Population hot spots and cold spots in regional Australia: socio-economic patterns

Scott Baum
Centre for Research into Sustainable Urban and Regional Futures,
University of Queensland
Brisbane
Australia

Paper presented at the 42nd European Regional Science Association Congress,
Dortmund, Germany
27th to 31st August 2002

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Introduction

Regional differences in population growth are often used as a measure of performance, with many analysts equating a growing population with positive outcomes and a declining population base with negative outcomes. In Australia for example, analysts such as Salt (2001) and Gray and Lawrence (2001) have discussed population growth and decline in such terms. Gray and Lawrence (2001: 95) make the comment that "population decline is, at one and the same time, a symptom, a cause and an effect of economic and social ill health", while at various places Salt (2001) equates population growth occurring on the coast with positive economic outcomes. Various others have also considered population growth and decline in such terms.

Equating population growth with positive socio-economic outcomes is not necessarily straight forward. Research by Baum et al. (1999) illustrated that population growth and decline per se was not highly correlated with the socio-economic performance of places, while a recent review of Salt's book by O'Connor (2001) points to the flawed logic in much of his analysis. At one point O'Connor (2001: 52) asserts that

> The population growth that Salt detects seems to have very little impact upon the real economy of the nation. It is also possible that, if a third culture is emerging on the coast, it is very different from the bright future that he portrays as 'suburbia by the sea'.

It is within the context of mixed socio-economic performance that this paper is set. It broadly describes regional population growth for Australia between 1996 and 2001 and suggests some possible typologies stemming from the combination of population data and socio-economic variables. The material presented in this paper is of necessity simplistic - based on a description of regions based on a limited number of variables- however it does form the starting point of a much more in depth analysis being planned for the release of the Australian Bureau of Statistics 2001 census[1]. This analysis will take localities across the Australian settlement hierarchy and, using multivariate statistical techniques analysis their socio-economic and demographic performance across a raft of variables. In what follows the current paper begins to explore possible outcomes. It begins by exploring those places that have

[1] This data is expected to be released in September 2002

gained population share (hot spots) and those that have lost population share (cold spots). The paper then explores three indicators of socio-economic performance and places these is the context of the hot spots/cold spots discussion. Finally, the paper turns to consider some broad typologies of change.

The regional pattern of population growth and decline in Australia has been characterised by a significant period of urbanisation and then counter-urbanisation and a gradual movement north of the population base. In 1933 the proportion of Australia's population classified as living in non-urban locations stood at one in three. By 1976 the proportion had fallen to one in seven. This de-ruralisation that occurred across Australia was the outcome of new economic and social geographies which acted as either push or pull factors drawing population to urban areas. The late 1970s witnessed a slow turn around as the share of populations located in metropolitan areas began to decline and since this time the process of population growth and decline has been a mix of metropolitan growth, especially in outer metro areas, growth in selected coastal amenity areas and a more recent phenomena, inner-city growth (Maher and Stimson 1994; Bell 1995; Hugo 1994).

At a broad level of the settlement hierarchy (table 1), big cities (populations over 1 million) account for the large share of the nations population (60.5 per cent) with cities with populations between 80 000 and 1 million accounting for a further 13.5 per cent. Cities and towns further down the settlement hierarchy account for smaller shares with small rural and regional places (less than 10 000) accounting for just under 10 per cent of the population. This distribution between cities and towns in the national settlement hierarchy is predicated to remain relatively stable with projections to 2011 producing comparable population shares.

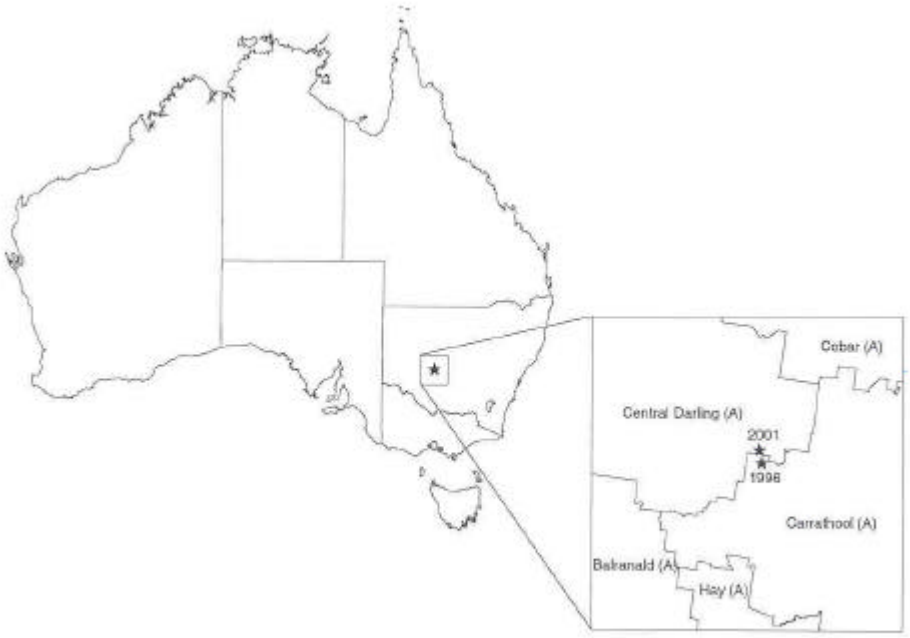
Table 1: Population of Australia by scale of human settlement, 2001- 2011

Settlement	Population 2001	Share of population 2001	Population 2011	Share of population 2011
Big cities (above 1 million) *Includes Sydney, Melbourne, Brisbane, Perth and Adelaide*	11 517 061	60.5	13 001 535	61.6
Other cities (80,000 to 1 million)	2 600 720	13.7	2 914 838	13.8
Large regional/rural (25 000 to 80 000)	1 281 895	6.7	1 348 681	6.4
Small regional/rural (10 000 to 25 000)	1 271 603	6.7	1 337 903	6.3
Other regional/rural (less than 10 000)	1 825 789	9.6	1 936 494	9.2
Remote centres (above 5 000)	225 004	1.2	251 048	1.2
Other remote	328 779	1.7	328 745	1.6
Australia	19 297 100	100.00	21 017 300	100.00

Source: Newton et al. 2001

While at an aggregate level population shares are remaining relatively static, there has been a gradual shift of population northward. The centre of population is a measure that describes the average longitude and latitude around which the population is distributed- there is an equal number of people in each direction (Salt 2001). At June 2001 the population centre of Australia was located in the far west of New South Wales in the Central Darling Statistical Local Area, which reflects the concentration of population in the south east of the continent especially in Sydney and Melbourne. During the 5 year period between 1996 and 2001 the population centre had moved approximately 6kms northward as population growth continued to dominate the northern state of Queensland (see figure 1).

Figure 1: Population Centre, Australia 1996 & 2001



Population hot spots and cold spots, 1996 to 2001

Regional population change is attributed to variations in patterns of internal migration, the destination choices of migrants and the rates of natural increase and of mortality. Past research has identified population hot spots as those places increasing their share of national population and population cold spots as those places decreasing their share of national population (Stimson, Shuaib and O'Connor 1998). The research presented here uses Australian Bureau of Statistics data for 1996 and 2001 to identify the population hot spots and cold spots across statistical subdivisions. The statistical subdivision is a spatial unit of measurement based on aggregated collectors districts, the smallest census spatial unit. For the purpose of identifying hot spots and cold spots the top and bottom 25% of regions are considered (see tables 2 & 3). Tables 2 & 3 show the total population for 1996 and 2001, the share of national population at these years and the change in the share of population over these two time periods.

The *hottest spot* in terms of population growth was the *Gold Coast City Part B*, part of the extended Brisbane-Sunshine Coast- Gold Coast conurbation in South East Queensland. Gold Coast Part B increased its share of population by 0.2 percentage points – from 1.71 per cent of the population to 1.92 per cent of the population a gain of 57 256 people. Other hot spots included *Brisbane City* - adjacent the Gold Coast-, the remainder of the Gold Coast region – *Gold Coast Part A- South Eastern Outer Melbourne, Inner Melbourne, Inner Sydney, Cairns City Part A*- a tourism centre in Far North Queensland- and *Tweed Heads*-located near the Gold Coast on the New South Wales border. The list of population hot spot regions contains places that represent the main population growth trends that have been occurring in recent years. These are coastal growth- usually located in non-metropolitan areas-, inner suburban growth and continued suburbanisation of metropolitan areas. The population hot spots are concentrated in Queensland and Western Australia, both of which have a greater share of hot spot regions than there share of regions across Australia (figure 2).

In contrast to these hot spots, the population cold spots illustrate a somewhat different pattern. The coldest spot is *Greater Hobart*, the region centred in the capital city of Tasmania. Greater Hobart reduced its population share by -0.165 percentage points loosing 1 330 people between 1996 and 2001. The Greater Hobart region is characteristic of a rust belt metropolitan area, witnessing in recent years economic and population decline. Other population cold spots include the regions comprising the Adelaide metropolitan area (eastern Adelaide, Northern Adelaide, Southern Adelaide and Western Adelaide)- another metropolitan rust-belt- together with remote inland regions such as the *Far West* region in New South Wales and rural/regional areas such as *Whyalla* in Northern South Australia. In contrast to the population hot spots, figure 2 illustrates that cold spot regions are most concentrated in New South Wales, South Australia, Tasmania and to a lesser extent Victoria and the Australian Capital Territory.

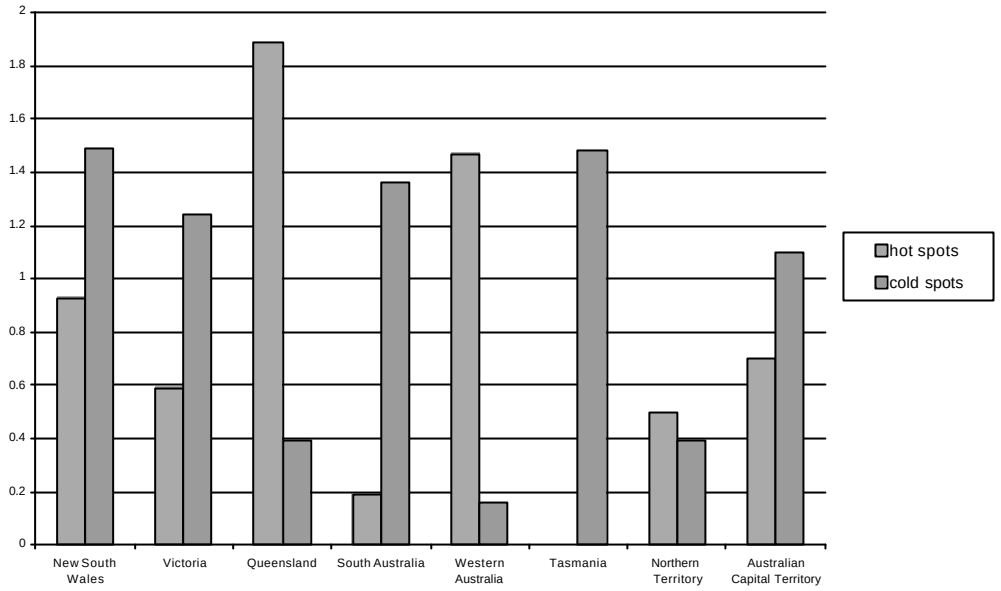
Table 2: population hot spots, 1996 to 2001

	Population 1996	Share of population 1996	Population 2001	Share of population 2001	Change in population share
Gold Coast City Part B	314962	1.71	372218	1.92	0.200
Brisbane City	824489	4.49	899604	4.63	0.140
South Eastern Outer Melbourne	191673	1.04	229869	1.18	0.139
Melton-Wyndham	116851	0.64	143086	0.74	0.100
Inner Melbourne	227066	1.24	258422	1.33	0.093
Sunshine Coast	156407	0.85	183011	0.94	0.090
Fairfield-Liverpool	313400	1.71	347222	1.79	0.080
South West Metropolitan	266987	1.45	295335	1.52	0.066
Gosford-Wyong	270405	1.47	297592	1.53	0.059
North Metropolitan	386279	2.10	419361	2.16	0.055
Hume City	120819	0.66	137391	0.71	0.049
Redland Shire	103082	0.56	118408	0.61	0.048
Inner Sydney	269869	1.47	294837	1.52	0.048
Hornsby-Ku-ring-gai	374476	2.04	404985	2.08	0.045
Palmerston-East Arm	13343	0.07	22618	0.12	0.044
Gungahlin-Hall	12684	0.07	21344	0.11	0.041
Pine Rivers Shire	106277	0.58	120015	0.62	0.039
Blacktown-Baulkham Hills	239818	1.31	261260	1.34	0.039
Northern Outer Melbourne	163431	0.89	179482	0.92	0.034
Vasse	26264	0.14	33969	0.17	0.032
Caboolture Shire Part A	96191	0.52	107793	0.55	0.031
Mornington Peninsula Shire	117800	0.64	130404	0.67	0.030
East Metropolitan	222644	1.21	241207	1.24	0.029
South East Metropolitan	301220	1.64	323421	1.66	0.024
Thuringowa City Part A	38825	0.21	45469	0.23	0.023
Cairns City Part A	106694	0.58	116789	0.60	0.020
Tweed Heads	39148	0.21	45236	0.23	0.020
Outer South Western Sydney	215877	1.18	231942	1.19	0.018
Mackay City Part A	61078	0.33	67689	0.35	0.016
Moreton SD Bal	146862	0.80	158296	0.81	0.015
Fitzroy	16278	0.09	20123	0.10	0.015
Beaudesert Shire Part A	23659	0.13	27766	0.14	0.014
Illawarra SD Bal	117116	0.64	126608	0.65	0.014
Gold Coast City Part A	41479	0.23	46273	0.24	0.012
East Ovens-Murray	16199	0.09	19485	0.10	0.012
East Barwon	50275	0.27	55141	0.28	0.010
Queanbeyan	37144	0.20	41071	0.21	0.009
Eastern Outer Melbourne	232704	1.27	247973	1.28	0.009
Fleurieu	29186	0.16	32598	0.17	0.009
Darwin rural	15405	0.08	17998	0.09	0.009
Ord	9394	0.05	11549	0.06	0.008
Central Western Sydney	279973	1.52	297738	1.53	0.008
Mildura Rural City part A	41130	0.22	44895	0.23	0.007
Far North SD Bal	104072	0.57	111365	0.57	0.006
King	37490	0.20	40571	0.20	0.005
Moore	12079	0.07	13574	0.07	0.004
Wide Bay Burnett	170234	0.93	180897	0.93	0.004

Table 3: Population cold spots, 1996 to 2001

	Population 1996	Share of population 1996	Population 2001	Share of population 2001	Change in share of population
Flinders Ranges	21232	0.12	19867	0.10	-0.013
Nth Central Plains	29692	0.16	28803	0.15	-0.013
South Wimmera	36418	0.20	35878	0.18	-0.014
Lower South East	43757	0.24	43615	0.22	-0.014
West Melbourne	404681	2.20	425476	2.19	-0.014
East Mallee	33433	0.18	32580	0.17	-0.014
Hunter SD balance	91766	0.50	94129	0.50	-0.015
Whyalla	24710	0.13	23111	0.12	-0.016
Hopkins	61472	0.33	61973	0.33	-0.016
Logan City	162877	0.89	169167	0.87	-0.016
Richmond-Tweed SD Bal	161394	0.88	167569	0.86	-0.016
Clarence	134867	0.73	139383	0.72	-0.017
Outer Western Sydney	301829	1.64	315947	1.63	-0.018
North Loddon	49056	0.27	48416	0.25	-0.018
West Central Highlands	134970	0.73	139234	0.72	-0.018
Far West	25344	0.14	23197	0.12	-0.019
Central Metropolitan	117962	0.64	121183	0.62	-0.019
Wellington Shire	41545	0.23	40275	0.21	-0.019
Darwin City	68889	0.38	69051	0.36	-0.020
Wollongong	255744	1.39	266666	1.37	-0.020
Central Macquarie	85351	0.46	85981	0.44	-0.022
Southern Tablelands (excl. Queanbeyan)	64031	0.35	63358	0.33	-0.023
Rockhampton	64518	0.35	63746	0.33	-0.023
Glenelg	38396	0.21	35962	0.19	-0.024
North Wimmera	52204	0.28	50426	0.26	-0.025
Northern Beaches	223460	1.22	231457	1.19	-0.026
Belconnen	85659	0.47	84944	0.44	-0.029
Burnie-Devonport	79175	0.43	77880	0.40	-0.030
Greater Launceston	98829	0.54	98437	0.51	-0.032
Darling Downs SD Bal	97898	0.53	97427	0.50	-0.032
Lachlan	65789	0.36	63353	0.33	-0.032
Canterbury-Bankstown	303097	1.65	314220	1.62	-0.033
Tuggeranong	90104	0.49	88778	0.46	-0.034
Northern Tablelands	65788	0.36	62865	0.32	-0.035
La Trobe Valley	75467	0.41	72943	0.38	-0.036
Moreland City	136733	0.74	137677	0.71	-0.036
Greater Dandenong City	131796	0.72	132096	0.68	-0.038
Northern Slopes	83099	0.45	80566	0.41	-0.038
Eastern Adelaide	218867	1.19	224194	1.15	-0.038
Eastern Suburbs	242046	1.32	247433	1.27	-0.045
Central Murrumbidgee	105986	0.58	103175	0.53	-0.046
Northern Middle Melbourne	245306	1.34	250029	1.29	-0.049
Northern Adelaide	334883	1.82	344497	1.77	-0.051
Eastern Middle Melbourne	414196	2.25	428302	2.20	-0.051
Western Adelaide	208691	1.14	209408	1.08	-0.059
Southern Adelaide	315996	1.72	322008	1.66	-0.064
Greater Hobart	195718	1.07	194388	1.00	-0.065

Figure 2: Hot spots and cold spots, state comparisons



Population hot spots and cold spots: socio-economic performance

As noted above the key to understanding the population distribution in Australia has been an acknowledgement of the population growth occurring in several distinct regions. However, the winners in terms of population growth are not always the winners in terms of other measures of the regional social structure. In order to describe the patterns of socio-economic performance across the regions three measures have been considered; unemployment rates, government transfer payment recipients and average household income. These provide us with some understanding of the regional socio-economic outcomes and provide a base for the more in depth analysis that is yet to be undertaken.

Unemployment rate

Figure 3 shows the Statistical Sub Divisions ranked by unemployment rate. Fitzroy, a region located in northern Western Australia recorded the highest level of unemployment at 15.6 per cent. This was over 2 times the national average and almost 10 times the rate of unemployment recorded in the Lakes region, which recorded the lowest level of unemployment-1.4%.

Concentrating on those regions with high unemployment, it is not surprising that both population hot spots and cold spots are represented. Of the population hot spots, 19 (40%) recorded unemployment rates greater than the average for Australia. Population hot spots with

high unemployment rates, include the hottest spot, *Gold Coast City B* which recorded the 17th highest level of regional unemployment (10.6 per cent), *Wide Bay Burnett*(10.6 per cent) and the *Sunshine Coast* (12.2 per cent) in Queensland, the *Fleurieu* region in South Australia (10.2 per cent) and *Tweed Heads* in New South Wales (12.6 per cent). Contrasting with these areas are population hot spots that have low levels of unemployment- 60 per cent of the hot spots had unemployment rates lower than the national average. The notable regions here include *Hornsby- Ku-ring-gai* in Inner northern Sydney which had an unemployment rate of 1.7 per cent, the second lowest rate across the country. Other population hot spots that have low unemployment include *Inner Sydney* (3.5 per cent) and *Blacktown-Baulkham Hills* (5.0 per cent) in New South Wales, *Inner Melbourne* (5.6 per cent) in Victoria and *Pine Rivers Shire* (4.6 per cent) in Queensland.

Turning to consider the population cold spots, there is a large number of regions who have lost population and are also recording high rates of unemployment. Of the regions identified as being population cold spots, 32 per cent recorded unemployment rates greater than the national average. The coldest spot- *Greater Hobart*- recorded the 32nd highest unemployment rate (9.6 per cent) while other metropolitan regions- *Western Adelaide* (9.7 per cent) and *Northern Adelaide* (9.5 per cent) – also recorded high rates of unemployment. Non metropolitan regions such as *La trobe Valley* (13.3 per cent) in Victoria and *Whyalla* (13.3 per cent) in South Australia were also characterised by both population loss and high unemployment. In contrast, the largest proportion of population cold spots recorded below average unemployment. Examples included *Northern Beaches* (3.0 per cent) in suburban Sydney, *North Wimmera* (2.7 per cent) in Victoria and *Tuggeranong* (4.3 per cent) in the Australian Capital Territory.

Government transfer payments

Figure 4 ranks the Statistical Sub Divisions by the percentage of residents receiving government transfer payments (Centrelink clients). The *Far West* Region (New South Wales) recorded the highest proportion of Centrelink clients (44.6 per cent), almost four times that of the lowest places (*Hornsby- Ku-ring-gai;* New South Wales) which recorded only 10.5 per cent. The average for Australia was 27.8 per cent. Again the inclusion of both population hot spots and cold spots at both ends of the distribution is not unexpected. Of the total hot spots, 16 or 34 per cent recorded above average proportions of Centrelink clients. Considering these areas, place including *Tweed Heads* (NSW), *Fleurieu* (SA), *Sunshine Coast*, *Gold Coast part A & B* and *Wide Bay-Burnett* (Queensland) all had above average proportions of populations receiving government transfer payments. Particularly high proportions were recorded in

Tweed Heads (43.5 per cent), the *Fleurieu* region (38.1 per cent) and *Wide Bay-Burnett* (39.8 per cent). As with unemployment rates, several areas that recorded increases in their share of national population, recorded low proportions of Centrelink clients. These places included *Hornsby- Ku-ring-gai* (10.5 per cent), *Gungahlin-Hall* on the outskirts of Canberra (12.7 per cent), *Pine Rivers Shir*e in outer metropolitan Brisbane (18.9 per cent) and *Eastern Outer Melbourne* in Victoria (21.0 per cent).

Of the total places identified as population cold spots, 29 or 61.7 per cent had shares of Centrelink clients greater than the average. These include *Whyalla* (40.1 per cent), *Western Adelaide* (38.3 per cent), *La Trobe Valley* (35.4 per cent) and *Northern Adelaide* (33.4 per cent). Considering those places with low rates of government transfers, *Northern Beaches* in Sydney (14.4 per cent), *Tuggeranong* (14.5 per cent) and *Belconnen* (17.1 per cent) in the Australian Capital Territory and *Darwin City* (19.5 per cent) in the Northern Territory all had low rates of government transfers.

Average Household Income

The final socio-economic status measure included here is average household income, and again population hot spots and cold spots are represented across the distribution (figure 5). The region with the highest average household income was *Lower Northern Sydney*, a suburban region with ties global economic activity. The average for Lower Northern Sydney was AUD 53 371.00, double that of the region with the lowest average household income- *West Mallee* in rural Victoria which recorded an average income of AUD 25 139.00. The average for Australia was AUD 32 900.00.

Twenty of the regions (42.5%) identified as population hot spots recorded average household incomes above the Australian figure. Population hot spots recording high levels of income include *Hornsby- Ku-ring-gai* (AUD 51 100.00) and *Blacktown-Baulkham Hills* (AUD 37 026.00) in suburban Sydney, the *inner Sydney* region (AUD 40 549.00), the *inner Melbourne* region (AUD 45 540.00) and *Gungahlin-Hall* in Canberra (AUD 37 949.00). Hot spot regions at the lower end of the income distribution include *Wide Bay Burnett* (AUD 27 406.00) and the *Sunshine Coast* (AUD 29 231.00) in Queensland, the *Fleurieu* region (AUD 27 841.00) in South Australia and *Tweed Heads* (AUD 28 364.00) in New South Wales, near the Queensland border.

Similar dispersal of population cold spots is also evident with 11 of the regions (23.4%) designated as cold spots recording above average levels of income. Cold spots recording high average incomes include *Whyalla* (AUD 35 059.00) in Northern South Australia, *Wollongong*

(AUD 36 125.00) in regional New South Wales, and *Eastern Suburbs* (AUD 48 332.00) and *Northern Beaches* (AUD 43 671.00) in suburban Sydney. Contrasting with these areas are cold spots that recorded low levels of income including *North Wimmera* (AUD 26 482.00), *West Mallee* (AUD 25 139) and *South Wimmera* (AUD 27 931.00) in regional Victoria and *Lachlan* (AUD 28 520.00) in the central west of New South Wales.

From the above it is clear that population growth and decline are not necessarily associated with socio-economic performance. While some places with growing population appear to have strong performance on the measures used here, others do. These issues are taken up further in the following section that presents several possible typologies of change.

Population hot spots, cold spots and socio-economic outcomes: broad typologies of growth and change

Several authors including Salt (2001), Baum et al. (1999) and Beer et al. (1994) have outlined broad typologies focusing on growth and decline and /or socio-economic performance at various levels of spatial disaggregation. The population hot spots and cold spots identified above can be grouped into several broad categories, these are:

- Suburban growth regions;
- Inner city growth regions;
- Coastal growth regions;
- Rural/ remote growth regions;
- Urban decline regions;
- Inland decline regions;
- Coastal decline regions.

The regions contained in each of these categories are outlined in the tables below, which also present location quotients for unemployment rate, the proportion of Centrelink clients and the average household incomes.

Suburban growth regions (table 4)

The outstanding characteristic of changes in the Australian settlement hierarchy has been the role that urbanisation and in particular suburbanisation has played. Suburban growth, mainly in outer metropolitan regions, remains an important part of the changing population dynamics of Australian cities. Between 1996 and 2001 regions identified as suburban growth regions included *Eastern Metropolitan* and *South Eastern Metropolitan* in Perth, Western Australia, *Hume City* and *Melton-Wyndham* in Melbourne *Gungahlin-Hall* in Canberra, *Gosford-Wyong*

in Sydney and *Pine Rivers* in Brisbane. These regions represented 42.5 per cent of the hot spots identified and represented a variety of outcomes. To a significant extent these regions represent what politicians and the media like to refer to as 'middle Australia'. While many have below average rates of unemployment and Centrelink clients, they also record below average levels of average incomes. Earlier population census data (1996) illustrates that many of these regions have significant proportions of what Robert Reich (1991) refers to as routine production workers and in-person service workers, had high proportions of people purchasing their homes and traditional nuclear families (ABS 1998). Some of these places are what Baum et al. (2002: 348) characterises as a community of battlers- strictly speaking 'neither vulnerable nor affluent but in between: average". Over and above these places there are also regions such as *Hornsby-Ku-ring-gai* that are characterised by ties to the global economy. Among these areas are those places that Baum et al. (1999; 2002) referred to as communities of the global economy. They are places that during the current era of globalisation and economic restructuring have emerged as localities where the labour force is most strongly tied to Australia's integration into the global economy, with their workers heavily involved in the 'symbolic analyst' occupations in the producer services sector. These places are where many of the movers and shakers of the new information economy live, and this has become particularly marked over recent decades. Moreover these places have high levels of human capital and as such fit into what Clarke and Gaile (1998) have referred to as 'new geographies of human capital', and are part of what Sassen (1991) refers to as the development of 'a new social geography in cities' linked to the global economy.

Table 4: Suburban growth regions

Region	State	Unemployment rate	Centre link clients	Average incomes
Eastern Metropolitan	Western Australia	0.83	0.89	0.98
South Eastern Metropolitan	Western Australia	0.83	0.89	0.99
Northern Metropolitan	Western Australia	0.77	0.83	1.01
South Western metropolitan	Western Australia	1.1	0.9	1.06
Eastern outer Melbourne	Victoria	0.64	0.75	1.02
Northern outer Melbourne	Victoria	0.89	0.80	1.01
Hume city	Victoria	1.3	0.98	0.98
Melton-Wyndham	Victoria	1.01	0.78	1.01
South East Outer Melbourne	Victoria	0.78	0.75	0.99
Queanbeyan	Australian Capital Territory	0.81	0.80	1.1
Gungahlin-Hall	Australian Capital Territory	0.81	0.45	1.15
Outer south west Sydney	New South Wales	1.08	0.80	1.05
Gosford-Wyong	New South Wales	0.98	1.16	1.00
Blacktown-Baulkham Hills	New South Wales	0.70	0.77	1.12
Central West Sydney	New South Wales	0.67	0.76	1.05
Hornsby-Ku-ring-gai	New South Wales	0.23	0.37	1.55
Fairfield-Liverpool	New South Wales	1.04	1.07	0.97
Pine rivers	Queensland	0.64	0.66	1.01
Beaudesert	Queensland	0.86	0.78	0.91
Redland	Queensland	0.71	0.84	0.99
Moreton	Queensland	1.21	1.07	0.86

Inner city growth regions (table 5)

In contrast to suburban growth regions and representing a reversal of trends in many metropolitan areas has been the growth of several inner city regions. This growth has been significant across Australia (Baum et al 1999; Stimson et al. 2000) and illustrates that while suburbanisation has been the dominant form of metropolitan growth, the doughnut effect of inner city depopulation has diminished. The process of social upgrading occurring in these regions is associated with the phenomena referred to as ‘gentrification’ (Ley 1986) and is associated with changing amenity and lifestyle, including the growth of the cafe society in the

inner suburbs. These transforming inner city localities are becoming the sought after living environments of yuppies, the dinks and the empty nesters. Within the hot spot regions identified here two- Inner Sydney and *Inner Melbourne*- were readily identifiable as inner city regions under going population change. The social characteristics of these places are also illustrative of the inner city change occurring across all metropolitan regions with low levels of unemployment and Centrelink clients and high levels of average income. Early census material also reveals that these regions had low proportions of nuclear families, low proportions of homeowners and an above average share of renters (characteristics of the so-called yuppies and dinks) and high levels of human capital and Reich's (1991) symbolic analysts.

Table 5: Inner city growth

Region	State	Unemployment rate	Centre link clients	Average incomes
Inner Sydney	New South Wales	0.49	0.83	1.23
Inner Melbourne	Victoria	0.78	0.81	1.38

Coastal Growth Regions (table 6)

The growth typology most often commented on within the Australian media and in general day-to-day life has been the growth of non-urban coastal regions. Salt (2001) refers to this as the third Australian culture. He suggests that

> …in the later part of the 20th century, Australians forged a new territory within their island continent-the beach. Australians [have] began clustering in large numbers along the coast and in most parts of the well-watered edges of the continent: along the eastern seaboard, across the Fleurieu Peninsula, and along the length of the south west cape of Western Australia (Salt 2001:2).

The coastal hot spot regions identified here are found in Western Australia (*Moore, King*), South Australia (the *Fleurieu Peninsula region*), Victoria (*East Barwon*, and *Mornington Peninsula*) and in Northern New South Wales and Queensland (*Gold Coast, Sunshine Coast, Wide Bay Burnett and Tweed Heads*). The growth of these areas is part of the sun-belt growth phenomenon that has been evident for some time and which has been linked to several factors including tourism development, people relocating with retirement and young people seeking a change in life style. As one government report claimed:

> … the benefits associated with living in coastal areas are driving a 'Sea Change' effect, in which many of those who can, choose to leave the cities, to escape to a

simpler, less hectic life. They are drawn by the high quality lifestyle, which offers everything available in the urban centres, plus the natural environment, perceived lack of crime and personal security issues, and lower housing costs (Main Roads and Queensland Transport 2000: 67).

The outcomes of this sun belt growth is often considered in positive terms. It is true that such growth is associated with growth in jobs, but these are usually in consumption based industries (Restaurants, Retail and Leisure) rather than in any significant economically productive sector-that is economic growth is driven by consumption rather than production. It is equally true that some of the coastal regions in this group such as the Gold coast and sunshine coast and Cairns are generally prospering, thanks primarily to tourist niche markets. The negative impacts of this growth are reflected in the fact that many of these places are characterised by high rates of unemployment and high proportions of Centrelink clients and below average levels of income. Other published research (Baum et al. 1999; O'Connor 2001) also points to the negative impacts of much of this sun belt growth, and as O'Connor (2001: 52) asserts, "it seems that fast population growth in coastal municipalities is not an insurance against low income and high unemployment for the towns within them".

Table 6: Coastal Growth regions

Region	State	Unemployment rate	Centre link clients	Average incomes
Moore	Western Australia	0.62	0.82	0.93
King	Western Australia	0.93	1.08	0.84
Fleurieu	South Australia	1.44	1.37	0.84
East Barwon	Victoria	1.01	1.04	0.99
Mornington Peninsula	Victoria	0.90	1.06	1.03
Gold Coast City B	Queensland	1.22	1.05	0.92
Gold Coast City A	Queensland	1.50	1.13	0.90
Sunshine Coast	Queensland	1.72	1.24	0.88
Mackay	Queensland	0.80	0.66	1.13
Thuringowa	Queensland	1.01	0.70	1.00
Wide Bay Burnett	Queensland	1.49	1.42	0.83
Cairns	Queensland	1.07	0.81	0.95
Tweed Heads	New South Wales	1.77	1.56	0.86

Rural / Remote growth (table 7)

The final typology of growth relates to a handful of rural and remote regions located in Western Australia, Queensland and Victoria. Specifically, remote regions including *Fitzroy* and *Ord* in Western Australia, the *Far North* region in Queensland and *Mildura Rural City*

and *East Ovens* in Victoria recorded increasing shares of population between 1996 and 2001. It is not at all clear what processes is driving growth in these areas. All of the regions record above average unemployment levels and the majority record high proportions of Centrelink clients. The two remote Western Australian regions record above average rates of income while the remaining regions all recorded below average incomes.

Table 7: Rural / remote growth regions

Region	State	Unemployment rate	Centre link clients	Average incomes
Fitzroy	Western Australia	2.20	1.07	1.05
Ord	Western Australia	1.78	0.89	1.07
Far North	Queensland	1.23	1.02	0.88
Mildura Rural City Part A	Victoria	1.10	1.09	0.84
East Ovens Murray	Victoria	1.52	1.32	0.32

Over and above these regions witnessing increasing shares of population are those categories of places that have seen a decline in population share.

Inland Australia decline (table 8)

The processes of change in inland Australia can be characterised in some regions by declining population and socio-economic performance that is tied to inland Australia's inability to connect to the larger global economy in a meaningful way. In a recent publication Gray and Lawrence (2001) point to these issues. Quoting the 2000 State of the Regions report they assert

> The non-metropolitan regions of Australia are being denied most of the benefits of a more open globally linked economy. Parts of Sydney and Melbourne are now much more like their counterparts in Paris, London or New York than they are to other Australian suburbs or cities. We now have spatial locations which can be labelled global Sydney or global Melbourne-rich inner suburbs where there is full employment well paid workers and which thrive because of the presence of knowledge based economic activities. By contrast, many of Australia's rural based regions are experiencing a vicious cycle of low or declining population growth, low investment, low incomes and high unemployment (Gray and Lawrence 2001: 102).

These declining inland regions are located in the dry farming of the wheat-sheep belt of western Victoria, central western New South Wales and Queensland, mid-north South Australia and parts of Western Australia and have been the losers in population terms for some time. The places identified here include *Whyalla* in South Australia, *Darling Downs* and

Rockhampton in Queensland, the *Northern Slopes* and *Northern Tablelands* region in New South Wales and *South Wimmera* and *LaTrobe Valley* in Victoria. A characteristic of many of these regions is the above average rate of unemployment and/or Centrelink clients and the below average level of income. Many of the smaller communities within these regions have been hit by cuts in government and private sector services that have hastened the spiral of decline even further- an example of this has been the recent withdrawal of mainstream banking services from many of these places.

Table 8: Inland decline regions

Region	State	Unemployment rate	Centre link clients	Average incomes
Whyalla	South Australia	1.87	1.43	1.07
Flinders Ranges	South Australia	1.38	1.22	0.90
Darling Downs	Queensland	0.80	0.99	0.84
Rockhampton	Queensland	1.35	1.15	0.96
Far West	New South Wales	1.32	1.60	1.00
Central Murrumbidgee	New South Wales	0.91	1.01	0.94
Lachlan	New South Wales	0.73	1.17	0.86
Southern Tablelands	New South Wales	0.81	1.06	0.93
Central Macquarie	New South Wales	0.81	1.15	0.93
Northern Slopes	New South Wales	0.91	1.21	0.92
Northern Tablelands	New South Wales	0.95	1.18	0.88
North Central Plains	New South Wales	0.89	0.96	1.00
East Mallee	Victoria	0.72	1.14	0.81
North Loddon	Victoria	1.28	1.39	0.82
West Central Highlands	Victoria	0.77	1.15	0.87
South Wimmera	Victoria	0.64	1.15	0.84
North Wimmera	Victoria	0.38	1.16	0.80
La Trobe Valley	Victoria	1.87	1.27	1.02
Wellington Shire	Victoria	1.22	1.14	0.95

Urban decline regions (table 9)

Akin to processes occurring elsewhere in developed countries, declining urban regions have been developing within the Australian settlement system. Places such as *Greater Hobart* and *Launceston* in Tasmania and the metropolitan regions of *Adelaide* fall in to this category. These are the rust belt places that have been unable to meet the challenges of the changing economy and who have seen population decline and negative economic outcomes. Baum et

al. (1999) identified communities within some of these places as being among the most vulnerable communities in the Australian metropolitan hierarchy. Communities within many of these regions developed around the boom in manufacturing that occurred in Australia during the 1950s and 1970s. Their declining fortunes have come about in part due to the shift towards reduced tariff protection for industry and the general economic and technological restructuring that has been a hallmark of rust belt locations worldwide (O'Connor, Stimson and Daly 2001). In socio-economic terms these places have above average levels of unemployment and Centrelink clients and below average incomes. These places are also likely to be identified as having low levels of human and social capital and may also score highly on other indicators of social malaise.

Over and above these obvious rust belt metropolitan regions are a second group places showing falls in population share. These include regions such as *Outer western Sydney* and *Canterbury-Bankstown* in New South Wales and *Central Metropolitan* in Western Australia. While the share of population in these places have declined over the 1996 to 2001 period, their socio-economic make up does not necessarily fit with those of the rust belt regions- they record below average unemployment and Centrelink Clients and above average incomes. One possible explanation lies in these places proximity to regions ties to the global economy (especially those in New South Wales) and possible trickledown effects occurring. As Baum et al. (1999: 126) suggest "there is evidence that Sydney's global and national functions are pulling up the performance of communities throughout that metropolitan city region". This may suggest why some of the regions in the wider metropolitan area of Sydney are doing okay in spite of population loss. Other demographic explanations may point to the impact of changing life cycle of these regions characterised by a shrinking household size relative to other places.

Table 9: Urban decline regions

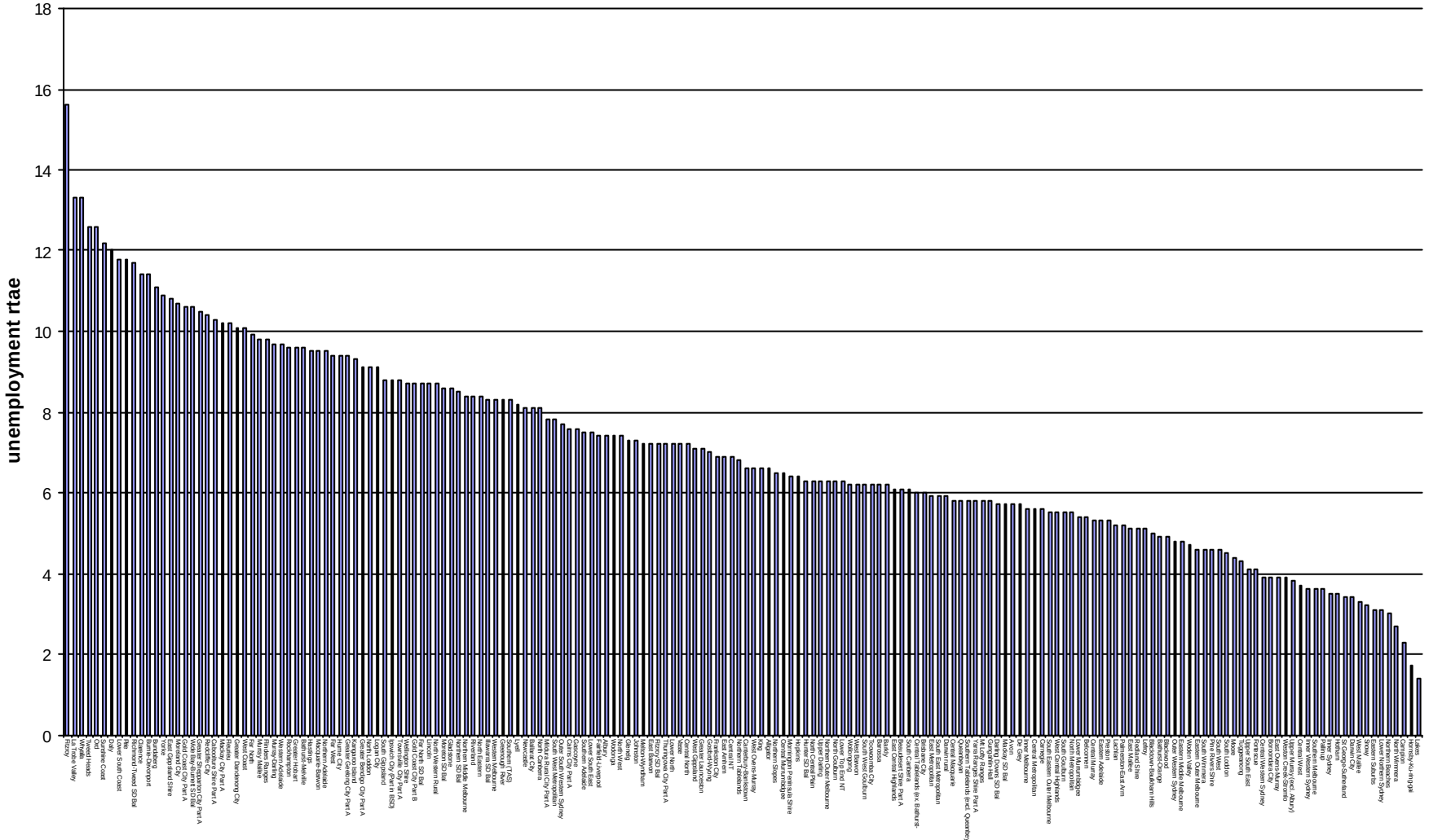
Region	State	Unemployment rate	Centre link clients	Average incomes
Northern Adelaide	South Australia	1.34	1.20	0.90
Western Adelaide	South Australia	1.36	1.37	0.93
Southern Adelaide	South Australia	1.05	1.05	0.97
Eastern Adelaide	South Australia	0.74	0.91	1.17
Greater Hobart	Tasmania	1.35	1.16	0.98
Launceston	Tasmania	1.00	1.21	0.93
Logan city	Queensland	1.28	0.97	0.91
Outer West Sydney	New South Wales	0.67	0.76	1.05
Canterbury-Bankstown	New South Wales	0.93	1.05	0.97
Eastern Suburbs	New South Wales	0.43	0.58	1.46
Northern Beaches	New South Wales	0.42	0.51	1.32
Wollongong	New South Wales	0.87	1.14	1.09
Hunter	New South Wales	0.88	1.13	1.08
Central Metropolitan	Western Australia	0.78	0.72	1.43

Coastal decline regions (table 10)

A small number of coastal regions recorded declining population shares between 1996 and 2001. These were located in South Australia, Victoria and Tasmania and include the lower *South East Region* (South Australia), *Glenelg* (Victoria) and *Burnie-Devonport* (Tasmania). Like the declining inland regions, the majority of these regions also recorded high levels of unemployment and Centrelink clients as well as low levels of income. In terms of processes underway, these areas suffer from similar outcomes affecting rust-belt inland towns, with many having one time strong manufacturing based economies now in decline.

Table 10: Coastal decline regions

Region	State	Unemployment rate	Centre link clients	Average incomes
Lower South East	South Australia	1.057	1.33	0.94
Glenelg	Victoria	1..02	1.13	0.90
Hopkins	Victoria	0.90	1.04	0.87
Burnie-Devonport	Tasmania	1.60	1.36	0.91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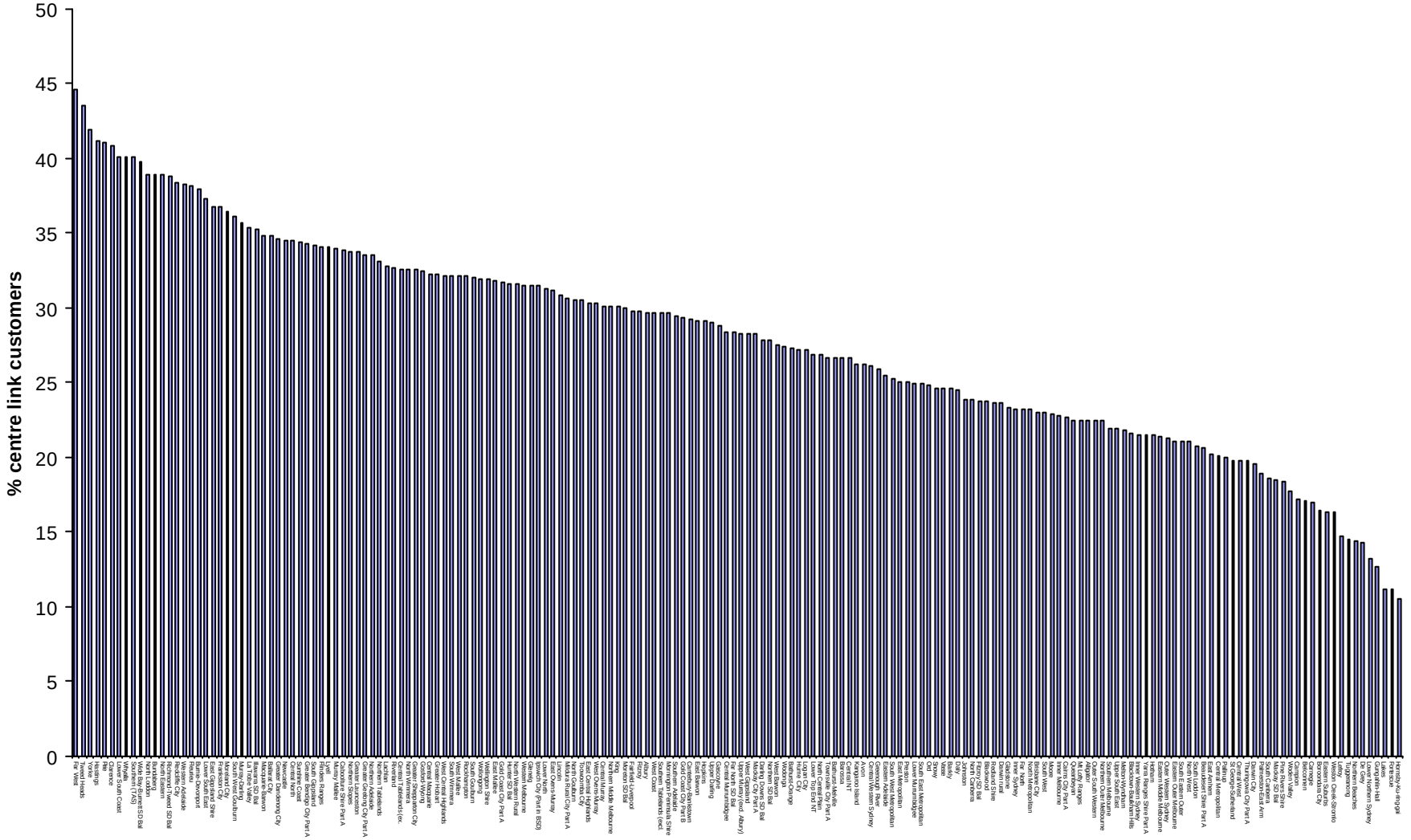
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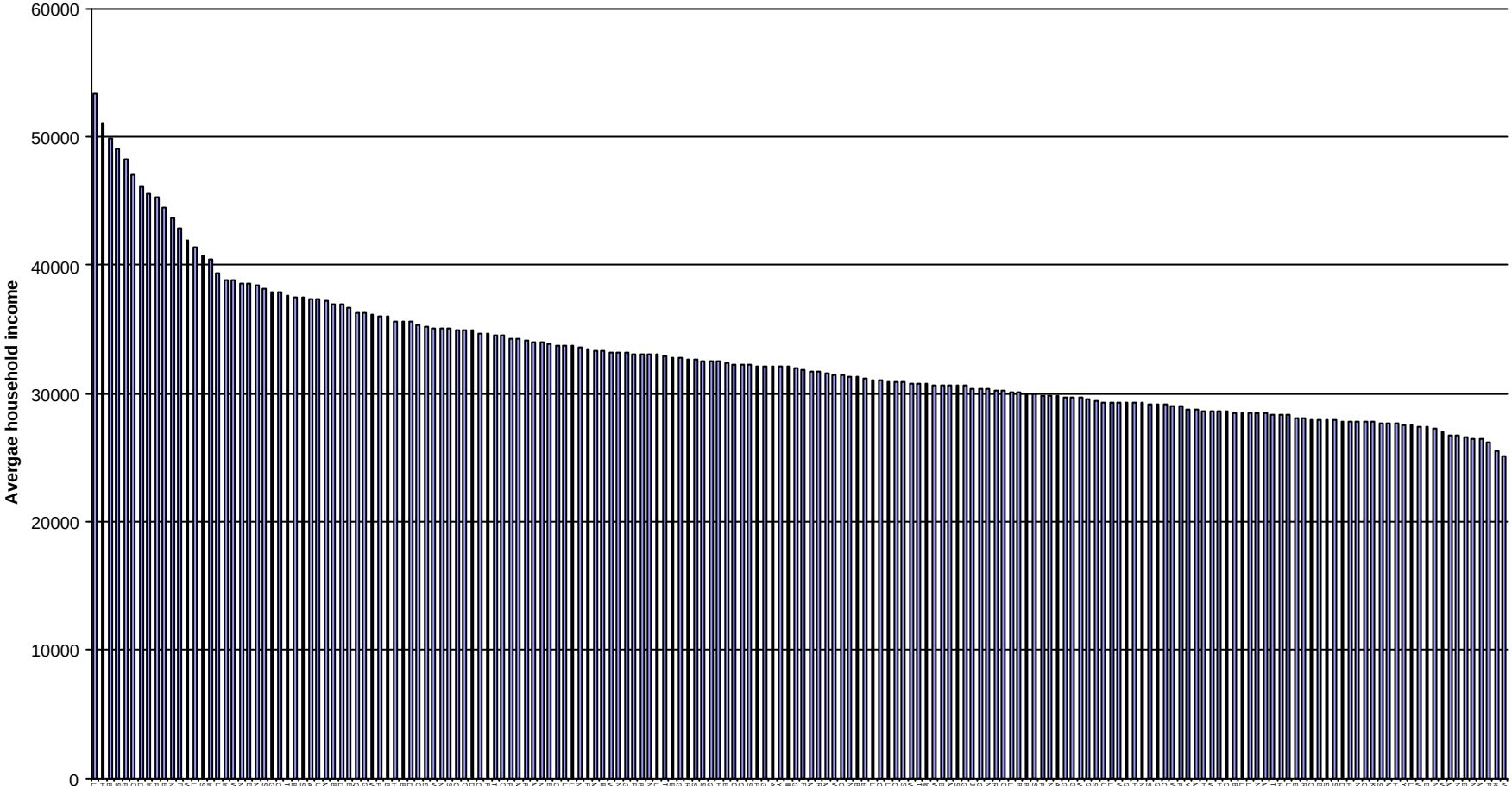
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Concluding comments

This paper has begun to unpack the changing demographic and socio-economic processes underway across large regional spatial units in Australia. The broad message to be taken from the discussion presented here relates to the complexities in the interplay between demographic change and socio-economic performance across a spatial framework. While some places are growing in population share and appear to be performing well in socio-economic terms, other growth places do not share the same positive performance. Commensurately, places of population decline while often reordering poor socio-economic performance, did on occasions record positive socio-economic outcomes. Within the discussion presented here, several preliminary typologies of regions where presented. These could be differentiated in terms of their demographic and socio-economic characteristics and their location within the Australian settlement system. These typologies form the basis for more in depth analysis of census material to be completed later in 2002.

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