The paper examines patterns of employment across ‘regional’ Australia between 1996 and 2006 using Census data. The paper suggests that this analysis can help inform discussions about ‘what is regional Australia?’ and provide insights into how different regions might develop over time.

Key points

The core themes emerging from the analysis relate to diversity, scale, clustering and transition.

- The ‘patchwork’ nature of employment by industry across rural and remote Australia in 2006 (and in 1996) is apparent, even at the high levels at which ‘industry’ and ‘regions’ have been defined for this research. Diversity exists not only between regions, but within regions, where specific localities may be dependent on a particular industry that is not so critical at the regional level.

- The importance of ‘scale’ reveals itself in the analysis. For example, mining was the largest and dominant employer in three regions (South Eastern Western Australia, the Pilbara and North West Queensland), but it was also dominant in 24 urban centres and localities outside of those regions. This implies ‘patchworks within the patchwork’ which highlights the need for an even more detailed understanding of the diversity of employment patterns across rural and remote Australia than is provided in this paper.

- Clustering effects are also apparent in the analysis. For example, manufacturing, retail trade, and agriculture, forestry and fishing are more prominent near major urban population centres, and mining and government administration and defence more prominent in more remote regions. This clustering of (sectoral) patterns of employment can make it difficult for policymakers to recognise diversity and scale, which can lead to inappropriate regional policies where regional differences are not recognised.

- The connections between sites of productive activity and the urban centres are no longer contiguous. There are vast regions where productive industries have very little presence and employment is focused on the public and social services industries.

- What is important at a policy level is that the extent to which rural and remote regions are vulnerable or resilient cannot be assumed based on high level understandings of spatial employment patterns at a particular point in time. Attention to the complex interplay between local and regional labour economies is necessary, and ‘place-based’ assessments of how to help economies adapt are required.

For further information

The Visioning Australia’s Future initiative is a program of work examining major challenges facing Australia. The full set of summaries, papers and a synthesis report can be found at [crawford.anu.edu.au/hc-coombs/](http://crawford.anu.edu.au/hc-coombs/)
Background
The analysis shows patterns of employment between 1996 and 2006. This period is a very important one for many parts of Australia as it covers both the beginning of the most recent resources boom and a record period of drought, particularly in the eastern states. The spatiality of different types of economic activity across Australia, and the exposure to various risks that this might imply, is not well understood. This analysis aims to contribute to a better understanding of the range of activities that take place across rural and remote Australia.

The paper examines what might be normally termed ‘rural’ or ‘peripheral’ regions. These regions are sub-divided into rural-regional and remote-regional. Regions with strong labour migration links to their state or territory capital cities are considered rural, while those with weak links are considered remote.

The analysis is at the Statistical Division (SD) level. SDs are the largest sub-state geographical units under which data from the 2006 Census were released. The largest industry of employment was identified for each SD and whether that industry was a ‘dominant’ employer. An industry was considered ‘dominant’ if it employed more than 1.5 times the number of people as the next largest industry of employment. Analysis was also undertaken to assess the level of diversity of employment and the distribution of employment across SDs.

Summary of findings

Employment by industry
Despite the recorded employed population of rural and remote SDs growing by more than 250,000 people between 1996 and 2006, there were 30,000 fewer people employed in agriculture, forestry and fishing in 2006 than in 1996 in rural and remote Australia.

This sector still employed 10.3 per cent (222,000 people) of the total workforce, less than the proportion employed in retail trade (15.0 per cent), and health and community services (10.9 per cent), but more than in manufacturing (9.8 per cent) or mining (2.6 per cent).

The biggest growth sectors between 1996 and 2006 (in terms of the gain in numbers of people employed) were retail trade (60,000), health and community services (53,000) and construction (52,000).

There were notable differences between rural and remote areas. For example, rural SDs collectively gained nearly 9,000 jobs in mining, while remote SDs lost 5,000 jobs in that industry. Employment in remote SDs was also more diverse than in rural SDs, although remote employment had become less diverse since 1996.

The growth in mining employment across all of rural and remote Australia (about 3,500 new jobs) between 1996 and 2006 was relatively modest when compared with declines in employment in agriculture (30,000 fewer jobs) and wholesale trade (8,000 fewer jobs) and growth in retail trade (60,000 more jobs), construction (52,000 more jobs) and even manufacturing (16,000 more jobs).

Labour migration
Mining had the highest population turnover rate of the major industries of employment in rural and remote Australia. 55.3 per cent of the total number of mining employees in 2006 (29,000 of 52,000) either moved in to or out of rural and remote SDs between 2001 and 2006. The lowest turnover rate was in agriculture, forestry and fishing, where 39,000 people (18.3 per cent) moved in to or out of rural and remote SDs. The biggest volume of movers was in retail trade (104,000 people), a turnover rate of 33.4 per cent.

Remote SDs had substantially higher rates of population turnover that rural SDs across all industries except government administration and defence, which had a similar turnover rate (of about 47 per cent) in both rural and remote SDs.

Migration generally contributed to population loss in all of the key industries except accommodation, cafés and restaurants, agriculture, forestry and fishing, and education.

There was great diversity in the pattern of migration of mining workers. While just 12 of 45 rural and remote SDs experienced net in-migration of mining workers, on average these regions received 390 more mining workers than they sent away. In SDs where there was a net out-migration of mining workers, the average loss was 73 people.

The largest numbers of overseas in-migrants between 2001 and 2006 worked in the health and community services industries (6,100), followed by manufacturing (4,600) and accommodation, cafés and restaurants (4,300). There were 3,100 overseas in-migrants working in agriculture, forestry and fishing in 2006.

Population growth and decline
Between 1996 and 2006, Australia as a whole was estimated to have experienced population growth of around 13.0 per cent.

Rural SDs averaged population growth of 8.0 per cent and remote SDs 4.4 per cent. In total, 35 of the 45 rural and remote SDs experience some population growth. Three rural SDs and seven remote SDs experienced population decline.

Migration is a key component of population growth and decline in rural and remote Australia, and it is notable that population growth was more strongly linked to the construction sector than to the core sectors of mining, agriculture, forestry and fishing, or manufacturing (although a proportion of the construction workforce would be engaged in mining related projects.)

Diversity of employment and dominant industry towns
There were 1,315 urban centres and localities (UCLs) across rural and remote SDs at the 2006 Census. 440 of these had an industry which was at least 1.5 times the size of the next largest industry of employment. Analysis was also undertaken to assess industry diversity and whether that industry was a ‘dominant’ employer. An industry was considered ‘dominant’ if it employed more than 1.5 times the number of people as the next largest industry of employment. Analysis was also undertaken to assess industry diversity and whether that industry was a ‘dominant’ employer. An industry was considered ‘dominant’ if it employed more than 1.5 times the number of people as the next largest industry of employment. Analysis was also undertaken to assess industry diversity and whether that industry was a ‘dominant’ employer. An industry was considered ‘dominant’ if it employed more than 1.5 times the number of people as the next largest industry of employment. 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Diversity of employment and dominant industry towns

There were 1315 urban centres and localities (UCLs) across rural and remote SDs at the 2006 Census. 440 of these had an industry which was at least 1.5 times the size of the next largest industry of employment. One quarter had retail as their dominant industry, and nearly one fifth had government administration and defence as their dominant industry. Agriculture, forestry and fishing was the dominant industry in 67 UCLs (15.2 per cent of dominant industry towns), manufacturing in 62, mining in 39, and accommodation, cafes and restaurants in 31.

In SDs where there is not a dominant industry, the most diverse areas were where agriculture, forestry and fishing were the largest sector of employment.

Despite a large number of regions and UCLs having dominant industries of employment, overall, rural economies were about as diverse as major urban ones in terms of employment and remote economies were more diverse because there were many different dominant industries across Australia. There are, however, major differences in the specific industries of employment in major urban regions compared to remote and rural ones, with major urban regions having much lower levels of employment in agriculture, forestry and fishing, and mining, and much higher levels of employment in manufacturing, wholesale trade, finance and insurance, and property and business services.

The effect of scale adds complexity to an assessment of how vulnerable an area is to shocks to specific industries. Dominant industry towns may be central to the economic (and social) functioning of the region despite surrounding regions having different employment bases. But regions as a whole may be more resilient because different localities are able to survive shocks and provide opportunities for diversification.
Policy implications and avenues for future work

The timing of the data available makes it difficult to assess the causes of transition in Australia’s rural and remote labour economies. On the surface, there is evidence of the effects of the twin shocks of the drought and the first stage of the mining boom. However, the growth in mining employment is not as dramatic as might have been assumed, but this might be because substantial ‘mining’ employment during this period was in construction projects.

Another major transition has been towards the increasing importance of service employment, and particularly public and social services. Rural and particularly remote regions which have not been able to profit directly from the mining boom (and this includes some parts of Queensland and Western Australia where mining activity is located) have been compensated by increased investment in government and health and community services jobs.

How specific regions and locations may change in the future is beyond the scope of this paper. But in broad terms, it could be expected that ‘productive’ industries not associated with mining will consolidate closer to major urban centres, because they are more able to access domestic markets and labour. It is likely that mining will have significant local effects in selected locations and these effects will not just be in mining employment, but in construction, transport and retail services to mining communities.

The 2011 Census data will capture rural and remote Australia at a point when the mining boom has experienced a second wave and the drought has broken in many parts of Australia, yet been replaced in some locations by destructive floods and storms. The strong Australian dollar has also challenged manufacturing, retail and tourism in particular, and this is likely to be reflected in the 2011 data.

This paper provides further evidence of how ‘one size fits all’ approaches to regional development policy in Australia are ill-suited to the complexity of conditions that apply there. There is a need for place-based assessments of what works and does not work and what might be needed to prepare local and regional economies to adapt.