

The Rural Population Transformation and Education in Australia

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Abstract

This paper aims to relate the Australian data on rural-urban migration and economic change to education. It illustrates that there has been scant policy attention to the fundamental role of education in the changing nature of Australia's rural areas. Australia's rural policy has been firmly driven by the massive political power of the rural industries and mining lobbies; the voice of rural communities being lost to the winds. Governments should be alert to the needs of rural Australia. Issues of social justice and equity are being raised and heard as never before and ordinary Australians are increasingly aware of, and cherish, our rural communities, our rural image, and our sense-of-ourselves as sharing a rural heritage. Recent data show that regional Australia, in favoured areas, is prospering. A number of policy considerations are canvassed with the conclusion that leading-edge information and communications technologies are an essential prerequisite if regional Australia is to prosper and metropolitan areas and the south-east are to avoid undesirable crowding. Isolated rural areas are more problematic and a policy approach to a sustainable future for them is not immediately apparent to the author.

Introduction

It has been noted that the population of countries change over time with respect to their size, spatial distribution, rate of growth, age and sex structures, employment structures, participation in education, and so on. Australia is no exception. Since European settlement, the population has moved through successive development phases; from being an agrarian economy to now an urban, service-based one. This paper seeks to relate this transformation to the demographic history of Australia while reflecting on the policies of governments in several areas including the economy, rural communities, and education. Of particular interest is the recent focus on rural communities and the performance of rural and isolated people in education at secondary and higher education levels.

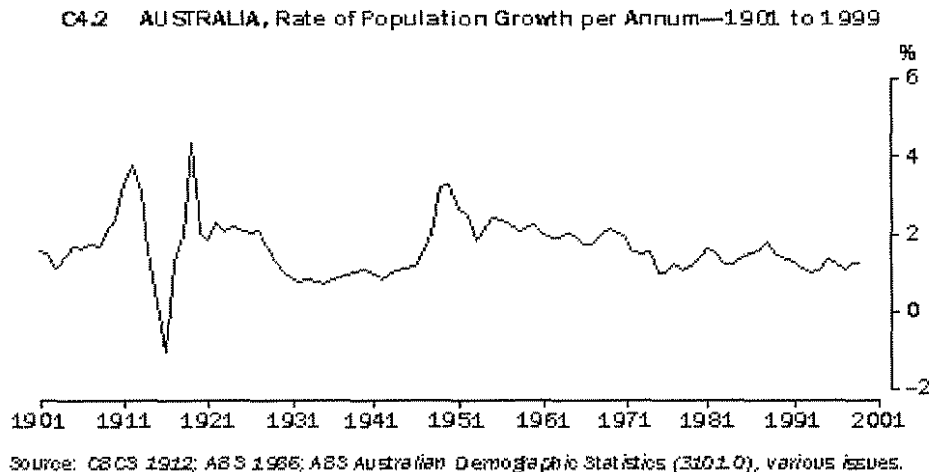
Australia has long been one of the most urbanised countries in the world and the latter half of the 20thC saw rapid and continuing rural-urban migration, with the most significant losses occurring in the remote, isolated and the least "attractive" areas of the continent. This coincided with the progression of the economy into the post-industrial phase when employment opportunities expanded in service and communications industries and declined in agriculture. To participate in this new economy, based, as it is, on a highly skilled and educated workforce, people need to access educational institutions and jobs that were largely urban-based. These forces accentuated the differences between rural and urban Australia and have, to an extent, created groups of urban "haves" and rural "have-nots". It was not until the 1990's that significant attention of government and the media was drawn to these issues. The

“farm crisis”; rapidly escalating rural suicide; differences in urban/rural educational participation and attainment; impact of drought; relocation of private professionals to urban areas; the closure of banks; withdrawal of government services from rural towns; and unstable world markets for primary products were among the factors that signalled to the nation that fundamental issues had to be addressed if all Australians were to get “a fair go” into the future.

The role of education in the transformation of the rural population is critical: access to quality, relevant education is a pre-condition if non-urban people are to participate equally in the economy and lifestyle of the nation.

Figure 1: Australia's Rate of Population Growth 1901 to 1999.

Source: In Hugo, 2001 p.2.



2. Population

Size and Growth

In 2000 Australia was the fiftieth largest country in the world by population having 19,080,800 people, growing more than five-fold from 3,788,123 in 1901. Significant transformation and change also occurred in the composition and spatial distribution of the population. Australia changed from a largely Anglo-Celtic to a multicultural society, and as Hugo, 2001, p. 1 says:

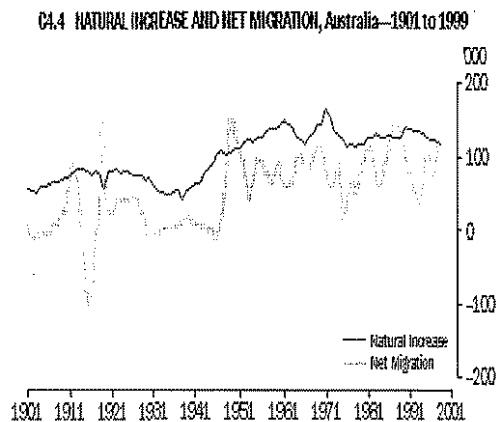
“...from a dominance of male breadwinners to a greater diversity of family and household types, from a country in which 41.3% lived in rural areas to one where 14% lived in such areas, and where the

proportion of workers in agriculture fell from 30.2% in 1911 to 4.3% in 1996 and those in manufacturing increased from 26.4% in 1901 to 28% in 1954 but then fell to 12.5% in 1998-99. Australia has gone from a situation in which there were 111 men to every 100 women but now there are 99, in which 25.0% of women working outside the home has risen to 54.4% and from when women had 3.8 children on average to an average now of 1.7."

Australia's population is growing at 1.2% annually which is close to the rate at which the world's population [1990-2000, 1.4%] is increasing and, significantly beyond that of other OECD countries, for example, North America 1.0%, More Developed Countries 0.3% and Europe 0.1%.

The following graph reveals contrasting rates of growth during the 20th Century. The two world wars and the depression of the 1930's are periods of low growth while last half of the century has recorded sustained, but slowing, growth [Hugo, p.2, 2001].

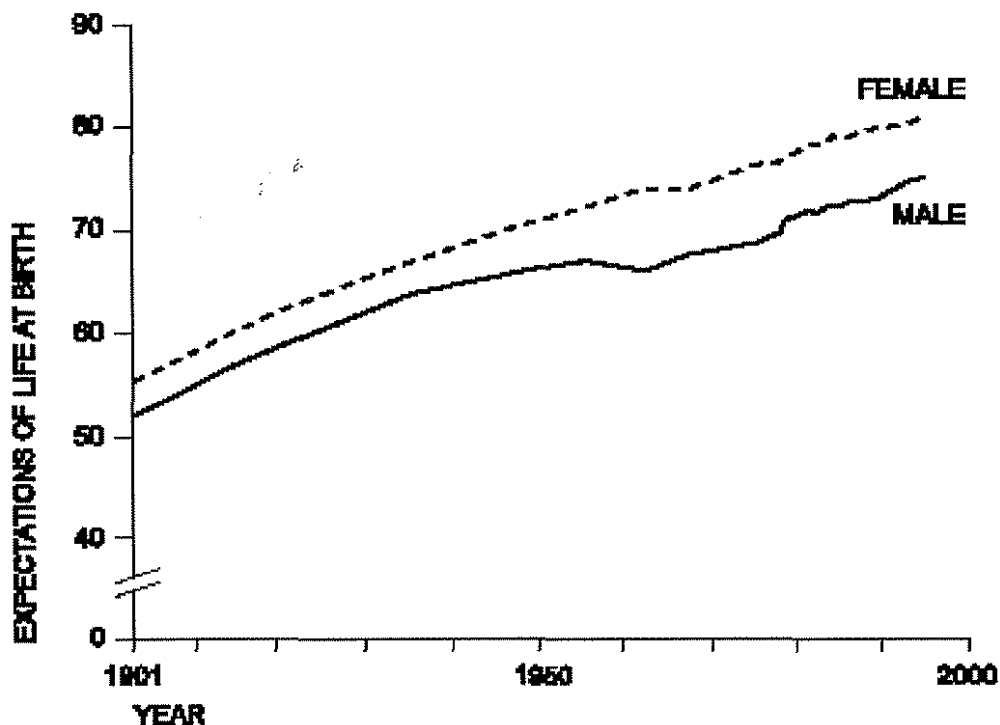
Figure 2: Natural Increase and Net Migration 1901 to 1999.



Source: CBCS Demography Bulletin; ABS 1996; ABS Australian Demographic Statistics (3001.0), various issues

Components of population growth include natural increase and **net migration**. The following graph shows that net migration has been quite variable with losses during the two wars and the depression and high gains before and after WW1 and after WW2. Natural increase rates rose noticeably in the early post-WW2 years topping off in the 1970's. Some 47% of the most recent one million added to the population was estimated to come from international migration.

C4.5 EXPECTATIONS OF LIFE AT BIRTH, Australia—1901 to 1998



Source: Hugo 1986; ABS Deaths, Australia (3302.0), various issues.

Figure 3: Life Expectancy at Birth 1901 to 1998 Source: In Hugo, 2001, p.3.

An examination of **mortality** rates produces significant insights into the current structure of the population. The following graph of life expectancy at birth shows that a baby girl born today can expect to live 23 years longer than one born in 1900 [58.4 years c/f approx. 82 years]. Infant mortality has dropped from 103.6 per 1000 births in 1901 to 5.3 in 1999. This transformation in life expectancy resulted from a number of things including improved sanitation, better diets, education, improved medicines and other therapies, and so on. Also, there have been changes in lifestyles as well as medical advances such as ICU's, bypass surgery, and better detection of heart disease. Such developments have had the effect of also increasing the life expectancy of older people.

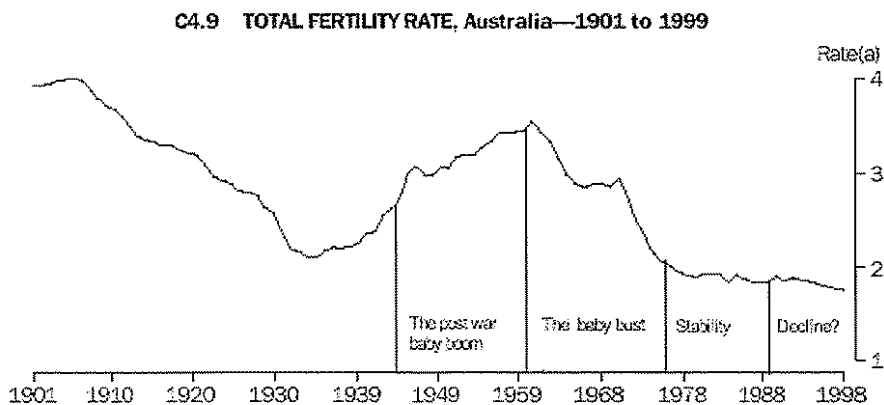
Variability in **Fertility** rates for a long while has been a concern for Australia. By 1901 the fertility rate had fallen by a third to four. This long term decline in Europe and the New World commenced in the 1870s bottomed out during the depression of the 30's and stayed low during WW2. The post-war "baby boom" rate rose to 3.6 [replacement rate is 2.1]. This resulted from delayed marriage and child bearing, almost universal marriage, reduced age of marriage, low levels of unemployment, available and affordable housing, reduced infecundity and the effects of immigration [p.5.] In 1961 the availability of oral contraceptives made an immediate impact on how many and when women had children. Fertility fell sharply. This was mainly due to a profound shift in the place and role of women

in Australian society. Large numbers of women engaged in paid employment outside the home and pursued higher levels of education. At the same time there was an increase in the age of marriage, divorce rates increased, as did de facto relationships. Barriers and disincentives to women entering the workforce were removed or reduced, for example, equal pay for equal work and progress toward equal employment opportunity.

Coincidental with increased female participation in the workforce has been:

- massive increase in female participation and completion of secondary school;
- similar dramatic increase in university [and other post-school] education;
- increased abortion rate [since law change in the 1970's];
- further decline in national fertility rate;
- age of mother at birth of first child has increased;
- increase in number of ex-nuptial births from approx 5% post-WW2 to around 28% in 2001; and
- since WW2, an increase in the number of women who remain childless.

In the period 1992 to 1999 the fertility rate fell from 1.89 to 1.74. This is a drop of 7.9% and, to some experts, suggests that Australia is entering a fourth post WW2 fertility phase that will see rates in line with Europe, approximately 1.4%.



(a) Average number of babies per woman according to the age-specific fertility rates for each year.

Source: OBCS Demography Bulletins; ABS Births, Australia (3301.0), various issues.

Figure 4: Fertility Rate 1901 to 1999

Source: In Hugo, 2001, p.5.

The age and sex composition of the Australian population has changed significantly since 1901. Not only was the total one-fifth the size, it was also younger and there were more males than females; now, the opposite is true. The age structure population pyramid is critical in measuring the demand for goods and services. The following series of images records the changing shape of the Australian population since 1901. The shaded areas represent the baby boom. The following observations can be made:

- in 1901, 35.1% of the population was below 15 years; this dropped to 20.7% in 1999;
- the over 65 years group grew three fold from 4% to 12%;
- the median age rose [variably] from 22.6 to 34.9 years;
- the post WW2 baby boom has significantly increased demand in age-specific activities like education, formation of households, number of workforce entrants and is about to greatly swell the numbers in retirement ages;
- in 1901 there were 110 females for every 100 males, now there are 99 due to: a] an increase in the difference between male and female life expectancy, and b] an increase in female international immigrants in the past 30 years; and
- as a result of female longevity, there are more aged females than males.

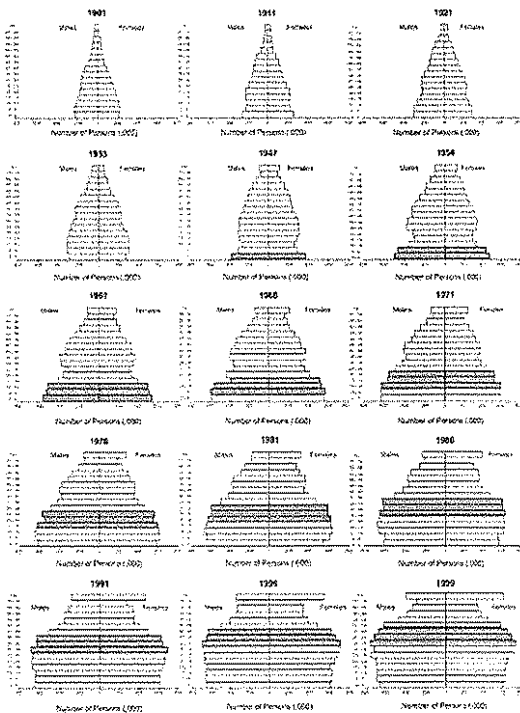


Figure 5: Age and Sex Structure of the Population 1901 to 1999. Source: In Hugo, 2001, p.15.

Urban and Rural Population Growth

Sher and Sher (1994, p.5) say, "...Australia has been a predominantly urban nation with a tiny number of large population centres, a large number of tiny population pockets, and remarkably few places in between."

While there is debate in Australia about the classification of "rural" and "urban" and also on issues of access, the following classification system is well accepted:

"The term non-metropolitan is used to refer to all parts of the country outside of centres with more than 100,000 inhabitants. Within these areas two types of differentiation are made. Firstly, in accordance with the Australian Standard Geographical Classification (ASGC) 'Sections of State' are recognised as follows:

- *Major Urban - urban areas (Urban Centres in the UC/L Structure) with a population of 100,000 and over.*
- *Other Urban - urban areas (Urban centres in the UC/L Structure) with a population of 1,000 to 99,999.*
- *Bounded Rural Locality - rural areas (Localities in the UC/L) with a population of 200-999 population.*
- *Rural Balance - the remainder of the S/T.*
- *Migratory - areas composed of offshore, shipping, and migratory CDs."*

[Hugo, 2000, p.2].

Table 1 shows that since 1966 that there has been a substantial increase in the number of country towns and cities from 450 to 728 in 1996. At the same time the proportion of population in these towns rose from 20.5% to 23.7%. Meanwhile the percentage of people living in rural areas [i.e. less than 1000] fell from 16.9% to 14%. Australia's non-metropolitan population [those living in settlements of less than 100,000 population] has grown faster than in metropolitan areas in the last 15 years or so [Hugo, 2000, p.5].

The above tends to obscure reality at the micro level. Country towns expanded by 44.1% between 1966 and 1996 and rural areas by 25.9%. There were many regional variations in growth [positive and negative]. As Hugo notes,

"...areas of population growth in regional Australia are strongly concentrated in certain areas, namely,

- *the areas surrounding metropolitan areas;*
- *along the well watered east-coast and south-west coast;*
- *some resort and retirement areas;*
- *some regional centres;*
- *along the Hume Highway linking Sydney and Melbourne; and*
- *some relatively remote areas, especially those with growing mining activities, tourism, and significant indigenous populations."*

On the other hand, there is also a spatial concentration of the areas experiencing population decline...

- *all the dry farming areas of the wheat-sheep belt such as in western Victoria extending through central-western New South Wales and Queensland, the south-east Eyre Peninsula and mid north of South Australia and the wheat-sheep belt of Western Australia;*
- *many pastoral areas in central Australia;*
- *certain mining areas such as Broken Hill; and*
- *declining industrial cities such as Whyalla in South Australia.*

These stark patterns point to a substantial degree of population variation within regional Australia."

[2000, p. 9].

The data indicate that it is in the highly accessible areas close to major cities that population growth levels exceed the national average. Generally, rates of growth decline with increasing distance from the large cities. "Centres with relatively rapid growth are clustered around the nation's largest cities and strung along the east and south-west coasts. On the other hand, the wheat-sheep belt area tends to have urban places that are experiencing decline. In the more remote areas there is a greater variation with both centres experiencing growth and those recording decline" [Hugo, 2000, p.9].

Settlement Size	Number of urban centres				Percentage of population			
	1966	1976	1986	1996	1966	1976	1986	1996
500,000 and over	5	5	5	5	56.0	57.0	54.5	53.1
100,000 – 499,999	4	6	7	8	5.4	7.5	8.2	9.2
75,000 – 99,999	1	1	1	2	0.8	0.6	0.6	1.0
50,000 – 74,999	5	6	7	6	2.4	2.5	2.8	2.1
25,000 – 49,999	5	13	11	25	1.5	3.1	2.3	4.6
20,000 – 24,999	11	6	22	17	2.1	0.9	3.1	2.1
15,000 – 19,000	17	19	17	14	2.5	2.5	1.9	1.3
10,000 – 14,999	19	22	29	37	2.0	2.0	2.2	2.5
5,000 – 9,999	61	73	83	86	3.8	3.9	3.8	3.5
2,500 – 4,999	103	115	127	165	3.1	2.9	2.7	3.2
2,000 – 2,499	50	56	71	64	1.0	0.9	1.0	0.8
1,000 – 1,999	178	181	252	312	2.2	1.9	2.2	2.5
Total urban	459	503	632	741	82.9	86.0	85.4	86.0
Total rural					16.9	13.9	14.5	14.0
Total population ^a					100.0	100.0	100.0	100.0
Total number ('000)					11,599	13,548	15,602	17,892

a/ Includes migratory population.

Table 1: Distribution of Population by Settlement Size, 1966, 1976, 1986 and 1996.

Source: Rowland 1982, ABS Censuses of 1986 and 1996 [In Hugo, 2000, p.5]

Now let us look more closely at the differences between the metropolitan and non-metropolitan populations [under 100,000 population] since it is the specific characteristics of structure and size that indicate to government the level of current and future demand for infrastructure and services such as education and health. The following figure of the age structures of the metropolitan and non-metropolitan populations in 1996 [a Census year] reveals the sharp contrast in the pre-school group [0-4 years] being significantly over-represented in non-metropolitan areas and under-represented in metropolitan areas. At the same time young adults [20-24 years] are under-represented. This is due to rural urban migration and higher fertility.

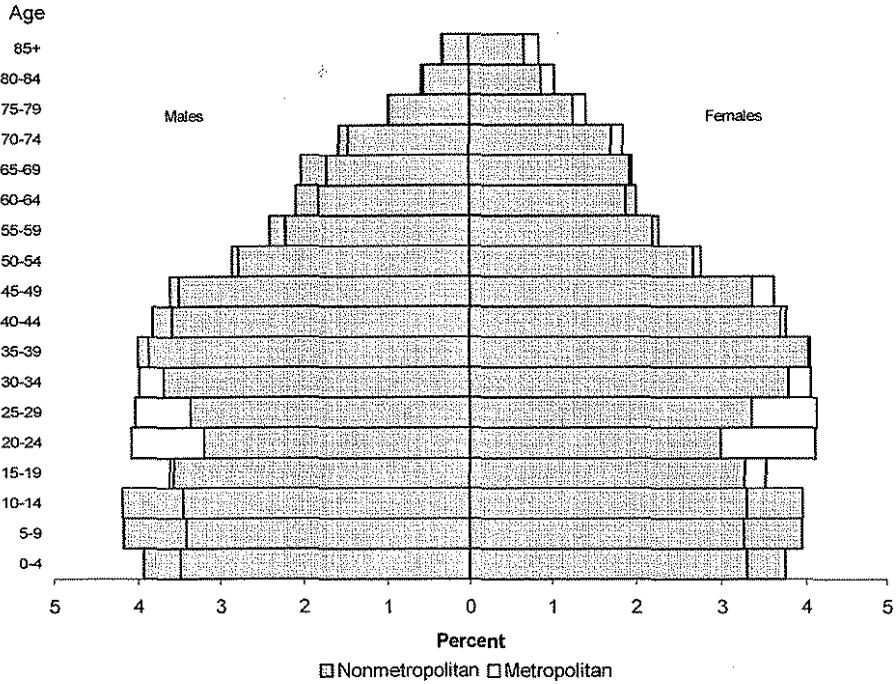


Figure 6: Australia: Age-Sex Composition of Metropolitan and Non-Metropolitan Population, 1996.

Note: Non-metropolitan are settlements with less than 100,000 population.

Source: ABS 1996 Census [In Hugo, 2000, p.24]

A major feature of the population is that of ageing. This has important implications for health and education service providers. While trends are similar in metropolitan and non-metropolitan areas there are differences: males 55-74 years are over-represented and females 55-64 years are under-represented in country areas. This is a result of retirement migration. It is anticipated that, over time, the proportion of those aged 65+ living in metropolitan areas will continue to increase; again retirement migration [See Table 2].

The oldest non-metropolitan populations are in two areas: those attracting retirees [coastal and other resort areas] and areas where out migration of young people results in the ageing of the population in the sheep-wheat belt, especially small towns and regional centres. The youngest populations are to be found in pastoral and mining areas, although some pastoral areas are also ageing.

Section of State	65+ Population				Total Population	Annual Rate of Growth 1981-1996	
	1981 No.	%	1996 No.	%		1996 %	65+ Population
Major Urban	919,096	64.2	1,357,519	63.1	62.7	+2.64	+1.33
Other Urban	358,562	25.1	559,501	26.0	23.3	+3.01	+1.58
Rural	151,743	10.6	233,875	10.9	14.0	+2.93	+1.31
Total	1,429,401	100.0	2,150,895	100.0	100.0	+2.76	+1.38

Table 2: Australia: Growth of Population 1981-1996.

Source: ABS Censuses 1981 and 1996 [In Hugo, 2000, p.25]

6. Indigenous Australians

Evidence suggests that Aborigines settled Australia approximately 40,000 years ago. The Aboriginal and Torres Strait Islander population is a small [2% in 1996] but important component of the Australian population that is growing at a much faster rate than the rest of the population. However, around half of this growth was due to an increased number of people who identify as being of Indigenous origin. Some 3.7% of the non-metropolitan population is Indigenous compared with 0.97% metropolitan. In both locations the Indigenous population lives in deprived social and economic circumstances [Bureau of Rural Sciences, 1999, pp.26-27]. The highest proportion of indigenous people is in the Northern Territory, the top of Western Australia, northern South Australia, western New South Wales, and western and northern Queensland. Table 3 compares the Indigenous population in a number of key areas with the rest of the population.

The Indigenous population is much younger than the general population, over half being under 20 years of age while only 6% were over 54 years of age, compared with 20% for the general population. Fertility is considerably higher as is infant mortality. Mortality rates are two and a half times that of other Australians, life expectancy is almost 20 years less and the incidence of diseases such as diabetes, eye disease and diseases of the circulatory system are significantly higher than the general population [Year Book Australia, 1994].

Characteristic	Aborigines and Torres Strait Islanders	Total Population
Expectation of life at birth (years) - male	56.9 ^a	75.9 ^b
Expectation of life at birth (years) - female	61.7 ^a	81.5 ^b
Infant mortality rate ^c	15.2	5.0
Percentage in major urban	30.3	62.7
Percentage aged less than 15	49.8	21.4
Unemployment rate	22.7	9.2
Percentage employed as managers, administrators, professionals	13.9	26.4
Percentage labourers and related workers	24.3	8.7
Percentage with diploma, degree or higher	4.2	16.5
Individual income \$15,548 or less per year	61.6	47.7
Individual income \$41,600 or over per year	2.7	10.1
Percentage of households living in public Rental accommodation	23.3	5.4

a 1991 to 1996 figures

b 1996 to 1998 figures

c 1998 figures

Table 3: Australia: Comparison of Various Demographic and Social Characteristics of the Aboriginal and Torres Strait Islander Population and Total Population, 1996

Source: ABS 1998a; ABS 1999 [In Hugo, 2000]

7. Economy

Since the early days of settlement agriculture played a key role in the Australian economy. In the 19th century and first half of the 20th century agriculture was the main portion of our Gross Domestic Product [some 80%] but this changed dramatically in the latter half of the century when it fell to 20% in 1952 and 3% in 1996 as shown in Table 4.

Year	% of GDP	% of exports
1952	20	80
1974	8	40
1996	3	30

Table 4: Agriculture as a Proportion of Australia's GDP 1952 to 1996

Source: After Swift, n.d., p.4.

The contribution of agriculture to exports fell from 80% in the 1950's to 28% in the 1990's. Employment in agriculture is currently around 5%, just half of what it was in the 1950's. Another feature in the last 50 years is the demise of the small farm. Small farms are giving way to larger and more viable economic farm units so that in 1996-97 about one tenth of farm businesses were responsible for almost half of farm business turnover and cash operating surplus [Pollard, 2001, p.4]. Since 1990 Australian wool production has fallen by 35%.

This shift from agriculture is reflected in the changing workforce structure during the last century. At the beginning of the 19th century agriculture accounted for 30% of male and 10% female employment; at the close of the century this had reduced to a total of 4.4%

As well, the age structure of persons employed in agriculture is significantly different from that of other industries. In 1996 the median age of persons employed in agriculture was 44 compared with 38 for those in all industries. There are fewer young people being employed in agriculture. In the 1950's, for example, 21% of males and 15% of females employed in agriculture were aged 20-29; by the mid-1990's these figures had fallen to 16% and 11% respectively [Pollard, 2001, p.6].

8. Employment

During the 20th Century there were profound changes to who worked outside the home and the nature of that work. This represents a significant shift in the role women play in Australian society today:

- in 1911 about one third of the workforce was employed in the agricultural sector, this fell to 4.3 % in 1996;
- manufacturing peaked in 1966 to about one third and then fell to the current 12.5%;
- tertiary employment rose from less than 50% in 1901 to around 80% today;
- the tertiary sector has been divided into two components and since 1947 the tertiary services component rose from 38.5% to 42.9% and the information services sub-sector from 15.9% to 38.4%;
- [15 years and over] female participation in the workforce grew from 25% in 1911 to 54.4% in 1999;
- male participation in the same period fell from 93% to 71.9%;
- part-time work has increased over the past few decades: 9.8% in 1966, 16.4% in 1980 and 28.3% in 1999; and
- 1966-1999 the number of full-time jobs increased by 47.9% while part-time jobs increased 383.7%.

Table 5 shows that in the period 1976-1996 there was an increase in the proportion of people employed in non-metropolitan areas. While the increased mobility of the workforce [commuting] obscures this circumstance somewhat, it appears that there is a convergence in the structure of the metropolitan and non-metropolitan workforce.

	Percent Change,		
	1976-81	1981-91	1991-96
Major urban	6.38	12.60	7.75
Other urban	15.72	11.72	11.19
Bounded rural locty	3.38	20.95	-8.41
Rural	11.7	15.54	2.76

Table 5: Australia: Changing Employment Patterns in Rural and Urban Areas, 1976-1996

Source: ABS 1976, 1981, 1986, 1991 and 1996 Censuses [In Hugo, 2000, p.30]

The following data from 1986-1996 provide a closer view of the nature and extent of changes in employment patterns in rural and urban Australia. Immediate attention is drawn to job losses where, although there was an increase of 17.7% in the total number of jobs there were declines of 11% in agriculture, 1.5% in manufacturing and mining, and 10.9% in utilities. On the positive side, there were gains of 30.9% in trade, finance, administration, retailing, and services and 13.5% in construction.

There are significant differences among the various rural and urban categories, the most noticeable being in rural where, along with the sharp decline in agriculture [-16.6%], was a decline in electricity and gas etc services [-8.2%]. There was, in non-metropolitan areas, long-term growth in mining and manufacturing [22.34%], construction [15.85%] and rapid increases in trade, finance, property, business services, public administration, defence, community services and recreation [37.05%]. This indicates that *convergence* is occurring between the workforce structures of metropolitan and non-metropolitan areas, i.e. the structures of the workforce are becoming similar.

These profound shifts in the structure of the rural workforce have implications for the provision of post school education opportunities and delivery infrastructure. If the rural urban migration stream of young adults is to be interrupted and rural and regional settlements sustained into the future it is clear that education and training opportunities should be made available *in situ*. The data below indicate that there is a deficit in rural areas of people with post-school educational qualifications except for skilled vocational qualifications.

		Total	Major urban	Other urban	Rural
Agriculture	1986	5.81	0.55	3.71	32.32
	1996	4.39	0.53	3.44	23.77
	Percent change in number	-10.98	+11.75	+13.00	-16.60
Mining and Manufacturing	1986	17.04	18.37	17.02	11.06
	1996	14.25	14.47	15.09	11.93
	Percent change in number	-1.54	-7.51	+7.90	+22.34
Construction	1986	6.81	6.58	7.67	6.63
	1996	6.56	6.25	7.39	6.77
	Percent change in number	+13.50	+11.60	+17.28	+15.85
Electricity, gas, water, transport storage, communication	1986	9.67	9.73	11.25	7.20
	1996	7.32	7.57	7.53	5.83
	Percent change in number	-10.92	-8.58	-18.56	-8.20
Trade, finance, property business services, public admin, defence, comm. service, recreation	1986	60.67	64.77	60.35	42.79
	1996	67.48	71.18	66.54	51.71
	Percent change in number	+30.93	+29.09	+34.14	+37.05
Total	1986	100.00	100.00	100.00	100.00
	1996	100.00	100.00	100.00	100.00
	Percent change in number	+17.73	+17.45	+21.67	+13.42

Source: ABS 1986 and 1996 Censuses

Table 6: Australia: Changes in Employment Patterns in Urban/Rural Categories, 1986-96.

[In Hugo, 2000, p.32]

The rural-urban educational disparity is particularly important at the secondary school level since participation in higher education requires, as a pre-requisite, successful, appropriate secondary school education. In 1998 82% of metropolitan children were in Year 12 while only 71% of non-metropolitan children were doing so. Rural students were even lower at 69% [Ainley, 2001, p.9]. The table below also shows that in 1996 56.9% of people in rural areas compared with 49.1% in cities had no post-school qualifications.

Qualifications	Urban areas		
	Rural areas	Towns	Cities
	%	%	%
Bachelor degree or higher	7.7	7.4	15.3
Diploma	6.0	5.7	7.4
Skilled vocational qualification	18.8	19.4	16.7
Basic vocational qualification	2.7	2.9	2.8
Level of attainment			
Inadequately described or not stated	7.9	8.8	8.7
No post-school qualifications	56.9	55.7	49.1
Total	100.0	100.0	100.0
Total families	'000	'000	'000
	645.9	1,060.0	2,877.1

(a) Refers to highest post-school educational qualification of primary family reference person.
Source: ABS 1996 Censuses

Table 7: Australia: Post-school Educational Qualifications (a), 1996

9. Education

Chris Sidoti, the Human Rights Commissioner who conducted the Inquiry into Rural and Remote Education in Rural Australia, had this to say as he examined the state of education throughout Australia at the end of the 20th century, "The future of regional Australia is dependent on an educated and skilled population" (1998). This is a view formed having considered the current and historical trends in education against the principles of human rights, one of which is the right of every [Australian] child to education without discrimination of any kind [Article 2.1] (HREOC, 2000, p.15). Australia ratified the UN Convention on the Rights of the Child, 1989, in 1990. In signing this Convention Australia has undertaken to "respect and ensure" the rights of every child.

At the same time [1999] the Australian Ministers of Education have endorsed the "*National Goals of Schooling*" (*Adelaide Declaration*) and so agreed "*Australia's future depends on each citizen having the necessary knowledge, understanding and skills and values for a productive and rewarding life in an educated, just and open society.*"

The findings of HREOC Inquiry of 1999 and 2000 paint a picture of rural decline, and of economic and social dislocation. Of course there are areas where this negative scenario is not so- some rural towns are thriving and filled with happy motivated and productive residents. Nevertheless, the inland, less hospitable regions face a future of uncertainty and for some, likely further decline and despair.

Across Australia from the 1960's to 1999, 200 rural Local Government Areas lost population, some more than 50%. Many of these rural-urban migrants went to regional "sponge" centres such as Townsville and Toowoomba in Queensland and Wagga Wagga in NSW (Alston, 1999, p.1). In Victoria, since 1982, the number of rural residents dropped by one third. This saw the withdrawal of banks, businesses, government offices and services as well as the closure of 178 rural schools in the period 1992-98. Accompanying this infrastructure and economic decline was the erosion of human and social capital, escalation in social pathology such as rural youth suicide, farm suicide, increasing health problems and so on. Clearly, there was a decline in all rural services and infrastructure that metropolitan residents take for granted in their daily lives.

At the end of the twentieth century a snapshot of the state of education in rural and remote Australia reveals:

- Retention rates in rural schools were considerably lower than urban schools. The Year 11 and 12 dropout rates were between 25% and 50% higher [HREOC, 1999]
- The lowest retention, participation and completion rates are in remote areas [HREOC, 1999; NFF, 1997]
- While rural people are around 30% of the population, they represent only about 19% of tertiary students. Isolated students are the most significantly under-represented: 4.5% of the population but only 1.8% of tertiary students [HREOC, 1999, p.7]
- Rural people are marginally more represented in technical and further education and complete at the same rate as urban people. However, they tend to be in lower level certificate courses. This is an effect of lower access and lack of appropriate courses for rural people.
- People employed in agriculture had rates of participation in post-secondary education some 20% below the overall workforce [Macknay, 1999, p.10]
- Fewer rural children are entering tertiary education: 25% in 1989 and 16% in 1997 [HREOC, 1999]
- Rural and isolated families and communities placed a lower value on education and its relevance than their urban counterparts [HREOC, 1999, p.7]
- Indigenous students: Significant numbers of indigenous students do not complete the compulsory years of schooling, for example, only 94.2% progressed from Year 8 to Year 9 1998. In 1994 over one third had not completed Year 10. All rates are much higher in remote and isolated communities. School retention to Year 12 is around 32% compared with 72% for all students. [HREOC, 1999, p.7]

While it would be interesting and instructive to flesh out the reasons for the above [for example, relevance of curriculum] it is sufficient to note the trends.

As the above figures demonstrate, a key to understanding the population transformation of Australia resides in the participation of vastly increasing numbers of people participating in higher education. The following table illustrates this phenomenon and indicates the massive implied investment by government in higher education infrastructure, along with a similar shift in the structure of the workforce [See Employment above].

Year	Australian Population	% Growth of Higher Educ	Higher Educ as % of Pop'n
1949	8 [million]	N=31753	0.89
1959	10	49%	0.47
1972	13	564%	1.4
1981	15	960%	2.2
1990	17	1428%	2.9
1999	19	2061%	3.6

Table 8: Participation in Higher Education Compared with Population, 1949-99.

Source: DETYA, 2001, p.5 [In Hugo, 2001, p.2]

10. Rural Policy

In 1994 Sher and Sher published a seminal article on rural Australia in which they concluded, "...there simply was not a full-blown, credible Australian rural development policy to be found..." and suggested that several myths have sustained government policy, viz. "...[that] rural Australians are peripheral to the nation... farmers are the 'alpha and omega' of rural Australia; and...whatever is best for the agricultural industry is the same as what is best for rural Australia and rural Australians as a whole" [p.3].

The authors then set about exploring a number of issues including the economy, social policy, employment/income, community and rural policy. They then pose [1994, p.29.] six goals to guide a rural policy:

1. *A growing rural population base;*
2. *An equitable share of the rewards derived from rural resources should be reaped by rural people and communities;*
3. *A growing and diversifying rural economic base;*
4. *A growing rural employment base;*
5. *An improved quality of rural life;*
6. *Stronger, more cohesive rural communities.*

In order to accomplish these goals by "...all the people, organisations, and agencies entrusted with the nation's rural development mission" it is suggested that four "arenas of action" are needed viz;

1. *Empowerment;*
2. *Environment;*
3. *Entrepreneurship; and*
4. *Education.*

Of education, Sher and Sher say, "...education is both the necessary precondition and the primary enabling strategy..." [1994, p.37].

Toward the end of the 1990's several significant *national policy statements and activities* occurred:

- The **Commonwealth Department of Education, Training and Youth Affairs** affirmed [in part] its role in relation to school education as being to "improve access to education for disadvantaged groups including Indigenous and isolated students."
- The **Ministerial Council on Education, Employment, Training and Youth Affairs**, established in 1994, established a number of task forces to investigate and report on a number of issues including: Indigenous education, and VET in schools and rural and remote education.
- The **Adelaide Declaration**, 1999, agreed to by Commonwealth, State and Territory Ministers of Education, stated a number of goals including, '*schools should be socially just so that students' outcomes from schooling are free from the effects of negative forms of discrimination and of differences arising from students' socioeconomic background or geographic location.*'

In 2001 the "National Framework for Rural and Remote Education was released [The Framework is available at www.edna.edu.au]. The Chair of the Taskforce noted that the Framework addressed the principles set out by the HREOC Inquiry into Rural and Remote Education [2000].

- The **National Aboriginal and Torres Strait Islander Education Policy** of 1989 was endorsed and reaffirmed by all Australian governments in 1995. The Policy aims to ensure Indigenous people the "... level of educational access, participation and outcomes achieved by non-Indigenous Australians." Further commitment in 2000 was forthcoming in the "National Indigenous English Literacy and Numeracy Strategy."
- The **Regional Australia Summit** convened by the Deputy Prime Minister in 1999, in a communiqué, stated, "*Government, industries and communities must invest significant ongoing resources in skilling, learning, education and training, and leadership to develop the human capacity of regional Australia. Distribution of these resources needs to be inclusive of all sectors of regional society.*"

To accomplish this, four key priorities were identified by the Summit:

1. *Ensuring access to quality/appropriate learning opportunities and to eliminate the barriers to participation;*
2. *Establishing life-long learning which embraces innovation and change;*
- 3 *Facilitate collaboration and partnerships between educational and training providers, industry, and the community to ensure quality education to regional and rural Australia; and*
4. *Supporting/encouraging local community planning and ownership of learning designs.*

• The **Human Rights and Equal Opportunities Commission** in 1999 and 2000 conducted an inquiry into rural education. Its 2000 report, "Recommendations: National Inquiry into Rural and Remote Education" [http://www.hreoc.gov.au/human_rights/rural/education/index.html] is of national significance and almost immediately prompted all Australian governments to a consideration of their policies, practices and performance. The Report is organised around an evaluation framework that asserts that,

Education must be:

- available;*
- accessible;*
- affordable;*
- acceptable; and*
- adaptable.*

[HREOC, 2000, pp.9-22.]

11. Implications for the Future

Overarching all considerations and recommendations for Australia is the reality that the States control policy in many areas- education in particular. The Commonwealth Government is virtually powerless to direct policy in education, health and a number of other areas. This is so despite the fact that taxation revenues that resource State education are distributed from the Commonwealth to the States.

Consideration of the foregoing description and analysis leads to the following recommendations when considering the future of rural Australia:

- A comprehensive, national, rural-communities policy, supported by the States, is needed;

- A focus on regional/rural centres is likely to best cater for the future growth and development of Australia;
- Access to state-of-the-art information and communications infrastructure is a prerequisite for effective delivery of educational services to rural areas and the development of tertiary service employment opportunities. This has implications for educating, attracting and retaining the professionals who provide these services;
- Immediate attention needs to be given to lifting the participation of rural secondary school youth in post-compulsory schooling [Years 11 and 12] to the equivalent of metropolitan youth, thus enabling entry into tertiary education and the consequent wide range of service and tertiary sector employment options;
- In achieving this, it will be necessary for government to ensure ready access to tertiary and other post-school education providers. This suggests further development of regional campuses, systems universities, web-based education, industry partnerships and community-based education as well as introducing policy to maximise the participation of rural youth in higher education. This implies the development of a resource allocation method which is sensitive to access issues [the HREOC recommended use of the Griffith Service Access Frame];
- Policy priorities should be directed to generating and expanding employment opportunities in the tertiary services sector, especially the Information and Communication areas. As never before, the relationship between work and physical location is challenged by the power and versatility of information and communications technology [The same can be said for education]. Government has the legitimate and central role to play in finding the resources and setting in place the policy and infrastructure to give effect to this;
- School curriculum in non-metropolitan areas should emphasise the value of place and avoid the urban-centric curriculum content which causes rural children to miss seeing value in themselves, their lives, their values and aspirations. This dictum also applies to universities. Medical schools, for example, can provide such a curriculum when training doctors in and from rural and regional areas;

- Curriculum should enable rural youth to aspire, with equal enthusiasm and commitment, to both local [rural] and national [urban] career pathways;
- Schools, and other educational institutions, in rural and regional areas should be key players in sustainable community and economic development. Depth of resource in human, social, cultural and economic capital is crucial to sustainable community development. Resourceful and resilient communities with strong local leadership develop economic and employment opportunities. Schools, as partners in these endeavours, can educate the young to see fulfilling futures locally as well as in larger urban areas.

12. Conclusion

People in rural and isolated areas of Australia do not participate in education similarly as those in urban areas. Rural Year 12 completion rates are lower than in urban areas and even lower still in remote and isolated areas. Although the participation of rural people in Technical and Further Education is proportionally a little higher than in urban areas, they graduate at the same rate but are likely to have undertaken lower level courses. The higher education participation rate of people from rural and remote areas is considerably lower than for urban students. As well, fewer rural people have tertiary qualifications. Harrison, for The National Farmers' Federation concludes, "The under-representation of rural and remote people in education outcomes is having negative effects on individuals, households, communities and the rural sector, including agriculture" [1997, p.42].

Without national consensus and commitment to ensuring that the people and communities of rural and remote Australia achieve access to the same levels and quality of education and employment opportunities as those in metropolitan Australia, it is likely that there will be continuing push-pull pressures on rural and isolated people to relocate to larger "sponge" regional centres and metropolitan areas. Perhaps this will be the reality in the foreseeable future, considering demographic structure and distribution of the population and the nature and structure of Australia and the economy. This leads to the proposition that the focus of national and state policy should fall onto regional centres. The implications for government intervention in infrastructure development may then assume manageable dimensions. At the same time, it is not clear to me how Australians in the most remote and isolated areas can enjoy a quality of life commensurate with the rest of Australia.

It is apparent that the transformation of the Australian economy and the response of the population have generated a number of issues to be addressed speedily. Among these issues are: the continuing

rural-urban drift, especially of school leavers; an ageing population; a rapidly aging farming workforce, and consequently, a distorted age structure; low education participation and completion rates; withdrawal of businesses, banks, government services and all public sector rural professionals; relocation of private professionals; and difficulty in attracting and retaining private and public sector professionals; and so on.

Against this unpromising backdrop there are towns and communities, districts and regions that are thriving. Some communities refuse to see a diminished future; and in many cases they have arrested, and even reversed, the negative trends. Local leadership, education, technology, partnerships, government support, creativity, social networks, enabling policy and legislation, and commitment and belief are among the characteristics that set apart these prospering communities.

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