POPULATION CHANGE, Major urban centres(a)—Murray-Darling Basin—1996–2006

	STATE/TERRITORY	POPULATION			CHANGE		
		1996	*2001*	*2006*	*1996–2001*	*2001–2006*	*1996–2006*
		no.	no.	no.	%	%	%
Canberra-Queanbeyan	NSW/ACT	320 610	327 230	356 120	2.1	8.8	11.1
Toowoomba	Qld	75 050	77 640	84 850	3.5	9.3	13.1
Bendigo	Vic.	59 830	66 930	76 050	11.5	13.6	27.1
Albury-Wodonga	NSW/Vic.	67 190	67 620	73 500	0.6	8.7	9.4
Wagga-Wagga	NSW	42 770	42 840	46 740	0.2	9.1	9.3
Shepparton-Morroopna	Vic.	31 900	34 960	38 770	9.6	10.9	21.6
Tamworth	NSW	31 800	31 240	33 480	–1.8	7.2	5.3
Orange	NSW	30 660	31 000	31 550	1.1	1.8	2.9
Dubbo	NSW	30 060	29 610	30 570	–1.5	3.2	1.7
Mildura	Vic.	24 100	26 460	30 020	9.8	13.5	24.6
Bathurst	NSW	25 960	26 040	28 990	0.3	11.3	11.7

(a) Towns with population of 25,000 or more.

Source: ABS data available on request, ABS Census of Population and Housing, 1996, 2001 and 2006

Population growth continued

Analysing population changes by remoteness area shows population declines in the outer regional (4% decrease between 1996 and 2006), remote (16%) and very remote (41%) areas of the Basin. There were corresponding population increases in inner regional areas and major cities (table 2.7).

2.7 POPULATION CHANGE, by remoteness area—Murray-Darling Basin—1996–2006

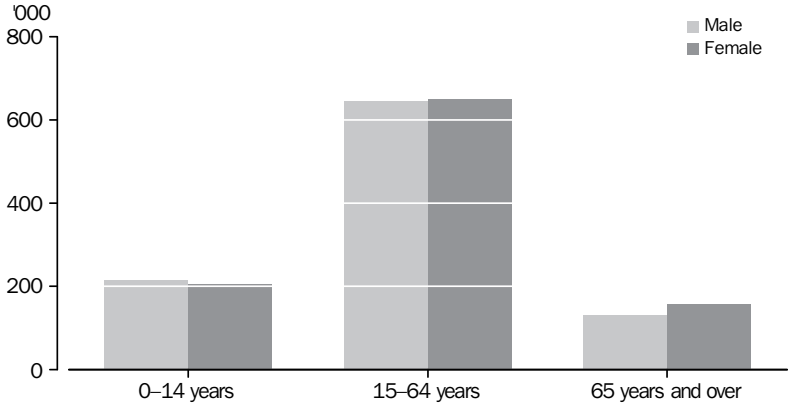
	POPULATION			CHANGE		
	1996	*2001*	*2006*	*1996–2001*	*2001–2006*	*1996–2006*
	no.	no.	no.	%	%	%
Major cities	324 940	349 370	358 560	7.5	2.6	10.3
Inner regional	958 530	975 110	1 059 260	1.7	8.6	10.5
Outer regional	548 060	525 180	527 880	–4.2	0.5	–3.7
Remote	60 580	58 120	50 910	–4.1	–12.4	–16.0
Very remote	13 500	13 890	7 950	2.9	–42.8	–41.1

Source: ABS data available on request, ABS Census of Population and Housing, 1996, 2001 and 2006

Age and sex distribution

In 2006, there were 19,500 more females in the MDB than males (as reported in the Census), resulting in a sex ratio of 98.1 (number of males per 100 females). There were 9,800 more males than females aged 14 years and under while the number of males aged 65 years and over was 26,300, or 20% lower than the number of females in this group (graph 2.8). The number of females in the 15–64 year range was slightly higher than the number of males (3,000).

2.8 POPULATION DISTRIBUTION, by sex, Murray-Darling Basin—2006



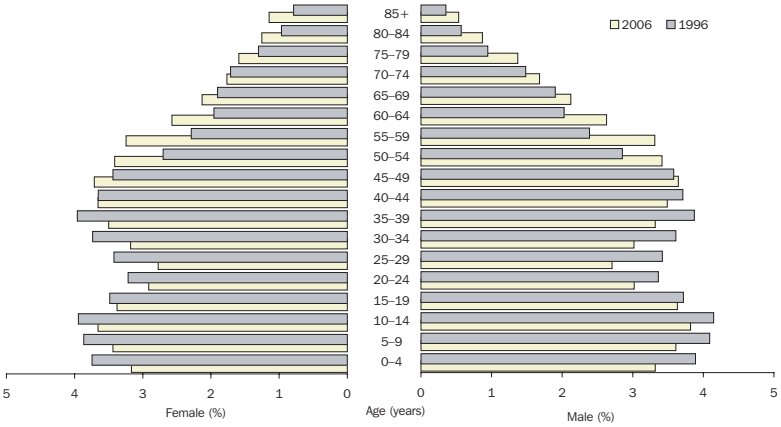
Source: ABS data available on request, ABS Census of Population and Housing, 2006

The age structure of the population impacts on requirements for service provision and labour force participation. Australia's ageing population has implications for health services, housing, and the capacity for people to contribute to community life. The relative supply of labour will decline and the average age of the workforce will increase (BRS 2008b).

In line with the national trend, the Basin's population is ageing (as shown in graph 2.9 below), largely due to the combination of lower fertility rates and increasing life expectancy. In 1996, children aged 0–14 years represented 21% of the Basin's population, those aged 15–64 years represented 65% and those aged 65 years and over represented 15%. Although the Basin's population has continued to grow since 1996, the proportion of the population in the older age groups increased while the proportion in younger age groups declined (graph 2.9). For example, between 1996 and 2006, the proportion of children aged 0–14 years in the MDB decreased by 4 percentage points while the proportion of people aged 65 years and over increased by 3 percentage points.

Age and sex distribution continued

2.9 AGE AND SEX DISTRIBUTION OF POPULATION—Murray-Darling Basin—1996 and 2006



Source: ABS data available on request, ABS Census of Population and Housing 2006

The change in the age structure can be summarised by the change in the median age. In 2006, the median age of the MDB's population was 38 years, similar to the national median age of 37 years. The median age of the Basin's population has increased by 5 years since 1996 and about 2 years since 2001.

Living arrangements - households and families

Families provide emotional, physical and financial care and support to their members and are often the basis on which government assistance is determined and administered. Australians have traditionally experienced three main living arrangements over a lifecycle: living with parents, living with a partner (for some of this period with children) and living alone in old age if that partner died. Now and into the future, living arrangements throughout a lifecycle may also include living alone or in a group household before perhaps forming a long-term partnership, or living as a lone parent or alone after divorce or separation. These changes in living arrangements and family characteristics are the outcome of various demographic and social trends, such as declining fertility, increased rates of divorce and longer life expectancy (ABS 2005).

Table 2.10 and graph 2.11 show the living arrangements by household type and family type in the MDB. In 2006, there were nearly 780,000 households in the Basin (as reported in the Census) with an average size of 2.4 persons per household (a slight decrease from 2.6 in 1996).

More than two-thirds (68%) of households in the Basin were single family households and a quarter (25%) were lone or single person households. These were slightly higher than the equivalent Australian proportions (67% single family, 23% lone person).

The proportion of single family households decreased by almost 4 percentage points between 1996 and 2006 in the MDB (similar to the decline for Australia as a whole), while the proportion of lone person households increased by 2 percentage points during the same period (compared to an increase of 0.8 percentage points for Australia).

2.10 HOUSEHOLD CHARACTERISTICS(a)—1996 and 2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	1996	*2006*	*1996*	*2006*
***Total number of households** (no.)*	***684 940***	***778 980***	***6 374 870***	***7 463 790***
***Total number of persons** (no.)*	***1 807 180***	***1 903 080***	***16 967 760***	***19 022 540***
Average number of persons/ household *(persons/household)*	2.6	2.4	2.7	2.5
Single family household				
Number *(no.)*	491 720	529 790	4 512 470	5 029 520
Proportion of total households *(%)*	71.8	68.0	70.8	67.4
Multi-family household				
Number *(no.)*	4 280	6 150	70 530	93 240
Proportion of total households *(%)*	0.6	0.8	1.1	1.2
Lone person household				
Number *(no.)*	157 720	195 050	1 432 820	1 740 480
Proportion of total households *(%)*	23.0	25.0	22.5	23.3
Group household				
Number *(no.)*	24 170	24 940	266 000	280 850
Proportion of total households *(%)*	3.5	3.2	4.2	3.8
Other not classifiable				
Number *(no.)*	7 060	23 050	93 060	319 700
Proportion of total households *(%)*	1.0	3.0	1.5	4.3

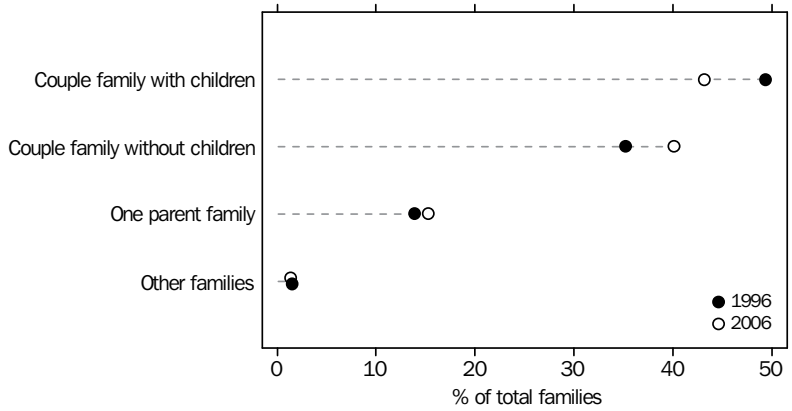
(a) Occupied private dwellings only. Excludes overseas visitors and persons with no usual address.

Source: ABS data available on request, ABS Census of Population and Housing, 1996 and 2006

Living arrangements - households and families continued

Overall, an increase in the number of families in the MDB would be expected from overall population increase. However, over the last decade, there have been changes in the relative proportions of family types in the MDB. Couple families with children were the most common type of family in the MDB, although, as a proportion of all families, they have decreased from 49% in 1996 to 43% in 2006 (table 2.11). Over the same period, the proportion of couple families without children increased by 5 percentage points while one parent families increased by 1 percentage point.

2.11 CHANGE IN FAMILY COMPOSITION, Murray-Darling Basin—1996 and 2006



Source: ABS data available on request, ABS Census of Population and Housing, 2006

EDUCATION

Education contributes to individual wellbeing and economic growth. Higher levels of educational attainment are associated with increased employment opportunities and higher wages, and contribute to improving Australia's economic standing. The changing structure and growth of the Australian economy has increased the demand for a diverse, skilled workforce, with higher levels of educational attainment required to meet this demand.

Level of highest educational attainment

The indicator of educational progress used in this chapter measures the attainment of formal non-school qualifications. The statistics relating to educational attainment relate to people aged 15 years and over.

In 2006, more than one-third (34%) of the 1.6 million people aged 15 years and over living in the MDB held at least one non-school qualification (as reported in the Census), lower than the national rate of 37% (table 2.12). Of these, more than 204,000 people held a Bachelor degree or higher, 96,000 people held an Advanced diploma or Diploma, and 240,000 people held a Certificate level qualification - a group which includes the traditional trade qualifications.

2.12 LEVEL OF HIGHEST NON-SCHOOL QUALIFICATION(a)—2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	Population	*Proportion of total persons*	*Population*	*Proportion of total persons*
	no.	%	no.	%
With non-school qualification				
Postgraduate degree	31 960	2.0	412 270	2.6
Graduate diploma and Graduate certificate	25 130	1.6	228 150	1.4
Bachelor degree	146 970	9.3	1 836 610	11.6
Advanced diploma and Diploma	96 140	6.1	1 128 220	7.1
Certificate	240 270	15.2	2 284 590	14.4
Total	540 470	34.1	5 889 840	37.1
Without non-school qualification	835 700	52.7	7 760 700	48.9
Total persons aged 15 years and over(b)	**1 583 390**	**100.0**	**15 879 920**	**100.0**

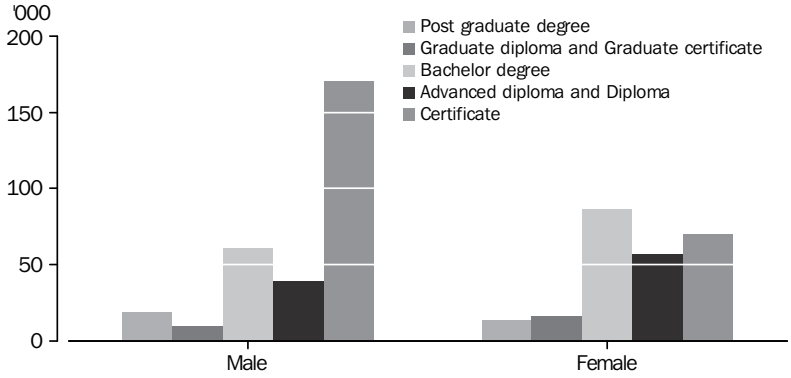
(a) Persons aged 15 years and over.
(b) Includes persons who did not state or inadequately described their qualifications.
Source: ABS data available on request, ABS Census on Population and Housing, 2006

As with Australia, the educational attainment of people living in the MDB has increased over the last decade. Between 1996 and 2006 the number of people holding a non-school qualification increased by 36%. The increase mostly reflected the increase in the proportion of people whose level of highest non-school qualification was a Bachelor degree or higher which increased by 42% since 1996 (compared to a 57% rise for Australia).

In 2006, more males than females in the MDB held a non-school qualification (38% and 30% respectively), although females were more likely to have a Bachelor degree or higher than males (14% and 11% respectively). The most common level of highest non-school qualification held by males was a Certificate (22%) (graph 2.13).

Level of highest educational attainment continued

2.13 LEVEL OF HIGHEST NON-SCHOOL QUALIFICATION(a), by sex—Murray-Darling Basin—2006



(a) Persons aged 15 years and over and with a non-school qualification.

Source: ABS available data on request, ABS Census of Population and Housing, 2006

Field of study

The most common fields of study of people in the MDB with a non-school qualification were Engineering and related technologies (20%), Management and commerce (14%) and Society and culture (12%). While Agriculture was not as common (4%), its proportion in the MDB was much higher than the national rate (1%) (table 2.14).

2.14 SELECTED FIELDS OF STUDY(a)—2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	Number	*Proportion of total persons*(a)	*Number*	*Proportion of total persons*(a)
	no.	%	no.	%
Engineering and related technologies	107 530	19.9	1 259 300	21.4
Management and commerce	74 130	13.7	1 026 610	17.4
Society and culture	65 980	12.2	659 980	11.2
Education	61 570	11.4	584 180	9.9
Health	60 300	11.2	604 850	10.3
Agriculture	18 730	3.5	59 480	1.0
Horticulture and viticulture	6 920	1.3	53 150	0.9
Other fields of study(b)	145 300	26.9	1 642 290	27.9
Total persons with a non-school qualification(c)	**540 470**	**100.0**	**5 889 840**	**100.0**

(a) Persons aged 15 years and over and with a non-school qualification.
(b) Includes Natural and physical sciences, Information technology, Architecture and building, Other agriculture, environmental and related sciences etc.
(c) Components may not add to total due to rounding.

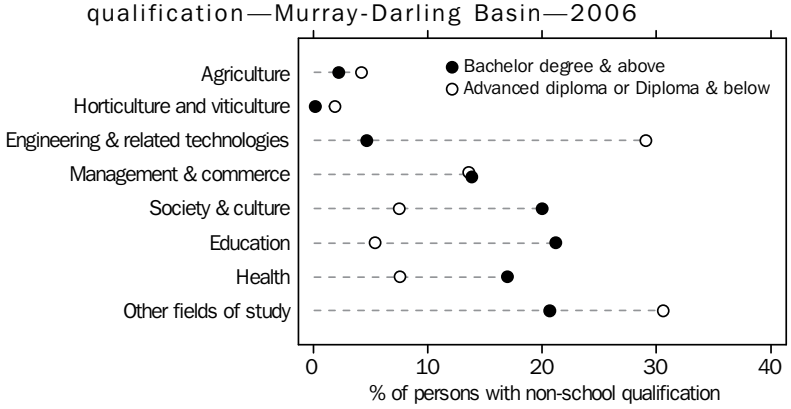
Source: ABS data available on request, ABS Census of Population and Housing, 2006

The level of qualification attained by people varies depending on their field of study. Some fields of study are more likely to result in Bachelor degrees, however, other fields were more likely to result in Certificate or Diploma level qualifications (graph 2.15). For people whose highest non-school qualification was a Bachelor degree or higher, the most common fields of study were Education (21%), Society and culture (20%), Health (17%) and Management and commerce (14%). For those with Certificate and Diploma

Field of study continued

level qualifications, the most common field of study was Engineering and related studies (29%); followed by Management and commerce (14%). There were more holders of Certificates/Diplomas (4%) than Bachelor degrees or higher (2%) who were educated in Agriculture.

2.15 FIELD OF STUDY(a), by highest non-school qualification—Murray-Darling Basin—2006



(a) Persons aged 15 years and over and with a non-school qualification.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

INCOME

The needs of a household are related to its size and composition. Larger households need greater economic resources to achieve the same standard of living as smaller households, but larger households have economies arising through the sharing of benefits between household members, such as accommodation, heating and other utilities. To make meaningful comparisons of living standards, measures of household income in this section are adjusted or equivalised to take account of differing household size and composition. A more detailed explanation of equivalised income is given in Appendix 3 of the ABS publication *Household Income and Income Distribution, Australia* (cat. no. 6523.0).

Income statistics presented in this section are based on data from the Census of Population and Housing. There are a number of limitations with household income estimates produced from the Census as they are based on personal income which is collected in ranges. However, the Census, is the best source when analysing incomes relating to small population groups, or for specific geographic areas such as the MDB.

In 2006, the mean equivalised gross weekly household income (hereafter referred to as equivalised household income) of people in the MDB was $675 per week, compared to $732 per week in Australia. The equivalised household income of people living in the major cities of the MDB was $971 per week which was 44% higher than the equivalised household income for all people in the MDB. Equivalised household income of people in remote areas ($593 per week) was higher than in outer regional areas ($571 per week). The income in areas classified as very remote averaged about $528 per week.

Table 2.16 shows the distribution across national income quintiles of equivalised household income of people in the MDB by remoteness area. Almost half (46%) of people in the Basin had an equivalised household income in the lowest two quintiles (up

INCOME *continued*

to $515 a week), with close to one-quarter (23%) in the lowest quintile (less than $315 a week).

The distribution of the MDB population across income quintiles in major cities is markedly different from other remoteness categories in the MDB. Less than one-quarter of people in the major cities were in the bottom two income quintiles, while almost two-fifths (38%) were in the top quintile. Conversely, the proportion of people in regional and remote areas within the bottom two quintiles ranged between 48% and 64%. Less than 12% of the population in regional and remote areas were in the highest quintile. For very remote areas, almost two-thirds of people (64%) were in the lowest two quintiles, nearly two-fifths (38%) were in the lowest quintile.

2.16 POPULATION DISTRIBUTION(a), by equivalised household income and remoteness area—2006

	MURRAY-DARLING BASIN						AUSTRALIA
	Major cities	*Inner regional*	*Outer regional*	*Remote*	*Very remote*	*Total*	
Mean equivalised gross household weekly income ($/week)(b)	***971***	***629***	***571***	***593***	***528***	***675***	***732***
Income quintile(c)							
Lowest quintile (Less than $315 a week) (%)	10.6	24.0	30.3	30.9	38.0	23.4	20.0
2nd quintile ($315 to $515 a week) (%)	11.4	24.0	25.5	23.6	25.7	22.1	20.0
3rd quintile ($516 to $742 a week) (%)	16.0	21.8	20.0	18.6	14.3	20.2	20.0
4th quintile ($743 to $1077 a week) (%)	24.1	18.4	15.0	15.3	12.8	18.5	20.0
Highest quintile ($1078 or more a week) (%)	38.0	11.7	9.2	11.6	9.2	15.8	20.0
Total population (%)(d)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Persons aged 15 years and over.
(b) In 2006 dollars.
(c) Based on total Australia.
(d) Components may not add to total due to rounding.
Source: ABS data available on request, ABS Census of Population and Housing, 2006

INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE

This section analyses the socio-economic status of the Murray-Darling Basin using the Index of Relative Socio-economic Disadvantage (IRSD) constructed for Statistical Local Areas (SLAs, see map E.2 of the Explanatory Notes). Areas with the highest relative disadvantage typically have higher proportions of low income families, unemployed people, people without educational qualifications, households renting from public housing, and people in unskilled or semi-skilled occupations. Conversely, the least disadvantaged areas tend to have a low proportion of people with these characteristics.

In 2006, more than half (55%) of the SLAs in the Basin had an index value lower than the national average. About 68% of the population in the MDB resided in these areas.

Table 2.17 below shows the IRSD in SLAs across quintiles in the Basin compared to the national distribution. SLAs in the highest quintile are considered less disadvantaged while SLAs in the lower quintiles are more disadvantaged.

Australia-wide, there are equal numbers of SLAs in each quintile. However, the data shows that the Basin has many more SLAs in the second (26% of SLAs) and highest quintile (25% of SLAs). Less than 15% of SLAs in the Basin were in the lowest quintile, those considered to be the most disadvantaged.

INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE *continued*

2.17 INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE, by Statistical Local Area—2006

	MURRAY-DARLING BASIN		AUSTRALIA
Income quintile	*Number of SLAs*	*Proportion of total SLAs*	*Proportion of total SLAs*
	no.	%	%
Highest quintile	75	25.3	20.0
4th quintile	52	17.6	20.0
3rd quintile	48	16.2	20.0
2nd quintile	78	26.4	20.0
Lowest quintile	43	14.5	20.0
Total SLAs(a)	**296**	**100.0**	**100.0**

(a) Excludes SLAs without information.

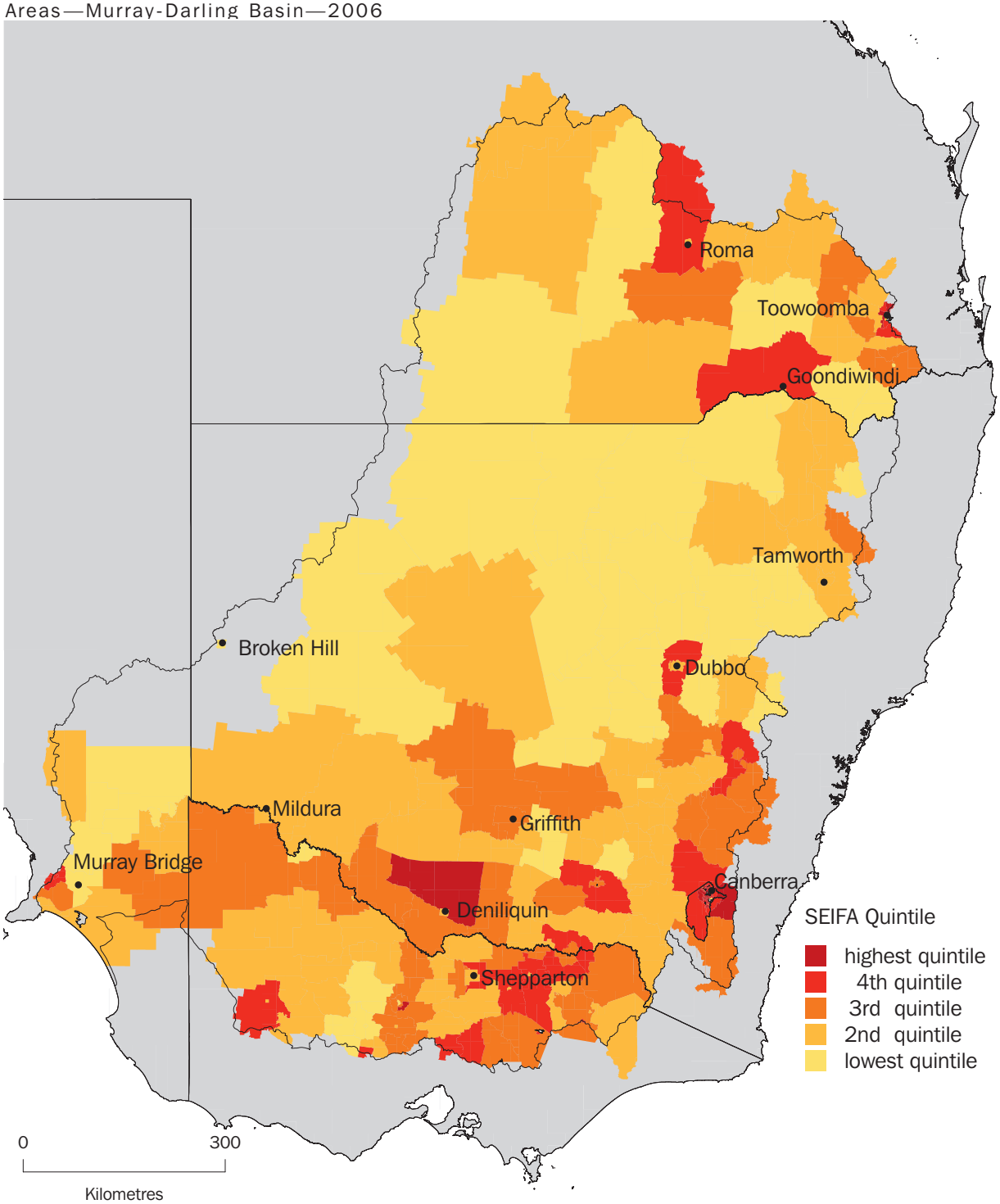
Source: ABS data available on request, Socio-Economic Indexes for Areas (SEIFA), 2006

Map 2.18 shows the distribution of IRSD for SLAs in the Basin. Lighter shading indicates higher levels of disadvantage while darker shading indicates lower levels of disadvantage.

INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE *continued*

The more disadvantaged areas (lowest quintiles) tend to cluster around the central, south-western and northern parts of the Basin. The less disadvantaged areas (highest quintiles) tend to cluster around some of the major urban centres in the southern and south-eastern parts of the Basin, as well as in the northern and north-eastern parts.

2.18 INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE, Statistical Local Areas—Murray-Darling Basin—2006



Source: ABS Socio-Economic Indexes for Areas (SEIFA) 2006, data available on request, Geoscience Australia 2004

LABOUR FORCE

Paid work is the way most people obtain the economic resources needed for day to day living, for themselves and their dependants, and to meet their longer term financial needs. Having paid work contributes to a person's sense of identity and self-esteem. People's involvement in paid work also contributes to economic growth and development.

In 2006, there were about 921,000 people aged 15 years and over employed in the MDB (as reported in the Census). This represented more than half (58%) of the Basin's population aged 15 years and over, giving an employment to population ratio similar to the national level of 57% (table 2.19).

Of the Basin states, the Australian Capital Territory had the highest employment to population ratio (67%) followed by Queensland (59%). The employment to population ratio in the other Basin states was about 56%.

The number of unemployed people in the MDB decreased from 77,500 in 1996 to 49,900 in 2006, a decrease of 37%. Over this period, the unemployment rate in the MDB dropped from 8.7% to 5.0%, to be similar to the national figure of 5.2% in 2006.

2.19 LABOUR FORCE STATUS(a)—2006

	MURRAY-DARLING BASIN						AUSTRALIA
	NSW	*Vic.*	*Qld*	*SA*	*ACT*	*Total MDB*(b)	
Employed *(no.)*	342 090	254 180	99 480	49 580	175 980	921 300	9 089 140
Unemployed *(no.)*	20 990	14 580	4 650	2 580	6 150	48 950	500 570
Not in the labour force *(no.)*	211 020	163 930	55 370	32 520	66 890	529 720	6 290 220
Total labour force(b)(c) *(no.)*	**606 700**	**457 030**	**168 800**	**89 350**	**261 510**	**1 583 390**	**15 879 920**
Employment to population ratio *(no.)*	56.4	55.6	58.9	55.5	67.3	58.2	57.2
Participation rate *(%)*	59.8	58.8	61.7	58.4	69.6	61.3	60.4
Unemployment rate *(%)*	5.8	5.4	4.5	4.9	3.4	5.0	5.2

(a) Persons aged 15 years and over.
(b) Components may not add to total due to rounding.
(c) Includes labour force status not stated.

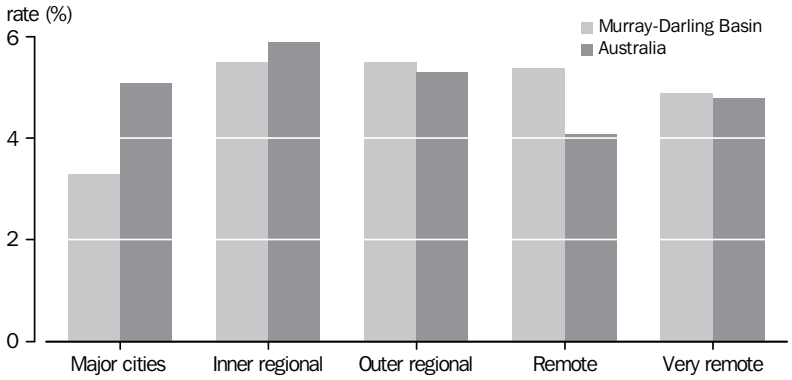
Source: ABS data available on request, ABS Census of Population and Housing 2006

The unemployment rate varied across the Basin's remoteness areas. In the Basin's major cities the unemployment rate was 3.3%; in regional areas (inner and outer) it was 5.5%; in remote areas 5.4%; and 4.9% in very remote areas (graph 2.20).

LABOUR FORCE

continued

2.20 UNEMPLOYMENT RATE (a), by remoteness area—2006



(a) Persons aged 15 years and over

Source: ABS data available on request, ABS Census of Population and Housing, 2006

Employed Persons

Australia's workforce is constantly changing in response to changing economic conditions and this is also reflected in the MDB. The past decade has seen an increasing diversity of employment arrangements, including changes in full-time and part-time employment.

In 2006, nearly two-thirds (64%) of people employed in the MDB worked full-time, close to one-third (29%) were part-time, and 7% were employed, but worked no hours in the week prior to Census night (away from work). Males in full-time employment outnumbered females (2:1), however, females in part-time employment outnumbered males (2:1) (table 2.21).

2.21 EMPLOYMENT STATUS(a), by sex—2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	Number employed	*Proportion of total employed*	*Number employed*	*Proportion of total employed*
	no.	%	no.	%
Full-time				
Male	386 290	65.4	3 755 390	64.5
Female	204 600	34.6	2 062 720	35.5
Ratio male to female	1.9	. .	1.8	. .
Part-time				
Male	78 860	29.3	837 270	31.2
Female	190 120	70.7	1 844 340	68.8
Ratio male to female	0.4	. .	0.5	. .
Away from work(b)				
Male	31 650	51.5	309 470	52.4
Female	29 770	48.5	280 570	47.6
Ratio male to female	1.1	. .	1.1	. .

(a) Persons aged 15 years and over.

(b) On Census night.

Note: . . not applicable

Source: ABS data available on request, ABS Census of Population and Housing, 2006

Employed Persons continued

Table 2.22 shows the change in part-time and full-time employment in the MDB between 1996 and 2006. During this period, part-time employment increased at a greater rate than full-time employment (12% and 7%, respectively) even though the total number of people employed part-time decreased between 2001 and 2006. A similar pattern occurred nationally, where part-time employment increased by 17% and full-time employment by 12%. The increase in demand for part-time employment is often associated with the restructuring of Australia's economy, and in particular with the growth in service industries, the deregulation of the workplace and the introduction of new technologies (ABS 2001).

2.22 EMPLOYMENT STATUS(a)—Murray-Darling Basin—1996–2006

	NUMBER EMPLOYED			CHANGE		
	1996	*2001*	*2006*	*1996–2001*	*2001–2006*	*1996–2006*
	no.	no.	no.	%	%	%
Employed						
Full-time	550 760	552 580	590 890	0.3	6.9	7.3
Part-time	239 470	272 900	268 980	14.0	-1.4	12.3
Ratio full-time to part-time	2.3	2.0	2.2	. .	. .	. .
Total employed persons(b)	**810 760**	**850 900**	**921 300**	**5.0**	**8.3**	**13.6**

(a) Persons aged 15 years and over.
(b) Includes employment status not stated.
Source: ABS data on request, ABS Census on Population and Housing, 1996, 2001 and 2006

Employment by industry

In 2006, close to one million people (921,000 as reported in the Census) were employed across all industries in the MDB. Table 2.23 shows employment in significant industries in the MDB. Retail employed the greatest number of people (14%), followed by Health and community services (11%), Government administration and defence (10%), Agriculture (10%) and Manufacturing (9%). Employment in Agriculture in the MDB (10%) was significantly higher than the national figure of 3%. Employment in other industries was broadly in line with the trend at the national level. The employment distribution across industries in the MDB was similar in 1996 to 2006, with the exception of Agriculture and Health and community services (graph 2.24).

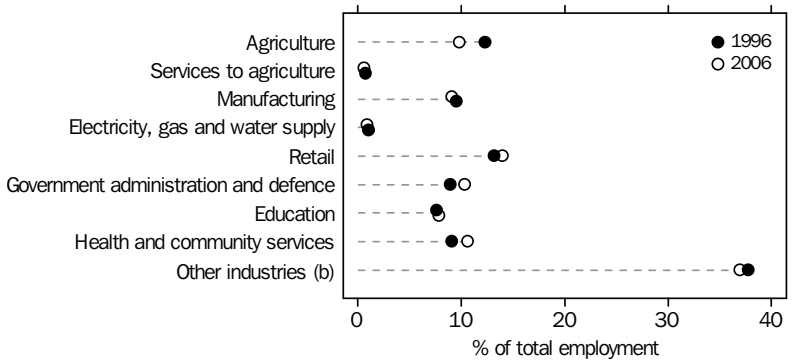
Employment by industry continued

2.23 EMPLOYMENT(a), by selected industry—2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	Number employed	*Proportion of total employed*	*Number employed*	*Proportion of total employed*
	no.	%	no.	%
Agriculture	90 520	9.8	245 730	2.7
Services to agriculture	5 690	0.6	18 180	0.2
Manufacturing	83 760	9.1	997 150	11.0
Electricity, gas and water supply	8 470	0.9	70 930	0.8
Retail	128 740	14.0	1 299 210	14.3
Government administration and defence	94 710	10.3	429 870	4.7
Education	71 550	7.8	677 550	7.5
Health and community services	97 270	10.6	975 290	10.7
Other industries(b)	340 590	37.0	4 375 840	48.1
Total employed persons(c)	**921 300**	**100.0**	**9 089 750**	**100.0**

(a) Persons aged 15 years and over.
(b) Comprises: Mining, Construction, Wholesale, Accommodation and food services, Transport, postal and warehousing, Information, media and telecommunications, Financial and insurance services, Rental, hiring and real estate
(c) Components may not add to total due to rounding.
Source: ABS data available on request, ABS Census of Population and Housing 2006

2.24 EMPLOYMENT(a), by selected industry—Murray-Darling Basin—1996 and 2006



(a) Persons aged 15 years and over.
(b) Includes industries such as Mining, Construction, Wholesale etc.
Source: ABS data available on request, ABS Census of Population and Housing, 1996 and 2006

Employment in Agriculture

Agriculture is an important part of the Australian economy and in 2006 remained important in rural and regional areas such as the MDB. It is the third largest employer in the MDB, providing one in ten jobs (90,500 as reported in the 2006 Census). The MDB accounted for more than one-third (37%) of all agricultural workers in Australia (table 2.25).

Grain, sheep and beef cattle farming are the biggest agricultural employers in the MDB. In 2006, they accounted for nearly two-thirds (64%) of all people employed in Agriculture in the MDB. Horticulture and fruit growing employed 17% of the agricultural workers in the MDB while Dairy cattle farming employed 8%.

Employment in Agriculture continued

2.25 EMPLOYMENT(a), Agriculture industry—Murray-Darling Basin—2006

	Employed persons	*Proportion of total Agriculture*	*MDB as a proportion total Australian Agriculture*
	no.	%	%
Horticulture and fruit growing			
Plant, flower, seed growing	1 000	1.1	11.3
Vegetable growing	2 220	2.5	15.3
Grape growing	5 540	6.1	50.6
Apple and pear growing	970	1.1	45.5
Stone fruit growing	670	0.7	54.9
Other fruit growing	3 020	3.3	24.7
Total(b)	15 250	16.8	27.7
Grain, sheep and beef cattle farming			
Grain growing	10 680	11.8	59.0
Grain-sheep and grain-beef cattle farming	16 160	17.8	51.1
Sheep-beef cattle farming	6 170	6.8	46.8
Sheep farming	9 710	10.7	47.2
Beef cattle farming	14 660	16.2	30.2
Total(b)	57 780	63.8	43.5
Dairy cattle farming	6 920	7.6	31.5
Poultry farming	1 440	1.6	23.7
Other livestock farming	3 690	4.1	41.5
Other crop growing			
Cotton growing	1 700	1.9	87.6
Other crop growing	1 110	1.2	10.4
Total	2 810	3.1	22.2
Total Agriculture(b)	**90 520**	**100.0**	**36.8**

(a) Persons aged 15 years and over.

(b) Includes industries not further defined.

Source: ABS data available on request, ABS Census of population and Housing, 2006

New South Wales had close to half (48%) of the MDB's agricultural workforce with about one-third (30%) in Victoria. About 14% of the workforce were in Queensland and 8% in South Australia.

Across the MDB, the dominant agricultural industry employing people was Grain, sheep and beef cattle farming. New South Wales accounted for 58% of all Grain, sheep and beef cattle farming employment in the MDB (table 2.26). The majority of the Basin's Dairy farming employment was in Victoria (73%). Horticulture and fruit growing were also dominant in Victoria, New South Wales and South Australia (40%, 26% and 24% respectively). Water use and production by agricultural industries are discussed further in Chapter 3 and Chapter 4.

Employment in Agriculture continued

2.26 EMPLOYMENT(a), Agriculture industry, by Basin state—Murray-Darling Basin—2006

	NSW	*Vic.*	*Qld*	*SA*	*ACT*	*Total MDB*
Horticulture and fruit growing						
Number employed *(no.)*	3 910	6 210	1 340	3 700	90	15 250
Proportion of total Agriculture *(%)*	9.1	22.6	11.0	49.7	22.2	16.8
Proportion of total MDB *(%)*	25.6	40.7	8.8	24.3	0.6	100.0
Grain, sheep and beef cattle farming						
Number employed *(no.)*	33 510	13 220	8 220	2 640	180	57 770
Proportion of total Agriculture *(%)*	77.7	48.3	67.3	35.4	50.0	63.8
Proportion of total MDB *(%)*	58.0	22.9	14.2	4.6	0.3	100.0
Dairy cattle farming						
Number employed *(no.)*	870	5 040	500	510	—	6 920
Proportion of total Agriculture *(%)*	2.0	18.4	4.1	6.8	—	7.6
Proportion of total MDB *(%)*	12.6	72.8	7.2	7.4	—	100.0
Poultry farming						
Number employed *(no.)*	550	450	300	110	30	1 440
Proportion of total Agriculture *(%)*	1.3	1.6	2.5	1.5	8.3	1.6
Proportion of total MDB *(%)*	38.2	31.3	20.8	7.6	2.1	100.0
Other livestock farming						
Number employed *(no.)*	1 450	1 220	690	310	20	3 690
Proportion of total Agriculture *(%)*	3.4	4.5	5.6	4.2	5.6	4.1
Proportion of total MDB *(%)*	39.3	33.1	18.7	8.4	0.5	100.0
Other crop growing						
Number employed *(no.)*	1 390	540	820	60	—	2 810
Proportion of total Agriculture *(%)*	3.2	2.0	6.7	0.8	—	3.1
Proportion of total MDB *(%)*	49.5	19.2	29.2	2.1	—	100.0
Total Agriculture(b) *(no.)*	**43 090**	**27 380**	**12 230**	**7 460**	**360**	**90 520**

— nil or rounded to zero (including null cells)

(a) Persons aged 15 years and over.

(b) Includes industries not further defined.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

There is also some diversity of agricultural employment in the MDB across remoteness areas. For example, in 2006 more than half (53%) of the people employed in Agriculture within the MDB were in outer regional areas, and more than one-third (37%) were in inner regional areas.

People employed in Grape growing were mostly located in outer regional areas (75% of all employment in the Grape growing industry within the Basin). Other major agricultural industries where employment mainly occurred in outer regional areas were Grain growing (64%), Grain-sheep and grain-beef cattle farming (64%) and Cotton growing (51%). People employed in Apple and pear growing (62%) were mostly located in the Basin's inner regional areas, together with Dairy cattle farming (68%) and Poultry farming (63%).

Trends in agricultural employment

Between 2001 and 2006, overall employment in Agriculture within the MDB declined by 12%. The workforce decline may be partially attributed to the prolonged drought experienced over most of Australia since 2002 which has severely affected the agricultural sector. The drought has disrupted farmer's cropping programs and reduced breeding stocks and productivity, ultimately affecting the long-term sustainability of agricultural industries, country areas and families (BRS 2008).

Trends in agricultural employment continued

Employment change between 2001 and 2006 in some agricultural industries was more marked than others. Cotton growing had the largest decrease in employment (42%), followed by Plant, flower and seed growing (31%) and Grape growing (30%) (table 2.27). The only two industries that showed an increase in agricultural employment within the MDB were Beef cattle farming (16%) and Other livestock farming (10%).

2.27 CHANGE IN EMPLOYMENT(a), Agriculture industry—Murray-Darling Basin—2001 and 2006

	EMPLOYED PERSONS		CHANGE
	2001	*2006*	
	no.	no.	%
Horticulture and fruit growing			
Plant, flower, seed growing	1 450	1 000	–31.0
Vegetable growing	2 540	2 220	–12.6
Grape growing	7 950	5 540	–30.3
Apple and pear growing	1 180	970	–17.8
Stone fruit growing	840	670	–20.2
Other fruit growing	3 370	3 020	–10.4
Total(b)	19 210	15 250	–20.6
Grain, sheep and beef cattle farming			
Grain growing	10 720	10 680	–0.4
Grain-sheep and grain-beef cattle farming	20 120	16 150	–19.7
Sheep-beef cattle farming	8 410	6 170	–26.6
Sheep farming	10 690	9 710	–9.2
Beef cattle farming	12 650	14 660	15.9
Total(b)	63 900	57 770	–9.6
Dairy cattle farming	8 860	6 920	–21.9
Poultry farming	1 690	1 440	–14.8
Other livestock farming	3 360	3 690	9.8
Other crop growing			
Cotton growing	2 950	1 700	–42.4
Other crop growing	960	1 110	–15.6
Total	3 930	2 810	–28.5
Total Agriculture(b)(c)	**103 360**	**90 520**	**–12.4**

(a) Persons aged 15 years and over.
(b) Includes industries not further defined.
(c) Components may not add to total due to rounding.
Source: ABS data available on request, ABS Census of Population and Housing, 2006

Occupation

Table 2.28 shows the occupation distribution of employed people in the MDB and Australia in 2006. The most common occupation group was Professionals (17%), followed by Intermediate clerical, sales and service workers (15%). Farmer and farm manager was the occupation of 7% of employed people in the MDB compared with only 2% Australia-wide.

Occupation continued

2.28 EMPLOYMENT(a), by occupation—2006

	MURRAY-DARLING BASIN		AUSTRALIA	
	Employed persons	*Proportion of total employed*	*Employed persons*	*Proportion of total employed*
	no.	%	no.	%
Professionals	155 630	16.9	1 745 840	19.2
Intermediate clerical, sales and service workers	138 800	15.1	1 534 860	16.9
Trades persons and related workers	109 890	11.9	1 100 430	12.1
Associate professionals	106 780	11.6	1 089 360	12.0
Labourers and related workers	95 710	10.4	755 970	8.3
Elementary clerical, sales and service workers	81 470	8.8	857 620	9.4
Intermediate production and transport workers	70 690	7.7	734 480	8.1
Farmers and farm managers	66 880	7.3	175 130	1.9
Other managers and administrators	56 090	6.1	642 380	7.1
Advanced clerical and service workers	24 570	2.7	288 590	3.2
Total employed persons(b)	**921 300**	**100.0**	**9 089 750**	**100.0**

(a) Includes persons aged 15 years and over

(b) Includes occupation inadequately described or not stated

Source: ABS data available on request, ABS Census of Population and Housing, 2006

FARMERS IN THE MURRAY-DARLING BASIN

Over the past decade, Australian farmers have responded to globalisation of markets, a continuing decline in their terms of trade, new technologies, changing consumer tastes and attitudes, and emerging environmental concerns. Changes in government policies, such as the rationalisation of statutory marketing arrangements, together with reforms in water and land use, have also influenced the context in which farmers operate (PC 2005). This section contains data from the ABS Census of Population and Housing relating to people who reported their occupation was a Farmer or farm manager.

As shown throughout this publication, the MDB was an important agricultural centre in Australia in 2005–06. It covered 20% of Australia's agricultural area, contained 65% of Australia's irrigated land and contributed 66% of Australian agricultural water consumption.

In 2006, almost 67,000 people aged 15 years and over in the MDB reported that their occupation was Farmer or farm manager in the Census, accounting for 38% of Australia's farmers (table 2.29). The majority of the MDB's farmers (59%) reported that they either owned or operated their farm business. About 27% were contributing family workers and almost 13% were employees. The proportion of farmers classified as contributing family workers in the MDB (27%) was higher than the national level (24%).

In 2006, most farmers in MDB were male (71%); a similar proportion to Australia. The 19,000 female farmers in the MDB accounted for 37% of all female farmers in Australia. The majority (76%) of these were spouses or partners to males who were also farmers.

2.29 EMPLOYMENT STATUS(a), Farmers(b)—Murray-Darling Basin—2006

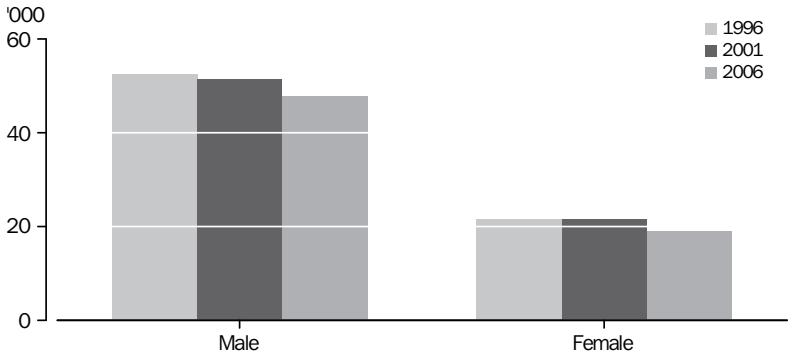
	MURRAY-DARLING BASIN			AUSTRALIA		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
Owner/managers(c) *(no.)*	28 330	11 350	39 680	74 170	31 690	105 850
Contributing family workers *(no.)*	11 310	6 560	17 880	26 070	16 320	42 390
Employees *(no.)*	7 790	1 130	8 910	21 750	3 920	25 670
Total farmers and farm managers *(no.)*	47 740	19 140	66 880	122 860	52 270	175 130
Total employed persons(d) *(no.)*	**496 810**	**424 490**	**921 300**	**4 911 130**	**4 193 050**	**9 089 750**
Farmers as a proportion of total employed *(%)*	9.6	4.5	7.3	2.5	1.2	1.9

(a) Persons aged 15 years and over.
(b) Includes farm managers.
(c) Owner managers of incorporated and unincorporated enterprises.
(d) Includes status in employment not stated.
Source: ABS data available on request, ABS Census on Population and Housing, 2006

Between 1996 and 2006, the number of people identifying themselves as a Farmer or farm manager in the MDB declined by 10% (from 74,000 to 67,000 as reported in the Census), while the number of people employed in all other occupations increased by 18% (from 888,000 to 921,000). Over the same time period, the number of male farmers in the MDB decreased from 53,000 to 48,000 (9%) while female farmers decreased at a slightly higher rate (12%) (graph 2.30). Much of the decline in the number of farmers occurred between 2001 and 2006, and may be attributed to environmental reasons such as the drought. However, other causes could be the restructuring of the industry, changes in commodity prices, health of farmers or their age.

FARMERS IN THE MURRAY-DARLING BASIN *continued*

2.30 NUMBER OF FARMERS (a)(b), by sex—Murray-Darling Basin—1996–2006



(a) Includes farm managers.
(b) Persons aged 15 years and over.

Source: ABS data available on request, ABS Census on Population and Housing, 2006

Age

Table 2.31 shows the age distribution of farmers in the MDB in 1996 and 2006. Over this period, the proportion of farmers in the 65 years and over range rose from 14% to 19% while the proportion of those aged 35 years or below declined from 18% to 13%. The proportion of farmers in the 50–64 year range also rose from 32% to 37% while the proportion of farmers in the 35–49 year range dropped from 36% to 31%. This change in population distribution was also reflected in the change in median age of farmers in the MDB, which increased from 48 years in 1996 to 52 years in 2006.

2.31 AGE DISTRIBUTION, Farmers(a)—Murray-Darling Basin—1996 and 2006

	1996		2006		CHANGE
	Number	*Proportion of total farmers*	*Number*	*Proportion of total farmers*	
	no.	%	no.	%	%
15–34 years	13 080	17.6	8 750	13.1	–33.1
35–49 years	27 060	36.4	20 680	30.9	–23.6
50–64 years	24 090	32.4	24 830	37.1	3.1
65 years and over	10 050	13.5	12 630	18.9	25.7
Total farmers(b)	**74 270**	**100.0**	**66 880**	**100.0**	**–10.0**

(a) Includes farm managers.
(b) Persons aged 15 years and over.

Source: ABS data available on request, ABS Census of Population and Housing, 1996 and 2006

Farmers also comprise a significant proportion of older workers. In 2006, nearly two-fifths (39%) of people employed and aged 65 years or over in the MDB were farmers. Farmers made up a smaller proportion of younger workers (only 3% of the 323,100 employed people aged 15–34 years) (table 2.32).

2.32 AGE DISTRIBUTION, Farmers and all other occupations—Murray-Darling Basin—2006

	15–34 YEARS		35–49 YEARS		50–64 YEARS		65 AND OVER		TOTAL	
	Number	*Proportion of total employed*	*Number*	*Proportion of total employed*	*Number*	*Proportion of total employed*	*Number*	*Proportion of total employed*	*Number*	*Proportion of total employed*
	no.	%	no.	%	no.	%	no.	%	no.	%
Farmers(a)	8 750	2.7	20 680	6.2	24 830	10.7	12 630	38.7	66 880	7.3
All other occupations	314 350	97.3	311 980	93.8	208 100	89.3	19 990	61.3	854 420	92.7
Total employed persons(b)	**323 100**	**100.0**	**332 670**	**100.0**	**232 930**	**100.0**	**32 610**	**100.0**	**921 300**	**100.0**

(a) Includes farm managers.
(b) Persons aged 15 years and over.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

Age continued

There are several factors that could have contributed to the skewed age profile of farmers compared to all other occupations. This includes fewer young people entering farming, possibly compounded by limited interest of young people in taking over the family farm, along with low exit rates at the traditional retirement age in response to reduced farm capital during poor seasons, or reduced market values during periods of low commodity prices (PC 2005).

Family

Family farming has been a traditional way of life in the MDB as in other parts of Australia. Farm succession from one generation to another reflects the confidence of younger generations to enter the industry and earn their livelihood from farming. There is evidence that young people are departing rural areas to seek further education and employment, particularly females (RIRDC, NWI and MDBC, 2007).

Farming is also characterised by an intimate connection between the farm as a place of work and career. The planning and management of succession by farming families is a concern for the whole agricultural industry (Barclay et. al. 2007).

Almost all farming families in the MDB are couple families (95%), a significantly higher proportion than non-farming families (82%). In 2006, over half (51%) of all farming families consisted of a couple with children living with them and a further 45% were couple families without children (table 2.33).

Family continued

2.33 FAMILY TYPE, Farming and non-farming—Murray-Darling Basin—2006

	Farming families(a)	*Non-farming families*	*Total families*
Couple families			
with children *(%)*	50.5	42.6	43.2
without children *(%)*	44.6	39.7	40.1
Total couple families *(%)*	95.1	82.3	83.3
One parent families *(%)*	4.0	16.2	15.3
Other families *(%)*	0.9	1.5	1.4
Total families *(no.)*	**40 470**	**491 130**	**531 600**

(a) Includes farm managers.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

Level of highest educational attainment

Changing farm practices have resulted in changes in the educational skill set required by farmers. Technological advancements, larger farms and greater awareness of environmental issues, have all meant that farmers are increasingly required to have a diverse set of skills (PC 2005).

Almost one-third of farmers (30%) in the MDB held a non-school qualification in 2006. This proportion was lower than for non-farmers of whom 47% held a non-school qualification (table 2.34). Half of the farmers with a non-school qualification had a Certificate level qualification; a further quarter had an Advanced diploma or Diploma level qualification.

2.34 LEVEL OF HIGHEST EDUCATIONAL ATTAINMENT(a)—Murray-Darling Basin—2006

	FARMERS(b)		OTHER OCCUPATIONS	
	Number	*Proportion of total persons*	*Number*	*Proportion of total persons*
	no.	%	no.	%
With non-school qualification				
Postgraduate degree	410	0.6	26 150	3.1
Graduate diploma and Graduate certificate	440	0.7	20 800	2.4
Bachelor degree	4 040	6.0	115 420	13.5
Advanced diploma and Diploma	5 030	7.5	66 180	7.7
Certificate	10 420	15.6	173 460	20.3
Total	**20 340**	**30.4**	**402 000**	**47.1**
Without non-school qualification	42 190	63.1	402 870	47.2
Total persons(c)	**66 880**	**100.0**	**854 420**	**100.0**

(a) Persons aged 15 years and over.

(b) Includes farm managers.

(c) Includes qualification not stated or inadequately described.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

The proportion of farmers holding a non-school qualification in the MDB was markedly higher in 2006 (30%) than in 1996 (24%). This increase is partially reflected in an increase in the proportion of farmers holding a Bachelor degree or higher level qualification

Level of highest educational attainment continued

(from 4% in 1996 to 7% in 2006). The proportion of farmers with a Certificate level qualification in the MDB increased by 2 percentage points between 1996 and 2006.

Work

In 2006, the majority of farming couples (82%) in the MDB had both the husband and wife working. Also, 39% of the farming couples in the MDB had both members of the couple engaged in farming. The proportion of couples where the husband was a farmer and the wife was not working, was about 18% (table 2.35).

2.35 COMPOSITION OF FARMER COUPLE FAMILIES(a)—Murray-Darling Basin—2006

	Number	*Proportion of total farmer couple families*
	no.	%
Couple both farmers	14 540	39.3
Husband farmer - spouse other occupation	14 550	39.3
Wife farmer - spouse other occupation	1 270	3.4
Husband farmer - spouse not working	6 470	17.5
Wife farmer - spouse not working	190	0.5
Total farmer couple families	**37 020**	**100.0**

(a) Includes farm managers.

Source: ABS data available on request, ABS Census of Population and Housing, 2006

The once traditional role of the 'farmer's wife' has changed over time. The 'farmer's wife' is now more likely to be identified as a joint farm manager or having an occupation separate from the farm business. These changing roles were driven by several factors which include; changes in the demographic composition and economic situation of farm family households, the growth of part-time employment, as well as the changes in the returns of labour, both in farming and in off-farm work (PC 2005).

Table 2.36 below shows the five most common non-farming occupations engaged in by female partners of farmers in the MDB. The most common occupation were Intermediate clerical, sales and service workers (e.g. general clerk, receptionist, carer, hospitality worker or a sales representatives etc.) (22%); Educational professionals (e.g. teachers) (14%) and Health professionals (11%).

Work continued

2.36 NON-FARMING OCCUPATIONS OF FEMALE PARTNERS(a)—Murray-Darling Basin—2006

	Number	*Proportion of total families*
Selected occupations	no.	%
Intermediate clerical, sales and service workers	3 160	21.7
Education professionals	2 100	14.4
Health professionals	1 640	11.3
Advanced clerical and service workers	1 400	9.6
Labourers and related workers	1 300	8.9
Total non-farming occupations(b)	**14 550**	**100.0**

(a) In farming couples.

(b) Includes other non-farming occupations not separately listed.

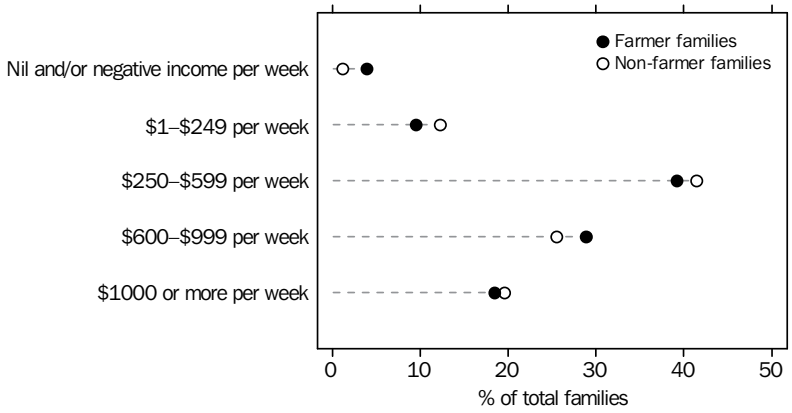
Source: ABS data available on request, ABS Census of Population and Housing 2006

Income

In 2006, the mean equivalised gross weekly household income of the 37,000 farming families (as reported in the Census) in the MDB was about $674 per week. This was similar to the mean equivalised gross weekly household income of all families in the MDB.

The income distribution of farming families was similar to non-farming families. About two-fifths of farming families (39%) earned between $250 and $599 per week, close to a one-third (29%) earned between $600 and $999, and nearly one-fifth (19%) earned $1,000 or more (graph 2.37). However, a greater proportion of farming households reported a negative or nil income (4%) compared with all families (1%).

2.37 MEAN EQUIVALISED GROSS WEEKLY HOUSEHOLD INCOME, Murray-Darling Basin—2006



Source: ABS data available on request, ABS Census Population and Housing, 2006

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