National Farmers' Federation

Submission to the Productivity Commission Study into Geographic Labour Mobility

18 September 2013

Prepared by Brian Duggan

NFF Member Organisations

AGFORCE

Australian Dairy Farmers

ALPA

Australian Livestock Exporters' Council ALEC

AUSTRALIAN Pork

AUSTRALIAN VETERINARY ASSOCIATION

PURE BEECHWORTH HONEY 100% Pure Australian Honey

CANEGROWERS

CATTLE COUNCIL OF AUSTRALIA

CORPORATE AGRICULTURAL GROUP

COTTON AUSTRALIA

dried fruits australia

Goat Industry Council of Australia inc.

GrainCorp

Grain Growers Real benefits. Real results.

NORTHERN TERRITORY CATTLEMEN'S ASSOC. NTCA

NSW FARMERS

NEW SOUTH WALES IRRIGATORS' COUNCIL

The Pastoralists' Association of West Darling

AGRICULTURAL EXCELLENCE & SUSTAINABILITY RGA RICEGROWERS' ASSOCIATION OF AUSTRALIA INC

RIDLEY

Ruralco HOLDINGS LIMITED

SHEEPMEAT COUNCIL OF AUSTRALIA

Agriculture's Future Your Future ↔ Our Future TFGA

Victorian Farmers Federation

WAFARMERS THE WESTERN AUSTRALIAN FARMERS FEDERATION

WOOLPRODUCERS AUSTRALIA

TABLE OF CONTENTS

Terms of Reference 4

Executive Summary 6

1. Introduction 9

2. Labour Mobility in Europe 10

3. Labour mobility in the U.S. and Canada 12

4. Labour Mobility in Australia 14

The Mobile Worker 14

Why do workers change jobs? 17

5. Agriculture and Horticulture Occupations 19

Data limitation in relation to Agricultural & Horticulture Occupations 22

Agriculture education and skills sets 22

6. Temporary workers in Agriculture and Horticulture 25

Working Holiday Visas 25

The Seasonal Worker Program 28

7. Economic incentives for geographic labour mobility 30

8. Blueprint for Australian Agriculture 31

9. Conclusion 32

Appendix A - ANZSCO Issues Paper 34

Terms of Reference

The Australian Government has asked the Productivity Commission to assess geographic labour mobility within Australia and its role in a well-functioning labour market.

The principal objective of the study will be to examine patterns of mobility, impediments and enablers, and their effect on the ability to meet Australia's continually changing workforce and employment needs.

While the different types of labour mobility are related, the primary focus of the study is to be on geographic mobility, given regional variations in the demand for workers by occupation and supply capacity, including seasonal variations.

Geographic mobility is especially valuable in an evolving and multi speed economy, helping people to adapt and connect with the job opportunities available in different regions of Australia, including outer metropolitan and non-metropolitan locations. Enabling geographic mobility can help to relieve labour shortages, increase skills utilisation and improve earnings.

Specifically, the Commission will consider during the course of the Inquiry:-

1. Examine patterns and trends in geographic mobility (including by state/region, industry, occupation, skill level, form of employment and demographic characteristics), their relative contribution to regional labour supply, and the implications of structural, demographic and technological developments;

2. Identify the key determinants and drivers of mobility, including the costs and benefits from the perspectives of businesses, individuals, their families and governments (indicating the composition of costs faced and potential benefits in a range of representative circumstances and regions), any differences in the determinants and drivers of mobility between groups (such as employed and unemployed people), and an assessment of the effectiveness of market signals, such as wages;

3. Identify the major impediments to geographic mobility to support economic adjustment, employment and productivity outcomes;

4. Assess the current strategies used by employers and governments that affect geographic mobility, and discuss possible options to enable further mobility; and

5. Estimate the prospective economy-wide impacts of reducing impediments to geographic mobility.

The National Farmers Federation (NFF) is pleased to offer the following submission to the Productivity Commission in relation to its study into geographic labour mobility.

September 2013

Executive Summary

The National Farmers' Federation (NFF) was established in 1979 and is the peak national body representing farmers, and more broadly, agriculture across Australia. The NFF's membership comprises all Australia's major agricultural commodities. Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations form the NFF. Following a restructure of the organisation in 2009 a broader cross section of the agricultural sector has been enabled to become members of the NFF, including the breadth and the length of the supply chain.

NFF has consistently engaged in policy interaction with government regarding labour issues, providing high-level important recommendations to support employer's engagement in a range of workforce development programs. We consider the Productivity Commissions study into 'Geographic Labour Mobility' to be of critical importance to the future labour supply of the Agriculture Industries.

In our view people weigh up a complex range of costs and benefits when deciding where to live and work (including economic, social and environmental factors) and they can face diverse barriers (from the availability of affordable housing to information deficiencies, transport connections, difficulties in skills recognition and transaction costs). NFF recognised that a comparative understanding of these issues and underlying causes will help different stakeholders - employers and governments that affect geographic mobility. NFF proposed the following to enable further mobility within the Australian agricultural sector:

- The modern Australia, with its outward-looking focus, structural transition, requires a high level of adaptability and flexibility in the labour market. In today's economy, change takes place more quickly and dramatically than was previously the case. Industries in transition such as agriculture, need capabilities to adjust their labour supply and its efficiency to compete on the global supply chains. Regular and accurate measures of labour and skills shortages in the agricultural sector is required to understand current and future

needs and to overcome current labour market data limitations. The development of a 'Labour Market Profile of Agriculture' would assist industry and Government react to the needs of individual agriculture/horticulture businesses, industries or regions.

- It is essential that Australia has a positive and robust migration program. NFF recommends that Government must ensure that visa fees and arrangements are internationally competitive given the globalization of the labour market, and encourage the freer flow of labour, both in and out of Australia, with particular focus on streamlining the working holiday visa and seasonal workers programs to meet the agricultural sector seasonal labour demands.

- Developing the skills of the current and future Australian agriculture workforce, and ensuring that the right skills are in the right place at the right time, is a critical challenge. Industry is sending warning bells on the future of food manufacturing. Ageing of the agricultural workforce remains on an unsustainable course without rapid and decisive intervention. We are one of the most diversified and rapidly changing workforces in the economy, comprising seasonal, casual, contract and permanent workers, further compounded by ownership structures, which range from smaller operators and family farms to sovereign wealth funds and multinationals. Publicly funded 'Skills Sets' within vocational education and training (VET) could provide a more flexible and realistic means of up-skilling and cross skilling workers to assist with job mobility and workplace development of the agriculture sector labour force.

- A range of policy initiatives should be considered to enhance geographical labour mobility in rural and regional Australia rather than diminish. In the NFFs view, government policy development and implementation must be targeted and efficient, and must not exceed what is necessary to achieve policy goals or have unintended consequences.

Governments at all levels, but especially the federal government, have responsibility for setting out the national reform effort, and bring about the policy, cultural and legislative changes that it compels. NFF and our members have conviction that a successful economy with structural strength and geographic labour mobility is the underpinning of healthy communities.

1. Introduction

There are approximately 135,000 farm businesses in Australia,[1] 95 percent of which are family owned and operated.[2] The contribution of these businesses to the broader Australian economy is significant, contributing to our social, economic and environmental sustainability. Although some general statements can be made about the characteristics of these businesses, ultimately factors such as labour mobility will differ between businesses.

Labour mobility consists of changes in the location of workers both across physical space (geographic mobility) and across a set of jobs (occupational mobility). Geographic mobility can be further subdivided into short-distance and long-distance moves, as well as into voluntary and coerced migration.

Occupational mobility can be lateral (within a broad class of jobs similar in socioeconomic status) or vertical (from one job to a better or worse job). The availability of large, nationally-representative longitudinal surveys in the late twentieth century has made it possible to measure the extent of mobility in all these dimensions, and how they are related, in several developed economies. Our understanding of the extent of labour mobility through history has been enhanced by work conducted since the 1970s in which the careers of individual workers are reconstructed by locating them in censuses and census-like enumerations (city directories, tax lists, population registers) at successive dates.

At the aggregate level, labour mobility conveys important economic benefits. The reallocation of workers across regions permits the exploitation of complementary resources as they are discovered in new places, while reallocation across sectors makes possible the use of new technologies and the growth of new industries. At the individual level, mobility allows for improvements in the economic circumstances of those whose skills or aspirations are a poor match for the job or location in which they find themselves.

The impact of labour mobility extends well beyond these economic considerations, however. The ability of fluid U.S. labour markets to deter labour radicalization has been

1 Australian Bureau of Statistics, Agricultural Commodities, 2010/2011, Catalogue No. 7121.0.
2 ABARES, 2012.

recognized by Karl Marx, Selig Perlman, and Stephan Thernstrom. Since the work of Frederick Jackson Turner more than a century ago, scholars have debated the role of the frontier in forging a particularly American political economy in the U.S. Sociologists have examined the impact of mobility on the operation of communities and interpersonal relationships, and political scientists have considered how mobility effects political participation and coalition formation.

2. Labour Mobility in Europe

Information on the occupational mobility of labour in Australia is rare before the nineteenth century. Parish records and civilian population registers, however, provide a glimpse of labour's geographic mobility. High rates of geographic mobility can be seen well before the advent of modern industrial economies. Young workers in agriculture were employed off the family farm as farm servants in Britain throughout the seventeenth and eighteenth centuries, moving to different farms at the end of each year. On the continent, gangs of workers followed the harvest across national borders, returning to their home villages after months at a time on the road. Though much of this movement was only temporary, more permanent movement to villages and towns was essential to the growth of cottage industry. Several trans-national migrations (the Irish into Britain, the Belgians into France, and Poles into Germany) were prominent features of European industrial and urban growth.

Recent research on labour mobility in Britain has produced more detailed conclusions. The British populace of the nineteenth century was highly mobile. England, Wales, and Scotland were virtually free of institutional barriers to geographic mobility. Though the Poor Law's provision of a degree of economic security created some disincentive to mobility, it was small compared to the effects of large-scale social welfare programs of the twentieth century.

Nineteenth century Britain saw both high rates of internal mobility and overseas emigration. Emigrants left primarily for the United States, though many also went to Canada and Australia. These long-distance movers tended to be young, single, and male. Internal migration within England, Wales, and Scotland was a very different phenomenon. Between 1851 and 1881, approximately one in four people changed their county of

residence; more than half moved from one town to another. Like overseas migrants, internal movers tended to be young. Unlike overseas migrants, more females moved within the country than did males, and single people were no more likely to move than were married people.

Most strikingly, internal moves tended to cover very short distances. Between 1851 and 1881, the average internal migrant moved only 35 miles; one quarter moved less than five miles. There was no clear regional pattern to nineteenth century internal migration, unlike the steady flow of westward migrants in the U.S. at the time. One of the most distinctive patterns of British internal migration was the prevalence of rural-to-urban moves. Virtually all of Britain's nineteenth century population growth was accruing to the cities, which expanded both by natural increase and by population influx from the rural areas. In the mid-1800s, more than one out of every three rural residents of Great Britain left for an urban area. Most left for the nearest city, though London drew migrants from all over the country, as it had since the seventeenth century. The industrialized urban areas of Lancashire and Yorkshire also drew many rural migrants.

Overseas emigrants and internal migrants within Britain moved for many reasons, but chief among them was the search for economic gain. Wage gaps and the chance for upward occupational mobility drew migrants to the U.S. and to the cities. The British labour market did not exhibit as much occupational mobility, either between or within generations, as it did geographic. Nineteenth century marriage registries indicate that well over half of all sons worked in jobs of similar socioeconomic status to their fathers. Following males across censuses reveals a similar pattern over the individual career history: more than half of all males did not change socioeconomic status over their careers. The socioeconomic status and occupation of the father exerted a strong influence on the socioeconomic status of the son; however, opportunity did exist to improve the odds of mobility. The cities provided one such opportunity. Males who moved from a rural to an urban area experienced more upward mobility than they would have had they remained. Education provided another avenue of mobility. Sons from all economic backgrounds were more likely to exceed their father's socioeconomic status if they attended some elementary school than if they did not, and the likelihood increased with years of schooling.

3. Labour mobility in the U.S. and Canada

The most important form of labour mobility in the first century of European settlement of North America was voluntary immigration from Europe by whites and coerced immigration from Africa by blacks. In the absence of immigration, many of the initial settlements would not have survived, given the high mortality rates and low rates of natural increase. Three quarters of the white arrivals may have been indentured servants who agreed to work for a period of four to seven years to repay their passage fare. By the 1680s, black's slaves were being imported as well to work in Southern tobacco and rice cultivation.

Since the start of the seventeenth century, Americans have experienced high rates of labour mobility within the colonies and later within the U.S. This stems from the propensity of those who have migrated once (like trans-Atlantic immigrants) to make subsequent moves. Even among the native-born, though, mobility was frequent, because of both the availability of largely unsettled land through the end of the nineteenth century and an absence of restrictions on movement across locations or across jobs. Though colonial governments attempted to reduce mobility by requiring permission for travel and imposing severe penalties on runaway workers, there is little reason to believe these measures were successful. The absence of strong craft guilds and the absence of organized labour generally down through the 1880s made occupational mobility similarly free from restrictions.

Before 1900, American workers were employed largely through "spot" markets in which job attachment was weak and turnover rates were high. By the 1920s, as more formal systems of recruitment and labour monitoring evolved, job tenure increased, though it remained substantially below levels observed in other developed counties throughout the twentieth century.

Measurement of labour mobility requires examination of sources that either record an individual's location or occupation at two or more points in time or allow inferences to be drawn regarding how the locations or occupations of a particular group of individuals have changed over time. For the colonial period, only a few generalizations are possible. Indentured servants in the South had good success in improving their socioeconomic

status after their term of service ended through the 1660s, but were apparently less successful later. As land prices rose in the late seventeenth century tobacco boom, more found it necessary to migrate to another colony to find success. Colonial army muster rolls show high rates of geographic mobility by the Revolutionary War.

For the middle of the nineteenth century, it is possible to measure labour mobility directly by following individuals from one census to another. Between 1850 and 1860, roughly two thirds of adult males moved from one county to another, with higher migration rates among less skilled workers. Migrants experienced more occupational mobility (both upward and downward) than otherwise similar non-migrants. The work of Frederick Jackson Turner and a generation of historians examined the importance of the frontier as a place where workers could improve their circumstances. More recent research validates this view of the frontier: workers who went there indeed did better than they would have done at their places of origin. Beginning in the 1840s, workers also migrated in large numbers from farms to cities. Many of these were young women and children employed in New England textile mills, and the younger sons of farm households opening of whose prospects were unfavourable in the farm sector.

The available evidence on wages in the first half of the nineteenth century demonstrates that the movement of workers to the west was successful in eliminating inter-regional wage differences within both the northern and southern tiers of states (though pronounced north-south differentials remained). Movement of workers from farms to cities and towns eliminated any substantial wage gap between farm and urban workers, after adjusting for cost-of-living differences.

Among those who remained in agriculture, both geographic and occupational mobility can be seen throughout the nineteenth and early twentieth centuries. Farmers migrated in large numbers from the Middle Atlantic and South Atlantic states to regions farther west, generally moving along lines of latitude both to economise on the direct cost of migration and to take better advantage of latitude-specific farming skills. As farm making costs and the prices of existing farms increased, some individuals found it increasingly difficult to purchase farms early in their careers. By 1900, as many as a quarter of the nation's farms were occupied by tenants, with higher tenancy rates in the South. Though concern increased in the 1920s and 1930s that mobility from tenant to owner was becoming

increasingly difficult, particularly in the South, recent evidence finds that tenancy remained merely a stage in the eventual transition to ownership.

Throughout the second half of the nineteenth century and into the 1920s, voluntary immigration from Europe provided millions of new workers for the economy. Most were able to enter better jobs after their entry than they possessed in Europe. Beginning in the 1910s, an additional form of labour mobility can be seen: large numbers of black farm workers (the descendants of slaves forcibly transported to the South from Africa) migrated voluntarily to Northern cities where they took up urban employment.

Few sources make possible long-run comparisons of labour mobility in different eras. In the 1850s, migration across county boundaries was more common than it was in the 1970s. Upward occupational mobility was also somewhat more common in the 1850s than in the 1970, both in comparisons of fathers' and sons' occupations and in comparisons of individuals' first and last occupations.

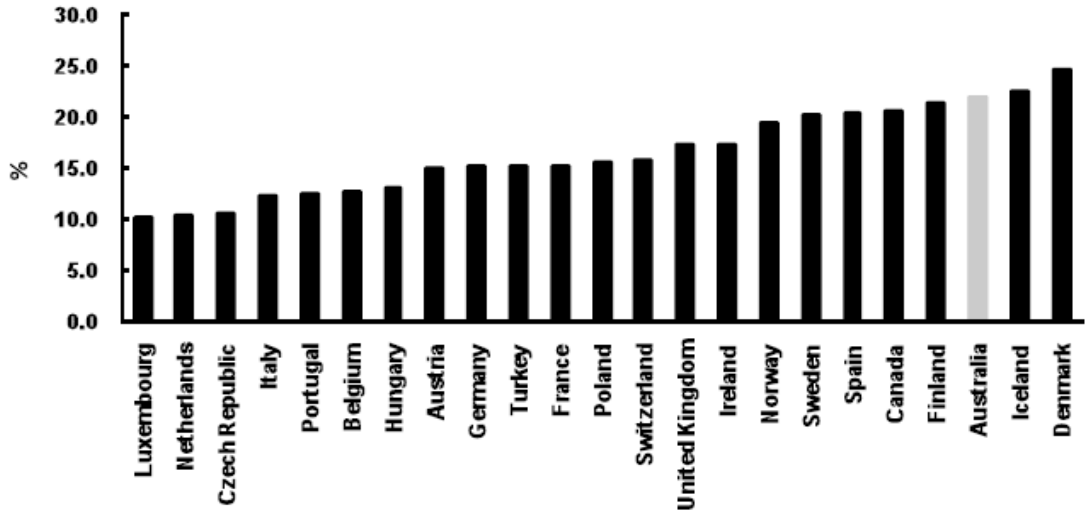
4. Labour Mobility in Australia

The Mobile Worker

The Australian labour force is highly flexible. While the measures might not be perfect, workers seem more likely to change jobs than in almost all other OECD countries. Around 10% or more change their job each year, and of this number perhaps three in four change their industry, their occupation or both. Around twice this number experience significant change to the nature of their work but do not change jobs. Perhaps another 3% to 5% (although the recent data are not very good) make a significant locality change in association with their work, a rate that seems to be somewhat above that observed in Canada or the United States. Taken together, these figures do not suggest that Australia has a significant labour mobility problem - See Figure 1.

Figure 1

Employed person in their current jobs for less than 12 months, OECD countries, 2008(%)

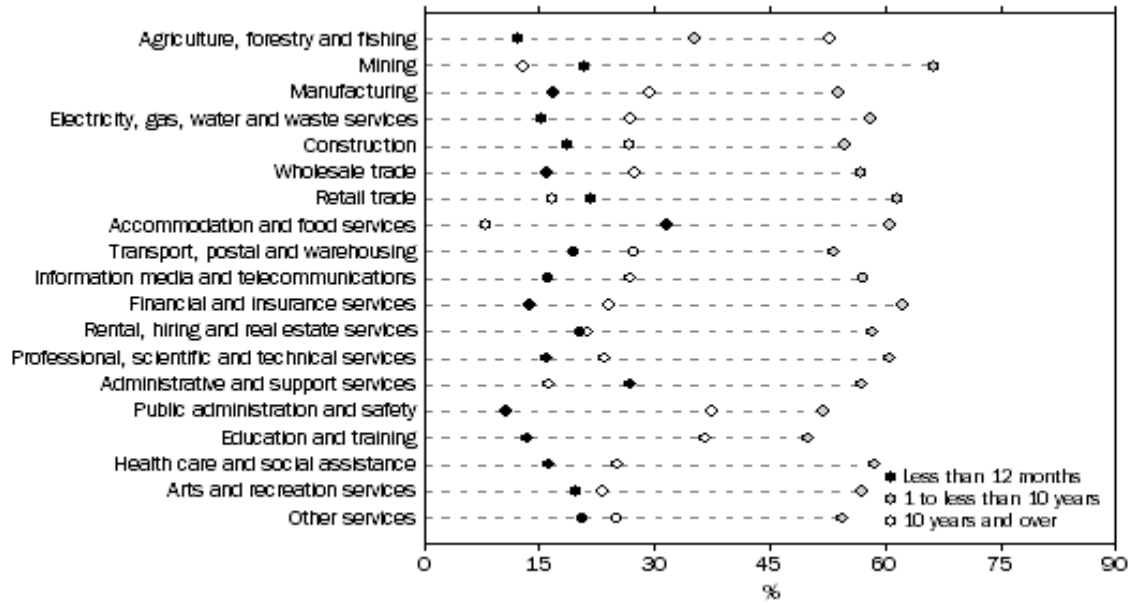


Source: OECD.Stat (i.e. <http://stats.oecd.org/Index.aspx>).

Mostly, people change jobs because they don't like the one they have (although perhaps one in three of those who change has to leave their job involuntarily). Most people who leave their job do so when they are under the age of 35 years, and they are more likely to make the change if they do not have houses, mortgages and family commitments. Job changing is also more likely if people are on casual contracts or if they work for small enterprises that offer fewer prospects for career variety and career development. Organisational commitment to the person seems to matter, as well as personal commitment to the organisation. Although education and training per se do not seem to be strongly related to mobility, when people who have post-school qualifications change their jobs, they seem to be much less likely to change their industry or their occupation, and more likely just to change their job, than are people without post-school qualifications. The overall state and nature of the labour market also seems to influence mobility, as do personality factors such as a willingness to take risks and have the skills to manage their own career, but the impact of these factors should not be exaggerated above other factors. Changing jobs doesn't appear to have a major impact upon people's earnings, but it does seem that it increases happiness, skill development and skill use.

Figure 2

Persons working at February 2013, Duration with current employer/business-By industry[3]



There were 2.9 million people who were working at February 2013 who had been with their current employer/business for 10 years or more. This represented 27% of men and 23% of women who were working at February 2013. The industry Divisions with the highest proportion of people who had been with their current employer/business for 10 years or more were:

- **Agriculture, forestry and fishing (53%);**
- Public administration and safety (37%); and
- Education and training (37%).

It is hard to see any consistent attitude towards the desirability or otherwise of either tenure or mobility across a number of areas of Australian public policy. Some policies pull in one direction, some in the opposite, whether by intent or not. Some influence some forms of mobility, but leave others largely unaffected. Examples include policies that relate to education and training, retirement income, wage fixation, home ownership, family support, unfair dismissal, and occupational licensing. Many of the major factors that influence tenure and mobility do not appear to be readily open to direct policy intervention. And it is hard to identify common interests in either tenure or mobility

3 ABS Labour mobility Australia, cat. No 6209.9 (2013).

among either enterprises or individuals. For these reasons policies intended to influence either mobility or tenure seem difficult to design and target if they are not to have unintended consequences. The most sensible assumptions for policy are that rigidities that reduce the dynamism of the labour market should be avoided, and that policies that maximise individual happiness and skill development should be promoted. Over and above this, agriculture employers and individuals should be left to sort things out for themselves. This suggests that it makes a great deal of sense for the governments to focus upon policies to improve people's career development and thus their job satisfaction, whether these are achieved through job changing or through job tenure. Such policy stances are likely to benefit both individuals and enterprises.

Why do workers change jobs?

What is the extent of labour mobility in Australia? Why do workers change jobs? How far do workers move when they change jobs? What are the characteristics of those workers who do change jobs and how do they differ from those who don't? Finally, are workers better off after changing their job? These are the core questions which this part of the submission addresses.

We are fortunate in Australia to have a unique longitudinal dataset - the Household, Income and Labour Dynamics in Australia (HILDA) Survey - which is ideal for tracking changes over time and which provides a wealth of labour market information. In following adult employees who changed their jobs from one year to the next, this survey can be used to answer these questions.

About 15 - 17% of workers change their jobs from one year to the next. Most of these workers change jobs because they are dissatisfied with their current job, or because they want a better job. Involuntary job loss - either through retrenchment or the temporary nature of the job - declined considerably over the period 2002 - 2008. When workers do change jobs, they are most likely to stay in the same residence or, if they do move, to stay in the same local labour market. Only a small proportion actually move interstate or move any considerable distance.

The most distinctive characteristic of job changers is their age: changing jobs is very much the province of the young. Workers aged under 30 years have almost twice the probability of changing jobs as those in their 50s and upwards. Another demographic feature of job

changers is their geographical location: workers living in the Northern Territory, the Australian Capital Territory and Perth are much more likely to change jobs, while those in Tasmania are much less likely.

Among the labour market characteristics, the most distinctive feature is the role of labour market insecurity. Those workers employed as casuals are far more likely to change jobs than those not so employed. Those workers with a prior history of unemployment, or who had spent time outside the labour market, are also more likely to change jobs. While occupational tenure does not count for much, job tenure certainly does. Those workers who have been in jobs for long periods are much less likely to change their job.

Industries with high levels of job changing include accommodation, cafes and restaurants, construction and transport. Those with low levels include agriculture, education, information services and health and community services. Among female workers there appears to be a sharp distinction between higher-skilled occupations - where job changing is more common and lower-skilled occupations where job changing is less common. Male workers do not follow this pattern.

Workers employed in large organisations - those with 500 or more employees - are much less likely to change jobs. Those in the smallest workplaces - those with under 20 employees - are much more likely to change jobs. Union membership and access to training appear to be only weakly associated with job changing.

Some unique personality and attitudinal data items can be extrapolated for the Household, Income and Labour Dynamics in Australia Survey. Analysis of these shows that 'extroverts' are much more likely to change jobs than are most other personality types. Workers who are dissatisfied with the nature of their job and with the level of job security are much more likely to change jobs. These factors are more important than satisfaction with the income from that job.

By regarding job changing as a treatment, and comparing job changers with a control group - those who don't change their jobs - it is possible to analyse the impact of job changing on earnings, satisfaction and skills. This analysis shows that job changing does not lead, on average, to an increase in earnings. This applies to both hourly rates of pay and annual

earnings. On the other hand, job changing does lead, on average, to greater levels of job satisfaction. This applies to all areas - pay, hours, flexibility and the work itself - except for the issue of job security. This is largely unaffected by changing jobs, suggesting that those workers who are marginalised in the labour market, such as those working in short-term casual jobs, may be caught up in patterns of job churning, in which finding a new job does not lead to greater job security.

Finally, changing jobs has good outcomes in terms of productivity. Both the opportunity to acquire new skills and the use of existing skills are enhanced by changing jobs.

5. Agriculture and Horticulture Occupations

The Australian Bureau of Statistics (ABS) produces a report entitled 'Labour Market Research' which provides an overview of the labour market for a number of diverse occupations that are grouped together as they relate to agricultural and horticultural activities. It does not provide information about the labour market for the Agriculture, Forestry and Fishing[4] sector but does cover some of the key occupations within this industry. The latest report recognises that Agriculture, Forestry and Fishing employs 322,500 workers and is a vital industry to Australia's economy. [5]

The employment profile for these occupations is complex, while the general profile[6] of the industry is as follows:

- Australia's Agrifood industry comprises five (5) major sectors: agriculture, horticulture and conservation land management; food, beverage and pharmaceutical manufacturing; meat processing and retail; seafood and racing.

4 The broad industry group Agriculture, Forestry and Fishing is generally used in this document rather than the narrower Agriculture, as occupations such as shearer are included in Services to Agriculture, Forestry and Fishing which is not captured in Agriculture.
5 ABS Labour Force Survey, November 2012, trend.
6 AgriFood Skills Australia, *Environmental Scan*, 2013. DEEWR, *Agriculture and Horticulture Occupations 2012-13*, Labour Market Research and Analysis Branch and ABS, *Labour Force Survey*, November 2012, trend.

- 880,000 people are employed in Agrifood whereas Agriculture, Forestry and Fishing is a relatively small industry, employing approximately 322,500 full time and part time workers, which is around 2.9 per cent of the total workforce.[7]

Table 1
Employment profile Agriculture, Forestry and Fishing industry[8]

ANZSCO code and Occupation title	Employment in industry	Proportion of total industry employment (%)
121411 Mixed Crop and Livestock Farmer	33,910	13.6
121312 Beef Cattle Farmer	30,310	12.1
121313 Dairy Cattle Farmer	12,540	5.0
121317 Mixed Livestock Farmer	10,790	4.3
121322 Sheep Farmer	10,240	4.1
121214 Grain, Oilseed or Pasture Grower	9500	3.8
121213 Fruit or Nut Grower	7970	3.2
121221 Vegetable Grower	6150	2.5
841511 Beef Cattle Farm Worker	5930	2.4
721111 Agricultural and Horticultural Mobile Plant Operator	5100	2.0
121215 Grape Grower	3580	1.4
121217 Sugar Cane Grower	3560	1.4
841211 Fruit or Nut Farm Worker	3430	1.4
841611 Mixed Crop and Livestock Farm Worker	3350	1.3
841512 Dairy Cattle Farm Worker	3110	1.2
361211 Shearer	2980	1.2
899212 Fishing Hand	2750	1.1
841216 Vineyard Worker	2600	1.0
121000 Other Farmers and Farm Managers	2550	1.0
551211 Bookkeeper	2530	1.0
841212 Fruit or Nut Picker	2330	0.9
841299 Other Crop Farm Workers	2150	0.9
121216 Mixed Crop Farmer	2080	0.8
121321 Poultry Farmer	1960	0.8
531111 General Clerk	1950	0.8
832113 Fruit and Vegetable Packer	1920	0.8
841214 Vegetable Farm Worker	1890	0.8
733111 Truck Driver (General)	1690	0.7
841515 Sheep Farm Worker	1650	0.7
841513 Mixed Livestock Farm Worker	1630	0.7

7 ABS Census of Population and Housing, 2011.
8 Ibid.

Table 2:
Employment profile - Agriculture and horticulture occupations[9]

Occupation	Employment November 2012	Employment change, year to November 2012		Employment change, five years to November 2012	
	('000)	('000)	(%)	('000)	(%)
Farmers and Farm Managers	162.4	-15.2	-8.5	-36.7	-18.4
Agricultural and Forestry Scientists	7.6	0.4	5.7	1.4	21.7
Agricultural Technician	3.8	2.7	-	1.2	47.1
Shearer	3.7	0.4	11.9	-0.7	-16.3
Gardeners	69.2	5.0	7.7	9.9	16.6
Nurseryperson	7.8	3.5	82.8	1.8	29.6

- The number of Australian farmers has fallen by over 100,000 in the three decades since 1981, yet the value of Australian agricultural exports in this time has grown from $8.2 to $32.5 billion.
- Employment in the Agriculture, Forestry and Fishing industry is concentrated in regional Australia, with the largest employment in Northern and Western NSW (30,300 workers), Darling Downs-South West (21,200), and Remainder-Balance WA (20,700).
- Employment in the industry overall has decreased 27.2 per cent in the last ten years, the largest decline of any industries in Australia over this period. This decline in employment encompasses the drought period which the industry is now emerging from.
- In the medium term (over the past five years) employment has declined in nine of the 15 sectors, at a rate of 1.2 per cent per annum. The largest decline was recorded in the Fruit and Tree Nut Growing sector followed by the Sheep, Beef Cattle and Grain Farming and Mushroom and Vegetable Growing sectors.
- While overall employment in the industry has declined, some sectors have recorded employment gains. The largest growth was recorded in the Dairy Cattle sector (up by 54.6 per cent) followed by Poultry Farming (25.9 per cent).

[9] ABS, Labour Force Survey, November 2012, DEEWR trend.

Data limitation in relation to Agricultural & Horticulture Occupations

It is particularly difficult to research occupations at the technician level in the agricultural and horticultural sector. Australian and New Zealand Standard Classification of Occupations (ANZSCO) codes includes a diverse range of roles across quite different agricultural industries (for example, dairy technician, field crop tester, poultry technical officer and artificial insemination technician) under a single code for agricultural technician, while other roles in the sector fall under occupations that can be found across a variety of industries (for example, irrigation technician is coded to plumber).

NFF has established a Taskforce entitle 'National Agribusiness Education, Skills and Labour Taskforce (NEST) which has developed an 'Issues Paper' in relation to current deficiencies with the ANZSCO system, which can be found in Appendix 'A'.

In our view existing standards for classifying occupations (ANZSCO) and industries (Australian and New Zealand Standard Industrial Classification (ANZSIC)) need to be expanded to improve the labour and skills information available for the agricultural and horticultural sectors:

- The data collected on agricultural production, employment and occupational statistics by various reporting organisations needs greater consistency and concordance;
- Regular and accurate measures of labour and skills shortages in the agricultural sector are required to understand current and future needs, including information on peaks and troughs in the seasonal production cycle.

NFF has recommend that Government undertake the 'Development of a Labour Market Force Profile of Agriculture' to reflect the seasonal production demands or the needs of individual agriculture/horticulture businesses, industries or regions.

Agriculture education and skills sets

The Executive Director of the Australian Farm Institute, Mr Mick Keogh,[10] has suggested that changes are likely to occur in farm business structures, with a growing view by agricultural economists that corporate farming is likely to grow in the future to improve

10 Australian Farm Institute, Editorial, Farm Policy Journal, Vol 9 No 2, Winter Quarter 2012.

competiveness. With scale advantages and the trend to corporate style farming, the lack of labour has encouraged larger scale investment in capital equipment needing less labour, but requiring higher skills to operate efficiently and safely. Employers are reporting a shortage of available workers with these higher level skills – and therefore a need to utilise existing workers skills better and to use more innovative skilling to train workers that are available locally to meet the need.

While farmers are less likely than other occupations to hold educational qualifications higher than school level, growing numbers are pursuing further educational opportunities. Combined with decreasing numbers of graduates completing agriculture and agriculture-related courses, which has been estimated at approximately 700 per year, well below the 4000 positions being advertised each year.[11] Enrolments in agriculture have also declined from approximately 4,500 in 2001 to less than 2,500 in 2010.[12] However, more than 50 percent of farm workers still do not hold any formal qualifications post-secondary school, well above the economy-wide average.[13]

Too address the declining education engagement from agriculture sectors there has been a strong call for education and training to be delivered as skill sets - or 'building blocks' - as opposed to full qualifications, due to agriculture having a strong preference for acquiring skill sets to perform specific functions or tasks. Greater flexibility and support is needed in the funding and delivery of these skill sets. The ongoing low qualification completion rates represent a lost opportunity for individuals, employers and governments.

One area that NFF views could improve geographic labour mobility is training and skill development of farm workers. This is an area that could be vastly improved by the Government through greater engagement with the agricultural sector. There are a wide variety of roles carried out on Australian farms and these need to be supported by a wide variety of skills. In addition to what can be learnt on farm, formal training is one pathway in which employees can build the required skills. Specifically, industry has been calling for the publicly funded delivery of both Skills Sets (that are recognised formally within Training Packages) and individual or groups of units of competency which meet a

11 http://www.abc.net.au/landline/content/2012/s3450695.htm.
12 Rebuilding the Agriculture Workforce, Allen Consulting Group, 2012.
13 Ibid.

learner's diagnosed needs (sometimes referred to as 'skills sets' as a way of developing the industry's workforce).

To understand this position is to recognise that within many sectors (and regional Australia more broadly) learning is typically incremental, socially embedded and occurs over a lifetime. Job pathways can be horizontal or tangential and involve a 'building block' approach to gaining a portfolio of skills – fundamental to securing and maintaining employment in rural Australia. For farming specifically, the role of employees could vary from Jackeroo/Jillaroo to Station Manager; the pathways between these two roles are varied and the difference between the two positions is not simply a qualification.

It is not proposed that the delivery of Skills Sets or units of competency occur at the expense of full qualifications or on the job learning. Several sectors support qualifications as the recognised pathway into industry roles and many on-farm roles benefit from having tertiary qualified staff. However, even within those sectors, incremental learning or building blocks of skills remain a mechanism by which qualified workers subsequently maintain currency of skills and in many instances, progress through to other job roles. Skills Sets and units of competency are also the required response to the broad trend for workers to be higher skilled (as distinct from highly skilled).[14]

Refusal by policymakers to acknowledge incremental learning as a legitimate strategy for building human capital and maintaining the relevance of a rapidly ageing workforce is cited as one of, if not the biggest, blockage to building the adaptive capacity of industry in the face of significant adjustment. Industry is resolute that policymakers' insistence on full qualifications will not change the learning culture of industry, rather that sectors will gravitate away from the system and towards open source, informal learning.

Where Skills Sets are publicly funded, it is typically at a one-off program level in a particular jurisdiction. Training providers echo industry calls for a nationally consistent, systemic commitment to incremental learning and advise that strategic, timely responses

14 Skill Sets are defined as single units of competency or combinations of units of competency from a nationally endorsed Training Package, which link to a licence or regulatory requirement, or a defined industry need. Units of competency that form a Skill Set can be drawn from one or more Training Packages.

to industry's skill needs are often reliant on "working" the funding pools and that responsiveness is "despite not because of" current policy settings.

All of this suggests that the debate over whether policy should focus on Skills Sets, informal skills sets or qualifications is irrelevant; rather it should establish how the system can better support the long espoused philosophy of 'lifelong' learning and the realities of an increasingly competitive business environment and position the industry to be 'employers of choice', while meeting industries mobility, workforce planning and development needs.

There is an urgent need to address these issues because the sector requires more people with tertiary qualifications, and declining enrolments could lead to the loss of university facilities, leaving a permanent shortage of skilled workers and curtailing the ability of the sector to innovate and grow.

6. Temporary workers in Agriculture and Horticulture

Working Holiday Visas

The industry regards temporary working holidaymakers as critical to meeting seasonal demand for a number of agriculture commodities. The visa classes that apply are as follows:

- All Working Holiday Makers (both Working Holiday (subclass 417) and Work and Holiday (subclass 462 visa holders) may work for the full duration of their 12-month stay in Australia, but may not remain with any one employer for longer than six months.
- In 2005, a second Working Holiday visa initiative was introduced that allows first time Working Holiday (subclass 417) visa holders to undertake 88 days specified work in regional Australia during their stay to acquire eligibility to apply for a second such visa. Specified work includes work in the Agriculture, Mining and Construction industries.

There has been an increase in all Working Holiday visa (WHV) categories between 2007/08 and 2011/12, with a total increase of 65,162 or 29 per cent to 222,992 visas. Total number of working holiday visa (WHV) applications granted 2007/08 to 2011/12 is in Table 3.

Table 3
Total Number of working holiday visa (WHV) applications granted[15]

	2007–08	2008–09	2009–10	2010–11	2011–12
1st Working Holiday 417 visa	14,2516	166,132	150,431	162,980	**184,143**
2nd Working Holiday 417 visa	11,826	21,775	25,315	22,500	**30,501**
Working Holiday 462 visa	3,488	6,409	7,422	7,442	**8,348**
TOTAL	**157,830**	**194,316**	**183,168**	**192,922**	**222,992**

Between 2004/05 and 2007/08 the number of WHM program visas issued increased by 48%, from 104,000 to 157,000. Over the same time, international visitation to Australia increased by just 4.5% and significantly, 'non-backpacker' visitation increased by just 3.3%.[16] This growth in the popularity of the WHM program visa runs counter to international arrival trends evident in the Australian tourism industry in recent years.

The WHM program attracts an increased number of international visitors and is a key motivator in young people's decision to come to Australia. These visitors boost the prosperity of the agriculture sector and the Australian economy in three key ways:

1. By increasing expenditure and output for key tourism sectors given the high spend of international tourists overall and the higher spend of backpacker visitors (60% higher than the average international visitor). Backpackers stay an average of 73 nights and spend over $5,400, while working holiday makers have an extended stay averaging 8 months and spend over $13,000 each.

15 DIAC, 2012, Working Holiday Maker Visa Program report, June, available at http://www.immi.gov.au/media/statistics/visitor.htm.
16 Tourism Research Australia (TRA), International Visitor Survey. Superweb data, 2004/05 – 2007/08.

2. By providing a significantly to employment and economic prosperity in regional Australia as both a key source of labour supply and driving spending in regional communities.
3. By generating significant income to the Australian economy as a whole. With more than 222,000[17] international tourists holding a WHV 417 in June 2013, this equates to a boost to Australian GDP.

The WHM program is a driving force in attracting backpackers to Australia and contributes to structurally underpinning the overall sector, with backpacker expenditure valued at $3.3 billion to the Australian economy in 2011.[18] Research undertaken by Dr Jarvis and Dr Peel of the National Centre for Australian Studies at Monash University identified 62 per cent of the sample of WHM program visitors interviewed in Mildura in 2010 were motivated to leave home and travel to Australia by the availability of WHM program visas.[19] In addition 32 per cent claimed that if Australia did not have the WHM visa program they would have not come to the country.[20] This finding shows the WHM program is a significant driving force in attracting backpackers to Australia, allowing them to fund their stay and local travel.

The WHM program is a long-standing and successful cultural exchange for younger visitors to Australia on a reciprocal basis. To improve the flexibility of the WHM program and enhance the contribution of working holiday makers toward moving to increased labour mobility for the primary industries, NFF recommends:

- The costs and financial requirements of applying for WHM program visas be held constant or reduced;
- The qualifying age range be increased from 18–30 up to 35 years in line with other countries;
- Multiple visa applications be permitted, one between 18–25 years of age and a second one from 26–30/35 years;

17 This figure represents both first and second year WHV.
18 International Visitor Survey, September 2011.
19 Jarvis, J and Peel, V. 'Long Term Tourists or Short Term Migrants": The Impact of International Working Holiday Makers on the Tourism Economy of Regional Australia. National Centre for Australian Studies, Monash University, Melbourne, 2011.
20 Ibid.

- Better engagement with the industry as the Government looks to expand the WHM program to new source countries.
- Creation of pathways that allows WHM (both Working Holiday (subclass 417) and Work and Holiday (subclass 462 visa holders) to matriculate into a Temporary Work (Skilled) visa (subclass 457) for agriculture.

The WHM program, and specifically the WHV 417 visa, offers an opportunity to structurally insulate the sector and the regional economies that rely on the sector. At the same time, the WHM program can address some of the current and future skills shortages faced by the wider economy.

The Seasonal Worker Program

The Pilot was announced by the Australian Government in August 2008 and concluded on 30 June 2012. Between February 2009 and June 2012, the Australian Government piloted a Seasonal Worker Scheme, with the following results:

- 1,623 seasonal workers arrived in Australia under the pilot;
- 22 organisations became approved employers for the pilot;
- Seasonal workers were placed in 35 locations across all States and the Northern Territory; and
- Seasonal workers were recruited from the following countries: East Timor, Kiribati, Papua New Guinea, Samoa, Tonga and Vanuatu.

The broad objectives of the seasonal worker program are as follows:

- Contribute to Australia's economic development objectives in the Pacific region, in particular by enabling workers to contribute to economic development in their home countries through remittances, employment experience and training gained from participating in the Pilot.
- Assist Australian employers in the horticulture industry who have demonstrated unmet demand for labour.

The final evaluation of the pacific seasonal worker pilot scheme report[21] examined the potential demand for seasonal workers across a number of industries, the performance of the Pilot focused on the horticulture industry only. Generally, there was a lack of reliable and definitive data on unmet seasonal demand in the horticulture industry. While industry voiced strong views on the need for a labour migration program to prevent 'fruit rotting on the vine', the Senate Committee of 2006 found no empirical evidence of labour shortages leading to such losses but endorsed the need for a circular migration program to support workforce planning. The horticultural sector displayed high reliance on overseas visitors (accounting for up to 90 percent of seasonal workers in areas like Mundubbera) and was highly vulnerable to global events (such as the global recession). Industry reliance on itinerate workers was seen as resulting in lack of workforce planning, lack of access to a consistent reliable workforce, and low productivity. There were also anecdotal reports from stakeholders interviewed about reliance on low cost, illegal and undocumented labour. Within this context, the Pacific seasonal workers provided a consistent, reliable, legal alternative mobile workforce in situations where adequate Australian workers could not be sourced.

Following the pilot, the Seasonal Worker Program launched from 1 July 2012, has 12,000 places available over the next four years. The Seasonal Worker Program allows Australian employers in the horticulture industry to employ workers from eight Pacific island countries and Timor-Leste, when they cannot find enough local workers to meet seasonal demands.

The program also contributes to the economic development of the participating countries, which are Timor-Leste, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. It offers a reliable, returning workforce to Australian employers and seasonal workers employed through this program can undertake varied roles in the horticulture industry.

A three year trial of the use of seasonal workers with accommodation providers, aquaculture ventures and cotton and cane growers is also taking place in selected

21 Department of Education, Employment and Workplace Relations, September 2011.

locations. The industries aim is to move towards further expansion of the 'Season Worker Program', across other parts of the agriculture sector.

7. Economic incentives for geographic labour mobility

As discussed above, labour mobility is a complex issue that incorporates economic, demographic and social influences. This is particularly the case in the Australian farm sector. Geographic labour mobility assists the demand for labour to be met particularly in rural and remote regions where agriculture is located. A person or family moving from one location to another for work is a multifaceted judgment decision, both policy and regulatory settings can influence the decision-making process. Consideration needs to be given to measures that assist in the provision of labour but does not have unintended consequences for the economic or social fabric of the region or sector in question.

Flexible labour markets are critical for allowing an efficient allocation of resources, particularly in rural and regional areas of Australia where labour and other resources are not as abundant as urban regions. The efficiency of the labour market is reflective of how well a society shifts workers from one economic activity to another with the minimum economic or social impact. This is particularly the case in rural and regional areas where the labour resources are generally scarce. Mobile labour is essential to be able to respond to demand in the agriculture sector. Movements of labour into and out of towns and regions can have a significant impact on rural and regional areas as they tend to be smaller economies and are therefore more sensitive to fluctuations and change.

Due to a range of factors, the supply of labour in rural and regional areas rarely aligns with the demand. Farming regions and operations vary significantly as does their demand for labour. Some sectors are more susceptible to labour shortages whereas others are more resilient. A farmer or regions ability to attract and retain labour, particularly in more remote areas, is often mismatched with education, health care and social infrastructure for example. Appropriate government policies that encourage the mobility of labour require detailed and close consideration. In addition initiatives that drive and facilitate investment in services, infrastructure and social amenities in rural and remote regions are also measures that should be closely examined to ensure the Australian farming community

has access to a skilled and available workforce to continue to produce high quality food and fibre for both domestic and international markets.

8. Blueprint for Australian Agriculture

The NFF **Blueprint for Australian Agriculture 2013 - 2020** has brought together all with an interest in, or involvement with agriculture to help shape its future direction. Launched in February 2013, the Blueprint has mapped out where we the industry wants to go and how we are going to get there.

Almost 4,000 farmers, transporters, retailers, consultants, rural businesses, agribusinesses, educators, governments, rural communities, community groups and consumers have taken part in the development of the Blueprint. The Blueprint has given farmers and the whole supply chain the chance to have their say on the issues and challenges facing the agricultural sector.

The work does not end there - following the Blueprint's official launch, it is now up to the agricultural sector and the supply chain to work together to ensure the Blueprint's goals and strategies are enacted. One critical element of this strategy is Theme Four: People. This theme relates to the labour shortage in the agricultural workforce, how to build and maintain a flexible and skilled workforce in the short and long term, and how to find alternatives to labour. In our view, it is imperative that this plan for the industry aligns with the Australian Government's Asian Century White Paper released in 2012, which notes that opportunities are likely to expand in the efficient delivery of high value-added products focused on customer demand in Asia, and that capturing these opportunities will require a highly skilled labour force, access to technology, a strong focus on service provision and deeper engagement with Asian customers in order to understand and meet their requirements.

The goals of the Asian Century White Paper are being reflected in the forthcoming National Food Plan, where the Australian Government will set out its plan for the food industry to seize the opportunities of the Asian century and become a larger part of the national economy, providing rewarding careers for Australians and strengthening regional communities. The Plan will include goals for productivity, exports and skills to 2030.

9. Conclusion

The Australian agricultural sector has been identified as an important driver of future Australian economic growth, and is projected by Treasury to grow to 5% of national GDP by 2050. The gross value of Australian farm production in 2011-12 was $46.8 billion. Yet this is only part of the picture. When the vital value-adding processes that food and fibre go through once they leave the farm are added in, along with the value of all the economic activities supporting farm production through farm inputs, agriculture's contribution to the GDP averages out at around 12 percent (or $155 billion).

Re-ordering of the 21st-century economic landscape is set to be highly beneficial to Australia and agriculture. The proposed Trans-Pacific partnership has the potential to be a free trade bloc covering one third of the world's gross domestic product. The rise of the middle class in South-East Asia continues to drive an unprecedented demand for protein, high-quality food and world class performance animals with which our sectors are synonymous. The sixth wave of innovation – resource efficiency – is starting to place a true value on ecosystem services such as clean air and water, biodiversity and food, which Australia continues to pioneer on several fronts.

Domestically, and in recognition of the need for a broad-based, diversified economy, food and its supply chain are firmly on the agenda. Australia's first-ever National Food Plan is being implemented. The Standing Council on Primary Industries (SCoPI) is set to establish a Productivity Work Plan; State governments are prioritising agriculture and food Security in a recently released policy platform.

Industry is sending warning bells on the future of food manufacturing. Ageing of the agricultural workforce remains on an unsustainable course without rapid and decisive intervention. We are one of the most diversified and rapidly changing workforces in the economy, comprising seasonal, casual, contract and permanent workers, further compounded by ownership structures, which range from smaller operators and family farms to sovereign wealth funds and multinationals.

Our sectors sit at the forefront of major economic, social and environmental reforms: the Clean Energy Future Plan, Murray Darling Basin Plan, National Preventative Health Strategy, establishment of Marine Parks, and Australia's Biodiversity Conservation Strategy.

Meanwhile in agriculture, a silent, unprecedented and all pervasive process of structural adjustment has been flown to the sector as a result of converging market factors and policy change in a range of exogenous influences. Nowhere is collective insight and dynamic industry leadership – at national, sectoral and regional levels and within individual enterprises – more urgent than on the issue of building a world class, highly productive mobile workforce.

While structural adjustment tends to be overwhelmingly positive and provides a mechanism by which economies transform and deliver better living standards over a longer term, the positive changes are often complex and fraught.

To assist the agriculture sector in coping with the re-ordering of the 21st-century economic landscape, the NFF has recommended to the Productivity Commission within this submission a number of policy considerations aimed at improving and encouraging geographic labour mobility. These policies should drive and encourage labour mobility to seek to align the supply and demand of labour in rural and regional Australia. With the aim of assisting the industry build and maintain a flexible and skilled workforce in the short and long term.

Appendix A - ANZSCO Issues Paper

Skills Supply and the ANZSCO Codes: Urgent Concerns and Implications for AgriFood Industry Sustainability

By

Dr Rochelle Ball and Mark Cody

ONE PAGE SYNOPSIS

The Agrifood Industry is an essential national industry that provides food for Australia and contributes significantly to national exports.

The Agrifood Industry is at the threshold of a major labour and skills crisis. The ageing of the workforce alone is serious but combined with low attraction rates and strong competition from the resources sector, the sustainability of the industry is now under threat.

The industry has strong informal recruitment and skilling systems that do not feature in current national skill demand surveys conducted by such agencies as DEEWR. These surveys are used to determine skills shortages by occupation with many Agrifood occupations failing to be recorded on national skilled occupational listings (SOL).

Agrifood Industry demand is further thwarted by current classifications and definitions contained in the ABS ANZSCO series. The Agrifood Industry has experienced considerable skills deepening and broadening as new technician and trade level roles become more pronounced across the industry. These roles and the qualifications that match them are commonly not evident within ANZSCO.

The flow on effect of the limitations within ANZSCO impact on a wide range of labour market and migration initiatives. At the heart of these impacts is a lack of recognition of the occupations and roles within the Agrifood Industry. Typical results have been a smaller percentage of migrants being deployed to regional areas to work in food and fibre production sectors and numerous industry requests for skilled migrant labour being refused on the basis of incorrect ANZSCO classifications.
This paper seeks to identify the main occupational changes within the Agrifood industry and the more obvious gaps within ANZSCO.

The paper makes a number of recommendations to address the more immediate labour shortage issues as well as recommendations for a longer term continuous improvement program to more effectively respond to occupational change.

Without a concerted effort to record current Agrifood Skilled Labour Demand, the industry is at risk of experiencing a contraction in production over the next five years.

Skills Supply and the ANZSCO Codes: Urgent Concerns and Implications for AgriFood Industry Sustainability

The Agrifood industry is facing a crisis of labour supply and rapid industry restructuring which directly impacts the currency of existing occupational classifications. The accuracy of the ANZSCO Codes have and will have, an increasingly critical impact on the industry's ability to access labour through a variety of labour market initiatives. These include improved training and access to training; the status and attractiveness of occupations within the industry; and the formulation of the Skilled Occupation List and its impact on industry access to migrant labour.

The purpose of this paper is to identify the urgent need to revise the ANZSCO Codes for the Agrifood industry. As part of this process this paper provides an occupational review that will feed directly into and support such a revision as part of the ABS Minor Revision occurring in 2012. It may also provide a more current occupational review that can be adopted for labour market planning in advance of a later ANZSCO revision.

The Agrifood Industry Overview

The Agrifood industry provides Australia with an enviable level of food security. Australia grows and produces over 89% of its domestic food supply and exports 80% of total gross production value. Meeting the skill and labour needs of the industry is critical to future national food security, sustainable industry development and ensuring robust and secure communities in regional Australia.

The Agrifood industry is made up of 180,000 mostly small to medium sized enterprises and a workforce of more than 880,000 people, with 57% based in regional Australia. It is the single largest employer within regional areas. The Agrifood industry covers the entire food supply chain, and makes a significant contribution to the national economy, generating more than $200 billion each year and accounting for around 20% of Australia‘s export earnings.

Key Challenges

While labour and skill shortages face many industries in Australia, the plight of the Agrifood industries will worsen relative to other industries. The skills and labour shortages which face the Australian agricultural sector have acute and chronic elements.

The Agrifood industry is facing significant challenges to secure labour supply due to a rapid ageing of the workforce, low unemployment rates in regional Australia, the national perception of the relative unattractiveness of careers in the industry; significant movement of labour to other industries such as mining; and seasonality in labour demand and supply in some industry sectors. Serious labour shortages in the agrifood industry pose fundamental food security challenges to Australia. The following summarises the challenges facing the agrifood industry:

- The age profile of the workforce is a critical labour supply constraint for the rural sector. By 2018, 116,558 workers (out of a 2008 workforce of 305,763 in agriculture) will be over the age of 65 years. Workers exiting the sector to work in the resources sector compounds this demographic attrition.
- Low rates of unemployment and underemployment in rural and regional Australia indicate that shortfalls in labour supply due to demographic factors will not be able to be met by pools of surplus labour in many parts of Australia. The AgriFood Skills Council 2011 Environmental Scan highlights the serious scale of labour shortages amongst both high skilled para-professionals and professionals and lower skilled labour. The Scan further emphasizes the acceleration in the severity of these shortages in the near future and in the longer term.

- The current number of students training in agrifood in the VET system is relatively low and will not meet future industry skill and labour needs. Low training rates, combined with high rates of labour departure from the sector due to portable skills, indicates that the industry can anticipate a lower output of Agrifood Industry personnel from the current national training system. This will simply compound the demographic profile noted above, and will be insufficient to meet the challenge of future industry skill and labour demand.

- The lack of currency of occupational descriptors under the ANZSCO has serious negative impacts on the agrifood industry. The lack of relevance of narrow occupational descriptors and the need to capture new and emerging skills and job roles rather than limit the responses to outdated descriptors threatens the supply of skilled labour to the industry. While many descriptors are still valid, occupation descriptors are becoming increasingly more complex than skilling by occupational title requiring vastly improved job role, skill and qualification descriptions.

- For example, we are witnessing the development of a technician class of workers who have some management responsibilities. This trend is occurring in nearly all sectors and indicative of a shift in industry thinking towards risk management models and lean management concepts. This is both a response to regulation and trading requirements but also a key survival requirement for businesses having to compete in a global market.

- The emergence of a chronic shortage of skills and labour is a significant concern for the industry and strategies to address these shortages need long-term support especially through the national migration program.

- The current limitations of the ANZSCO system impact on the access of labour under the Skilled Occupation List (SOL).

    - The SOL for General Migration Purposes does not meet the needs of the agrifood industry as it is focused on occupations, which are classified at Certificate IV level and above. As the majority of occupations in our industry are below this level as currently classified under ANZSCO, the structuring of the national migration program largely ignores the labour and skills needs of the Agrifood industry.

    - Under the current structure and framing of the SOL, the almost total lack of any identified Agrifood occupations poses serious problems for the Agrifood Industry with attendant economic and social consequences.

Recommendations

There is an urgent need for a comprehensive national data collection to occur from which to develop robust occupational profiles for the Agrifood Sector.

Such data will have serious implications for VET and Higher Education funding, the SOL and broader migration eligibility for the industry. Robust, evidence based forecasting is essential to frame policy, funding and timelines for Commonwealth education and training in the Agrifood industry.

Following research conducted by the Australian Farm Institute (2010) study "*Towards a Better Understanding of the Future Human Resource Needs of Australian Agriculture*," the Council calls for the following:-

- ✓ A comprehensive revision and expansion of the current ANZSIC and ANZSCO systems. This revision would necessarily include additional industry and occupational classifications across the Agrifood industries, and would have embedded in it sufficient flexibility to enable regular updating as structural and technology shifts occur in the industry;

- ✓ The development of an annual national standardised labour and skills survey based on these revised occupational profiles. The combination of these would deliver contemporary data which could be projected and provide more reliable forward projections on labour and skills requirements for the agriculture sector. Such projections would take into account demographic factors and various scenarios such as climate and the peaks and troughs throughout the seasonal production cycle.

- ✓ The development of a consistent national standard and concordance for agricultural production, employment and occupational statistics collection to ensure consistency and standardisation of reporting and analyses.

Problem Areas and ANZSCO

In many of the occupations listed for the agrifood industry, outdated skill levels have been arbitrarily listed and thus require substantial revision. Part of the problem stems from old notions of skills more common in the 1980's. In those days truck drivers drove rigid trucks (large vans), articulated trucks (single trailer) or road train. Since then we have witnessed a B Double revolution in carrying the bulk of our freight and a huge increase in specialised freight operations (large loads, refrigerated loads, reefers, livestock etc.).

In the case of the trucking industry (which is integrated in most primary sectors) the roles have changed with the technology and forced State and Territories to re-classify all Truck licenses by new skill levels. ANZSCO does not adequately pick this up and assumes that truck drivers are all at Skill level 4. Clearly some are at Skill level 3 and the 7331 group needs to be expanded to cover the higher skill occupations.

An early issue with ASCO, which was perpetuated with the development of ANZSCO, relates to specifying qualifications and experience for Farmers. Almost without exception it is a Degree or 5 years' experience. This bears no relation to the actual experience and skills held by farmers. In practice very few pig farmers, poultry farmers, beef cattle farmers etc hold a degree in anything. The main determinant of skill is experience. 5 years may be suitable for some mixed farm operations and broad acre generally but some other areas such as Apiary require much lesser periods of experience (generally 3 years).

- **Suggestion:** amend all farming, horticulture, livestock farmer/grower occupational profiles to reflect relevant experience. Check with specialist recruitment agencies, the NFF and Horticulture Australia that the revisions accurately reflect industry experience requirements.

In the Primary Industry sector the process of skill deepening has fundamentally changed the majority of occupations. The new National Training Packages covering Agriculture, Horticulture, Conservation and Land Management as well as Animal Care and Management, Seafood and Racing all have clear links between the occupations and a new suite of qualifications. These qualifications are an important reference tool for revising existing ANZSCO occupations and skill levels.

The complexity associated with new growing practices (hydroponics, continuous seed trialling, no till, perennial cropping etc.) combined with high-tech machinery in cropping, growing, harvesting and packing all point to significant job role changes. It is difficult to identify many of these in the current ANZSCO listing and this is causing all sorts of problems with training, immigration and industry recognition. It may even account for an understatement of actual occupational roles within the primary industry group in census analysis.

Of particular concern is the ongoing problem rural industries face in securing any level of workforce program support from national and State Governments due in part to poorly collected regional data which anecdotal evidence suggests is directly related to ANZSCO.

The Primary Industry has clear occupational titles that are related to skill level and supported by appropriate qualifications. The majority are in the Cert II/III range with the bulk of middle to higher skilled personnel now operating at the Cert III level. In practice many industry personnel have what can be termed a skills pyramid model with competencies that straddle several AQTF levels ranging from Level 2 through to Level 5.
The industry now has difficulties with a number of ANZSCO definitions that have elevated former lower skilled occupations to technician levels. The sectors with the largest changes are horticulture and seafood although it has also affected animal care and broad acre. There remains clear skill segmentation in some sectors e.g. Wool Industry Sheep Farm Hands, Shed Hands/Wool Handlers, Shearers, Wool Classers and Wool Buyers. However in most sectors AQTF level 3 workers are typically covering Level 4 and 5 competencies and indeed the revised Training Packages support this skill profile.

In broad acre operations the traditional Farmer/family model with some unskilled labour has largely been supplanted by Farmer, Manager or Unit Managers, with contract seeding/harvesting/fencing/agronomy support which includes a variety of specialist science and technical staff. It is interesting to see that amongst the science occupations listed there is no mention of an Agronomist which is a key national occupation in demand across the whole industry.

- **Suggestion:** ensure that farm managers and overseers/unit managers are listed separately and that such roles as Agronomist are separately identified as occupations in their own right.

It is also interesting to see that a forklift driver is specified but not a tractor/header driver, an infinitely more complex job. Modern high tech farming equipment is mostly laser and GPS guided, some are self-drive and most are huge by comparison with the dinky toy sized Massey Fergusons that were mass produced some 60 years ago and can still be seen in some small horticulture areas. Many of these roles are now being undertaken by contractors as farmers increasingly do not buy the half million dollar machines that are now increasingly being used in the industry.

- **Suggestion:** in Agricultural Plant Operator broaden the levels to accommodate small plant and larger more complex plant e.g. include Contract GPS guided machinery operators**.**

Similarly the titles used in ANZSCO can be confusing. Growers and Managers are often not the same job e.g. vegetable farmer/grower may be an office based occupation scheduling, selling, managing logistics etc. whereas the farm manager manages the actual crop production. The absence of a defined group of technicians and managers more commonly seen in the industry seems to be a serious omission in the whole ANZSCO series.

- **Suggestion:** include manager and technician roles in the major primary industry sectors that have been identified in this paper.

From a traditional standpoint their omission is understandable but as the industry and its jobs change, we see the emergence of a new range of occupations, which tend to fall between the professional/managerial level descriptions and semi-skilled descriptions.

A good example is Marine Engine Driver, which is a licenced occupation at AQF Level 3, but is not a Marine Engineer as defined. Similarly, an Animal Technician is a person who works in a variety of animal care roles, some embedded and some quite specific, e.g. feedlots, high tech piggeries etc. They may have a range of skills that have some equation to a Vet Nurse but they have a higher level of competency somewhere between a Vet Nurse and a Veterinarian and often with Animal Technician qualifications.

The current Technicians and Trades Workers nec 399999 is simply a far too general catch all classification when there are specific jobs that are clearly differentiated in the major sectors. The lack of specificity for Agrifood occupations in ANZSCO contrasts with a number of other industries such as education, health and manufacturing where there is much greater specificity of major role.

As a general comment, a large number of the occupational definitions under ANZSCO no longer reflect the skill level, the complexity of the skills (skills pyramid structure) or the actual industry nomenclature for the Primary Industry sector in particular. Fixing this is becoming increasingly important for migration purposes as National Food and Fibre Production is seen as an essential national industry.

A classic example is afforded by the shift from the old Master Fisher terminology towards defining fishers by their licence category e.g. Coxswain, Skipper 3, Skipper 2, Skipper 1 and the industry uses these terms and the levels to determine their skill level.

In the case of irrigationists, there are several levels, a person who simply connects pipes together on a small horticulture plot, a relatively lower skilled task which is in nearly all cases part of a mainstream horticultural role (horticulturalist), a person who sets up irrigation lines, positions complex equipment and estimates delivery load in conjunction with computer controlled water management, and an irrigation designer who programmes computer systems, designs complex water delivery systems and monitors delivery and plant growth.

The skills are markedly different at each level and are not reflected in the classifications listed under ANZSCO. In practical terms we have a balanced supply of the first level, a shortage of the second level and a severe shortage in the higher technician level.

- **Suggestion:** Look at better defining irrigation workers who perform high level tasks in the Agrifood industry.

Clerical and administrative positions have been excluded as much of the data (partner data in micro businesses) is not reliably recorded in the Census for primary industry sectors. This is nonetheless important to consider as the industry has a small number of corporate type entities and a large percentage of small to micro family businesses (in excess of 90% but declining rapidly.)

Ideally it would be good to have a rural business administration title to cover these people possibly under the 5619 group.

- **Suggestion:** consider either including a new occupation under 5121 or 5619 or alternatively define rural business admin work under 5121.

Industry Sectors and Major Occupational Changes

The following provides an overview of key industry sectors within the remit of AgriFood Skills Australia and the changing nature of skilled occupations in each.

Seafood

Comprises wild catch, commercial fishing, aquaculture and post-harvest processing sectors. The seafood industry directly employs over 17,200 people across the wild catch, harvesting and aquaculture sectors and a further 7,200 in processing and wholesale.

Major challenges & trends

- Attracting, training and retraining workers at all skill levels
- Growing contemporary industry leaders and securing their engagement in skills and workforce development
- Linking skill development with industry licensing and compliance requirements
- Ensuring occupational health and safety, and food safety form an integrated approach to risk management
- Evolving job roles which require higher, often technician orientated skills
- Diffusing new practice and knowledge from research and development work into the workforce via formal training

New and emerging skills

- Genetics, selective breeding and biotechnology
- Seafood processing, value adding, supply chain skills underpinned by new technologies
- Natural resource management
- Compliance and regulatory requirements
- Biosecurity, emergency pest and disease response
- Animal behaviour, health and welfare
- Market research and marketing

Food, beverage and pharmaceuticals

Comprises food processing, pharmaceuticals and beverages and is Australia's largest manufacturing industry with total sales of over $100 billion. It consistently accounts for more than 20 per cent of manufacturing industry employment and involves over 224,000 employees, 40 per cent of which are located in non-metropolitan areas. About 1,000 wineries and around 6,000

vineyards add to this picture, with the pharmaceutical sector employing approximately 14,000 workers.

Major challenges & trends

- Evolving job roles which require higher skills and/or greater breadth of skills
- Greater adoption and understanding of technology across the workforce

New and emerging skills

- Risk management skills and knowledge across all occupations
- Processing and supply chain skills underpinned by new technologies and world class research and development
- Lean and agile manufacturing processes

Meat

Comprises meat processing, meat wholesaling, meat retailing, small goods manufacturing and food services. Approximately 5,800 enterprises employ around 55,000 workers and generate GDP in excess of $16 billion per annum. Around 10,000 workers undertake Australian Apprenticeships each year; a further 1,000 undertake higher-level training supported by industry.

Major challenges & trends

- Lifting employee retention rates
- Up skilling existing workers to fill vacancies as 457 visa holders depart
- Developing skills and knowledge to meet changing regulator and customer requirements
- Actively embedding career paths and rewarding job design
- Growing contemporary industry leaders to drive high quality workforce development practices
- Lifting innovation capability and capacity of enterprises

New and emerging skills

- Skills and knowledge to address national and international standards in meat safety, meat quality, animal welfare and specific customer requirements
- Processing and supply chain skills underpinned by new technologies and world class research and development

Racing

Comprises three codes: thoroughbred; harness and greyhound – the 'code' being the breed and type of animal which competes. While some workers are centrally employed in permanent conditions, the majority of the 117,000 people involved in the industry are self-employed, part time or transient (trainers, jockeys, track riders, driver and stable staff). Over 600 racecourses and more than 22,000 small/ medium sized enterprises make up the industry, 95 per cent of which are in non-metropolitan Australia.

Major challenges & trends

- Attracting, training and retraining workers at all skill levels
- Higher demand for and skilling of casual staff

- Growing contemporary industry leaders to drive culture change on workforce development
- Establishing innovative and productive job roles, supported by meaningful career paths
- Embedding occupational health and safety
- Linking skill development with industry licensing and compliance requirements
- Embedding integrity operations and management training as part of an integrated approach to improving the image and credibility of the industry

New and emerging skills

- On-going need for occupational health and safety, risk management and biosecurity
- Small business management
- Animal behaviour, health, and welfare
- Track maintenance

Agriculture, Horticulture, Conservation and Animal Care

Comprises rural production (commonly referred to as 'agriculture'); amenity horticulture; conservation and land management; animal care and management. Over 460,000 people are directly employed across the sectors.

Major challenges & trends

- Attracting, skilling and retaining workers at all levels
- Creating sustainable, robust labour pools
- Building individual enterprise capability to become 'employers of choice'
- Evolving job roles which require higher, often technician orientated skills
- Building adaptive capacity of enterprises underpinned by new technologies and world class research and development
- Building environmentally sustainable production systems capable of delivering strong economic returns

New and emerging skills

- Supply chain management
- Natural resource management – biodiversity, sustainable management of land, water and vegetation
- Biosecurity, emergency pest and disease response
- High technology farm equipment operation
- Increased technician roles especially in intensive farming sectors
- Community farming management and corporate farm management

Primary Industry Occupations Covered by the Primary Industries Skills Council

The following occupational list identifies occupations in the Primary Industry sector (non Forestry). These are titles used regularly in the industry sectors and in recruitment. The translation from ASCO to ANZSCO resulted in a number of these being absorbed into other occupational titles or not being covered in any identifiable way. Where there is not an appropriate match there is an X listed.

General Comments

Interchangeable occupational titles:
Some titles can mean quite different things in an occupational sense. The term Wool Handler and Shearing Shed Hand are interchangeable in terms of some shed duties and it may be better to define the occupation as Wool Handler/Shed Hand. Similarly, the Sports Administrator occupation is often quite different from occupations such as Race Steward, which are a key part of the racing industry with quite different roles to mainstream administrators.

We need to identify Rural Technical representatives who fall into two main categories, machinery and crop support (Landmark, Elders, Rural merchandisers etc.) and veterinary product support representatives (companies such as Bayer). There are quite a few people engaged in these roles and they don't fit easily into any existing classification.

1. Farm Managers and Overseers
Some Primary Industry management occupations appear to be omitted.

Farm Managers and Overseers are commonplace in the industry. They are not Farmers who generally own the land or share farm the land, they are managers who work for farmers. As the industry moves towards larger farming units, we are seeing this occupational division more clearly defined in separate job roles.

- The ANZSCO series lists Production Managers in Forestry, Manufacturing and Mining, not Agriculture and Horticulture.
- Suggestion: either the Forestry is reclassified as Primary Production or there are two new classifications added to the 1335 group.

2. Agriculture Technicians
The industry has shifted over the past decade towards employing a range of Agriculture, Horticulture and Seafood Industry technicians. Good examples are the intensive industry sectors, which employ Piggery technicians, Poultry technicians, Animal technicians, Aquaculture and Mariculture technicians, Botanical and Horticultural technicians.

- Since the demise of ASCO many of these clear occupational definitions were lost with the more generic term agricultural technician being used. It is clear that this really applies to one major sector rather than across the various industry sectors that make up the Primary Industry group.
- Suggestion: it may be better to describe these people as primary industry technicians and define the various roles under that title for the discrete industries in which they work. The alternative is to list them separately as in other industries.

3. Maritime Fishing, Aquaculture and Trading Occupations
The 2312 group does not fit the marine industry as defined occupationally, by licence or under Fishing and Trading. The occupations other than deck crew are all licensed. They are:

Master/Skipper
Coxswain
Marine Engineer
Marine Engine Driver

However, the main fishing and marine aquaculture licensed occupations are not effectively covered by ANZSCO. Some occupational titles differ between Australia and New Zealand (e.g. NZ Harbour Masters) but the generic occupational titles can over both jurisdictions.

There are other trading sector occupations which are pertinent to some sectors such as Ratings, or Ships Purser which is covered by the Ship's Officer Category.

It must be stressed that a Marine Engineer is a professional level 1 person whereas a marine Engine Driver is the (small E) that maintains most small to medium size commercial vessels. Their skills are limited compared to a Marine Engineer and lie at level 3.

- The Master/Skipper term relates to the new national maritime qualifications that are dual ticket that is able to operate fishing and trading vessels. The old terms are used to differentiate actual experience and, to a degree, skill range. The Coxswain is also a skipper but of small inshore vessels (oyster barges, small commercial craft such as tourist boats) Masters and Skippers range from AQTF Level 3 through to AQTF Level 5 (Levels 3-1 in ANZSCO) depending on the size of the vessel. It may be better to differentiate these titles to reflect actual skill levels. Currently there is a major national shortage of skilled maritime crew necessitating immigration solutions hence getting the definitions right is very important.

- **Suggestion:** Discuss with AMSA and settle on appropriate terms such as Master/Skipper ANZSCO Level 3 covering Master 5, Ship's Master ANZSCO Level 1 (covering Master 1, 2 and 3 and 4.).

Occupational Title	ANZSCO	S/L
Animal Technician/Attendant	361199	3
Animal Trainer	361199	3
Apiarist	121311	1
Agronomist 234111 too general, new code required X	234111	1
Agricultural Plant Operator	721111	4
Agricultural Technician	311111	2
Agricultural Consultant	234111	1
Ag Economist New code required X	224511	1
Ag Scientist	234112	1
Alpaca Farmer	121399	1
Aquaculture Farmer	121111	1
Aquaculture Technician New code required X	311111	2
Aquaculture Farm Hand	841111	5
Arborist	362212	3
Artificial Inseminator	311111	2
Beef Cattle Farmer	121312	1
Beef Cattle Farm Worker	841511	5

Blacksmith	322111	3
Botanist	234515	1
Botanical Technical Officer New code required X		3
Cotton Grower	121211	1
Coxswain (Could be listed under master/skipper) X		3-1
Crop Farmer (nec)	121299	1
Dairy Cattle Farm Worker	841512	5
Dairy Farmer	121313	1
Dairy Technician	311111	2
Deckhand	899211	4
Deer Farmer	121314	1
Dog Handler or Trainer	361111	3
Dog or horse racing official	452318	3
Ecologist not 139912		1
Emu farmer	121399	1
Environment, Parks and Land Care Manager	234311	1
Environment and Ag Science Professionals	234399	1
Farm Hand Grain, Pasture	841213	5
Farm Hand Vegetable	841214	5
Farm Hand Other	841299	5
Farm Overseer 1335 group new	X	1
Farrier	322113	3
Fencer Add a new category “Rural Fencer”	821311	4
Field Crop Technical Officer	X	3
Fish Farmer (This is an obsolete term - see aquaculture)	121111	1
Fish Hatchery Technician	X	3
Fisheries Compliance Officer	311311	2
Fisheries Technical Officer	X	3
Fishing Hand/Deck Hand	899212	4
Floriculturalist	121212	1
Fruit and Nut Grower	121213	1
Fruit, Nut and Vegetable Hand	841211	5
Gardener	362211	3
Garden Labourer	841411	5
General Farm Hand	841411	5
Goat Farmer	121315	1
Grain Buyer	X	3
Grain Handler	X	3
Grain, Oilseed and Pasture Farmer	121214	1
Grapegrower (see viticulturalist)	121215	1
Greenkeeper	362311	3
Hatchery Hand - Poultry/seafood aquaculture		3/8

Hatchery Manager – Poultry/seafood aquaculture		3/8	
Herd Tester		3	
Hide and Skin Classer	X		3/5
Horse Breaker	361112	3	
Horse Breeder	121316	1	
Horse and Dog Racing official	452318	3	
Horse Stud Manager no relevant code		3/5	
Horse Trainer	361112	3	
Horticultural Nursery Assistant/Nursery Hand	841412	5	
Horticultural Technical Officer		3	
Hunter/Trapper	841911	5	
Import/Export Clerk	591212	4	
Irrigation Supervisor		2	
Irrigationist/Installer		2/3	
Jackeroo/Jilleroo Station workers		?8	
Jockey	452413		3
Land Care Officer	362213	3	
Landscape Gardener	362213	3	
Livestock Farmer (nec)	121399	1	
Livestock Farm Worker	841513	5	
Livestock Farm hand nec	841599	5	
Livestock Trader		1/5	
Marine Biologist	234516	1	
Marine Engineer	231212	1	
Marine Engine Driver	X	3/7	
Market Gardener		3/8	
Master Fisher	231211	1	
Mixed Crop Farmer	121216	1	
Mixed Crop and Livestock Farmer	121411	1	
Mixed Livestock Farmer	121317	1	
Mixed Livestock Farm Worker	841513	5	
Mixed Crop and Livestock Worker	841611	5	
Nurseryperson	362411	3	
Occupational Diver	399911	3	
Orchardist		3/5	
Oyster Shucker (discrete job- not gen. processing)		8	
Park Ranger	234314	1	
Parks and Gardens Conservation Worker	X	8	
Pest and Weed Controller	841912	4	
Pig Farm Manager 1335 group - new		1/5	
Pig Farmer	121318	1	
Piggery Technician 311111 too general	X		

Plant Physiologist				1
Plant Propagator				3
Poultry Farmer			121321	1
Poultry Farm Worker			841514	5
Poultry Technical Officer	311111 too general			3
Primary Products Inspector			311399	2
Race Steward		X	139915	1
Rural Technical Representative		X		6
Sales and Marketing Manager - Rural Products				6
Seafood Packer			832115	5
Seafood Process Worker			831313	5
Shearer			361211	3
Shearing Shed Hand			841517	8
Sheep Farm Manager	1335 group – new			1
Sheep Farmer			212322	1
Sheep Farm Worker			841515	5
Ship's Master/Skipper				1
Soil Conservationist				1
Soil Scientist			234112	1
Soil Science Technical Officer	311111 too general			
Stablehand			841516	5
Stock and Station Agent			611112	3
Stud Master				3
Track Rider		X		3
Turf Farmer			121218	1
Vegetable Farm Manager	1335 group - new		121221	1
Vermiculture Farmer	add to 121399X	121399	1	
Veterinarian			234711	1
Vet Nurse			361311	3
Vineyard Worker			841216	5
Viticulturalist			121215	1
Wool Buyer			639212	3
Wool Classer			399917	3
Wool Handler ? Shearing shed hand			841517	5
Zoologist			234518	1
Zoo Keeper			361114	3
Zoology Technical Officer				3

SUMMARY OF AREAS REQUIRING DISCUSSION/CHANGE				
Agronomist	234111 too general new code required	X	234111	1
Ag Economist	New code required	X	224511	1
Aquaculture Technician	New code required	X	311111	2
Botanical Technical Officer	New code required			
Coxswain	(Could be listed under master/skipper)	X		
Ecologist	not 139912			
Farm Overseer	1335 group new	X		
Fencer	Add a new category "Rural Fencer"		821311	4
Field Crop Technical Officer		X		
Fish Hatchery Technician		X		
Fisheries Technical Officer		X		
Grain Buyer		X		
Grain Handler		X		
Hatchery Hand - Poultry/seafood aquaculture				
Hatchery Manager – Poultry/seafood aquaculture				
Herd Tester				
Hide and Skin Classer			X	
Horse Stud Manager	no relevant code			
Horticultural Technical Officer				
Irrigation Supervisor				
Irrigationist/Installer				
Jackeroo/Jillaroo	Station workers			
Livestock Trader				
Marine Engine Driver		X		
Market Gardener				
Oyster Shucker	(discrete job- not gen. processing)			
Parks and Gardens Conservation Worker		X		
Pig Farm Manager	1335 group - new			
Piggery Technician	311111 too general	X		
Plant Physiologist				
Plant Propagator				
Poultry Technical Officer	311111 too general			
Race Steward		X	139915	1
Rural Technical Representative		X		
Sales and Marketing Manager - Rural Products				
Sheep Farm Manager	1335 group – new			
Ship's Master/Skipper				
Soil Conservationist				
Soil Science Technical Officer	311111 too general			
Stud Master				

Track Rider		X		
Vegetable Farm Manager	1335 group - new		121221	1
Vermiculture Farmer	add to 121399	X	121399	1
Wool Handler ? Shearing shed hand			841517	5
Zoology Technical Officer				