

Change in Aboriginal Social Indicators in the Pilbara: 2001-2016

A Report to the Pilbara Regional Implementation Committee

by

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Executive summary

In 2017, Aboriginal Traditional Owner members of the Pilbara Regional Implementation Committee (RIC) endorsed a proposal to analyse change in baseline Aboriginal social indicators for the Pilbara that were established in the early 2000s prior to the mining boom (Taylor and Scambary 2005). The purpose was to bring an essential quantum to their discussions of future needs and priorities for the Pilbara Aboriginal community. What is provided is a unique and detailed information resource that empowers the RIC in its strategic thinking and representation to Rio Tinto, government and others as it seeks to advance social and economic development for Pilbara Aboriginal people. As anticipated in the baseline study a good deal has changed for Aboriginal people as a consequence of unprecedented levels of economic activity in the region due mostly to massive investments in the mineral resources sector. This economic shock has occurred in waves through construction, production and wind-down/transition phases and it should be noted that impacts are still underway.

The basic message from the baseline study was that little had been achieved up to 2001 in terms of enhancing Aboriginal socioeconomic status over decades of mining activity in the Pilbara. This can no longer be claimed, at least not at a whole-of-population level. What we see instead is a very mixed set of outcomes whereby some individuals, families and communities have clearly benefited while for others little has changed, indeed, relatively-speaking, they are now invariably worse off. If pressed to allocate an approximate ratio to this observation, the general impression would be that a third of people are now economically better off and two-thirds are not. The difference between the two is determined largely by employment, especially in mining.

Against a background of accelerated growth in the Aboriginal resident population there has been absolute improvement – more people employed, more on higher incomes, additional housing, increased school retention, fewer avoidable deaths etc., but what matters more is the volume of improvement relative to population (need). Here, change is often mixed with either slight or substantial improvement in the employment rate (depending on definition), more people on higher incomes but poverty rates increasing, no change in low school attendance rates but some positive shift in literacy and numeracy outcomes, less apparent housing need overall but continued high occupancy rates in many locations, significant decline in mortality and morbidity rates for some conditions but not most, lower arrest rates for males but not for females and so on. Even in instances where improvement exists, sizeable gaps in outcomes between Aboriginal and other Pilbara residents often remain. More importantly, gaps have widened within the Aboriginal population, especially in regard to income and opportunity.

Of particular note is that Pilbara Aboriginal people have embraced the increased opportunity for employment in mining to an extent that they are now overly-dependant on this single industry even more so than others in the region. This comes at a time when there is downward pressure on labour supply due to automation in mining and it places a premium on finding ways and means of retaining existing workers at the same time as diversifying opportunity. The focus for this is on those aged under 35 years who are at the vanguard of an emerging population bulge that

will see the working-age group dominate for some years to come. This demographic shift presents a business case for increased and urgent investment in human capital.

The report is structured into thematic sections that present detailed statistical data from census and administrative sources on change in population, labour force, income, education and training, housing and infrastructure, health status, and crime and justice. It should be said that the types of data used are not necessarily designed with Aboriginal issues and interests in mind and they do not cover the full range of what might be measured in any assessment of Aboriginal wellbeing. However, to the extent that improvement in these areas does form part of the RIC's calculus of Aboriginal wellbeing it is legitimate and beneficial to examine key measures. The implications for the RIC of trends observed are presented in a full summary section at the end of the report.

9. Key findings and issues for the Regional Implementation Committee

As anticipated in the baseline study of social and economic conditions in the Pilbara in the early 2000s (Taylor and Scamarcy 2005) a good deal has changed for Aboriginal people in the subsequent years as a consequence of unprecedented levels of economic activity in the region due mostly to massive investments in the mineral resources sector. This economic shock has occurred in waves through construction, production and wind-down/transition phases and as this study reports on selected impacts some 15 years on it should be noted that impacts are still underway. Nonetheless, this is a critical juncture at which to take stock because technological transitions now commencing within the mining industry are set to greatly influence the nature of business operations in ways that are of critical interest to Aboriginal Traditional Owners as they contemplate opportunities and constraints for future economic participation.

The basic message from the baseline study (Taylor and Scamarcy 2005) was that little had been achieved in terms of enhancing Aboriginal socioeconomic status over decades of mining activity in the Pilbara up to the early 2000s. This can no longer be claimed, at least not at a whole-of-population level. What we see instead is a very mixed set of outcomes whereby some individuals, families and communities have clearly benefited while for others little has changed, indeed, relatively-speaking, they are now invariably worse off. If pressed to allocate an approximate ratio to this observation, the general impression would be that a third of people are now better off and two-thirds are not, at least as far as the aggregate selected indicators are concerned. The difference between the two is determined largely by employment, especially in mining. Outcomes across the range of indicators in terms of their juxtaposition with greatly enhanced wealth-generating activity bear all the hallmarks of the so-called resource curse where poverty can be seen as a form of capacity deprivation for want of appropriate and sufficient investments in human capital (Langton 2010, 2012: 38-9).

Here it is important to recall the three dimensions of change that have been presented: absolute, proportional and relative. In many instances, there has been absolute improvement – more people employed, more on higher incomes, additional housing, increased school enrolment, fewer avoidable deaths etc., but what matters more is the volume of improvement relative to population (need). Here, change is often mixed with either slight or substantial improvement in the employment rate (depending on definition), more people on higher incomes but poverty rates increasing, no change in low school attendance rates but some positive shift in literacy and numeracy outcomes, less apparent housing need overall but continued high occupancy rates in many locations, significant shifts in mortality and morbidity rates for some conditions but not most, lower arrest rates for males but not for females and so on. Most telling of all, however, is that even in instances where improvement exists, the gaps between Aboriginal and other Pilbara residents have often failed to close or have widened. Furthermore, gaps within the Aboriginal population are widening too, especially in regard to income and opportunity.

In effect, a key finding overall is that trends over the past 15 years support the observation made by Langton (2010) in the middle of the mining boom:

“disparityis accelerating and it is driven by the mining boom. In Karratha, everyone who wants to work has a job. In Roebourne, few people have the skills and education to join the fast-paced industries transforming the area. It is not just Aboriginal people or the residents of Roebourne who are falling behind. Anyone who lives in a mining province but does not work for a mining company is disadvantaged in important ways: their income is much lower, yet they must pay the same exorbitant housing, food and services costs, thanks to the localized inflation brought about by the boom.”

The question posed at the time (Langton 2010) still seems worth addressing: “*are* there any policies [in place] to counter the growing disparities in income, living conditions and opportunity in mining provinces?” To assist the RIC and others who have an interest in answering this, the following explores the implications of key findings from each of the social indicator categories reviewed.

Population change

The most visible sign of change in the Pilbara has been the increase in resident and temporary population that accompanied the mining boom. Aboriginal people shared equally in this demographic wave such that their proportion of the regional population is barely altered since 2001 and continues to stand at around 16%. This growth in resident numbers reflects a decade of net migration into the region, mostly from Perth and surrounds. An intriguing question to pose, but one that is impossible to answer from existing data, is the extent to which this migration has involved members of Pilbara Traditional Owner groups – in effect, a return migration?

The most important feature of Aboriginal population change, though, is structural ageing and the implications for potential demographic dividend that this brings. Indications are that the Aboriginal population of the Pilbara has been well into this unique phase of demographic transition for some time with the pressing significance of this probably lost on policy-makers as it has unfolded. Positive signs of the dividend at work are provided by notable declines in economic dependency ratios since 2001. The key demographic question for now is, how long will this trend last? The answer depends largely on future net migration – if this remains positive and mostly of working-age as during the mining boom then the dividend could keep on giving; if it becomes neutral the dividend will continue for some time but begin to recede as the population ages; if it becomes negative the dividend will quickly erode. The key economic question for the RIC is, what decisive steps should be taken to ensure that ‘potential’ dividend becomes ‘actual’.

As this demographic wave passes through, perhaps over the next 20 years or so, the higher the participation in employment with associated earnings, and the lower the levels of disengagement from the economy and reliance on welfare, then the less the likelihood of significant welfare dependence emerging as a long-term structural outcome. The observation has been made that non-Aboriginal Australians tended to be educated before they became ‘old’ with all the economic benefits that accrued from that (Jackson 2008). The risk for Aboriginal people is that they will become old before they are educated which is code, really, for work-ready. This suggests that the RIC would do well to focus urgent attention on the current circumstances of those aged under 35 years who are at the vanguard of this emerging bulge in working-age population and consider what their needs are.

It also signals another looming issue to do with the adequate provision of aged care services as the Aboriginal population becomes progressively older. Invariably to date, social policy with regard to the Aboriginal population has focussed on needs at younger ages and while these are still paramount as noted above the fastest rate of population growth is actually among those at advanced ages. Given the prevalence of out-migration at retirement ages among the Pilbara population more generally, the idea of a growing resident group in need of aged care is perhaps novel for the Pilbara but it is emerging in the Aboriginal population. Furthermore, this is a group that has cultural ties to particular parts of the Pilbara along with senior ceremonial and custodial roles suggesting a growing need for aged care services in home communities.

Labour force

Interpretation of change in social indicators can depend as much on revised definition of categories as it is to do with any real alteration to actual conditions. This is especially so with Aboriginal people as many of the social indicator categories that define their outcomes are state-imposed and subject to policy whim (Morphy 2016). A good example is the definition of what constitutes 'employment'. In 2001, when baseline indicators for the Pilbara were prepared (Taylor and Scambary 2005), employment figures reported by the census included Aboriginal people working in the CDEP scheme. As we have seen, together with others in the workforce, these CDEP workers produced an employment rate of 42.5% in 2001. Using this as the base, the 2016 employment rate of 45.6% appears as a very meagre return on 15 years-worth of regional economic expansion and substantial effort to improve Aboriginal outcomes. However, the CDEP scheme was disbanded in stages since 2001 and by 2016 it no longer existed. Many who had worked, or who might have worked, in CDEP were now to be classified as unemployed via the Community Development Program. Their presence in the census vanished as a separate category. As we have seen, if a similar category shift is applied to 2001 employment data this produces a revised employment rate of 30.2% which makes the rate of 45.6% in 2016 look far more favourable. In one key sense it is – while the 2016 employment rate may not be much higher than the unadjusted 2001 rate, those employed in 2016 are far numerous and have greatly enhanced earning capacities based on improved occupational mobility, longer working hours and higher wages than those employed in 2001. Most of this has been delivered by mining employment.

Again, some care is needed here in defining terms. In addition to the rise in resident population, there has also been a substantial increase in FIFO and other temporary workers in the Pilbara and Aboriginal people have been part of this trend. In 2001, very few Aboriginal people employed in the Pilbara were from outside of the region. By 2016, fully one-third of the Aboriginal workforce was from elsewhere, mostly from Perth but also from other parts of WA as well as from across Australia. The focus in this analysis has been on residents only but it should be noted that around 12% of RTIO's workforce classified as Pilbara Aboriginal People are in fact FIFO Traditional Owners. If similar ratios applied with other major employers then, from a Traditional Owner perspective, the change to employment outcomes might be more favourable than reported here.

One significant change that has accompanied this rise in employment is an over-representation of Aboriginal employment in a single industry – mining, and in particular, iron-ore mining. In 2001, barely 20% of Aboriginal males in employment were working in the mining industry and less than 5% of females. Today, mining accounts for almost two-thirds of all Aboriginal male employment and one-third of all female employment – levels that far exceed those of other resident workers. This represents a major structural shift in the composition of Aboriginal employment. At one level it is testimony to the efforts made to engage Aboriginal people but it comes with the potential cost of that classic resource curse risk – over-dependency on a single sector (Langton 2010). This is all the more so as the very sector that Aboriginal people have come to depend on is experiencing downward pressure on labour demand as mining technologies shift towards remote operations and machine automation.

While there are data to reveal these high-risk stakes in the mining sector, we still have very little statistical information on the size, composition and economic potential regarding another important component of the regional economy – notably, the Aboriginal business and community organisation sector. There has been a flourishing of Aboriginal businesses and incorporated bodies since 2001 yet they remain statistically invisible, except to say that they almost certainly provide for more Aboriginal employment in the Pilbara than the three tiers of government put together. Since 2006, employment in the government sector, especially in state and local government, has fallen markedly and we can track this. However, over the same period there is every likelihood that employment in Aboriginal businesses and organisations has increased and yet we have no data for validation. To overcome this, a separate census category of Aboriginal sector employment would be a useful innovation and something that the RIC could lobby for as part of ABS preparations for the 2021 census. In the meantime, there is an urgent need to audit these Aboriginal contributions to the regional economy as a prelude to assessing and bolstering their potential to minimise the risk of over-dependence on mining. No doubt, many may themselves be dependent for their operations on mining, in which case the implications of industry restructuring will need to be carefully considered by the RIC with a view to harm minimization or the fashioning of alternate opportunities.

Of course the essential backdrop to labour force engagement is projected growth in the Aboriginal population of working-age. Because of this, a key requirement from now on if a reduction in the employment rate for Pilbara Aboriginal people is to be avoided, is to ensure that the current core stock of those employed (aged 25-54) is maintained (2,400) and that an additional 150 jobs are created each year over the next 10 years. Every additional job beyond this would represent an improvement on the current outcome. As to where these additional individuals might come from, primary consideration should be given to the 1,000 or so Aboriginal students currently in or just out of the high school system and what their requirements might be for securing work. Also crucial is a need to better understand the situation facing those of early working-age who are either unemployed or marginally attached to the labour force. In effect, an immediate audit of capacity to engage is required of the younger Aboriginal age groups in order to direct strategic investments into matching potential supply with emerging demand. The economics of potential demographic dividend provide a strong opportunity cost business case for this. They also provide some urgency.

Income

One of the more striking observations following 15 years of regional economic growth is the absolute and relative increase in Aboriginal income. While median personal and household incomes still fall way behind the rest of the Pilbara population, a greater share of the Aboriginal population is now found at the upper end of the income distribution – the downside is that an even greater share is also now found at the lower end. In short, there is increasing income disparity within the Aboriginal population with the key difference being whether one is employed (especially in mining) or on income support. While many Aboriginal people have clearly benefitted from the mining boom, the problem is that not enough have. As a consequence, despite average Aboriginal income from employment more than doubling in real terms to reach \$93,000, we have also seen an increase in the Aboriginal rate of poverty in what has become Western Australia's most expensive region to live. If there was ever an indicator of the resource curse at work it would be this contradiction in economic outcomes. At the same time, there appears to have been some amelioration of this in the context of household incomes no doubt due to a mix of improved family support payments and wages growth

One reason for growing income disparity is a rise in the proportion of Aboriginal people with no income. We can see from census data that more than half of these are neither employed nor in education or training. What is less clear is whether individuals have dropped out of the income support system as well. The likelihood that substantial compliance breaching off the Community Development Program (CDP) involving no pay penalties cannot be discounted although regional data on this are difficult to access as a recent federal Senate committee investigating this matter itself discovered. Statistical confusion is rife regarding those who are most marginalized in society. Aside from issues to do with the CDP we see this in the ongoing lack of concordance between census figures on unemployment and Centrelink figures on Newstart payments. The danger is with no clear information and with a focus in policy (including company policy) on achieving successful outcomes, those left behind for whatever reason can at worst be forgotten and at best be misunderstood and misrepresented. In terms of proper regional profiling and planning for all Pilbara Aboriginal people, there is need for better linkage of and access to administrative data and for the RIC to identify priority sub-groups in the population.

Education and training

As we have seen, interest in the educational status of current Aboriginal students and young adults is given added impetus by the potential for demographic dividend. In realising this a good deal matters regarding how well placed this cohort is to participate in the future regional labour market. Unfortunately, the general prognosis does not appear favourable. While 44% of young adults aged 15-34 years are fully engaged in employment, education or training and a further 15% are partially engaged, this means that as much as 41% of this age group are disengaged. To avoid any worsening of this outcome, this places a burden on the estimated 1,500 persons who are fully engaged to ensure that they remain so and for the estimated 580 who are only partially engaged to do so as well. As for the estimated 1,550 who are not engaged, greater effort should be made to identify why this is so and what may be done to reduce this proportion. Data from other parts of this report indicate that factors such as ill-health, disability, home duties, and incarceration all play a significant part.

A key contributor to this disengagement, at least in terms of employment participation, also includes persistently low levels of school attendance. Unlike in some parts of remote Australia, Aboriginal enrolment in schooling in the Pilbara appears to be more or less universal. However, not all of those who are enrolled attend school often enough to maximise the benefits from education. Even average attendance rates are low at 70% in primary schools and 60% at secondary. More to the point these rates have remained fairly constant since 2008. Of more concern, however, are the very low attendance levels that indicate the proportion of students attending for more than 90% of available school days. These have also remained constant but at the much lower levels of 30% in primary schools and 20% in secondary. In terms of absolute numbers, then, we can estimate that there are just short of 700 students overall who are currently in the system who have an attendance record that is likely to assist in their ultimate achievement of WACE and/or VET qualifications. It seems unlikely to be a coincidence that roughly the same number achieve above National Minimum Standards in NAPLAN testing. If this continues to be the level of successful output from schooling then it may be enough to sustain the current rate of employment in the region but it would not be sufficient to achieve any parity targets. This is especially so given that occupational shifts involving higher qualification requirements are planned for the mining industry. In the context of demographic dividend such an outcome would be sub-optimal.

Housing and infrastructure

Perhaps no other area of public policy epitomises the decline in public access data on the circumstances of Aboriginal people in the Pilbara (and generally in remote areas of Australia) more than that of housing and infrastructure. From the early 1990s ATSIC lobbied for and financially supported the Community Housing and Infrastructure Needs Survey (CHINS) up to the last of four surveys in 2006. The Western Australian Government also conducted three rounds of an Environmental Health Needs Survey (EHNS) up to 2008. Since that time, the very detailed data on Aboriginal housing and infrastructure available from those sources has evaporated under the influence of the post-ATSIC new public management regime. This shift towards mainstreaming is epitomised by the National Partnership Agreement on Remote Indigenous Housing. This redirected Australian government funding and responsibility for housing and municipal and essential services away from Indigenous-controlled organisations to State governments (Hunt 2018). In the process, the acquisition of detailed and comprehensive data with which to assess wholesale needs and measure progress appears to have taken a back seat in favour of a focus on tenancy compliance and rationalisation of essential services. Consequently, it is now not possible to measure change in the details or the range of housing and environmental health infrastructure for Aboriginal communities across the Pilbara since the data required for such a comprehensive exercise no longer exist. The primary source now available to assess Aboriginal housing conditions (on advice from the Department of Communities) is the national census and this, quite simply, is not up to, or even designed for, the task.

The census does, however, furnish some insight into change in respect of some aspects of housing over the past 15 years. What it shows most clearly is the lack of any change. For example, in 2001, Aboriginal households were overwhelmingly in rental accommodation and this remains the case, in fact more so. As a consequence the very low rates of home ownership recorded in 2001 are now even lower still. This

is not surprising given that escalating housing costs represent a large and persistent contributor to the Pilbara's high regional price index and a classic resource curse indicator. As for overcrowding, the percentage of dwellings deemed to be overcrowded has reduced but the absolute number has increased. Having said that, doubt remains over ultimate figures here due to census population undercount and so levels reported by the census are a minimum estimate only. Crude adjustments to numbers per dwelling can be made but the official measures of housing need based on the composition of families in dwellings are unadjustable.

From the perspective of the RIC, then, as it seeks to lobby for and plan for Pilbara Aboriginal people, the key take-home message from the analysis of available housing and infrastructure data is that Aboriginal interests in meaningful and informed decision-making have been compromised by a diminution of data sources over the past decade. This highlights the ongoing lack of Aboriginal data sovereignty in Australia (Kukutai and Taylor 2016). It demonstrates how unilateral actions by governments continue to devalue and hinder the capacity of Aboriginal people to pursue self-determination and participate in decision-making on matters that directly affect them in line with the various articles of the *United Nations Declaration on the Rights of Indigenous Peoples*. This is despite the fact that the Australian government announced its support for the declaration in 2009. One recommendation for the RIC would be to assert its rights to data sovereignty and negotiate the establishment of data-sharing protocols with the Department of Communities and, where data are lacking, to lobby for their re-instatement. Having said that, the same would apply to any data that governments hold about Pilbara Aboriginal people.

Health status

Given the prevalence of so-called 'lifestyle diseases' in the baseline profile of Aboriginal mortality and morbidity in the Pilbara (Taylor and Scambary 2005) it was always to be expected that measurable improvement in health outcomes would be subject to a long lead time. However, with so many variables impacting on such outcomes and on their underlying determinants, it was inevitably difficult to establish just what a 'long lead time' might reasonably constitute. Given that most of the baseline measures in the initial report referred to the period 1994-2001 (and some to even earlier periods) it would not seem unreasonable to have assumed that by 2016 (a generation later) the weight of investment in health infrastructure and public health measures, along with socioeconomic improvement in the population itself, would have resulted in at least some discernable positive change in health status. Such an expectation would be especially so in a region of rapid economic growth such as the Pilbara. As it turns out there are signs that Aboriginal health status has improved, although across many measures this remains way behind that of the general population and all too often it detracts from the capacity of people to participate economically.

Presently, Aboriginal male deaths in the Pilbara outnumber non-Aboriginal male deaths by almost 4 to one, while Aboriginal female deaths outnumber non-Aboriginal female deaths by more than 5 to one. Aboriginal mortality also remains overly premature. It is perhaps surprising, then, to report that Aboriginal mortality rates have improved since 2002. Overall, male rates remain consistently higher than female, and Aboriginal rates generally are much higher than non-Aboriginal rates. However, all rates have fallen to a statistically significant degree.

Of particular interest as a measure of development outcomes is the rate of childhood mortality as this has formed a key plank of the COAG Closing the Gap strategy – indeed, it is one of only two out of 7 headline indicators that appears to be on track towards achievement. In situations of relatively high mortality and low life expectancy, as found among Aboriginal people in the Pilbara, a disproportionate number of deaths typically occur before the age of 5 and reducing this outcome has been a major goal of public health interventions. Internationally, high child mortality levels have been associated with poverty, the availability, accessibility and quality of health services, environmental health risks, maternal health and poor nutrition. The focus, then, in prevention, falls inevitably on the effectiveness and adequacy of the many public health activities conducted by the State government and Aboriginal Medical Services. To this extent, it is encouraging to find that that Aboriginal child mortality rates in the Pilbara have followed the national trend downwards although they remain relatively high.

While all-cause Aboriginal mortality rates have fallen steadily since 2001, the leading causes of mortality observed over the period 2002-06 have remained the same and include diseases of the circulatory system followed by endocrine, nutritional and metabolic diseases. In effect, Aboriginal mortality remains dominated by so-called 'lifestyle' diseases that, by definition, are potentially avoidable. They are therefore amenable to screening and primary prevention and reflect the effectiveness of population health initiatives. It is therefore encouraging to report a statistically significant drop in potentially avoidable mortality since 2007 and that the Aboriginal rate in the Pilbara is now below the national rate as this suggests that the primary health care work of Aboriginal Medical Services in the Pilbara and the state system are having their desired effect. As an update to the original baseline report, examination of Health Framework Tier 3 measures that focus on public health initiatives was considered out of scope. Nonetheless, there would be considerable value in considering the establishment of an information-sharing mechanism between the RIC and local Aboriginal Medical Services in particular both to maintain a watch on outcomes and to explore where public health initiatives might be mutually supported.

Of course, one health outcome that requires on-going strategic support is the matter of dialysis treatment for end-stage renal disease. As in many parts of Australia, Aboriginal hospitalisation rates in the Pilbara are excessively high if they include separations for dialysis. The evidence from age-specific rates in the Pilbara is suggestive of successive waves of dialysis treatment progressing through the population on a cohort basis with the current population aged over 45 years displaying elevated rates due to earlier lifestyle disease and, probably, improved access to treatment. Prevention, of course, is more complicated than treatment not least because many underlying determinants have their antecedents in foetal and infant life as per the Barker (1994) hypothesis. It is certainly the case, even from the initial baseline study, that many Aboriginal adults in the Pilbara today have experienced less than optimal life circumstances as would have their parents before them. As Eades (2000) has put it, from a life-course perspective a person's current physiological status can be seen as a marker of their past social position. The essential point here is that the need for dialysis treatment will inevitably be around for some time to come and, indeed, is likely to continue rising even though hospitalisation data show a significant reduction in the rate of endocrine, nutritional and metabolic disease due largely to a statistically significant drop in the age-standardised rate for diabetes mellitus from 2257.4 per

100,000 in 2002-06 to 790.6 in 2012-16. From the perspective of the RIC and its ambition to enhance the wellbeing of Pilbara Aboriginal people, dialysis treatment will continue to be highly disruptive to many people's lives (not just patients) due to the frequency of visits and the time required especially where this involves long-distance travel away from a home base.

Further disruption to the lives of Aboriginal people in the Pilbara is caused by disability defined as any continuing condition that restricts everyday activities. Since the present exercise is focused on measuring change in outcomes over time the only continuous source of data for this purpose is provided by the five-yearly ABS census. Unfortunately, this typically has a high rate of Aboriginal non-response to the census question on disability but we can say that Aboriginal people have consistently accounted for almost half of those in the Pilbara with a disability despite comprising only 16% of the population. This refers only to those with profound or severe core activity limitation and so should be considered a conservative metric. As for actual numbers, these have risen over time but the rate has been stable since 2011 at 3.9% of the population. This is a relatively low rate in Western Australian terms but it still means that somewhere in the region of 500 Aboriginal people are substantially hampered in their capacity for economic participation. It also means that others have to forgo at least some of this capacity in order to provide care and the census yields an estimate of around 1,000 such carers in 2016. Estimates of this magnitude when combined with the numbers impacted by dialysis and other health conditions, to say nothing of those who die at premature age, start to comprise a sizeable proportion of the Pilbara Aboriginal population. Clearly, the collective social and economic impacts of diminished health status have been little altered by the mining boom and they present an ongoing and substantial challenge for the RIC in its quest to improve Aboriginal wellbeing.

Crime and justice

As if the challenge of overcoming persistent poor health status were not enough, added burden for the RIC in planning for economic participation is provided by continuing Aboriginal over-representation in the criminal justice system. The original baseline study found that interaction with the police and subsequently with the court system and various custodial institutions was a pervasive element of Aboriginal social and economic life in the Pilbara. From the latest data it is clear that this remains the case. Almost all criminal cases brought to the Children's Court in the Pilbara refer to Aboriginal defendants and while the Aboriginal share of Magistrates Court cases is lower this has steadily risen over recent years and is now at almost 80%. Feeding into this are rates of arrest that, while lower than they have been, still account for 21% of the Aboriginal population aged 10 years and over and reach up to 40% among males aged between 18 and 29 years. Given empirical evidence of a negative association between arrest and employability these levels are a cause for concern. In addition, as much as one quarter of Aboriginal males aged between 18 and 34 years could have been either in custody or subject to a CBO (rather than potentially in work) at any one time over the decade of the mining boom. More likely it was less than this, but no less than 14%.

Clearly, any notion that an economic dividend might emerge from the demographic shifts underway in the Pilbara would have to address the scale of social and economic disengagement implied by these figures. In this regard, it is timely that the recent

Australian Law Reform Commission inquiry into the incarceration rate of Aboriginal and Torres Strait Islander peoples has presented recommendations (albeit many made before) to reform underlying procedural causes of Aboriginal over-representation in the criminal justice system. In particular, the inquiry calls for a reassessment of mandatory sentencing and statutory fine enforcement as these affect Aboriginal people disproportionately. It also calls for the formation of Aboriginal Justice Agreements that would enhance Aboriginal leadership and participation in the development and delivery of strategies and programs for Aboriginal people in contact with the criminal justice system. As part of this it seeks to promote justice reinvestment through redirection of resources from incarceration to prevention, rehabilitation and support in order to reduce reoffending and the long-term economic costs of incarceration. These are all objectives that the RIC may be well placed to engage with.