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## Social determinants of subjective wellbeing

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## 2. Social determinants of subjective wellbeing

This chapter provides an overview of the recent literature on the social determinants of subjective wellbeing in Australia, and an empirical analysis of recent data from the Household, Income and Labour Dynamics in Australia (HILDA) survey.

- It starts with a brief discussion of the conceptualisations and main components of subjective wellbeing as a construct, before focusing on 'life satisfaction' as an outcome of particular interest, given its prevalence in empirical studies on subjective wellbeing in the Australian literature.
- It then proceeds by reviewing evidence on the social determinants of life satisfaction identified in previous Australian studies, including financial factors, education, employment, health, family dynamics, social networks and locational factors. The focus is on studies relevant for the general population of working age people, though touching briefly on how wellbeing changes as people age and across stages of the life course.
- Lastly, the HILDA survey is used to interrogate the factors identified in the literature, using recent longitudinal data; such analyses are generally more robust from a statistical point of view, allowing a move beyond point-in-time associations. Specifically, the survey data are used to assess the relative strength of the association between the key social determinants of wellbeing, identified through the literature review, and life satisfaction. The findings are discussed in the context of international evidence on social determinants of subjective wellbeing.

Although broader factors, such as economic shocks or the environment, can also affect subjective wellbeing, the focus of this chapter is on 'social determinants' of subjective wellbeing in Australia – that is, on family-level factors that people can (at least in principle) shape or control to some degree. There is no focus on 'ascribed' attributes of individuals, such as sex, race, or personality traits, albeit some discussion on how social determinants of wellbeing may interact with some of these traits. (In particular, the analyses of life satisfaction conducted for this chapter are stratified by sex; hence, the results from the entire population approach taken could differ slightly among other subgroups, beyond these analyses of sex.)

This chapter highlights the importance for life satisfaction of social interactions with friends and family, and of involvement in clubs and associations. The nature and quality of engagement with other people is a critical determinant of subjective wellbeing. Other factors such as employment play an important role, too, with unemployed people reporting notably lower life satisfaction than employed people, controlling for other factors. Mental health is also critically important, as this chapter highlights; on average, it has a greater impact on life satisfaction than physical health.

## Literature review

Subjective wellbeing is part of a broader concept of wellbeing, which is a complex, multifaceted construct, defined as optimal human experience and psychological functioning (Ryan & Deci 2001) and encompassing both subjective and objective components (Western & Tomaszewski 2016). Subjective wellbeing captures subjective experiences associated with objective wellbeing components and is commonly assumed to comprise both affective components (positive and negative affect, such as happiness and unhappiness) and cognitive components (satisfaction with life in general, or with its specific domains) (Diener et al. 1999). Research on the cognitive aspect of subjective wellbeing – and on life satisfaction specifically – has been particularly prominent. For the purpose of this chapter, the focus is on ‘life satisfaction’ as the outcome of interest and, unless otherwise stated, subjective wellbeing refers to ‘life satisfaction’.

Life satisfaction (captured in surveys through a question about ‘satisfaction with life in general’) is one of the most studied components of subjective wellbeing and includes an individual’s overall evaluation of their life. Surveys eliciting information on life satisfaction generally ask respondents to indicate on a discrete scale, such as from 0 to 10, how satisfied they are with their lives in general. Sometimes studies also ask the respondents to rate their satisfaction with particular domains of life, such as health, finances or housing. These domain-specific indicators of satisfaction can be aggregated to approximate an overall level of the respondent’s satisfaction with life.

## Social determinants of subjective wellbeing

A range of factors have been identified in previous Australian studies as being social determinants of life satisfaction.

### Financial factors

The role of financial factors in determining subjective wellbeing has featured prominently in empirical studies on the topic. While income is considered to play a relatively modest role in shaping individuals’ subjective wellbeing (for example, Lucas & Dyrenforth 2006), wealth is considered to be an important determinant (Headey & Wooden 2004). An interesting strand of research suggests that, rather than the amount of money per se, what may be more relevant is how people spend their money. Specifically, it has been argued that conspicuous (that is, visible and positional) spending increases life satisfaction, particularly when individuals use it to differentiate themselves from others in their reference group (Wu 2020).

Others have argued that spending money on experiences rather than possessions (Van Boven & Gilovich 2003) or on other people rather than themselves (Dunn et al. 2008) can drive improvements in one’s subjective wellbeing.

## Education

Education has also been shown to have substantial association with subjective wellbeing, although the relationship is rather complex. Specifically, some studies point to positive effects (for example, Blanchflower & Oswald 2004; Easterlin 2001; Ferrer-i-Carbonell 2005) while others suggest a negative association between education and subjective wellbeing (Clark 2003; Dockery 2010; Headey & Wooden 2004). The negative association often observed empirically has been attributed to higher expectations among those with higher levels of education (Kristoffersen 2018; Perales & Tomaszewski 2016; Tomaszewski & Perales 2014). However, notwithstanding these different findings, education is thought to have an overall positive effect due to its indirect positive effects on subjective wellbeing through improved income and better health (Powdthavee et al. 2015).

## Employment

Several factors related to the domain of employment have been associated with subjective wellbeing. Having a job is associated with improved subjective wellbeing, relative to unemployment, particularly if the job is of high quality (Dockery 2003; LaMontagne et al. 2016). Employability is seen as a protective factor for subjective wellbeing, even among those unemployed. For instance, it has been shown that higher self-assessed employability can markedly reduce the detrimental effect of unemployment on subjective wellbeing (Green 2011).

## Health

A solid body of evidence documents the impact of health on subjective wellbeing. Specifically, a number of studies report associations between poor physical health and lower wellbeing (Dolan et al. 2008; Heybroek et al. 2015; Kendig et al. 2016), and the relationship is thought to be bidirectional (Steptoe et al. 2015). Specific findings include the negative effects of chronic pain on life satisfaction (McNamee & Mendolia 2014) and the associations between different forms of disability and different aspects of subjective wellbeing (Fraire 2019).

Mental health has also been shown to be a particularly important driver of subjective wellbeing (Clark et al. 2019), although studies in this area often consider mental health as an outcome measure parallel to wellbeing, rather than as a determinant of wellbeing (see, for example, Churchill & Smyth 2019; Green 2011; LaMontagne et al. 2016; Wooden & Li 2014).

## Family dynamics

There is extensive evidence on the impact of family dynamics on subjective wellbeing. Married individuals (both men and women) experience higher levels of life satisfaction than those in other family arrangements (Evans & Kelley 2004). As well, transitions into relationships, marriage or cohabitation have been shown to significantly increase wellbeing, while transitions out of relationships due to separation or widowhood negatively affect wellbeing (Baxter & Hewitt 2014).

While the evidence appears very consistent for relationships, the results are mixed when it comes to having children. Some studies report positive, albeit weak, effects of parenthood on subjective wellbeing (for example, Kohler et al. 2005), but the majority of research points to either non-significant or negative effects (Clark & Oswald 2002; Clark et al. 2008). However, it has been argued that childbearing negatively affects subjective wellbeing only when parents, and mothers in particular, face substantial work-family conflict (Matysiak et al. 2016).

## Social networks

Social networks constitute another key factor identified in the literature on subjective wellbeing. Formal and informal social networks (Bian et al. 2018; Prakash et al. 2020) that manifest in increased frequency of social contacts (Dolan et al. 2008), social participation in clubs or organisations (Tomaszewski 2013), social connectedness (Ambrey et al. 2017) and better social support (Shields et al. 2009) have all been found to be positively associated with subjective wellbeing.

## Location

Another key dimension associated with subjective wellbeing is location, encompassing geographical context (Wang & Wang 2016); neighbourhood characteristics and crime rates (Mahuteau & Zhu 2016; Shields 2009); and physical aspects of the local area, such as the presence of green spaces (Ambrey & Fleming 2014) and protected areas (Ambrey & Fleming 2012). All of these factors, sometimes subsumed under the term 'living environment' (Tomaszewski 2013), have been shown to have an impact on individual subjective wellbeing.

## Life course perspective

Studies of wellbeing have also pointed out the importance of the life course perspective, which recognises the cumulative effects of previous life events and experiences and trajectories over time on individual outcomes. For example, Kendig and others (2016) demonstrated the effect of earlier events and exposures (including early in life) on wellbeing outcomes later in life. Changes in life satisfaction across various life stages and transitions have also been well documented (Qu & de Vaus 2015). At a minimum, this body of research highlights the importance of controlling for age (as a proxy for life course stage) in empirical models.

## Empirical analysis

In this section, data are presented on life satisfaction in Australia based on HILDA survey data from 2001 to 2019. How life satisfaction in Australia has changed over the last decade is described; then its associations with the key social determinants of subjective wellbeing identified in the literature review are examined.

## Data and variables

The relevant wellbeing question in the HILDA survey asks respondents: 'All things considered, how satisfied are you with your life overall?', with responses ranging from 0 (completely dissatisfied) to 10 (completely satisfied). Higher (lower) numbers imply higher (lower) satisfaction with life.

For this analysis, fixed-effect panel regression models were estimated (with life satisfaction as the dependent variable) separately for men, women and the overall sample. Fixed-effect models are used with longitudinal data where individuals have repeated measures over time; they capture the effects of within-individual changes in predictor variables on changes in the dependent variable. As such, fixed-effect models are able to control for observed as well as unobserved individual characteristics that are constant over time, providing stronger causal estimates. This also avoids the conceptual and methodological difficulties in comparing life satisfaction across individuals, including the fact that different people may evaluate the same objective conditions in different ways due to differences in expectations or previous experiences (compare with Tomaszewski & Perales 2014).

Based on the literature, the main explanatory variables include age and age squared, education, marital status, household equivalised income, whether a person has any children, employment status, frequency of social contact with friends or family, membership of a social or community club, general health, mental health, disability status, and area of residence.

Table 2.1 provides a summary of how each variable is measured or constructed.

**Table 2.1: Measurement of variables**

Variable	Measurement
Life satisfaction	'All things considered, how satisfied are you with your life overall?' Responses range from 0 (completely dissatisfied) to 10 (completely satisfied), so that higher values imply greater life satisfaction.
Age	Age of the person, in years.
Education	Highest level of completed education: year 11 or below, year 12, Certificate III, IV, Diploma or Advanced Diploma, Bachelor degree or higher.
Marital status	Legally married, de facto relationship, divorced, separated, widowed, never married and not in de facto relationship.
Children	Dummy variable for whether a person has co-resident children.
General health	General health index from the SF-36 measure. Measured from 0 (poor) to 100 (excellent).
Mental health	Mental health index from the SF-36 measure. Measured from 0 (poor) to 100 (excellent).
Disability	Measure of disability severity. An individual is deemed to have moderate or severe disability if the person has a disability that moderately or severely restricts the work they are able to do.
Frequency of social contact	Frequency of in-person contact with friends or relatives who do not live with the respondent. Based on the question: 'In general, about how often do you get together socially with friends or relatives not living with you?' Response categories are 'every day', 'less often than every day but at least weekly', 'less often than weekly but at least monthly', and 'less often than monthly'.
Member of a sporting/hobby/community club	An indicator variable for whether a respondent is an active member of a sport, hobby, or community club.
Real household equivalised disposable income	Real household disposable income adjusted for the number of adults and children in the household. Household income is divided by 1 for the first household member aged 15 or over, 0.5 for each additional household member aged 15 or over, and 0.3 for each child younger than 15.
Employment status	Employed, unemployed, not in the labour force.
SEIFA disadvantage index	SEIFA index of socioeconomic disadvantage. Measured from 1 (most disadvantaged) to 10 (least disadvantaged).
Area of residence	Major urban, non-major urban, non-urban.

*Note:* SF-36 = a short form health survey developed by the RAND Corporation comprising 36 items measuring quality of life and general health. SEIFA (Socio-Economic Indexes for Areas) = a tool developed by the Australian Bureau of Statistics to rank areas of Australia according to their relative socioeconomic advantage/disadvantage.

Table 2.2 presents summary statistics of the variables, based on the combined HILDA survey data from 2001 to 2019. Average life satisfaction is almost 7.9 on the 0–10 scale, suggesting that an average Australian was very satisfied with their life over the period covered by the study. The average age in the sample for this study is 39, and about three-quarters of the sample have completed at least year 12 education. Roughly 47% are married compared with 27% never married and not in a de facto relationship. Almost 38% of individuals have children, with average general health and mental health being relatively good, at 69 and 73, respectively, on the 0–100 scales. Almost 14% of Australians have disability that moderately or severely restricts their ability to work, with slightly more than half of the people in the sample having social contact with friends or family at least once per week. Just under 36% of the sample report being active members of a sporting or community club, with an average household equivalised disposable income of about \$55,679 per annum. Almost three-quarters of the sample are employed, with 22% not participating in the labour force. Two-thirds of the sample live in major urban areas, compared with almost 12% who live in non-urban areas.

**Table 2.2: Summary statistics**

Variable	Mean	S.D.	Min	Max
Life satisfaction	7.87	1.437	0	10
Age	39.28	14.265	15	65
Year 11 and below	0.275	0.447	0	1
Year 12	0.166	0.372	0	1
Certificate III, IV, Diploma or Advanced Diploma	0.304	0.460	0	1
Bachelor degree or higher	0.254	0.435	0	1
Legally married	0.473	0.499	0	1
De facto	0.164	0.370	0	1
Separated	0.027	0.162	0	1
Divorced	0.055	0.228	0	1
Widowed	0.012	0.107	0	1
Never married and not de facto	0.269	0.443	0	1
Has children	0.376	0.484	0	1
SF-36 general health	69.383	20.549	0	100
SF-36 mental health	73.261	17.396	0	100
Disabled with moderate or severe work restriction	0.137	0.343	0	1

*continued*

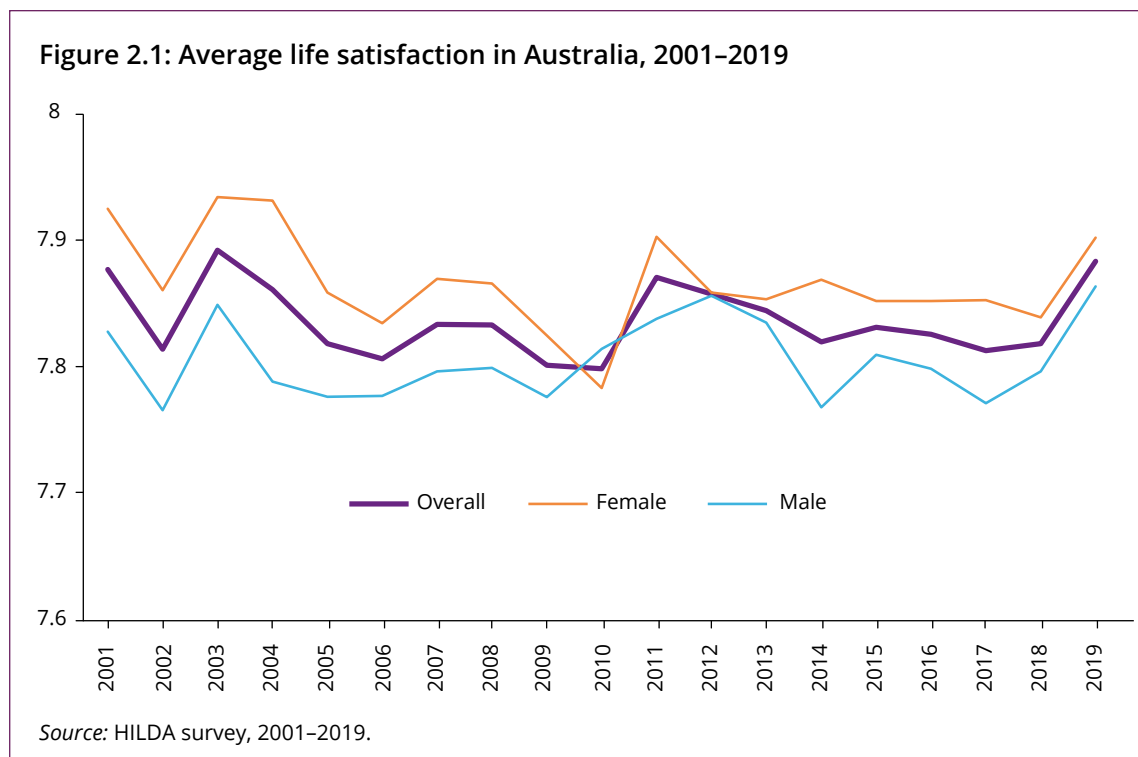


**Table 2.2 (continued): Summary statistics**

Variable	Mean	S.D.	Min	Max
Social contact: once every 3 months or longer	0.111	0.315	0	1
Social contact: at least once a month	0.302	0.459	0	1
Social contact: at least once a week	0.544	0.498	0	1
Social contact: every day	0.043	0.202	0	1
Member of a sporting/hobby/community club	0.357	0.479	0	1
Real household equivalised disposable income	55,679	34,978	0	868,517
Employed	0.739	0.439	0	1
Unemployed	0.043	0.204	0	1
Not in the labour force	0.217	0.412	0	1
SEIFA disadvantage index	5.652	2.867	1	10
Residence: non-urban	0.118	0.323	0	1
Residence major urban	0.666	0.472	0	1
Residence: other urban	0.216	0.411	0	1
New South Wales	0.289	0.454	0	1
Victoria	0.249	0.432	0	1
Queensland	0.214	0.410	0	1
South Australia	0.092	0.289	0	1
Western Australia	0.093	0.290	0	1
Tasmania	0.033	0.179	0	1
Northern Territory	0.008	0.089	0	1
Australian Capital Territory	0.022	0.145	0	1

Note: N = 210,216. Data are weighted to be representative of the Australian population. SD = standard deviation. SF-36 = a short form health survey developed by the RAND Corporation comprising 36 items measuring quality of life and general health. SEIFA (Socio-Economic Indexes for Areas) = a tool developed by the Australian Bureau of Statistics to rank areas of Australia according to their relative socioeconomic advantage/disadvantage.

Figure 2.1 shows the trend in average levels of life satisfaction between 2001 and 2019 for the overall sample and separately for men and women. Mean life satisfaction has effectively remained stable over the period, averaging between around 7.8 and 7.9 on the 0–10 scale. Except in 2010, women’s life satisfaction is higher than men’s, though these sex differences are very small. On average, when considering whole groups, the trend is flat, even if there might be considerable variation at any one point in time between individuals (see Clark et al. 2008).



## Regression results

Table 2.3 reports coefficients from fixed-effect panel regression models, with life satisfaction regressed on a range of individual characteristics as identified in the literature. Results are presented separately for the sample overall, and for women and men. The negative age coefficient, coupled with the positive age squared coefficient, suggests evidence of the well known ‘U-shaped’ association between life satisfaction and age, where life satisfaction is highest during young and older age, and lowest during midlife. The turning points in life satisfaction are calculated to occur at about age 37 (overall), with marked sex differences: the turning point for women is age 30, and 44 for men.

Again, consistent with the majority of literature, higher levels of education are negatively related to life satisfaction. For instance, people with at least a bachelor degree report 0.13 of a point lower life satisfaction than those with year 11 or below. At first glance this may seem counterintuitive; however, these estimates reflect the ‘direct’ impact of education on life satisfaction, while much of the effect is ‘indirect’ – via factors such as higher income and better health. This indirect effect is positive and larger than the direct effect, so the overall effect of education on life satisfaction is indeed positive. This finding is also supported by previous research (Powdthavee et al. 2015) using HILDA survey data, as outlined earlier.

For both men and women, formally married Australians are significantly more satisfied with life than those who are divorced, separated, widowed, and who never married. There are no observable wellbeing differences between married people and those in de facto relationships. There is some evidence that those with children are more satisfied with life than those without children. But this is mainly observed for men; for women, there is no significant relationship between children and life satisfaction.

As expected, better general health and mental health both improve life satisfaction. Importantly, changes in mental health have a bigger impact on life satisfaction than changes in general health. Notably, Clark and others (2019) highlighted the importance of mental health as a predictor of life satisfaction; in fact, they argued that mental health is 'the single most important predictor' of adult life satisfaction – not only in Australia, but also in Germany, the United Kingdom and the United States. Furthermore, having disability is highly detrimental to wellbeing; disabled Australians are much less satisfied with life than those without disability.

Social contact is clearly important for Australians' wellbeing. For example, individuals who have daily social contact with family or friends have between 0.13–0.18 of a point higher life satisfaction than those who have such contact only once every 3 months or less often. Relatedly, Australians who are active members of clubs or associations are more satisfied with life than those who are not.

Unemployment is also detrimental to wellbeing. Specifically, unemployed people report, on average, about 0.16 of a point lower life satisfaction than employed individuals; they also have lower wellbeing than those not in the labour force (by about 0.15 of a point). Consistent with the literature, higher equivalised household income improves reported life satisfaction.

The SEIFA disadvantage index of the area in which people live clearly matters for wellbeing, although this is more the case for women than for men. Life satisfaction is higher for people living in less disadvantaged areas – for example, living in the highest socioeconomic area increases life satisfaction by just over 0.1 of a point compared with living in the lowest socioeconomic area. Another interesting finding is that Australians living in major urban areas are less satisfied with their lives than those who reside in non-urban or rural areas (a difference of about 0.08 of a point).

**Table 2.3: Social determinants of subjective wellbeing**

Variable	Overall	Females	Males
Age	-0.049*** (0.013)	-0.032* (0.018)	-0.069*** (0.018)
Age squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
<i>Educational attainment (Reference category: year 11 and below)</i>			
Year 12	-0.138*** (0.017)	-0.127*** (0.023)	-0.168*** (0.024)
Certificate III or IV, or Diploma	-0.125*** (0.022)	-0.110*** (0.023)	-0.155*** (0.035)
Bachelor degree or higher	-0.131*** (0.025)	-0.105*** (0.033)	-0.199*** (0.039)
<i>Marital status (Reference category: Married)</i>			
De facto relationship	0.000 (0.014)	0.031 (0.020)	-0.031 (0.021)
Separated	-0.533*** (0.030)	-0.449*** (0.040)	-0.638*** (0.046)
Divorced	-0.325*** (0.031)	-0.274*** (0.040)	-0.386*** (0.051)
Widowed	-0.437*** (0.079)	-0.433*** (0.095)	-0.346*** (0.134)
Never married and not in de facto relationship	-0.242*** (0.019)	-0.211*** (0.026)	-0.268*** (0.028)
Children	0.017* (0.009)	-0.009 (0.013)	0.034*** (0.013)
General health (SF-36)	0.009*** (0.000)	0.009*** (0.000)	0.009*** (0.000)
Mental health (SF-36)	0.023*** (0.000)	0.024*** (0.000)	0.022*** (0.000)
Disability	-0.136*** (0.013)	-0.143*** (0.017)	-0.123*** (0.019)
<i>Social contact (Reference category: Once every 3 months or longer)</i>			
At least once a month	0.081*** (0.011)	0.071*** (0.016)	0.092*** (0.015)
At least once a week	0.124*** (0.012)	0.129*** (0.016)	0.119*** (0.016)
Every day	0.152*** (0.018)	0.127*** (0.026)	0.176*** (0.026)

continued

**Table 2.3 (continued): Social determinants of subjective wellbeing**

Variable	Overall	Females	Males
Active member of sporting or community club	0.043*** (0.007)	0.039*** (0.009)	0.049*** (0.010)
<i>Employment status (Reference category: Unemployed)</i>			
Employed	0.162*** (0.017)	0.143*** (0.024)	0.191*** (0.024)
Not in the labour force	0.149*** (0.018)	0.173*** (0.025)	0.098*** (0.027)
Log household equivalised annual disposable income	0.023*** (0.004)	0.027*** (0.006)	0.019*** (0.006)
<i>SEIFA disadvantage index (Reference category: Decile 1)</i>			
Decile 2	0.033 (0.022)	0.040 (0.030)	0.023 (0.031)
Decile 3	0.035 (0.022)	0.049 (0.030)	0.016 (0.032)
Decile 4	0.060*** (0.022)	0.084*** (0.031)	0.031 (0.032)
Decile 5	0.054** (0.023)	0.082** (0.033)	0.020 (0.031)
Decile 6	0.082*** (0.023)	0.111*** (0.033)	0.046 (0.031)
Decile 7	0.082*** (0.023)	0.111*** (0.032)	0.045 (0.032)
Decile 8	0.104** (0.023)	0.125*** (0.033)	0.076** (0.031)
Decile 9	0.073*** (0.023)	0.096*** (0.033)	0.043 (0.032)
Decile 10	0.106*** (0.024)	0.140*** (0.034)	0.063* (0.034)
<i>Region of residence (Reference category: Non-urban)</i>			
Major urban	-0.078*** (0.026)	-0.067* (0.035)	-0.093** (0.039)
Other non-major urban	-0.010 (0.026)	0.007 (0.034)	-0.033 (0.040)
Number of observations	210,216	111,299	98,971
Within R <sup>2</sup>	0.124	0.127	0.121

Note: Results are from fixed effects regression models of the determinants of reported life satisfaction. Robust standard errors are in brackets. Year and state indicators are included but not reported. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$ .

## Conclusion

Overall, the results confirm the relevance of a broad range of social determinants for subjective wellbeing in Australia. Most of these factors are similarly important for men and women, even though the magnitude of the effects is sometimes relatively small.

Higher incomes and being employed are positively associated with subjective wellbeing. Though the direct effect of education on life satisfaction is negative, education has many indirect advantages (such as higher income and better health) that are positively related to life satisfaction. Social relationships clearly matter for Australians' wellbeing. People report higher life satisfaction if they are married or in de facto relationships, compared with being divorced, separated, widowed or single/never married. Moreover, greater frequency of social contact and membership of community or sporting clubs have positive impacts on subjective wellbeing. Poor health – particularly poor mental health and disability – is detrimental to life satisfaction. Where people live is important as well and, while living in more socioeconomic advantaged areas has a positive impact on wellbeing, people living in major urban areas have lower wellbeing than those in non-urban areas.

The findings point to potential policy interventions that could improve wellbeing for Australians.

- In particular, the finding that the unemployed have lower wellbeing than those employed or those not in the labour force highlights the importance of initiatives both for job creation and for appropriate training and upskilling. For example, previous research suggests that better employability is associated with higher subjective wellbeing, even among those unemployed (Green 2011). Such initiatives are also likely to boost household income, which itself is positively related to life satisfaction.
- Ensuring appropriate opportunities for social contact and interaction – including through revitalising public spaces, particularly in urban areas, and providing support to clubs and community organisations – is likely to further boost wellbeing of the Australian population.

As noted at the start of this chapter, it is emphasised that the analyses for this study were conducted for the entire population and also stratified by sex. It is therefore possible that the results may differ slightly among other subgroups of the population.

Overall, the findings highlight the importance of focusing on inequalities and disadvantage across multiple life domains. Individuals who are socially disadvantaged, such as those who have less education, less wealth, fewer social connections and poorer health will also have lower life satisfaction. Social disadvantage tends to accumulate across different life domains, and such cumulative disadvantage is likely to have cascading effects on subjective wellbeing of the affected individuals. Social policies should therefore pay particular attention to those affected by deep and persistent disadvantage as these are the people who are also particularly likely to suffer from low subjective wellbeing.

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