REGIONAL CITIES WITHIN AUSTRALIA'S EVOLVING URBAN SYSTEM, 1991-96

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ABSTRACT This paper examines the role, growth and functions of Australia's regional cities at the 1996 Census. Previous research (Beer, Bolam and Maude, 1994a and b; Beer and Maude, 1995) highlighted a significant development within the evolution of Australia's urban system, with Australia's regional cities growing much more rapidly in the period 1976 to 1991 than the nation as a whole. These centres – defined as having populations greater than 10,000 persons – increased in number, population and workforce. They also became more specialised in their economic activities, with the fastest growth recorded amongst centres specialised in the tourism, recreation and finance sectors. This paper presents an update of that earlier work through an examination of relevant Census data for the period 1991-96. It shows that regional cities have continued to grow at a rate above the national average both with respect to population and workforce. Importantly there has been a change in the direction of growth. When compared with earlier inter-censal periods, cities with economies based around tourism, recreation and leisure industries have secured a far greater share of growth within this group of centres.

1. INTRODUCTION

The nature and functioning of Australia's urban system is an important topic both in an academic and a policy sense. Amongst academics – and geographers in particular - it has been an important area of study (see, for example, Logan, Whitelaw and McKay, 1981; Rose, 1967, Berry, 1984; Bourne, 1975 and Holmes, 1987) though no longer as prominent a focus of research as a decade or two previously. However, it remains a field of on-going research amongst a number of researchers and research groups (see, for example, O'Connor and Stimson, 1994 and 1995). Moreover, much investigation into globalisation and global cities directly addresses questions of urban function and performance, albeit with reference to a limited number of centres (Baum, 1997 and Searle, 1993).

Urban issues have been especially prominent within policy debates over the last 10 years. Through the early and mid 1990s we witnessed a period of Federal re-engagement with urban and regional issues at the policy and program levels. Research into Australia's urban system was a noticeable part of this renewed interest with the commissioning of a number of major studies by the Federal Government through the Urban Futures Research Program (see, for example, Beer, Bolam and Maude, 1994a; O'Connor and Stimson, 1995; Lepani, Freed, Murphy and McGillivary, 1995), research by the Bureau of Immigration, Multiculturalism and Population Research (McKenzie, 1994 and 1996, Maher and Stimson, 1994) and the conduct of the Australian Urban and Regional Development Review. This latter initiative explicitly focussed on the factors affecting the economic, social and environmental development and performance of cities, towns and regions in Australia. The election of the Howard Coalition Government brought virtually all this Federal policy interest in the urban system to a halt, but state and local governments have remained interested (see, for example, Department of Infrastructure, 1999), if only because of their planning functions.

This paper examines the characteristics and growth rates of Australia's regional cities, defined as all urban centres with a population of 10,000 or more, which could be considered independent of the capitals at the 1996 Census. The paper briefly reviews the way these cities have been considered in earlier work and in contemporary debates on population change and economic activity. The paper goes on to compare their population and labour force growth rates with national trends. The subsequent section uses cluster analysis to examine change in their economic functions between 1991 and 1996. It is argued that there has been a continuation – or more properly, a further extension – of trends evident at the 1991 Census. Regional cities have become more prominent within the Australian urban system and much of this growth, in population terms at least, has resulted from the growth of cities with economies based on tourism, recreation and retirement. Growth, however, has not been limited to these centres.

2. REGIONAL CITIES IN AUSTRALIA

Australia has a distinctive pattern of urban settlement: Sydney and Melbourne between them have over 40 per cent of the nation's population and more than six in ten Australians live in one of the capital cities (Forster, 1999). Australia's urban system evolved last century as six self-contained – and often highly primate – colonies. With a number of notable exceptions, the capital cities came to dominate population and economic activity as they performed the role of principal port, manufacturing centre, railway hub, focus of government administration and decision making, and business centre (Berry, 1984; Linge, 1975). The high levels of tariff protection evident for most of this century maintained the urban system in this form (Beer, 1995a). From the 1970s the Australian economy was exposed to greater international competition through tariff reductions and reform of the policy instruments for macro-economic management. These changes have only now begun to restructure and reorder the Australian urban system as a new set of economic imperatives determine which centres grow and which decline.

For most of this and the previous century, urban growth was focussed on the capital cities, with few non-metropolitan centres growing beyond the size or status of a 'country town'. In many respects it was a case of 'Sydney or the Bush', with growth polarized between small urban settlements and the metropolis. The profound changes the Australian economy has experienced over the last 20 years has had an appreciable impact on growth processes on all parts of the Australian urban system. However, while our knowledge of the interplay between our largest cities and the global economy is well developed (O'Connor and Stimson, 1994 and 1995), relatively little attention has been paid to the smaller cities and the towns. It is, however, possible to examine the impact of a 'globalising' economy on

Figure 1. Regional Cities in Australia

Australia's regional cities by drawing upon earlier research on this tier within the Australian urban system. There are two publications that are especially relevant here: the first is the report *Australian Urban Environmental Indicators* produced by the Federal Government's Department of Home Affairs and Environment (DHAE, 1982). It used Census and other data to describe regional cities in the period up to 1976. The second publication is *Beyond the Capitals: Urban Growth in Regional Australia* (Beer *et al*,. 1994a). To assist comparisons over time, the definition of a regional city used in this paper is the same as that used in the two earlier works, that is, urban centres with a population of 10,000 or more outside the ABS defined statistical divisions of the capitals and beyond the statistical districts of the major satellites of Geelong, Wollongong and Newcastle. This definition excludes a number of prominent places within the Australian urban system, such as the Sunshine Coast cities in south east Queensland, Gawler near Adelaide and parts of the Blue Mountains. They have been excluded to maintain consistency with earlier publications and because their growth prospects and functions largely reflect their role within the metropolitan area.

3. THE CHARACTERISTICS OF REGIONAL CITIES IN AUSTRALIA

As a group, regional cities have a number of features that emphasise their importance within the Australian urban system. They accommodate a substantial proportion of Australians, as a group they are growing more quickly than Australia as a whole and their population growth reflects an expanding set of economies. This section considers the role of regional cities within the national urban scene with respect to the size and proportion of the population and workforce. It also examines some of the factors that differentiate regional cities and the implications of this differentiation for understanding their function within the national economy.

3.1 Population

Regional cities are a dynamic and important part of Australia's urban scene. At the 1996 Census there were 81 regional cities with a total population of 2.1 million, 11.6 per cent of the national population compared with 11.3 per cent in 1991 (Figure 1). Perhaps more importantly, both the number of regional cities and their aggregate population has grown significantly over the last 20 years: in 1976 there were 60 non-metropolitan centres with a population of 10,000 persons or more, by 1981 there were 62 regional cities, in 1986 there were 70 and in 1991 there were 79. As a group, their population rose from 1.51 million in 1976 to 1.65 million in 1981, to 1.78 million in 1986 and 1.79 million in 1991. They grew by 37.8 per cent over the 20 years at an average annual growth rate of 1.9 per cent, which compares favourably with national growth of 32.1 per cent over the same period, at an annual average of 1.6 per cent.

Regional cities vary markedly in their size and rates of population growth. Townsville was the largest with a 1996 population in excess of 109,000 followed by Cairns with 107,000, while a number of centres had populations just over 10,000. Between 1991 and 1996 four cities – Casino, Moree, Colac and Portland – lost sufficient population to fall out of the regional city category. However, these losses were more than compensated by the addition of six new centres: Parkes, Echuca, Bacchus Marsh, Buderim, Broome and Busselton. Growth rates also varied between the centres: some of the fastest growing centres grew at rates in excess of five per cent per annum. Buderim in Queensland grew at 13.2 per cent per annum between 1991 and 1996, Mandurah in Western Australia expanded at the rate of 10.8 per cent and Hervey Bay, Cairns and Tewantin-Noosa all grew at rates in excess of eight per cent per annum. On the other hand, Moe-Yallourn in Victoria lost population at the rate of 2.75 per cent per annum from 1991 to 1996 and population losses were recorded in a total of 20 cities. Importantly, and this theme will be returned to later, all the fast growing centres were associated with tourism and recreation industries. As shown in Table 1, the size and rate of growth or decline of the population of regional cities varies between the States.

After examining the population growth data for regional cities between the 1986 and 1991 Censuses, Beer and Maude (1995) observed that there was a range of

Table 1. Population: Number and Growth in Regional Cities by State and Total Australia – 1991-96
(*Sources*: Australian Bureau of Statistics 1991 and 1996).

State	No. of Centres 1991	No. of Centres 1996	Population 1991	Population 1996	Growth (No.) 91-96	Growth (%) 91-96	Average Annual Rate of Growth (%) 91-96
New South Wales	29	28	584712	616268	31556	5.40	1.08
Victoria	16	15	349462	354719	5257	1.50	0.30
Queensland	17	19	599608	698961	99353	16.57	3.31
South Australia	6	6	99454	97475	-1979	-1.99	-0.40
Western Australia	7	9	156060	179626	23566	15.10	3.02
Tasmania	3	3	109912	109134	-778	-0.71	-0.14
Northern Territory	1	1	20448	22488	2040	9.98	2.00
Total Regional Cities	79	81	1919656	2078671	159015	8.28	1.66
Total Australia	-	-	16850540	17892423	1041883	6.18	1.24

growth rates for regional cities in all States, including growth rates above the national average (Table 1). This statement cannot be repeated for the 1991 to 1996 intercensal period, as while growth rates varied, South Australia and Tasmania had no regional cities that matched the national average for regional cities of 1.6 per cent per annum. In Tasmania, Burnie-Somerset and Devonport lost population and Launceston grew at just 0.21 per cent per annum. South Australia recorded losses in Port Augusta (-0.94 per cent), Port Pirie (-0.24 per cent) and Whyalla (-1.39 per cent), while Port Lincoln grew at 0.11 per cent per annum, Mt Gambier, 0.57 per cent per annum, and Murray Bridge 0.76 per cent per annum. By contrast Queensland had only one regional city to lose population (Mt Isa, -0.71 per cent) and Western Australia lost population only from Port Hedland (-0.17 per cent).

Tables II and III shed more light on the pattern of growth across regional cities by documenting the highest and lowest growth rates. It is notable that the 13 fastest growing regional cities were all located on the coast in New South Wales, Queensland or Western Australia. All are strongly associated with the tourism, recreation and leisure industries and many – for example, Mandurah, Buderim, Tewantin-Noosa and Caloundra – are located relatively close to major urban agglomerations. Parkes, in NSW, was the fastest growing non-coastal centre, while the relatively rapid growth in Port Hedland, Gladstone and Kalgoorlie-Boulder reflected the expansion of resource projects in those regions. Many of the centres growing rapidly between 1991 and 1996 – such as Hervey Bay, Kawana Waters, Mandurah and Sawtell – were also amongst the most rapidly growing centres in the period 1986-91 (Beer and Maude, 1995).

Geographically, the table of lowest population growth rates (Table 3) reflects almost the exact opposite of Table 2. Whereas the table of rapid population growth was dominated by tourism, recreation and leisure industry towns located on the western and eastern seaboards, the slow growth – or decline – centres were found in the southern states and were generally associated with manufacturing and resource industries. For example, the towns of Moe-Yallourn, Morwell and Traralgon (first, third and eleventh slowest growing centres respectively) are located within Victoria's La Trobe Valley. Decline in employment in coal mining and most especially power generation industries have had a significant impact on these centres. Broken Hill, in NSW, is a remote mining centre whose ore resources have now been largely depleted and other sectors of its economy – such as the railways – have been overtaken by structural change. Whyalla and Port Pirie in South Australia are major steel producing and lead smelting cities respectively,

Table 2. Highest population growth rates by Regional City, 1991 – 1996 (*Sources*: Australian Bureau of Statistics 1991 and 1996).

Regional City	Rank	Population 1991	Population 1996	Growth (No.) 91-96	Growth (%) 91-96	Average Annual Rate of Growth (%) 91-96
Buderim (Qld)	1	7499	12458	4959	66.13	13.23
Mandurah (WA)	2	23343	35945	12602	53.99	10.80
Tewantin-Noosa (Qld)	3	17776	26053	8277	46.56	9.31
Hervey Bay (Qld)	4	22205	32054	9849	44.35	8.87
Cairns (Qld)	5	64463	92273	27810	43.14	8.63
Caloundra (Qld)	6	22094	28329	6235	28.22	5.64
Maroochydore-Mooloolaba (Qld)	7	28509	36406	7897	27.70	5.54
Broome (WA)	8	8906	11368	2462	27.64	5.53
Cairns Northern Beaches (Qld)[1]	9	11731	14768	3037	25.89	5.18
Port Macquarie (NSW)	10	26798	33709	6911	25.79	5.16
Sawtell (NSW)	11	10809	13240	2431	22.49	4.50
Busselton (WA)	12	8936	10642	1706	19.09	3.82
Nambour (Qld)	13	10355	12205	1850	17.87	3.57
Parkes (NSW)	14	8784	10094	1310	14.91	2.98
Port Hedland (WA)	15	11344	12846	1502	13.24	2.65
Kawana Waters (Qld)	16	14393	16264	1871	13.00	2.60
Gladstone (Qld)	17	23462	26415	2953	12.59	2.52
Kalgoorlie-Boulder (WA)	18	25016	28087	3071	12.28	2.46
Ocean Gr.-Barwon Heads (Vic)	19	10069	11272	1203	11.95	2.39
Mackay (Qld)	20	40250	44880	4630	11.50	2.30

[1] For the purposes of this paper Cairns Northern Beaches have been included with Cairns. This decision reflects the fact that these two centres – while separately identified by the ABS – operate as a single labour and housing market.

while Port Augusta also sits within the Upper Spencer Gulf and is largely dependent on public sector employment and projects associated with resource developments in the Far North of South Australia. Between 1991 and 1996 these three cities accommodated 68 per cent of net jobs losses within South Australia, despite having less than 10 per cent of the State's population.

It is important to recognise what is missing from these tables: in large part regional cities firmly based on agricultural industries were neither high-growth or population loss centres. Armidale in the New England tablelands probably comes closest to meeting this type of centre, having been especially affected by restructuring in the wool industry. In the main, however, few regional cities with primary industry and/or related regional roles fared either particularly badly or particularly well in the period 1991-96. This is noteworthy that given the extent of restructuring within agriculture over the last decade, as we might have expected some of the regional cities dependent on agriculture to have experienced

Table 3. Lowest Population Growth Rates by Regional City, 1991 – 1996 (*Sources*: Australian Bureau of Statistics, 1991 and 1996).

Regional City	Rank	Population 1991	Population 1996	Growth (No.) 91-96	Growth (%) 91-96	Average Annual Rate of Growth (%) 91-96
Moe-Yallourn (Vic)	1	17990	15512	-2478	-13.77	-2.75
Karratha (WA)	2	11325	10057	-1268	-11.20	-2.24
Morwell (Vic)	3	15423	13823	-1600	-10.37	-2.07
Broken Hill (NSW)	4	23263	20963	-2300	-9.89	-1.98
Whyalla (SA)	5	25526	23382	-2144	-8.40	-1.68
Mount Isa (Qld)	6	23667	21751	-1916	-8.10	-1.62
Burnie-Somerset (Tas)	7	20505	19134	-1371	-6.69	-1.34
Kurri Kurri-Weston (NSW)	8	13268	12555	-713	-5.37	-1.07
Port Augusta (SA)	9	14595	13914	-681	-4.67	-0.93
Lithgow (NSW)	10	11968	11441	-527	-4.40	-0.88
Traralgon (Vic)	11	19699	18993	-706	-3.58	-0.72
Sale (Vic)	12	13858	13366	-492	-3.55	-0.71
Port Pirie (SA)	13	14110	13633	-477	-3.38	-0.68
Wangaratta (Vic)	14	15984	15527	-457	-2.86	-0.57
Cessnock-Bellbird (NSW)	15	17932	17540	-392	-2.19	-0.44
Devonport (Tas)	16	22660	22299	-361	-1.59	-0.32
Armidale (NSW)	17	21605	21330	-275	-1.27	-0.25
Goulburn (NSW)	18	21451	21293	-158	-0.74	-0.15
Grafton (NSW)	19	16642	16562	-80	-0.48	-0.10
Ballarat (Vic)	20	64980	64831	-149	-0.23	-0.05

pronounced population losses. This does not appear to have occurred though this observation must be qualified by the recognition that three of the four centres that could be classified as a regional city in 1991 but not 1996 (Moree, Colac and Casino) are highly dependent on agriculture. It is notable also that few inland regional cities grew rapidly. There has been some discussion about the phenomenon of 'sponge cities' (see, for example, Collits and Gastin, 1997), that draw in population and services from surrounding small towns and rural areas. It is worth speculating on the impact this phenomenon has had on the growth of individual regional cities and regional cities as a group.

It is not possible to use data based on urban centres for the period prior to the 1976 Census but a longer term perspective can be obtained from the Australian Bureau of Statistics' (ABS) categorisation of settlements into major urban, other urban centres and localities. The 'other urban' category is a reasonable, although imperfect, surrogate for regional cities at the national level and these data show that regional cities have been growing with respect to their relative share of the national population (Table 4).

In 1947, 8.4 per cent of the Australian population lived in an urban centre with a population between 10,000 and 100,000 persons. By 1996 this had risen to 13.6 per cent and there was a significant rise in the percentage in this category between 1991 and 1996. This rise seems to have come at the expense of smaller centres, with towns of 1,000 to 10,000 losing 0.1 percentage points of their population over these five years, and the rural population declining by 0.6 percentage points.

Table 4. Population Distribution by Size of Urban Centre, 1947-1996 (*Sources*: Australian Bureau of Statistics, 1991 and 1996).

	Urban Centre Population			Rural	Total
Year	≥100,000 (%)	<100,000 & ≥10,000 (%)	<10,000 & ≥1000 (%)	(%)	(%)
1947	52.7	8.4	14.9	23.9	100
1954	55.6	10.8	11.8	21.8	100
1961	59.2	11.7	10.7	18.3	100
1966	62.3	10.3	10.3	17.1	100
1971	64.8	11.0	9.6	14.6	100
1976	64.9	11.3	9.6	14.2	100
1981	63.5	12.0	10.1	14.4	100
1986	63.4	12.4	9.5	14.7	100
1991	62.4	12.9	10.1	14.6	100
1996	62.4	13.6	10.0	14.0	100

Overall, regional cities have experienced slow but steady growth since the 1940s while the proportion of the population living in rural areas and the capitals has changed considerably. Both the substantial decline of the rural population and the rapid growth of the large cities through the 1950s and 1960s had no apparent effect on the population share of 'other urban' centres.

3.2 Labour Force

O'Connor and Stimson (1994) have pointed out that population data can be a misleading indicator of economic growth, especially with the emergence of retirement-related migration. They argued that population data can provide a false impression of growth impulses as much of the migration that contributes to population increase is consumption, rather than production, led. It is therefore important to also use other measures of growth and economic significance. In the absence of measures of Gross Regional Product, labour force data provide a guide to the nature and strength of regional city economies.

In 1996 regional cities contained 10.75 per cent of the national workforce, up from 10.4 per cent in 1991. This represented a rising share of an increasing total, with more than 500,000 jobs gained nationally between 1991 and 1996. The workforce in employment in regional cities therefore grew faster than nationally, and this is consistent with previous trends with regional cities growing more quickly than the national total in both the 1981-86 and 1986-91 intercensal periods (Beer *et al,*. 1994a). Within regional cities, workforce change was uneven across the States - there was a net gain of more than 10,000 jobs in regional cities in NSW, a rise of 2,500 in Victoria's regional cities, there were 50,000 more workers in regional cities in Queensland and a rise of 19,000 jobs in Western Australia. On the other hand, only 1,000 jobs were added in the Northern Territory (Alice Springs), 3,500 jobs were lost in regional cities in SA and the employment numbers were virtually unchanged in Tasmania.

Importantly, the labour market data corroborate the population data in suggesting that regional cities are a significant part of the Australian economy and that they have grown more quickly than the nation as a whole.

The number of jobs in regional cities does not present the full picture of economic activity and change. Tables 5 and 6 set out both the highest and lowest unemployment rates in 1996, as well as change between 1991 and 1996. One of the crucial things to recognise here is that high unemployment rates are not limited to areas of population and workforce loss (or even slow growth). Many of the centres with the highest rates of growth are also burdened with the highest unemployment rates. Hervey Bay, Caloundra, Maroochydore, Kawana Waters and Port Macquarie all have high growth rates and high unemployment rates. Slow or declining centres – such as Moe-Yallourn, Port Pirie and Port Augusta - also have high unemployment rates, and this is consistent with declines in their economies. Critically, there appear to be two sets of processes at work amongst high unemployment centres, one set of centres whose population is growing more quickly than their workforce, and another set of high unemployment centres whose population remains relatively static while the employment base is in decline. Hugo

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Table 5. Highest and Lowest Unemployment Rates by Regional City, 1996 (*Sources*: Australian Bureau of Statistics, 1991 and 1996).

Regional City	Highest Unemployment Rates (%) 1996	Rank	Regional City	Lowest Unemployment Rates (%) 1996
Moe-Yallourn (Vic)	20.6	1	Alice Springs (NT)	4.6
Hervey Bay (Qld)	19.8	2	Griffith (NSW)	5.6
Morwell (Vic)	19.7	3	Kalgoorlie-Boulder (WA)	5.7
Port Pirie (SA)	18.9	4	Karratha (WA)	5.9
Sawtell (NSW)	17.9	5	Mount Isa (WA)	6.4
Caloundra (Qld)	16.7	6	Port Hedland (WA)	7.0
Kawana Waters (Qld)	15.9	7	Echuca (Vic)	7.3
Maroochydore-Mooloolaba (Qld)	15.8	8	Goulburn (NSW)	7.7
Coffs Harbour (NSW)	15.8	9	Broome (WA)	8.0
Port Macquarie (NSW)	15.0	10	Wangaratta (Vic)	8.0
Bundaberg (Qld)	14.9	11	Singleton (NSW)	8.1
Forster-Tuncurry (NSW)	14.7	12	Kiama (NSW)	8.2
Port Lincoln (SA)	14.7	13	Cairns Northern Beaches (Qld)	8.3
Port Augusta (SA)	14.6	14	Horsham (Vic)	8.4
Kurri Kurri-Weston (NSW)	14.6	15	Cairns (Qld)	8.6
Ballina (NSW)	14.6	16	Dubbo (NSW)	8.6
Broken Hill (NSW)	14.5	17	Orange (NSW)	8.6
Devonport (Tas)	14.3	18	Toowoomba (Qld)	8.7
Nambur (Qld)	14.2	19	Mount Gambier (SA)	8.9
Mandurah (WA)	14.2	20	Bathurst (NSW)	9.0

Table 6. Largest Decreases and Increases in Unemployment Rate by Regional City, 1991 – 1996 (*Sources*: Australian Bureau of Statistics, 1991 and 1996).

Regional City	Largest Decreases in Unemployment Rate (Percentage Points) 1991-1996	Rank	Regional City	Largest Increases in Unemployment Rate (Percentage Rate) 1991-1996
Broome (WA)	-6.2	1	Moe-Yallourn (Vic)	4.9
Geraldton (WA)	-5.6	2	Morwell (Vic)	3.4
Mandurah (WA)	-5.0	3	Port Pirie (SA)	2.8
Mildura (Vic)	-4.8	4	Port Augusta (SA)	1.1
Griffith (NSW)	-4.6	5	Traralgon (Vic)	1.1
Shepparton-Mooroopna (Vic)	-4.6	6	Raymond Terrace (NSW)	1.0
Albany (WA)	-4.6	7	Muswellbrook (NSW)	0.9
Burnie-Somerset (Tas)	-4.5	8	Port Macquarie (NSW)	0.5
Echuca-Moama (Echuca Pt) (Vic)	-4.2	9	Nambour (Qld)	0.4
Busselton (WA)	-4.1	10	Rockhampton (Qld)	0.3
Kalgoorlie-Boulder (WA)	-4.1	11	Lithgow (NSW)	0.3
Forster-Tuncurry (NSW)	-4.1	12	Gympie (Qld)	0.3
Alice Springs (NT)	-3.8	13	Cessnock-Bellbird (NSW)	0.0
Cairns (Qld)	-3.8	14		
Port Hedland (WA)	-3.6	15		
Parkes (NSW)	-3.6	16		
Cairns Northern Beaches (Qld)	-3.3	17		
Tewantin-Noosa (Qld)	-3.3	18		
Mackay (Qld)	-3.3	19		
Mount Gambier (SA)	-3.2	20		

and Bell (1998) examined the former phenomenon and found considerable evidence in support for the hypothesis of welfare-led migration in Australia.

In examining the lowest unemployment rates amongst regional cities, it is apparent that many of the lowest rates correspond to relatively remote centres – such as Alice Springs, Port Hedland, Karratha *et cetera* – where workers are likely to move out once projects are completed (and where Fly-in Fly-out mining techniques are practiced), as well as relatively low rates of unemployment in many low unemployment centres.

There are significant gaps in the employment structure of regional cities. As smaller centres a greater percentage of their population than in the capitals is engaged in basic, rather than non-basic industries (Rose 1967). A comparison of the industry profiles of regional cities and the national economy shows that regional cities have less manufacturing employment, less employment in agriculture, forestry and fisheries, more employment in services, more construction employment – an indicator of growth – and more education-related jobs. On the other hand, they are relatively weak in the fast growing industries of professional and business services, and finance and insurance (Figure 2).

As a group, regional cities have a limited industry profile but this shortcoming is much more acute for many individual cities. A substantial proportion have highly specialised economies based on either manufacturing, resources, tourism, transport, community services or public administration and defence.

4. THE ROLE OF REGIONAL CITIES

Population and labour force data show that regional cities are a substantial and growing component of the Australian urban system. It is apparent also that there is considerable diversity between centres with respect to size and growth rates. While important, these do not provide insights into the role of regional cities or the way in which their economies have changed over the last 40 years. Previous research,

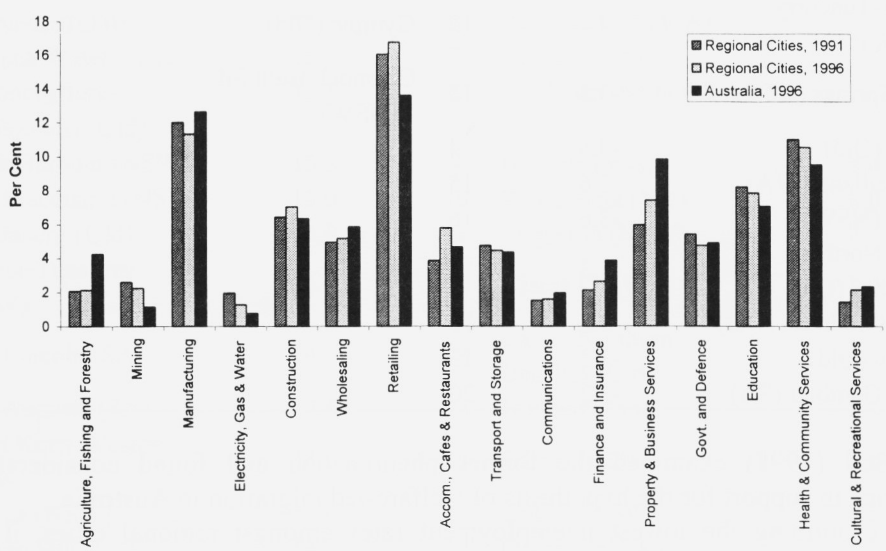

Figure 2. Percentage Employment by Industry, Regional Cities and Australia (*Sources*: Australian Bureau of Statistics, 1991 and 1996).

(Beer, *et al,* 1994a and b; Beer and Maude, 1995) applied the cluster analysis first developed by the Department of Home Affairs and the Environment (1982) to provide a snapshot of regional cities from 1961 to 1991. This paper further extends that analysis from 1991 to 1996.[2]

When the cluster trees or dendrograms for 1991 and 1996 are considered together, a number of points are apparent:

- the functional classification of regional cities became more complex over the intercensal period with the number of identifiable clusters rising from 12 to 16
- new types of industry clusters emerged over the period, with Armidale being differentiated by its role as a specialist education centre. In part this reflects the strength of higher and secondary education in the city, but it also reflects the decline of the pastoral industry
- areas with high levels of employment in mining remain distinct and separate from the larger mass of regional cities
- cities with high levels of employment in power generation and other utilities remain separately identified
- there has been substantial growth in the number of cities performing both a general regional role and operating with a strong tourism and recreation function
- for the first time, a cluster has emerged distinguished, at least in part, by the level of employment in financial industries (Cluster 14)
- cities with a high level of manufacturing activity remain separately identified, suggesting they have retained their functional distinctiveness
- there remain two large groups of cities that perform a general regional role.

At a general level, the key discriminating variables changed between 1991 and 1996. In 1991 the strength of mining and manufacturing employment largely determined the higher divisions within the dendrogram and continued to exert a strong influence at all stages of the tree. At the 1996 Census those centres which specialise in mining were once again the first group separated out, but employment in government administration and defence exerted a stronger role than manufacturing in determining the makeup of the clusters. This may be a reflection of two things: on the one hand, it may suggest that manufacturing employment has been homogenised across regional cities and is no longer as important a determinant of functional type. Alternatively, the contraction of government services and employment in regional cities in the period 1991 to 1996 may have widened the differences between types of regional centres, with only some now accommodating substantial public sector employment.

[2] Readers interested in examining cluster trees for the 1961 and 1976 Censuses should refer to Beer, Bolam and Maude (1994b; pp.37-38).

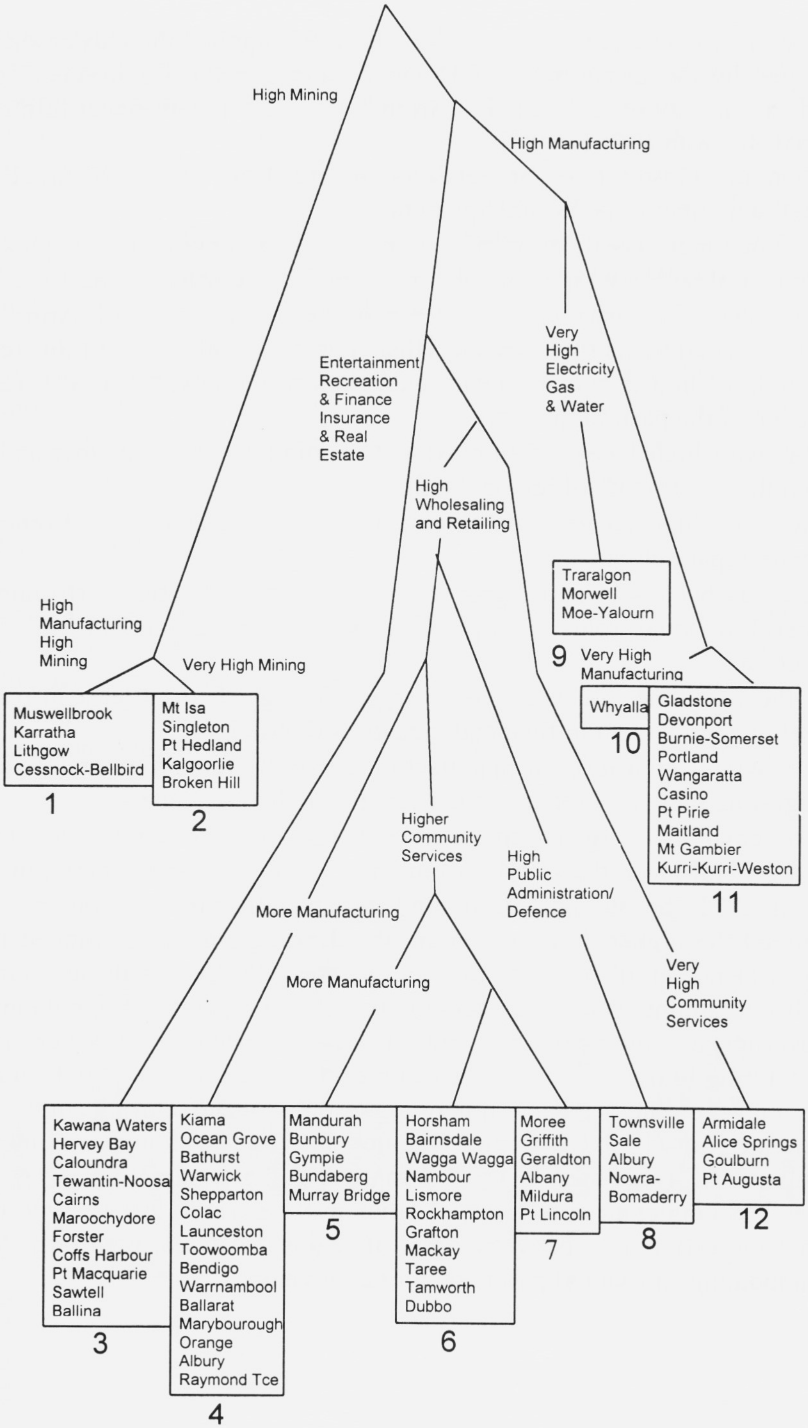

Figure 3. Functional Classification of Regional Cities, 1991
Source: Beer, Bolam and Maude, 1994a

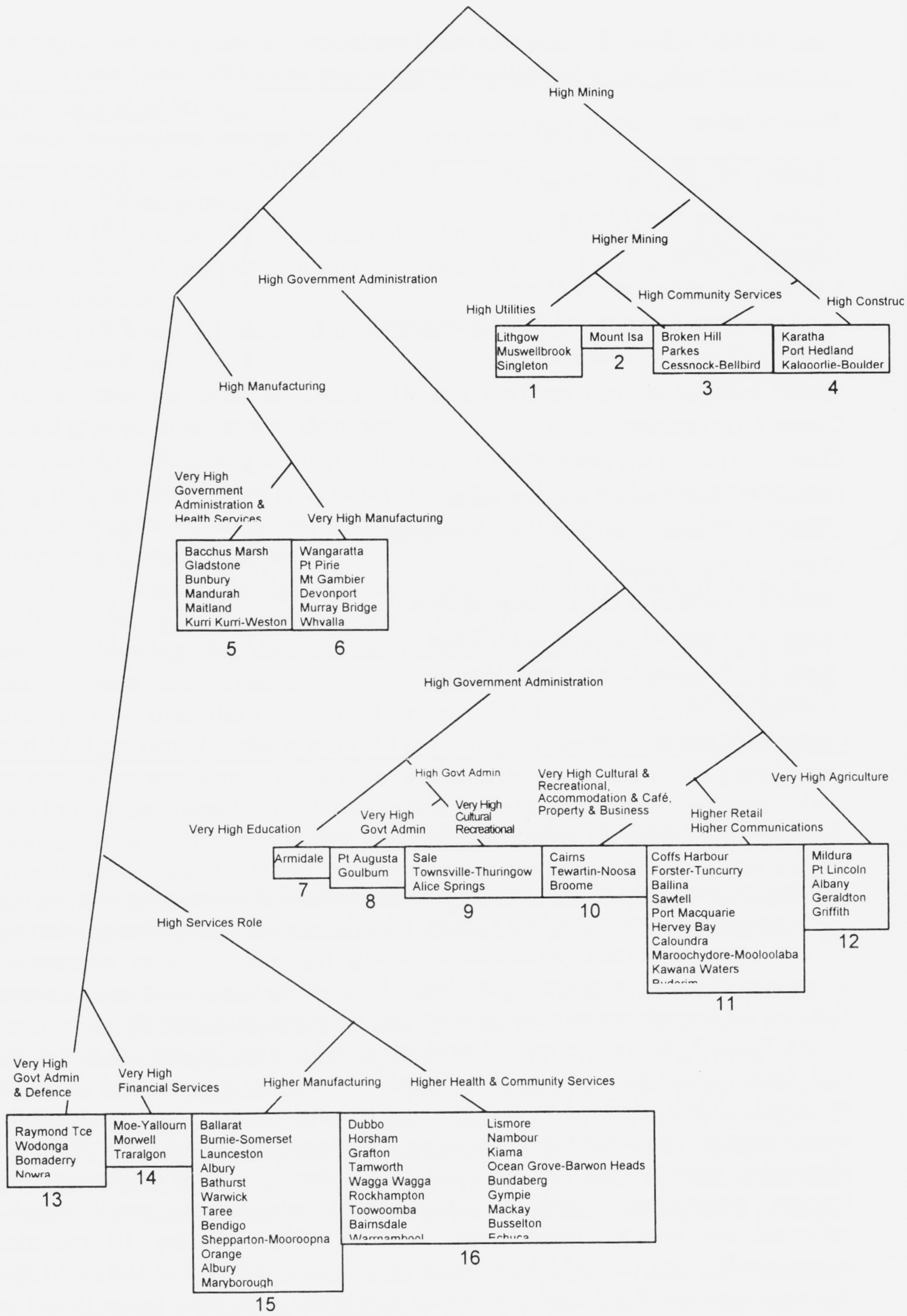

Figure 4: Functional Classification of Regional Cities, 1996.
Source: Australian Bureau of Statistics, 1996.

Table 7. Rate of Workforce and Population Growth by Cluster , 1991-96 (*Sources*: Australian Bureau of Statistics 1991 and 1996).

Relative Industry Specialisations	Number of Cities	Population Growth (%)	Workforce Growth (%)
Cluster 1. Mining and Utilities	3	0.3	-1.43
Cluster 2. Very High Mining	1	-1.67	-4.32
Cluster 3. Mining	3	-0.56	18.92
Cluster 4. Construction and Mining	3	1.35	13.16
Cluster 5. Manufacturing and Govt. Administration	6	3.0	27.43
Cluster 6: Very High Manufacturing	6	-0.44	-5.14
Cluster 7. Education	1	-0.23	0.68
Cluster 8. Government Admin	2	-0.46	-7.36
Cluster 9: Tourism and Government	3	1.45	8.36
Cluster 10. High Tourism and Recreation	3	9.65	77.16
Cluster 11. Tourism and Community Services	10	4.51	34.73
Cluster 12. Agriculture and Forestry	5	1.02	8.53
Cluster 13. Defence & Govt. Administration	3	1.8	7.97
Cluster 14. Financial Services and Utilities	3	-1.87	-16.25
Cluster 15. Regional Centres, with High Manufacturing	11	0.46	4.22
Cluster 16. Regional Centres	18	1.31	12.90

5. GROWTH AND ECONOMIC FUNCTIONS

One of the goals of this paper is to understand the changing role of regional cities within the national urban system. Clearly, growth and differentiation are two of the most important processes affecting regional cities in aggregate. The groupings based on economic functions identified by the cluster analysis can shed light on the importance of economic factors in determining growth.

As Table 7 shows, the rate of workforce and population growth between 1991 and 1996 varied between the functional clusters. In general, and as would be expected, clusters defined by fast growing industries grew more rapidly and those with a greater representation of declining industries grew slowly. The highest mean population growth rate was recorded in Cluster 10 which is characterised by tourism, entertainment and recreation-related industries (a result which also reflected the broader trend from 1976 to 1991). Cluster 10 recorded an exceptionally high rate of labour force growth over the period 1991 to 1996, but this very high result is largely an artifice within the data. Prior to the 1996 Census, persons living in small suburban communities to the north of Cairns were enumerated as belonging to a number of small unrelated communities. Their inclusion within Cairns in the 1996 Census data reunites Cairns with a significant percentage of its workforce. The highest population loss was in Cluster 15 where the shedding of jobs in power industries has badly affected the growth rate. Its rate of workforce loss of 16.25 per cent stands out even amongst those other clusters of regional cities to shed labour.

The main conclusions that can be drawn from these data are:

- the tourist and retirement cities in Cluster 10 experienced by far the highest rates of population growth
- Cluster 10 and Cluster 11 were the only clusters to record population growth rates in excess of two per cent and both sets of cities have economies firmly rooted in tourism
- the cities in Cluster 12 focussed on primary industries fared relatively well in the period 1991-96
- the large group of cities in Cluster 16 that perform general regional roles recorded growth, albeit at a modest rate
- cities specialised in power or other utilities performed badly
- mining industry cities were split into two clusters, those with both mining and construction grew (a reflection of expansion), while those in other Clusters contracted or grew very slowly
- regional cities with a very high reliance on manufacturing did relatively poorly, though there was considerable variation in this group.

Generally speaking, the data on the number of employees showed greater perturbations than the population data. Cluster 16, for example, recorded population growth over the inter-censal period of 1.31 per cent, but workforce growth of 12.9 per cent. Cluster 6 lost 0.44 per cent of its population but shed some 5.14 per cent of its workforce. These data reinforce the observation that population processes in regional cities lag behind trends in the workforce. This has substantial implications, as it contributes to the creation of a pool of labour waiting for employment opportunities, creates greater demand for labour training and social services and furnishes the economies of regional cities with the capacity to accommodate new business opportunities as there is a pool of labour waiting for employment.

The data presented from the cluster analysis also sheds some light on the question of 'sponge cities'. Clusters 16 and 15 from the 1996 Census most closely approximate the archetypical inland regional centre that may be growing at the expense of its surrounding towns. Both types of centres recorded population and employment growth in the 1991 to 1996 inter-censal period and this lends support to the notion that centres with pronounced regional roles have been consolidating their position within the local urban system. A more definite conclusion on this topic would require data on the growth rates of the towns surrounding each of these cities.

These differences in population and workforce growth rates between the clusters demonstrate a complex relationship between the economic functions of regional cities and their rates of population growth. However, there were significant differences between cities within some of the clusters, indicating that the explanation of growth or non-growth cannot be simply reduced to classification based on economic function. For example, Cluster10 had a population growth rate of 4.5 per cent, but growth rates within the group varied from 10.7 per cent at Buderim to 1.77 per cent at Coffs Harbour. To extend this example, Cluster 4 experienced population growth of 1.35 per cent but growth rates within the cluster ranged from a loss of 2.33 per cent at Karratha through to a gain of 2.51 per cent at Port Hedland. Economic function is a major indicator of growth prospects but it cannot provide a complete understanding of why regional cities grow. Individual circumstances, such as the nature of the resource base, community leadership, industry specialisation, access to markets and the investment decisions of governments and large corporations also play an important role.

A number of conclusions can be taken from the analysis of growth rates by cluster. In examining the period 1976 to 1991, Beer and Maude (1995) were able to conclude that relatively rapid development was occurring in a range of regional city types and was not limited to coastal retirement and tourism centres. A similar statement cannot be made for the period 1991-96. In the most recent inter-censal period there was growth in general centres, manufacturing centres and agricultural centres, but the rate of growth lagged far behind that of clusters dominated by the tourism, recreation and leisure industries.

6. CONCLUSION

One of the goals of this paper was to extend an analysis that first commenced in the early 1980s with a publication produced by the Department of Home Affairs and the Environment. While the investigation of regional cities has merit in its own right, there was a secondary goal of establishing how regional cities have changed through the second half of this century. Regional cities are used as a lens to observe broader change within the Australian urban system. When we look back to the data for the 1961 Census, the earliest set of data examined by the Department of Home Affairs and the environment, the extent of change over this time, and the impact of globalisation on this tier within the urban system, is readily apparent. There has been substantial growth in the population of regional cities and in the number of non-metropolitan centres with populations greater than 10,000 persons. Most of this growth has been associated with the expanding tourism, recreation and leisure industries. In part growth in tourism d recreation focussed regional cities reflects 'welfare-led' migration, but it is also a function of the importance of domestic and international tourism.

Other types of regional centre have grown because of their role within global production processes – such as some of the mining centres – or as a consequence of the services they furnish to a broader community or region. There is some suggestion within the data that a regional city's capacity to offer services such as health and education may be a determinant of growth prospects. This pattern was not evident at the 1991 Census (Beer and Maude, 1995) but was recognised by earlier research on the population turnaround in New South Wales by the Planning Research Centre (PRC, 1989).

Both population and workforce data show that regional cities are an important and growing component of the Australian economy. Regional cities perform a number of roles, some of which are consistent with established notions of service and resource centres while others suggest a different, and often more specialised, set of functions. Regional cities are important centres for manufacturing, agricultural production, power generation, retailing, tourism and recreation and mining, all of which are contribute significantly to the functioning and growth of the national economy.

The dendrograms for the period 1991 and 1996 show that, as a group, regional cities continue to take on a broader range of roles and that the number of urban centres with specific industry strengths has increased. A number of types of cluster were identified within the 1996 data, that were not evident at the 1991 Census. Significantly this included the a cluster based in the La Trobe Valley distinguished by the level of employment in financial services, and Armidale as a centre for education. In the future both types of regional city may become more prominent as non-metropolitan universities grow and call centres expand outside the capitals.

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