



**HUMAN POTENTIAL CENTRE**  
AN AUT UNIVERSITY RESEARCH CENTRE

# SOVEREIGN WELLBEING INDEX

Wave 2, 2014

Methodology Report

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## **Sovereign Wellbeing Index: Methodology Report Wave 2, 2014**

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This document is available at [www.mywellbeing.co.nz](http://www.mywellbeing.co.nz)

Please refer to the publication, *Sovereign Wellbeing Index: 2015*, for key results from the 2014 survey.

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# Introduction

This report outlines the technical specifications for the Sovereign Wellbeing Index (SWI) Wave 2 study, and is to be used alongside the data file and codebook. The methodology report is for readers who wish for more detail on the SWI, particularly about the study design, methods of recruitment, data collection, and data processing. There are four main sections:

Section 1      Study Overview

The Study Overview contains information regarding the study and contextual background information.

Section 2      SWI Survey

The SWI survey section contains information on the development of the survey and source instruments.

Section 3      Methods and Procedures

The Methods and Procedures section contains information on the survey design, sampling procedures, data collection procedures, and response rates for Wave 2 of the SWI.

Section 4      Data Processing

The Data Processing section contains information on the treatment of data, creation of derived variables, and data analysis methods.

Appendix A:    Technical Details

Appendix B:    Survey Items

# Section 1: Study Overview

## Overview

**Background:** Traditionally, economic metrics have been used to benchmark a nation's progress, however such metrics inadequately capture important dimensions of social progress. Using wellbeing measures to complement traditional economic measures is gaining momentum. In 2012, a research team from the Human Potential Centre developed the Sovereign Wellbeing Index (SWI) to provide New Zealand's first comprehensive assessment of wellbeing. To continue to understand how New Zealanders are feeling and functioning in their lives, and areas to prioritise to improve wellbeing, ongoing assessment of wellbeing is needed.

**Purpose:** The purpose of the SWI, Round 2 is to, 1) provide an update on the prevalence and factors which contribute to wellbeing in New Zealand, and 2) determine how wellbeing has changed in New Zealand since the first wave in 2012.

**Methods:** A nationally representative sample of participants were recruited through the largest commercial database in New Zealand. In 2012, a total of 10,009 participants completed the SWI, Round 1. All individuals from 2012 were invited to take part in 2014, of which 4,435 returned (44%). Additional email invitations were sent to 53,628 panel members (that did not participate in 2012), of which 5,577 participated in 2014 (10%). In total, the 2014 survey comprised 10,012 participants.

The SWI, Round 2 comprised a web-based survey with a core wellbeing module and additional socio-demographic, health, and lifestyle questions. The wellbeing module was repeated from SWI, Round 1. Health and lifestyle questions underwent significant modification to provide a broader understanding of the relationships between health, lifestyle behaviours and wellbeing.

**Conclusion:** The SWI provides a broad and valid understanding of how well New Zealanders are feeling and functioning, what factors contribute to optimal wellbeing and whether this is the same for everyone.

## Background

Until recently, developed countries have relied on economic metrics as a benchmark for national progress. However, important factors, which consider how people are feeling and functioning, are often not reflected in these economic measures (Diener, Oishi, & Lucas, 2015; Weijers & Jarden, 2013). In fact, the continual drive to improve national economic measures may negatively impact individuals' lives through longer working hours and rising levels of indebtedness (Michaelson, Abdallah, Steuer, Thompson, & Marks, 2009; Stoll, Michaelson, & Seaford, 2012). Recently, there has been growing momentum towards measuring wellbeing to identify what really matters to people.

Wellbeing is about understanding what is going right for individuals, groups within society, and for society as a whole. Over the last decade, the science of wellbeing has made considerable progress. Wellbeing is considered a broad, multi-dimensional construct incorporating measures of both feelings and functioning (Huppert et al., 2009). Components of wellbeing include being satisfied with life, having frequent positive emotions (like happiness) and fewer negative emotions (like sadness), being resilient, experiencing psychological growth and functioning well in the various areas of life that are important (Huppert & So, 2013). Although, traditional wellbeing measures relied on single-item questions of life satisfaction and happiness, newer measures have been developed to capture the multiple dimensions of wellbeing (Diener et al., 2010; Huppert & So, 2013).

Wellbeing research shows that individuals with high wellbeing not only lead healthier and happier lives, but also contribute positively to society (Diener, 2006). High wellbeing individuals tend to be more productive, more creative, have higher incomes, and achieve more. They have better health, use the health system less, and recover from illness faster. They are also more resilient when faced with challenges, volunteer to a greater extent, and are more generous with helping others in need

(Christakis & Fowler, 2009; Diener, 2000; Graham, 2009). Optimising wellbeing is, therefore, beneficial for individuals and society as a whole (Diener et al., 2015).

In 2012, the Sovereign Wellbeing Index was the first comprehensive national wellbeing survey to be implemented in New Zealand (Human Potential Centre, 2013; Jarden et al., 2013). Findings from the survey showed less than a quarter (24%) of New Zealanders had high levels of wellbeing (Hone, Jarden, & Schofield, 2014). Furthermore, when compared to 22 other European nations, New Zealand consistently ranked near the bottom on a broad range of personal and social wellbeing indicators (Human Potential Centre, 2013). These cross-sectional findings not only provide an important baseline measure of wellbeing in New Zealand, but they also indicate that improving wellbeing should be a focus in New Zealand. To continue to understand how New Zealanders are feeling and functioning in their lives, and areas to prioritise to improve wellbeing, ongoing assessment of wellbeing is needed.

Studying wellbeing longitudinally can help to determine where resources should be focussed, the people and places in New Zealand who are getting the most out of life, and who in New Zealand is best prepared to deal with challenges. Understanding New Zealanders wellbeing provides insights into what can be changed at individual, community, and societal levels to make New Zealand a better place to live. This information can be used by leaders to help people thrive and by individuals to make positive improvements to their own lives and the lives of others around them. The aim of the SWI, Round 2 is to, 1) provide an update on the prevalence and factors which contribute to wellbeing in New Zealand, and 2) determine how wellbeing has changed in New Zealand since the first wave in 2012.

## Section 2: SWI Survey

The SWI comprises a core wellbeing module and additional socio-demographic, health, and lifestyle questions. The survey is completed by study participants (adults aged 18 years and over) using a web-based survey platform.

The wellbeing module is repeated from the first SWI wave undertaken in 2012 so that data can be compared over time. For the second SWI wave undertaken in 2014, the set of health and lifestyle questions underwent significant modification to provide a broader understanding of the relationships between health, lifestyle behaviours and wellbeing. Questions developed for the 2014 survey underwent cognitive and reliability testing to ensure that questions were understood as intended and response options were appropriate.

### Wellbeing module

The wellbeing module contains validated psychometric scales which measure several components of wellbeing including emotional wellbeing, life satisfaction, vitality, resilience and self-esteem, positive functioning, supportive relationships, and flourishing. The rotating Personal and Social Wellbeing module of the European Social Survey (ESS) Round 6 (European Social Survey, 2012) was included in the SWI as the core wellbeing component. This module was developed by leading international wellbeing experts to represent both hedonic and eudaimonic components of wellbeing (the combination of feeling good and functioning well) (European Social Survey, 2013). This comprehensive module was supplemented with additional scales, including the Flourishing Scale (Diener et al., 2010), two questions on strengths use (Govindji & Linley, 2007), and a life domains satisfaction scale developed for the purposes of this study. Table 1 summarises the topics included in the wellbeing module.

**Table 1. Wellbeing module topics**

Concept	Topics
Evaluations and emotions	
<i>Evaluations</i>	Overall satisfaction, satisfaction with job, social optimism, subjective socio-economic position, domain satisfaction
<i>Emotions</i>	Happiness overall, calmness, anxiety, depression
Functioning	
<i>Personal</i>	Resilience, meaning and purpose, autonomy and control, engagement, competence, vitality, strengths use, time use
<i>Social</i>	Thick relationships, thin relationships, active involvement
<i>Wellbeing-promoting activities</i>	Connect, be active, take notice, keep learning, give
Psychological resources	Self-esteem, optimism

### Demographics

Socio-demographic questions are used to describe the characteristics of the sample population and provide insights into the groups of people that have high or low wellbeing. Table 2 summarises the topics included in the demographics section.

**Table 2. Demographic topics**

Concept	Topics
Individual	Age, gender, ethnicity
Household and Family	Marital status, household composition, children
Socio-economic	Academic qualification, household income, income security
Employment	Employment status, occupation, shift work, hours of work, work-life balance, job satisfaction
New Zealand	Region, city size

## Health and Lifestyle Module

A key objective of the SWI is to examine the relationship between wellbeing and chronic health conditions, and the moderating effect of lifestyle behaviours. Questions included in this module are drawn from various sources, including the New Zealand Health Survey (Ministry of Health, 2006), ESS Rounds 3 and 6 (European Social Survey, 2006, 2012), the Three-factor Eating Questionnaire (Stunkard & Messick, 1985), Sleep Scale (Hays & Stewart, 1992) and the Obstacles to Action survey (Sullivan, Oakden, Youngm, Butcher, & Lawson, 2003). Additional questions were developed for the purposes of this study, including behavioural physical activity and nutrition questions. Table 3 summarises the topics included in the Health and Lifestyle Module.

**Table 3. Health and Lifestyle topics**

<b>Concept</b>	<b>Topics</b>
Health	Subjective health, hampered activities, health conditions, health professional visits, pregnancy
Body size	Weight, height, subjective weight
Alcohol and smoking	Alcohol consumption, smoking
Sleep	Hours of sleep, sleep quality
Nutrition behaviour	Food consumption, dietary habits, dieting
Physical activity	Sitting, workplace/daily physical activity, transport mode, lifestyle physical activity, exercise types, exercise contexts

## Section 3: Methods and Procedures

This section describes the methods and procedures of the 2014 SWI, including the sample selection, recruitment, data collection, and response rates.

### Sample selection

The 2014 SWI was undertaken with a sample of approximately 10,000 New Zealand adults aged over 18 years. Due to the large sample size intended for this study, the cost of traditional forms of participant recruitment and data collection (telephone and door-to-door recruitment strategies) was prohibitive. As such, a web-based approach to sample selection and data collection was employed, a method being used increasingly in health and psychology research (Reips, 2006). Approximately 80% of New Zealand households are connected to the internet and 78% of New Zealanders over 15 years of age access the internet on a weekly basis (Statistics New Zealand, 2013).

TNS New Zealand, a research agency specialising in web-based survey data collection, was contracted to undertake the recruitment and data collection procedures. The sample was selected from one of New Zealand's largest online research panels (273,000 members). The panel sample pool is recruited through both offline (51%) and online (49%) recruitment methods, and is representative of the New Zealand population (Smile City Ltd, 2012).

The 2014 SWI used a two-stage process to select the sample from the research panel. The first stage involved selecting all panel members who participated in the 2012 survey. The second stage involved selecting a random sample of panel members that did not participate in 2012; with replacement to reach the intended target of 10,000 participants. Panel members aged under 40 years were marginally oversampled in order to achieve a sample representative of New Zealand adults over 18 years.

### Recruitment procedures

Each selected panel member was sent an email invitation by the panel provider. Participants were directed to the web-based survey where an information sheet was provided (ethical approval granted by AUT Ethics Committee: 12/201). Participants who agreed to participate proceeded to the web-based survey. Selected panel members were given a period of seven days to respond to the survey invitation. Recruitment continued until the target of 10,000 completed surveys was achieved.

### Data collection

The survey was completed online by participants using a typical point-and-click web-based interface, visually and functionally similar to a paper-based survey. A variety of check boxes, slider scales, radio buttons, and selection lists were used as appropriate for each question type. Each question was required to be completed before proceeding to the next screen; an option for '*Prefer not to answer*' was provided for each question. Participants were prevented from completing the survey more than once. The final survey form included a total of 149 questions over 48 screens, and took approximately 21 minutes to complete (median completion time). Participants were able to stop the survey at any stage, save their responses, and continue with the survey at a later time, until the survey closed.

Testing of the survey form was undertaken in the first instance by the research agency (TNS New Zealand), and in the second instance by the research team (HPC). No substantive changes were made to the survey instrument following this testing.

Web-based surveys are being used more frequently in health and psychology research (Reips, 2006), not only for their cost-effectiveness, but also for their advantages in quality control and social desirability bias. In a paper written by van Gelder, Bretveld, and Roeleveld (2010), the authors presented distinct advantages for the use of web-based survey's, including the less prevalent use of "don't know" responses than postal surveys, avoidance of errors in data entry and coding of

responses, ability to automatically skip or present questions based on earlier responses, and minimisation of social desirability bias.

## **Response rates**

A total of 10,009 adults participated in 2012; all of these participants were invited to participate in the 2014 wave, of which 4,435 consented and completed the 2014 survey (44%).

Additional invitations were sent to 53,628 panel members that did not participate in 2012. Of these invitations, a total of 5,577 adults participated (10%).

Of those that responded to the survey invitation (N=11,426), 88% completed the survey.

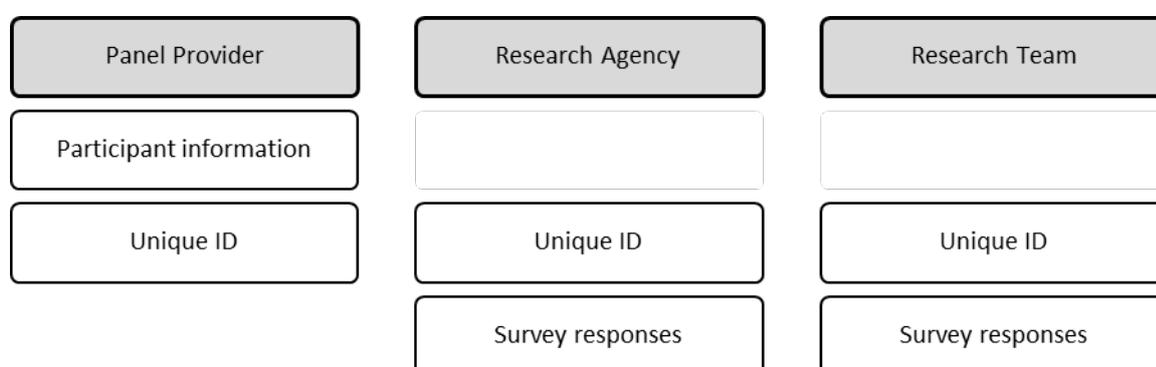
## Section 4: Data Processing

### Security of information

The SWI study was granted ethical approval by the AUT Ethics Committee (AUTEK: 12/201); the ethics application outlined detailed procedures for participant anonymity, protection of data, and data storage. Participants were fully informed of the study procedures and the security of their information.

Through the use of a three-tier agency structure, anonymity of participants and their responses was guaranteed. As demonstrated in Figure 1, no identifiable information was collected by the research agency, or available to the research team, and the panel provider had no access to the survey responses.

Data were transferred to the Research Team in an anonymised data file and access to the raw data is on a restricted basis.



**Figure 1. Anonymisation process**

Note. Panel Provider: *Smile City*; Research Agency: *TNS New Zealand*; Research Team: *Human Potential Centre, AUT*.

### Data checks

Survey responses were captured in real-time as participants complete the survey using TNS New Zealand's online survey platform; as such, errors relating to data entry and response coding are avoided. All responses are included in the raw data file, with responses to each item entered as a separate variable.

Some questions offered an 'Other' option for which a free-text entry box was provided. These free-text responses were either re-categorised into an existing category, or retained as 'Other' if no existing category was appropriate. This classification process was undertaken by the Research Team.

### Creation of derived variables

A number of derived variables were created using standard classifications. Table 4. provides an overview of the classification method or standard used for the creation of derived variables.

**Table 4. Creation of derived variables**

Module	Derived variables
Wellbeing	CESD-8 depression scale Diener Flourishing Scale Huppert & So definition of Flourishing
Demographics	Age at date of survey completion (from date of birth) Ethnicity (Prioritised method, Statistics New Zealand) Labour forces status (Statistics New Zealand) Household composition (Statistics New Zealand)

Health and Lifestyle	Body mass index Diet (developed specifically for this survey by HPC) Exercise (developed specifically for this survey by HPC)
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### *Being Awesome*

The main wellbeing outcome variable used in analysis for the main report, *Sovereign Wellbeing Index: 2015*, is a scientifically validated scale of 10 items developed to assess wellbeing as a multi-dimensional construct (Huppert & So, 2013). To move beyond a risk system where the measurement of population health is focussed on symptoms of malfunction, this scale of flourishing measures characteristics that are the mirror opposite to depression and anxiety to represent positive functioning. Table 5 presents the SWI survey items used for the classification of being Awesome, according to the Huppert and So framework (2013).

**Table 5. Classification of being Awesome**

Element of wellbeing	SWI Survey item	Score
Positive Emotions (Endorse 1 of 1 element)		
<i>Happiness</i>	Taking all things together, how happy would you say you are? (B 2)	≥ 8 /10
Positive Characteristics (Endorse 4 of 5 elements)		
<i>Emotional Stability</i>	How much of the time in the past week...you felt calm and peaceful? (B35)	≥ 2 /4
<i>Vitality</i>	How much of the time in the past week...you had a lot of energy? (B33)	≥ 3 /4
<i>Optimism</i>	I'm always optimistic about my future (B22)	≥ 4 /5
<i>Resilience</i>	When things go wrong in my life, it generally takes me a long time to get back to normal (B39)	≥ 4 /5
<i>Self-esteem</i>	In general I feel very positive about myself (B23)	≥ 4 /5
Positive Functioning (Endorse 3 of 4 elements)		
<i>Engagement</i>	How much of the time would you generally say you are...absorbed in what you are doing? (B52)	≥ 4 /5
<i>Competence</i>	Most days I feel a sense of accomplishment from what I do (B38)	≥ 4 /5
<i>Meaning</i>	I generally feel that what I do in my life is valuable and worthwhile (B43)	≥ 4 /5
<i>Positive Relationships</i>	To what extent do...you receive help and support from people you are close to when you need it? (B56)	≥ 4 /6

To be classified as being Awesome positive emotions, positive characteristics, and positive functioning must all be endorsed. To be classified as Nearly Awesome, two of the three elements (positive emotions, positive characteristics, and positive functioning) must be endorsed. Those who do not endorse any, or only endorse one of the three elements are classified as 'Could do Better'.

## Analysis methods

Data presented in the Executive Report titled *Sovereign Wellbeing Index: 2015*, and the associated data tables, were analysed according to the following methods:

### *Prevalence*

Prevalence is the proportion of the sample who have (or endorse) a particular characteristic. This is calculated by dividing the number of the sample who have or endorse the characteristic by the total number of people in the sample of interest. For example, the prevalence of Being Awesome among

older adults is calculated as the number of older adults classified as Awesome, divided by the number of older adults in the sample. The result is expressed as a percentage.

### *Confidence Intervals*

The 95% confidence intervals (95% CI) are used to indicate a statistical margin of error around prevalence estimates. This interval indicates the level of uncertainty in a measurement that occurs due to taking a sample, rather than measuring everyone in the population. A confidence interval is a range within which the true population value is likely (95% of the time) to fall.

Differences between prevalence estimates are considered to be statistically significant when the confidence intervals for independent prevalence estimates do not overlap.

Confidence intervals are directly influenced by the size of the sample. Therefore, while confidence intervals for two prevalence estimates with small samples may overlap (and thus deemed not significantly different), more data may be needed to determine the true effect.

### *Logistic Regression*

Logistic regression models were used to test the relationship between wellbeing and predictor variables. Odds ratios represent the odds of wellbeing for the group of interest, compared with the reference group. Adjusting for other variables that may be influencing the relationship allows for a clearer indication of the relationship between wellbeing and the main variable of interest. In most cases, age, income security and employment were used as adjustment variables. For example, the relationship between household composition and wellbeing may be influenced, at least to some extent, by age, income, and employment.

The odds ratios can be interpreted as:

- An odds ratio with a 95% CI that includes 1.0 indicates that there is no significant difference between the group of interest and the reference group.
- An odds ratio with a 95% CI that is greater than 1.0 indicates that the outcome (e.g., being Awesome) is more likely in the group of interest and the reference group.
- An odds ratio with a 95% CI that is less than 1.0 indicates that the outcome (e.g., being Awesome) is less likely in the group of interest and the reference group.

## **International comparisons**

International comparisons were made with countries participating in Round 6 of the European Social Survey (European Social Survey, 2012) on selected wellbeing indicators. These comparisons show how New Zealand ranks against 29 European nations. These countries included:

Albania	Hungary	Portugal
Belgium	Iceland	Russian Federation
Bulgaria	Ireland	Slovakia
Cyprus	Israel	Slovenia
Czech Republic	Italy	Spain
Denmark	Kosovo	Sweden
Estonia	Lithuania	Switzerland
Finland	Netherlands	Ukraine
France	Norway	United Kingdom
Germany	Poland	

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## Appendix A: Technical Details

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### 1.1 Study title

Sovereign Wellbeing Index Wave 2, 2014

### 1.2 Alternative Title

SWI-2-2014

### 1.3 Topics

Flourishing, life domains, life satisfaction, emotional wellbeing, vitality, resilience and self-esteem, positive functioning, social wellbeing, wellbeing at work, strengths, health conditions, body size, physical activity, nutrition, alcohol and smoking, energy, demographics and socio economics.

### 1.4 Study Design

The SWI is an observational longitudinal study with three separate measurement time points: baseline (T1), Year 2 (T2), and Year 4 (T3).



### 1.5 Study Location and Timeframe

The SWI is a nation-wide study conducted in New Zealand.

Wave 1	26 September 2012 to 25 October 2012
Wave 2	1 October 2014 to 3 November 2014
Wave 3	<i>proposed 2016</i>

### 1.6 Study Methodology

The SWI study consists of a nationally representative survey of wellbeing, health and lifestyle, and socio-demographics, which was administered online using a web-based survey methodology.

### 1.7 Research Team

Professor Grant Schofield, *AUT University*, (Lead Investigator)

Dr Lisa Mackay, *AUT University*

Dr Aaron Jarden, *AUT University*

Dee Holdsworth-Perks, *AUT University*

#### 1.7.1 Postgraduate students

Kate Prendergast, PhD Candidate, *AUT University*

Lucy Hone, PhD Candidate, *AUT University*

## 1.8 Associated files

There are a number of files associated with the SWI. The most relevant are detailed below:

### 1.8.1 Methodology Report

The Methodology Report provides a detailed outline of the study design and methods of data collection and data reduction.

### 1.8.2 Data

SWI Wave 2, 2014	
File name:	SWI-2-2014_v1.1
File type:	SPSS (.wav)
Case count:	10012
Variable count:	280
Version notes:	Raw data file v0.01 Set up data file (variable names, value labels, missing values) v0.02 Recode 'other' responses v0.03 Reverse code negatively worded items; creation of derived variables v1.0 Cleaned dataset ready for analysis v1.1 Creation of physical activity and nutrition derived variables

SWI Wave 1 and Wave 2, returning participants	
File name:	swi1swi2_v1.0
File type:	SPSS (.wav)
Case count:	4437 unique cases
Variable count:	161
Version notes:	v1.0 Merge cases from SWI-1-2012_v1.0 and SWI-2-2014_v1.0; remove non-returning individuals

SWI Wave 1, 2012	
File name:	SWI-1-2012_v1.0
File type:	SPSS (.wav)
Case count:	10009
Variable count:	302
Version notes:	Raw data file v0.01 Set up data file (variable names, value labels, missing values) v0.02 Recode 'other' responses v0.03 Reverse code negatively worded items; creation of derived variables v1.0 Cleaned dataset ready for analysis

### 1.8.3 Codebook

The codebook contains detailed information on the complete set of original and derived variables used in the SWI-2-2014.

### 1.8.4 Survey items

The survey was administered via a web-based survey. Refer to Appendix B for a list of survey items.

## 1.9 Source Instrument Citations

### 1.9.1 European Social Survey

European Social Survey. (2006). *ESS Round 3 Source Questionnaire*. London: Centre for Comparative Social Surveys, City University London.

- European Social Survey. (2012). *ESS Round 6 Source Questionnaire*. London: Centre for Comparative Social Surveys, City University London.
- 1.9.2 *CESD, 8-item, Bracke*  
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- 1.9.3 *Flourishing Scale*  
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- 1.9.5 *New Zealand Health Survey 2006/07*  
 Ministry of Health. (2006). *2006/07 New Zealand Health Survey: Adult Questionnaire*. Wellington: Ministry of Health.
- 1.9.6 *Standard Shiftwork Index*  
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- 1.9.9 *Sleep scale from Medical Outcomes Study*  
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- 1.10 **Ethics**  
 Ethical approval was granted by AUTEK on 23 August 2012 (AUTEK: 12/201). All data collected is anonymous and no identifying information was collected.
- 1.11 **Usage**  
 The SWI-2-2014 data are available for use by the SWI Project Team and affiliated Postgraduate students. Other potential users please contact Lisa Mackay, lisa.mackay@aut.ac.nz.

## 1.12 Maintenance

The SWI Data Coordinator (Lisa Mackay, [lisa.mackay@aut.ac.nz](mailto:lisa.mackay@aut.ac.nz)) will maintain the master files. Any identified anomalies in the relevant files must be directed in the first instance to the Data Coordinator.

## Appendix B: Survey Items

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Refer to *SWI-2014\_Survey Script* for full details of survey items, including question numbering and wording, item source citation, required questions and skip logic, question type, variable name, and response values and categories.

### Section A: Survey Administration

**Question(s):** A 1

I have read and understood the above information and agree to participate in this survey.

### Section B: Wellbeing

**Question(s):** B 1

All things considered, how satisfied are you with your life as a whole nowadays?

Source: B 1: ESS 3-2006: B24 / ESS 6-2012: B20

**Question(s):** B 2

Taking all things together, how happy would you say you are?

Source: B 2: ESS 3-2006: C1 / ESS 6-2012: C1

**Question(s):** B 3 – B 10

Below are eight statements with which you may agree or disagree.

Source: B 3 – B 10: Flourishing scale (Diener, 2010)

B3 I lead a purposeful and meaningful life

B4 My social relationships are supportive and rewarding

B5 I am engaged and interested in my daily activities

B6 I actively contribute to the happiness and wellbeing of others

B7 I am competent and capable in the activities that are important to me

B8 I am a good person and lead a good life

B9 I am optimistic about my future

B10 People respect me

**Question(s):** B 11 – B 21

How SATISFIED are you with each of these aspects in your life?

Source: B 11 – B 21: Original

B11 Intimate relationships

B12 Family

B13 Friends

B14 Leisure time

B15 Time on your own

B16 Politics

B17 Work

B18 Education

B19 Religion

B20 Spirituality

B21 Community involvement

**Question(s):** B 22 – B 24

Please indicate how much you agree or disagree with each of the following statements.

Source: B 22: ESS 3-2006: E4 / ESS 6-2012: D2 (Revised Life Orientation Test: Scheier, Carver, & Bridges), B 23: E5 / D3 (Self Acceptance Scale, Ryff), B 24: E6 / D4 (Self-esteem scale: Rosenberg)

B22 I'm always optimistic about my future

B23 In general I feel very positive about myself

B24 At times I feel as if I am a failure

**Question(s):** B 25 – B 35

Please indicate, how much of the time during the past week...

*Source:* B 25 – B 32: ESS 3-2006: E8 – E15 / ESS 6-2012: D5 – D12 / CESD, 8 Item, B 33: D13 (Health Aging and Retirement in Europe (SHARE)), B 34: ESS 3 – 2006, E17 / ESS 6-2012: D14, B 35: ESS 6-2012: D15 (Midlife in US: Brim et al).

B25 ...you felt depressed?

B26 ...you felt that everything you did was an effort?

B27 ...your sleep was restless?

B28 ...you were happy?

B29 ...you felt lonely?

B30 ...you enjoyed life?

B31 ...you felt sad?

B32 ...you could not get going?

B33 ...you had a lot of energy?

B34 ...you felt anxious?

B35 ...you felt calm and peaceful?

**Question(s):** B 36 – B 39

Please indicate to what extent you agree or disagree with the following statements.

*Source:* B 36: ESS 3-2006: E23 / ESS 6-2012: D16 (Autonomy scale: Ryan and Deci), B 37 – B 38: ESS 3-2006: E25 & E27 / ESS 6-2012: D17 – D18 (Competence scale: Ryan and Deci), B 39 ESS 3-2006: E29 / ESS 6-2012: D19

B36 I feel I am free to decide for myself how to live my life

B37 In my daily life I get very little chance to show how capable I am

B38 Most days I feel a sense of accomplishment from what I do

B39 When things go wrong in my life, it generally takes me a long time to get back to normal

**Question(s):** B 40 – B 42

To what extent do...

*Source:* B 40: ESS 6-2012: D20 B 41 – B 42: ESS 3-2006: E36 – E37 / ESS 6-2012: D21 - D22

B40 ...you learn new things in your life?

B41 ...you feel that people in your local area help one another?

B42 ...you feel that people treat you with respect?

**Question(s):** B 43 – B 47

To what extent do you agree or disagree with the following statements?

*Source:* B 43: ESS 3-2006: E40 / ESS 6-2012: D23, B 44: ESS 3-2006: E42 / ESS 6-2012: D24, B 45: ESS 6-2012: D25, B 46: ESS 3-2006: E44 / ESS 6-2012: D26, B 47: ESS 3-2006: E45 / ESS 6-2012: D27

B43 I generally feel that what I do in my life is valuable and worthwhile

B44 The way things are now, I find it hard to be hopeful about the future

B45 There are lots of things I feel I am good at

B46 For most people in New Zealand life is getting worse rather than better

B47 I feel close to the people in my local area

**Question(s):** B 48 – B 49

To what extent do...

*Source:* B 48: ESS 6-2012: D28, B 49: ESS 6-2012: D29

B48 ...you make time to do the things you really want to do?

B49 ...you feel appreciated by the people you are close to?

**Question(s):** B 50

How difficult or easy do you find it to deal with important problems that come up in your life?

*Source:* B 50: ESS 6-2012: D30

**Question(s):** B 51 – B 53

How much of the time would you generally say you are...

*Source:* B 51 – B 53: ESS 6-2012: D31 – D33

B51 ...interested in what you are doing?

B52 ...absorbed in what you are doing?

B53 ...enthusiastic about what you are doing?

**Question(s): B 54**

On a typical day, how often do you take notice of and appreciate your surroundings?

Source: B 54: ESS 6-2012: D34

**Question(s): B 55**

To what extent do you feel that you have a sense of direction in your life?

Source: B 55: ESS 6-2012: D35

**Question(s): B 56 – B 57**

To what extent do...

Source: B 56 – B 57: ESS 6-2012: D36 - D37

B56 ...you receive help and support from people you are close to when you need it?

B57 ...you provide help and support to people you are close to when they need it?

**Question(s): B 58**

There are people who tend to be towards the top of our society and people who tend to be towards the bottom. Where would you place yourself on this scale nowadays?

Source: B 58: ESS 6-2012: D38

**Question(s): B 59**

How often do you meet socially with friends, relatives, or work colleagues?

Source: B 59: ESS 3-2006: C2 / ESS 6-2012: C2

**Question(s): B 60**

How many people are there with whom you can discuss intimate and personal matters?

Source: B 60: ESS 6-2012: C3

**Question(s): B 61**

In the past 12 months, how often did you get involved in work for voluntary or charitable organisations?

Source: B 61: ESS 3-2006: E1 / ESS 6-2012: D1

**Question(s): B 62 – B 64**

Please indicate how much you agree or disagree with the following statements.

Source: B 62: None, B 63 – B 64: Strengths use (Govindji & Linley, 2007)

B62 Overall, I am satisfied with the way I use my time

B63 I always try to use my strengths

B64 I know my strengths well

**Question(s): B 65**

Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?

Source: B 65: ESS 3-2006: A8 / ESS 6-2012: A3

**Section C: Socio-Demographics****Question(s): C 1**

What is your gender?

**Question(s): C 2**

What is your date of birth?

**Question(s): C 3a - p**

Which ethnic group(s) do you identify with?

Source: Ethnicity standard, Statistics NZ

C3a New Zealand Maori

C3b New Zealand European

C3c Other European

C3d Samoan

C3e Cook Island Maori  
C3f Tongan  
C3g Niuean  
C3h Other Pacific (e.g., Tokelauan, Fijian)  
C3i Southeast Asian  
C3j Chinese  
C3k Indian  
C3l Other Asian (e.g., Sri Lankan, Japanese, Korean)  
C3m Other (please specify)  
C3n Please specify

**Question(s): C 4**

Marital Status

Source: ESS 4-2012: F42

**Question(s): C 5a-g**

Who do you usually live with?

Only count people usually living with you at least 4 days a week.

Source: Original

C5a I live alone

C5b Husband, wife, or partner

C5c Son or daughter (including step, adopted, foster, child of partner)

C5d Parent, parent-in-law, partners parent or step parent

C5e Brother or sister (including step, adopted, foster)

C5f Other relative

C5g Other non-relative

**Question(s): C 6**

How many children do you usually live with?

Only count children usually living with you at least 4 days a week,

Source: Original

**Question(s): C 7**

What is the age of your youngest child living at home?

Remember, only count children usually living with you at least 4 days a week,

Source: Original

**Question(s): C 8**

What is the age of your oldest child living at home?

Remember, only count children usually living with you at least 4 days a week,

Source: Original

**Question(s): C 9**

Where in New Zealand do you usually live?

**Question(s): C 10**

Which location best describes where you live?

Source: Modified from obstacles to action (McLean, G. & Tobias, M., 2004)

**Question(s): C 11**

What is your highest academic qualification?

**Question(s): C 12**

What best describes your current employment situation?

Source: ESS 3-2006: F8c

**Question(s): C 13**

How many hours do you usually work in paid employment per week?

**Question(s): C 14**

What is your usual work pattern?

*Source:* Standard Shift work Index Q.1.18

**Question(s):** C 15

Which of the following best describes your occupation?

*Source:* Statistical standard, occupation (Statistics New Zealand)

**Question(s):** C 16

Which one of these best describes where you work?

*Source:* Obstacles to action (McLean, G. & Tobias, M., 2004)

**Question(s):** C 17 – C 18

All things considered, how satisfied are you with...

*Source:* C 17: ESS 3-2006: E48 / ESS 6-2012: F35b / British Household Panel Survey, C 18: ESS 3-2006: E49 / ESS 6-2012: F35c / David Guest's Survey for Chartered Institute of Personnel

Development

C17 ...your present job?

C18 ...the balance between the time you spend on your paid work and the time you spend on other aspects of your life?

**Question(s):** C 19

What is the total combined income that your household got from all sources, before tax or anything was taken out of it, in the last 12 months?

*Source:* NZ Census / NZ Health Survey

**Question(s):** C 20

Which of these descriptions comes closest to how you feel about your household's income nowadays?

*Source:* ESS 6-2012: F42

## Section D: Health and Lifestyle

**Question(s):** D 1

How is your health in general?

*Source:* ESS 3-2006: C15 / ESS 6-2012: C7

**Question(s):** D 2

Are you hampered in your daily activities in any way by any longstanding illness, disability, infirmity, or mental health problem?

*Source:* ESS 3-2006: C16 / ESS 6-2012: C8

**Question(s):** D 3a - n

In the last 6 months, have you experienced symptoms from or been diagnosed by a health professional with any of the following conditions?

*Source:* Modified form NZ Health Survey, 2006

D3a Arthritis

D3b Chronic Fatigue Syndrome

D3c Occupational Overuse Syndrome (OOS)

D3d Asthma, bronchitis, or emphysema

D3e Back or spinal problems

D3f Cancer

D3g Depression or bipolar disorder

D3h Diabetes

D3i Heart disease

D3j High blood pressure

D3k High cholesterol

D3l Migraine headaches

D3m Sinusitis or allergic rhinitis (hayfever)

D3n Any other serious medical condition for which you are receiving medical treatment

**Question(s):** D 4a - f

In the last 6 months, have you seen any of the following health professional about your own health?

*Source:* Original

D4a General Practitioner (GP)

D4b Other medical specialist (including dentist, physiotherapist, medical specialist)

D4c Dietician or Nutritionist

D4d Naturopath or other natural health practitioner

D4e Psychologist or counsellor

D4f Chiropractor or osteopath

**Question(s):** D 5

Are you currently pregnant?

**Question(s):** D 6

What is your height?

**Question(s):** D 7

What is your weight?

**Question(s):** D 8

Subjective body weight

**Question(s):** D 9

Do you smoke cigarettes regularly (that is, one or more a day)?

*Source:* Modified from NZ Health Survey

**Question(s):** D 10

During the past 4 weeks, how often did you have a drink containing alcohol?

*Source:* Modified from NZ Health Survey 2006/07: 3.31 (WHO AUDIT Alcohol Use Disorders Identification Test. (Saunders et al 1993)

**Question(s):** D 11

During the past 4 weeks, how many standard drinks containing alcohol did you have on a typical day when you were drinking?

*Source:* Modified from NZ Health Survey 2006/07: 3.32 (WHO AUDIT Alcohol Use Disorders Identification Test. (Saunders et al 1993)

**Question(s):** D 12

During the past 4 weeks, how often did you have six or more drinks on one occasion?

*Source:* Modified from NZ Health Survey 2006/07: 3.33 (WHO AUDIT Alcohol Use Disorders Identification Test. (Saunders et al 1993)

**Question(s):** D 13

On average during the past 4 weeks, how many hours sleep did you get per night?

This might be different than the number of hours you spent in bed.

*Source:* Modified from sleep survey, Medical outcomes study Q.2

**Question(s):** D 14

In the past 4 weeks, how often did you get enough sleep to feel rested upon waking in the morning?

*Source:* Modified from sleep survey, Medical outcomes study Q.4

**Question(s):** D 15 – D 26

On average over the past 4 weeks, how often have you consumed the following food?

*Source:* Original

D15 All grain products (including rice, pasta, cereals, any type of grain based bread)

D16 Full fat dairy products (including cheese, milk, and yoghurt)

D17 Butter

D18 Low fat dairy products (including cheese, milk, and yoghurt)

D19 Eggs

- D20 Margarine or other non-butter spreads (including Olivani, Flora Pro Active)
- D21 Oils: olive, avocado, macadamia, or coconut
- D22 Oils: any other vegetable oil (including sunflower, rice-bran oil, canola, peanut, soy)
- D23 Red meat (including beef, lamb, venison)
- D24 White meat (including chicken, pork, turkey)
- D25 Protein powders and/or bars
- D26 Processed meat (including salami, sausages)

**Question(s):** D 27 – D 35

On average over the past 4 weeks, how often have you consumed the following food?

*Source:* Original

- D27 Fish and shellfish
- D28 Fruit
- D29 Starchy vegetables (including potatoes, kumara, yams)
- D30 All other non-starchy vegetables
- D31 Cakes, biscuits, chips, crackers, or muesli
- D32 Nuts
- D33 Confectionary (including sweets and chocolate)
- D34 Full sugar soft drinks, sport drinks, fruit juice or cordial
- D35 Takeaways (including fast food outlets, fish and chips)

**Question(s):** D 36 – D 37

Please answer true or false to the following statements regarding your dietary habits in the last 4 weeks.

*Source:* Original

- D36 I eat low fat or LITE food options wherever possible
- D37 I often include breads, grains, cereal, rice, or pasta in my diet
- D38 I often consume ready-to-eat meals, snacks, or takeaways
- D39 I choose to include high-fat natural food options in my diet

**Question(s):** D 40 – D 42

I diet in a conscious effort to...

*Source:* Three factor eating questionnaire, Q.37 (Stunkard and Messick, 1984)

- D40 ...lose weight
- D41 ...gain weight
- D42 ...maintain my current weight

**Question(s):** D 43a

When you are at work which one of the following best describes what you do?

*Source:* Obstacles to action (McLean, G. & Tobias, M., 2004)

**Question(s):** D 43b

For the most part of each day which one of the following best describes what you do?

*Source:* Modified from Obstacles to action (McLean, G. & Tobias, M., 2004)

**Question(s):** D 44 - 45

What is your usual mode of transport to...

*Source:* Original

- D44 ...work or your place of study
- D45 ...other destinations

**Question(s):** D 46 - 48

In the evenings, how often do you take part in the following activities?

*Source:* Original

- D46 Mostly sit down and relax
- D47 Mostly catch up on work or study
- D48 Mostly perform household or yard work related activities

**Question(s):** D 49

How much time in total do you usually spend sitting on a week day?

This includes time spent sitting at a desk, visiting friends, reading, travelling, or sitting or lying down to watch television

*Source:* Original

**Question(s):** D 50 - 55

In the last 4 weeks, have you undertaken any of the following physical activities?

*Source:* Original

D50 Short duration vigorous exercise (e.g., high intensity intervals, sprint training, cross fit)

D51 Long duration vigorous exercise (e.g., running, cycling, swimming)

D52 Moderate activities (e.g., walking, hiking, cycling)

D53 Strength, weight, or resistance training

D54 Stretching or flexibility exercises (e.g., yoga, Pilates)

D55 Organised sport

**Question(s):** D 56 - 60

How often did you do these activities...

*Source:* Original

D56 ...with family, friends, or colleagues

D57 ...with my team

D58 ...on my own

D59 ...with a group of people (e.g., a group class)

D60 ...with a personal trainer or instructor

**Question(s):** D 61 - 64

How often did these activities take place in the following settings?

*Source:* Original

D61 Indoor sport or fitness settings

D62 Indoors at home

D63 Outdoors in built settings (e.g., streets, cycle lanes, or sports fields)

D64 Outdoors in natural settings (e.g., beach, bush, park)