

Australian Unity Wellbeing Index
Survey 5 November 2002

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*“The Wellbeing of Australians –
1. Personal Finances
2. The Impact of the Bali Bombing”*

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Executive Summary

Australians feel they are getting by. They are generally satisfied with their ability to buy the things they need, but less satisfied that they can afford what they'd like to have, or save. Almost 40% admit to worrying that they won't be able to pay their bills.

These are amongst the findings of the fifth survey of the Australian Unity Wellbeing Index, based on telephone interviews with more than 2,000 adult Australians in November 2002. The Index consists of two main values: the Personal Wellbeing Index (PWI), which is the average level of satisfaction with seven aspects (or domains) of people's personal lives; and the National Wellbeing Index (NWI), the average level of satisfaction with six aspects of national life. The values are expressed as a percentage of the maximum possible score, so representing varying degrees of satisfaction (not the proportion satisfied).

Overall, Australians' satisfaction with personal and national life rose slightly in November – the PWI by 0.2 percentage points to 74.6% and the NWI by 0.5 points to 60.7%. The increases in wellbeing follow a fall in August 2002 and rises in March 2002 and September 2001.

The rises in wellbeing are consistent with the effect seen after the September 11 terrorist attacks on the United States, although the 'rebound' is smaller. This may be because S11 was more shocking; people are adapting psychologically; and/or the 'S11 effect', while it seems to have been dissipating, is still evident. It appears that such events have made people appreciate the preciousness of life, and the pluses of life in Australia.

Satisfaction with government rose by 2.5 points (governments' stocks tend to rise in the wake of such events). Satisfaction with religion or spirituality rose by 3.7 points, the largest shift in a personal domain yet recorded in the index, and could indicate a religious rallying akin to the surge in patriotism and support for government. Despite the overall rise in wellbeing, satisfaction with the personal safety fell by 1.3 points, and national security by 1.9 points, suggesting specific negative effects of the bombings.

Asked specifically about their reaction to the bombings, 76% said they had been saddened – a smaller proportion than that similarly affected by September 11 immediately after it happened (90%). This result supports the view that people may be adapting to these events.

Satisfaction with the state of the environment fell for a second time – by 1.2 points - after rising in the previous surveys. This could be because the drought and bushfires have drawn attention back to environmental issues, including global warming, after S11 had focused concerns on more immediate threats.

The latest survey included several questions about personal finances and their sources and adequacy. Australians were, on average, well satisfied with their ability to pay for

‘household essentials’ (78.7%), but less satisfied with their ability ‘to afford the things you would like to have’ (65.0%) or ‘to save money’ (59.1%) – the last being the lowest score yet obtained for a personal item.

The results showed the expected income differences: for household essentials, satisfaction ranged from 74.3% for those on household incomes below \$15,000, to 86.9% for those on over \$90,000; for things people would like, the scores were 58.3% and 76.2%, respectively; and for saving, they were 53.8% and 67.3% respectively (indicating even the well-off find saving hard). Satisfaction with financial security, an item included in several surveys, is also relatively low at 67.0%. In response to another question, 38.6% said they worried about being able to pay ‘household expenses and bills’. Worriers occurred in all income groups – worrying reflects temperament and lifestyle as well as income - but were found mostly in the groups earning between \$15,000 and \$60,000.

The findings suggest that, for all our affluence, Australians generally have enough for what they regard as ‘essentials’, but are finding it harder to afford what they want and to save. Indeed, it seems that our lifestyles are producing a tension between the desire to spend on luxuries and to save.

Generally speaking, PWI scores rise with income. They also rise with age, and this rise continues even after income begins to decline after age 65, so demonstrating that other factors such as age have a major influence on wellbeing. Consistent with this finding, the survey found that people on superannuation had lower incomes than wage and salary earners, but higher wellbeing.

Those on government pensions or benefits tended to have lower wellbeing, but this was most marked in younger age groups – presumably those on unemployment and disability benefits rather than an old-age pension. These younger benefit recipients had PWI scores below the normative threshold of 70%, suggesting increased risks of psychological problems. ‘Worriers’ who had household incomes of less than \$30,000, or who lived alone, also fell into this ‘at-risk’ category, as did males who lived alone.

The fifth survey also asked about religious affiliation for the first time. A majority (58.4%) were Christian, while 36.0% said they had no religious affiliation (numbers of those belonging to other religions were too small to analyse). The proportion of Christians rose with age, and was higher among women than men.

Note: Dot Point Summaries are provided at the end of each Chapter.

1.1 Introduction

The Australian Unity Wellbeing Index is a new barometer of Australians' satisfaction with their lives and life in Australia. Unlike most official indicators of quality of life and wellbeing, it is subjective – it measures how Australians feel about life, and incorporates both personal and national perspectives. The Index shows how satisfaction with various aspects of life – both personal and national – affects overall life satisfaction.

The Wellbeing Index is an alternative measure of population wellbeing to such economic indicators as Gross Domestic Product and other objective indicators such as population health, literacy and crime statistics. The Wellbeing Index measures quality of life as experienced by the average Australian.

The Index comprises two numbers. The Personal Wellbeing Index is the average level of satisfaction across seven aspects of personal life – health, personal relationships, safety, standard of living, achievements, community connectedness, and future security. The National Wellbeing Index is the average satisfaction score across six aspects of national life – the economy, the environment, social conditions, governance, business, and national security.

A considerable body of research has demonstrated that most people are satisfied with their own life. In Western nations, the average value for population samples is about 75%, with a normal range from 70% to 80%. We thus expect the Personal Wellbeing Index to fall within this range. However, satisfaction with aspects of national life are normally lower, falling in the range 55 to 65% in Australia.

The first index survey, of 2,000 adults from all parts of Australia, was conducted in April 2001. Since then four surveys have been conducted, in late September 2001, March 2002, August, 2002 and this most recent survey in November 2002. Copies of earlier reports can be obtained either from the Australian Unity website (www.australianunity.com.au) or from the Australian Centre on Quality of Life website at Deakin University (acqol.deakin.edu.au). This report concerns the most recent survey.

The same core index questions, forming the Personal and the National Wellbeing Index, are asked within each survey. In addition we ask two highly general questions. One of these is 'Satisfaction with Life as a Whole'. This abstract, personal measure of wellbeing has a very long history within the survey literature and its measurement allows a direct companion with such data. The second is intended as an analogous 'national' item. It is 'Satisfaction With Life in Australia'.

Each survey also includes demographic questions and a small number of additional items that change from one survey to the next. These explore specific issues of interest, either personal or national. Such data have several purposes. They allow validation of the Index, the creation of new population sub-groups, and permit further exploration of the wellbeing construct.

1.2 Understanding Personal Wellbeing

The major measurement instrument used in our surveys is the Personal Wellbeing Index (PWI). This comprises seven questions relating to life domains, such as 'health' and 'standard of living'. Each question is answered on a 0-10 scale of satisfaction. The scores are then combined across the seven domains to yield an overall Index score, which is adjusted to have a range of 0-100.

On a population basis the scores that we derive from this PWI are quite remarkably stable. Appendix AI presents these values, each derived from a geographically representative sample of 2,000 randomly selected adults across Australia. As can be seen, these values range from 73.2 to 75.2, a fluctuation of only 2.0%. How can such stability be achieved?

We hypothesize that personal wellbeing is not simply free to vary over the theoretical 0-100 range. Rather, it is held fairly constant for each individual in a manner analogous to blood pressure or body temperature. This implies an active management system for personal wellbeing that has the task of maintaining wellbeing, which averages about 75%, at reasonably high level. We call this process Subjective Wellbeing Homeostasis (Cummins et al., 2002).

The proper functioning of this homeostatic system is essential to life. At normal levels of wellbeing, which for group average scores lies in the range of 70-80%, people feel good about themselves, are well motivated to conduct their lives, and have a strong sense of optimism. When this homeostatic system fails, however, these essential qualities are severely compromised, and people are at risk of depression. This can come about through such circumstances as exposure to chronic stress, chronic pain, failed personal relationships, etc.

Having said this, the homeostatic system is remarkably robust. Many people live in difficult personal circumstances which may involve low income or medical problems, and yet manage to maintain normal levels of wellbeing. This is why the Index is so stable when averaged across the population. But as with any human attribute, some homeostatic systems are more robust than others. Or, put around the other way, some people have fragile systems which are prone to failure.

Homeostatic fragility, in these terms, can be caused by two different influences. The first of these is genetic. Some people have a constitutional weakness in their ability to maintain wellbeing within the normal range. The second influence is the experience of life. Here, as has been mentioned, some experiences such as chronic stress can challenge homeostasis. Other influences, such as intimate personal relationships, can strengthen homeostasis.

In summary personal wellbeing is under active management and most people are able to maintain normal levels of wellbeing even when challenged by negative life experiences. A minority of people, however, have weaker homeostatic systems as a result of either constitutional or experiential influences. These people are vulnerable to their environment and constitute various population sub-groups. The identification of these sub-groups is an important feature of our survey analyses.

1.3 The Survey Methodology

A geographically representative national sample of 1,999 people, aged 18 years or over and fluent in English, were surveyed by telephone over the period 7th of November to 3rd of December 2002. Interviewers asked to speak to the person in the house who had the most recent birthday and was at least 18 years old. A total of 16,782 calls were made. Of these, 7876 connected with a respondent, 2,009 agreed to complete the survey and, of these, 1,999 completed the entire survey with 10 respondents withdrawing during the telephone interview. This gives a response rate of 25%.

To minimise non-sampling error a callback procedure is followed. If a number does not answer or is busy the number is placed in a callback list. These numbers are able to be retried 3 times. 447 people had agreed to be called back at a later date when they would have been invited to complete the survey. This nominated call back procedure was implemented when the target respondent was unavailable or had been contacted at an inconvenient time. If this occurred, an interviewer called back at a later nominated time and date to invite survey participation

All responses are made on a 0 to 10 scale. The satisfaction responses are anchored by 0 (completely dissatisfied) and 10 (completely satisfied).

Initial data screening was completed before data analysis. From the original 1,999 respondents, 33 cases (1.65%) were removed. Of these, six respondents (0.30%) scored the maximum of 10 on all personal wellbeing domains and all national wellbeing domains. Another 22 cases were removed after scoring the maximum of 10 on all personal wellbeing domains (1.10%), while 2 cases (0.05%) were removed where the respondents scored 10 on all national wellbeing domains. One respondent (0.05%) was removed for scoring the minimum of 0 on all personal wellbeing domains and national wellbeing domains, while another two cases were removed as they scored the minimum of 0 on all national wellbeing domains (0.10%).

The gender composition of the sample is determined by providing each call operator with a fixed quota of males and females. The age composition is not actively managed but yields a break-down similar to that of the national population as determined by the Australian Bureau of Statistics in October 2001.

Table 1.1: Age Distribution of the Sample

ABS		Survey 5	
Age range	%	Age range	%
15-24	18	18-25	11
25-34	19	26-35	17
35-44	19	36-45	22
45-54	17	46-55	17
55-64	12	56-65	16
65+	16	65+	17

We conclude that the gender and age composition of our sample is approximately representative of the Australian population.

1.4 Presentation of results and type of analysis

In the presentation of results to follow, the trends that are described in the Figures are all statistically significant at $p < .02$. More detailed analyses are presented as Appendices. These are arranged in sections that correspond numerically with sections in the main report. All Appendix Tables and Figures have the designation 'A' in addition to their numerical identifier (e.g. Table A12.2).

All satisfaction values are expressed as the strength of satisfaction on a scale that ranges from 0% to 100%.

In situations where homogeneity of variance assumptions has been violated, Dunnetts T3 Post-Hoc Test has been used. In the case of t-tests we have used the SPSS option for significance when equality of variance cannot be assumed.

2. Overview and Trends

2.1 Overview

Table 2.1: Means and standard deviations of the fourth survey

Question	Mean	SD	% Change from August 2002	t-test p value
PERSONAL WELLBEING INDEX	74.58	12.29	+0.17	.67
Personal domains				
1. Standard of living	77.30	17.24	+0.83	.13
2. Health	75.81	19.68	+0.88	.16
3. Achievements in life	74.88	17.78	+0.89	.11
4. Personal relationships	78.69	21.64	-0.29	.67
5. How safe you feel	75.84	19.20	-1.34	.03
6. Community connect	69.97	20.49	+0.44	.50
7. Future security	69.82	19.60	+0.47	.46
Life as a whole	77.68	17.25	+0.53	.33
Survey-specific personal Aspects				
- Spiritual/religious	75.29	21.14	+3.71	.00
- Financial security	67.00	21.13	+0.50	.45
- Ability to pay for essentials	78.65	19.67	--	--
- Ability to afford likes	64.99	22.33	--	--
- Ability to save money	59.12	26.86	--	--
- Own life getting better	63.56	19.28	--	--
NATIONAL WELLBEING INDEX	60.68	15.28	+0.45	.39
National domains				
1. Economic situation	65.04	19.07	+1.13	.07
2. State of the environment	57.92	20.06	-1.16	.07
3. Social conditions	62.61	18.84	+0.63	.30
4. Government	55.77	24.27	+2.50	.00
5. Business	61.11	18.55	+1.80	.00
6. National security	61.04	19.72	-1.89	.00
Life in Australia	83.58	17.39	-0.25	.65
Survey-specific national Aspects				
Life in Australia getting better	53.27	19.84	--	--

This survey was undertaken from four to eight weeks following the October 12 bombing of the nightclubs in Bali that claimed over 100 Australian lives. Prior to and during the period of data collection, there was intense media coverage of the event and its aftermath, including the mourning, funerals, biographies of the victims and continued speculation regarding the probability of an attack on Australian soil. Security arrangements for major events and at airports was strengthened, guards were placed to protect national monuments, and the general tone of the media was sombre, dark with imagined menace.

The timing of this survey was at a similar interval after the attack as our second survey had been following the 2001 September attack on the World Trade Center. The format and wording of the questionnaire was the same for both surveys, thereby allowing a direct comparison of each event on the wellbeing of the Australian population.

To take the immediate effects of the Bali bombing first, Table 2.1 presents comparisons with our previous survey conducted in August 2002. Perhaps the most remarkable finding is that of no change in either the Personal or National Wellbeing Index since the last survey. The Personal Wellbeing Index rose just 0.17 points however this was enough to make it significantly higher than our first survey conducted in April 2001 (Figure 2.1). The Australian population has demonstrated considerable resilience against this assault.

At the level of life domains, however, changes did take place, and these were in the expected direction. Thus, within the Personal Wellbeing Index, the strength of satisfaction with personal safety decreased by 1.3 points, and within the National Wellbeing Index satisfaction with National Security also decreased by 1.9 points since the last survey.

One item in the survey showed particularly dramatic change. This is the new, survey-specific item regarding 'satisfaction with your religion or spirituality', which showed a highly significant 3.7 points increase. This is the largest change we have so far recorded in satisfaction with a personal life domain (see Table 2.2). While this item does not currently form a part of the Personal Wellbeing Index, its incorporation will now need to be considered.

2.1.1 Why so little change?

As we have stated, the decreased satisfaction with personal and national safety did not change the value of the Indexes. There are a number of possible reasons for this as follows:

1. As explained in Section 1.2, personal wellbeing is homeostatically maintained at a constant level for each individual provided that the extent of challenge is not too great. One means by which this steady state is achieved is through 'Domain compensation'. When satisfaction in one domain goes down, satisfaction in other domains goes up, and so the Index, as the average across domains, remains stable.

Thus, for the Personal Wellbeing Index, 5/6 of the domains other than Safety showed a balancing (but non significant) rise in satisfaction. For the National Wellbeing Index the significant drop in satisfaction with National Security was matched by significant rises in satisfaction with Business and Government.

2. Despite this stabilising influence, small changes have been recorded in both the Personal and National Indexes over the past five surveys (Figures 2.1 and 2.2). At the level of domains, summary Tables 2.3 and 2.5 indicate that the extent of change following S11 – an increase in both indexes - was generally greater than following the Bali attacks. There are several possible reasons for this as follows:
 - a. The S11 effect on wellbeing was still operating and the indexes were generally at a higher level than they were prior to S11. Thus, the force for change was operating against a higher baseline.
 - b. The effects of such events on wellbeing appear to build over months, and so the full impact of the Bali attacks may yet to be felt.
 - c. This survey was conducted several weeks later, relative to the event itself.
 - d. S11 was a more shocking event. The vision of two planes colliding into two tall towers and bringing them crashing to the ground, killing thousands, replayed on TV over and over, may have had a deeper impact than the scenes of charred ruins of bombed buildings. While Bali was close to home and the toll high, everyone has seen scores of bomb scenes over the past year or so, especially in the middle east.
 - e. Linked to this point, S11 may have triggered an adaptive response such that people are now more prepared for these events, and less disturbed by them. It may have accentuated a process already under way. Various commentators have noted how people are disengaging from a broader agenda they feel they can not control and focusing on their personal lives. The latest Clemenger (2002) ‘silent majority’ report, also commented on this shift. This refers to a ‘concern collapse’, where, after several decades of people’s concerns becoming more national and global, these have now become much more personal. In line with this, the proportion of the population that were ‘very concerned’ in their surveys dropped from about 35% to just over 20%. While most of their data were collected before Bali, they added a smaller scale study after it. They report that Bali, like S11, reminded people of ‘what is precious about life: the people you love and the people who love you’, so reinforcing the personal focus.

2.2 The Major Indices

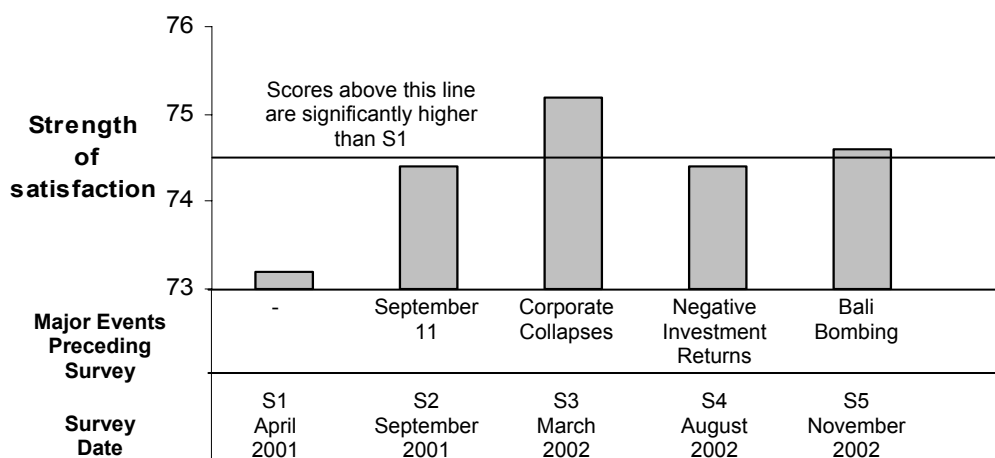


Figure 2.1: Personal Wellbeing Index

The Personal Wellbeing Index is highly stable. The two changes so far recorded occurred five months following September 11 (S3) when the Index rose 2.0% higher than its pre-September 11 level (S1), and then in the most recent survey when it rose 1.4% higher than S1. That the Index has varied by only a maximum of 2.0% over the five surveys is remarkable. It is interesting, also, that all four surveys conducted post-September 11 have recorded a slightly higher level of personal wellbeing than our baseline level in April 2001. This trend is reflected in all of the personal domains, where the trend is significant in many cases.

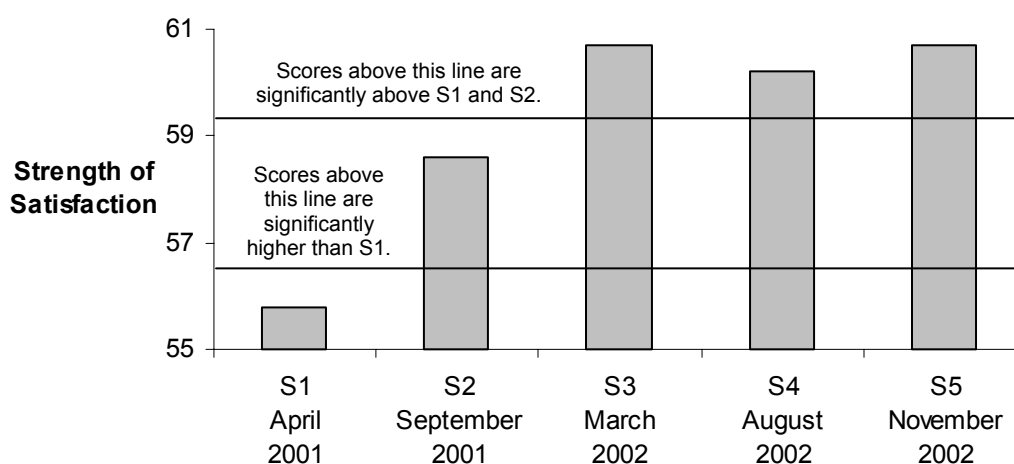


Figure 2.2: National Wellbeing Index

The National Wellbeing Index rose consistently over the second and third surveys, and has now stabilised at this higher level. Its current value of 60.7% is the highest so far recorded. This is 4.9% higher than its level in April 2001 (S1).

2.3 Personal Wellbeing Domains

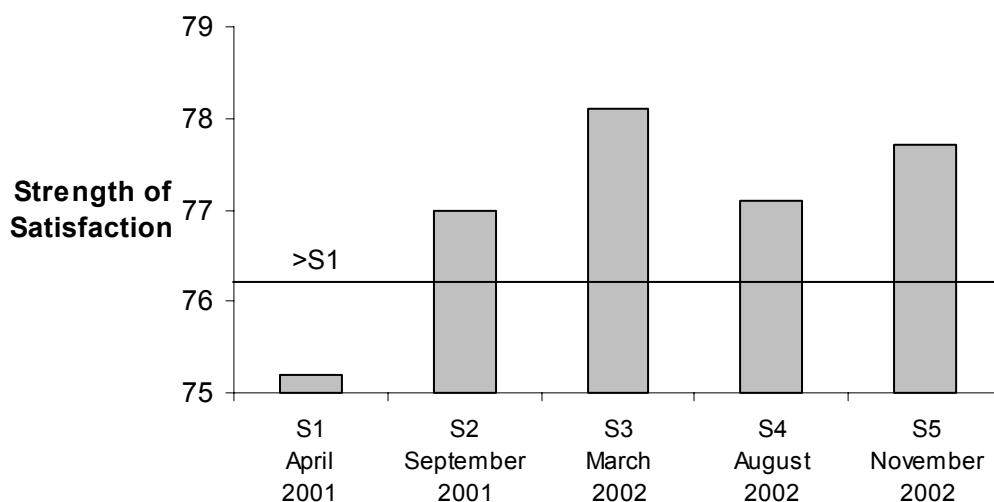


Figure 2.3: Satisfaction with Life as a Whole

After an initial rise in September 2001 (S2) this single global item has remained higher and steady. The range of scores is 3.0% between April 2001 (S1) and March 2002 (S3).

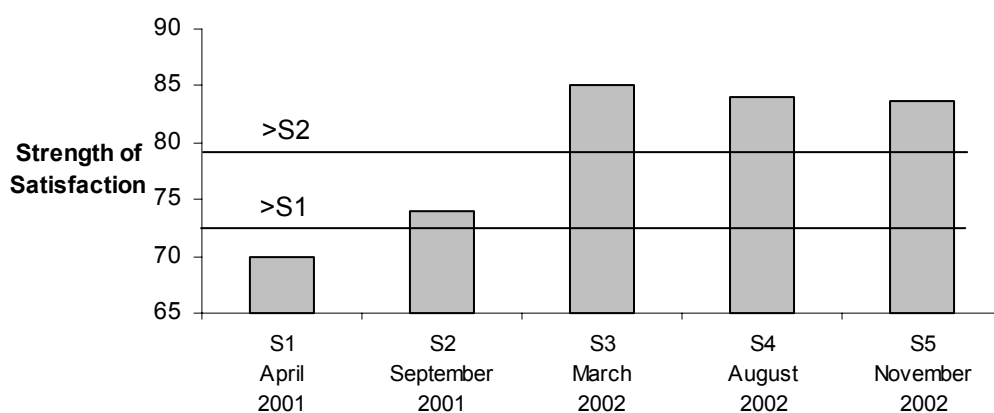


Figure 2.4: Satisfaction with Life in Australia

This is our most volatile measure of wellbeing. The range of scores is 15.2% between April 2001 (S1) and March 2002 (S4). Satisfaction with this single global item rose consistently from April 2001 (S1) to March 2002 (S3) and has since remained stable and high. The major change occurred between S2 and S3, when the strength of satisfaction rose by 10.9%

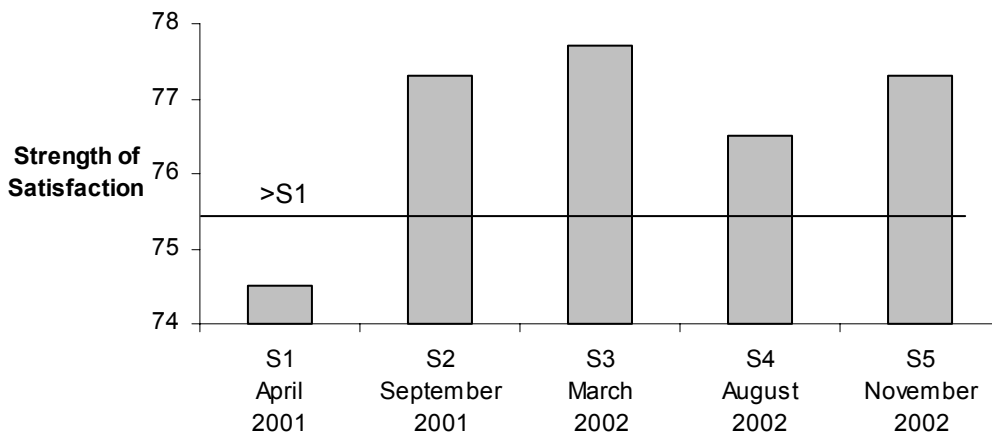


Figure 2.5: Satisfaction with Standard of Living

The initial rise in satisfaction with standard of living has been maintained. The range of scores is 3.2% between April 2001 (S1) and March 2002 (S3).

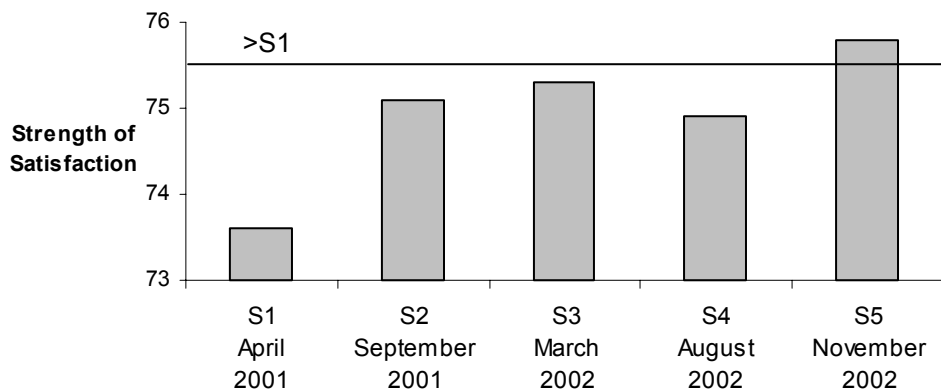


Figure 2.6: Satisfaction with Health

For the first time since these surveys began, satisfaction with health has risen to a level that is significantly greater than that recorded in April 2002 (S1). The difference between these two measures is 2.2%.

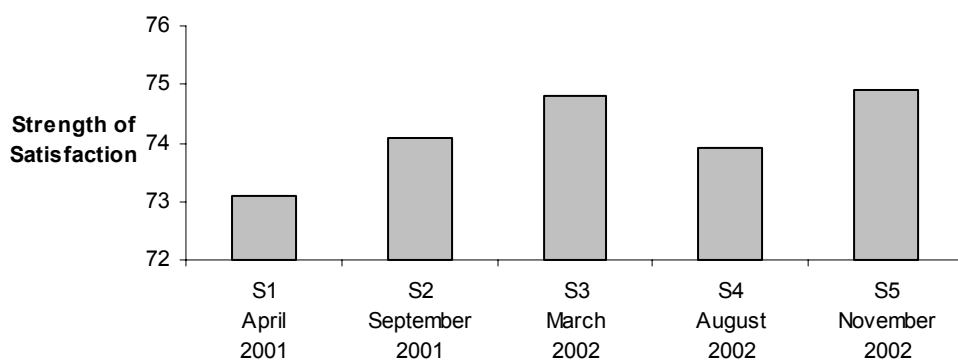


Figure 2.7: Satisfaction with Achievements

Satisfaction with ‘what you achieve in life’ has not significantly changed over the five surveys. The maximum degree of variation is 1.7% between April 2001 (S1) and November 2002 (S5).

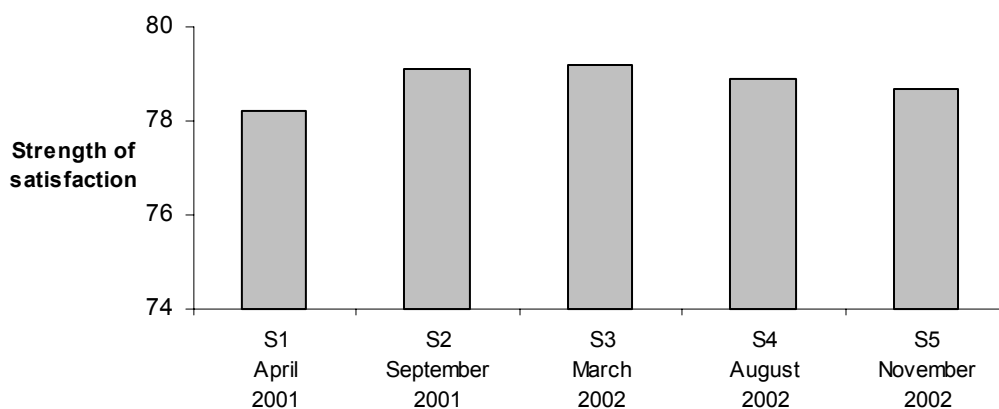


Figure 2.8: Satisfaction with Relationships

Satisfaction with personal relationships is the most stable personal domain. No significant differences have been recorded between the five surveys, and the maximum degree of change is only 1.0% between April 2001 (S1) and March 2002 (S3).

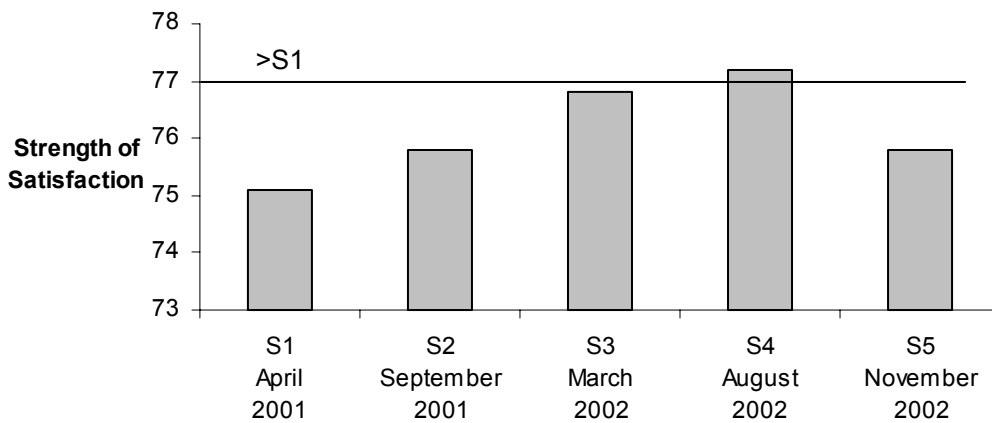


Figure 2.9: Satisfaction With How Safe you feel

Satisfaction with personal safety has returned to its baseline level after rising briefly in August 2002. The range of scores is 2.1% between April 2001 (S1) and August 2002 (S4).

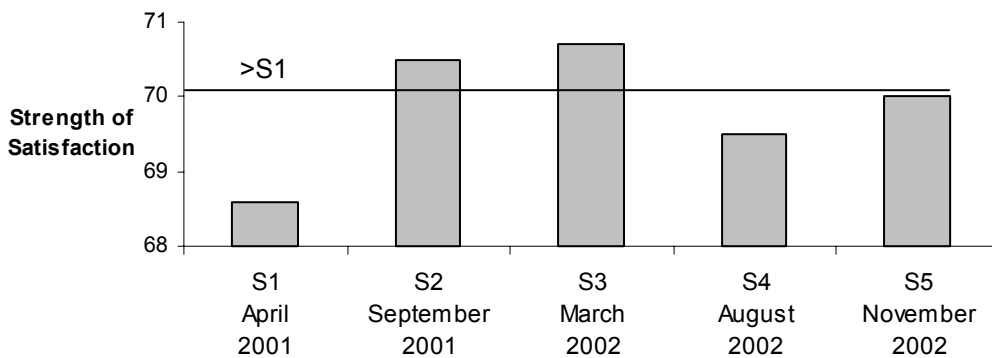


Figure 2.10: Satisfaction with Feeling Part of Your Community

In the six months following September 11, satisfaction with community connectedness went up from its level in April 2001, but has since returned to baseline. The range of scores is 2.1 between April 2001 (S1) and March 2002 (S3).

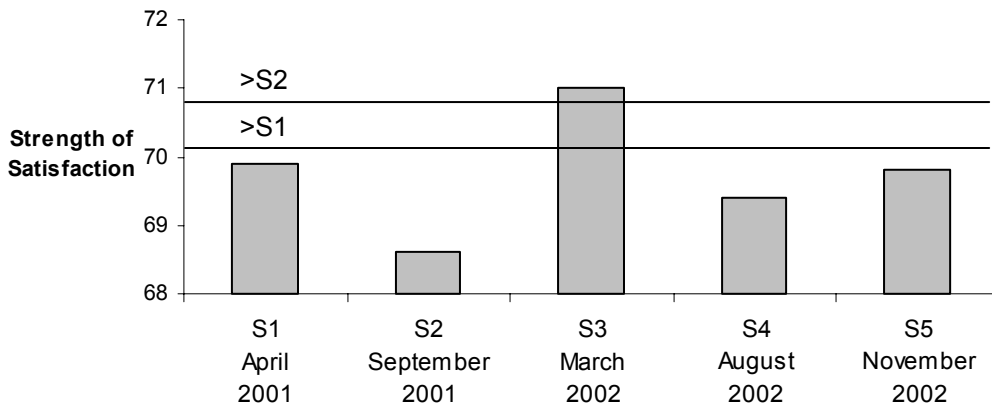


Figure 2.11: Satisfaction with Future Security

Satisfaction with future security rose to its highest level six months following S11, but has now returned to baseline. The range of scores is 2.4% between September 2001 (S2) and March 2002 (S3).

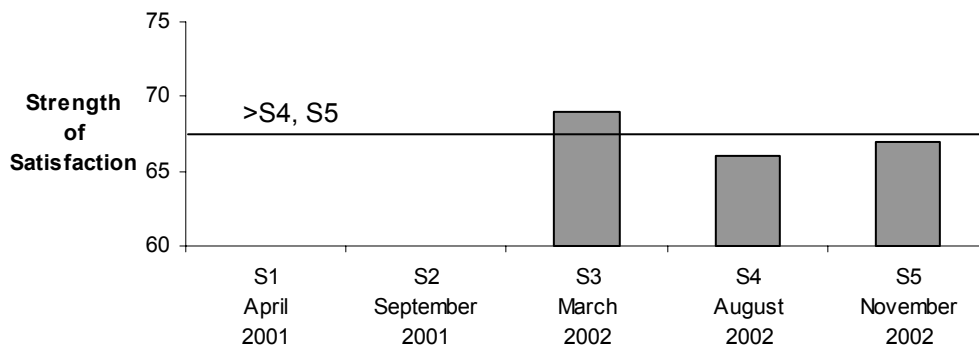


Figure 2.12: Satisfaction with Financial Security

Over the period March 2002 to November 2002, satisfaction with financial security has decreased. The range is 2.6% between March 2002 (S3) and August 2002 (S4).

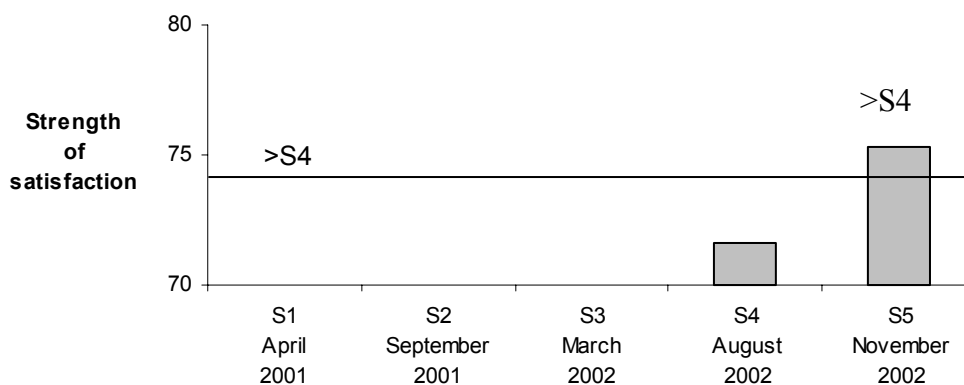


Figure 2.13: Satisfaction with religion or spirituality

The 3.7% rise in satisfaction with religion/spirituality is the largest variation we have recorded in any personal wellbeing domain.

2.3.1 Summary of the five Surveys on Measures of Personal Wellbeing

Table 2.2: Summary of Changes in the Measures of Personal Wellbeing

Measure	Lowest Score	Highest Score	Range
Index domains			
Standard of living	S1	S3	3.2
Future security	S2	S3	2.4
Health	S1	S5	2.2
Safety	S1	S4	2.1
Community connectedness	S1	S3	2.1
Achievements	S1	S5	1.7*
Relationships	S1	S3	1.0*
Non-index domains			
Financial security	S3	S4	2.6
Religious/spiritual	S4	S5	3.7
Note: *Non-significant			

These summary data exemplify the extraordinary stability of the Personal Wellbeing Index domains. Satisfaction 'with your personal relationships' has varied by only 1.0% across the five surveys. This constitutes a level of reliability in measurement, and stability of satisfaction, unprecedented in the survey literature. Even the most volatile index domain (standard of living) has only varied by 3.2%.

The lowest point for most domains was the first survey, conducted in the months prior to S11. The only exception to this is Future Security, which was lowest immediately following S11. This seems to indicate the presence of persistent changes following S11 in some domains. Table 2.3 charts these differences.

Table 2.3: Summary of Significant Changes in the Personal Wellbeing Domains

Domain	S1	S2	S3	S4	S5
Standard of living		>S1	>S1	>S1	>S1
Future security			>S1, S2		
Health					>S1
Safety				>S1	
Community		>S1	>S1		

This pattern of change is clearly different between the five domains that have registered significant fluctuations. However, it must be recalled that many other events have impacted on the Australian people since S11. These have mainly been financial, with negative returns on investments in the 2001-2002 financial year, and also the continued sense of threat induced by terrorist activity. Nevertheless, the general pattern is clearly an increase in domain satisfaction compared with pre-S11 levels. Figures 2.5 to 2.11 indicate this trend, which is on the margin of significance in many instances. It seems likely that the appearance of significance in isolated instances, such as with Health (S5) and Safety (S4), reflect random fluctuations around the point of significance.

Three of the domains, however, show more determined change. These are as follows:

Standard of living: The rise in satisfaction following S11 has been sustained. The reason for this is uncertain but it seems unlikely to reflect any objective increase in wages or purchasing power over this period. Perhaps the persistent media coverage of desperate refugees, terrible living conditions in Afghanistan, and the fact that the Australian economy has survived well the global economic downturn have contributed to this effect.

Future security: The jump in this measure looks like a reaction to the lack of any follow-up attack following S11. It will be interesting to see whether a similar increase takes place six months following the Bali Bombing.

Community Connectedness: The increase following S11 is consistent with social psychological theory. An external threat will cause a group (or population) to become more socially cohesive. This effect had dissipated nine months following S11. It is notable that the Bali Bombing has not induced the same significant rise in satisfaction with this domain.

Two other measures of personal satisfaction have now been measured on more than one occasion. Financial Security has remained lower than its baseline since its inclusion in March 2002 (Figure 2.12). This decrease is consistent with negative investment returns for the 2001-2002 financial year.

The item concerning satisfaction with ‘your religion or spirituality’ has only been asked in this form over the past two surveys. The rise in satisfaction of 3.7% may have a number of explanations. It could reflect a greater reliance on religious or spiritual beliefs, and the comforts they offer, as a consequence of the terrorist threat. We have no comparative data following S11 to confirm this. Alternatively it could be

that the terrorist attacks and their basis in religious difference, of which we were less aware at the time of S11, have prompted a rallying behind religion, whether that be Christian or Islam. This could be akin to the surge in patriotism (e.g. Life in Australia) and increased satisfaction with Government that has been evident following the attacks.

Should this explanation be valid, it could reveal how, in wake of such attacks, society becomes more polarised, less tolerant, and increasingly more vulnerable to the violent expression of different world views.

2.4 National Wellbeing Domains

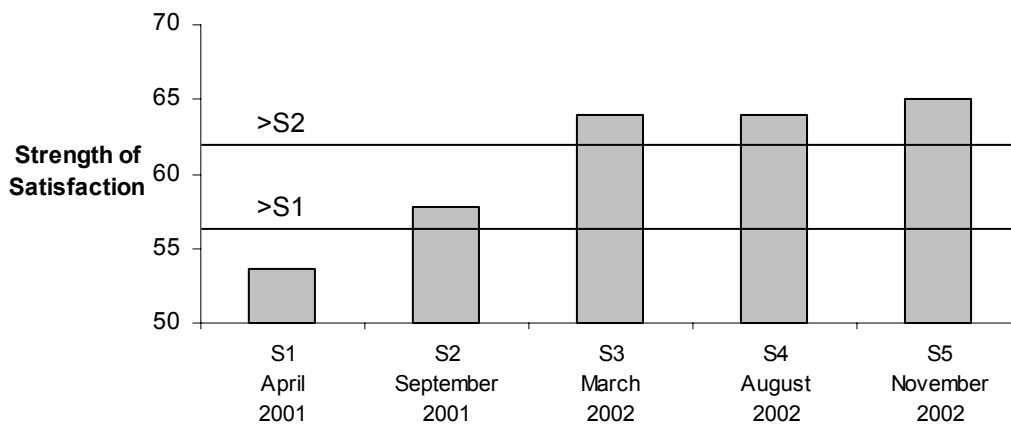


Figure 2.14: Satisfaction With the Economic Situation in Australia

The rise in satisfaction with the economic situation, evidenced over the first three surveys, has been sustained. The range of values is 11.4%, being between April 2001 (S1) and November 2002 (S5).

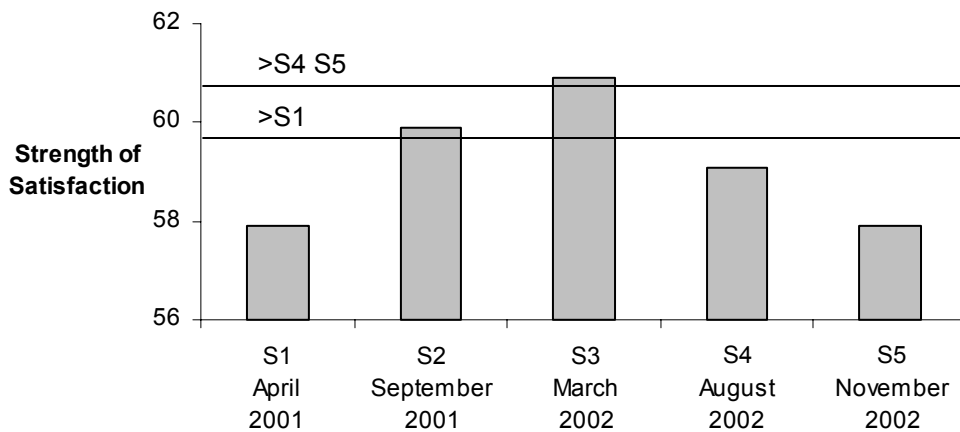


Figure 2.15 Satisfaction with the State of the Natural Environment in Australia

The level of satisfaction with the natural environment shows a different pattern from the other national domains. The rise in satisfaction over the first three surveys has not been sustained, and the current level is no different from that in April 2001 (S1). The range is 3.0% between April 2001 and March 2002 (S3).

The rise in satisfaction from S1 to S4 may simply reflect the general increase in national wellbeing following S11. It could also reflect the more immediate and graphic threat of terrorism drawing attention from environmental problems, and that satisfaction with the environment rises as a contrast effect. It is also possible that the recent decline in satisfaction reflects the drought and bushfires in Australia and the links to global warming. Most people would be at least vaguely aware that such a link exists, and recent media coverage may bring environmental issues to mind.

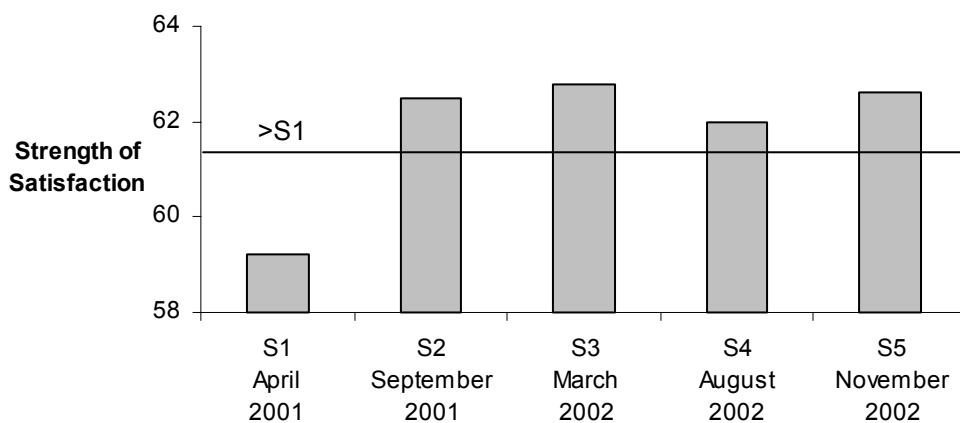


Figure 2.16 Satisfaction with the Social Conditions in Australia

The rise in satisfaction with social conditions evident between April 2001 (S1) and September 2001 (S2) has been maintained. The range of values is 3.6% between April 2001 and March 2002 (S3).

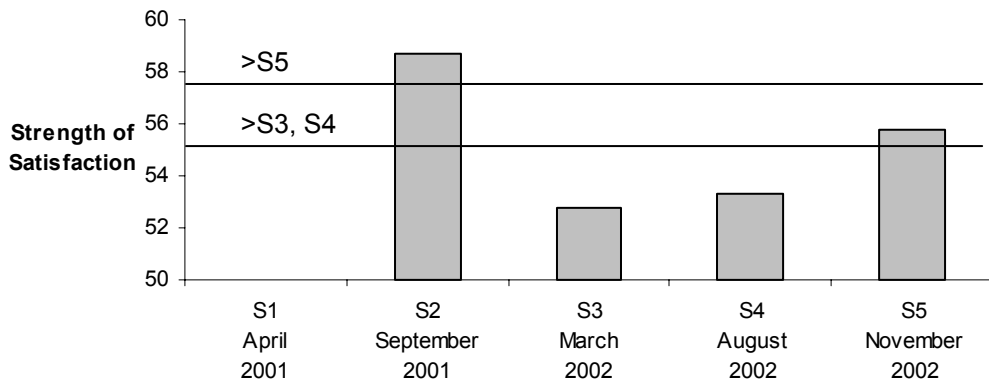


Figure 2.17: Satisfaction with Government in Australia

It now seems likely that the elevated satisfaction with Government in September 2001 (S2) was a direct result of the September 11 attacks. A similar, but more muted rise is evident in the November 2002 (S5) survey. The most obvious explanation is that the perception of external threat causes satisfaction with Government to increase. The range of values is 5.9% between September 2001 (S2) and March 2002 (S3).

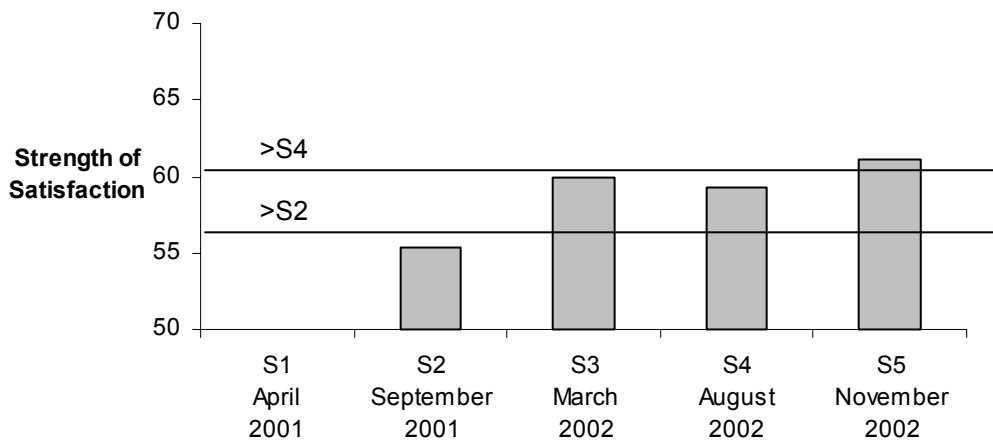


Figure 2.18: Satisfaction with Business in Australia

Satisfaction with Business is now at its highest level across the five surveys. The current level is marginally higher than it was in August 2002 (S4). The continuing good performance of the Australian economy against a gloomier global picture, might explain these results.

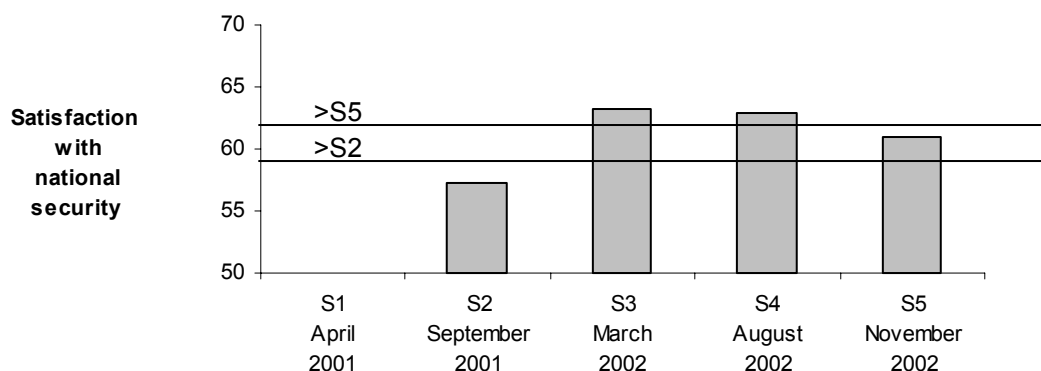


Figure 2.19: Satisfaction with National Security

Satisfaction with national security has fallen from the heights seen in March 2002 (S3) and August 2002 (S4). However, the level of satisfaction remains higher than it was in September 2001 (S2). The range of values is 6.0% between September 2001 and March 2002.

2.4.1 Summary of the Five Surveys on Measures of National Wellbeing

Table 2.4: Summary of Changes in the Measures of National Wellbeing

Measure	Lowest Score	Highest Score	Range
Economic situation	S1	S5	11.4
National security	S2	S3	6.0
Government	S3	S2	5.9
Business	S2	S5	5.7
Social conditions	S1	S3	3.6
Natural environment	S1	S3	3.0

These data indicate the greater degree of variation shown by national, than by personal, domains. Whereas the only personal domain to have a range of values greater than 3.0% was Standard of Living (3.2%, Table 2.2), all of the national domains have a range of 3.0% or higher, with the most volatile being Economic Situation with a range of 11.4%.

Similar to the personal domains, most of the national measures have their lowest point as the first survey in which they were included (S1 or S2). The exception is Government, which fell to its nadir three months following September 11 (S3).

As with the personal domains, some of the national domains also evidence persistent changes following S11, and these are depicted in Table 2.5.

Table 2.5: Summary of Significant Changes in the National Wellbeing Domains

Domain	S1	S2	S3	S4	S5
Economic situation		>S1	>S1,2	>S1,2	>S1,2
National security	-		>S2,5	>S2,5	>S2
Government	-	>S3,4,5			>S3,4
Business	-		>S2	>S2	>S2,4
Social conditions		>S1	>S1	>S1	>S1
National environment		>S1	>S1,4,5		

As seen with the Personal Domains, there has been a tendency for satisfaction with the National Domains to remain elevated following S11. This is reflected in the continued elevation of the National Wellbeing Index. Against this general trend, however, satisfaction with National Security fell immediately following S11, and satisfaction with Government has displayed a pattern of increase immediately following each of the two terrorist attacks.

2.5 Gender and Age Effects

Previous reports have provided detailed analyses of these effects. The data from this survey show the same patterns as we have previously reported. That is, females tend to have higher wellbeing than males (Appendix A2) and wellbeing tends to increase with age (Appendix A3). Specific interactions of these influences will be discussed in relation to particular variables in subsequent chapters.

2.6 Discussion of the Changes in Personal and National Wellbeing

1. These wellbeing measures attest to the remarkable stability of the indicators over the past 16 months. The Personal Wellbeing Index has varied by only 2.0% and the National Wellbeing Index by 4.9%. In general, the national indicators show more variability than the personal indicators and this has been detailed in Report 4.0, Table A7.1. The greatest variation has been shown by the abstract national indicator 'Life in Australia' which has varied by 15.2% over the five surveys.
2. The variations that have been recorded generally show a coherent pattern, which supports the conclusion that variation within the indicators is reflecting the influence of public events. The most obvious of these patterns is the general upward swings following September 11. While some change was evident immediately following the attacks, the peak occurred five months later in the March 2002 survey, at which time both the Personal and National Wellbeing Index were significantly higher than in the April 2001 survey. Since that time the Personal Wellbeing Index has again risen above its 2001 level, while the National Wellbeing Index has remained elevated above this level.
3. The attribution of causation is a fraught process when interpreting data patterns such as these. Numerous other events have taken place which could influence these trends. Nevertheless, the data patterns do appear to bear a reasonable relationship to events that can be personalised, and do not seem to reflect happenings that have little impact on the average Australian. Thus, the major

corporate collapses that occurred prior to the March 2002 (S3) survey failed to counteract the general rise in national wellbeing, which included increased satisfaction with business.

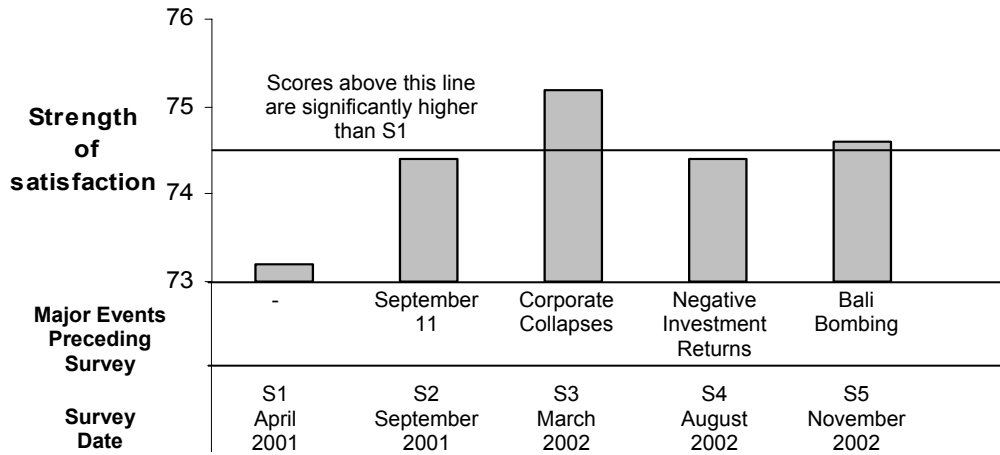
In relation to the idea that it is the personalisation of events that causes change in these national indices, two observations are relevant. The first rests on our understanding that satisfaction is shaped by expectations to a considerable extent. In these terms, satisfaction with Business and the economy may have increased following S11 because the doomsayers were proved wrong. The attacks did not, as has been widely predicted, drive the global economy into recession. Moreover, the Australian economy has performed better than expected over the entire post-S11 period.

The second observation, regarding personalisation, is that satisfaction with Financial Security has fallen over the last two surveys (S4, S5). It is certainly notable that this fall coincides with realisation of negative investment returns for the 2001-2002 financial year. This news adversely and very personally affects a large number of Australians.

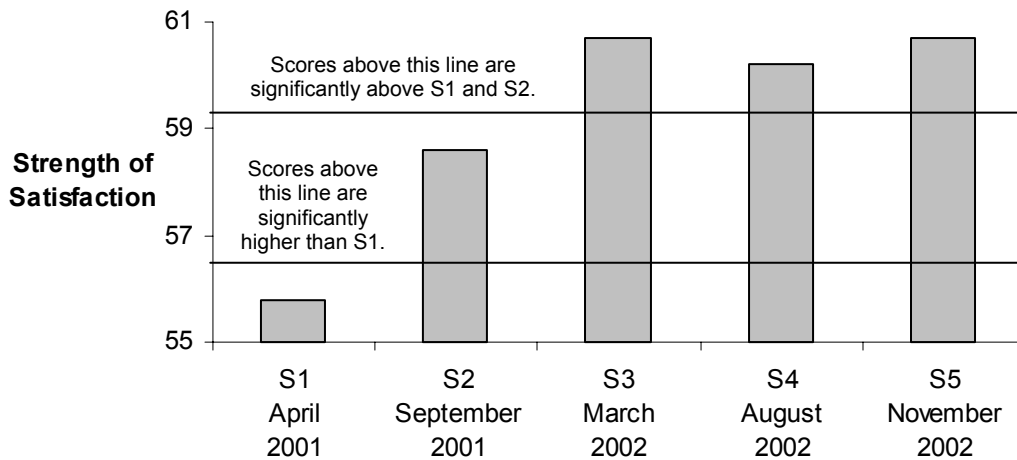
4. Some of the domains have shown other patterns of change which deserve comment. The decreased satisfaction with Financial Security has already been mentioned. While the direction of movement was in the same downward direction as most other domains between S3 and S4, the degree of fall was remarkable for a personal indicator at -2.6% . As has been noted, in the month or so prior to the survey, almost all investment schemes and even superannuation funds had announced a negative return for the previous year.
5. Satisfaction with Government is interesting since the fall in satisfaction strength from September 2001 to March 2002 was unique among the indices. Moreover, this level remained low until after the Bali attacks, after which it rose once more. We speculate that these higher levels of satisfaction with Government were occasioned by the anxiety caused by the attacks, and their conservatizing and cohesive influence on the Australian population. Following S11, however, this elevated satisfaction quickly evaporated, not lasting six months to the March 2002 survey.

Dot Point Summary

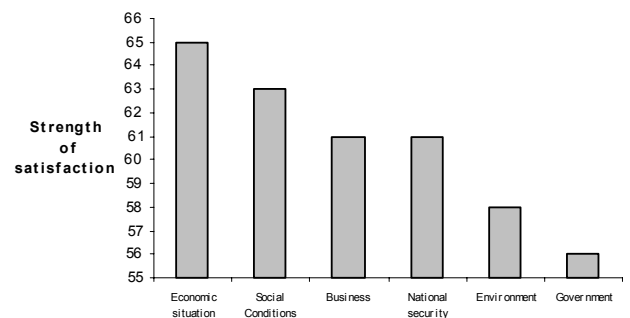
- The Personal Wellbeing Index stands higher than it did in April 2001. This increase mimics the rise that followed September 11. The small degree of change demonstrates the resilience of the Australian population.



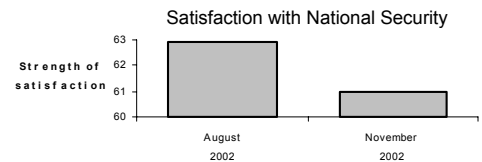
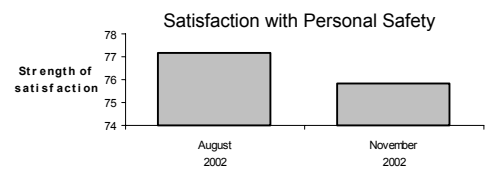
- The National Wellbeing Index remains higher than April 2001, and also higher than it was immediately following September 11.



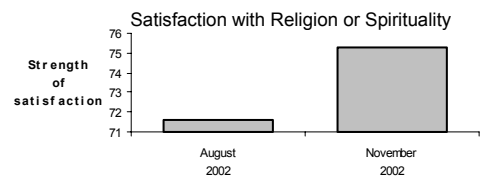
- It is notable that satisfaction with Government has shown a sharp rise following both terrorist attacks. However it continues to be the lowest of all six National Wellbeing domains.



- Despite the fact that the personal and national indices remain higher than they were pre-September 11, two domains showed a fall since the previous pre-Bali survey. These are personal safety and national security.



- The new item 'satisfaction with your religion or spirituality' showed a marked 3.7% rise since the pre-Bali survey and could indicate increased religious polarization.



3. Household - Income

“Can you please give me an idea of your household’s total annual income before tax?”

3.1 Data Handling and Interpretation

Table 3.1: Income Distribution on all Available Data

	Actual		Adjusted	
	N	%	N	%
<= \$15,000	140	13.1	261	24.6
> \$15-30,000	234	22.0	321	30.2
> \$30-60,000	331	31.1	349	32.9
> \$60-90,000	195	18.3	79	7.4
> \$90,000	165	15.5	52	4.9
Total	1,065	100.0	1,062	100

3.1.1 *Missing Data*

Whereas in previous surveys we have asked people to place their income into one of the above five income categories, in this survey we asked people to state their actual income. This met with considerable resistance and, as can be seen from Table 3.1, which summarises these data in our usual form, only 54% of the viable sample provided the information.

3.1.2 *Outlying Values*

The lowest income accepted as credible is \$8,000, and six people (3 males, 3 females) presented this value. A further eight people recorded an income of \$8,500 to \$9,500, and 33 presented \$10,000.

It is possible to characterise these incomes. The lowest benefit paid to people not living at home is \$8,060, being either a ‘Youth Allowance’ for people 18-21 years who are unemployed, or ‘Austudy’ for full-time students. The ‘Newstart Allowance’ for people aged 21+ years who are unemployed or temporarily unable to work due to illness, injury or disability is \$9,747 for single and \$17,576 for partners. The Age Pension for people who have reached retirement age is \$11,154 for single and \$18,616 for partners (Australian Bureau of Statistics, January 2003). These are only examples of the full range of benefits, but establish the normal range as \$8,060 to \$18,616, with all singles on a benefit lying within our \leq \$15,000 grouping.

Another feature of these data is the presence of some very high household incomes. 10.2% stated their income as \geq \$100,000, 3.7% as at least \$150,000, 1.9% as at least \$200,000, and the highest was \$2,000,000. The mean and the standard deviation using data with a maximum of \$800K are $\$59,077 \pm 59.016$, the standard deviation is 100% of the mean, and the highest value lies 12.6 standard deviations above the mean. Clearly such data, where the distribution is so skewed, are not appropriate for parametric analysis.

An examination of the data distribution indicated a natural break-point at \$150,000, with 17 people presenting this value. The elimination of the 39 cases above this value brings the mean and standard deviation down to \$50,957 ± 33,215. The standard deviation is reduced to 65% of the mean, and the highest values lie within three standard deviations of the mean. We use this distribution for all subsequent analyses.

3.1.3 Interpretation of High Income Data

Another problem with high incomes is that they are difficult to interpret. There are 19 people in our sample with annual household incomes exceeding \$250,000. It is possible that such incomes are derived from salaries to the CEOs of large companies or represent dual high incomes. In such cases ‘household income’ is appropriate as representing an amount of money available to be saved or spent by members of the household. However, where incomes are provided by people who are self-employed, the interpretation is more difficult.

The highest income of \$2 million was provided by a 56 year old male living in a remote area of Australia, presumably a farmer of some kind. The problem in interpreting this income is that it may not be adjusted for expenditure necessary to earn the income. That is, whereas someone on a wage has full discretion over their expenditure of that wage, someone who is self-employed may not. If the farmer has to replace equipment, buy livestock or seed, then the discretionary income for household purposes becomes very much less than the total income.

Table 3.2: Income Source of People with an Income >\$150,000

	N	% within income source	Comparative means and SDs			
			Max \$800K		Max \$150K	
			Mean	SD	Mean	SD
Wage Salary	26	4.4	73.67	55.86	65.14	31.03
Self-employed	12	8.9	78.44	92.41	55.98	29.97
Super	-	-				
Investments	1	2.3	51.77	41.28	48.33	34.77
Pension	-	-				
Other	-	-				
Total	39	3.6	59.08	59.02	50.56	33.22

It can be seen that, as anticipated, the greatest proportion of people with high incomes who have been eliminated from further analyses involving income are self-employed.

We can see no solution to this problem other than to view the high income categories with caution. The determination of discretionary household income requires a set of carefully constructed questions which we have yet to devise.

These interpretive difficulties are reduced by our household income ceiling of \$150,000.

Table 3.3: Frequency of Data with a \$150K Ceiling

	Actual		Adjusted	
	N	%	N	%
≤15	140	13.6	261	25.5
15-30	234	22.8	321	31.4
30-60	331	32.3	349	34.1
60-90	195	19.0	74	7.2
90+	126	12.3	18	1.8
Total	1,023	100		100

3.1.4 Unequal Access to Household Income

The wellbeing questions in our survey refer personally to the respondent. Yet the respondents may not have equal access, with other members of their household, to the gross household income. Most troubling in this regard are the data provided by our youngest group aged 18-25 years. Whereas we can reasonably assume that the people in older groups have equal access to the household income, this may well not apply to these young adults if they are living in their family home. They may be studying, or unemployed, and not share household income equally with their parents. Thus, these young adults may have a very low discretionary income while living in a high income household.

3.1.5 Adjusted Income

The purpose of measuring household income is to use this as an indication of the amount of money available to the respondent. However, a major confounding factor in this extrapolation is the number of people in the household. In this survey, the number of people in the household correlates with household income $r=.29$.

While opinions vary as to the best correction factor to apply, it is generally agreed that a simple division of household income by the number of household members is inappropriate due to economics of scale. Thus, a widely accepted correction factor is that proposed by Figini (1998), as the square root of the number of household members. We have adopted this approach, such that all 'Adjusted' income values are actual household income divided by this correction factor. Using this formula, the adjusted income for the sample is 31.88 ± 20.90 adjusted income units.

The correlation between Income and Adjusted Income is significant ($r=.90$, $N=1,023$, $p=.000$). This constitutes 81.0% of shared variance.

3.1.6 Number of People in Households

The original distribution contained three very high values either indicative of communal rather than household living, or operator error. These extreme values were eliminated from the data set using a maximum accepted number of nine. The result, across the whole sample, was $N=1,941$, and mean = 2.83 ± 1.39 . However, while this distribution did not differ by gender ($t(1939) = .589$, $p=.589$), it did differ by age.

Table 3.4: Number of Household Members by Respondent Age

	N	Mean	SD
18-25	202	3.50	1.29
26-35	314	3.10	1.28
36-45	406	3.66	1.44
46-55	377	2.82	1.36
56-65	292	2.17	0.94
66-75	217	1.79	0.75
76+	104	1.57	0.68
Total	1912	2.83	1.39

The overall ANOVA is significant ($F(6,1905) = 103.771, p=.000$). Post hoc (Dunnnett T3) indicate the following:

All younger groups > 66-75, 76+
 36-45 > 26-35; 46-55; 56-65
 18-25 > 46-55; 56-65
 26-35; 46-55 > 56-65

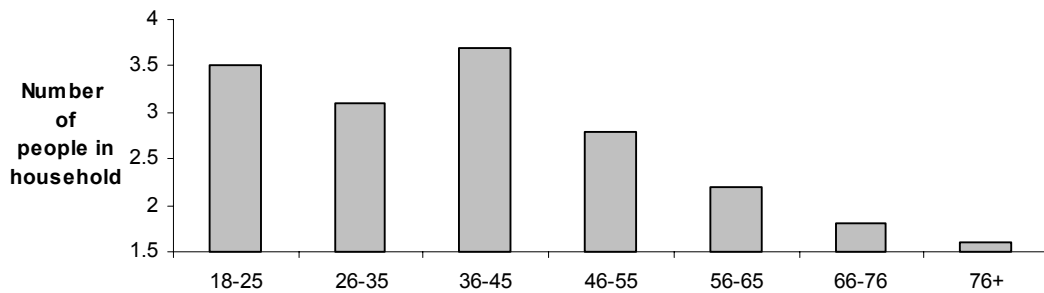


Figure 3.1: Number of Household Members by Respondent Age

The pattern between the four youngest groups is consistent with the following interpretation:

- 18-25: Living either at home with parent(s) and siblings or in shared accommodation.
- 26-35: Living with a partner either alone or with a number of children that is less than will be achieved.
- 36-45: Maximum family size.
- 46-55: Children start to leave home.

There is no overall gender difference in the number of household members ($t(1939) = 0.541, p=.589$). However a gender x age ANOVA was significant ($F(13,1898) = 50.333, p=.000$). This revealed the following:

MF 18-25; MF 36-45 > MF 46-55, all older
 MF 26-35; MF 46-55 > MF 56-65, all older

F 36-45 > all groups except MF 18-25; M 36-45
 MF 56-65 > F 66-75; F 76+

This reveals a tendency for females 36-45 to have the largest number of household members, and females 66-75; 76+ to have the lowest. The latter result is interesting since it indicates more women than men are living alone at these ages.

Table 3.5: Number of Household Members: Age and Gender

	Male			Female		
	N	Mean	SD	N	Mean	SD
18-25	128	3.42	1.32	74	3.62	1.25
26-35	158	2.92	1.38	156	3.28	1.14
36-45	195	3.43	1.46	211	3.87	1.38
46-55	179	2.82	1.44	198	2.81	1.28
56-65	136	2.24	1.04	156	2.11	0.85
66-75	106	1.91	0.85	111	1.68	0.63
76+	45	1.71	0.73	59	1.46	0.63

3.2 Income and Wellbeing

In the sections to follow, data analyses will utilise both actual and adjusted household income.

3.2.1 *Correlations with Income*

Table 3.6: Correlations between Personal Wellbeing and Income

	Income			Adjusted Income		
	N	r	p	N	r	p
PWI	1,001	.15	.000	998	.11	.000
Life as a whole	1,026	.10	.003	1,023	.06	.055

As we always find in these surveys, personal wellbeing is weakly associated with income within the whole sample. Adjusting the income for the number of people in the household has somewhat attenuated the correlations (Table 3.6) but they remain significant. The income-related increase in personal wellbeing is shown below using Actual Income (Table A4).

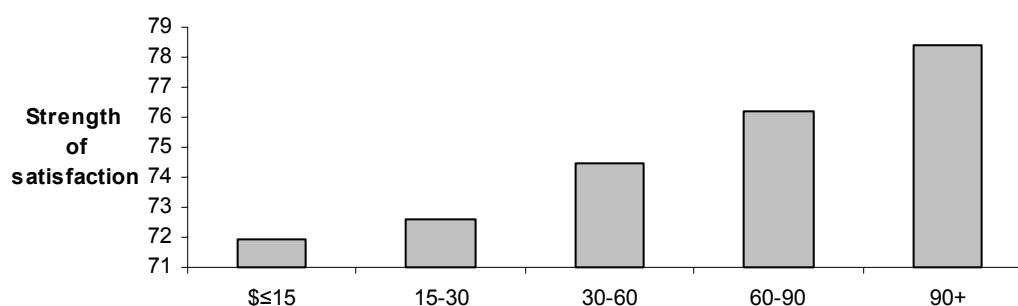


Figure 3.2: Income and the Personal Wellbeing Index

As we have argued in previous reports and elsewhere (reference), money is a flexible resource that can be used not only to purchase commodities but also to avoid tasks or situations that may decrease positive wellbeing.

Both actual and adjusted income also show a weak positive relationship with the National Wellbeing Index. This is depicted below.

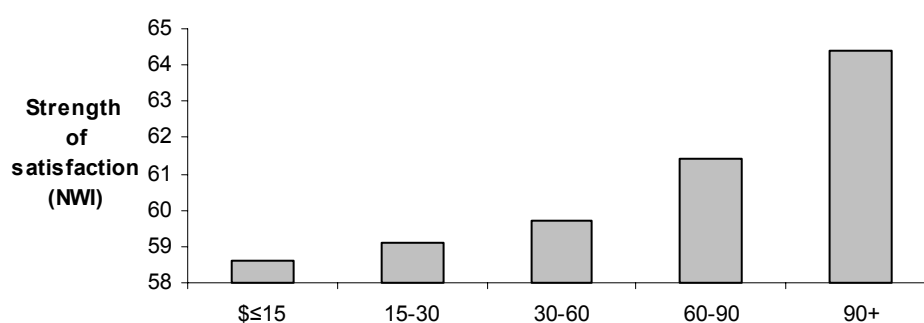


Figure 3.3: Actual Income and the National Wellbeing Index

There appears to be a non-linear trend, such that the increase in wellbeing is more evident in the higher, than the lower, income brackets. One reason for this is that, in addition to enhanced levels of material resources, people living in high income households consider themselves to be high in the social hierarchy of society. This gives a psychological boost to their level of wellbeing.

3.2.2 Differences Between Levels of Income

The following differences are referenced to Table A4 and refer to actual income. They have the criterion of ANOVA < .05 and Post-hoc < .01.

Table 3.7: Differences in Wellbeing due to Actual Income

Variable	ANOVA	
	p	Post-hoc
PWI	.000	90+ > \$<15; 15-30
Standard of living	.000	90+ > \$<15; 15-30; 30-60 60-90 > 15-30
Health	.000	60-90; 90+ > \$<15; 15-30
Safety	.023	90+ > \$<15
Future Security	.001	90+ > \$15-30; 30-60
<u>Survey specific:</u>		
Religious/Spiritual	.000	\$<15 > 30-60; 60-90; 90+
Financial Security	.000	60-90; 90+ > \$<15; 15-30; 30-60
Pay for essentials	.000	60-90; 90+ > 15-30 90+ > \$<15; 30-60;
Afford likes	.000	60-90; 90+ > \$<15; 15-30 90+ > 30-60; 60-90
Save money	.000	90+ > \$<15; 15-30; 30-60
Own life getting better	.000	60-90; 90+ > \$<15; 15-30 90+ > 30-60

Variable	ANOVA	
	p	Post-hoc
<u>National</u>		
Economic	.000	90+ > \$<15; 15-30; 30-60
Life in Australia better	.005	60-90 > 15-30

While it is clear that the \$90+ group is the most satisfied across a wide range of variables, on no occasion is this group significantly more satisfied than the \$60-90 group. At the other end of the spectrum, the \$30-60 group is not more satisfied than either of the two lower income groups on any variable. Thus the general pattern seems to pivot around \$60K. Below this level people are not generally more satisfied than people earning much less, and above this level people are not less satisfied than people who earn much more.

The only domains which shows an advantage to the lowest income group (\$<15K) is Spiritual/Religious. The overall correlation between Spiritual/Religious satisfaction and household income is significant ($r=-.12$; $p<.01$). This may reflect the age composition of this group since 70% are aged 56+ years (see Section 6 and Appendix A8).

Table 3.8: Differences in Wellbeing Due to Adjusted Income

Variable	ANOVA	
	p	Post-hoc
PWI	.005	30-60 > \$<15
Standard of living	.000	30-60; 60-90 > \$<15 30-60 > 15-30
Health	.000	30-60; 60-90 > \$<15
Community	.016	15-30 > 60-90
<u>Survey Specific</u>		
Financial Security	.000	30-60; 60-90; 90+ > \$<15 30-60; 60-90 > 15-30
Pay for essentials	.000	30-60; 60-90; 90+ > \$<15; 15-30
Afford likes	.000	30-60; 60-90 > \$<15; 15-30
Save money	.000	30-60; 60-90 > \$<15 30-60 > 15-30
Own life getting better	.000	30-60; 60-90 > \$<15
<u>National</u>		
Economic	.000	30-60; 60-90; 90+ > \$15
National Security	.011	90+ > \$<15

When the income is adjusted for the number of household members, the extent to which levels of income influences wellbeing diminishes. Using actual income, 44 significant differences are recorded within all of the wellbeing variables together (Table 3.7). When the income is adjusted this reduces to 33. The reduced sensitivity may be the result of altered frequency distributions since the highest adjusted income category (90+) contains only 18 cases (Table 3.3). Despite this it seems reasonable to conclude that, generally, adjusting income in the prescribed manner has diminished the discriminative power of actual income, as it is intended to do.

At the level of the overall ANOVA analysis, however, the story is not so clear cut. While four variables were no longer significant after adjustment (Safety, Future Security, Religious/Spiritual, and Life in Australia), two variables become significant whereas previously they were not (Community and National Security). This mixture of directional change signals an interpretive difficulty created by adjusting income.

To illustrate these difficulties, consider the spiritual/religious differences. These appeared strongly using actual income but disappeared when the income was adjusted. The interpretive problem is as follows.

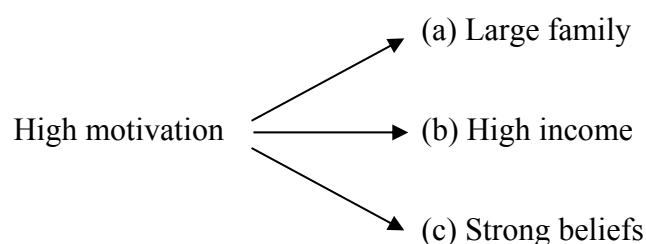
Assume that the people with large families are generally highly motivated. They are highly motivated to earn income, to have a strong spiritual/religious belief, and to raise a large family. In this scenario, the adjustment based on number of people in the household inappropriately diminishes the influence of income on wellbeing. The variables in question are all causally related to one another because a common external force (motivation) influences them all. Thus, an adjustment that only involves two of the variables (number of children and income) will necessarily diminish their relationship with the third (spiritual/religious beliefs). This is an invalid form of correction and shows the dangers of using adjusted income in the way that we have.

Summary explanation of the problem in using adjusted income

Assume that the relationship between strong beliefs (e.g. satisfaction with religion/spirituality) and income is a function of two factors as:

- (i) Direct effect of income to modify satisfaction.
- (ii) Indirect effect. Income and satisfaction co-vary under the influence of a third agent (e.g. level of motivation).

Consider then the effect of this indirect source on the situation at hand:



If (a) is used to modify (b), then the relationship (b)-(c) will be reduced. This procedure diminishes valid shared variance because all three variables are influenced by a single other factor (level of motivation).

3.3 Income and Gender

Table 3.9: Income and Gender (x1,000)

	Actual		Adjusted	
	Male	Female	Male	Female
N	535	491	534	489
Mean	52.90	48.84	33.78	29.79
SD	32.66	33.71	21.81	19.68

There is a significant gender difference for income (Actual: $t(1,024) = 1.959$, $p=.050$; Adjusted, $t(1,021) = 3.061$, $p=.002$). This is also confirmed by the gender distribution of income in Table 3.10 below:

Table 3.10: Gender Distribution of Income (% within income group)

		≤15	15-30	30-60	60-90	90+
Male	N	54	125	179	105	72
	%	38.6	53.4	54.1	53.8	57.01
Female	N	86	109	152	90	54
	%	61.4	46.6	45.9	46.2	42.9

Chi-square is significant (12.472, $df=4$, $p=.014$) and indicates an imbalance in the poorest group where females are most highly represented.

Table 3.11: Gender Distribution of Adjusted Income (% within income group)

		≤15	15-30	30-60	60-90	90+
Male	N	116	173	189	44	12
	%	44.4	53.9	54.2	59.5	66.7
Female	N	145	148	160	30	6
	%	55.6	46.1	45.8	40.5	33.3

Chi-square is significant (10.268, $df=4$, $p=.036$). The adjustment has reduced the gender inequality within the ≤ 15 group from 61.4% (actual) to 55.6% (adjusted), a reduction of 5.8%. Within the high income groups, on the other hand, the gender inequality has been enhanced by the adjustment.

3.4 Income and Age

The mean age of the sample is 47.44 ± 16.78 years.

Table 3.12: Age and Actual Income (x\$1,000)

Age	Actual			Adjusted		
	N	Mean	SD	N	Mean	SD
18-25	66	59.95	33.06	66	34.59	19.00
26-35	173	63.13	32.39	171	40.15	24.04
36-45	248	62.10	33.47	248	34.43	20.98
46-55	193	54.81	30.07	193	34.11	18.01
56-65	156	42.45	31.32	156	30.10	21.47
66-75	127	26.44	21.47	126	19.62	13.78
76+	61	21.89	15.78	61	18.21	14.84
Total	1,024	50.95	33.25	1,021	31.88	20.92

ANOVA for Actual Income is significant ($F(6,1017) = 37,274, p=.000$). Post-hoc tests indicate:

55y and less > 56 years and older

ANOVA for Adjusted Income is significant ($F(6,1014) = 19.205, p=.000$). Post-hoc tests indicate:

18-25; 26-35; 36-45; 46-55; 56-65 > 66-75; 76+
26-35 > 56-65

Once again, adjustment for number of people in the household made little difference to the relationship between age and income. Its only effect was to eliminate the apparent income advantage of the 26-35; 36-45 groups over the 56-65 group.

Table 3.13: Income and Age (% within income group)

		≤15	15-30	30-60	60-90	90+
18-25	N	3	11	23	19	10
	%	2.1	4.7	7.0	9.7	7.9
26-35	N	3	25	74	39	32
	%	2.1	10.7	22.5	20.0	25.4
36-45	N	16	28	98	62	44
	%	11.4	12.0	29.8	31.8	34.9
46-55	N	20	36	61	55	21
	%	14.3	15.4	18.5	28.2	16.7
56-65	N	27	52	47	15	15
	%	19.3	22.2	14.3	7.7	11.9
66-75	N	44	56	19	5	3
	%	31.4	23.9	5.8	2.6	2.4
76+	N	27	26	7	-	1
	%	19.3	11.1	2.1	-	0.8

Chi-square is significant (294.125, df=24, p=.000). Within the \$≤15,000, 70.0% are aged 56+ years. The \$15-30 group is most highly represented in the 46-75 age range (61.5%). Within the \$90+ group 77.0% are aged 26-55y. Overall, there is a significant negative correlation between income and age ($r=-.24$, $N=1,063$, $p=.000$).

Table 3.14: Adjusted Income and Age (% within income groups)

		≤15	15-30	30-60	60-90	90+
18-25	N	9	22	29	7	0
	%	3.4	6.9	8.3	8.9	0.0
26-35	N	23	48	71	26	5
	%	8.8	15.0	20.3	32.9	27.8
36-45	N	38	90	97	17	8
	%	14.6	28.2	27.8	21.5	44.4
46-55	N	38	43	99	12	1
	%	14.6	13.5	28.4	15.2	5.6
56-65	N	49	49	42	13	3
	%	18.8	15.4	12.0	16.5	16.7
66-75	N	69	45	8	4	-
	%	26.4	14.1	2.3	5.1	-
76+	N	35	22	3	-	1
	%	13.4	6.9	0.9	-	5.6

Chi-square is invalid due to nine cells (25.7%) having an expected count <5. However, the lack of any people aged 18-25 in the 90+ adjusted income units reinforces the view that members of this age group have a lower discretionary income than the actual income data would suggest.

The correlation with age is significant ($r=-.17$, $N=1,060$, $p=.000$) but is reduced from that derived from using actual income. The amount of explained variance is 6.0% and 2.8% respectively.

The negative relationship between age and income is interesting because it is the opposite of the trend for personal wellbeing (Figure 2.14). Here it can be seen that personal wellbeing rises with age. This finding is against economic theory in two respects. It is counter to the economist's assumption that income equates to perceived life quality ('utility') (reference). It is also counter to the assumption of medical economists (references) that life quality can be 'discounted' as a function of increasing age.

This increase in personal wellbeing is even maintained in the present of decreasing satisfaction with health (Table A3). This decrease is more than compensated by rising satisfaction with Standard of Living, Achievements in Life, Relationships, Connection to Community, and Future Security. The only domain to show no age-related change is Personal Safety.

Table 3.15: Actual Income, Age and Gender (x\$1,000)

Age	Male			Female		
	N	Mean	SD	N	Mean	SD
18-25	38	63.82	33.81	28	54.71	31.85
26-35	89	65.69	33.78	84	60.43	30.82
36-45	124	62.51	31.71	124	61.69	35.27
46-55	107	51.25	27.53	86	59.23	32.58
56-65	78	47.11	33.05	78	37.79	28.95
66-75	68	32.68	26.47	59	19.25	9.69
76+	29	27.24	20.20	32	17.03	7.88

In the above Table, individual incomes ranged from \$8,000 to \$150,000. ANOVA is significant ($F(13,1010) = 18.779, p=.000$). Post-hoc tests indicate the following differences:

All aged below 46; $F_{46-55} > F_{56-65}$; all older
 $M_{46-55} > MF_{66-75}$; MF_{76+}
 $MF_{56-65} > F_{66-75}$; F_{76+}
 $M_{66-75} > F_{76+}$

From this it can be seen that no gender differences are apparent below 46 years of age. However, beyond 65 years income declines more rapidly in females. This may be because more females are living alone at these ages.

A crosstabs analysis using Actual Income applied to Age, Gender and Income group was invalid since seven cells (10.0%) had an expected count of <5.

Table 3.16: Adjusted Income, Age and Gender (x1,000)

Age	Male			Female		
	N	Mean	SD	N	Mean	SD
18-25	38	37.32	19.34	28	30.88	18.22
26-35	89	43.82	26.85	82	36.17	19.96
36-45	124	35.95	20.84	124	32.91	21.09
46-55	107	32.85	18.08	86	35.67	17.90
56-65	78	32.02	21.60	78	28.19	21.30
66-75	67	23.23	17.04	59	15.53	6.84
76+	29	21.92	20.01	32	14.85	6.30

An ANOVA is significant ($F(13,1007) = 10.405, p=.000$). Post-hoc tests show:

MF 26-35; M 36-45; MF 46-55 > MF 66-75; F 76+
 MF 18-25; F 36-45; MF 56-65 > F 66-75; F 76+
 M 26-35 > F 56-65; M 76+

Again, the adjustment for number of people in the household has made little difference to the pattern of the data. Females aged 66+ years remain the most financially disadvantaged

A crosstabs analysis using Adjusted Income applied to Age, Gender and Income Group was invalid since 17 cells (24.3%) had an expected count of <5.

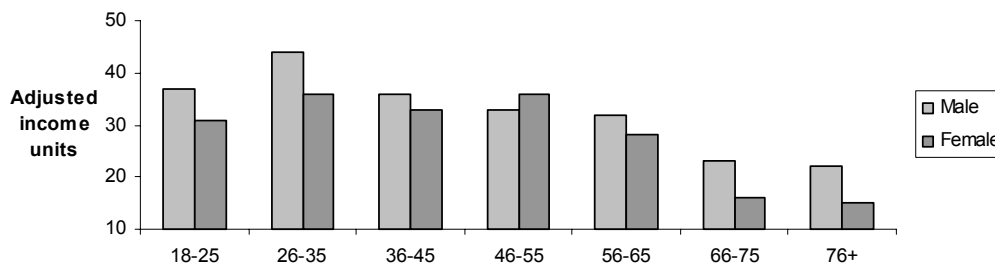


Figure 3.4: Age and Adjusted Income

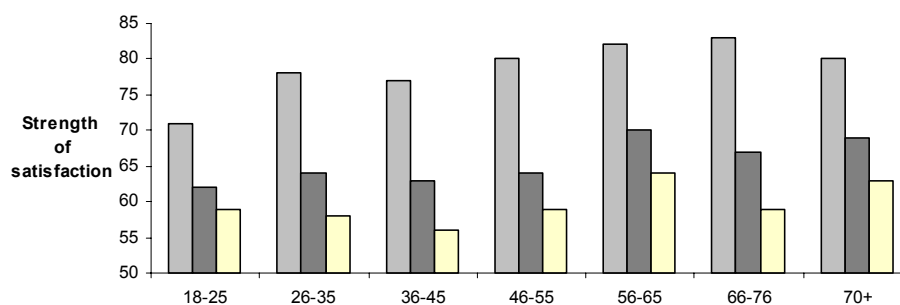


Figure 3.5: Age and Perceptions of Financial Capacity

Key:

- Ability to pay for household essentials.
- Ability to afford the things you would like to have.
- Ability to save money.

What is clear from Figure 3.4 is that adjusted income remains fairly constant across the age groups until 66-75, at which time it falls sharply. This corresponds to the reduced household income following retirement from paid employment. However, a comparison with Figure 3.5 shows a very different pattern of data. Here, the perceived ability to pay for household essentials, and to be able to afford the things you want, is lowest in the 18-25 year group and high, or even highest, in the 66-75 year group. A glance at Table 3.7 indicates that much the same pattern is evident in Actual income. Clearly, therefore, household income is not simply linked to perceptions of financial capacity.

This finding is interesting from a number of perspectives. Perhaps foremost among these is the fallacy of assuming simple 'rationality' within traditional economic theory. Any assumption that the 65-75 year group would see their purchasing needs increase due to falling income is against the logic of these data.

The explanation of these rising perceptions of financial capacity in the face of decreasing income is speculative at this stage. It may involve changing aspirations, such that older-age brings a sense of resignation concerning what is likely or even possible given their financial situation. The explanation could also involve a cohort effect. People who are now in their 70s experience the hardships of the war-years, and if they are older, the great depression as well. It is possible that this early experience could have influenced their ability to be more satisfied with less money.

Against both of these explanations, however, is the actual pattern of the data. The dramatic change in perception, particularly in relation to 'household essentials' occurs between 18-25 and 26-35 years (7%). This seems to focus attention on the youngest group as the people whose perceptions are different. Perhaps their financial aspirations are much in excess of their financial capacity such that satisfaction, which may involve a comparison between these two variables, is reduced. Alternatively, if they are living with their parents, it may be that 'essentials' for this group extend beyond the basic necessities commonly regarded, to include clothing, accessories, and activities required to retain membership of an in-group.

3.5 Personal Financial Indices

The relative strength of satisfaction with the five indices of personal financial situation is provided in Table 2.1 and depicted below.

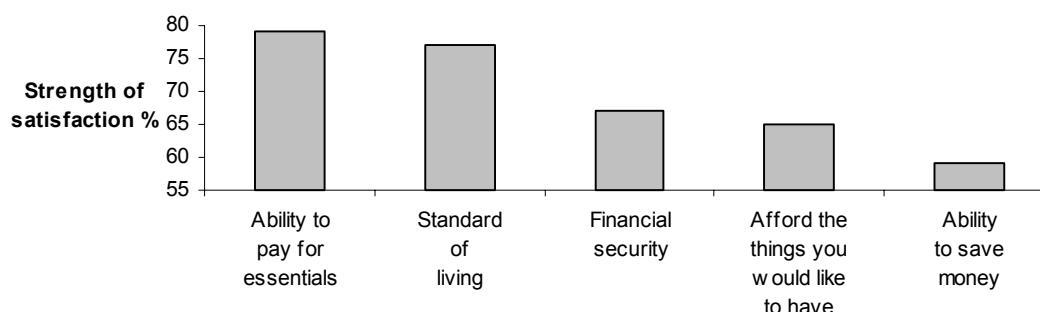


Figure 3.6: Satisfaction with Personal Financial Indices

These seem to form three groups as follows:

1. The two highest levels of satisfaction suggest that people's rating of their standard of living matches closely their satisfaction with their ability to pay for essentials.
2. Satisfaction with both financial security and ability to afford the things you would like to have, both fall around 10 points lower than the variables above.
3. At the lowest point, fully 20 points below the top rating, is people's satisfaction with their ability to save money. This is an extremely wide margin of difference, in fact the largest between any of the personal measures of wellbeing. It indicates the very wide gap between being able to afford essentials and having the motivation to commit surplus income into savings rather than spending money on non-essential goods and services.

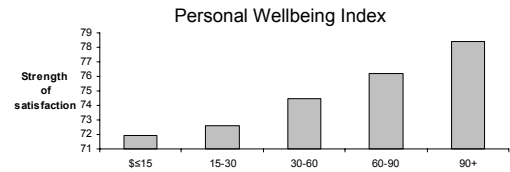
Table 3.17: Age and Gender Differences in Ability to Save Money

Age	N	Male		N	Female	
		Mean	SD		Mean	SD
18-25	130	57.00	27.16	75	61.47	23.92
26-35	159	58.68	24.88	160	57.63	23.80
36-45	196	55.40	25.79	211	56.97	26.08
46-55	178	57.47	27.84	201	60.65	26.46
56-65	130	62.00	27.80	157	65.22	26.57
66-75	102	58.04	29.95	112	59.20	28.73
76+	45	61.11	30.84	57	64.21	31.28

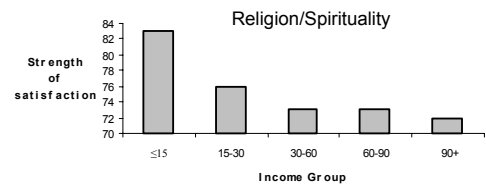
There is an age-related increase in satisfaction with ability to save money. Below 55 vs above 55 years, $t(1,911) = 3.875$, $p=.000$. However, there is no gender difference (Appendix 2, $p=.071$).

Dot Point Summary

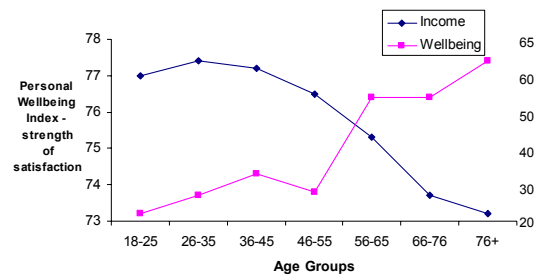
- Income and wellbeing are positively related.



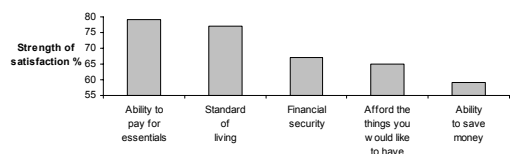
- Satisfaction with religion/spirituality is highest in the lowest income group.



- Personal wellbeing increases with age even though income decreases after 65 years. This is against economic theory that proposes a consistent positive relationship between income and wellbeing.



- While satisfaction with ability to pay for household essentials is generally high, satisfaction with being able to afford the things people would like to have is much lower. Satisfaction with the ability to save money is lower still. This results in a tension between people's desire to spend and to save. It is interesting in this regard that financial security is rated lowest in the personal domains.



- Adjusting household income by the number of people in the household makes little difference to its relationship with wellbeing and may be an invalid procedure in this context.

4. Personal Finance – Source

“I am going to read a list of possible sources of income for your household. Please tell me which sources of income apply to your household”.

A few of the following analyses are based on the ‘raw data’, that is the data pool prior to the imposition of a \$150K limit. Where this has occurred it is indicated in the title of the table. For all other analyses the \$150K limited data set has been employed.

Only actual income will be reported in this and subsequent sections due to the interpretive difficulties associated with adjusted income.

4.1 Finance Source Frequencies

Table 4.1: Summary of Financial Sources (raw data)

	Primary		Secondary		Tertiary		Quaternary	
	N	%	N	%	N	%	N	%
Wage/salary	1,030	52.6	96	13.5	6	3.4	-	-
Self-employed	283	14.4	113	15.9	11	6.3	1	3.2
Super	86	4.4	93	13.1	39	22.2	13	41.9
Investment	77	3.9	255	35.8	73	41.5	10	32.3
Pension	428	21.8	151	21.2	44	25.0	6	19.4
Other	56	2.9	4	0.6	3	1.7	1	3.2
Total	1,960	100	712	100	176	100	31	100

Investments only constitute the primary source of income for 3.9% of people, but are the major source of supplementary income (2nd = 35.8%, 3rd = 41.5%, 4th = 32.3%).

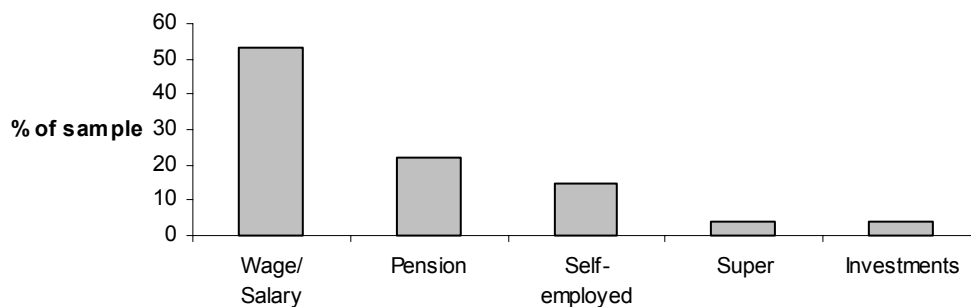


Figure 4.1: Primary Source of Income

Table 4.2: Summary Sources of Income

	All sources		Sources additional to primary	
	N	%	N	%
Wage/Salary	1132	57.8	102	5.2
Self-employed	408	20.8	125	6.4
Super	231	11.8	144	7.3
Investments	415	21.2	338	17.2
Pension	629	32.1	201	10.3

Note: The percentage under 'All sources' are calculated on the basis of the total sample (N=1,960) and total to >100% due to multiple sources of income.

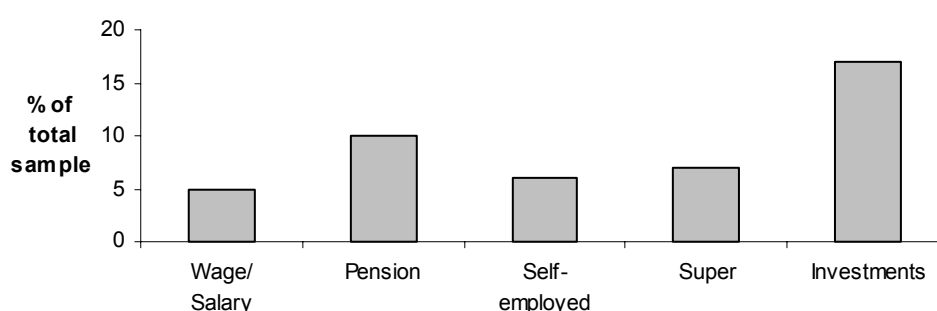


Figure 4.2: Additional Sources of Income

Table 4.3: Income and Primary Source of Income (% within income source) (raw data)

Source	≤15	15-30	30-60	60-90	90+
	N(%)	N(%)	N(%)	N(%)	N(%)
Wage/salary	11 (1.9)	63 (10.7)	229 (38.7)	160 (27.1)	128 (21.7)
Self-employed	5 (3.7)	22 (16.3)	54 (40.0)	27 (20.0)	27 (20.0)
Super	0 (0)	19 (41.3)	21 (45.7)	4 (8.7)	2 (4.3)
Investments	3 (6.8)	18 (40.9)	12 (27.3)	3 (6.8)	8 (18.2)
Gov. Pension	119 (48.8)	109 (44.7)	15 (6.1)	1 (0.4)	0 (0.0)
Other	2 (40.0)	3 (60.0)	0 (0.0)	0 (0.0)	0 (0.0)

Chi-square applied to this Table is unreliable due to five cells (16.7%) having an expected count of less than 5. An observational analysis indicates the following:

1. Government Pension/Benefit are concentrated in the two lowest income groups, as expected.
2. Superannuation is concentrated between \$15,000 to \$60,000, as expected.
3. Wage/Salary and Self-employed have a very similar distribution between the income categories.

4. Investments have a distribution similar to Superannuation, except for a higher number in the \$90,000+ category. The N values are small however.

4.2 Sources of Income

Table 4.4: Income and the Frequency of all (1st-4th) Sources of Income (N) (raw data)

Source		≤15,000				15-30				30-60				60-90				90+			
		1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Wage/Salary	N	11	4	-	-	63	11	-	-	229	19	3	-	160	11	-	-	128	8	1	-
Self-employed	N	5	1	1	1	22	8	3	-	54	20	2	-	27	16	1	-	27	20	-	1
Super	N	-	2	1	-	19	16	3	-	21	12	11	3	4	12	4	3	2	6	5	2
Investments	N	3	12	-	-	18	32	4	-	12	40	8	2	3	37	12	3	8	33	11	-
Gov. Pension	N	119	4	1	-	109	33	5	-	15	32	10	1	1	10	8	3	-	4	4	-
Other	N	2	-	-	-	3	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-
TOTAL		140	23	3	1	234	100	15	-	331	123	36	6	195	87	25	9	165	72	21	3

The total number of people providing a primary income source is 1,065. Of these, 405 (38%) had a secondary income source, 99 (9%) had a tertiary source, and 19 (2%) a quaternary source.

Source of additional income

The most common source of secondary income is an investment (38% all secondary income sources). This is followed by Government Pension/Benefit (20.5%), Self-employment (16.0%), Wage/Salary (13.1%), and Superannuation (11.9%).

The most common source of tertiary income is Investments (35.4%). This is followed by Pension/Benefit (28.3%), Superannuation (24.2%), Self-employment (7.1%), and Wage/Salary (4.0%).

Frequency of additional income sources

The probability that people will have a second source of income varies with income. For people whose household income is ≤\$15 only 16.4% have such a source. For higher income groups the figures are: \$15-30 (42.7%); \$30-60 (37.2%); \$60-90 (44.6%); \$90+ (43.6%).

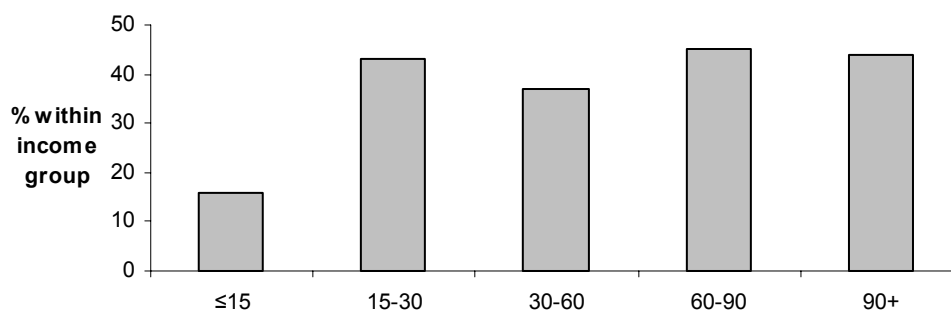


Figure 4.3: Percentage of Income Groups with a Secondary Source of Income

The income group most likely to have a tertiary source of income is \$30-60 (35.4% of all those with a tertiary income). This is followed by \$60-90 (25.3%), \$90+ (21.2%), \$15-30 (15.2%), and \$≤15 (3.0%).

4.3 Income within Sources

Table 4.5: Income by Source (\$,000)

Source	Actual		
	N	Mean	SD
Wage/Salary	565	65.14	31.03
Self-employed	123	55.98	29.97
Super	46	42.90	21.92
Investments	43	48.33	34.77
Pension	244	18.21	8.83
Other	5	19.20	6.53
Total	1,026	50.56	33.22

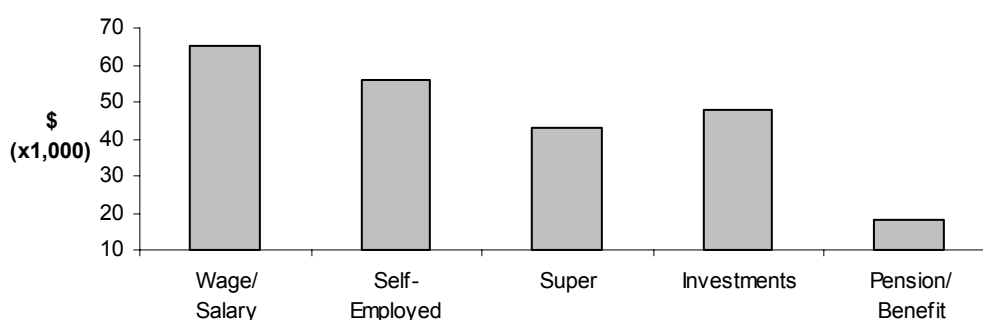


Figure 4.4: Income by Source

An ANOVA applied to the Income is significant ($F(5,1020) = 106.062, p=.000$). Post-hoc tests show that (omitting 'other'):

- All groups > Pension
- Wage/Salary, Self-Employed > Super

A similar pattern of differences was evident in the 2nd, 3rd and 4th sources of income.

4.4 Gender and Source of Income

Table 4.6: Primary Sources of Income by Gender (x\$1000)

Source	Male			Female		
	N	Mean	SD	N	Mean	SD
Wage/salary	304	65.42	29.85	261	64.83	32.40
Self-employed	71	52.85	31.16	52	60.25	27.99
Super	30	41.83	18.73	16	44.91	27.51
Investments	25	57.40	40.04	18	35.72	20.85
Pension	102	18.83	9.45	142	17.76	8.36
Other	3	17.67	5.86	2	21.50	9.19
Total	535	52.90	32.66	491	48.84	33.71

There is no significant gender main effect ($F(1,1014) = .103, p=.748$) nor interaction ($F(5,1014) = 1.855, p=.100$). None of the 2nd, 3rd, or 4th sources of income showed any gender differences.

4.5 Age and Source of Income

An ANOVA of primary income source x age was not significant as a main effect for age ($F(6,990) = 1.575, p=.151$) or in interaction ($F(22,990) = 1.493, p=.067$).

The Chi-square of gender x age x income source was invalid since 21 (25%) of cells had an expected count <5.

4.6 Wellbeing and Primary Source of Income

The following abbreviations apply to these analyses, which are based on the data in A4.1:

Table 4.7: Wellbeing and Primary Source of Income

Wage/Salary	: WS	Self-Employed	: SE
Super	: SU	Investments	: IN
Pension	: PE		

Variable	ANOVA p	Post-hoc
PWI	.000	SE; SU > PE
Standard of living	.000	WS; SE; SU; IN > PE SU > WS
Health	.000	WS; SE; SU > PE SE > IN
Achievement	.000	SE; SU > PE SU > WS
Future Security	.000	SU; IN > PE IN > WS
Life as a Whole	.000	SU > WS; PE

Variable	ANOVA	
	p	Post-hoc
<u>Survey Specific</u>		
Spiritual/Religious	.005	PE > WS
Financial Security	.000	WS; SE; SU; IN > PE SU; IN > WS SU > SE
Pay for Essentials	.000	WS; SE; SU; IN > PE SU > WS; SE
Afford Likes	.000	WS; SE; SU; IN > PE SU; IN > WS
Save Money	.000	WS; SE; SU; IN > PE
Own Life Getting Better	.000	WS; SE > PE
<u>National</u>		
NWI	.000	SE; IN > PE IN > WS
Economic	.000	WS; SE; SU; IN > PE IN > WS
Environment	.014	-
Government	.000	SE; IN > WS IN > PE
Business	.002	SE > PE
National Security	.000	SE; IN > PE
Life in Australia Better	.000	WS; SE > PE

In general, people who have a pension as their primary source of household income have the lowest level of wellbeing. This is related to their low income, which is less than half that of the other income groups. This is an important result and shows that quality of life diminishes substantially in very low income conditions, however this effect is age dependant. This is elaborated in Section 4.7.

In other results, Self-employed do not differ on any personal domain over wage/salary. This is somewhat surprising since it might be expected that people who are self-employed would feel more in control of their work-lives and so have higher wellbeing. However, there is no guarantee that the respondent was the self-employed person, making this form of comparison unreliable. Within the national domains, self-employed > wage/salary in satisfaction with Government. The reason for this is unclear.

Even though the people on superannuation as a primary income source have a lower income than Wage/Salary or Self-employed, their quality of life tends to be better.

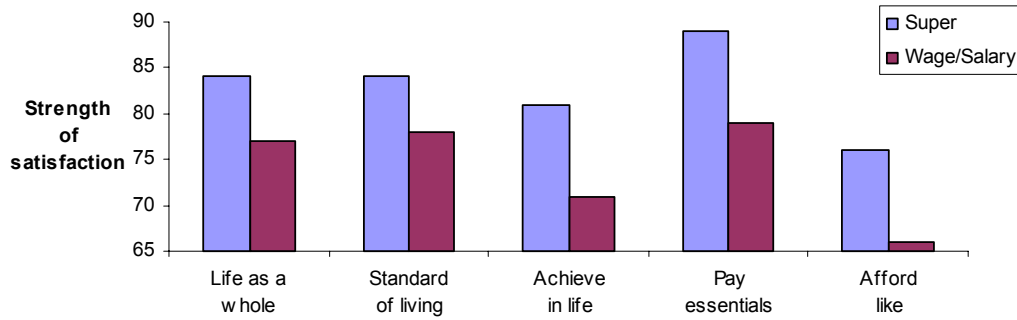


Figure 4.5: Superannuation vs. Wage/Salary on Wellbeing

As can be seen above, the Super > Wage/Salary on Life as a Whole (but not the Personal Wellbeing Index), two personal domains (Standard of Living and Achieve in Life), ability to pay for household essentials, and to afford the things you would like to have. This is not an age effect. When age is used as a co-variate, and the dependent variable is Life as a whole, $F(1,1098) = 8.104, p=.007$.

4.7 Pension/Benefit, Age and Wellbeing

In this section, two groups are compared, as people in a pension/benefit (PEN) and people on a wage/salary (WS).

Table 4.8: Personal Wellbeing Index and Pension vs. Salary

Variable		18-25	26-35	36-45	46-55	56-65	66-76
PEN	N	18	19	29	48	83	127
	Mean	68.17	64.06	68.03	66.16	72.15	75.32
	SD	11.5	14.54	18.81	16.94	13.76	11.95
WS	N	146	239	276	231	92	14
	Mean	73.57	74.55	75.17	74.63	76.30	78.57
	SD	10.77	10.36	11.23	12.32	12.14	7.52

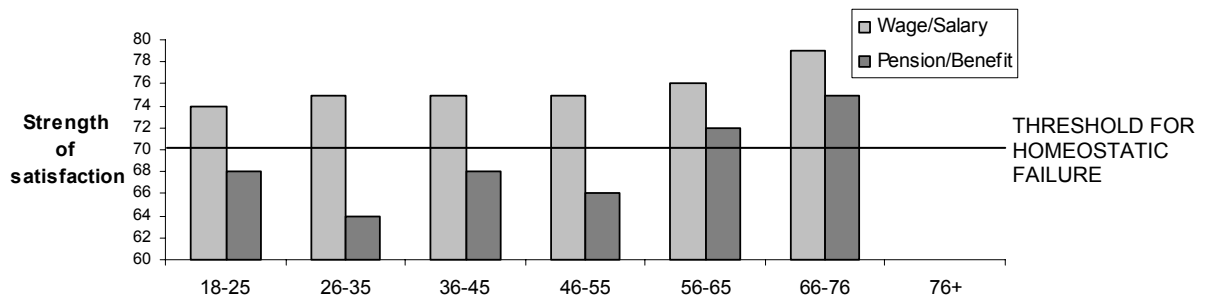


Figure 4.6: Personal Wellbeing Index: Pension vs. Salary

There is a significant main effect for age ($F(5,1310) = 4.308, p=.001$) and for income group ($F(1,1310) = 36.821, p=.000$) but no significant interaction ($F(5,1310) = 1.61, p=.326$). In other words, the Pension/Benefit group retains a lower level of wellbeing at all ages. Of even greater significance, however, the PWI remains below the threshold (70) for high risk of psychological dysfunction from ages 18-56. It is evident that these 114 people, who comprise 11% of the total sample of respondents

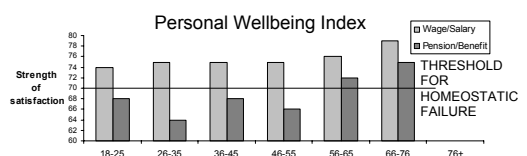
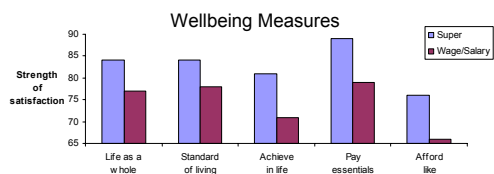
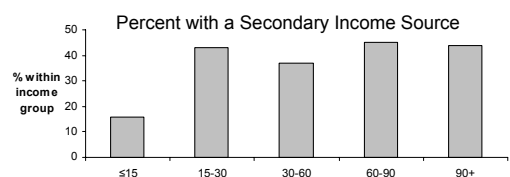
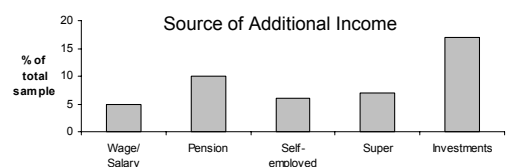
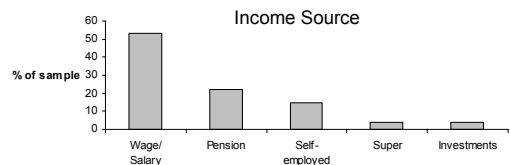
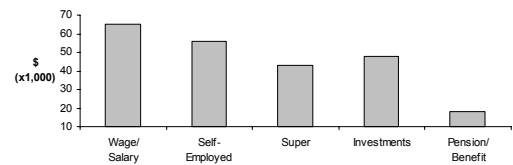
who stated their income, are being seriously disadvantaged in terms of their wellbeing.

Six of the domains showed a similar pattern of data to the Personal Wellbeing Index. However, Standard of Living showed a significant interaction effect, as did also the additional items of Financial Security, Spiritual/Religious, and Life as a Whole. These measures all show the same pattern of data as depicted in Figure 4.6, but the drop in values for the 26-35 group are more exaggerated.

It seems most likely that these low levels of personal wellbeing are a direct consequence of unemployment, rather than being attributable to ill health or disability. The sudden rise in wellbeing of the Pension/Benefit group at normal retirement age signals that their circumstances are more acceptable to themselves since many more people of their age share their pensioner status. The statistical significance of this result, as demonstrated through the interaction, is an important finding. It signals the damage caused to personal wellbeing by the pension/benefit system which, certainly in the case of unemployment benefits, is highly stigmatised. It also indicates the fallacy of the economists' belief that money can be equated with subjective wellbeing. The actual money available through a pension/benefit does not change as people pass the normal retirement age. What does change is the shame of not being employed.

Dot Point Summary

- The lowest income group is Pension/Benefit.
- The most common primary source of income is wage/salary (53%).
- The most common source of other income is from investments.
- The poorest group ($\leq \$15,000$) is least likely to have a secondary source of income.
- People on superannuation have a lower household income than people on wage/salary (\$42,900 vs. \$65,140) but a higher level of personal wellbeing.
- The decreased wellbeing associated with Pension/Benefit is mainly evident in the younger groups. These young people are chronically ill, disabled, or unemployed. Their wellbeing is so low as to constitute a distinct risk to mental health.



5. Worry About Paying Bills

“Do you ever worry that your household income will not be enough to meet your household expenses and bills” (Yes/No).

The data are presented in Appendix A7. On every measure of personal and national wellbeing the people who responded ‘Yes’ to this question (N=753 or 38.6%) scored significantly lower than the people who responded ‘No’.

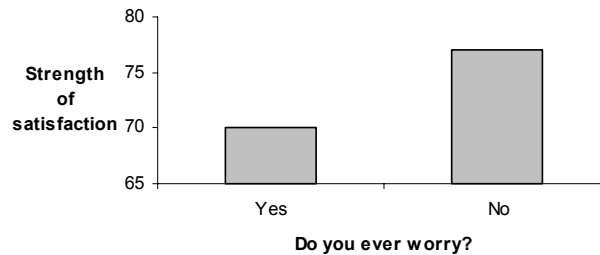


Figure 5.1: Worry and the Personal Wellbeing Index

The Personal Wellbeing Index for the ‘worriers’ is 70.4, which is very close to our baseline for effective wellbeing homeostasis which is 70. We believe that groups who score below this level have a higher than normal proportion of people suffering homeostatic failure and risk of depression.

The proportion of people responding that they worry is similar to that found by Saunders et al (1994). These researchers asked whether people felt they were able to make ends meet. The responses were: With great difficulty (13.5%); with some difficulty (26%); with a little difficulty (24%); fairly easily (24%); easily (9%); very easily (4%). Assuming that ‘with a little difficulty’ would not be severe enough to actually cause ‘worry’, the first two categories combine to yield 39.5%. If this assumption is valid it suggests that the proportion of the Australian population that is worried about their financial situation has remained steady over the past decade.

The cause of such worry is likely to be twofold. First is a personality trait, which will enhance the probability of people saying they are worried no matter what their household income. Second is the actual circumstances of expenditure to income. It is mainly this latter source of worry that will produce differences in the wellbeing of the groups to be described in this chapter.

5.1 Gender Effects

Females are slightly more likely to worry about income being sufficient than males (Chi-square = 3.562, df=1, p=.033).

Neither the PWI nor Life as a Whole showed a gender difference for this financially worried group. This is different from the whole sample, where Life as a Whole was higher in females (Appendix 2). This same Appendix indicates a further five measures of personal wellbeing that differ between the genders in the whole sample, whereas here only Safety and Relationships still show this effect.

These changes in wellbeing due to gender have occurred against the background of worry that reduced overall wellbeing, as has been described. This overall reduction has had the effect of also reducing gender differences in several variables. Thus, whereas the gender difference in Achievements was 2.24% in the whole sample, in the worry sample it is 1.48%, which is non-significant. A similar reduction has occurred in Satisfaction with Community (2.49% to 1.22%) and Life as a Whole (2.25% to 1.27%).

Three other measures, however, have shown an increased gender difference. The Spiritual/Religious difference has increased by 0.35%, Safety by 0.36%, Relationships by 0.72%. It thus seems that these three measures are particularly sensitive to the differential gender effects of worry.

The two domains that continue to show a gender difference are shown below.

Table 5.1: Gender Differences on Personal Domains

		Male	Female
Relationships	N	349	402
	Mean	72.58	77.84
	SD	24.65	23.96
Safety	N	351	401
	Mean	74.76	70.40
	SD	20.21	22.03

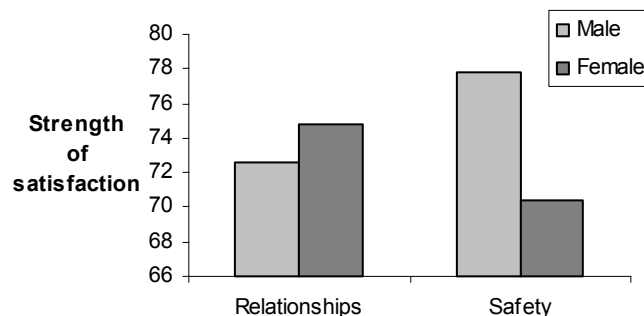


Figure 5.2: Gender Differences on Personal Domains

We have previously reported a phenomenon we have labelled ‘Domain Compensation’ (Best et al., 2000) which occurs in groups under homeostatic threat. The above pattern is a demonstration of such compensation, where a fall in one domain is matched by a rise in another, such that overall wellbeing (PWI) remains just above 70 points. This is the first time domain compensation has been found within gender groups.

5.2 Age Effects

Table 5.2: Age Effects on Community in People who Worry

	18-25	26-35	36-45	46-55	56-65	66-75	76+
N	60	129	186	165	96	69	24
Mean	61.83	64.96	68.28	66.36	74.58	78.70	70.42
SD	19.61	20.77	21.77	21.76	19.62	16.88	25.79
% who worry within age group	29.6	40.4	46.4	43.9	33.7	32.3	22.9

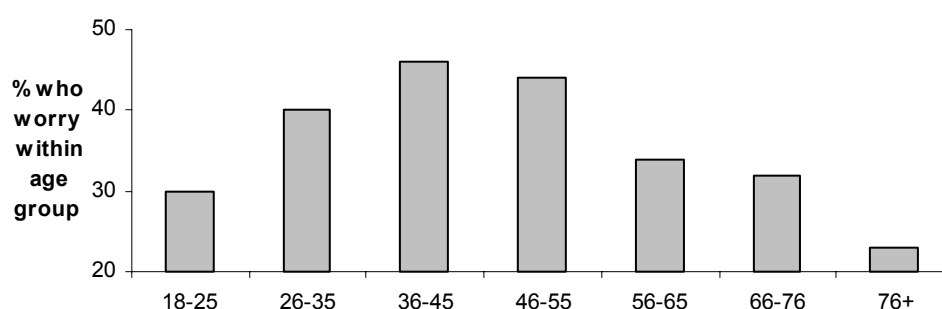


Figure 5.3: People Who Worry x Age

Chi-square across the age groups is significant (40.179, $df=6$, $p=.000$). It is evident that the 26-55 age groups have the highest levels of worry. However, an ANOVA applied to these age groups detected no matching pattern of change in the Personal Wellbeing Index. Moreover, within the domains that showed age-related differences, the pattern reflected the overall increase in wellbeing with age rather than the pattern for worry.

Table 5.3: People Who Worry x Age and Gender – Frequencies (% within age and gender group)

		18-25	26-35	36-45	46-55	56-65	66-75	76+
Male	N	37	58	75	80	44	36	13
	%	28.7	36.8	38.5	44.7	32.8	34.0	28.9
Female	N	23	71	113	87	54	34	11
	%	31.1	44.4	53.8	43.3	34.4	30.6	18.3

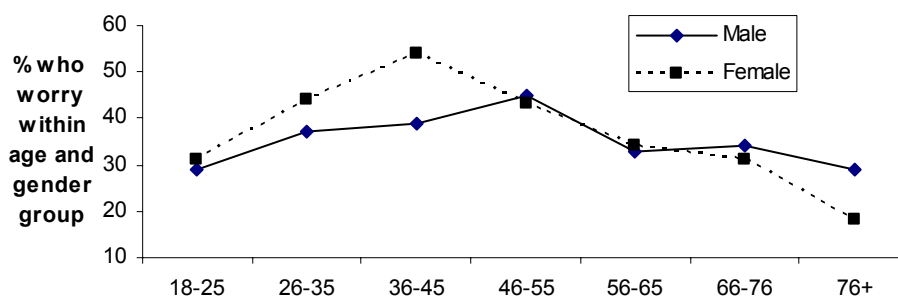


Figure 5.4: Frequencies of People who Worry x Age and Gender

Chi-square is significant (54.093, $df=13$, $p=.000$). There is a tendency for females aged 26-45 to worry more than males of the same age. This is interesting since the actual financial situation (i.e. household income) does not show a gender difference within these age groups (Table 3.15).

The only effect on wellbeing is in the personal domain of Community. It is evident that this reflects the age-related pattern of wellbeing in the total sample. That is, wellbeing gradually increases with age but shows a marked jump after 55 years of age (Figure A8.1). However, whereas in the total sample most of the domains (except health) showed this trend (Table A12.2), here the significant increase is restricted to satisfaction with community connectedness. This difference could be caused by the smaller number of cases in this analysis.

5.3 Number of Household Members

A Chi-square, which split people according to whether they were worried or not, was invalid against the number of household members due to small cell sizes.

5.4 Worry and Income

An interesting feature of these data is that the worried group are spread through the income categories.

Table 5.3: Financial Worry and Income (% of total worriers)

	≤15	15-30	30-60	60-90	90+	Total
N	65	114	134	58	24	395
%	16.5	28.9	33.9	14.7	6.1	100

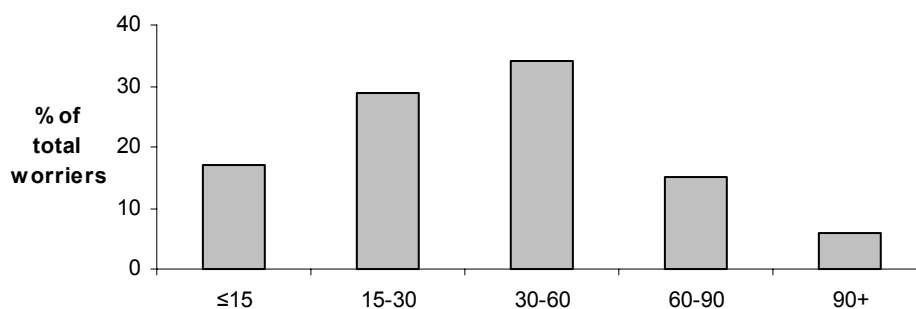


Figure 5.3: Percentage of Total Worriers Distributed Between the Income Groups

This seems either to be a demonstration of Parkinson’s Second Law (Expenditure rises to meet income) or an indication that this ‘worry’ question is tapping into a personality characteristic related to anxiety, which exists at all income levels. It is interesting, however, that 62.8% of the worriers are earning between 15-60K. This income range includes the basic wage and 55% of our sample fall within this income range (Table 3.3). These may well be the ‘Aussie Battlers’ who are managing to raise a family and pay a house mortgage on a modest income.

In terms of personal wellbeing the data are as follows.

Table 5.4: Worry and Income Effects on the PWI

	≤15	15-30	30-60	60-90	90+
Mean	66.13	67.59	71.90	74.36	73.21
SD	14.72	16.25	12.28	10.14	12.45

A Welch test applied to these data is significant ($F(4,116) = 4.905, p=.001$) and indicates that the 60-90 > ≤15; 15-30.

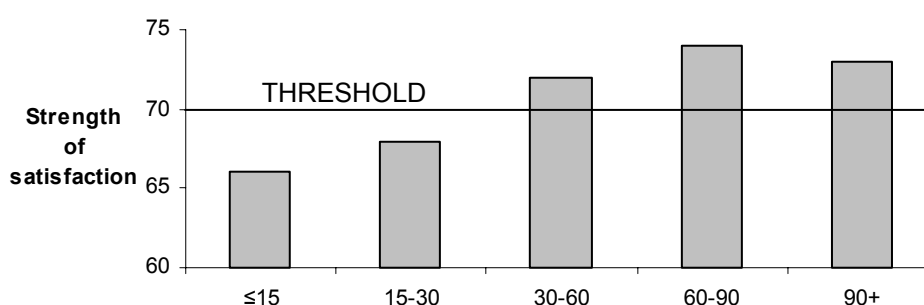
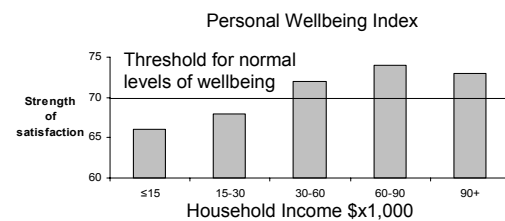
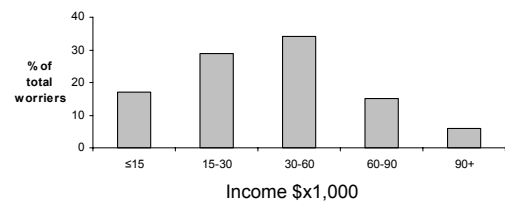
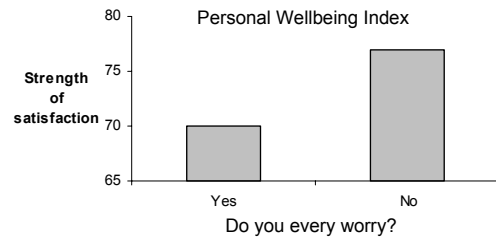


Figure 5.4: PWI Modified by Worry and Income

A similar result to the above was found for the domains of Standard of Living and Health. No other domains were significant and the reduced N values would have contributed to this lack of differentiation.

Dot Point Summary

- People who worry that they will not be able to pay their bills have reduced wellbeing.
- Worriers are distributed between all income groups which may reflect a personality trait. However, their over-representation within the \$15-30 and \$30-60 groups may indicate that people on these incomes are under particular financial pressure due to family responsibilities.
- The personal wellbeing of worriers in the two lowest income groups is below the normative threshold and indicates enhanced risk of problems with mental health.



6. Religion

We asked “What is your religion?”, and the percentage in each major category is presented in Table 6.1. for a breakdown of ‘Other religion’ see Appendix Table A5.2.

Table 6.1: Frequency Distribution of Religious Beliefs

	N	% of total sample
Christian	1149	58.4
Buddhist	25	1.3
Jewish	16	0.8
Muslim	11	0.6
Other religion	22	1.1
No religion	708	36.0
TOTAL	1931	100

The fact that 36% of the sample declare they have no religion is an interesting difference between Australia and many other countries. In the USA, for example, Paloma and Pendleton (1991) report that over 90% of American pray to their God, and that this has not changed since such data were first systematically collected in 1950.

6.1 Religion and PWI

Table 6.2: Religion and Personal Wellbeing

	N	Personal Mean	Wellbeing Index SD
Buddhist	25	71.31	13.09
Christian	1108	75.38	12.21
Jewish	14	77.45	8.31
Muslim	8	71.79	13.13
No religion	691	73.53	12.42
Other religion	22	75.32	14.31

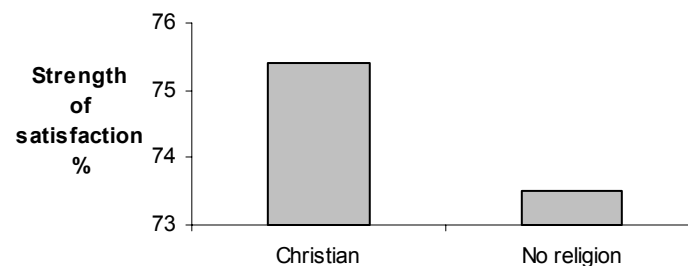


Figure 6.1: Personal Wellbeing of Christians and People who have no Religion

An ANOVA applied to the six religion groups is marginally significant ($F(5,1862)=2.532, p=.027$). However, the N values of most groups are too small to make the data reliable for the purpose of such a test. It is interesting to note that all groups have a mean that is above the 70 critical value for homeostatic failure (see

Section 1.2) indicating that all groups have an average level of personal wellbeing that lies within the normal range (Minimum: Buddhist = 71.31, Maximum: Jewish = 77.45). However, most of these samples are too small to yield reliable data. A comparison between the two largest groups of Christians and no religion is significant ($t = (1,797) = 3,102, p = .002$).

The pattern of data between groups for Life as a Whole is very similar, but the ANOVA was not significant due to higher within-group variance ($F(5,1924) = 2.099, p = .063$).

Table 6.3: Christian vs. No Religion on Personal Wellbeing

	Christian		No Religion		p
	Mean	SD	Mean	SD	
PWI	75.38	12.21	73.53	12.42	.002
Domains:					
Standard	78.09	16.76	76.36	18.04	.035
Health	75.82	19.94	75.68	19.63	.885
Achievements	75.83	17.72	73.42	18.11	.005
Relationships	79.79	21.73	77.40	21.33	.021
Safety	75.55	19.33	76.36	19.30	.380
Community	72.39	19.55	66.34	21.45	.000
Security	70.65	19.69	68.87	19.14	.058
Life as a Whole	78.52	17.20	76.53	17.54	.017

As can be seen, not all domains differ between the two groups. However, for those that do (Standard of Living, Achievement, Relationships, Community Connectedness, and Future Security) all favour the Christian group. However, this significance is due to the age and gender differences between these groups.

6.2 Religion and NWI

Table 6.4: Religion and National Wellbeing

	N	Personal Mean	Wellbeing Index SD
Buddhist	23	57.03	16.28
Christian	1045	62.72	14.36
Jewish	14	64.40	12.05
Muslim	9	61.85	24.12
No religion	636	57.60	16.11
Other religion	18	64.17	12.82

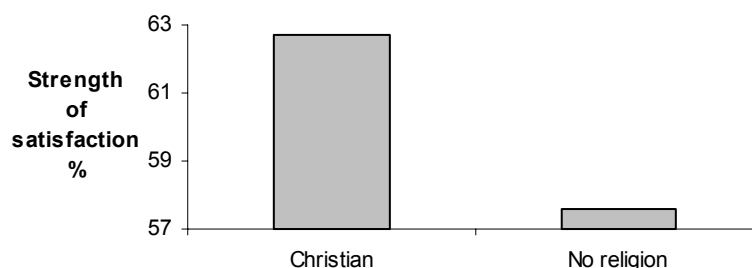


Figure 6.2: National Wellbeing of Christians and People who have no Religion

An ANOVA applied to the six religious groups is significant ($F(5,1739)=9.755$, $p=.000$). However, the only test of significance that can be reliably conducted is between Christian and No religion, which is significant according to a post-hoc Dunnett test. Satisfaction with Life in Australia showed a similar pattern and is significant as above.

It is interesting to note the high within-group variance of the Muslims. This is almost double the magnitude of other groups and indicates greater polarisation of values.

Table 6.5: Christians vs. No Religion on National Wellbeing

	Christian		No Religion		P
	Mean	SD	Mean	SD	
NWI	62.72	14.36	57.60	16.11	.000
Domains					
Economic	66.35	18.51	63.09	19.76	.000
Environment	60.05	18.71	54.21	21.16	.000
Social	64.08	18.11	60.40	19.65	.000
Government	60.05	22.75	49.14	24.93	.000
Business	63.47	17.46	59.91	19.41	.000
National Security	61.74	18.98	60.03	20.75	.074
Life in Australia	84.69	16.54	82.27	18.42	.003

These data indicate a consistently higher level of national wellbeing within the Christian group. The largest difference is with Government (10.9%).

Table 6.6: Christians vs. No Religion on Survey-Specific Items

	Christian		No Religion		P
	Mean	SD	Mean	SD	
Personal:					
Financial Security	68.30	20.90	65.44	21.20	.005
Pay for Essentials	79.48	19.17	78.29	19.59	.195
Afford Likes	65.94	21.96	64.49	22.47	.171
Save Money	61.15	25.83	57.22	27.93	.002
Trends:					
Own life	63.49	19.34	63.68	19.66	.837
Life in Australia	53.91	19.66	52.40	20.10	.116

In relation to these survey-specific items, group means are generally in the direction of being higher for Christian, but this only achieved significance in relation to Financial Security and Ability to Save Money. Neither of the two ‘Trend’ questions approached significance.

6.3 Religion and Gender

Table 6.7: Religion and Gender (within religion %)

	Male %	Female %
Buddhist	60.0	40.0
Christian	44.0	56.0
Jewish	50.0	50.0
Muslim	81.8	18.2
No religion	56.5	43.5
Other religion	54.5	45.5

A Chi-square is significant (33.853, df=5, p=.000). The higher proportion of females within the Christian than the No religion groups (56.0 vs. 43.5%) may go some way to account for the higher Personal Wellbeing Index within the Christian group.

In order to perform an analysis with sufficient numbers of respondents in each cell, Table 6.8 is restricted to Christian and No Religion.

Table 6.8: Christianity, No Religion and Age (within age group %)

		18-25	26-35	36-45	46-55	56-65	66-75	76+
Christian	N	95	166	233	224	194	149	72
	%	50.3	54.6	61.6	61.7	69.3	71.0	70.6
No Religion	N	94	138	145	139	86	61	30
	%	49.7	45.4	38.4	38.3	30.7	29.0	29.4

It is important to note that the percentages in Table 6.5 are ‘Within each age group’ and that the only data entered into the Table are Christian and No Religion. Thus, these percentages do not take into consideration other religions, and so are overestimates of the percentage within the total sample by approximately 5% (see Table 6.1).

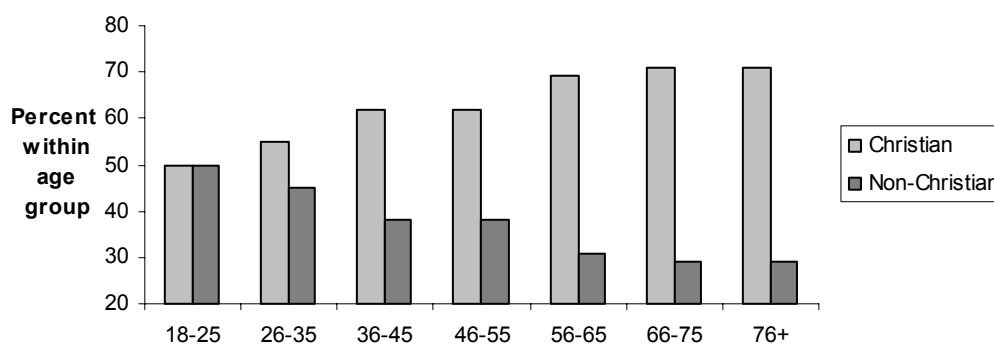


Figure 6.3: Christianity, No Religion and Age

The Chi-square applied to these data is significant (34.798, df=6, p=.000). The trends are clearly in opposite directions with the number of Christians increasing, and the number of people with no religion decreasing with age. There are two possible explanations for these trends. Either there is an increasing tendency for people to have no religion, or people tend to acquire Christianity as they get older. Other ABS data indicate the former to be the strongest influence.

6.4 Religion and Age

Table 6.9: Religion and Age (within religion %)

	18-25 (N)%	26-35 (N)%	36-45 (N)%	46-55 (N)%	56-65 (N)%	66-75 (N)%	76+ (N)%
Buddhist	(4) 16.0	(2) 8.0	(7) 28.0	(4) 16.0	(6) 24.0	(2) 8.0	-
Christian	(95) 8.4	(166) 14.7	(233) 20.6	(224) 19.8	(194) 17.1	(149) 13.2	(72) 6.4
Jewish	(2) 12.5	(2) 12.5	(5) 31.3	(1) 6.3	(1) 6.3	(3) 18.8	(2) 12.5
Muslim	(5) 45.5	(3) 27.3	(2) 18.2	(1) 9.1	-	-	-
No religion	(94) 13.6	(138) 19.9	(145) 20.9	(139) 20.1	(86) 12.4	(61) 8.8	(30) 1.6
Other religion	(2) 11.8	-	(5) 29.4	(6) 35.3	(2) 11.8	(1) 5.9	(1) 5.9

The Chi-square across this Table is invalid due to the fact that 69.4% of cells have an N of less than 5. However, it can be seen that the Christian group is generally older than the No religion group. This may also explain some of the difference between these two groups in personal wellbeing since the PWI tends to rise with increasing age.

6.5 Religion and Income

Table 6.10: Religion and Household Income (% within religion)

	≤\$15K (N)%	15-30 (N)%	30-60 (N)%	60-90 (N)%	90+ (N)%
Buddhist	(4) 26.7	(2) 13.3	(4) 26.7	(3) 20.0	(2) 13.3
Christian	(93) 15.5	(133) 22.2	(199) 33.2	(92) 15.4	(82) 13.7
Jewish	(1) 11.1	(2) 22.2	(3) 33.3	(1) 11.1	(2) 22.2
Muslim	-	(4) 44.4	(2) 22.2	(2) 22.2	(1) 11.1
No religion	(41) 10.0	(84) 20.5	(116) 28.4	(91) 22.2	(77) 18.8
Other religion	(1) 7.1	(5) 35.7	(3) 21.4	(4) 28.6	(1) 7.1

A Chi-square applied to Table 6.10 is invalid due to the 66.7% of cells with N<5. There is a slight tendency for the No religion group to have a higher household income than the Christian group.

Table 6.11: Income and Christian vs. No Religion (% within income group)

		≤\$15	15-30	30-60	60-90	90+	Total
Christian	N	93	133	199	92	82	599
	%	69.4	61.3	63.2	50.3	51.6	
No religion	N	41	84	116	91	77	409
	%	30.6	38.7	36.8	49.7	48.4	

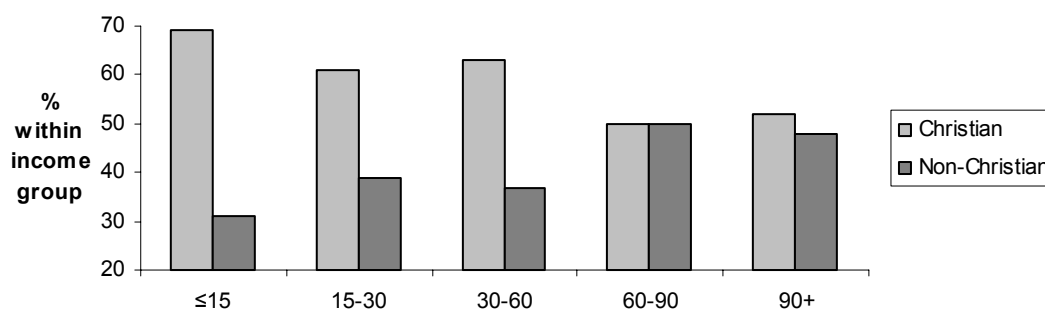


Figure 6.4: Income, Christian vs. Income Non-Christian

The Chi-square applied to the frequency data in Table 6.11 is significant (18.106, df=2, p=.001). As can be seen from Figure 6.4 the differences are confined to the lower income brackets where there are a larger proportion of Christians. This is interesting since it means that the Christian/No Religious differences in the PWI and NWI are not due to income effects. Income tends to be positively related to personal and national wellbeing. The above pattern reflects the higher proportion of elderly people and females within the Christian group.

6.6 Religion and Satisfaction with Religion/Spirituality

As a component of the Personal Wellbeing Index we ask: “How satisfied are you with your religion or spirituality?” The data are provided below.

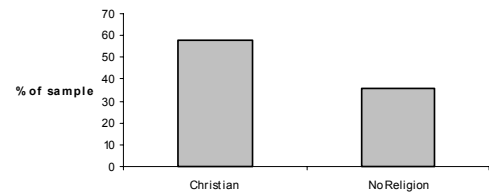
Table 6.12: Religion and Satisfaction with Religion/Spirituality

	N	Mean	SD
Buddhist	22	80.00	19.76
Christian	1,005	76.74	20.12
Jewish	15	78.67	18.85
Muslim	11	78.18	26.77
Other religion	20	81.50	17.55

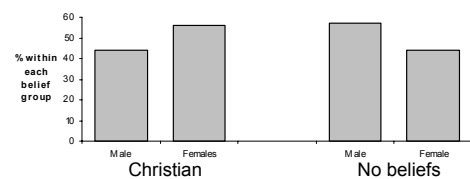
This indicates no major differences between these religious groups.

Dot Point Summary

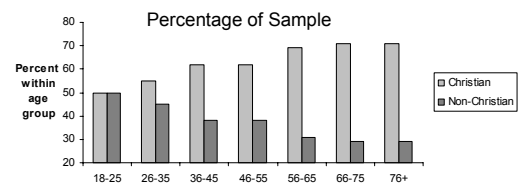
- A majority of the sample are Christian (58%) and over one third of the sample (36%) have no religious or spiritual belief.



- A higher proportion of females are Christians and a higher proportion of males have no religious or spiritual belief.



- The proportion of the sample who are Christians rises with age while the proportion of people who have no religion or spirituality falls with age. These trends reflect the increasing tendency of Australians to have no religious or spiritual beliefs.



- While only eight Muslims were included in the sample, their average level of personal wellbeing was within the normal range.
- Christians had a higher level of wellbeing than the no-religion group. This was due to the Christian group being older and containing more females.

7. People Who Live Alone

Section 3 indicated that a substantial portion of the sample (N=313; 16.1%) live alone (Table A7). This identification allows us to examine the validity of a previous finding, that males living under such circumstances have a lower level of wellbeing than females. This Chapter includes these analyses, and also examines other data that may inform why this difference may occur.

7.1 Demographics

Overall, 52.4% of this sample are male and their average age is 58 years.

Table 7.1: Percentage of People Living Alone (% within age and gender for the whole sample)

	18-25	26-35	36-45	46-55	56-65	66-75	76+
Male	6.3	15.8	13.3	19.0	16.2	28.3	40.0
Female	1.4	5.1	4.7	10.1	17.9	40.5	59.3
Mean	3.9	10.5	9.0	14.6	17.1	34.4	50.0

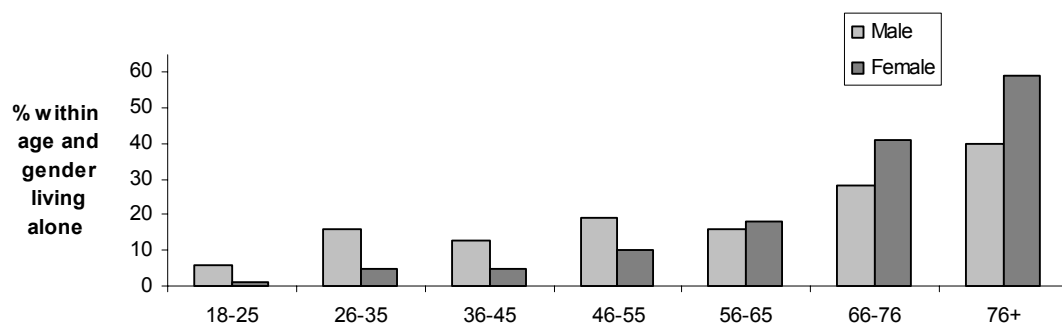


Figure 7.1: Percentage of People Within each Age and Gender Group Living Alone

The early trend is for more males than females to live alone. This trend disappears at 56-65 years, after which single females predominate.

Table 7.2: Income of People who Live Alone

	\$≤15	15-30	30-60	60-90	90+	Total
N	85	44	50	12	8	199
%	42.7	22.1	25.1	6.0	4.0	100

Over 60% of people who live alone are in the two lowest income brackets. Their mean income is \$30,675 which reflects the high proportion on pension/benefit.

Table 7.3: Income Source of People who Live Alone

	Wage/ Salary	Self- employed	Super	Investm ents	Pension/ Benefit	Total
N	87	27	21	27	146	308

% | 28.2 8.8 6.8 8.8 47.0 100

While our half of the people who live alone are drawing their income from a pension or superannuation, it is somewhat surprising to see that 28% are apparently supporting themselves through part-time employment.

7.2 Personal Wellbeing of People who Live Alone

7.2.1 Gender Effects

Maximum N: M=156, F=136.

Table 7.4: Gender Effects on the Personal Wellbeing of People who Live Alone

	Male		Female		t	p
	Mean	SD	Mean	SD		
PWI	68.29	13.97	74.59	13.28	3.935	.000
Standard	72.50	19.70	79.06	17.83	3.077	.002
Health	71.95	20.93	71.88	21.16	0.030	.972
Achieve	69.82	19.61	76.60	17.92	3.167	.002
Relationships	61.98	26.54	76.37	23.49	5.018	.000
Safety	75.37	20.44	73.99	21.15	0.586	.559
Community	63.74	24.27	72.88	21.20	3.505	.001
Fut. Security	66.31	24.12	71.21	21.89	1.833	.068
Life Whole	72.07	19.46	77.65	18.14	2.616	.009
Spirit/Rel	74.51	20.27	79.81	21.47	1.879	.062
Fin. Security	62.70	24.09	65.64	22.82	1.104	.271

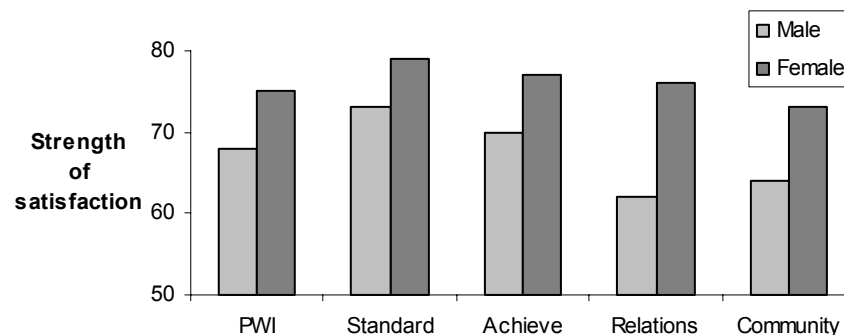


Figure 7.2: Gender Effects on the Personal Wellbeing of People who Live Alone

Not only do all of these differences favour females, but also the Personal Wellbeing Index of the males is lower than the 70 point threshold for homeostatic failure. This group are at high risk of mental health problems.

Undoubtedly a large factor in this homeostatic failure is the low satisfaction with relationships, which is 14 points lower than the females, and 17.7 points lower than the whole survey average (Table 2.1). It may be the case that this loss of buffering capacity, which most people get from their close relationships, means that these single men are highly vulnerable to the sources of stress in their lives.

It is also certain that a proportion of these males are living alone following separation from their previous partner. We have shown in an earlier report that both males and females have low levels of wellbeing following divorce or separation.

7.2.2 Age Effects

Table 7.5: Age Effects on Personal Wellbeing of People who Live Alone

		18-25	26-35	36-45	46-55	56-65	66-75	76+	f	p
		N=9	N=32	N=34	N=51	N=47	N=70	N=46		
PWI	Mean	67.78	68.30	67.65	67.25	72.52	73.22	76.37	2.803	.012
	SD	13.91	14.32	14.36	15.07	12.31	14.56	11.44		
Standard	Mean	75.56	76.06	70.56	67.41	77.40	76.67	83.02	3.714	.001
	SD	18.78	13.21	22.03	24.20	16.14	18.48	14.09		
Health	Mean	87.78	74.85	74.17	69.07	74.60	66.67	73.21	2.190	.044
	SD	20.48	19.70	18.42	22.68	16.31	24.35	19.19		
Achieve	Mean	68.89	68.48	68.33	70.74	72.65	75.95	77.31	1.619	.141
	SD	17.84	20.63	20.63	20.08	17.89	19.30	15.86		
Relations	Mean	55.56	58.75	58.06	65.37	69.59	73.11	80.78	4.805	.000
	SD	30.46	23.66	21.49	28.33	24.23	26.69	22.70		
Safety	Mean	78.89	71.21	75.28	75.00	76.20	74.40	76.35	0.325	.924
	SD	23.89	21.90	17.15	20.54	17.94	22.01	20.20		
Community	Mean	53.33	60.30	60.28	64.62	67.80	76.16	74.15	4.424	.000
	SD	23.98	22.57	24.08	24.61	20.63	21.71	21.96		
Fut.Security	Mean	54.44	69.09	66.47	63.21	71.02	69.86	73.27	1.546	.163
	SD	27.44	21.85	22.41	24.56	21.91	23.57	22.67		
Life Whole	Mean	60.00	69.09	69.44	67.96	78.40	77.87	82.26	5.467	.000
	SD	29.58	19.10	16.55	22.85	14.19	16.13	17.28		
Spirit/Rel	Mean	-	68.18	72.27	76.05	78.86	79.42	82.11	1.490	.183
	SD	-	21.52	23.29	19.90	20.55	19.74	18.03		
Fin. Security	Mean	55.56	71.52	61.11	57.74	64.40	63.33	69.25	1.959	.071
	SD	26.03	19.06	20.25	24.23	24.84	25.22	21.83		

Very few of the post-hoc tests are significant. Where they are they indicate the two oldest groups are more satisfied than one or more of the younger groups. This is simply confirmation that the age trend of rising wellbeing, seen in the whole survey sample, is also present within the sample of people who are living alone.

7.3 Personal wellbeing of people who live alone and worry their income will not be enough to meet household expenses and bills

There are 112 people in this group and 50.9% are male. Few of them are young (18-25 = 1.8%; 26-35 = 8.0%) and all other age categories contain between 10-20% of the sample except the 46-55 age category which contains 26.8% of the sample. This shows an uneven gender split (Males 17.1%, Females 9.9%) and may represent situations of separation or divorce where the partners split and the female retains custody of children. It is curious, however, that no such clear disparity exists for either the younger (36-45) group (Male 9.0%, Females 8.1%) or older (56-65) group (Males 6.3%, Females 8.1%) It is not clear why such a relatively high proportion of males aged 46-55 years should worry about matching their income and expenditure.

In terms of income source, compared with the whole sample (Table 4.1) a smaller percentage are actively employed (30% vs. 53% for the whole survey sample) While more people are obtaining their income from pensions/benefits (53% vs. 22%). This reflects their older average age than the whole sample (56 vs. 47 years) and a lower average income (\$26,403 vs. \$50,957).

Table 7.6: Wellbeing of People who Live Alone and Worry

	N	Mean	SD
PWI	105	65.43	14.94
Standard	112	66.88	21.77
Health	112	67.59	23.68
Achievements	111	66.58	21.13
Relationships	111	63.42	26.37
Safety	112	69.20	24.76
Community	111	66.04	23.64
Future Security	108	60.56	25.93
Life as a Whole	112	69.11	21.08

The Personal Wellbeing Index of this group is lying about two standard deviations below the normative baseline of 70 points. Most notable, in terms of the domains, is Relationships. In normative samples (Table 2.1) this is the highest ranking domain, while here it is the second lowest.

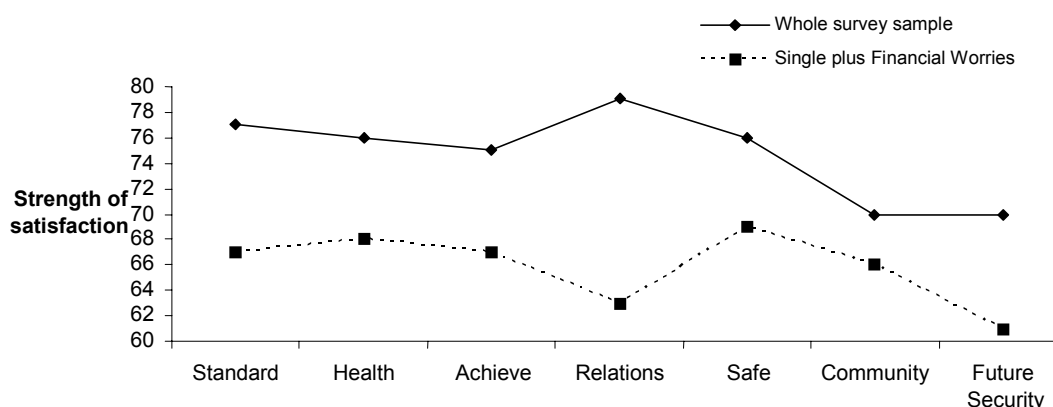


Figure 7.3: Personal Domains: Worries vs. Not Worries

7.3.1 Gender Effects

An approximately equal number of males and females living alone fell into this category (55:50 respectively). The PWI of both groups lies below the normal range.

Table 7.7: Wellbeing of People who Worry and Live Alone

	Male		Female		t	p
	Mean	SD	Mean	SD		
PWI	62.05	14.57	69.14	14.59	2.490	.014
Standard	62.63	22.48	71.27	20.28	2.133	.035
Health	66.32	24.76	68.91	22.66	0.578	.565
Achievements	61.75	21.89	71.67	19.21	2.531	.013
Relationships	55.71	26.28	71.27	24.27	3.239	.002
Safety	70.18	25.18	68.18	24.50	0.424	.672
Community	61.05	25.61	71.30	20.29	2.328	.022
Future Security	59.82	27.07	61.35	24.89	0.304	.762
Life Whole	65.09	21.14	73.27	20.37	2.085	.039
Spirit/Rel.	71.03	22.92	75.26	24.47	0.785	.435
Financial Security	53.75	27.87	52.00	23.60	0.357	.722

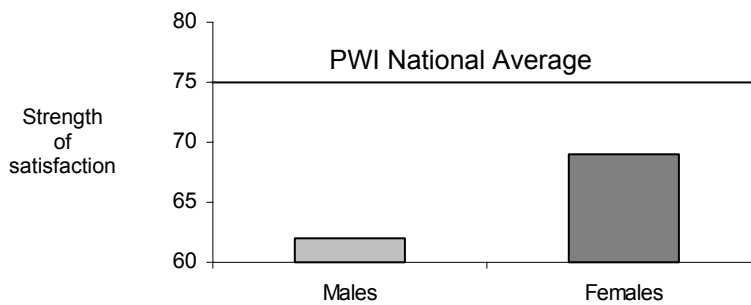


Figure 7.4: PWI of People who Worry and Live Alone

Not only the Personal Wellbeing Index, but also the domains of Achievements, Relationships, and Community Connectedness are significantly higher for females. Each of these shows an approximate 10-point advantage to females, except for Relationships where the difference is 16 points. This male value of 55.7 points for relationships is extraordinarily low. Whereas the female value is 7.4 points below the national average of 78.7, the male value is 23 points below.

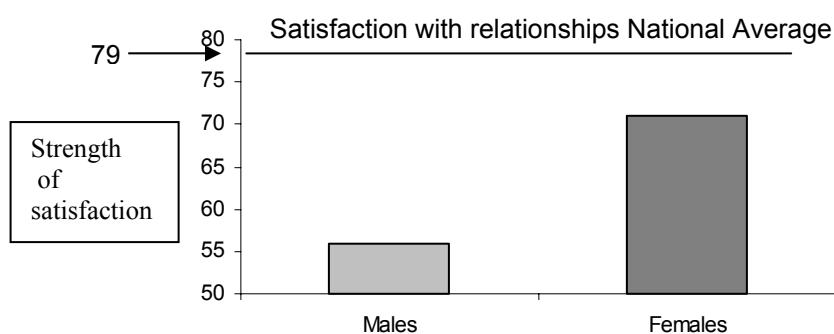


Figure 7.5: Gender Differences in the satisfaction with relationships of People who Worry

This finding may be an important key to explaining the lower overall wellbeing of both genders, but particularly that of males. Relationships are a key buffer to reduce the impact of stress on wellbeing. People who lack an intimate relationship are therefore highly vulnerable to the stressors in their environment, including insufficient financial resources.

7.3.2 Age Effects

When the data for this group are broken down into age groupings the cell sizes become small. However, the data show a coherent pattern as can be seen below. The 18-25 group has been omitted since it contained only two people.

Table 7.8: Age Differences in the Wellbeing of People who Worry

		18-35	36-45	46-55	56-65	66-75	76+
Minimum N		8	29	15	19	13	
PWI	Mean	54.82	61.03	65.76	66.76	67.14	72.31
	SD	16.41	16.22	14.25	15.05	14.35	12.96
Standard	Mean	70.00	60.00	60.00	68.75	69.55	80.00
	SD	11.18	24.49	25.33	17.84	18.64	18.26
Health	Mean	60.00	73.16	67.00	75.00	59.55	69.23
	SD	24.49	23.11	25.62	18.62	24.00	22.53
Achieve	Mean	50.00	58.42	70.67	65.00	69.05	73.85
	SD	23.45	21.92	18.93	18.82	21.66	19.38
Relations	Mean	40.00	53.68	60.00	67.50	74.55	80.00
	SD	26.73	26.29	26.19	30.00	15.95	18.26
Safety	Mean	52.22	71.05	74.33	67.50	70.91	66.92
	SD	27.28	21.83	19.24	21.76	29.10	25.94
Community	Mean	54.44	52.11	67.25	67.50	76.82	72.31
	SD	25.06	24.85	22.02	23.24	19.61	24.21
Fut.Security	Mean	67.78	56.11	61.67	59.33	57.50	63.65
	SD	29.49	24.53	25.61	29.63	26.13	26.94
Life Whole	Mean	53.33	62.63	67.33	74.38	73.64	78.46
	SD	25.50	18.51	22.88	13.15	16.20	25.12
Spirit/Rel	Mean	56.00	69.00	78.00	72.31	75.83	80.00
	SD	15.17	29.98	20.82	23.86	18.81	21.08
Fin. Security	Mean	78.89	50.53	48.62	48.13	45.45	60.77
	SD	19.00	19.57	26.82	32.50	21.32	23.62

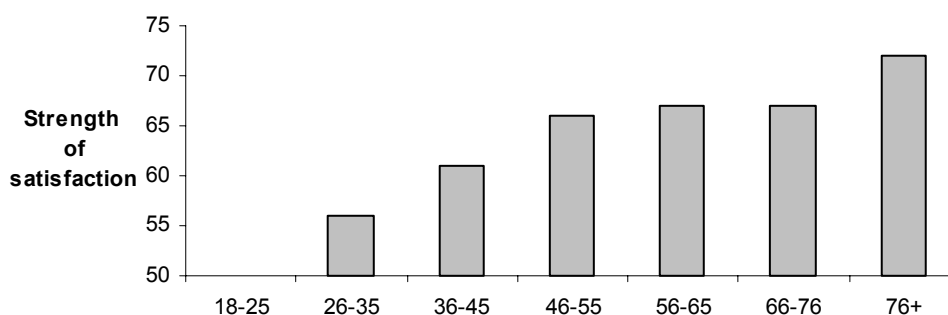


Figure 7.6: Age Trends in the PWI for People who Worry

The general trend, through these personal wellbeing data, is an exaggeration of the age-trends seen in the whole sample data (Table A12.1). The normative rise in the PWI between the ages of 26-35 to 76+ is 3.7 points. Here the age difference is 17.5 points.

A similar age-trend is also evident in the domains of Health, Achievements, Relationships, and Safety, as well as Life as a Whole and Spiritual/Religious. However, a different pattern is evident in Standard of Living, Future Security, and Financial Security. These three measures show the following relationship with age where the 36-45 group are the lowest.

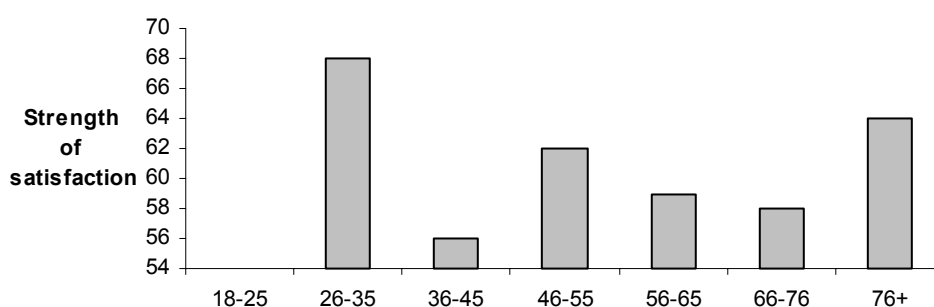


Figure 7.7: Age Trends in Future Security for People who Worry About Their Financial Situation

For each of these three measures, all of which can be linked primarily to one's financial situation, the full depression of wellbeing is delayed until 36-45y, and remains low until the oldest age group, where it rises once again. However, all of these values are substantially lower than the normative average.

In interpreting these two difference patterns it must be recalled that all of these people are living alone. Presumably, therefore, there are no developing financial pressures consequential to raising a family. Moreover, in contrast to other groups in this survey, these people are responding to their own earned income rather than 'household' income. So, with this in mind, the following interpretation is offered.

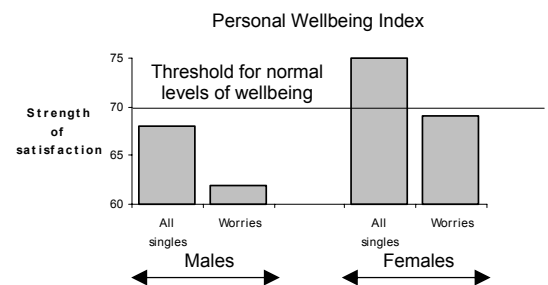
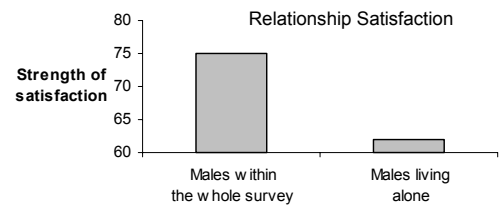
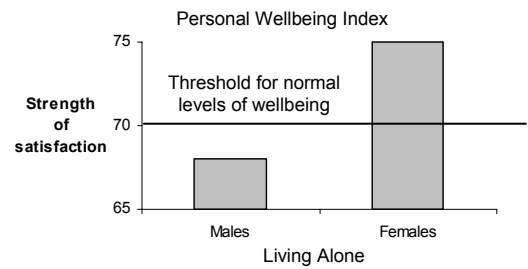
As has been established, these people generally have a low income and low relationship satisfaction. These factors generally conspire to reduce wellbeing to very

low levels but, as they age, the constitutional or cohort forces that increase wellbeing have their way, and these indices generally rise.

In matters financial, however, a different time course is evident. Here there is an early level of optimism, that the future will be better, such that satisfaction is reasonably maintained. However, this relatively positive outlook appears to last only up to the mid 30s, after which age reality hits and financial wellbeing plummets to much the same level as the other domains.

Dot Point Summary

- These data confirm that males living alone have a very low level of subjective wellbeing, whereas females living alone have normal levels of wellbeing.
- Males living alone have very low satisfaction with their personal relationships. This makes them vulnerable to stress.
- People who live alone and worry their income will not be enough to meet household expenses and bills have very low levels of wellbeing. This worry decreases the wellbeing of males and females equally, but takes the males to particularly low levels.



8. Bali Bombing and September 11

“In the terrorist’s cold calculations, producing casualties is a secondary consideration to the more important goal: that the news of the horrific event gets widely disseminated and engenders a state of fear and anxiety throughout the population. An appropriate response, therefore, requires a determined effort to help the population withstand such attacks on the people. We must defend the intangible.” Susser et al., 2002 (p. 56).

The second survey conducted over the period 19th–30th September 2001, included questions about the impact of the US terrorist attacks on Australians. People were asked “What about the September 11 terrorist attack in America? Have they made you feel unhappier or sadder than normal? (If ‘yes’) How strong would you rate this sadness?”

In the most recent survey this question was repeated, with the phrase ‘recent terrorist attacks in Bali’ replacing ‘September 11 terrorist attack in America’.

8.1 Frequency of Sadness when Recalling Terrorist Attacks

Following the September 2001 Survey, 90% of the Australians surveyed felt sadder than usual when they recalled the attacks. This most recent survey shows that the Bali bombing affected fewer Australians in this way, with 76% responding in this manner. This difference is highly significant (Chi-square = 152.109, df=1, p=.000).

Table 8.1: The percentage of people feeling sad when recalling S11

	September 2001	March 2002	August 2002	November 2002
Total N in each survey	2,004	2,001	1,973	1963
% of total	90.4	62.7	50.0	76.0
% of males (within gender)	85.2	54.1	43.3	69.4
% of females (within gender)	93.5	67.8	56.4	82.6

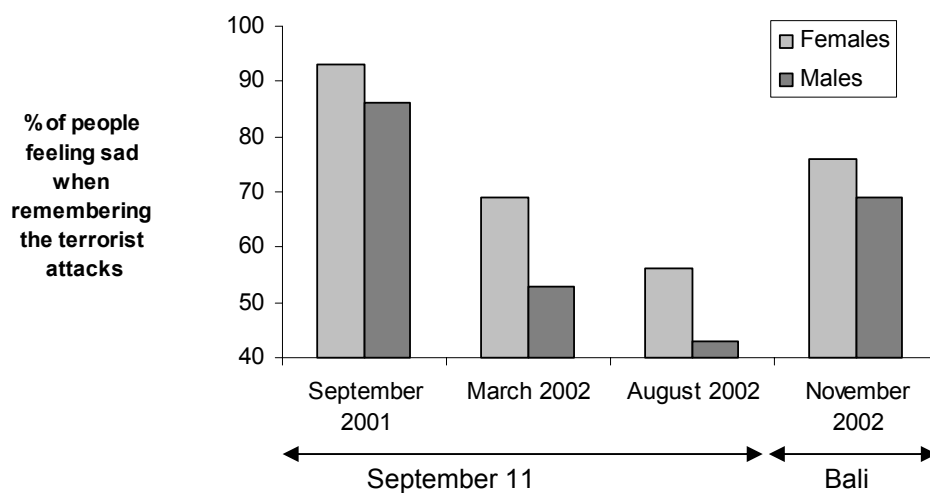


Figure 8.1: The percentage of people feeling sad when remembering the attacks

The percentages in Figure 8.1 represent the within-gender values i.e. of all the males in the current survey, 69.4% responded they felt sad when recalling S11. Two observations can be made. First, at the time of the Bali attacks around half of the population were still saying that they felt sadder than normal when recalling S11, down from 90% in September of that year. That is, 40% of the people who had initially responded to S11 with sadness, no longer did so. This indicates a process of adaptation to the attacks and may go some way to explaining the lower number of people responding that they felt sadder than normal when recalling Bali compared with the number immediately following S11. If people had adapted to such feelings of sadness, this adaptation would be expected to generalise to another, similar event.

The second observation is that people may respond ‘Yes’ to this question for one of two reasons. The most obvious is that people feel a deep sense of personal sadness as a consequence of S11. This has always seemed to be unlikely since there has been no matching downward trend in the Personal Wellbeing Index. The other reason is that people are no longer reacting with pure emotion to an immediate event. The processes of event recall and evaluation adds a strong cognitive component, and this will become more marked with the passage of time. People’s reactions may, therefore represent a mix of personal emotion and their need to produce a socially acceptable response to a dreadful event.

It can also be seen from Figure 8.1 that males are consistently less prepared than females to respond ‘Yes’ to this question (Chi-square=38.020, df=1, p=.000). We have no way of knowing whether these males are displaying less social acquiescence than females. We do know, however, that a consistent trend in our data is for females to respond more strongly to questions that involve emotional states.

Age and Gender Effects on Attack Sadness

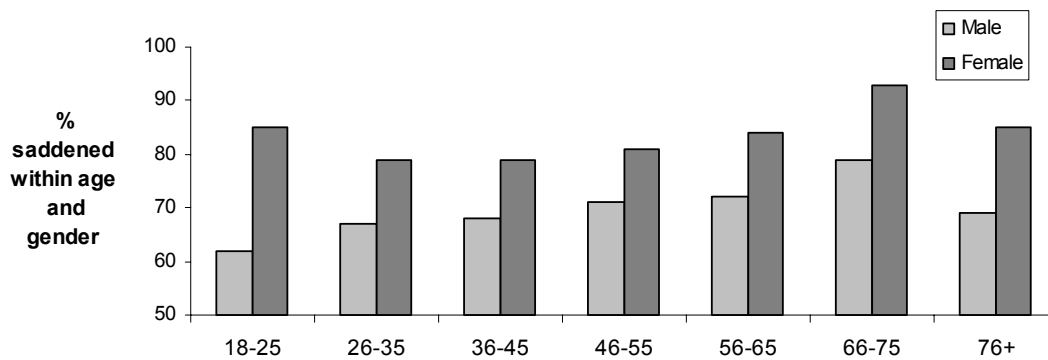


Figure 8.2: Percentage of people saddened within age and gender groupings

A simple male-female comparison is significant (Chi-square=46.956, df=1, p=.000). A comparison across the seven age groups is also significant (Chi-square=20.293, df=6, p=.002). There is a slight tendency for this percentage of people saddened to increase with age up to 66-75 years. The gender x age comparison is also significant (Chi-square=81.841, df=26, p=.000).

Income and Attack Sadness

Table 8.2: Life Events and Income

	<\$15	15-30	30-60	60-90	90+
N	118	181	252	142	111
% saddened within income group	84.3	77.4	76.1	72.8	67.3

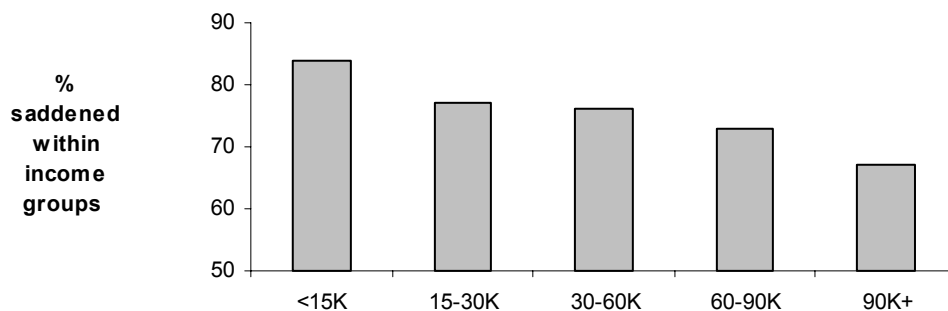


Figure 8.3: Percentage of People Saddened within Income Groups

This Figure indicates a diminishing percentage of people feeling saddened by the Bali attacks as household income increases. This is quite a sizeable effect, being 18% different between the lowest to highest group (Chi-square=13.139, df=4, p=.011). It is possible this reflects perceived vulnerability.

Religion and Attack Sadness

Table 8.3: Religion and Bali Attack Sadness (% within religion)

	Yes N	Sadder than normal %
Buddhist	15	60.0
Christian	928	80.9
Jewish	15	93.8
Muslim	7	63.6
No religion	487	68.9
Other religion	16	72.7

A Chi-square applied to these data is significant (42.248, $df=5$, $p=.000$). While the numbers in four groups are too small to be considered reliable, the Christians have a higher incidence of felt sadness than the No religion group. (Chi-square = 34.993, $df=1$, $p=.000$).

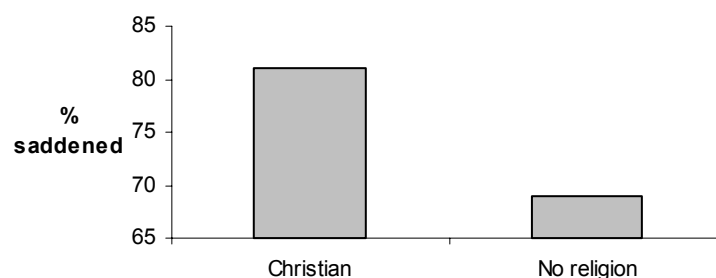


Figure 8.4: Christian vs. No Religion in Attack Sadness

8.2 Strength of Sadness When Recalling Terrorist Attacks

If people respond 'Yes' to the sadness question they are asked "How strong would you rate this sadness?" The mean values are given below:

Table 8.4: Strength of Sadness When Recalling Terrorist Attacks

	September 11			Bali
	S2	S3	S4	S5
N	1,790	1233	968	1,487
Mean	71.86	70.48	69.15	70.95
SD	26.64	24.07	22.32	23.16

There is a marginally significant difference across these surveys ($F(3,5474) = 2.683$, $p=.045$) and this is caused by $S2 > S4$ ($p=.028$). This indicates that, as might be expected, the fall in the number of people who feel sad when recalling September 11 is accompanied by a decrease in the intensity of the felt sadness. However, this difference is only 2.7%, which seems a remarkably small degree of change when the number of people reporting they feel saddened when recalling S11 has fluctuated between 90% (S2) and 50% (S4). Moreover, there is no difference between S2 and S5 ($t(3275) = 1.035$, $p=.295$) despite the proportion of people feeling saddened being

very different immediately following the two attacks (Table 8.1). The similarity of these intensity data suggests the operation of a ‘threshold’ for sadness; a certain emotional strength that is required in order for the state to be acknowledged in this way. Alternatively, if people are responding in accordance with social acquiescence, then they seem to have 7/10 in mind as a ‘reasonable’ degree of sadness to report.

Gender and Age Effects on Strength of Sadness

When the two equivalent post-attack surveys are combined, the strength of sadness when recalling each attack is as follows:

Table 8.5: Strength of Terrorist Attack Sadness by Age

Age		18-25	26-35	36-45	46-55	56-65	66-75	76+
S11 (Survey 2)	N	213	273	368	363	248	204	121
	Mean	69.20	70.95	72.39	72.09	71.45	73.33	74.63
	SD	25.68	25.09	26.78	26.64	27.84	26.72	28.72
Bali (Survey 5)	N	145	231	298	290	230	189	80
	Mean	68.34	67.79	67.55	71.41	75.04	73.81	75.88
	SD	21.92	24.20	22.47	24.03	22.77	21.79	22.76

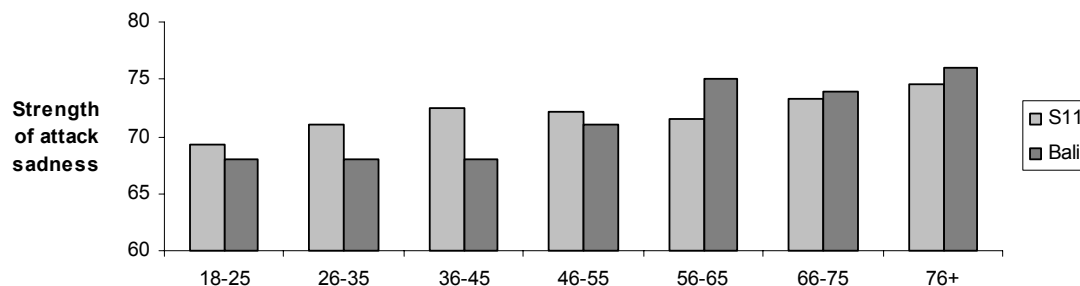


Figure 8.5: Strength of Terrorist Attack Sadness by Age Group

An ANOVA using the Bali data alone is significant [$F(6,1456) = 4.453, p=.000$] indicating that the strength of felt sadness increases after 56 years of age. Specifically, the values for 56-65y are higher than both 26-35y ($p=.016$) and 36-45y ($p=.006$). An analysis of variance applied to both surveys together (survey and age) revealed a significant age effect ($F(6,3239) = 3.233, p=.004$, Partial eta squared = .006) but no significant interaction ($F(6,3239) = 1.592, p=.145$).

When these data are broken down by gender the two-way ANOVA is highly significant [$F(13,1449) = 3.049, p=.000$]. Overall, females have a higher strength of sadness than males ($t(1461) = 2.651, p=.008$. Females ($N=817$) 72.39 ± 23.35 , Males ($N=670$) 69.19 ± 22.81). This gender difference is particularly apparent in females over the age of 56 years ($F_{56-65} > M_{26-35}, M_{36-45}, F_{36-45}$).

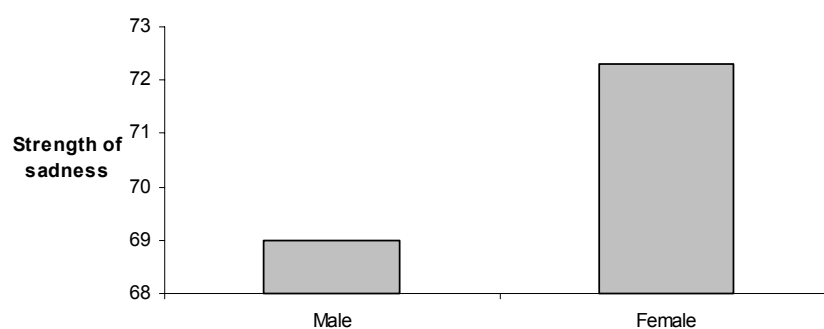


Figure 8.6: Strength of Sadness when Recalling Bali

Income and Strength of Sadness

Table 8.6: Strength of Sadness Across Surveys and Income Groups

		Income Group				
		<\$15,000	\$15-\$30	\$30-\$60	\$60-\$90	\$90,000+
Survey 2 (September 11)	N	378	415	320	283	184
	Mean	72.46	72.19	71.72	71.48	70.87
	SD	28.19	26.16	26.82	24.90	26.74
Survey 3	N	223	278	312	142	89
	Mean	72.64	71.15	68.40	69.01	66.18
	SD	26.94	24.25	23.99	20.60	24.89
Survey 4	N	171	184	256	129	86
	Mean	72.40	70.82	67.93	69.53	64.65
	SD	23.45	22.93	21.64	21.21	19.80
Survey 5 (Bali)	N	116	180	252	142	111
	Mean	74.57	72.94	67.34	69.65	69.82
	SD	24.08	22.98	23.99	22.10	22.32

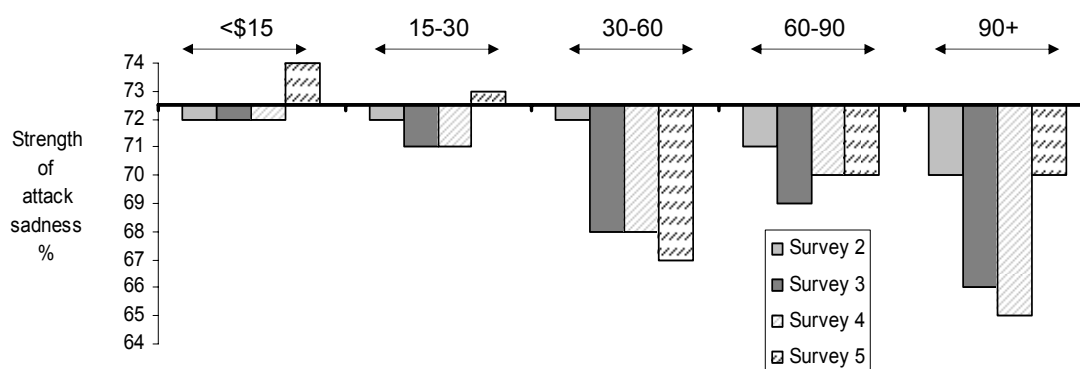


Figure 8.7: Strength of Terrorist Attack Sadness across Surveys and Income Groups

Analysis of variance applied to the S11 data (S2,S3,S4) is significant as a main effect for survey [$F(2,14)=3.361$, $p=.04$] and income [$F(4,14)=3.363$, $p=.009$]. There is no significant interaction. Post-hoc Tukey tests indicate only a marginal difference between surveys 2 and 3 ($p=.066$) and a marginal difference between <\$15,000 and \$90,000 ($p=.041$). Given the minor nature of these differences and the uneven numbers in each cell, in the last report we concluded no effect of income across surveys on the strength of S11 Sadness.

Analysis of variance applied across income groups to the Survey 5 data is marginally significant ($F(4,799) = 2.572$, $p=.037$), but none of the post-hoc tests are significant. Nevertheless, the trend in both the S11 and Bali data is clearly decreasing for all surveys across the income ranges (Figure 8.3) even if these trends are only occasionally significant. We now conclude that the sense of sadness that accompanies recalling these terrorist attacks is higher in the low income group.

As can also be seen from this Figure, the strength of recalled sadness at Bali exceeds that of S11 in the low income groups. A comparison between the September 11 (S2) and Bali (S5) data revealed no significant difference nor survey and income interaction.

Religion and Strength of Sadness

An ANOVA applied across the six religion groups was not significant ($F(5,1455)=2.150$, $p=.057$). However, the frequencies are too small to be considered reliable. A t-test applied to the Christian/No Religion groups is marginally significant ($t(1,406) = 2.430$, $p=.015$).

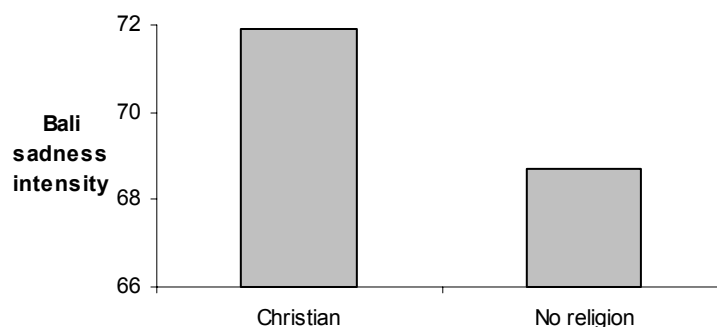


Figure 8.8: Intensity of Sadness and Religion

8.3 Conclusions Relating to Terrorist Attack Sadness

Over the past 14 months, over 50% of the population have reported feeling ‘sadder than normal’ when recalling the terrorist attacks. This proportion had decreased from 90% to 50.0% in the 11 months following S11, but has now been pushed back up to 76%. Our interpretation of these data is as follows:

1. The ‘sadness’ is not generally equivalent to a chronic sense of personal sadness. The levels of personal life satisfaction recorded through the Personal Wellbeing Index have been generally steady, or even rising during this period.
2. The ‘sadness’ is more likely to represent an acute emotional state engendered at times when the attacks are recalled. In this sense they are probably similar to other horrific events such as the holocaust, which many people also recall with sadness. In this context the need people have to respond in this way is likely a combination of an acute emotional response mixed with a cognitive appreciation of the long-term implications of the attack for global wellbeing. This cognitive element may also include a sense of social propriety in acknowledging the event with sadness.

If this interpretation is correct, the percentage of people who recall these terrorist attacks with sadness will continue to decrease, but will plateau above zero. Future surveys will continue to track the progress of this response.

3. The fact that the strength of the reported sadness has remained almost constant may indicate a threshold. That is, people who feel sadness with strength of 70 or higher are likely to say that they experience the emotion, while people who experience sadness to a lesser degree are less likely to report that they experience the emotion. Similarly, the people who are responding to the question as a predominantly cognitive response may recognise sadness with a strength of around 70 as appropriate to acknowledge the emotion. It is certainly curious that this range is so similar to the normal range within which people report positive emotions, such as satisfaction recorded by the Personal Wellbeing Index. The idea of a 70% threshold for the reporting of negative personal emotional states is novel.

4. Females are more likely to report they feel sad when recalling the terrorist attacks, and also to report a higher intensity of sadness. However, these differential gender responses change over time as follows:
 - a. The proportion of males and females reporting they feel ‘sadder than normal’ when recalling the attacks has been maintained across all four surveys in a remarkably consistent fashion (8.3, 13.7, 13.1, 13.2).
 - b. The strength of the gender difference in sadness intensity was strong immediately following S11, but then dissipated, to be non-significant 11 months later. Now the difference has returned to be strongly significant once again. It may be that this difference represents the ‘emotional’ vs the ‘social acceptability’ components of the response. That is, females respond more strongly to the emotional component, which is strongest immediately following the attacks. However, both males and females have a similar impression of the degree of sadness to acknowledge in the context of a socially acceptable response.
5. The most sensitive group in terms of both the proportion feeling saddened and the sadness intensity are females aged 56 years and older.

Dot Point Summary:

- The proportion of the population responding to the Bali terrorist attacks with sadness is less than occurred following the S11 attacks (76% vs. 90% respectively). People may now be less responsive to such events.
- This decrease responsiveness is a natural, adaptive response that allows people to psychologically recover from trauma. It can be seen from Figure 8.1 that this decreased responsiveness was evident 6 months following S11. A similar response has been reported among New Yorkers (Susser et al., 2002).
- Saying they “feel sadder than sadder than normal when recalling S11” does not mean that these people feel chronically sad due the terrorist attacks. Rather, they fleetingly experience this emotion when they recall the attacks. This is a cognitively driven response, in that it opens a memory, that is not normally a part of daily life, and allows a fleeting emotional response to that memory. If the memory is persistently accessed this can give rise to Post Traumatic Stress Disorder.
- There may be a threshold for reported sadness that falls at about 70% of the full strength range. That is, on average, people require this strength of the emotion before they will report that they feel personally sad in these circumstances.
- Some groups of people are more likely to report they feel saddened by the Bali attack. These include females, particularly those over the age of 56 years, and people with household incomes less than \$15,000 per year.

9. Life Events

9.1 Occurrence of Personal Life Events

Prior to any mention of terrorist attacks, people are asked “Has anything happened to you recently causing you to feel happier or sadder than normal?” If they answer ‘Yes’, they are then asked whether this was a happy or a sad event, and to ‘rate its influence on a 0 to 10 scale, from very weak to very strong’.

If people were to be severely interrogated along these lines virtually everybody would recall an event of some kind that made them happier or sadder than normal. The time frame is loose (‘recently’) and the point of reference (‘normal’) is open to interpretation. But respondents are not interrogated, and if they answer that they have experienced no such event, the interviewer proceeds to the next item. Because of this, the item is either measuring people’s sensitivity to the positive and negative events in their lives, or it is measuring the extent to which people are willing to identify such events. In either case it is measuring the direction of people’s attention to the positive or negative side of their life.

On average across the surveys, about half of the people sampled state they have experienced such an event.

Table 9.1: The proportion of people experiencing a recent personal life event

	April 2001	September 2001	March 2002	August 2002	November 2002
Number of people in total sample	1,999	2,004	2,030	1,967	1966
Number of people reporting an event	981	1,103	933	840	928
% of total	49.1	55.0	46.6	42.7	47.3

As can be seen, the number of people experiencing such an event peaked immediately following September 11 and fell to its lowest level in August 2002 (S4). The following Table 9.2 breaks these numbers down into happy and sad events.

Table 9.2: The number of people reporting a recent personal event that makes them feel happier or sadder than normal

Number of people reporting	April 2002	September 2001	March 2002	August 2002	November 2002
a happy event					
N	501	391	426	381	401
%	25.4	19.8	21.1	19.2	20.4
a sad event					
N	470	699	513	462	527
%	23.8	35.4	25.4	23.3	26.8

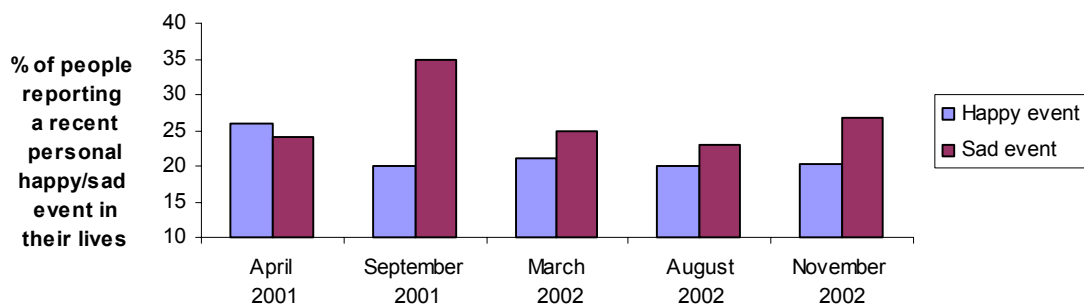


Figure 9.1: The percentage of people reporting a happy or a sad event in their lives

The most dramatic change across these surveys has been the number of people experiencing a recent sad event, with a marked increase immediately following S11 (October 2001), and a rapid return to approximate the pre-S11 levels by the March 2002 survey. The Bali attacks have again increased the percentage of people reporting a sad event, by 3.8% since the previous survey, but this is far less than the 11.6% increase that occurred immediately following S11.

These differences in the incidence of people reporting happy/sad personal life events differs between the surveys (Chi-square=132.143, df=8, p=.000). Table 9.2 also indicates a post-S11 decrease in the percentage of people reporting a happy event. While the change is less marked, it is more persistent and is highly significant (Chi-square for trend=29.329, df=4, p<.000).

It is especially notable that, due to the above trends, the relative proportion of people reporting a happy or sad event has changed following S11. In April 2001 more people reported experiencing a recent happy event in their lives. Subsequent to S11, however, more people report the experience of a sad event in their lives. An analysis involving just the four surveys April 2001, March 2002, August 2002, and November 2002 confirms this as significant (Chi-square=11.032, df=3, p=.001).

In summary, while the proportion of the population reporting that they have experienced a personal sad event has returned to pre-S11 levels, fewer people are still reporting happy events in their lives.

Gender and Life Events

There is a strong gender difference in the tendency to report life events as shown by the cumulative data over the four surveys represented in **Table 9.3** below.

Table 9.3: Gender Differences in Life Events Across the Four Surveys

		April 2001		September 2001		March 2002		August 2002		November 2002	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
within gender	HAPPY										
	N	220	281	158	233	156	270	179	202	193	208
	%	55.7	48.8	40.9	33.1	47.9	44.0	46.5	44.1	45.5	41.3
	SAD										
N	175	295	228	471	170	343	206	256	231	296	
%	44.3	51.2	59.1	66.9	52.1	56.0	53.5	55.9	54.5	58.7	

These percentages are calculated against the total number of people in each gender group who reported a life event that made them happier or sadder than normal. The Chi-square tests are as follows:

April 2001: Chi-square = 4.482, df=1, p=.037

September 2001: Chi-square = 6.655, df=1, p=.012

March 2002: Chi-square = 1.245, df=1, p=.271

August 2002: Chi-square = 0.482, df=1, p=.532

November 2002: Chi-square = 1.694, df=1, p=.206

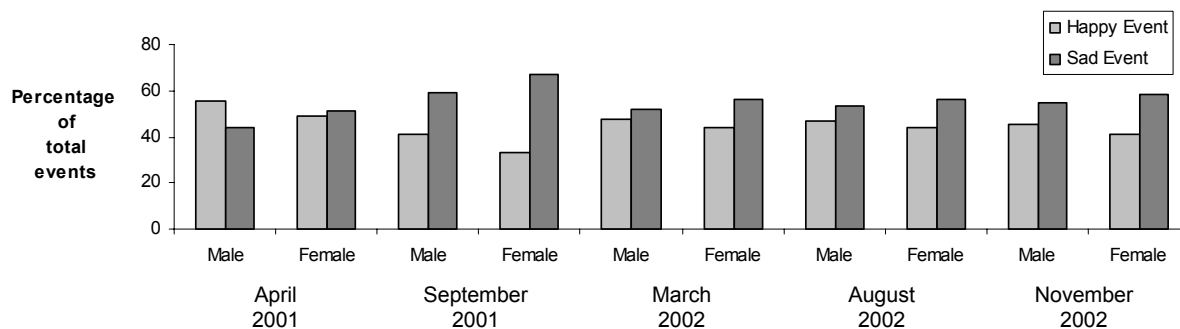


Figure 9.2: Gender Differences in Life Events Across the Four Surveys

The most obvious result from Figure 9.2 is the increased proportion of females reporting a sad event in their lives following S11. This effect had dissipated somewhat by March 2002, but has remained higher than baseline (April 2001) ever since. The overall picture, however, includes another thread.

The Table 9.3 values in April 2001 represented a different gender pattern of reporting event valence. Most particularly, while males were less ready to report they had experienced any event, they were more likely to report a happy than a sad event. Since

S11 this pattern has changed such that both males and females report more sad events in their lives. Table 9.4 presents these trends.

Table 9.4: Difference Between the Percentage of People Reporting Happy and Sad Events in Their Lives

		April 2001	September 2001	March 2002	August 2002	November 2002
Happy %	Males	11.4	-18.2	-4.2	-7.0	-9.0
Minus Sad %	Females	-2.4	-33.8	-12.0	-11.8	-17.4

The values in this Table represent the number of people reporting a happy event minus the number of people reporting a sad event, for each gender, in each survey. From this it is clear that the normal pattern of reporting, as depicted by April 2001, was severely disrupted by the events by S11. Then, in the following two surveys there were signs that the original pattern was being recovered. Following the Bali bombing, however, the dominance of sad events has been strengthened, most particularly for females.

Age and Life Events

Table 9.5: The Proportion of Each Age Group who have Experienced a Recent Life Event in S5

	18-25	26-35	36-45	46-55	56-65	66-75	76+
Happy	29.3	28.2	20.1	20.5	15.0	14.2	10.6
Sad	19.0	23.2	26.5	29.2	29.3	32.6	25.0
TOTAL	48.3	51.4	46.6	49.7	44.3	46.8	35.6
N	205	319	407	380	294	218	104

A glance at the TOTAL row of this Table shows that the proportion of people within each age group who have experienced a recent life event remains quite steady up to the age of 76+ years, after which it decreases. However, the proportion of people experiencing happy and sad events changes with age, as shown below.

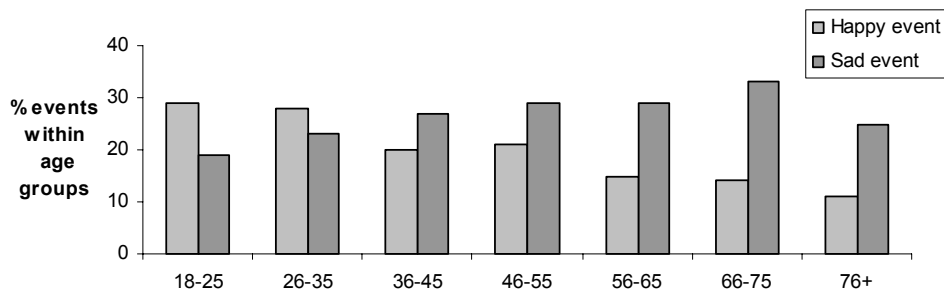


Figure 9.3: The Percentage of People Experiencing Happy and Sad Personal Events at Different Ages

From Figure 9.4 it is clear that there is a trend for the recognition of happy events to decrease, and of sad events to increase, as a function of increasing age (Chi-square = 45.766, $df=12$, $p=.000$). It is interesting that this is not paralleled by decreasing personal wellbeing as people get older. Apparently the homeostatic system is able to accommodate to these changed perceptions thereby keeping personal wellbeing constant.

When these data are split by gender the overall Chi-square is highly significant (81.841, $df=26$, $p=.000$). The responses are shown below.

Table 9.6: The Proportion of Males and Females Experiencing Personal Life Events at Different Ages in S5

	18-25	26-35	36-45	46-55	56-65	66-75	76+
HAPPY EVENT							
MALE (N)	27	43	44	34	16	19	6
% within gender /age	20.8	27.0	22.4	19.0	11.8	18.1	13.3
FEMALE (N)	33	47	38	44	28	12	5
% within gender /age	44.0	29.4	18.0	21.9	17.7	10.6	8.5
SAD EVENT							
MALE (N)	26	39	45	46	33	27	10
% within gender /age	20.0	24.5	23.0	25.7	24.3	25.7	22.2
FEMALE (N)	13	35	63	65	53	44	16
% within gender /age	17.3	21.9	29.9	32.3	33.5	38.9	27.1

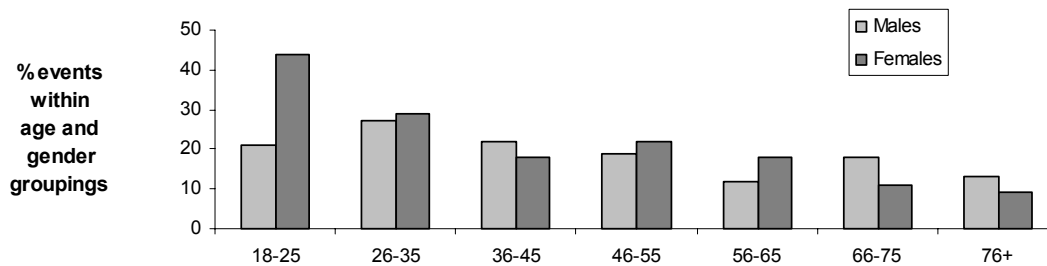


Figure 9.4: The Percentage of People Experiencing a Happy Event at Different Ages

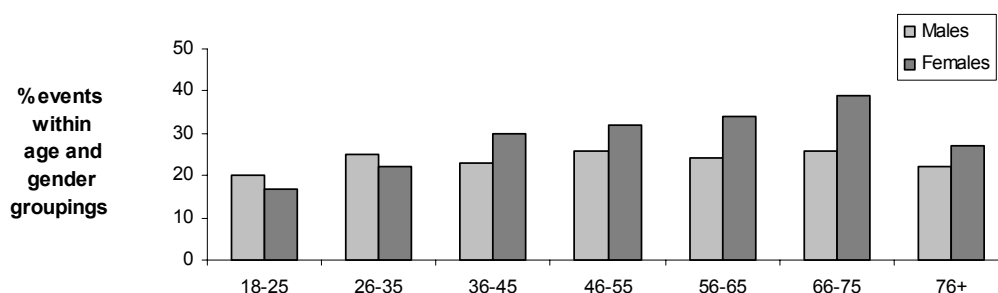


Figure 9.5: The Percentage of People Experiencing a Sad Event at Different Ages

An age x gender Chi-square is significant (81.841, df=26, p=.000). Within both of the above Figures it can be seen that the age-changes for females are far more variable than for males. The percentage range for reporting happy events across the age groups is females vs. males (33% vs. 18%) and for sad events (22% vs. 4%). Thus, the tendency to report fewer happy events and more sad events with increasing age is far more pronounced for females.

It might be supposed that these trends would predict a diminished personal wellbeing as people age, particularly in the case of females. In fact, however, the reverse is true. The age groups reporting the highest personal wellbeing are females aged 56 to 76 years.

Income and Life Events

Table 9.7: Income and Event Frequency

		<\$15	\$15-30	\$30-60	\$60-90	\$90+
% within income groups	Happy N	18	30	74	45	39
	%	13.0	12.8	22.4	23.1	23.6
	Sad N	53	68	94	52	40
	%	38.4	29.1	28.4	26.7	24.2

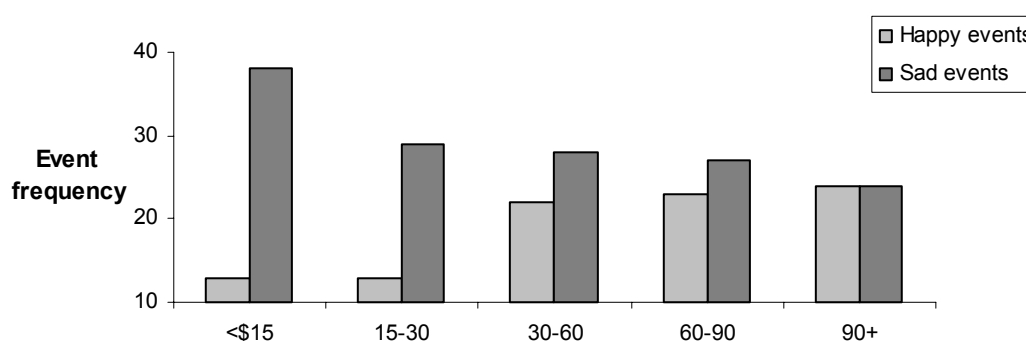


Figure 9.6: Income and Event Frequency

It can be seen that the income trends for the two life events are opposite. As income increases, the frequency of people reporting sad events decreases, and the frequency for happy events increases (Chi-square=15.607, df=4, p=.004).

This is consistent with a recently published review of the function of money in relation to wellbeing (Cummins, 2000). It is proposed that money is a flexible resource which allows people to avoid many aspects of life which have a negative effect on wellbeing. This permits rich people to maximise their potential for personal wellbeing to a greater extent than people who are poor. It also implies that rich people are less exposed to negative life events and more exposed to positive events, as indicated by these present data.

Religion and Life Events

Table 9.8: Religion and the Frequency of Life Events (% within religion)

	Happy Event		Sad Event	
	N	%	N	%
Buddhist	3	12.0	7	28.0
Christian	215	18.8	327	28.5
Jewish	4	25.0	7	43.8
Muslim	1	9.1	3	27.3
No religion	161	22.7	172	24.3
Other religion	10	45.5	2	9.1

An overall Chi-square cannot be applied validly to these data since 33.3% of cells have an expected count of <5. It is notable, however, that even though the Christians experience fewer happy events and more sad events than people with no religion, the Christians have higher levels of personal wellbeing (Figure 6.1).

8.2 Perceived Strength of Events

We also ask people who have experienced such an event, “**how strong would you rate this influence?**” The strength across the four surveys is as follows:

Table 9.9: Perceived strength of a personal event

Perceived strength of event		April 2001	September 2001	March 2002	August 2002	November 2002
Happy event						
	Mean	79.3	79.4	80.3	80.9	80.5
	SD	16.7	17.8	17.7	16.5	16.2
Sad event						
	Mean	65.2	69.2	71.5	71.5	68.3
	SD	25.9	25.2	23.3	22.3	23.5

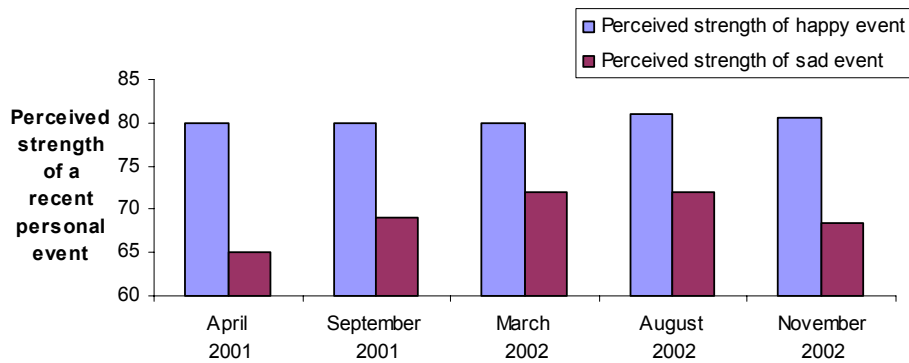


Figure 9.7: Perceived strength of recent personal events

Most obviously from these data, the perceived strength of a happy event exceeds that of a sad event. For example, using the data from Survey 5, $t(912)=9.377$, $p=.000$. This is an example of the positive bias that pervades our thinking, and which is part of the homeostatic device that maintains subjective wellbeing as positive (Section 1.2).

More remarkable, however, is the stability of the experienced strength of happy, positive life events across the five surveys. The values differ by just 1.6% and an ANOVA incorporating these values is non-significant ($F(4,2087)=.710$, $p=.585$).

Sad events evidence somewhat less stability. Here, the ANOVA is significant ($F(4,2653)=5.567$, $p=.000$) and post-hoc Tukey tests indicate the following significant trends:

- Immediately following S11 the strength of response to sad events went up.
- This elevated strength of response persisted over S2, S3 and S4.
- In November 2002 (S5), the strength has diminished and is no longer different from S1.

This appears to be a remarkable demonstration of adaptation within the Australian population.

Household Income effects on Intensity

No income group differences in intensity could be found for either happy events ($F(4,201)=1.218$, $p=.304$) or sad events ($F(4,299)=0.792$, $p=.531$).

Gender Effects on Intensity

Table 9.10: Gender Differences in Intensity

	Male	Female
Happy event		
N	193	208
Mean	77.10	83.75
SD	17.53	14.12
Sad event		
N	230	294
Mean	68.65	67.99
SD	23.96	23.26

The gender difference for happy events is significant ($t(368.837)=4.165$, $p=.000$) and for sad events is non-significant ($t(522)=.318$, $p=.751$). The former t-test did not assume equal variance due to the significance of Levene's test for equality of variance.

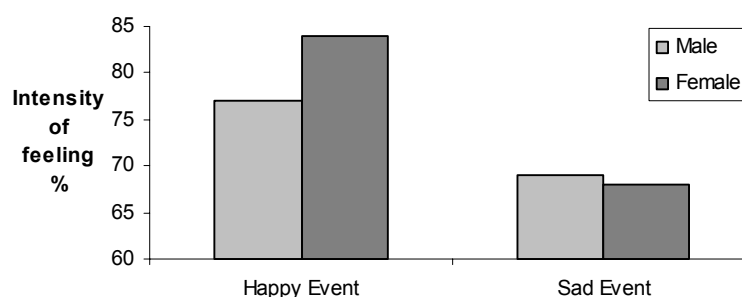


Figure 9.8: The Intensity of Happiness/Sadness to a Personal Life Event

It is interesting that this familiar pattern of increased emotional responsiveness in females only occurs for happy events. It is also notable that the strength of felt sadness for both genders approximately the same value of 70% as is found for people's sadness when recalling terrorist attacks (see Table 8.2).

Age effects on Intensity

No age group differences could be detected in the strength of response to happy personal life events ($F(6,389)=1.580$, $p=.152$) or sad events ($F(6,505)=.711$, $p=.641$).

Age x Gender interaction effects on Intensity

Using the data from S5 alone, no effect was evident in relation to personal sad events ($F(13,498)=.540$, $p=.900$). The overall ANOVA for happy events is significant ($F(13,302)=2.286$, $p=.006$). However, the post-hoc Tukey tests were weak, none being $<.05$. It is concluded there is no age x gender interaction in the strength of response to personal life events.

Is the strength of happiness/sadness for personal life events linked to the experience of S11/Bali as a sad event?

The perceived strength of a happy event was not influenced by whether people responded they experienced sadness when recalling S11. Using data from the current survey 5: Recalling S11 makes me sad (N=205) 81.02±16.31, recalling S11 does not make me sad (N=173) 80.81±16.82; (t(376)=0.126, NS). The same lack of difference is evident in relation to the S5 Bali data. Recalling Bali makes me sad (N=310) 80.71±16.10; recalling Bali does not make me sad (N=90) 80.00±26.01; t(398)=.359, p=.710.

The perceived strength of a sad event was also not significantly influenced by whether people recall S11 with sadness, or not: Recalling S11 makes me sad (N=259) 69.81±21.45, recalling S11 does not make me sad (N=197) 73.86±23.37; t(454)=1.922, NS). Recalling Bali makes me sad (N=437) 68.31±24.05; recalling Bali does not make me sad (N=86) 67.79 26.01; t(522)=.171, p=.864.

In conclusion, whether the experience of recalling the Bali attacks made people feel sad or not did not systematically influence the strength with which they experience their own life events.

Religion and event intensity

Table 9.11: Religion and Life Event Intensity

	Happy event			Sad event		
	N	Mean	SD	N	Mean	SD
Buddhist	3	63.33	30.55	7	81.43	19.52
Christian	215	81.58	15.33	325	67.63	23.56
Jewish	4	77.50	20.62	7	72.86	14.96
No religion	161	79.50	16.76	171	68.60	23.62
Other religion	10	81.00	20.79	2	35.00	21.21

No overall ANOVA can be validly applied to these data due to the low numbers in some religious groups. A t-test applied to just the Christian and No Religion groups is not significant for ether happy events (t=1.250, df=374, p=.212) or sad events (t=.433, df=494, p=.665).

Conclusion:

There has been a long-term influence of S11 on the personal events in people’s daily lives. People generally experience fewer happy events and tend to feel the impact of the sad events in their lives more keenly. Both of these are likely to make the maintenance of personal wellbeing more fragile than normal.

Dot Point Summary:

- Following S11 there has been a change in people's experience of the events in their lives. While prior to S11 they experienced more happy events than sad events, the reverse is now true.
- There is evidence of recovery. Immediately following S11 people experienced the sad events in their lives more intensely. This effect continued over the two surveys after S11, but is no longer evident in the November 2002 survey data. It appears as though Australians have adapted to this aspect of the post-S11 effects, even in the face of the Bali attacks.

10. References

10.1 References to the Text

- Best, C.J., Cummins, R.A. & Lo, S.K. (2000). The Quality of Rural and Metropolitan Life. *Australian Journal of Psychology*, *52*, 69-74
- Clemenger (2002). *The Silent Majority IV: The everyday concerns of the average Australian*. Canberra: Clemenger Communications.
- Cummins, R.A. (2000). Personal Income & Subjective Well-being: A Review, *Journal of Happiness Studies*, *1*, 133-158.
- Cummins, R.A., Eckersley, R., Pallant, J., Van Vugt, J., & Misajon, R. (2002). The development of a national index of subjective wellbeing: The Australian Unity Wellbeing Index *Social Indicators Research* (in press).
- Figini, P. (1998). Inequality Measures, Equivalence Scales and Adjustment for Household Size and Composition. Working Paper No. 185. New York; Maxwell School of Citizenship Syracuse University.
- Poloma, M.M., & Pendleton, B.F. (1991) The effects of prayer and prayer experiences on measures of general well-being. *Journal of Psychology and Theology*, *19*, 71-83.
- Saunders, P., Hallerod, B., & Matheson, G. (1994) Making ends meet in Australia and Sweden: A comparative analysis using the subjective poverty line methodology. *Acta Sociologica*, *37* (1), 3-22.
- Susser, E.S., Herman, D.B. & Aaron, B. (2002). Combating the terror of terrorism. *Scientific American*, *287* (2), 55-61.

10.2 Previous Reports on the Australian Unity Wellbeing Index

- Cummins, R.A., Eckersley, R., Pallant, J., van Vugt, J., Shelly, J., Pusey, M., & Misajon, R. (2001). *Australian Unity Wellbeing Index: Survey 1, Report 1.0*, Melbourne: School of Psychology, Deakin University.
- Cummins, R.A., Eckersley, R., Pallant, J., Misajon, R. & Davern, M. (2001). *Australian Unity Wellbeing Index: Survey 2, Report 2.1*, Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University.
- Cummins, R.A., Eckersley, R., Pallant, J., Davern, M. & Misajon, R. (2001). *Australian Unity Wellbeing Index: Survey 2, Report 2.2 - Special Report on Income & Geographic Location*. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University.
- Cummins, R.A., Eckersley, R., Pallant, J., & Davern, M. (2002). *Australian Unity Wellbeing Index: Survey 3, Report 3.1 - Wellbeing in Australia and the aftermath of September 11*. Melbourne: Australian Centre of Quality of Life, School of Psychology, Deakin University.
- Cummins, R.A., Eckersley, R., Pallant, J., Okerstrom, E., & Davern, M. (2002). *Australian Unity Wellbeing Index: Survey 3, Report 3.2 - The impact of personal relationships and household structure on the wellbeing of Australians*. Melbourne: Australian Centre of Quality of Life, School of Psychology, Deakin University.

Cummins, R.A., Eckersley, R., Lo, S.K., Okerstrom, E., Davern, M. (2002).
Australian Unity Wellbeing Index: Report 4.0 – The Wellbeing of Australians 1. Work and Leisure, 2. The Impact of September 11 One Year Later. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University

Appendix A1: Summary

The analyses in this Table have been computed using analysis of variance with post-hoc Tukey, or Dunnett T3 tests.

Table A1: Comparison between all 5 surveys measured in Degree of satisfaction (%)

<u>Question</u>	<u>Survey 1</u> (N=1974)		<u>Survey 2</u> (N=1973)		<u>Survey 3</u> (N=2030)		<u>Survey 4</u> (N=1986)		<u>Survey 5</u> (N=1966)		<u>p</u>
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Personal Wellbeing											
PERSONAL WELLBEING INDEX	73.15	13.33	74.36	13.02	75.19	12.52	74.41	12.27	74.58	12.29	.000
					<i>S3>S1 p = .000</i>				<i>S5>S1 p = .005</i>		
<i>Personal Index domains</i>											
- standard of living	74.46	19.41	77.25	18.46	77.65	18.17	76.48	17.39	77.30	17.24	.000
			<i>S2>S1 p = .000</i>		<i>S3>S1 p = .000</i>		<i>S4>S1 p = .006</i>		<i>S5>S1 p = .000</i>		
- health	73.64	21.31	75.12	20.47	75.35	20.98	74.93	19.77	75.81	19.68	.017
									<i>S5>S1 p = .009</i>		
- achievements	73.17	18.39	74.18	18.58	74.83	18.17	73.98	17.21	74.88	17.78	.020
- relationships	78.20	21.21	79.12	21.94	79.22	21.69	78.98	21.07	78.69	21.64	.567
- safety	75.09	20.19	75.75	20.01	76.82	19.66	77.18	18.50	75.84	19.20	.004
							<i>S4>S1 p = .007</i>				
- community	68.59	20.68	70.54	21.03	70.68	19.72	69.54	19.71	69.97	20.49	.009
					<i>S3>S1 p = .011</i>						
- future security	68.91	21.09	68.56	20.64	71.00	20.20	69.35	20.18	69.82	19.60	.002
					<i>S3>S1 p = .014</i>		<i>S3>S2 p = .002</i>				

Question	Survey 1 (N=1974)		Survey 2 (N=1973)		Survey 3 (N=2030)		Survey 4 (N=1986)		Survey 5 (N=1966)		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Life as whole	75.17	19.59	77.00	19.32	78.14	17.86	77.15	17.16	77.68	17.25	.000
					<i>S3>S1 p = .000</i>		<i>S4>S1 p = .007</i>		<i>S5>S1 p = .000</i>		
<i>Survey –specific aspects of Personal Life</i>											
- spiritual/religious	-	-	-	-	73.39	24.21	71.58	23.35	75.29	21.14	.000
									<i>S5>S4 p = .000</i>		
- financial security	-	-	-	-	69.11	22.14	66.49	20.83	67.00	21.13	.000
					<i>S3>S4 p = .000</i>				<i>S3>S5 p = .005</i>		
- ability to pay for essentials	-	-	-	-	-	-	-	-	78.65	19.67	-
- ability to afford likes	-	-	-	-	-	-	-	-	64.99	22.33	-
- ability to save money	-	-	-	-	-	-	-	-	59.12	26.86	-
National Wellbeing											
NATIONAL WELLBEING INDEX	55.78	-	58.61	14.42	60.72	15.45	60.23	15.17	60.68	15.28	.000
					<i>S3>S2 p = .000</i>		<i>S4>S2 p = .006</i>		<i>S5>S2 p = .000</i>		
<i>National domains</i>											
- economic situation	53.60	20.16	57.82	18.66	64.01	19.61	63.91	19.32	65.04	19.07	.000
			<i>S2>S1 p = .000</i>		<i>S3>S1 p = .000</i>		<i>S4>S1 p = .000</i>		<i>S5>S1 p = .000</i>		
					<i>S3>S2 p = .000</i>		<i>S4>S2 p = .000</i>		<i>S5>S2 p = .000</i>		

Question	Survey 1 (N=1974)		Survey 2 (N=1973)		Survey 3 (N=2030)		Survey 4 (N=1986)		Survey 5 (N=1966)		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
- environment	57.92	19.40	59.87	19.19	60.91	19.15	59.08	19.54	57.92	20.06	.000
			<i>S2>S1 p = .015</i>		<i>S3>S1 p = .000</i>				<i>S3>S5 p = .000</i>		
			<i>S2>S5 p = .015</i>								
- social conditions	59.18	19.89	62.53	17.96	62.76	18.77	61.99	18.89	62.62	18.84	.000
			<i>S2>S1 p = .000</i>		<i>S3>S1 p = .000</i>		<i>S4>S1 p = .000</i>		<i>S5>S1 p = .000</i>		
- Australia governed	-	-	58.69	23.66	52.80	25.04	53.26	24.50	55.77	24.27	.000
			<i>S2>S3 p = .000</i>						<i>S2>S5 p = .001</i>		
			<i>S2>S4 p = .000</i>						<i>S5>S3 p = .001</i>		
									<i>S5>S4 p = .007</i>		
- business	-	-	55.41	18.88	59.88	19.23	59.31	18.62	61.11	18.55	.000
					<i>S3>S2 p = .000</i>		<i>S4>S2 p = .000</i>		<i>S5>S2 p = .000</i>		
									<i>S5>S4 p = .018</i>		
- national security	-	-	57.32	20.18	63.33	20.16	62.93	20.21	61.04	19.72	.000
					<i>S3>S2 p = .000</i>		<i>S4>S2 p = .000</i>		<i>S5>S2 p = .000</i>		
									<i>S3>S5 p = .002</i>		
									<i>S4>S5 p = .019</i>		
Life in Australia	69.64	20.90	73.89	20.05	84.79	17.29	83.83	16.76	83.58	17.39	.000
			<i>S2>S1 p = .000</i>		<i>S3>S1 p = .000</i>		<i>S4>S1 p = .000</i>		<i>S5>S1 p = .000</i>		
					<i>S3>S2 p = .000</i>		<i>S4>S2 p = .000</i>		<i>S5>S2 p = .000</i>		
<i>Trends</i>											
- own life changing for the better	63.81	19.22	63.54	19.63	-	-	-	-	63.56	19.28	.887
- Australia changing for the better	52.84	19.83	53.62	19.25	-	-	-	-	53.27	19.84	.456

Appendix A2: Gender

Table A2: Gender Differences

	N =	Male		Female		p=
		969		997		
		Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX		74.13	12.13	75.03	12.44	.113
<i>Personal domains</i>						
1. Standard of living		76.65	16.61	77.94	17.81	.095
2. Health		75.65	18.57	75.97	20.71	.714
3. Achievements in life		73.74	17.40	75.98	18.09	.005
4. Personal relationships		76.39	22.23	80.92	20.82	.000
5. How safe you feel		77.86	18.20	73.86	19.94	.000
6. Community connect		68.72	20.67	71.21	20.24	.007
7. Future security		70.15	19.93	69.50	19.28	.467
Life as a whole		76.54	17.10	78.79	17.32	.004
SURVEY-SPECIFIC PERSONAL ASPECTS						
- Spiritual/religious		73.33	21.58	76.97	20.63	.002
- Financial security		66.92	21.09	67.07	21.18	.873
- Ability to pay		78.51	19.61	78.79	19.73	.746
- Ability to afford		64.64	21.96	65.33	22.69	.490
- Ability to save		58.00	27.28	60.20	26.42	.071
- Own life getting better		62.95	18.89	64.16	19.66	.165
NATIONAL WELLBEING INDEX		60.61	15.73	60.75	14.83	.843
<i>National domains</i>						
1. Economic situation		65.57	18.91	64.52	19.22	.232
2. State of the environment		57.42	20.84	58.41	19.27	.281
3. Social conditions		62.80	19.35	62.44	18.34	.673
4. Government		54.47	24.93	57.03	23.55	.020

		Male		Female		p=
	N =	969		997		
		Mean	SD	Mean	SD	
5. Business		60.79	19.42	61.43	17.65	.453
6. National Security		61.34	20.45	60.75	18.98	.513
Life in Australia		83.04	16.76	84.11	17.96	.174
SURVEY-SPECIFIC NATIONAL ASPECTS						
- Life in Australia getting better		53.66	19.99	52.89	19.69	.395

Appendix A3: Chronological Age

Table A3: Age Differences: Mean *SD*

	18-25		26-35		36-45		46-55		56-65		66-75		76+		p
N =	205		319		407		380		294		220		105		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX	73.21	10.61	73.71	11.53	74.29	12.43	73.83	13.61	76.36	12.27	76.37	11.59	77.36	11.56	.002
<i>Personal domains</i>															
1. Standard of living	78.05	14.49	76.90	15.92	74.99	18.75	76.11	18.74	79.76	16.78	78.36	16.39	81.52	14.73	.001
2. Health	79.12	17.44	79.09	18.09	77.79	18.34	74.30	20.26	73.82	20.06	71.23	22.10	73.81	20.82	.000
3. Achievements in life	74.24	16.09	72.85	17.18	73.35	17.68	74.47	18.55	77.03	17.95	77.67	17.39	78.83	17.67	.001
4. Personal relationships	75.02	20.62	78.27	21.92	77.59	21.46	77.32	23.50	81.03	19.87	82.20	20.58	83.20	21.01	.001
5. How safe you feel	75.37	18.08	74.37	19.25	76.46	17.16	76.60	19.14	76.02	19.92	77.36	19.80	76.25	22.00	.635
6. Community connect	63.41	21.05	67.45	19.44	70.57	19.86	69.02	21.30	73.64	19.27	75.37	19.45	73.43	20.93	.000
7. Future security	67.60	18.37	67.17	18.68	68.86	18.97	68.80	20.76	73.53	19.26	72.50	19.27	75.92	20.40	.000
Life as a whole	75.66	15.12	77.08	16.24	75.60	16.89	76.03	19.32	81.56	16.07	80.36	16.93	81.33	16.53	.000
SURVEY-SPECIFIC PERSONAL ASPECTS															

	18-25		26-35		36-45		46-55		56-65		66-75		76+		p
N =	205		319		407		380		294		220		105		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
- Spiritual/religious	71.30	23.45	71.95	20.70	72.24	21.03	75.93	21.06	78.80	20.29	80.00	19.04	82.00	18.17	.000
- Financial security	63.82	19.33	65.93	20.76	65.02	20.33	66.98	22.39	69.83	22.07	69.50	21.01	71.24	20.32	.001
- Ability to pay	71.34	17.65	78.06	20.45	77.19	20.02	79.66	20.20	82.14	18.78	82.64	17.66	80.38	18.74	.000
- Ability to afford	61.67	19.88	63.71	20.99	62.83	21.54	64.33	24.46	70.21	22.17	66.82	22.90	68.92	22.64	.000
-Ability to save	58.63	26.05	58.15	24.32	56.22	25.92	59.16	27.13	63.76	27.13	58.64	29.26	62.84	30.97	.018
- Own life getting better	70.10	18.73	66.62	19.12	65.72	19.31	62.13	19.76	60.99	18.85	57.69	17.50	58.16	18.30	.000
NATIONAL WELLBEING INDEX	62.20	13.92	59.39	14.58	59.49	15.03	60.73	15.29	62.31	15.82	61.22	16.24	62.24	15.84	.108
<i>National domains</i>															
1. Economic situation	62.86	17.72	62.91	18.30	64.62	19.07	66.05	19.10	67.24	19.62	65.55	18.70	66.36	20.82	.058
2. State of the environment	61.58	20.40	56.68	20.03	56.35	19.69	57.83	20.19	58.34	20.26	57.72	19.68	61.29	19.78	.036
3. Social conditions	64.90	19.05	61.21	19.30	61.39	18.15	62.01	18.75	63.60	18.20	62.98	19.29	66.34	19.17	.068
4. Government	53.78	21.13	51.94	23.35	54.34	22.84	56.43	24.50	57.98	24.92	58.94	26.72	61.73	25.52	.001
5. Business	63.43	16.84	61.75	16.24	60.30	18.54	60.65	18.55	62.01	20.54	60.19	19.21	60.11	19.43	.387
6. National Security	63.69	19.20	60.65	18.74	60.69	19.39	59.56	20.51	63.69	18.60	61.55	19.95	58.66	20.55	.050

	18-25		26-35		36-45		46-55		56-65		66-75		76+		p
N =	205		319		407		380		294		220		105		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Life in Australia	82.54	16.25	81.82	17.03	83.50	15.93	83.02	18.27	84.83	18.28	85.98	16.43	86.00	18.11	.054
SURVEY-SPECIFIC NATIONAL ASPECTS															
Life in Australia getting better	57.11	21.13	54.13	19.50	53.44	18.18	53.68	19.25	51.85	20.05	51.47	21.54	50.74	19.47	.039

Appendix A4: Household Income

Table A4: Actual Income

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		p=
N =	140		234		331		195		126		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX	71.91	14.09	72.56	15.06	74.53	12.12	76.24	9.88	77.91	9.48	.000
<i>Personal domains</i>											
1. Standard of living	74.21	22.48	71.24	20.77	75.92	16.51	79.64	11.81	82.30	12.40	.000
2. Health	69.00	23.70	71.93	22.17	75.89	19.13	79.49	15.52	79.05	15.87	.000
3. Achievements in life	74.21	19.93	72.60	20.67	74.53	18.02	74.77	14.62	76.03	14.37	.484
4. Personal relationships	74.17	28.00	78.55	24.96	77.18	22.17	82.56	16.73	82.22	15.23	.001
5. How safe you feel	73.43	20.98	76.50	21.44	77.40	18.27	77.54	16.06	80.64	14.74	.023
6. Community connectedness	73.64	23.14	69.48	23.45	70.88	18.91	69.18	19.38	69.44	18.86	.357
7. Future security	68.59	23.28	67.02	23.21	69.48	19.24	70.41	17.52	75.71	16.07	.001
Life as a whole	76.14	21.34	75.47	21.57	76.28	17.12	79.03	14.16	80.56	12.48	.009
SURVEY-SPECIFIC PERSONAL ASPECTS											
- Spiritual/religious	82.71	18.86	76.25	22.79	73.36	21.04	72.99	19.16	72.26	20.50	.000

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		p=
N =	140		234		331		195		126		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
- Financial security	61.07	25.38	60.43	24.44	64.95	20.28	70.77	15.53	74.76	16.04	.000
- Ability to pay	74.32	23.71	74.74	23.46	79.00	18.82	81.59	15.57	86.91	14.23	.000
- Ability to afford	58.25	27.44	57.69	25.50	62.70	20.40	67.79	17.52	76.19	16.39	.000
-Ability to save	53.80	32.81	54.32	30.22	56.17	26.26	60.57	22.26	67.30	23.34	.000
- Own life getting better	58.70	20.92	59.27	20.23	61.75	18.83	66.65	17.23	67.94	15.04	.000
NATIONAL WELLBEING INDEX	58.55	17.72	59.13	17.74	59.74	15.20	61.43	13.36	63.44	14.35	.055
<i>National domains</i>											
1. Economic situation	61.06	22.69	62.68	21.22	64.63	19.31	66.79	15.94	71.63	15.81	.000
2. State of the environment	57.28	22.16	56.32	22.40	57.05	20.06	57.37	18.09	57.66	17.21	.977
3. Social conditions	62.31	20.74	60.61	20.68	60.89	19.17	62.94	16.70	63.97	17.39	.362
4. Government	54.93	28.11	54.33	27.22	52.91	23.93	56.15	20.26	58.10	22.48	.233
5. Business	58.66	22.27	59.41	21.04	60.67	17.81	61.77	16.72	64.16	16.57	.107
6. National Security	58.85	22.40	59.55	22.12	61.91	18.51	62.94	16.44	65.40	17.19	.030
Life in Australia	84.21	19.01	82.70	20.43	81.30	18.46	84.77	15.00	84.84	15.06	.113

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		p=
N =	140		234		331		195		126		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
SURVEY-SPECIFIC NATIONAL ASPECTS											
Life in Australia getting better	50.07	22.48	50.61	20.64	52.42	21.05	57.05	18.32	53.73	14.74	.005

Appendix A5: Adjusted Household Income

Table A5: Adjusted Income Differences: Mean & Standard Deviation

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		P=
N =	261		321		349		74		18		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX	71.90	14.53	74.52	12.98	76.14	11.02	74.87	10.26	77.14	10.17	.005
<i>Personal domains</i>											
1. Standard of living	71.19	22.39	74.86	17.36	80.23	13.54	78.92	13.09	80.00	11.88	.000
2. Health	70.27	23.59	74.39	19.84	78.71	16.96	77.97	16.30	78.33	12.95	.000
3. Achievements in life	73.73	20.01	73.83	18.88	75.62	16.03	71.89	15.23	75.00	15.05	.343
4. Personal relationships	77.73	26.48	78.35	22.01	79.45	20.24	80.68	17.15	75.56	16.17	.649
5. How safe you feel	74.44	21.11	77.85	19.50	78.02	16.64	78.24	15.38	78.89	17.79	.207
6. Community connectedness	71.77	23.68	71.50	19.80	69.83	19.69	63.65	18.10	73.33	16.80	.016
7. Future security	66.02	23.62	70.06	20.31	71.06	17.98	72.70	17.23	78.89	14.91	.005
Life as a whole	75.13	22.51	76.85	17.28	78.51	15.63	79.19	12.80	75.56	13.81	.185
SURVEY-SPECIFIC PERSONAL ASPECTS											
- Spiritual/religious	80.10	20.75	73.79	21.53	74.00	20.72	70.73	19.04	70.71	19.40	.006

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		P=
N =	261		321		349		74		18		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
- Financial security	60.08	24.99	62.74	22.05	70.20	16.84	75.00	16.90	76.11	14.61	.000
- Ability to pay	72.04	24.50	77.20	20.10	83.82	15.34	84.73	14.16	88.33	14.25	.000
- Ability to afford	56.32	26.25	60.19	22.36	69.45	17.84	73.65	18.55	74.44	20.64	.000
- Ability to save	51.84	31.10	54.51	28.38	62.82	23.13	64.46	22.88	66.67	27.44	.000
- Own life getting better	58.65	21.37	62.46	19.51	63.97	17.26	68.11	14.87	66.67	12.37	.000
NATIONAL WELLBEING INDEX	58.31	17.59	59.49	16.88	61.95	13.62	61.27	14.75	63.52	7.96	.038
<i>National domains</i>											
1. Economic situation	60.88	22.40	63.69	20.13	67.74	16.83	70.00	15.95	71.67	10.98	.000
2. State of the environment	56.90	21.92	56.02	21.37	58.92	18.45	54.32	17.21	55.00	14.65	.181
3. Social conditions	60.68	21.01	61.29	19.60	63.18	17.34	61.08	18.55	63.89	12.90	.480
4. Government	54.32	28.51	53.73	24.87	55.77	21.81	55.95	21.70	58.33	18.23	.718
5. Business	58.97	21.47	60.35	19.48	61.78	16.81	62.70	17.77	64.44	11.99	.264
6. National Security	58.29	22.38	61.28	20.20	63.52	16.68	64.19	18.21	67.78	13.96	.011
Life in Australia	83.85	19.19	81.59	19.44	84.15	16.23	83.11	16.95	80.00	13.72	.338

	≤\$15,000		>\$15,000- \$30,000		>\$30,000- \$60,000		>\$60,000- \$90,000		>\$90,000		P=
N =	261		321		349		74		18		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
SURVEY-SPECIFIC NATIONAL ASPECTS											
Life in Australia getting better	50.83	21.96	51.51	21.19	55.32	18.85	52.60	14.24	52.78	10.74	.064

Appendix A6: Source of Finance (Primary Source)

Table A6: Source of Finance (Primary)

N =	Wage/Salary 1030		Self-employed 283		Super 86		Investment 77		Pension/Benefit 428		Other 56		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX	74.79	11.29	76.47	11.54	78.62	11.80	75.83	12.28	72.25	14.39	70.64	14.19	
<i>Personal domains</i>													
1. Standard of living	77.84	14.98	79.72	16.88	84.19	14.35	80.78	14.85	72.85	21.23	74.46	22.48	
2. Health	77.50	17.55	80.46	17.51	77.56	17.42	71.82	19.18	69.58	23.69	72.73	24.45	
3. Achievements in life	74.31	16.77	77.92	16.21	80.93	14.52	77.50	16.74	73.13	20.84	70.18	20.49	
4. Personal relationships	78.80	20.24	79.96	20.55	83.26	20.78	76.32	23.71	77.15	24.76	78.18	23.89	
5. How safe you feel	76.29	17.53	76.84	19.06	77.56	18.40	76.75	19.36	73.86	22.75	73.57	20.04	
6. Community connect	69.23	19.28	70.25	19.57	71.06	20.70	71.43	18.76	72.06	23.10	63.45	25.91	
7. Future security	69.47	18.24	70.11	19.75	76.24	17.79	77.53	17.78	68.16	22.53	67.04	21.16	
Life as a whole	77.24	15.64	78.94	16.21	84.19	15.07	81.43	15.54	76.42	20.93	74.64	21.66	
SURVEY-SPECIFIC PERSONAL ASPECTS													
- Spiritual/religious	74.14	21.14	73.32	20.35	78.57	19.39	73.23	21.80	79.20	20.58	72.70	27.55	
- Financial security	67.22	18.90	69.89	20.95	79.64	17.59	76.49	18.34	61.41	24.27	58.89	27.24	

N =	Wage/Salary 1030		Self-employed 283		Super 86		Investment 77		Pension/Benefit 428		Other 56		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
- Ability to pay	79.31	17.47	82.09	18.78	88.84	15.22	85.32	17.14	72.46	23.64	71.27	22.94	
- Ability to afford	65.75	20.05	68.55	21.94	75.81	19.49	75.53	18.86	57.24	25.99	59.27	23.40	
-Ability to save	60.08	24.44	62.23	25.36	69.88	26.32	65.81	28.67	52.39	30.72	49.64	31.97	
- Own life getting better	65.43	17.94	66.71	19.88	59.77	17.82	62.11	19.21	57.98	20.67	63.21	22.17	
NATIONAL WELLBEING INDEX	60.77	14.54	62.45	14.13	61.58	16.40	66.34	11.12	58.01	17.51	60.33	17.95	
<i>National domains</i>													
1. Economic situation	65.72	17.78	67.07	18.14	68.29	17.06	73.03	16.41	60.34	21.86	61.67	22.88	
2. State of the environment	58.38	19.44	56.05	19.04	58.00	21.09	61.97	18.55	56.37	21.80	64.82	21.66	
3. Social conditions	62.87	18.24	63.98	18.04	64.59	17.63	65.26	16.85	60.31	20.56	61.96	22.92	
4. Government	54.66	23.15	59.68	21.75	59.41	25.97	64.61	19.83	53.63	27.67	55.56	27.45	
5. Business	60.97	17.77	64.54	17.23	62.14	18.76	63.07	16.27	58.32	20.72	62.35	22.32	
6. National Security	60.91	18.75	63.90	19.34	62.17	19.76	67.00	18.21	57.86	21.97	64.71	19.53	
Life in Australia	83.40	15.93	84.04	17.33	84.30	18.70	84.68	16.43	83.59	20.32	82.00	19.09	
SURVEY-SPECIFIC NATIONAL ASPECTS													

N =	Wage/Salary 1030		Self-employed 283		Super 86		Investment 77		Pension/Benefit 428		Other 56		P
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Life in Australia getting better	54.61	19.16	55.21	19.21	49.64	19.97	54.93	18.42	49.14	21.07	53.52	23.32	

Appendix A7: Worry Over Payments

Table A7: Worry Over Payments

	N =	Yes		No		p=
		753		1200		
		Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX		70.43	13.87	77.13	10.42	.000
<i>Personal domains</i>						
1. Standard of living		70.29	19.78	81.61	13.74	.000
2. Health		72.83	22.26	77.66	17.66	.000
3. Achievements in life		70.28	19.90	77.66	15.70	.000
4. Personal relationships		75.39	24.41	80.77	19.28	.000
5. How safe you feel		72.43	21.30	77.95	17.50	.000
6. Community connect		68.30	21.52	70.95	19.79	.007
7. Future security		63.58	21.12	73.66	17.56	.000
Life as a whole		73.16	19.81	80.43	14.82	.000
SURVEY-SPECIFIC PERSONAL ASPECTS						
- Spiritual/religious		73.40	21.28	76.28	21.01	.014
- Financial security		56.88	22.60	73.25	17.44	.000
- Ability to pay		68.81	21.89	84.76	15.26	.000
- Ability to afford		53.49	22.15	72.12	19.30	.000
-Ability to save		47.93	26.66	66.21	24.47	.000
- Own life getting better		59.56	20.54	66.04	18.06	.000
NATIONAL WELLBEING INDEX		57.79	16.15	62.47	14.45	.000
<i>National domains</i>						
1. Economic situation		60.69	20.94	67.73	17.23	.000
2. State of the environment		56.16	20.80	58.96	19.55	.003
3. Social conditions		60.32	19.03	63.97	18.58	.000
4. Government		52.94	25.32	57.47	23.38	.000
5. Business		58.56	19.50	62.66	17.77	.000
6. National Security		57.35	21.16	63.23	18.43	.000

	N =	Yes		No		p=
		753		1200		
		Mean	SD	Mean	SD	
Life in Australia		80.67	19.24	85.37	15.95	.000
SURVEY-SPECIFIC NATIONAL ASPECTS						
- Life in Australia getting better		50.99	20.87	54.63	19.06	.000

Appendix A8: Religion

	Christian		Jewish		Muslim		Buddhist		Other Religion		No Religion	
N =	1149		16		11		25		22		708	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
PERSONAL WELLBEING INDEX	75.38	12.21	77.45	8.31	71.79	13.13	71.31	13.09	75.32	14.31	73.53	12.42
<i>Personal domains</i>												
1. Standard of living	78.09	16.76	80.63	14.82	70.00	16.73	73.20	20.96	78.64	11.25	76.36	18.04
2. Health	75.82	19.94	81.25	12.04	76.36	16.90	76.80	14.64	79.09	17.97	75.68	19.63
3. Achievements in life	75.83	17.72	78.13	13.28	75.00	15.09	72.40	20.06	78.18	13.32	73.42	18.11
4. Personal relationships	79.79	21.73	81.25	15.00	67.27	27.96	69.60	23.18	76.36	23.41	77.40	21.33
5. How safe you feel	75.55	19.33	78.75	13.10	71.82	18.88	75.20	18.96	75.91	19.92	76.36	19.30
6. Community connect	72.39	19.55	76.67	14.47	64.55	28.41	69.20	22.35	65.91	21.97	66.34	21.35
7. Future security	70.65	19.69	72.00	15.21	62.22	31.93	62.80	23.54	73.18	20.33	68.87	19.14
Life as a whole	78.52	17.20	79.38	14.36	70.91	19.21	72.00	19.36	79.09	12.31	76.53	17.54
SURVEY-SPECIFIC PERSONAL ASPECTS												

	Christian		Jewish		Muslim		Buddhist		Other Religion		No Religion	
N =	1149		16		11		25		22		708	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
- Spiritual/religious	76.74	20.12	78.67	18.85	78.18	26.76	80.00	19.76	81.50	17.55	68.20	24.07
- Financial security	68.30	20.90	73.13	16.21	64.55	20.18	54.80	27.56	65.45	25.40	65.44	21.20
- Ability pay essentials	79.48	19.17	84.67	19.22	67.00	25.41	63.60	28.27	71.82	24.62	78.29	19.59
- Ability afford likes	65.94	21.96	70.63	16.52	58.89	22.61	53.60	29.56	64.09	24.82	64.49	22.47
- Ability to save money	61.15	25.83	52.50	30.22	49.09	36.46	50.00	30.14	52.27	30.85	57.22	27.93
- Own life getting better	63.49	19.34	63.13	17.02	64.55	28.06	67.60	20.06	65.45	18.45	63.68	19.15
NATIONAL WELLBEING INDEX	62.72	14.36	64.40	12.05	61.85	24.12	57.03	16.28	64.17	12.82	57.60	16.11
<i>National domains</i>												
1. Economic situation	66.35	18.51	64.67	17.67	63.64	20.14	59.20	20.40	67.50	17.73	63.09	19.76
2. The Environment	60.05	18.71	64.67	22.00	69.09	29.48	62.40	20.47	63.18	22.55	54.21	21.16
3. Social conditions	64.08	18.11	65.33	16.85	65.45	26.97	59.60	21.31	65.45	17.65	60.40	19.65
4. Government	60.05	22.75	58.00	21.45	54.55	32.97	44.80	26.32	60.48	22.02	49.14	24.93
5. Business	63.47	17.46	66.67	9.76	63.33	25.00	48.75	24.01	59.52	20.12	57.91	19.41
6. National Security	61.74	18.98	67.14	14.37	54.00	24.59	64.58	16.15	61.90	20.40	60.03	20.75

	Christian		Jewish		Muslim		Buddhist		Other Religion		No Religion	
N =	1149		16		11		25		22		708	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Life in Australia	84.69	16.54	81.88	22.88	75.45	22.52	76.40	21.96	84.09	12.97	82.27	18.42
SURVEY-SPECIFIC NATIONAL ASPECTS												
Life in Australia getting better	53.91	19.66	49.38	11.81	62.73	24.12	55.60	22.19	56.82	15.85	52.40	20.10

Appendix A9: Other Religions

	N
Ancestral Worship	1
Believe in God	1
Deist	1
Hindu	5
New Age	1
Pagan	1
Personal	1
Searching	1
Self Realisation F/sp	1
Spiritualist	4
Taoist	1
Wickan	1
Wicker	1
Zoroastrian	2
Total	22

Appendix A10: Retired

Table A10: Retired

	Yes		No		p=
N =	545		1417		
	Mean	SD	Mean	SD	
PERSONAL WELLBEING INDEX	75.64	12.94	74.23	11.99	.026
<i>Personal domains</i>					
1. Standard of living	78.35	17.77	76.93	17.01	.102
2. Health	71.36	21.90	77.55	18.47	.000
3. Achievements in life	77.13	18.65	74.05	17.36	.001
4. Personal relationships	80.98	22.19	77.84	21.36	.004
5. How safe you feel	75.50	21.21	76.02	18.31	.611
6. Community connect	73.15	20.82	68.82	20.21	.000
7. Future security	73.15	20.07	68.63	19.27	.000
Life as a whole	79.63	18.84	76.96	16.55	.002
SURVEY-SPECIFIC PERSONAL ASPECTS					
- Spiritual/religious	78.64	20.58	73.89	21.24	.000
- Financial security	69.85	22.09	65.91	20.65	.000
- Ability to pay	80.33	20.05	78.04	19.43	.021
- Ability to afford	66.72	24.26	64.37	21.51	.049
-Ability to save	60.47	29.08	58.67	25.97	.212
- Own life getting better	58.17	19.01	65.64	18.97	.000
NATIONAL WELLBEING INDEX	60.74	16.66	60.67	14.75	.934
<i>National domains</i>					
1. Economic situation	64.58	20.60	65.24	18.45	.519
2. State of the environment	58.31	20.57	57.82	19.81	.634
3. Social conditions	63.26	19.58	62.40	18.54	.381
4. Government	58.20	26.49	54.83	23.31	.010
5. Business	60.48	19.84	61.35	18.06	.387
6. National Security	60.42	20.77	61.28	19.32	.415

	Yes		No		p=
N =	545		1417		
	Mean	SD	Mean	SD	
Life in Australia	85.76	17.22	82.74	17.40	.001
SURVEY-SPECIFIC NATIONAL ASPECTS					
Life in Australia getting better	49.62	20.55	54.67	19.40	.000

Appendix A11: Number of People in Household

Table A11: Number of People in Household

Number of people	N	%
1	313	16.1
2	658	33.9
3	355	18.3
4	372	19.2
5	166	8.6
6	62	3.2
7	9	0.5
8	4	0.2
9	2	0.1
Total	1,941	100.00

Exactly half of the sample (50.0%) live either alone or with one other person.

Appendix A12: Wellbeing and Age

Table A12.1: Correlations between Personal Wellbeing and Age

	Age		
	N	r	p
PWI	1,867	.09	.000
Life as a whole	1,929	.11	.000

As we have recorded in previous reports, there is a weak degree of positive association between personal wellbeing and age. As can be seen in Figure 2.14 this is the result of increased levels of wellbeing after 55y of age (see also **Table A2**).

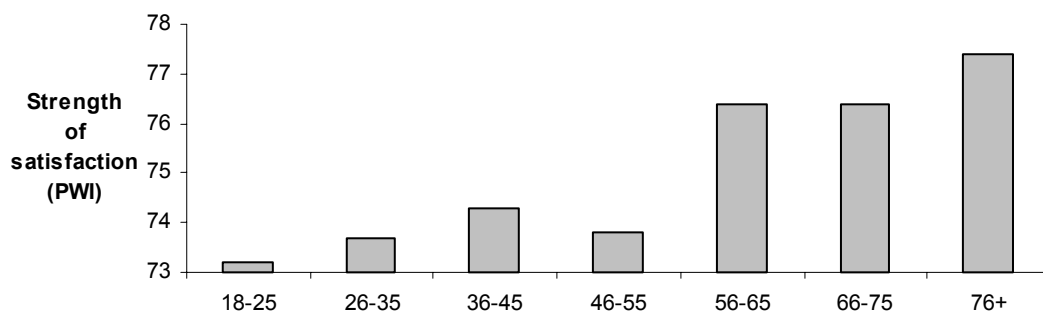


Figure A12.1: Age and the Personal Wellbeing Index

There are three possible reasons for this rise. One is natural selection. Since positive wellbeing is known to be associated with increased longevity (reference) the population should become increasingly more satisfied with life as the people with low positive wellbeing differentially die at an earlier age. While this is certain to exert some influence on the wellbeing of different age cohorts, it does not seem a likely explanation for the sudden jump in wellbeing after 55 years.

The second is some form of innate protective mechanism against loss of wellbeing. Since people tend to accumulate disease, disability, and decreasing functional status as they age beyond their 50s, perhaps the 'set-point' for the homeostatic maintenance of wellbeing is automatically set to a higher level as a counter measure to avoid depression. While this is possible, we have no direct evidence for such a proposition and, again, it does not explain the sudden increase after 55 years.

The third possibility is that the change around 55 years reflects a change in life-style. Over the age-range of 55-65 years many parents experience children leaving home, thus releasing personal time and financial resources. Many people in this age range also retire from full-time paid employment, which may be experienced as a considerable relief even though household income may drop as a consequence.

While this third explanation seems intuitively appealing, it is not as straight forward as it seems. The departure of children from the family home may result in a loss of life purpose, as may also retirement from paid employment. Additionally, ill-health and disability become more likely. However, these negative influences are also

present as background to the first two explanations also. Thus, on balance, the life-style change proposition seems likely to be the most powerful source of influence.

There is a weak positive association between age and Life in Australia, but no association with the National Wellbeing Index.

Table A12.2: Correlations between National Wellbeing and Age

	N	Age	
		r	p
NWI	1,745	.03	.181
Life in Australia	1,924	.07	.002

Using the data shown in **Table** A12.1, the following age-related differences are evident:

Variable	ANOVA	
	p	Post-hoc
PWI	.002	-
Standard of living	.001	56-65; 76+ > 36-45
Health	.000	18-25; 26-35; 36-45 > 66-75 26-35 > 56-65
Achievements	.001	-
Relationships	.001	66-75 > 18-25
Community	.000	36-45; 56-65; 66-75; 76+ > 18-25 56-65; 66-75 > 26-35
Future security	.000	56-65; 76+ > 18-25; 26-35
Life as a whole	.000	56-65 > 18-25; 26-35; 36-45; 46-55 66-75 > 36-45
<u>Survey Specific:</u>		
Spiritual/Religion	.000	56-65; 66-75; 76+ > 18-25; 26-35; 36-45
Financial Security	.001	-
Pay for essentials	.000	All groups > 18-35 56-65; 66-75 > 36-45
Afford likes	.000	56-65 > 18-25; 26-35; 36-45
Save money	.018	56-65 > 36-45
Own life getting better	.000	18-25 > 46-45; 56-65; 66-75; 76+ 26-35 > 56-65; 66-75; 76+ 36-45 > 66-75; 76+
Environment	.036	-
Government	.001	76+ > 26-35
National Security	.050	-
Life in Australian getting better	.039	-

Appendix A13: Psychometric Data

A13.1 Correlations

Table A13.1: Correlations Between the Wellbeing Variables

		NWI	Life as a whole	Life in Australia
PWI	N	1,741	1,900	1,895
	r	.49	.65	.46
	p	.000	.000	.000
NWI	N		1,775	1,770
	r		.31	.47
	p		.000	.000
Life as a whole	N			1,959
	r			.36
	p			.000

A13.2 Ranges of Personal Wellbeing Over Age and Income

Table A13.2: Maximum Age and Income Differences in Personal Wellbeing

Variable	Age				H-L	Income				H-L
	Low Group (mean)		High Group (mean)			Low Group (mean)		High Group (mean)		
PWI	18-25	(73.2)	76+	(77.4)	4.2	≤15	(71.9)	>90	(78.0)	6.1
Standard	36-35	(75.0)	76+	(81.5)	6.5	15-30	(71.2)	>90	(83.0)	11.8
Health	66-75	(71.2)	18-25	(79.1)	7.9	≤15	(69.0)	60-90	(79.5)	10.5
Achievements	26-35	(72.9)	76+	(78.8)	5.9	15-30	(72.6)	>90	(76.4)	
Relationships	18-25	(75.0)	76+	(83.2)	8.2	≤15	(74.2)	60-90	(82.6)	8.4
Safety	26-35	(74.4)	66-75	(77.4)		≤15	(73.4)	>90	(80.6)	7.2
Community	18-25	(63.4)	66-75	(75.4)	12.0	60-90	(69.2)	≤15	(73.6)	
Fut. Security	18-25	(67.6)	76+	(75.9)	8.3	15-30	(67.0)	>90	(75.9)	8.9
Life Whole	36-45	(75.6)	56-65	(81.6)	6.0	15-30	(75.5)	>90	(80.7)	5.2
<u>Survey Specific</u>										
Spirit/Rel.	18-25	(71.3)	76+	(82.0)	10.7	60-90	(73.0)	≤15	(82.7)	9.7
Fin. Security	18-25	(63.8)	76+	(71.2)	7.4	15-30	(60.4)	>90	(75.2)	14.8
Pay	18-25	(71.3)	66-75	(82.6)	11.3	≤15	(74.3)	>90	(87.8)	13.5
Afford	18-25	(61.7)	56-65	(70.2)	8.5	15-30	(57.7)	>90	(77.6)	19.9
Save	36-45	(56.2)	56-65	(63.8)	7.6	≤15	(53.8)	>90	(67.8)	14.0
Life Better	26-35	(59.4)	56-65	(62.3)		≤15	(58.7)	>90	(67.8)	9.1

With the exception of the four variables that showed no age or income related change (High-Low is blank), and the two bolded results which were different in the opposite direction to the majority, all other variables showed an increased strength of satisfaction with age and with income.

In terms of the lowest extent of each variable, the values are fairly comparable between the two groups. The PWI values differ by 1.3% (i.e. 73.2 vs. 71.9), Life as a Whole by 0.1%, and the domains generally by less than 1% except for Standard of Living (3.8% lower for Income, Health (2.2% lower for Income), and Community Connectedness (5.8% lower for Age). This seems to indicate that our lower grouping for these variables is comparable in terms of identifying demographic groups with fairly equivalent levels of personal wellbeing.

The survey-specific items show more variation at their lower margins. Some of these are interesting as follows:

- Spiritual/Religious: lowest satisfaction in relation to income is the second-highest income group.
- Pay for Essentials: this is lower in the 18-25 group (71.3) than in the ≤ 15 group (74.3) even though only 2.1% of this age group have an income less than \$15,000 (Table 3.13). This reinforces the interpretation, stated previously, that the low satisfaction within this age group has little to do with actual income.

Much the same observation can be made in relation to the other variables of Financial Security and ability to Afford the thing you would like to have. The difference between the 18-25 age group and the ≤ 15 group is just 3.4% and 4.0% respectively. Yet the mean income of the 18-25 group is \$59,950 (Table 3.12), a value which is around six times the household income of the ≤ 15 group and which puts them into the second highest income category (\$60-90). Appendix A4 indicates the value of these two variables for the \$60-90 group as 70.8 and 67.8. These values are 7.0% and 6.1% higher than the 18-25 group even though many of the 18-25 year olds are obviously included in this \$60-90 income group. These differences again point to differences in the perceptions of the 18-25y group regarding their financial capacity compared with the older groups.

A13.3 An Examination of the PWI Composition

An hierarchical multiple regression was conducted to determine whether the survey-specific items relating to personal wellbeing predicted Satisfaction with Life as a Whole beyond the PWI. The first step comprised the seven domains, the second step comprised Spiritual/Religious, Save Money, Pay for Essentials, Financial Security, and Afford Likes. The first step predicted 49.1% of the variance (R^2). The second step yielded a non-significant R^2 change of 0.001. It is concluded that none of the survey-specific items add to the power of the PWI to predict Life as a Whole. The spiritual/religious item yielded a standardised β of .028.

A13.4 An Examination of the NWI Composition

A multiple linear regression was used to predict Life in Australia by the national domains (N=1,775).

Table A13.3: Life in Australia Predicted by the National Domains

Domain	Correlations						LIA	Standardised β	p
	2.	3.	4.	5.	6.				
1. Economic	.48	.52	.61	.55	.44	.43	.25	.000	
2. Environment		.56	.50	.46	.38	.27	-.04	.102	
3. Social			.55	.52	.41	.37	.14	.000	
4. Government				.62	.46	.37	.06	.060	
5. Business					.44	.38	.12	.000	
6. N. Security						.30	.07	.003	
$R^2 = .237$									

Key: LIA = Life in Australia.

The bi-variate correlations range from .27 Environment vs. Life in Australia) to .62 (Business and Government).

The six domains together explained just 24% of the variance in Life in Australia, which is quite a weak result. The domain of Government failed to make a significant contribution, while the strongest predictor by far is Satisfaction with the Economic Situation.

The correlations of the national domains (refer Table A13.3) with the National Wellbeing Index are: Economic .78; Government .74; Social .77; Government .84; Business .78; National Security .68; and with Life in Australia .47.

A13.5 An Examination of the PWI and NWI Together

Table A13.4: Life as a Whole Prediction by the National Domains (N = 1,965)

Domain	Correlations						LAW	Standardised β	p
	2.	3.	4.	5.	6.				
1. Economic						.31	.20	.000	
2. Environment						.20	.001	.959	
3. Social			[See Table A13.3]			.23	.050	.097	
4. Government						.25	.026	.426	
5. Business						.25	.061	.045	
6. N. Security						.23	.083	.002	
$R^2 = .112$									

Key: LAW = Life as a Whole

While the predictive power of these national domains is generally weak, as together they only explain 11% of the variance in Life as a Whole, the predictive power of Economic Conditions is substantial.

Table A13.5: Life in Australia Predicted by the Personal Domains (N = 1,960)

Domain	Correlations							Standardised	p
	2.	3.	4.	5.	6.	7.	LIA	β	
1. Standard	.36	.45	.31	.25	.27	.44	.34	.16	.000
2. Health		.32	.18	.19	.17	.24	.23	.06	.004
3. Achievement			.39	.24	.32	.37	.30	.08	.001
4. Relationship				.21	.28	.27	.24	.06	.006
5. Safety					.31	.46	.32	.17	.000
6. Community						.36	.30	.13	.000
7. Fut. Security							.31	.06	.023

$R^2 = .217$

Key: LIA = Life in Australia

While the correlations between the personal domains and Life in Australia are generally lower than the national domains, all seven personal domains predicted Life in Australia and their combined predictive power of 22% is comparable to that of the national domains (24%). The implication of this is that the personal domains are as predictive of satisfaction with Life in Australia as the national domains.

Table A13.6: Correlations Between the Personal Wellbeing Variables

	Minimum N = 1,901													
	2	3	4	5	6	7	8	9	10	121	12	13	14	
1. PWI	.68	.55	.69	.61	.60	.62	.70	.65	.29	.57	.53	.54	.34	
2. Standard								.56	.19	.57	.55	.57	.37	
3. Health		[See Table A13.5)						.36	.08	.27	.26	.26	.18	
4. Achievement								.55	.24	.41	.36	.41	.25	
5. Relationships								.47	.25	.30	.28	.26	.19	
6. Safety								.25	.11	.23	.27	.23	.13	
7. Community								.33	.19	.26	.25	.24	.14	
8. Fut. Security								.39	.23	.53	.42	.43	.28	
9. Life Whole									.23	.40	.38	.39	.26	
10.Spirit/Rel.										.24	.14	.15	.12	
11.Fin. Security											.59	.64	.50	
12.Pay Essential												.64	.47	
13.Afford Like													.57	
14.Save Money														

While most of these correlations exceed .20, two variables stand-out as being relatively independent of the others. These are Spiritual/Religious and satisfaction with ability to save money.

Table A13.7: Testing the Independent Contribution of the PWI Domains to Life as a Whole (R^2)

	Standard	Health	Achieve	Relation	Safe	Comm.	Fut. Sec.
Step 1: All 6 domains other than the one being tested.	.434	.481	.448	.452	.491	.487	.489
Step 2: The domain under investigation.	.491	.491	.491	.491	.491	.491	.491
p for Step 2	.000	.000	.000	.000	.886	.000	.006

The Personal Wellbeing Index is conceptualised as the first level of deconstruction Life as a Whole. Thus, each domain should make an independent contribution to Life as a Whole. The above analysis indicates this holds true for six of the domains but not for Safety. Previous reports have also shown this domain to be a non-contributor, in the Australian context.

Table A13.8: Inter-index Domain Correlations

	2	3	4	5	6	7	8	9	10	12	12	13	14	15
1. Standard							.40	.24	.27	.30	.28	.24	.56	.34
2. Health		[See Table A13.5]					.26	.18	.26	.22	.25	.19	.36	.23
3. Achievement							.30	.22	.23	.25	.27	.21	.55	.30
4. Relationships							.20	.18	.20	.20	.19	.16	.47	.24
5. Safety							.28	.18	.25	.18	.17	.33	.25	.32
6. Community							.24	.23	.24	.25	.23	.21	.33	.30
7. Fut. Security							.34	.22	.28	.27	.30	.33	.39	.31
8. Economic													.30	.43
9. Environment									[See Table A13.3]				.20	.27
10. Social													.23	.37
11. Government													.25	.37
12. Business													.25	.38
13. Nat. Security													.23	.30
14. Life Whole														.36
15. Life Australia														

The analysis below is a Principle Component Analysis that has used a varimax rotation with a Kaiser normalisation. The values below are factor loadings.

Table 13.9: Factor Analysis of the Personal and National Domains – 3 Factor Solution

	Factor 1	Factor 2	Factor 3
Government	.81		
Business	.77		
Social	.76		
Environment	.73		
Economic	.73		
National Security	.60		.40
Achievements		.74	
Standard		.68	
Health		.65	
Relationships		.59	
Safety			.83
Future Security		.33	.69
Community			.57
Eigen Values	3.409	2.133	1.863

Factor 3 is not acceptable as a separate factor since it only contains two items that are free of cross-loadings. It is interesting, however, to see how the third factor gathers items concerning issues of safety, and that the item of ‘how safe you feel’ emerges as the strongest contributor. This reinforces the conclusion from the earlier Hierarchical

Multiple Regression that the item of Safety may not belong in the Personal Wellbeing Index.

Table A13.10: Factor Analysis of the Personal and National Domains – 2 Factor Solution

	Factor 1	Factor 2
Government	.81	
Business	.77	
Social	.76	
Environment	.73	
Economic	.73	
Nat. Security	.61	
Achievements		.70
Fut. Security		.69
Standard		.67
Relations		.60
Safety		.58
Community		.57
Health		.48
Eigen Values	3.479	2.917

Factor analysis of domains and global measures

A three factor solution produced a pattern similar to **Table A13.9**, where the only two non-complex domains loading onto the third factor were Safety and Community. The two factor solution is presented below.

Table A13.11: Factor Analysis of Domains and Global Measures

	Factor 1	Factor 2
Government	.80	
Business	.76	
Social	.76	
Economic	.73	
Environment	.72	
Nat. Security	.63	
Life as a Whole		.80
Achievements		.72
Standard		.69
Fut. Security		.62
Relationships		.62
Community		.52
Safety		.48
Health		.48
Life in Australia	.43	.44
Eigen Values	3.702	3.567

This analysis confirms the appropriate loading of Life as a Whole with the personal domains. However, Life in Australia loads equally onto the two factors. This is further evidence that Life in Australia shares considerable variance with personal wellbeing.

Table A13.12: Hierarchical Regression Predicting Life in Australia from Personal and National Domains

	R ²
Step 1: All National Domains	.237
Step 2: All Personal Domains	.305
Step 2 p	.000

	Step I		Step 2	
	standardised β	p	standardised β	p
Economic	.25	.000	.17	.000
Environment	-.04	.102	-.05	.031
Social	.14	.000	.11	.000
Government	.06	.060	.06	.057
Business	.12	.000	.11	.000
Nat. Security	.07	.003	.02	.403
Standard			.10	.000
Health			.02	.391
Achieve			.06	.018
Relationships			.05	.023
Safety			.13	.000
Community			.10	.000
Fut. Security			.01	.778

This analysis confirms the factor analysis (Table A13.11) in demonstrating that the personal domains make a substantial contribution to the prediction of Life in Australia. However, the following points can also be noted:

1. The addition of the personal domains allowed much the same pattern of contribution from the national domains with the exception of National Security. This became non-significant. Table A13.8 indicates that this domain correlates highly with the personal domains of Safety (.33) and Future Security (.33). However, as seen from Table A13.12, only Safety contributed to the solution. Thus, personal safety has captured the variance of national security in the prediction of Life in Australia.

This leads to the question as to whether Safety should be a national domain. But this can be answered in the negative. The relevant factor analysis (Table A13.10) gives no indication of cross-loading onto the National Wellbeing Index.

2. The other personal domains making a significant contribution are Standard of Living, Achievements, Relationships, and Community.

Appendix 14. Other Australian indexes

The Australian Bureau of Statistics has published, *Measuring Australia's Progress*, which reports on national performance according to about 15 headline indicators and a range of background indicators. This research, however, is confined to objective indicators.

The Australia Institute constructs the *Genuine Progress Indicator* (GPI) for Australia. This composite index adjusts GDP for a range of economic, social and environmental factors which GDP either ignores or treats inappropriately.

The Centre for Independent Studies publishes a biennial *State of the Nation* report, covering a wide range of statistical indicators of Australia's well-being. Again, however, this effort is focused on objective indicators – things that can be measured in material terms.

The Evatt Foundation and the Public Sector Research Centre at the University of NSW produce an annual *The State of the States 2001* report, which assesses the States on 15 indicators of social, environmental and economic policy. Various market research companies include life satisfaction questions in regular surveys, but do not compile a comprehensive and systematic index of wellbeing.

Clemenger Communications produce an annual Clemenger Report.

Appendix A15: Questionnaire

Survey #5 Questionnaire

The Australian Unity Wellbeing Index- November 2002

“Hello, my name is I’m calling on behalf of the Australian Unity Wellbeing Index and Deakin University. We are doing a survey on how people feel about life in Australia that will only take about 5 minutes to complete.”

“To help with our selection process can I speak to a male who had the most recent birthday, and is at least 18 years old?”

Instructions: In the initial stages of the survey we are targeting males until the male quotas are filled. If the person who answers is that person then continue. If the person is available repeat opening paragraph. If the person is not available, ask when they will be available and organise a call back time.

The Australian Unity Wellbeing Index involves asking you questions about how satisfied you are with different aspects of your life, and more generally, life in Australia. Would you like to share your views by being involved in the survey?”

“Thank you. The information you provide will be used to publish an overall survey result and it can be accessed by writing to Deakin University or Australian Unity or you can visit their websites. I’d also like to remind you that you’re welcome to withdraw from this survey at any time, and if you do, your answers will not be included in the analysed results.”

“I am going to ask how satisfied you feel, on a scale of Zero - 10.”

“Zero means you feel completely dissatisfied. 10 means you feel completely satisfied. And the middle of the scale is 5, which means you feel neutral.”

“Would you like me to go over this again for you?”

“In that case I will start by asking how satisfied you are with life. So,-----“

(Personal well-being)

(Personal - Abstract)

1. Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?

0 1 2 3 4 5 6 7 8 9 10

“Turning now to various areas of your life, -----“

(Personal Domains)

How satisfied are you with...?

2. your standard of living?

0 1 2 3 4 5 6 7 8 9 10

3. your health?

0 1 2 3 4 5 6 7 8 9 10

4. what you achieve in life?

0 1 2 3 4 5 6 7 8 9 10

5. your personal relationships?

0 1 2 3 4 5 6 7 8 9 10

6. how safe you feel?

0 1 2 3 4 5 6 7 8 9 10

7. feeling part of your community?

0 1 2 3 4 5 6 7 8 9 10

8. your future security?

0 1 2 3 4 5 6 7 8 9 10

9. your religion or spirituality?

0 1 2 3 4 5 6 7 8 9 10

[tick this box if the question does not apply to the respondent]

10. your financial security?

0 1 2 3 4 5 6 7 8 9 10

11. How satisfied are you with your ability to pay for household essentials ?

0 1 2 3 4 5 6 7 8 9 10

12. How satisfied are you with your ability to afford the things you would like to have?

0 1 2 3 4 5 6 7 8 9 10

13. How satisfied are you with your ability to save money?

0 1 2 3 4 5 6 7 8 9 10

(National well-being)

(National - Abstract)

“Turning now to life in Australia-----“

- 14. How satisfied are you with life in Australia?
0 1 2 3 4 5 6 7 8 9 10

(National Domains)

How satisfied are you with-----

- 15. the economic situation in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 16. the state of the natural environment in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 17. the social conditions in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 18. Government in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 19. business in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 20. national security in Australia?
0 1 2 3 4 5 6 7 8 9 10

- 21. Now I am going to ask you whether life is getting worse or getting better.
Again there is a scale from zero to 10. Zero means it is getting much worse, 5 means it is not changing, and 10 means it is getting much better.

Would you like me to go over this scale again for you?

So, on a scale from zero to 10, how do you feel **your own** life is changing?

0 1 2 3 4 5 6 7 8 9 10
 Much worse Much better

- 22. Now I am going to ask you to think NOT about your own life, but about Australia in general.

On the scale from zero to 10, how do you feel life in Australia is changing?

0 1 2 3 4 5 6 7 8 9 10 Much worse
Much better

“Now let me ask about the things that have happened to you recently-----“

23 Has anything happened to you recently causing you to feel happier or sadder than normal?

Yes, happier Yes, sadder No

If 'yes', how strong would you rate this influence on a 0 to 10 scale?

0 1 2 3 4 5 6 7 8 9 10
Very Weak Very Strong

24 What about the recent terrorist attacks in Bali? Have they made you feel unhappier or sadder than normal? Yes No

If 'yes', how strong would you rate this sadness?

0 1 2 3 4 5 6 7 8 9 10
Very Weak Very Strong

Now, just a few more questions about yourself.

25. Interviewer – record the sex of the respondent

Male Female

26. Can you tell me your age? *Interviewer type in age.*

27. Are you retired? Yes No

28. How many people live in your household?

29. What is your religion? **NB RECALL Q 9 FOR NO RELIGION**

Christian

Jewish

Buddhist

Muslim

[Other- record by interviewer]

No religion (include agnostic, no formal religion, atheist)

30. Do you ever worry that your household income will not be enough to meet your household expenses and bills? Yes No

31. Can you please give me an idea of your **household's** total annual income before tax?

32. I am going to read a list of possible sources of income for your household. Please tell me which sources of income apply to your household.

(a) Wage or salary?

(b) Self-employment?

(c) Superannuation?

(d) Investments?

(e) Government pension or benefit?

(f) Other? (please describe)

[IF THE PERSON HAS NOMINATED MORE THAN ONE CATEGORY, ASK]

Which of these is the major source of income for your household? (a, b, c, d, e, or f)

Which of these is the next major source of income?

[Continue until all sources of income are accounted for]

33. We are going to carry out another survey like this in 6 months' time.

Would you be willing to help us again?

Yes No

(If YES) Thank You. Can you please tell me your name? You will not be identified in any report, but we need to record your name in order to contact you again.

Interviewer type in Title (Mr Ms Miss)

Firstname

Surname

[Do not type in any other information in the boxes other than the name. If person declines, please leave blank.]

(If NO, or YES) Thank you for helping us with this survey.