

Philip S. Morrison

Measuring Local Well-being reflections on the Local Government (Community Well-Being) Amendment Bill

Abstract

The Local Government (Community Well-being) Amendment Bill is designed to provide local authorities with greater legal freedom to make investments that will raise the well-being of their local community. The legislation is predicated on the assumption that people's well-being is influenced by their local context. In order to identify the influence of changes in context generated by local investments, it is necessary to recognise that individuals differ in many ways and that the impact of any given investment can vary substantially from one person to the next. Indicators based on collections of individuals miss much of that variation. It is also necessary to recognise the variety of ways well-being can be measured. This short article raises both these issues by exploring three measures of well-being currently available on the 2018 Quality of Life survey.

Keywords well-being, context effects, local investments, Quality of Life survey

The election of the sixth Labour government in 2017 under Jacinda Ardern led to the restoration of the original purpose of the Local Government Act 2002. The purpose of the Local Government (Community Well-being) Amendment Bill 2018 is to enable local authorities to play a broad role in promoting the social, economic, environmental and cultural well-being of their communities – the four aspects of well-being. As the local government minister said:

Reintroducing an emphasis on the four well-beings will engage councils and citizens on an intergenerational approach to improving quality of life outcomes in our towns and cities ... [and] give councils back the ability to collect development contributions in order to fund increased demand for community facilities, such as libraries, sports grounds and swimming pools resulting from developments. (Mahuta, 2018)¹

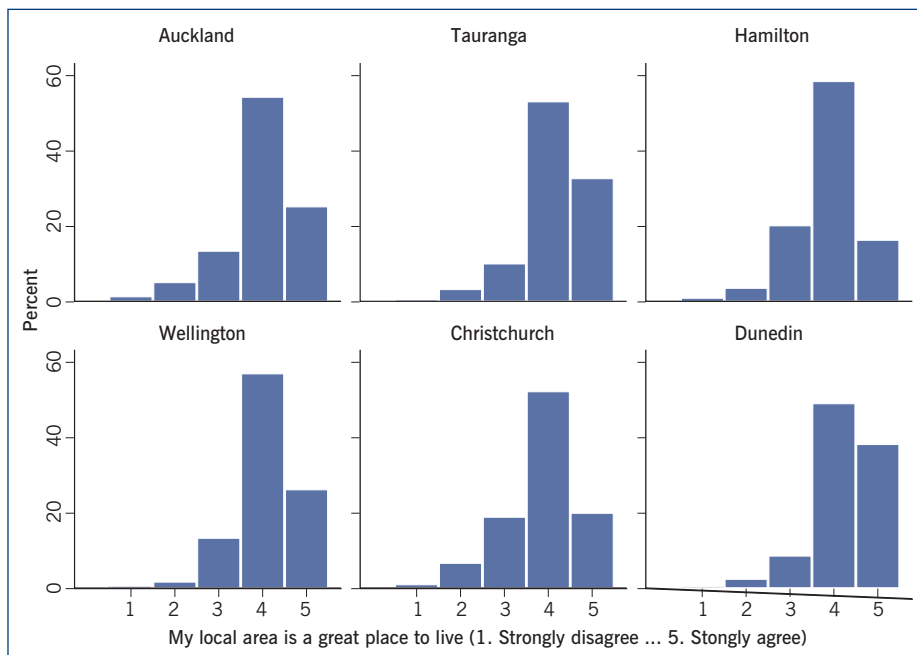
Philip S. Morrison is Professor of Human Geography in the School of Geography, Environment and Earth Sciences at Victoria University of Wellington. His book *Subjective Wellbeing and Place* is forthcoming from Bridget Williams Books.

Table 1: Three ‘well-being’ questions asked in the New Zealand Quality of Life survey 2018

Local area well-being	
Q5	How much do you agree or disagree with the following statement? ‘[My local area] is a great place to live’.
<input type="checkbox"/>	Strongly disagree
<input type="checkbox"/>	Disagree
<input type="checkbox"/>	Neither agree nor disagree
<input type="checkbox"/>	Agree
<input type="checkbox"/>	Strongly agree
Quality of life	
Q35	Would you say that <i>your</i> overall quality of life is ...
<input type="checkbox"/>	Extremely poor
<input type="checkbox"/>	Very poor
<input type="checkbox"/>	Poor
<input type="checkbox"/>	Neither poor nor good
<input type="checkbox"/>	Good
<input type="checkbox"/>	Very good
<input type="checkbox"/>	Extremely good
Personal well-being	
Q32	Please indicate for each of the following five statements which is closest to how you have been feeling over the last two weeks.
<input type="checkbox"/>	I have felt cheerful and in good spirits
<input type="checkbox"/>	I have felt calm and relaxed
<input type="checkbox"/>	I have felt active and vigorous
<input type="checkbox"/>	I woke up feeling fresh and rested
<input type="checkbox"/>	My daily life has been filled with things that interest me
0 At no time; 1 Some of the time; 2 Less than half of the time; 3 More than half of the time; 4 Most of the time; 5 All of the time. ⁶	

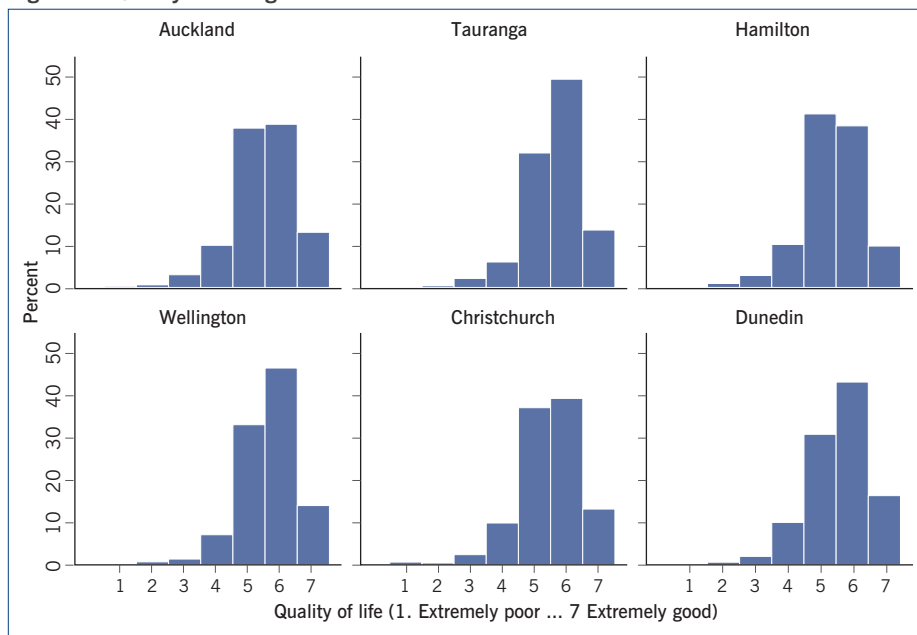
Given far less attention in the commentary on the amendment bill is the meaning of the term ‘well-being’. The issue is important because without greater clarity it will be difficult to measure the results of new investments made under the Act. The prevailing approach to documenting the well-being of communities in New Zealand is to

Figure 1: ‘My local area is a great place to live’. Responses in six cities. New Zealand 2018



Source: Quality of Life Survey, 2018

Figure 2: Quality of ratings in six cities. New Zealand 2018

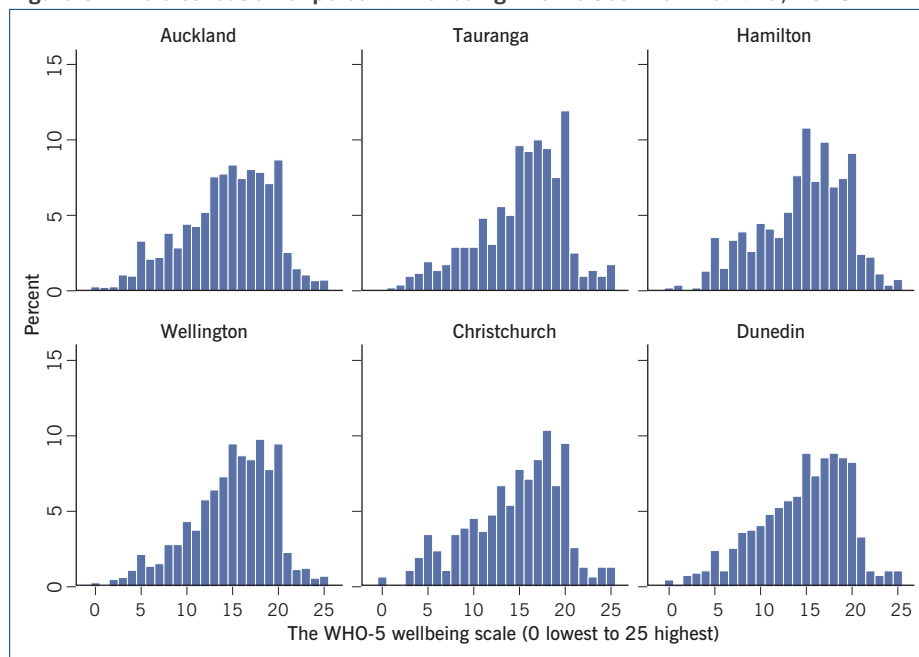


Source: Quality of Life Survey, 2018

construct ‘indicators’ – as developed, for example, by the Society of Local Government Managers² following the approach taken by Statistics New Zealand (Statistics New Zealand, 2019), which is based on OECD examples (OECD, 2014, 2017). While useful in describing the differences between places, these indicators (such as the proportion of the population who are young or the proportion who are employed) are based on spatial aggregates rather than individuals. Partly for this reason, they have limited theoretical content and this restricts their ability to

guide the development of local policy. Unless well-being is measured at the level of the individual, with due recognition of their social, economic and cultural context, it is going to be very difficult to attribute any change in well-being to investments made under the Act. It will also prove difficult to capture the way well-being is distributed across the individuals who make up the local community. I illustrate these points by drawing on three separate measurements of well-being reported by individuals in six different cities of New Zealand in response to the 2018 survey run

Figure 3: The distribution of personal wellbeing in six cities. New Zealand, 2018



Source: Quality of Life Survey, 2018

by the Quality of Life Project.³ The aim is to promote discussion about the most appropriate measure of well-being to adopt at the local level. Elsewhere I explore the degree to which the three measures have different drivers, how they vary by location and what this might mean for the development of local well-being initiatives.⁴

Well-being in place

The ability of local governments to respond effectively to the amended Local Government Act will rest on how they conceptualise, measure and interpret well-being. While a great deal has been written on well-being to date, the focus has been either on the well-being of the country or on the well-being of the individual. Relatively little attention has been paid to the well-being of individuals living in particular economic and social contexts. The ability to assess the impact of local context on individual well-being constitutes the theoretical and methodological base upon which to build effective local well-being policy.

In a survey conducted in six cities the 2018 Quality of Life survey obtained answers from over 7,000 individuals to three well-being questions: on their local area (city)⁵ as a place to live, their quality of life and their personal well-being (see Table 1). Responses to each of these three 'well-being' measures are shown for each of the six cities in Figures 1, 2 and 3.

The distributions of the three well-being measures in each city look very similar. In fact, they share four features in common: their skewness; the contrast in their between and within variance; the source of their differences; and the negative relationship between the inequality in well-being and the average.⁷

With respect to the first feature, each city's distribution is left-skewed, indicating that most respondents identify with the positive options in the question.⁸ The well-being inequality we witness nationally is reproduced to varying degrees within each city, and, indeed, in most local authorities throughout the country.⁹

As a second feature, the cities exhibit greater variation in well-being *within* their jurisdictions than *between* them. Notwithstanding their differences in average well-being, each city faces a very wide range of well-being on all three measures.¹⁰

A third salient feature is that the intercity differences that do exist are not driven by those returning low scores – those who disagree that their locality is a great place to live, or return a low quality of life or return very low levels of personal well-being. Rather, they are driven by what is happening at the other end of each scale – by those who strongly agree their locality is a great place to live, those who return very high qualities of life and those who are flourishing according to the WHO-5 index (the World

Health Organization's well-being index). The differences between the cities are much wider at these positive levels of well-being than they are at the lower levels.

A fourth, somewhat hidden, feature is each city's negative relationship between the dispersion in well-being their citizens experience and their average level of well-being in the city as a whole. In the case of personal well-being, for example, the inequality is greatest in Christchurch (standard deviation = 5.1) and Dunedin (4.93), cities which have the lowest average well-being. By contrast, they are narrowest in the cities of Wellington (4.57) and Tauranga (4.76), which have the highest average level of personal well-being.¹¹

A further important feature of these three measures (also unobservable from the figures) is their relatively low intercorrelation at the level of the individual. Knowing where a sampled respondent may have placed themselves on one scale is a relatively poor guide to where they place themselves on either of the others. This means that each of these measures represents quite a different dimension of a person's well-being. The correlation between these three measures also varies by city and this complicates the interpretation of well-being from one city to the next.

In a related point, the rank order of cities varies depending on the measure of well-being being considered. The mean scores of each well-being measure, along with the rank of each city in terms of that score, are shown in Table 2. The city scoring lowest (1) in the 'great place to live' measure is Christchurch, with Hamilton in second place and Auckland in third. However, the ranks differ when it comes to quality of life and again in the case of personal well-being.

In summary, although the distributions of all three measures of well-being in each city have common features, they also hide the fact that the three measures of well-being are weakly correlated at the level of the individual resident, and that the cities rank differently depending on which well-being measure is used. At the same time, such averages are a very crude guide to levels of well-being because people within each city differ widely in their evaluation of the city as a place to live, their quality of life and their own personal well-being.

How well-being measures relate

Figure 4 depicts the distribution of personal well-being (the WHO-5 scores) at each level of the quality of life scale. If we regress this measure of well-being on the five quality of life indicators we find that the predicted WHO-5 score almost doubles, from 9.23 when quality of life is poor to 17.45 when it is extremely good. But, perhaps more importantly, Figure 4 also shows how personal well-being varies considerably *within* each category of the quality of life scale. The index is most dispersed when quality of life is poor (standard deviation of 5.5) and diminishes as quality of life improves through to the point when quality of life is judged extremely good (SD = 4.1).¹² The relevant issue here is the degree to which raising the quality of life in a city can also serve to improve personal wellbeing. The research challenge lies in identifying the mechanisms involved.

The dashed horizontal line through each of the five panels of Figure 4 draws a distinction between potential depression (0–13) and above (over 13). Most scores fall below the WHO-5 index score of 13 among those who judge their quality of life as poor with the proportion diminishing as quality of life improves. However, those returning very low measures of personal well-being are not totally absent in the case of those who report their quality of life as extremely good. There is a similar relationship between personal well-being and the level of agreement with ‘my local area is a great place to live’.

There is also a low correlation between how individuals judge their quality of life and how they rate their city. While the two variables are not statistically independent, as many as 40% of those who say they agree or strongly agree that their city is a great place to live do not rate their own quality of life as good or extremely good. The relationship is not symmetrical however, because under 10% (9.54%) of those who rate their own quality of life as good or extremely good do not rate the city as highly.

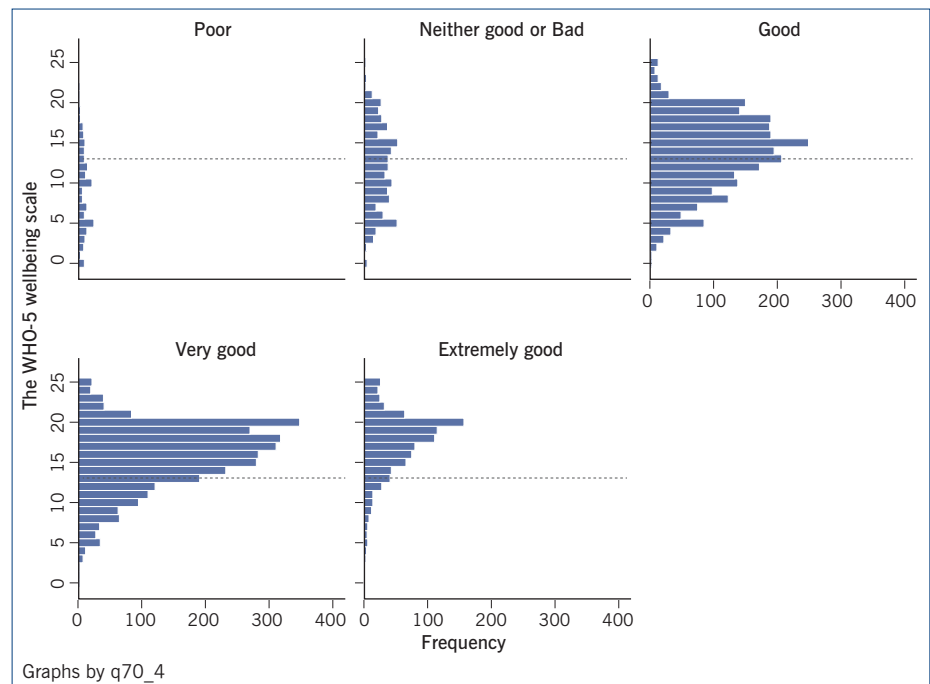
In addition, we find a stronger convergence in the two measures when both responses are negative and only a mild convergence when both responses are highly positive. In other words, the more

Table 2: City rank by mean level of well-being, New Zealand 2018

City	Great place to live	Rank	Quality of life	Rank	Personal wellbeing	Rank
Auckland	3.98	3	5.44	2	14.41	1
Tauranga	4.14	5	5.63	6	15.32	6
Hamilton	3.87	2	5.37	1	14.62	3
Wellington	4.06	4	5.60	5	14.91	5
Christchurch	3.83	1	5.46	3	14.57	2
Dunedin	4.22	6	5.58	4	14.64	4

Source: Quality of Life Project and Nielsen, 2018

Figure 4: The relationship between the WHO-5 wellbeing index and the quality of life scale. New Zealand 2018



Source: Quality of Life Survey, 2018

highly people judge their quality of life, the less accurately one can predict they believe their city to be a great place to live. This lack of cohesion in these two place measures of well-being makes it particularly important to complement them with a measure of personal well-being.

In summary, the 2018 Quality of Life survey supplies us with three separate measures of well-being: two associated with place – individuals’ quality of life and their rating of their local area (city) as a place to live – and one which captures the personal well-being of the individual. All three are weakly correlated and therefore one cannot assume that individuals who say their city is a great place to live or who rate their quality of life highly also rate their personal well-being highly. While there are differences in all three measures across the six urban areas, all three measures of well-being vary much more

widely *within* the cities than *between* them. Each of these characteristics of existing well-being measures have important implications for how we measure well-being at the local level.

Conclusion

At the time of writing, the New Zealand Parliament is about to pass the Local Government (Community Well-being) Amendment Bill 2018. While clearly focused on local domestic issues, the fact that local governments will be expected to invest in their local communities in order to raise local well-being is also of interest internationally. So far, well-being policy has been treated as a national prerogative, as advocated by the Stiglitz report (Stiglitz, Sen and Fitoussi, 2009); however, this new Act is a further example of the growing support for a complementary local, grass-roots approach to raising well-being.

Although there has been periodic discussion of such endeavours elsewhere, including the political economy of local influence groups (Scott, 2015), we have yet to see systematic analysis of the well-being of individuals living in different towns and city contexts. Most countries simply assemble local indicators or summary measures of well-being, but because these are not linked to the attributes of individuals they have little capacity for testing local context effects on people's well-being or the construction of well-being theory at the local level.

The purpose of the above discussion has been to argue for a more theoretically explicit approach to understanding variations we find between and within cities, one that begins with the measurement of well-being of individuals living in different local contexts. The brief introduction above has compared six cities using the 7,000 individual responses to the New Zealand Quality of Life 2018 survey. In what is good timing, the 2018 survey introduced the World Health Organization's index for measuring mental health and has therefore provided us with a robust, internationally validated indicator of personal well-being which could potentially be used to assess city context effects and the impact of locally inspired changes to that context.

This introduction has only scratched the surface of what a large unit record survey like the Quality of Life survey can tell us about well-being within New Zealand's local authorities. Funding an extension of this survey to cover a wider range of urban settlements would go a long way to putting a solid analytic base under the Local Government (Community Well-being) Amendment Act.

- 1 This quotation may be interpreted to imply that the restoration of the well-being purpose is intended to drive the use of the funds which councils will be able to claim from developers as a result of the change to the development contribution provisions. However, as Peter McKinlay has noted in personal communication, this is not the case. The two are quite separate. Councils used to be able to include within their assessment of development contributions provision to cover the cost of increased demand for community facilities. Under pressure from developers, the previous, National government restricted the scope of development contributions. This meant that meeting the additional demand for community facilities had to be addressed within the general rate rather than through development contributions, something which local government adamantly opposed. It is a matter of legislative convenience that restoring the broader scope for development contributions is included in the same bill as the restoration of four well-beings, but otherwise there is no connection between the two – other than the general proposition that councils will be required, when taking decisions, to consider the impact on each of the four well-beings, and this will presumably include decisions about restoring development contributions to their former place.
- 2 See, for example, the 2018 SOLGM well-being indicator workshop: https://www.solgm.org.nz/Event?Action=ViewandEvent_id=56.
- 3 The three measures I discuss below are what the literature refers to as 'subjective' measures of well-being. These are often quite uncorrelated with so-called 'objective' measures, such as income. For examples and a discussion of the reasons for this lack of correspondence, see Morrison, 2019b.
- 4 See Morrison, 2019a.
- 5 I use the term 'city' as a shorthand. While the term applies to four of the urban areas referred to here, it understates the extent of the Auckland Council and Wellington region entities, which are conurbations of several cities. In fact there are marked differences between the cities within these two large centres on all three measures discussed in the article, but respondents in these two centres are asked to read 'local area' in the questions as the 'city' as a whole.

- 6 This is the World Health Organization WHO-5 question. The sum of the scores over the five categories for any individual range from a minimum of 0 to a maximum of 25. A non-clinical indicator of possible depression is a score under 13 (Topp et al., 2015).
- 7 These properties also hold in the case of a fourth 'well-being' measure, urban pride, which I have explored elsewhere (Morrison, 2016).
- 8 This skewness is an established characteristic of the well-being distribution in developed economies (Helliwell, Huang and Wang, 2016).
- 9 Most studies of local well-being do not also consider the internal distribution of well-being within the places of interest, their preoccupation being the difference in average well-being between the cities or regions (Ferrara and Nistico, 2015).
- 10 In part this reflects an international tendency for intra-regional and intra-city distributions of most welfare and well-being measures to expand over time relative to interregional/city distributions (Alimi, Mare and Poot, 2016). As a result, an unprecedented proportion of the variance in well-being within countries is now concentrated within our main cities rather than between them (Morrison, 2015).
- 11 The behavioural underpinnings to this relationship are explored in Dickinson, 2018.
- 12 For an early discussion of the low correlation among the three measures included in the 2004 Quality of Life survey – life satisfaction, happiness and quality of life – see Morrison, 2007.

Acknowledgements

The ideas in this article were first presented to the Regional Studies Association Australasia conference held at the Ngāi Tahu Research Centre, University of Canterbury, Christchurch, 11–13 February 2019, under the title 'Ascertaining local well-being: the hidden minefield'. The comments of delegates are gratefully acknowledged. I also wish to acknowledge the helpful comments by Professor Arthur Grimes, Victoria University of Wellington on a longer manuscript from which the present article was drawn. The invitation by Mike Reid (Local Government New Zealand) to contribute to this issue of *Policy Quarterly* was appreciated.

References

- Alimi, O., D. Mare and J. Poot (2016) 'Income inequality in New Zealand regions', in P. Spoonley (ed.), *Rebooting the Regions: why low or zero growth needn't mean the end of prosperity*, Palmerston North: Massey University Press
- Dickinson, P.R. (2018) 'The sensitivity of wellbeing to inequalities in local wellbeing', MSc thesis, Victoria University of Wellington
- Ferrara, A.R. and R. Nistico (2015) 'Regional well-being indicators and dispersion from a multidimensional perspective: evidence from Italy', *Annals of Regional Science*, 55, pp.373–420
- Helliwell, J., H. Huang and S. Wang (2016) *World Happiness Report 2016*, Canadian Institute for Advanced Research and Vancouver School of Economics
- Mahuta, N. (2018) 'Four well-beings core to local government's role', 11 April, <https://www.beehive.govt.nz/release/four-well-beings-core-local-government-s-role>
- Morrison, P.S. (2007) 'Subjective wellbeing and the city', *Social Policy Journal of New Zealand*, 31 (July), pp.74–103
- Morrison, P.S. (2015) 'The inequality debate: the neglected role of residential sorting', *Policy Quarterly*, 11 (2), pp.72–9
- Morrison, P.S. (2016) 'Pride in the city', *Region*, 3 (2), pp.103–24
- Morrison, P.S. (2019a) 'Conceptual and empirical underpinnings of local wellbeing', paper presented to the European Regional Science Association, Lyons
- Morrison, P.S. (2019b) 'Subjective and objective wellbeing', *Scienze Regionali*, 3, forthcoming
- OECD (2014) *How's Life in Your Region? Measuring regional and local well-being for policy making*, Paris: OECD Publishing
- OECD (2017) *How's Life in New Zealand*, Paris: OECD Publishing
- Quality of Life Project and Nielsen (2018) *Quality of Life Survey 2018*, Wellington: Quality of Life Project, <http://www.qualityoflifeproject.govt.nz/pdfs/Quality-of-Life-2018.pdf>
- Scott, K. (2015) 'Happiness on your doorstep: disputing the boundaries of wellbeing and localism', *Geographical Journal*, 181 (2), pp.129–37
- Statistics New Zealand (2019) 'Suite of indicators Aotearoa New Zealand – Nga Tutohu Aotearoa indicators', for release June 2019, Wellington: Statistics New Zealand
- Stiglitz, J., A. Sen and J-P. Fitoussi (2009) *Report by the Commission on the Measurement of Economic Performance and Social Progress*, Paris, <https://www.insee.fr/en/information/2662494>
- Topp, C.W., S.D. Osteergaard, S. Sondergaard and P. Bech (2015) 'The WHO-5 Well-being Index: a systematic review of the literature', *Psychotherapy and Psychosomatics*, 84 (3), pp.167–76