



RECENT GROWTH IN INDIGENOUS SELF-EMPLOYED AND ENTREPRENEURS B. HUNTER

Centre for Aboriginal Economic Policy Research ANU College of Arts & Social Sciences

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Recent growth in Indigenous self-employed and entrepreneurs

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Abstract

Historically, Indigenous people have largely been excluded from building businesses in Australia. Recent reductions in Indigenous disadvantage, especially improvements in Indigenous skills, may have combined with other policy changes to make it easier for Indigenous entrepreneurs to set up successful businesses. Indigenous self-employment has increased substantially in the last two decades. Government organisations and programs that finance and support the success of Indigenous business provide one explanation for this trend. However private sector initiatives also have a role to play. Several mining companies have made large commitments to allocate contracts to local Indigenous people. But this paper provides an estimate of the size of the Indigenous self-employment sector in 2011 that is smaller than the public commitments from Fortescue Metals Groups and Rio Tinto. Nevertheless the recent growth in selfemployment raises the issue of capacity constraints in a rapidly expanding Indigenous business sector. Another relevant issue is the need to reflect on a justifiable definition of an Indigenous business. Clearly, Indigenous business is qualitatively different to Indigenous self-employment, but policy-makers and statistical collections need to reflect on the definition of Indigenous business and the extent of Indigenous control and participation that make these businesses Indigenous.

Keywords: Entrepreneurship, Indigenous business, self-employment, private sector.

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Acronyms

ABS	Australian Bureau of Statistics
ANU	The Australian National University
ANZSIC	Australian and New Zealand Standard Industrial Classification
CAEPR	Centre for Aboriginal Economic Policy Research
DEEWR	Department of Education, Employment and Workplace Relations (Commonwealth)
ERP	estimated residential population
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs (Commonwealth)
FMG	Fortescue Metals Group
IBA	Indigenous Business Australia
IEP	Indigenous Employment Program
OLS	ordinary least squares
USA	United States of America

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Introduction

istorically, Indigenous people have largely been excluded from building businesses in Australia. For example, in the 1860s a group of Aborigines lead by Simon Wonga 'squatted' on a property near Melbourne they called 'Coranderrk', which was developed as a farm that generated considerable revenue (Pascoe 2008). While the local community initially gained some autonomy in the operation of the enterprise, financial control remained with the Aboriginal Protection Board. The appropriation of profits meant that there was no monetary incentive to develop the business; and hence after initial promise, the venture lapsed. Instead of the independent community enterprise envisaged by these Aboriginal proto-entrepreneurs, dependency on the state was perpetrated by bureaucratic control over their dayto-day lives.

The legislation that established statutory bodies like the Protection Boards in various jurisdictions in the 19th century also regulated employment and apprenticeship contracts with Indigenous people, while all aspects of life on reserves tended to be tightly controlled.¹ Crucially, many of the employment contracts under these systems did not provide for wages to be paid, and in those circumstances, savings and capital accumulation was not possible.

Protection Boards and related authorities were dismantled in the mid 20th century, but they have left several legacies that ensure that Indigenous disadvantage has considerable inertia. The historical restrictions on Indigenous freedoms have limited the possibility for potential entrepreneurs to acquire an adequate education or secure employment. Having been dispossessed of land, and limited in the opportunity for capital accumulation and acquisition of labour market skills, it is not surprising that until recently relatively few Indigenous people have attempted to become entrepreneurs.

An entrepreneur is an economic agent who organizes and operates a business, taking on financial risk to do so. The term was first defined by Richard Cantillon (1730) as a person who bears relatively certain costs (e.g., production costs) in order to sell or resell a good at an uncertain price. Entrepreneurs play a central role in economic history and are a crucial dynamic in the overall health of capitalist economies (Schumpeter 1987). The research on Indigenous entrepreneurs is limited by the fact that we do not have universally accepted definitions of what constitutes an Indigenous business or entrepreneur. Individuals can choose to identify as Indigenous, and may be accepted as such by the rest of the community, but a business can only be characterised as Indigenous if Indigenous people can be said to have substantial control. Even if the concept of an Indigenous business was easy to define and measure, the debate would be held back by the lack of information on potential Indigenous businesses. This paper seeks to further the debate by documenting recent trends in Indigenous selfemployment, especially those who employ other people. Obviously self-employment is conceptually different to a business, as it refers to an individual rather than a social organisation, but the self-employed have to bear the risk of their own economic activities and hence are by definition entrepreneurial.

This paper also attempts to document the extent to which the historical exclusion of Indigenous entrepreneurs has changed. Given the lack of specific data on Indigenous business, the following discussion uses census data on self-employment as a proxy in the absence of more direct information on entrepreneurs. Even after making this compromise, we have a rather incomplete picture of the scope for self-employment because it is difficult to compare statistics over time. Notwithstanding, this paper uses comparable data from 2011 and earlier censuses to explore recent trends in Indigenous selfemployment and employers. Particular attention will be paid to documenting interesting aspects of the profile of Indigenous and other Australian self-employed, and identifying changes in both remote and non-remote areas. The final section reflects on what constitutes an Indigenous business and how policy might enhance constructive engagement with such enterprises.

Policy and other relevant context

Government programs and finance can support the success of Indigenous business. Direct business support provided by Government agencies—including Indigenous Business Australia (IBA) and the Department of Education Employment and Workplace Relations (DEEWR)—can underwrite businesses who have limited access to capital or face substantial cost disadvantages relative to competitors. Such programs could also theoretically impinge on business success if they impose excessive administrative cost.

Locational disadvantage, such as being located in remote areas, may be one impediment for an Indigenous business; regional policy may be one instrument for improving business support and infrastructure in areas where services are limited. Another geographic constraint on Indigenous and other businesses is the supply of workers and entrepreneurs with suitable skills in the local economy; labour market programs that support investments in human capital have a legitimate role in overcoming such constraints (Gray, Hunter & Lohoar 2012).

Indigenous-specific government policies and programs may play a role in Indigenous self-employment. At the Commonwealth level, the Indigenous Employment Program (IEP) has committed some \$991 million over the five years to 2014–15 (DEEWR 2011). Some of the key components of the IEP are Indigenous Wage Subsidy, which may assist Indigenous entrepreneurs who employ other Indigenous people; and the Indigenous Small Business Fund and Indigenous Capital Assistance Scheme, both of which offer Indigenous businesses access to commercial finance and appropriate professional and mentoring support services. Other aspects of the IEP that support Indigenous business include information on how to: start a business; obtain financial literacy training; conduct feasibility studies; develop and implement business plans and risk management plans; and support the development and implementation of community or regional development plans and other strategic initiatives (Gray, Hunter & Lohoar 2012).

The Australian Government's Indigenous Opportunities Policy requires government officials responsible for projects involving expenditure of over \$5 million (\$6 million for construction) to ensure tenders include a plan for providing training and employment opportunities to local Indigenous communities and for the use of Indigenous suppliers that are small and medium enterprises (DEEWR 2013).

The private sector also has a direct role to play in supporting Indigenous business. One interesting development is the establishment of various Indigenous Chambers of Commerce in various states and in Canberra. The Indigenous Business Council of Australia is the peak body for these organisations, which provides a voice of Indigenous business owners from all sectors of the economy.

The mining sector has a particular interest in developing good relations with local Indigenous communities, especially where Native Title determination have established the right to negotiate. Mining companies have policies that facilitate community relations and otherwise influence public relations. For example, in terms of Indigenous contracting, Fortescue Metals Group (FMG) have recently committed itself to \$1billion in contracts to Aboriginal businesses by June 2013 (e.g. 54 contracts awarded to a value of \$591 million).² Rio Tinto also made an enormous commitment of a minimum 13.9 per cent of Pilbara expenditure to local Aboriginal businesses. Note that the contracted Indigenous businesses may not necessarily be directly in mining, even though they probably involve the servicing of mining and related local communities. These are enormous private sector commitments to Indigenous business which, if realised, will have important implications for Indigenous entrepreneurs and the size and operation of Indigenous self-employment sector. I will return to such issues in the concluding sections.

Recent trends in Indigenous self-employment are likely to be partially explained by the policy context and other relevant background. The Australian Indigenous Minority Supplier Council, or Supply Nation as it is now known, was established in 2009 to foster a prosperous, vibrant and sustainable Indigenous enterprise sector by integrating Indigenous small-to-medium-enterprises into the supply chains of Australian companies and Government agencies. It aims to achieve this by: advocating on behalf of the Indigenous business community to foster business to business transactions and commercial partnerships between corporate Australia, Government agencies and Indigenous business; and exchanging information, conducting research and leading the integration of Indigenous business into the Australian economy. Currently, the Supply Nation web site indicates that it has 200 members from corporate Australia, not-for-profit companies and Australian Government agencies, all of whom are committed to doing business with Supply Nation certified suppliers. Note that at last count there are 198 Indigenous businesses certified by Supply Nation as being ready to 'do business'.³ Since 2009, Supply Nation has claimed to achieve \$48 million worth of transactions between their members and certified suppliers, with \$39 million worth of contracts also awarded to their certified suppliers.

Recent trends in Indigenous and other self-employment

In order to understand the recent growth in Indigenous self-employment we need to identify comparable data. Previous analysis of trends has been constrained

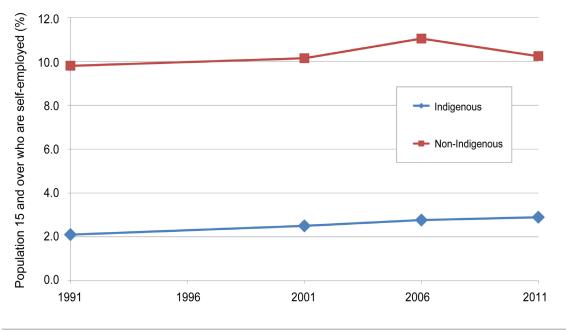


FIG. 1. Trends in self-employment by Indigenous status, 1991-2011

Sources: Self-employment numbers are drawn from Daly (1995), Hunter (2004) and ABS Table Builder for last 2 censuses. The 1991 census estimates also uses other labour force information from Altman, Biddle and Hunter (2009) to rescale the rates expressed as a proportion of the labour force. The 1996 estimates are omitted because the question was changed so that it was not comparable with 1991, but the 2001 Census question reverted to a more comparable form (see Appendix Table A1).

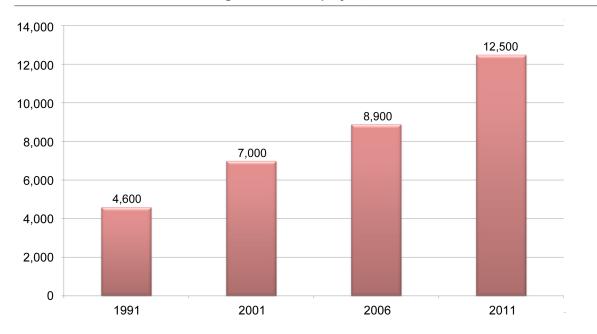


FIG. 2. Estimated number of Indigenous self-employed, 1991-2011

Note: The estimates in Fig.2 are based on census counts which are adjusted to take into account Indigenous under-enumeration using the ERPs Before 2011, ERPs are estimated to be consistent with the adjusted 2006 Indigenous population aged 15 and over (see ABS 2009, 2012).

by substantial changes in the way official statistical collections ask about self-employment and entrepreneurs. Hunter (2004) attempted to overcome these inherent difficulties by focusing on the relative outcomes for Indigenous and non-Indigenous selfemployed. However, recent census data is more intertemporally consistent and hence it is worth revisiting the trends in Indigenous self-employment.

Between 1991 and 1996 there was a substantial decrease in the proportion of employed persons in 'employer' and 'own-account worker' for both Indigenous and other Australians which appeared to be associated with a change in the way the question was asked (see Appendix A). In 1996 the Census question asked whether the business was in a 'limited liability' company rather than the historical question about 'own business employing others'. The incidence of self-employment in 2001 was more consistent with historical expectations when the question was changed back to that used in the 1991 Census. In the author's opinion, the 1996 statistics appear to be affected by non-response driven largely by explicit reference to whether a business was a limited liability company. Accordingly, 1996 data is omitted from Fig. 1. For 2006 and 2011, type of employment is split into two questions in order to produce data which is more closely aligned with standard labour force concepts collected in the Australian Bureau of Statistics' (ABS) Labour Force Survey.

With the exception of the 1996 data, census information is collected in a broadly comparable fashion in the last five censuses. This data series shows a steady improvement in Indigenous self-employment since the early 1990s, although this improvement has been occurring from a low base (see Fig. 1). The trend for non-Indigenous self-employment is less clear as it increased to 2006, but fell in the last inter-censal period. Overall non-Indigenous self-employment increased by less than Indigenous self-employment in the 20 years to 2011, with the net result being reduction in the gap in Indigenous and non-Indigenous outcomes in both relative and absolute terms. Notwithstanding, the incidence of selfemployment in the Indigenous population is still around one third that for other Australians.

The increase in the numbers of Indigenous entrepreneurs is even larger when one takes into account both population growth and the propensity to undercount Indigenous Australians in census data using the estimated residential populations (ERPs) for people aged 15 and over (see Fig. 2). The number of Indigenous self-employed increased by a factor of 2.7 from 4,600 in 1991 to 12,500 in 2011. While this is largely driven by population growth, it may also provide some evidence of an emerging Indigenous middle class (Lahn 2012). Over the same period the number of non-Indigenous entrepreneurs increased by a factor of 2.6, from 0.7 million to 1.8 million self-employed. Part of the reason for the slightly higher increase in the Indigenous entrepreneurship vis-à-vis that evident for other Australians is the recent increases in the propensity to identify as Indigenous in official statistical collections (Biddle 2012). Notwithstanding it is noteworthy that, in contrast to the non-Indigenous statistics the incidence of Indigenous self-employment increased substantially in each of the last three censuses (Fig. 1).

Figs 3 and 4 seek to further unpack these trends by identifying what happened to Indigenous and non-Indigenous employers and other self-employed in the last two censuses for remote and non-remote areas. The reason for focusing on the last two censuses is that both the census questions and geographic definitions used are directly comparable for that period.

The first thing to note in Fig. 3 is that the increase in the total Indigenous self-employment rate is driven by a small increase in employers in non-remote areas and a slightly larger increase in both employer and other self-employed in remote areas. Other self-employed actually decreased slightly in non-remote areas.

Notwithstanding the relative emphasis in the current public debate on Indigenous contractors in the mining sector—which is often physically located in remote areas— Indigenous self-employed in non-remote areas are still the largest group of Indigenous entrepreneurs. Indigenous contractors for the mining sector may be fly-in-fly-out workers (who constitute a substantial proportion of the current mining workforce), however, the relative prominence of non-remote residences among Indigenous entrepreneurs predates the current mining boom (Hunter 2004; Foley 2006).

Fig. 4 presents the same information for the non-Indigenous population (presented on a different scale to that used in Fig. 3). In contrast to the Indigenous population, the incidence of non-Indigenous entrepreneurship is higher in remote areas rather than non-remote areas; however, the incidence of employers and other self-employed declined among the non-Indigenous population in both remote and non-remote areas between 2006 and 2011.

Combining the information in Figs 3 and 4 reveals that the ratio of Indigenous to non-Indigenous self-employment increased from 0.31 to 0.33 in non-remote areas, a change that is largely driven by the substantial increase

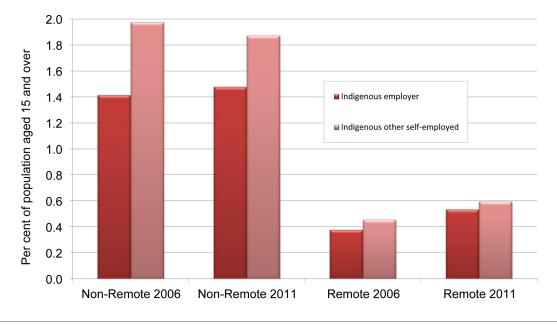


FIG. 3. Recent trends in Indigenous employer status and remoteness

 Note:
 Broad remoteness classification is based on the geographic boundaries used for 2006 Census. Remote and non-remote statistics are calculated using geographic concordances provided by the ABS for Statistical Area level 1.

 Source:
 ABS Table Builder.

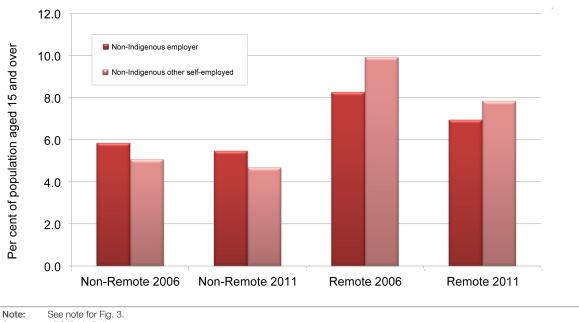


FIG. 4. Recent trends in non-Indigenous employer status by remoteness

Source: ABS Table Builder.

in Indigenous employers. Indigenous self-employment remains exceptionally low in remote areas compared to non-Indigenous rates, but this ratio increased between 2006 and 2011 (from 0.05 to 0.08). Although there was an increase in Indigenous entrepreneurship between 2006 and 2011, Indigenous residents of remote areas are still around 13 times less likely to be self-employed than other remote residents. Indigenous people in remote areas are drawn from a population less likely to have education, with limited access to credit and banking services (on average), and low levels of social capital in terms of having strong social networks outside the local community (Foley 2006).

	Non-rei	note	Remote			
	2006	2011	2006	2011		
Indigenous						
Employer	1,126	1,160	1,038	1,239		
Other self-employed	738	725	660	652		
Non-Indigenous						
Employer	1,353	1,376	1,129	1,216		
Other self-employed	796	812	762	800		

TABLE 1. Average weekly personal income by self-employment status and remoteness

Notes: See note for Fig. 3. The average income in the top category is one and a half times the lower threshold for the category. The 2006 income is converted to \$2011 using the Consumer Price Index (ABS 2013).
 Source. ABS Table Builder.

Income and estimating the size of the self-employment sectors

Census data can also provide information on average personal income that can be combined with the number of self-employed to estimate the monetary value of the size of the self-employment sector in 2006 and 2011. Table 1 reports the average personal income (in \$2011) for employers and other self-employed by ABS remoteness category. Before attempting to interpret such data we should note three limitations. The first limitation is that the income of self-employed is notoriously difficult to measure accurately because of the probable use of nonmonetary transfers (including possibility of involvement in the 'grey' or 'cash' economy), and concerns about the incentive of self-employed to accurately report income (Taylor 1996). The second limitation is that census data is measured in broad income categories and the selfemployed in the top categories may have higher actual income than is conventionally assumed in censusbased analysis. A third limitation is that the income of self-employed does not equate with the income of corporate entities-no individual may indicate they are self-employed with respect to larger businesses. Another complicating factor is that business income and profits are different from individual income in crucial ways including the fact that business costs need to be deducted, including allowances to maintain the value and sustainability of the capital investment. Notwithstanding such qualifications, the changes in incomes of the selfemployed provide some insights into broad changes in the value of economic activity in the Indigenous selfemployment sector.

The incomes for self-employed are relatively static for all categories with the exception of Indigenous employers in remote areas, whose income increased by 20 per

cent in real terms. This probably reflects an increased use of Indigenous contractors in the mining sector and an increased demand for the services of Indigenous employers. Note that the incomes of other Indigenous self-employed actually fell marginally in real terms. Incomes for non-Indigenous self-employed increased but the extent of the rise was less than that observed for Indigenous employers.

In contrast to the situation in non-remote areas, Indigenous employers in remote areas now have a slightly higher income in 2011 (\$1,239) than non-Indigenous employers (\$1,216). This may reflect the increased demand for contracting Indigenous services to the mining sector. Given that there was no increase in measured income for other self-employed in remote areas, it may be that entrepreneurs who do not employ other workers have not been beneficiaries of the apparent expansion in the use of Indigenous contractors in the mining industry. Other possible explanations are that these other self-employed are concentrated in non-mining remote areas or that mining companies prefer to contract larger organisations where other Indigenous people are likely to work (i.e., Indigenous employers or other businesses with Indigenous employment goals, Reconciliation Action Plans etc.). The economic rationale for this second explanation is that mining companies are trying to save on transaction costs while meeting their own published corporate social responsibility targets. Accordingly, companies will avoid the cost of substantial number of individual contracts with smaller businesses (including businesses involving other self-employed, who are small by definition if measured by the numbers of workers involved).

Table 2 combines this information on income with the estimated number of self-employed, which is again calculated by multiplying the estimated residential

			-	,	
	Non-re	mote	Remo	ote	
	2006	2011	2006	2011	
Indigenous sector	389	541	28	50	
Non-Indigenous sector	99,978	102,744	2,370	2,269	

TABLE 2. Aggregate size of self-employment sector, 2006 & 2011 (\$ Million)

 Notes:
 See note for Fig. 3. The 2006 income is converted to \$2011 using the Consumer Price Index (ABS 2013).

 Source.
 ABS Table Builder.

population in an area by self-employment rates reported in Figs 2 and 3. Given that the most substantial change in average income was in remote areas, the estimated size of the self-employment sector is largely driven by the changing number of entrepreneurs. Note that employer and other self-employed sectors are aggregated in order to illustrate a few basic points. The most obvious is that even though the size of Indigenous self-employment is growing over time, it is tiny relative to that attributable to other Australian self-employed. Notwithstanding the fact that Indigenous employers are doing relatively well in remote areas, the size of the Indigenous self-employment sector is particularly small in those areas. In view of the rise of affordable flights and fly-in-fly-out workforce, the location of a business is probably less important than it once was.

Even if one aggregates the size of the self-employment sectors in remote and non-remote areas, it is difficult to reconcile the incomes of Indigenous self-employed with public claims made about the value of contracts and transactions with Indigenous business. The 2011 Census indicates that total Indigenous self-employed income, (obtained by combining the figures for remote and non-remote sectors), was only \$591 million per annum. This does represent an increase of 42 per cent on the size of the sector in 2006, but is substantially less than the recent commitments to Indigenous contractors by FMG and Rio Tinto. As indicated above, in a remarkable coincidence, FMG claims that it has by itself awarded \$591m to Indigenous business in recent years. Similarly Rio Tinto aims to allocate contracts to local Indigenous Pilbara business that are probably a substantial fraction of the estimated income of Indigenous self-employed in 2011. Even when we abstract from the current location of Indigenous entrepreneurs, it is clear that if contracts of this magnitude were awarded over a short period, the capacity constraints of existing Indigenous businesses would severely stretched. Ignoring the likely difficulty for Indigenous business in finding sufficient capital to expand, it is arguably improbable that the sector can expand rapidly enough to ensure that all inputs are productively employed. Attempting to grow a business quickly can raise a new set of challenges for management that, at the very least, impose a constraint in the level of sustainable and profitable expansion. Notwithstanding, if these commitments were realised over a longer period then capacity constraints are likely to be less important.

Of course one reason for the apparently disproportionate size of these commitments relative to actual entrepreneurial income is that they are spread over more than one year. Another explanation is that census estimates of personal income do not include returns to capital (and hence leaving out substantial amount of business transaction value).

Who are the Indigenous entrepreneurs?

Having identified that Indigenous self-employment has increased substantially since the early 1990s, this section provides a brief profile of these entrepreneurs in order to inform the policy discussion in the concluding section. Hunter (2004) showed that most Indigenous entrepreneurs were involved in small-scale businesses that did not employ any other people. Furthermore Indigenous entrepreneurs were more likely to be involved in construction and retail sectors while there was also a disproportionate number in agriculture industries in remote areas. Note that only two per cent of all selfemployed in remote areas were involved in mining. I will return to this point later.

Hunter (2004) also argued that industrial and occupational distributions of Indigenous and non-Indigenous selfemployed were reasonably similar, especially in nonremote areas. Notwithstanding, Indigenous self-employed were less likely to be managers than other entrepreneurs (especially in remote areas), while they were less likely to be tradespersons in metropolitan areas. One explanation for these observations were the ongoing educational deficits, with Indigenous self-employed being almost half as likely to have Year 12 education as other self-employed. Another feature of Indigenous self-employed was that they tend to be younger than non-Indigenous self-employed, but older than the average Indigenous people.

Indigenous	Non-Indigenous
Road Freight Transport	House Construction
House Construction	Road Freight Transport
Building & Other Industrial Cleaning Services	Building & Other Industrial Cleaning Services
Carpentry Services	Accounting Services
Creative Artists, Musicians, Writers & Performers (*2.2)	Beef Cattle Farming (Specialised)
Painting & Decorating Services (*1.5)	Cafes & Restaurants
Hairdressing & Beauty Services	Hairdressing & Beauty Services
Gardening Services (*1.4)	Computer System Design & Related Services
Plumbing Services	Carpentry Services
Electrical Services	Electrical Services

TABLE 3. Top ten industries (disaggregated)	for self-employed businesses, 2011
---	------------------------------------

Note. The industries are identified by 4-digit Australia and New Zealand Standard Industrial Classification (ABS 2008). These ten industries represent about one quarter of business for both groups. Number in brackets indicates the extent to which the Indigenous rate exceeds the non-Indigenous rate (in terms of multiples).

Table 3 reports the ten industries with the highest percentage of Indigenous and non-Indigenous selfemployed at the time of the latest census in 2011. In these more recent data there are three industries where Indigenous self-employed are disproportionately represented relative to other Australian self-employed: performers, painting and decorating, and gardening services. The percentage of businesses in each industry is similar for the other seven industries in this table, but those three industries have Indigenous self-employment rates that are a substantial multiple of the relevant non-Indigenous rate. For example, Indigenous self-employed are 2.2 times more likely to work in creative industries than the non-Indigenous self-employed, which may indicate a comparative advantage in such industries (reflecting an ongoing demand for Indigenous art and culture) and a substantial involvement in cultural and environmental tourism.

Given that the industries in Table 3 are based on highly disaggregated classifications, there are relatively few selfemployed in each category. Consequently even though there are six industries in common for both top 10 lists, this is noteworthy and probably indicates that industrial distributions are reasonably similar overall. Apart from the three industries identified above, the only other Indigenous industry not in the non-Indigenous list is plumbing. Of the four industries in the non-Indigenous list that are not in the Indigenous list, three involve a high level of professional skill and education where Indigenous people are historically excluded by virtue of ongoing educational disadvantage and dispossession: accounting, beef cattle farming, and computer system design. Another noteworthy feature of Table 3 is that mining industries do not feature in the top 10 industries. This observation is not necessarily inconsistent with the large amounts of monies being allocated to Indigenous contractors by FMG and Rio Tinto, as the contractors may just be providing services and inputs that may not be classified as mining per se. Another rationale could be that a small number of Indigenous businesses may hold large and valuable contracts.

The geographic analysis of Hunter (2004) can be extended by greater disaggregation of 2011 Census data using Indigenous Region-level data (see Appendix Table A2). Indigenous employers and other self-employed are most likely to reside in the south east corner of Australia, in states and territories that have the best Indigenous education outcomes relative to other jurisdictions (i.e., Victoria, Tasmania, NSW and the ACT). This is also consistent with the higher population densities in such areas and hence a relatively strong demand of goods and services. With the exception of the ACT, where public sector employment is relatively prominent, non-Indigenous self-employment is also relatively strong in south east Australia. However, in contrast to the Indigenous self-employed, the highest incidence of non-Indigenous employers and other self-employed tends to be in remote areas, especially remote NSW. While there are likely to be a number of mining contractors involved in the concentration of entrepreneurs in certain remote areas, the fact that there are substantial number of non-Indigenous self-employed in remote NSW is arguably associated with the concentration of farming and pastoralism in the Murray Darling basin.

TABLE 4. Indigenous self-employed and other private sector	
employment	

Indigenous male private sector (non-self-employed)										
Indigenous male employer	7.51 ***	5.50 ***								
Other Indigenous male self-employed	-2.15									
Non-Indigenous male employer	-0.31									
CONSTANT	28.20 ***	25.01 ***								
R ²	0.387	0.357								
Indigenous female priv	ate sector (non-s	elf-employed)								
Indigenous female employer	14.34 ***	13.31 ***								
Other Indigenous female self-employed	-1.45									
Non-Indigenous female employer	-1.17 *									
CONSTANT	21.62 ***	16.58 ***								
R ²	0.700	0.672								

 Source:
 Indigenous Region data for 2011 Census from Table builder.

 Note:
 Ordinary Least Squares regressions on the 37 Indigenous Regions using robust standard errors. *, **, and *** denotes coefficient is statistically significant at the 10%, 5%, and 1% level of significance. Regressions for non-Indigenous private sector employment were also estimated but they were not significant at the conventional levels. Male and female employers are highly collinear for both Indigenous and non-Indigenous populations and hence one cannot include Indigenous male employer to explain private sector employment of Indigenous females.

Table 4 further structures the analysis of these Indigenous Region data by reporting an ordinary least squares (OLS) regression analysis of how self-employment outcomes affects private sector activity of Indigenous males and females in the local region. Given that one could expect self-employment to be classified as private sector employment, the measure of private sector activity excludes all forms of self-employment. Note that the specification is limited to a few explanatory factors as there are only 37 areas included in the analysis. Notwithstanding this elementary specification, the coefficient of determination (or R² statistic) indicates that between 35 and 70 per cent of the variation in Indigenous employers.

Indigenous private sector is significantly correlated with Indigenous employers, but not with other Indigenous selfemployment. This observation is reassuring in that one would expect the other self-employed to be independent of other private sector employment. The size of the effect of the employer variable is directly associated with the number of Indigenous workers employed. So a one percentage point increase in Indigenous employers is associated with between 5 and 14 percentage point increase in private sector jobs for Indigenous males and females respectively. The effect is larger for females, but one should not make too much of this gender differential given the constraints on the specification imposed by the sample size.

In contrast, non-Indigenous employer is not associated with higher rates of Indigenous private sector employment. Indeed, increasing the percentage of non-Indigenous female employers is actually associated with a slightly lower rate of private sector employment among Indigenous females. Given that recruitment and retention of Indigenous workers in the private sector is not a defining characteristics of non-Indigenous businesses, there is no reason why one would necessarily expect any significant correlation. To the extent that large non-Indigenous businesses dominate the local areas, it is possible that they crowd out other small business, including Indigenous employers. If these larger businesses are more likely to employ Indigenous workers because they have Reconciliation Action Plans or explicit Corporate Social Responsibility commitments, then this would generate the negative correlation we observe.

This OLS regression analysis is consistent with Indigenous businesses generating more private sector jobs for Indigenous workers than other Australian businesses. One possibility is that Indigenous employers provide a more conducive working environment for Indigenous workers. Another possibility is that such businesses are involved in activities that are more likely to require Indigenous workers such as cultural tourism or the Indigenous art sector.

Historically there is not much research available on nexus between businesses and Indigenous workers, but a priori we would expect Indigenous employers to provide working conditions that are sympathetic with the needs and preferences of Indigenous workers (e.g., because of greater cultural awareness/cultural competency). Hunter and Hawke (2001) used linked employee-employer data from the mid-1990s to find that workplaces with Indigenous employees were more likely than other workplaces to have a written policy on racial harassment and a formal grievance procedure to resolve disputes that arise on either racial or sexual harassment grounds. More recently Tiplady and Barclay (2007) emphasise how mining companies legitimate their 'social licence to operate' by enhancing employment relationships with Indigenous workers. These findings are worth pursuing in future research as they clearly point to the possibility that demand for goods and services is not the sole reason for establishing an Indigenous business or employing Indigenous workers.

Unresolved Issues

The remainder of the paper identifies some unresolved issues in the above analysis and explores some possible implications for policy makers. For example, it is difficult to reconcile the measured size of the Indigenous entrepreneurial sector with the public claims made by mining companies and others about the extent of contracting to Indigenous businesses. One explanation is the rather loose or flexible definition of what constitutes an Indigenous business or contract. Setting majority Indigenous equity as the criteria for Indigenous business provides a clear definition, but one still has to establish who is an Indigenous person. Large recent increases in the number of Australians identifying as Indigenous means that it is difficult to take Indigenous identification as given, even in the short run (Biddle 2012). Notwithstanding, majority ownership should be considered as it would provide clear and meaningful data, albeit with much smaller numbers than are currently evident in census analysis (including this paper).

Supply Nation uses a majority equity definition of an Indigenous business where there is 'at least 51 per cent owned by Indigenous Australians and the principal executive officer is an Indigenous Australian and the key decisions in the business are made by Indigenous Australians'. This definition is easy to defend in that one would expect these circumstances to be associated with a considerable measure of Indigenous control. However, the definition is contestable in that it will exclude many firms that may otherwise be classified as Indigenous. For example a business partnership of Indigenous and non-Indigenous couple would be excluded by this definition as the Indigenous equity will only be 50 per cent and could well show up in census statistics. It is not surprising that Supply Nation currently certify only 198 Indigenous businesses, which is a small fraction of the Indigenous entrepreneurs identified in recent census data.

Several important issues arise from the definition of Indigenous businesses that will impact on public claims made on Indigenous contractors. Unlike the situation in the United States and Canada, contractors can sign off on the basis of Indigenous participation in providing services even though no Indigenous businesses were involved in the services finally provided (Willmett 2009: 41). (Note in some states of the USA it is a felony to fraudulently claim certification as a minority business enterprise). There is no statutory protection of the status of minority business in Australia and hence anyone can claim to be Indigenous contractor even though actual Indigenous involvement is minimal or even non-existent. Irrespective of whether these misrepresentations are deliberate, or a failure to realise an aspiration to involve Indigenous business, they mislead public debate.

If Indigenous business was consistently defined in terms of majority equity in the company, the value of the sector implied from census data or publicly claimed by mining companies would probably fall dramatically. It is desirable to have a meaningful and robust definition of what constitutes an Indigenous business so that there is some accountability about public claims such as those by mining companies, Supply Nation or others.

Ngarda Civil & Mining is an example of a successful Indigenous business that illustrates some of the difficulties in defining and measuring Indigenous entrepreneurship. Ngarda is an Indigenous mining contractor with around 350 employees, of whom over half are Indigenous, and an annual turnover of over \$150 million. Ngarda claim that they are the largest Indigenous owned and operated contracting company in Australia. According to the company profile on their website,⁴ Ngarda is jointly owned by Leighton Contractors (50 per cent), Ngarda Ngarli Yarndu Foundation (25 per cent) and IBA (25 per cent). However, this ownership profile would exclude Ngarda from being classified as being an Indigenous business according to the Supply Nation definition, despite considerable involvement and control by Indigenous people and local communities.

While the majority ownership definition may affect some large companies like Ngarda, it is likely to have an even larger affect in reducing the numbers of small Indigenous businesses due to the exclusion of partnerships involving married couples where one partner is non-Indigenous. As Foley (2005) argues, business partnerships involving couples are an important means for Indigenous businesses to overcome the financial, social human capital constraints facing potential entrepreneurs.

The self-employment data reported above provides one indicator of Indigenous entrepreneurs that abstracts from the ownership and control issues. However, it is an imperfect proxy as there is no necessary concordance between businesses and people. Ngarda exemplify this issue in that it is highly unlikely that any one Indigenous person would identify themselves as being self-employed in the census solely for their responsibility in running that business. IBA staff would consider themselves public servants while the members of Ngarda Ngarli Yarndu Foundation may consider themselves as part of a local Indigenous community organisation. Given that no part of the property or income earned by the Foundation may be paid or otherwise distributed to members, individual economic status is likely to be independent of membership.⁵ Similarly, other incorporated bodies such as community-controlled businesses and Native Title organisations are unlikely to be included in estimates based on self-employment data from the census. Clearly the definition of an Indigenous business will always be contestable, but policy-makers need to clearly identify which economic agents are being targeted and articulate what outcomes the policies are seeking to influence.

Conclusion

This paper has highlighted a number of important observations about Indigenous employers and other self-employed. Firstly, the number of Indigenous selfemployment has increased substantially both in absolute terms and as a proportion of Indigenous employment. While the options for Indigenous Australians to set up businesses have been historically constrained, the above analysis has demonstrated that there has been some marked increase in the prevalence of Indigenous entrepreneurs in recent years, albeit improving from a low base. Indigenous entrepreneurs have always been more likely to live in urban areas, although the numbers of Indigenous entrepreneurs in remote areas has increased marginally in recent years. Secondly, Indigenous business is generally less segregated from other Australian business than general employment statistics indicate, at least in urban areas. Segregation is commonly measured by the dissimilarity index, which effectively estimates the proportion of the Indigenous businesses or workers who would have to change industry or occupation for the Indigenous population to have analogous characteristics to that of the non-Indigenous population (Duncan & Duncan 1955). Only 14 per cent of non-remote Indigenous self-employed would have to change industry, which provides some indirect evidence that Indigenous businesses are 'following the money' in those areas. That is, Indigenous businesses in non-remote areas are not disproportionately engaged in industries that are less profitable for the rest of the Australian economy. The higher level industrial segregation of self-employment evident in remote areas is likely to result from the relative prominence of mining for Indigenous self-employment in those areas. Mining sector jobs are likely to be drawn from a limited range of industries and occupations, so the locationally specific nature of the rise of mining will result in higher measured segregation.

Thirdly, there is an ongoing substantial difference in the occupational distributions of Indigenous and non-Indigenous self-employed. Any convergence in these distributions will be constrained by lack of credentials or suitable educational qualifications held by Indigenous self-employed which limits the occupational choices relative to non-Indigenous self-employed.

What implications does the analysis in this paper have for 'closing-the-gaps' targets in employment? In a mechanical sense, the growing number of Indigenous entrepreneurs makes a tiny contribution to improving Indigenous employment outcomes relative to the rest of the Indigenous labour market (Hunter 1999). Notwithstanding, the above analysis points to a potentially significant role for Indigenous entrepreneurs in providing jobs for other Indigenous workers. While the evidence presented in this paper is somewhat indirect, it provides grounds for further research analysing the question: Do Indigenous businesses provide working environments that are conducive to employing and retaining Indigenous workers and otherwise overcoming Indigenous labour market disadvantage? If the answer to this question is affirmative, then facilitating Indigenous business may be an effective strategy for substantially reducing the gap between Indigenous and non-Indigenous employment outcomes.

Indigenous business is important in its own right, not only to the extent that facilitates Indigenous employment in a culturally appropriate workplace. To the extent that having a robust middle class is integral to the achievement of sustainable and independent Indigenous development, it may be time to consider having a separate closing the gap target for self-employment.

This paper has demonstrated that there is a substantial gap in the entrepreneurial outcomes for Indigenous and non-Indigenous Australians. A more appropriate definition of what constitutes an Indigenous business will, in all likelihood, increase the number of Indigenous businesses covered by the targets and supported by relevant policy initiatives. For example, if Supply Nation included partnerships, then the pool of potential Indigenous subcontractors would expand considerably and enhance the prospects for linking Indigenous businesses with other companies who need their services. Whatever the definition of Indigenous business adopted, building the capacity of Indigenous business is still a high policy priority.

Notes

- See <http://www.austlii.edu.au/au/other/IndigLRes/ timeline/>.
- See <www.fmgl.com.au/Community/Corporate_Social_ Responsibility/A_Billion_Opportunities>, viewed 20 February 2013.
- 3. See <http://supplynation.org.au>, viewed 23 July 2013.
- See <http://ngarda.dev.madpilot.com.au/about/companyprofile>, viewed 22 March 2013.
- 5. See <http://www.nnyf.com.au/about.php>.

Appendix A

	Question	Variable
1991	In the main job held last week was the person:	Status in Employment:
	1. A wage or salary earner	1. Employee
	2. Own business employing others	2. Employer
	3. Own business not employing others	3. Own Account Worker
	4. A helper not receiving wages	4. Contributing Family Worker
1996	In the main job held last week was the person:	Status in Employment:
	1. A wage or salary earner	1. Employee
	2. A helper not receiving wages	2. Employer
	3. Conducting own business in limited liability	3. Own Account Worker
	company	4. Contributing Family Worker
	a) with employees	
	b) without employees	
	4. Conducting own business which is not a	
	limited liability company	
	a) with employees	
	b) without employees	
2001	In the main job held last week was the person:	Status in Employment:
	1. A wage or salary earner	1. Employee
	2. Own business employing others	2. Employer
	Own business not employing others	3. Own Account Worker
	4. A helper not receiving wages	4. Contributing Family Worker
2006	In the main job held last week was the person:	Employment type:
	1. Working for an employer?	 Employee not owning business
	2. Working in own business?	2. Owner managers of incorporated enterprises
	Was the person's business	Owner managers of unincorporated
	1. Unicorporated?	enterprises
	2. Incorporated? (e.g. Pty Ltd.)	4. Contributing family workers
2011	In the main job held last week was the person:	Employment type:
	1. Working for an employer?	1. Employee not owning business
	2. Working in own business?	2. Owner managers of incorporated enterprises
	Was the person's business	3. Owner managers of unincorporated
	1. Unicorporated?	enterprises
	2. Incorporated? (e.g. Pty Ltd.)	4. Contributing family workers

TABLE A1. Census questions relating to self-employment. 1991–2011

Source: Respective census questionnaires.

TABLE A2. Private	e sector an	d self-emp	ployed by In	digenous re	egions and	sex, workir	ng aged po	pulation ag	ed 15–64, 2	2011		
Indigenous Region	Indig. male private sector	Indig. female private sector	Non-Indig. male private sector	Non-Indig. female private sector	Indig. male employer	Indig. male other self- employed	Indig. female employer	Indig. female other self- employed	Non-Indig. male employer	Non-Indig. male other self- employed	Non-Indig. female employer	Non-Indig. female other self- employed
Dubbo	35.0	29.6	67.1	53.9	1.2	1.4	0.7	0.8	10.3	7.8	4.4	3.7
North-Eastern NSW	36.5	27.8	66.3	53.3	1.4	2.0	0.8	0.7	9.0	7.4	4.5	3.7
North-Western NSW	31.0	24.6	60.9	48.9	0.9	1.4	0.8	0.5	8.3	6.2	4.4	3.0
NSW Central and North Coast	39.7	34.1	62.5	52.1	2.0	2.4	0.9	1.2	7.7	6.3	3.6	3.4
Riverina - Orange	37.9	30.8	66.1	53.2	1.5	1.9	0.8	0.8	9.5	6.6	4.4	3.3
South-Eastern NSW	36.2	31.2	59.8	50.8	2.2	3.2	1.2	0.9	9.7	7.7	4.8	3.8
Sydney - Wollongong	45.0	36.1	67.3	54.0	2.9	2.3	1.3	0.9	9.0	5.1	3.6	2.8
Melbourne	52.0	39.8	69.5	54.2	3.5	3.2	1.2	1.5	9.3	5.1	3.5	2.7
Victoria exc. Melbourne	40.6	31.7	66.8	51.0	2.2	2.6	1.0	1.0	9.5	6.8	4.1	3.3
Brisbane	48.1	37.8	67.3	54.7	2.6	2.9	1.2	1.3	8.8	5.6	3.9	3.2
Cairns - Atherton	31.0	24.9	66.9	56.2	0.9	1.2	0.6	0.5	9.3	7.0	4.8	3.8
Cape York	24.3	18.5	55.0	51.2	0.3	1.1	0.0	0.4	4.2	5.6	3.8	3.8
Mount Isa	39.4	23.0	79.8	58.8	1.0	1.1	0.7	0.8	5.7	3.4	4.4	2.3
Rockhampton	43.9	33.9	66.4	50.4	1.3	1.3	0.9	0.8	7.1	4.6	4.0	2.7
Toowoomba - Roma	41.5	30.1	66.7	51.9	2.2	2.0	0.9	1.0	9.0	6.7	4.4	3.4
Torres Strait	38.5	29.9	50.1	35.0	0.7	2.8	0.2	0.6	4.5	8.2	3.0	2.1
Townsville - Mackay	43.1	32.4	70.3	55.5	1.2	1.1	0.7	0.7	7.9	4.6	4.2	2.7
Adelaide	37.2	28.3	65.3	53.2	1.6	2.2	0.7	1.1	7.6	6.3	3.2	3.0
Port Augusta	31.5	23.0	66.8	49.5	0.5	0.6	0.0	0.2	5.9	4.5	3.2	2.3
Port Lincoln - Ceduna	38.9	27.6	72.5	55.6	0.7	2.0	1.0	0.4	12.5	9.8	6.1	3.8
Broome	33.4	26.4	72.0	60.8	0.9	1.4	0.5	0.5	10.9	6.8	6.2	3.7
Geraldton	32.3	20.6	72.2	54.0	1.7	1.1	0.3	0.7	10.8	6.5	5.4	3.4
Kalgoorlie	33.6	20.3	80.5	56.8	1.1	0.7	0.5	0.3	7.2	3.7	4.8	2.4
Kununurra	32.3	20.4	76.0	60.4	0.8	0.8	0.0	0.4	8.7	6.0	5.6	3.1
Perth	39.9	29.9	71.8	55.3	1.8	1.7	0.9	0.9	8.5	6.0	3.6	2.9
South Hedland	53.1	33.0	90.1	62.7	1.0	0.5	0.8	0.2	3.4	1.6	2.5	1.9
South-Western WA	36.7	26.2	71.9	52.6	2.0	1.6	0.7	0.8	10.1	7.8	4.8	3.8

West Kimberley

43.2

26.8

28.9

56.8

1.0

0.3

0.6

0.3

3.0

2.8

3.3

4.7

TABLE A2. Continued

Indigenous Region	Indig. male private sector	Indig. female private sector	Non-Indig. male private sector	Non-Indig. female private sector	Indig. male employer	Indig. male other self- employed	Indig. female employer	Indig. female other self- employed	Non-Indig. male employer	Non-Indig. male other self- employed	Non-Indig. female employer	Non-Indig. female other self- employed
Tasmania	51.4	41.4	60.7	49.3	3.6	3.8	1.6	1.4	7.1	5.9	3.3	2.8
Alice Springs	29.5	20.9	68.1	54.1	1.0	1.9	0.6	0.2	7.5	4.8	4.2	2.9
Apatula	12.2	12.2	75.0	66.7	0.2	0.5	0.0	1.0	4.0	2.3	2.3	1.9
Darwin	34.3	28.2	60.4	51.5	1.5	1.8	0.7	0.9	6.8	4.9	3.5	2.8
Jabiru - Tiwi	24.7	17.3	71.2	61.2	0.1	1.6	0.0	0.6	3.4	5.8	2.2	4.1
Katherine	21.6	16.4	56.9	52.1	0.5	1.2	0.4	0.8	8.0	5.0	4.7	2.7
Nhulunbuy	20.7	16.1	79.7	49.5	0.1	0.3	0.0	0.6	1.8	2.7	2.0	2.1
Tennant Creek	15.0	12.7	67.2	52.9	0.6	1.0	0.3	0.7	8.8	4.7	4.8	1.6
ACT	41.3	29.3	48.6	39.4	3.2	3.4	0.9	1.1	6.2	3.4	2.4	1.7
Source:												

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