Subjective wellbeing of the Aboriginal and Torres Strait Island people of Australia

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Abstract

This chapter explores the subjective wellbeing of Indigenous Australians. Evidence is provided on: (1) mean levels of self-reported life satisfaction; (2) trends in these means; and (3) differences in the determinants of life satisfaction between Indigenous and non-Indigenous Australians. Results indicate that Indigenous life satisfaction peaked in 2003 and has since declined. This result questions the effectiveness of current policies aimed at enhancing Indigenous wellbeing.

Keywords: Happiness; Indigenous Australians; Life satisfaction; Subjective wellbeing

Introduction

Indigenous populations in countries such as Australia, Canada, New Zealand and the US are severely disadvantaged according to a range of socioeconomic indicators (Kimmel, 1997; Kuhn & Sweetman, 2002; Maani, 2004). For example, Indigenous Australians in 2012-2013 were: less likely than non-Indigenous Australians to participate in the labour force (55.9% compared with 76.4%); approximately three times more likely to be unemployed (17.2% compared with 5.5%); almost half as likely to have completed year 12 or higher (35.9% compared with 67.3%) and almost twice as likely to report fair or poor health (23.1% compared with 11.8%) (Australian Bureau of Statistics, 2014). To place these figures in a global context, in 2011 Australia ranked second out of 187 countries on the United Nations' Human Development Index (HDI), with an index value of 0.928. The index value for Indigenous Australians, however, was 0.745, a value similar to the HDI scores for Serbia (0.744), Jordan (0.744), Sri Lanka (0.740), Brazil (0.740) and Iran (0.733) (United Nations Development Programme, 2014).

In response to this disadvantage, successive Australian governments have introduced a wide range of policies and programs in order to 'close the gap' between Indigenous and non-

Indigenous Australians. Examples include the Council of Australian Governments' Closing the Gap in Indigenous Disadvantage framework and, most recently, the Commonwealth Government's Indigenous Advancement Strategy (Australian Government, 2014; Council of Australian Governments, 2014).

Objectivity is a common feature of all policies targeted towards Indigenous Australians. For example, 'progress' is measured against objective criteria such as life expectancy, rates of literacy and levels of unemployment. Wellbeing, however, is necessarily a subjective concept. While there is an increasing body of literature on using subjective wellbeing (i.e. wellbeing indicators based on personal opinions, interpretations, points of view, emotions and judgment) for economic and social policy (cf. Dolan & White, 2007; Kahneman & Sugden, 2005; Layard, 2006), subjectivity has been largely absent from the Indigenous policy domain. This is problematic because many things that matter to Indigenous peoples cannot be measured objectively – such as, family stability, community life, cultural identity and connectedness with country.

The purpose of this chapter is to move beyond objective measures and explore the subjective wellbeing of Indigenous Australians. Specifically, we focus on the self-reported life satisfaction of Indigenous Australians, investigating: (1) mean levels of self-reported life satisfaction; (2) trends in these means; and (3) differences in the determinants of life satisfaction between Indigenous and non-Indigenous Australians Our aim is to make a significant contribution to the understanding of Indigenous wellbeing, with the overall goal of assisting in the development of stronger and more effective Indigenous policy.

Subjective wellbeing and Indigenous Australians

While much is known about the relative performance of Indigenous and non-Indigenous Australians against objective criteria, far less is known about their relative performance on subjective grounds. Further, the evidence that is available is often inconclusive or counter intuitive. For example, in stark contrast to the objective measures of wellbeing reported above, several studies find that, on average, Indigenous Australians report higher levels of life satisfaction than non-Indigenous Australians (*ceteris paribus*). This result was first highlighted by Shields and Wooden (2003), who note:

One unexpected finding is the coefficient on the indigenous identifier. Other things held constant, Aboriginal and Torres Strait Islander men score higher on the life

satisfaction scale than non-indigenous men. Moreover, the size of the effect is relatively large. Among indigenous women, the size of the differential is smaller, and statistically insignificant. (p. 11)

Similar results are reported by Shields, Price, and Wooden (2009) and Ambrey and Fleming (2011, 2012, 2014b, 2014c). While not the main focus of their investigation, Shields, et al. (2009) note:

Other things held constant, Aboriginal and Torres Strait Islanders report higher scores on the life satisfaction scale than non-Indigenous people. Moreover, the size of the effect is relatively large. (p. 434)

Even among adolescents defined as 'at-risk' of not completing their schooling, Indigenous students score higher on subjective wellbeing than non-Indigenous students (Tomyn, Cummins, & Norrish, 2014).

In the most comprehensive assessment of the subjective wellbeing of Indigenous Australians undertaken to date, Biddle (2014) confirms that Indigenous Australians report higher levels of life satisfaction than non-Indigenous Australians. In an attempt to offer an explanation for this result, Biddle (2014) suggests that it may be the case that Indigenous Australians interpret the questions differently to non-Indigenous Australians due to language differences - however, the result holds when focusing on those who only speak English. Further, Biddle suggests that Indigenous Australians may have a different baseline against which they evaluate their own life. It is also likely that there are other dimensions of life uniquely experienced by Indigenous Australians; these potentially play an important role in Indigenous life satisfaction.

In addition, Biddle (2014) reports results for self-reported happiness. In particular, he notes that Indigenous Australians are less likely to report frequent periods of happiness and more likely to report periods of extreme sadness than non-Indigenous Australians. Somewhat surprisingly, however, he finds that Indigenous Australians are significantly more likely to report both above *and* below average satisfaction with their lives. It may be the case, therefore, that the full spectrum of subjective self-reports requires attention. Such an approach would be in line with the growing recognition that positive and negative wellbeing are more than opposite ends of the same phenomenon, and that factors which increase satisfaction may not necessarily decrease dissatisfaction (Boes & Winkelmann, 2010).

Indigenous-specific determinants of wellbeing

Much of the existing literature on the measurement of subjective wellbeing focuses on the determinants of wellbeing, independent of whether or not a person is Indigenous or not. In an Australian context, see Ambrey and Fleming (2014b).

There remains considerable scope to discover more about the Indigenous-specific determinants of wellbeing. The notion that the determinants of life satisfaction may differ systemically due to cultural differences (Uchida, Norasakkunkit, & Kitayama, 2004) is yet to be statistically tested. Exploring likely heterogeneity in the determinants of life satisfaction between Indigenous and non-Indigenous Australians will advance our knowledge in this area.

Early evidence, much of which does not permit easy comparison between Indigenous and non-Indigenous populations, suggests a number of different Indigenous-specific determinants of subjectively measured wellbeing. For example, a number of studies (cf. Browne-Yung, Ziersch, Baum, & Gallaher, 2013) suggest that cultural identity has a unique impact on Indigenous wellbeing. Furthermore, while assimilation may improve objectively measured labour market or educational outcomes (Bradley, Draca, Green, & Leeves, 2007; Kuhn & Sweetman, 2002), it may concomitantly reduce wellbeing if assimilation requires sacrificing elements of their culture (Dockery, 2010). For example, Dockery finds that for Indigenous Australian's stronger cultural attachment is associated with: (1) a greater level of self-assessed health; (2) a lower likelihood of engaging in risky alcohol consumption; (3) an increased probability of being employed; and (4) a greater number of years of post-primary education. Conversely, weaker cultural attachment is found to be associated with an increased probability of having been arrested in the last 5 years and a reduced chance of being employed. This suggests that the level of life satisfaction of Indigenous Australians may be determined by Indigenous cultural attachment functioning through factors such as selfesteem, self-efficacy and a positive sense of self-identity (Dockery, 2010).

Cultural identity among Indigenous Australians also supports, and is supported by, social capital, with positive and negative implications for health and wellbeing. Browne-Yung, et al. (2013) suggest that a shared cultural identity strengthens social networks and mediates the health impact of disadvantage. Further, shared values, social networks and volunteering in Aboriginal health organisations facilitates greater access to medical and dental care, in addition to activities that address drug and alcohol dependency. In contrast, a lack of reciprocation or virtuous behaviour adversely impacts wellbeing; an outcome that is

compounded by existing economic disadvantage. These findings are corroborated by Brough, Bond, and Hunt (2004), Dietsch et al. (2011) and Waterworth, Rosenberg, Braham, Pescud, and Dimmock (2014).

Data

The measure of self-reported life satisfaction, and the socio-economic and demographic characteristics of respondents are obtained from Waves 1 (2001) to 12 (2012) of the Household, Income and Labour Dynamics in Australia (HILDA) survey. The use of panel datasets such as HILDA allow the examination of determinants of wellbeing in a quasi-experimental setting (cf. Metcalfe, Powdthavee, & Dolan, 2011) and permit researchers to control for time-invariant individual specific confounders such as stable personality traits (Bertrand & Mullainathan, 2001; Ferrer-i-Carbonell & Frijters, 2004). In this respect the HILDA survey is particularly useful for this study and is the only source of data that accommodates our research design. Watson and Wooden (2012) provide a brief history of the HILDA survey's progress to date.

The life satisfaction variable is obtained from individuals' responses to the question: '*All things considered, how satisfied are you with your life?*' The life satisfaction variable is an ordinal variable, the individual choosing a number between 0 (totally dissatisfied with life) and 10 (totally satisfied with life).

Presenting data from Wave 12, Figure XX.1 illustrates the distribution of responses and Figure XX.2 shows the proportion of Indigenous and the proportion of non-Indigenous Australians that fall in different categories.

[Figure XX.1 here]

[Figure XX.2 here]

Visual inspection of Figure XX.1 reveals that the distribution of the responses is negatively skewed, with more than half of the respondents reporting an 8 or higher. A life satisfaction score of 8 is both the median and the mode. The mean life satisfaction score is 7.89. Figure XX.2 indicates that Indigenous Australians are more likely to report a score of 10 (totally satisfied with their life) than non-Indigenous Australians, are less likely to report scores of 7, 8 or 9, and are more likely to report a score of 6 or below.

Empirical analysis

Figure XX.3 illustrates mean life satisfaction scores for Indigenous and non-Indigenous Australians over the period 2001 to 2012. At first glance, it appears that the life satisfaction of Indigenous Australians has declined. Before testing to see whether the changes in life satisfaction over time are statistically significant, however, we adjust for panel conditioning effects. That is, where respondents learn to use the middle points of the 0 to 10 scale, rather than the extremes (cf. Headey, Muffels, & Wagner, 2013). These effects are removed using the inverse of the number of years a respondent has been interviewed. In line with existing evidence on the nature of panel conditioning bias in the HILDA data, Figure XX.4 below confirms that the differences are small enough to be disregarded (Wooden & Li, 2014).

[Figure XX.3 here]

[Figure XX.4 here]

Adjusted Wald tests, which appreciate the complex survey design of the HILDA dataset, indicate that (over the period 2001 to 2012) there is no statistically significant change in the life satisfaction of Indigenous Australians, but for non-Indigenous Australians life satisfaction increased by 0.7%. It should be noted, however, that for both groups life satisfaction peaked in 2003. From 2003 to 2012, the life satisfaction of both groups has declined, but this decline is only statistically significant for Indigenous Australians (a 4% decline).

Trends in life satisfaction

To examine the nature of any general change in life satisfaction, we estimate a fixed effects model for individual i at time t, as follows:

$$LS_{i,t} = \sum_{i=1}^{k} \alpha_{i} x_{i,t} + \eta Indigenous Trend_{t} + \rho non Indigenous Trend_{t} + \iota_{i} + \varepsilon_{i,t}$$
(XX. 1)

Where $LS_{i,t}$ is the self-reported life satisfaction of individual *i*, at time *t*; $x_{i,t}$ is a vector of socio-economic and demographic characteristics including income, marital status, employment status, health, education, number of children and so forth; IndigenousTrend_t is an Indigenous specific time trend (Indigeneous_i × (Year_t – 2000)/100); nonIndigenousTrend_t is a non-Indigenous specific time trend (nonIndigenous_i × (Year_t – 2000)/100). Finally, t_i is the individual specific fixed effect and $\varepsilon_{i,t}$ the error term. Equation XX.1 is estimated using the "blow up and cluster" (BUC) estimator, which

appreciates the ordinal nature of the dependent variable while concomitantly controlling for,

to some extent, unobserved individual specific fixed effects such as stable personality traits, cohort effects and time-invariant measurement error and self-selection (Baetschmann, Staub, & Winkelmann, 2013).

Table XX.1 presents the estimates for the trend terms. The results indicate that, *ceteris paribus*, both coefficient estimates are negative and not statistically significantly different from one another. This result, however, is only statistically significant for non-Indigenous Australians.

[Table XX.1 here]

Determinants of life satisfaction

To investigate differences in the determinants of life satisfaction between Indigenous and non-Indigenous Australians, the Indigenous identifier is interacted with all socio-economic and demographic characteristics, and then estimated via maximum likelihood estimation in an ordered probit model. A Chow test of the interaction terms and the Indigenous identifier is strongly statistically significant (p-value of 0.0000). This indicates that the determinants of life satisfaction are not the same and, therefore, it is not appropriate to pool the two groups. Hence, we estimate two separate models. This allows the parameter estimates to vary uniquely for Indigenous and non-Indigenous Australians. The Breusch-Pagan Lagrangian multiplier test for random effects is then applied to determine whether a random effects model is appropriate or a simple ordinary least squares model can be used. Results reveal a strong rejection (p-value of 0.0000) of the null hypothesis for both groups, suggesting random effects models should be used.

However, the use of a random effects model relies on the assumption that the individualspecific fixed effects are not correlated with the regressors in the model, which if invalid would produce inconsistent estimates. The results reveal strong evidence against this assumption; a test of over-identifying restrictions (asymptotically equivalent to the usual Hausman fixed versus random effects test) yields a p-value of 0.0000 (Schaffer & Stillman, 2010). As such, for both Indigenous Australians and non-Indigenous Australians, separate fixed effects life satisfaction models, as shown in Equation XX.2, are estimated using the BUC estimator:

$$LS_{i,t} = \sum_{j=1}^{k} \alpha_j x_{i,t} + \sum_{1}^{t} d_t \tau_t + \iota_i + \varepsilon_{i,t}$$
(XX.2)

The variables are as previously defined in Equation XX.1. τ_t is a vector of time (year) dummy variables. Results are reported in Table XX.2.

[Table XX.2 here]

In terms of how Indigenous (column 1 of Table XX.2) and non-Indigenous (column 2 of Table XX.2) estimates compare, life satisfaction is found to have the usual U-shape in age for non-Indigenous Australians, however, no such effect is found for the Indigenous sample. Surprisingly, for Indigenous Australians poor English is associated with higher levels of life satisfaction, while the reverse is true for non-Indigenous Australians. With regards to marital status, for both groups it appears being in a *de facto* relationship is positively associated with life satisfaction and being a widow is negatively associated with life satisfaction. The negative coefficient for being a widow is more than seven times greater for Indigenous Australians than it is for non-Indigenous Australians. For non-Indigenous Australians, being married is associated with higher levels of life satisfaction; no statistically significant relationships are observed for Indigenous Australians.

Being a lone parent has no statistically significant association with life satisfaction for either group. The number of children in the household is not statistically significant for Indigenous Australians, while for non-Indigenous Australians it is statistically significant and negative. For both groups, poor health is associated with lower levels of life satisfaction. However, for Indigenous Australians the coefficient for having a severe health condition is almost twice that estimated for the non-Indigenous population. Higher levels of education are associated with lower levels of life satisfaction for both groups. Being employed part-time is positive for non-Indigenous Australians only. Being unemployed is associated with lower levels of life satisfaction for both groups beyond any change in income.

Figure XX.5 shows that in contrast to non-Indigenous Australians, there is little variation in income among Indigenous Australians. Surprisingly, for Indigenous Australians, the natural log of equivalised disposable household income is negatively associated with life satisfaction (although this is not statistically significant). In contrast, the same measure is positively linked to life satisfaction for non-Indigenous Australians. Noting that the lack of variance in Indigenous income over time may have implications for the accuracy of the fixed effects estimator, we re-estimate Equation 3 using a pooled ordered probit model for the Indigenous sample. Results from this re-estimation confirm the negative co-efficient for income.

[Figure XX.5 here]

Others being present during the interview is associated with higher levels of life satisfaction for non-Indigenous Australians only, suggesting some degree of social desirability bias for this group.

The estimated coefficients for the inverse of years interviewed (a control for panel conditioning effects) take different signs for the Indigenous and non-Indigenous samples. Noting that in a fixed effects model we can only explore the influence of location on life satisfaction if people move between different regions over time, we find that living in an inner regional area is associated with higher levels of life satisfaction compared to living in a major city for non-Indigenous Australians.

Broadly speaking, the results for non-Indigenous Australians are consistent with existing evidence and *a priori* expectations. However, the results for Indigenous Australians differ in many respects, thus offering opportunities for further research.

Discussion

This chapter set out to explore Indigenous wellbeing in Australia using data from the HILDA survey. In particular, this chapter focuses on (1) mean levels of self-reported life satisfaction; (2) trends in these means; and (3) differences in the determinants of life satisfaction between Indigenous and non-Indigenous Australians.

Mean levels of life satisfaction and trends in these levels provide mixed results. On one hand results suggest that life satisfaction for Indigenous Australians is higher than that of non-Indigenous Australians, although it is declining. However, when adjusting for panel conditioning effects, it appears as if Indigenous life satisfaction is increasing. This seems inconsistent with the current evidence on progress towards meeting the objective targets set out in the 'closing the gap' framework. On closer inspection, however, it is evident that life satisfaction for both Indigenous and non-Indigenous Australians peaked in 2003, and Indigenous life satisfaction declined sharply between 2003 and 2012. This decline is despite significant investment by all levels of Australian government in addressing Indigenous disadvantage and suggests that existing policies are having little effect.

Focusing on the distribution of life satisfaction scores, Indigenous Australians are more likely to report being totally satisfied with their life (i.e. report a score of 10), are less likely to

report scores of 7, 8 or 9, and are more likely to report a score of 6 or below. This suggests there may be a polarised experience in terms of the life satisfaction of Indigenous Australians.

Results for the determinants of life satisfaction reveal some interesting differences between the two groups. For example, speaking English either not well or not at all is associated with higher life satisfaction for Indigenous Australians, whereas the reverse is true for non-Indigenous Australians. The curious result for Indigenous Australians may reflect the fact that those reporting lower English speaking ability are more closely connected with their culture and community. This close connection acts as a protective factor against psychological distress (Kelly, Dudgeon, Gee, & Glaskin, 2009) and, therefore, is plausibly positively associated with life satisfaction.

We also find that being a widow is seven times more detrimental to life satisfaction for Indigenous than non-Indigenous. Candidate explanations for this result include: (1) the fact that Indigenous women have more children than non-Indigenous women (Australian Indigenous HealthInfoNet, 2013), and thus widowhood imposes a larger burden in terms of child rearing responsibilities; (2) job opportunities are limited by socio-economic status, and therefore, Indigenous people whose partner has died are less likely to be able to find employment to support themselves and their family; and (3) Indigenous men die approximately 11.5 years younger than non-Indigenous men (Australian Bureau of Statistics, 2011) and, therefore, do not accumulate as much superannuation or other financial assets for their beneficiaries.

For Indigenous Australians the negative effect of a severe (long-term) health condition that prevents them from working is almost double that of non-Indigenous Australians. A plausible explanation for this result is inequality in access to healthcare between the two groups. It may be the case that non-Indigenous Australians are more easily able to access health care and thus receive treatment to relieve the symptoms of the condition. This result, however, deserves further research.

Perhaps the most intriguing result is that income is not positively associated with life satisfaction for Indigenous Australians (in fact, the coefficient estimate is negative - although not statistically significant). This is in stark contrast to overwhelming evidence in the life satisfaction literature of the positive (albeit diminishing) effects of income on life satisfaction (Frijters, Haisken-DeNew, & Shields, 2004). As with the result for poor English speaking ability and consistent with the arguments put forward by Dockery (2010), a possible explanation may be that activities that disconnect the individual from their community and

culture (e.g. living in an urban centre attracted by the prospect of gainful employment) have the potential to reduce life satisfaction; a reduction that is not adequately compensated for in terms of higher income. Future research into the association between income and life satisfaction for Indigenous Australians may benefit from employing a more plausibly exogenous measure of income, such as a subset of windfall income (cf. Ambrey & Fleming, 2014a) or alternatively the use of quantile regression methods to a larger sample of Indigenous Australians in order to identify some potential non-linearity in the relationship between income and life satisfaction.

This evidence on heterogeneity in the determinants of life satisfaction for Indigenous and non-Indigenous Australians is preliminary, exposing only average differences. It may be the case that determinants differ further among Indigenous Australians by, for example, gender, age, and other socio-demographic factors. This represents an area worthy of future research.

Final comments

The history of policies concerning Indigenous Australians is awash with unintended outcomes. Despite considerable investment from all levels of government, many indicators show that outcomes for Indigenous Australians are not improving and there is still a considerable way to go to achieve the Council of Australian Governments' commitment to 'close the gap' in Indigenous disadvantage. As noted by Dockery (2010):

From the arrival of the 'First Fleet' in Australia in 1788 ... policy towards the Indigenous population has oscillated through a number of stages. It remains an issue of intense debate among Indigenous and non-Indigenous Australians alike. The one point of consensus is that our past efforts have been a failure. (p. 315)

The Australian Government recognises that Indigenous policy must: (1) work with Indigenous people in ways which take into account the full cultural, social, emotional and economic context of their lives; (2) actively involve Indigenous communities in every stage of program development and delivery; and (3) value Indigenous knowledge and cultural beliefs and practices which are important for promoting positive cultural identity and social and emotional wellbeing for Indigenous Australians (Osborne, Baum, & Brown, 2013).

Moreover, the United Nations Permanent Forum on Indigenous Issues (2006) declaration states:

...Indigenous peoples will define their own understandings and visions of wellbeing from which indicators will be identified, and include the full participation of Indigenous peoples in the development of these indicators. (p.15)

Despite such declarations, in many countries (including Australia) policy development and application remains deeply rooted in improving Indigenous wellbeing, as it is perceived by the dominant (Western) non-Indigenous culture. This position is most clearly articulated in the framework underpinning the 'Closing the Gap' suite of policies, where Indigenous outcomes are benchmarked against outcomes achieved by the non-Indigenous population (Australian Government, 2013). The use of a non-Indigenous perspective of wellbeing in the design and application of Indigenous policy is fundamentally flawed, as it does not account for Indigenous ways of life. What is needed is an appreciation of Indigenous wellbeing, as perceived by the Indigenous population itself. With a clearer understanding of Indigenous wellbeing and its determinants, more appropriate policy, and ultimately better outcomes, will be able to be achieved for this population. The introduction of subjective measures into the policy discourse will go some way to achieving this goal.

It is hope that the results presented in this chapter will provide policy makers with a barometer of the state of Indigenous wellbeing in Australia, highlight the importance of subjective measures of wellbeing and illustrate the opportunity offered by such measures to enrich policy discussion and promote public debate.

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(1)		
-1.8598	(1.7184)	
-1.9150***	(0.4047)	
398602		
18944		
0.0177		
	(1) -1.8598 -1.9150*** 398602 18944 0.0177	

Table XX.1: Trends in Indigenous and non-Indigenous life satisfaction

Standard errors in parentheses

* p < 0.10, ** p < 0.05, *** p < 0.01

Includes independent variables in Table 2 and time (or year) fixed effects.

	(1)		(2)	
	Indigenous		Non-Indigenous	
Age (15-19)	0.2862	(0.3490)	0.2602***	(0.0662)
Age (20-29)	-0.1043	(0.2228)	-0.0296	(0.0444)
Age (40-49)	-0.1340	(0.2586)	0.0210	(0.0410)
Age (50-59)	0.0659	(0.4186)	0.0970	(0.0616)
Age (60 or greater)	0.7201	(0.5902)	0.4119***	(0.0830)
Poor English	1.6913***	(0.4152)	-0.2555**	(0.1015)
Married	0.1633	(0.2575)	0.4884***	(0.0552)
Defacto	0.5705***	(0.1797)	0.5153***	(0.0423)
Separated	-0.3161	(0.4974)	-0.5581***	(0.0771)
Divorced	0.6035	(0.5005)	-0.0810	(0.0768)
Widow	-1.4997*	(0.8610)	-0.1972*	(0.1043)
Lone parent	-0.0547	(0.2800)	-0.0730	(0.0683)
Number of children	-0.0003	(0.0758)	-0.0869***	(0.0168)
Severe health condition	-1.3915***	(0.4002)	-0.7527***	(0.0696)
Moderate health condition	-0.7197***	(0.1546)	-0.5851***	(0.0273)
Mild health condition	-0.1482	(0.1762)	-0.1505***	(0.0255)
Bachelors degree or higher	-0.7939	(0.5538)	-0.2596***	(0.0902)
Certificate or diploma	0.3673	(0.3153)	-0.2346***	(0.0659)
Year 12	-0.5476*	(0.3105)	-0.3189***	(0.0535)
Employed part-time	0.0237	(0.1780)	0.1114***	(0.0256)
Unemployed	-0.3722*	(0.1954)	-0.3062***	(0.0434)
Non-participant	0.0348	(0.1801)	0.0123	(0.0332)
Disposable income (ln)	-0.0379	(0.0590)	0.0599***	(0.0103)
Others present	-0.0690	(0.1045)	0.0876^{***}	(0.0157)
1/Years interviewed	-0.6934*	(0.3778)	0.2856***	(0.0741)
Inner regional	-0.0461	(0.2456)	0.1420***	(0.0470)
Outer regional	-0.4085	(0.2844)	0.0823	(0.0674)
Remote areas	0.0826	(0.3257)	-0.0315	(0.1120)
Summary statistics				
Observations	10335		388267	

 Table XX.2: BUC estimates for Indigenous and non-Indigenous

Individuals	479	18465
Pseudo R ²	0.0386	0.0185

Standard errors in parentheses

* p < 0.10, ** p < 0.05, *** p < 0.01

Includes controls for time (year) fixed effects.



Figure XX.1: Frequency distribution of life satisfaction scores (2012)



(2012)













Figure XX.5: Dot plot of equivalised disposable household income