

2. A Comparison Between Survey 20 and Survey 21

2.1. Overview

Table 2.1: Means and standard deviations of the 21st survey

Question	Mean	SD	Point change from October 2007	t-test p value
PERSONAL WELLBEING INDEX	75.62	12.32	.74	.065
Personal domains				
1. Standard of living	78.79	16.47	1.54	.004
2. Health	74.69	19.50	.98	.115
3. Achieving in life	73.39	18.64	.99	.101
4. Personal relationships	79.42	20.99	-.18	.789
5. How safe you feel	80.74	16.93	.49	.370
6. Community connect	72.00	18.99	1.01	.108
7. Future security	70.65	19.00	.87	.159
8. Spiritual/ Religious Fulfilment	71.81	24.46	.50	.549
Life as a whole	78.21	16.95	1.19	.028
NATIONAL WELLBEING INDEX	61.50	13.01	-.35	.411
National domains				
1. Economic situation	59.91	19.09	1.36	.026
2. State of the environment	59.80	18.11	1.56	.007
3. Social conditions	62.56	17.59	.08	.891
4. Government	57.70	22.47	-1.09	.122
5. Business	61.60	16.37	-.64	.234
6. National security	67.60	18.72	-2.89	.000
Life in Australia	85.28	15.16	1.34	.008
Likelihood of Terrorist Attack in Australia				
% who think it likely	38.4%		-1.3%	
Strength of likelihood	65.58	17.39	.75	.425

The Major Indices

These results are found in Table 2.1 (Survey 21), Table 2.1.1 (Comparative between surveys). Past comparative results between surveys are found in Tables A2.1.2 and A2.1.3.

2.2. Personal Wellbeing Index

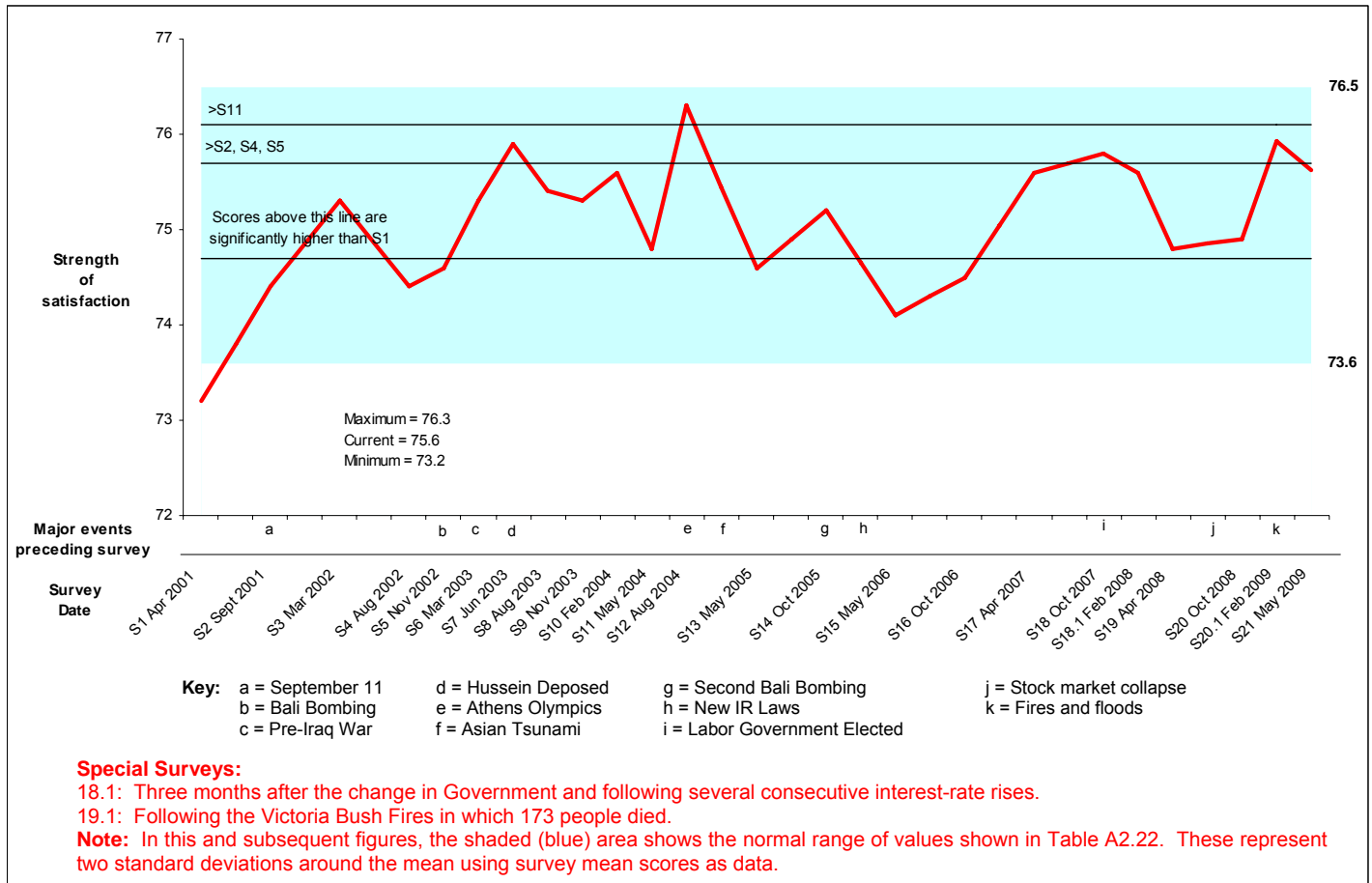


Figure 2.1: Personal Wellbeing Index

The Personal Wellbeing Index has fallen by a non-significant 0.7 percentage points since Survey 20 in October 2008. Its current value of 75.6 points remains higher than Survey 1 but very close to the overall mean value across all surveys of 75.06 points. It has fallen marginally by 0.3 points since the special Survey 20.1 conducted immediately following the bush-fires in Victoria.

Over all the surveys, it is notable that the Personal Wellbeing Index is so stable. It has varied by just 3.1 points over all the surveys. Moreover, the change from one survey to the next has been 1 point or less except for 4 of the 21 surveys. These occasions have been S1-S2 (September 11), S11-S12/S12-S13 (Sydney Olympics), S14-S15 (Second Bali bombing), and S20-S20.1 (Victorian Bush Fires). The Personal Wellbeing Index is currently 2.3 points above its level at Survey 1, which is significant.

Trends over time

The most obvious trend for the Personal Wellbeing Index is that it rose following September 11 and remained generally higher. Of the 19 surveys conducted since Survey 1, 13 (68.4%) have been significantly higher than this initial value.

It seems that both positive and negative events have acted to raise the wellbeing of the Australian population. In terms of the negative events, it appears that the presence of external threat causes the population wellbeing to rise. This has occurred first followed September 11 and reached its maximum about 6 months after the event. The second occurred immediately following the Bali Bombing and ran into the build-up in tension surrounding the Iraq war. It is possible that the Second Bali Bombing,

which substantially increased the perceived probability of a terrorist attack in Australia (see section 2.8) prevented the Personal Wellbeing Index continuing its fall back to the baseline value recorded at that time. In Survey 12, the positive influence of Olympic success also caused personal wellbeing to rise, to an even greater extent than either of the terrorist or war events. It is notable that the same set of domains seem to be affected by both kinds of event, as can be seen in Section 2.2 of this chapter.

In other respects Australia was remarkably politically stable over Surveys 1-18, with Prime Minister Howard leading the Liberal Party to successful re-election in both November 2001 and October 2004. At the time of Survey 18 (October 2007) it was looking as though a change of Government was likely at the November 2007 election, and indeed this transpired with Kevin Rudd becoming the new Labor Prime Minister. However, this was thought to be due to a generally sense in the electorate that it was time for a change, rather than a perception of the government as incompetent. Moreover, the policies of the two major parties contesting the election were very similar. These factors further enhance the sense of political and social stability, as shown by the lack of significant change in the Personal Wellbeing Index at the time of the special survey (18.1) conducted three months following the election.

The influence of homeostasis

The purpose of SWB homeostasis is to maintain the wellbeing of each individual person close to their genetically-determined set-point, which averages 75 points. However, of course, wellbeing fluctuates around its set-point. These fluctuations can be very large if homeostasis is defeated in the presence of an unusually good or bad experience. While such experiences are unusual, when they do occur, people will normally return quite quickly to a level of wellbeing that approximates their set-point once again.

For these reasons, the wellbeing of individuals is normally highly predictable. It is lying within a restricted range around the set-point, called the set-point-range. The homeostatic processes attempt to hold each individual's wellbeing within this range. Therefore, since there is a normal distribution of set-points around 75, probably between about 60 and 90 points, there is an associated distribution of overlapping set-point-ranges. This explains why the population mean is so predictable. The distribution of scores conforms to the distribution of set-point ranges, and these are genetically determined.

Why, then, does the mean of the survey samples vary from one time to the next? The answer, we propose, is that events which are experienced by the whole population will exert a systematic influence on the wellbeing of the individuals making up the whole sample. These influences will act to cause the wellbeing of each affected individual to be more likely to lie either above or below its set-point. Thus, a national event, such as Olympic success, will exert a systematic influence, such that each person's wellbeing will be more likely to be found above their set-point than below. In other words, a meaningful national event will systematically change the probability of measured wellbeing being dominated by scores that lie within the upper or lower halves of the set-point-ranges. Moreover, the stronger and more universal the experience, the more likely is each individual level of wellbeing to be found above or below its set-point, and the more the sample average will deviate from 75 points.

So, how much variation in survey mean scores is possible? There are two answers to this. The first involves a catastrophic experience, such as might occur in a sudden financial depression. In this event, the average wellbeing of the sample will sink below any approximation of the normal range as a high proportion of the population suffer homeostatic defeat. This, however, will be a most unusual situation and one not yet experienced in the history of these surveys.

The second form of variation in survey mean scores will reflect systematic shifts in the probability of wellbeing being found above or below each set-point, but within each set-point range, and under homeostatic control. The extent of such variation depends on a number of factors as:

- (a) The strength and ubiquity of the experience.

- (b) The width of the set-point-range. While this remains somewhat speculative, a ball-park figure seems to be about 12 points.
- (c) The strength of homeostasis vs the distance each measure of wellbeing lies beyond the set-point. We assume that the influence of homeostasis to control small fluctuations around the set-point is minimal. However, as wellbeing strays further and further from the set-point, homeostatic forces are increasingly unleashed to reign it back. We propose that these controlling forces increase in intensity with distance from the set-point until they lose control and SWB goes into free-rise or free-fall under the control of the experience.

So, given all these suppositions, how much movement is possible while most people's wellbeing remains under homeostatic control? The answer is uncertain but certainly much less than the full six points on either side of the set-point defining the set-point range. The boundaries of this range demarcate homeostatic failure and so wellbeing would normally be maintained much closer to the set-point.

The total variation of population mean scores to date is 3.1 percentage points, or about 1.5 points on either side of the average set-point. This represents just 25% of the set-point-range. What this indicates is that the mood of the nation normally fluctuates within only a very tight band of values. What is not known is the extent that these small movements indicate anything important about the frequency of psychopathology or changed behaviour at a national level.

Causal influences

It is not possible from these cross-sectional data to determine causation of the changes in personal wellbeing between surveys. However, a number of ideas concerning possible sources of influence can be advanced. These are acknowledged in the caption to each figure. It is at least notable that the major changes in the level of the PWI have been associated with major national events. This trend has been continued in this most recent survey.

National Wellbeing Index

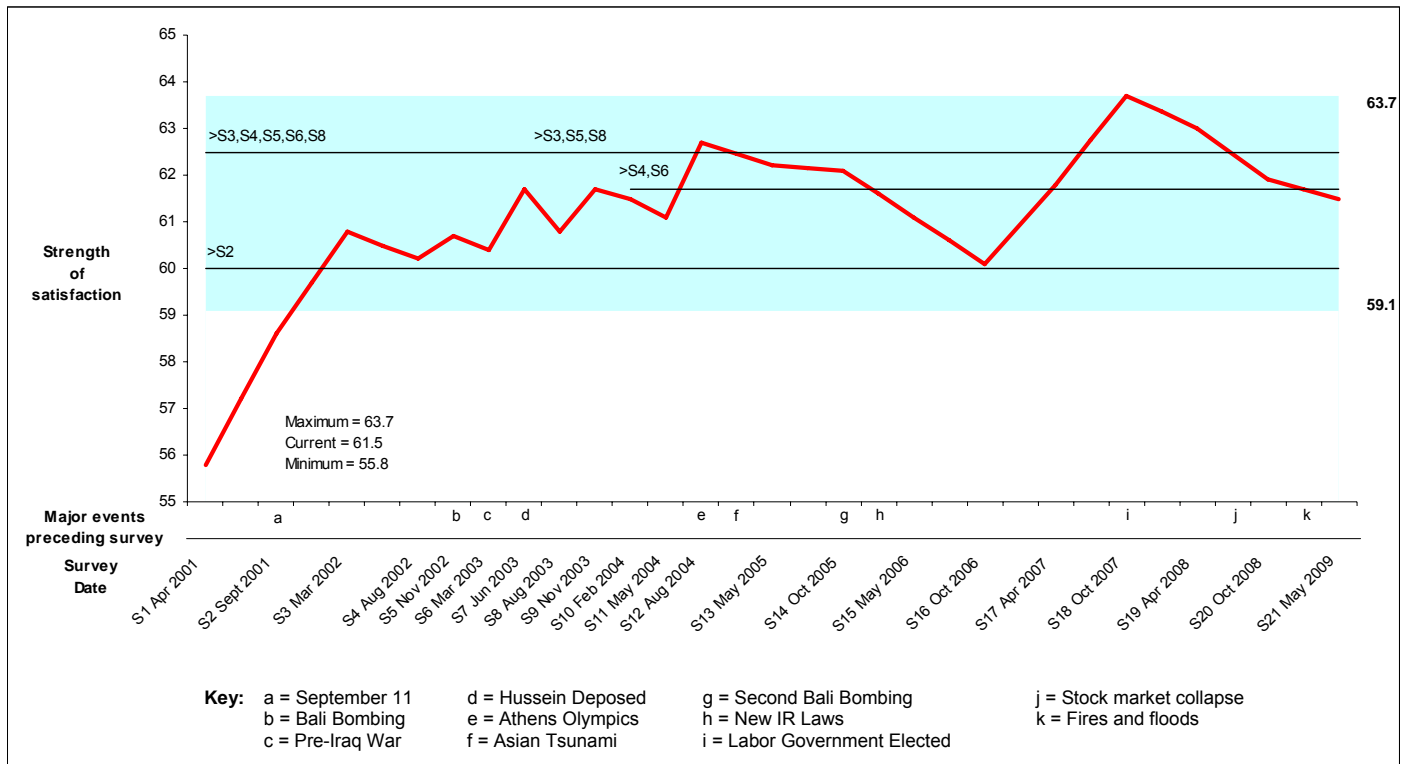


Figure 2.2: National Wellbeing Index

The National Wellbeing Index has fallen by a non-significant 0.4 percentage points since Survey 20. It remains higher than it was at Surveys 1 and 2. This decrease in National Wellbeing has been sustained since October 2007 (Survey 17) and the domains mainly contributing to this fall are Business in Australia, Economic Conditions and Government. The National Index is more volatile than the Personal Index due to the relatively low level of homeostatic control. Its range is 7.9 points from April 2001 (S1:55.8) to October 2007 (S18: 63.7 points).

Note: No test of significance can be run against Survey 1 due to a different composition of the NWI at that time.

2.3. Personal Wellbeing Domains

The personal domains have generally risen since Survey 20.

Standard of Living

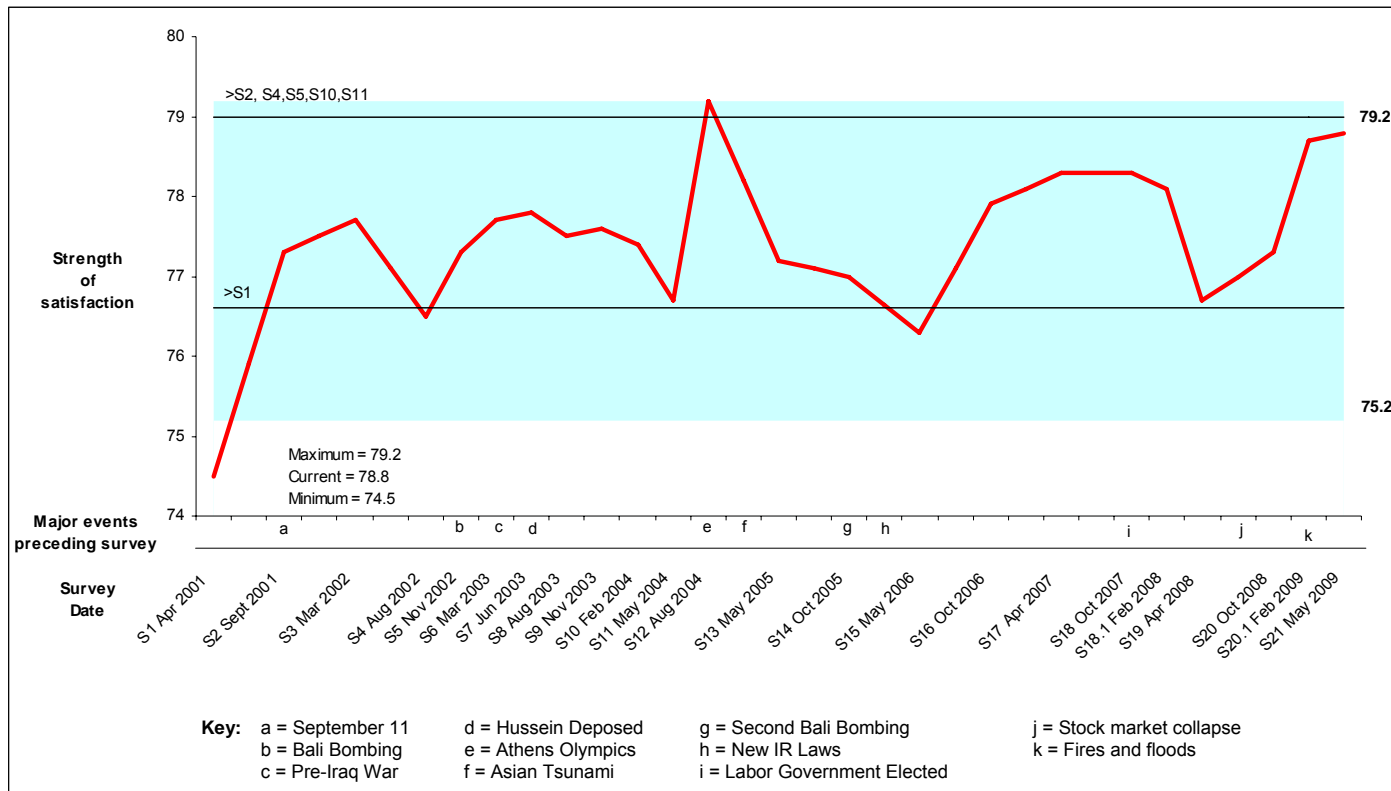


Figure 2.3: Satisfaction with **Standard of Living**

Satisfaction with standard of living has risen by a significant 1.5 points since Survey 20 (Table A2.1) and is now (78.8) at its second highest level yet recorded. The values for this domain have generally remained significantly higher than they were at Survey 1, with only two (Survey 4 in 2002 and Survey 15 in 2006) being statistically at the same level as this first survey. Thus, 20/22 (90.9%) of the subsequent survey mean scores are higher than Survey 1. The range of scores is 4.7% between April 2001 (S1:74.5) and August 2004 (S12:Olympics: 79.2).

It is interesting to note that the rise in satisfaction with Standard of Living between May 2006 (S15) and October 2007 (S18) occurred despite a succession of 0.25 point rises in interest rates and that the current rise in wellbeing occurred in the face of a substantial economic down-turn. There are probably two current reasons for this. One is that the various economic stimulus packages released by the Government has provided households with additional discretionary income. The second is that the poor national economic situation has had a serious negative effect on only a minority of the population. The people who have been personally adversely affected are those who have lost their job, or who are reliant on interest from shares or other investments for their income. But these people are in a great minority. While a majority of people have lost wealth with the downturn, for the most part their investments are intact and so they feel they can just wait for the economy to recover. And, in the meantime, if they still have a job and a mortgage, and if their wage has not diminished, then they are better off financially than maybe they have ever been due to the decrease in interest rates and, so, their mortgage payments.

Health

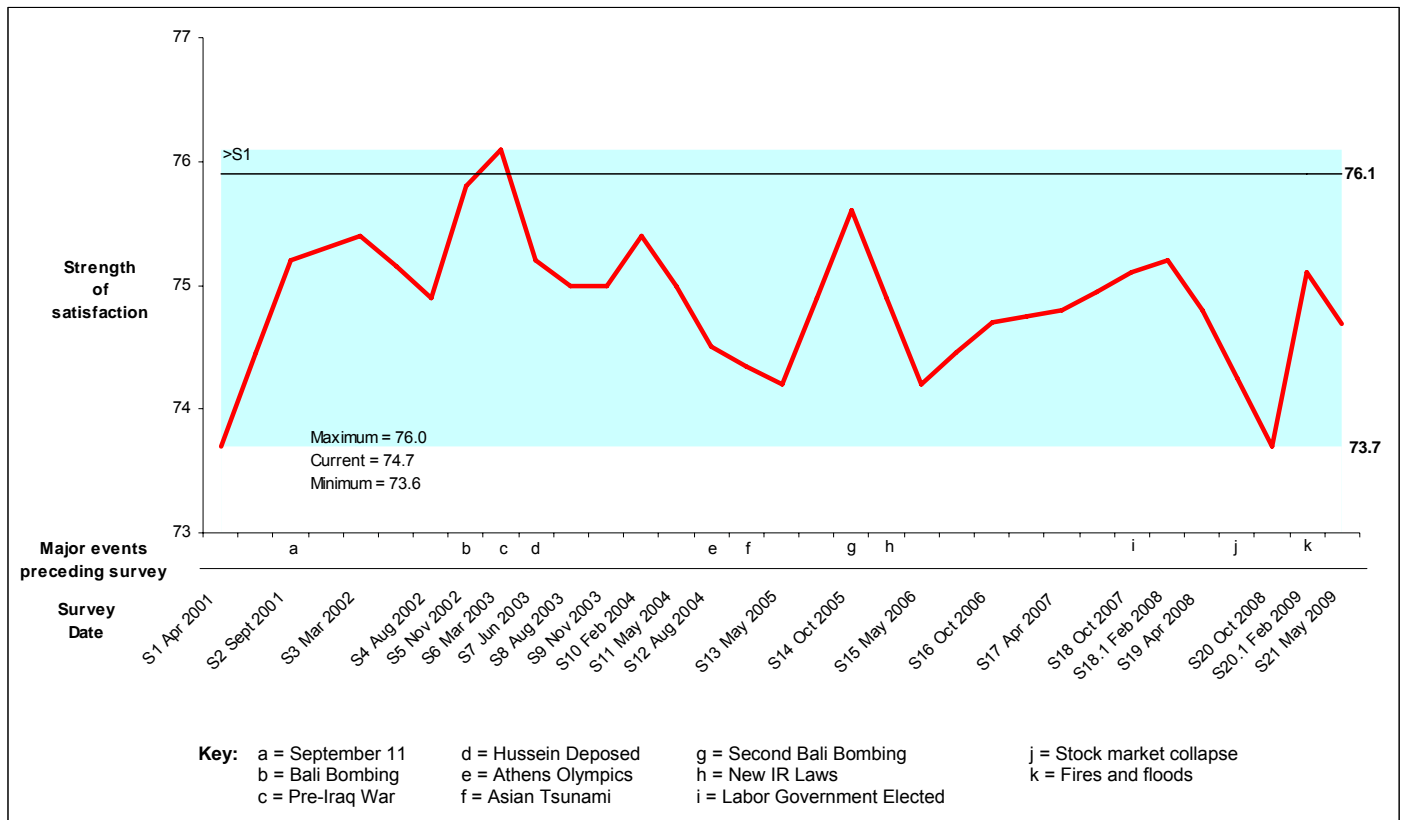


Figure 2.4: Satisfaction with **Health**

Satisfaction with health really does not change significantly between surveys and so is a good benchmark to indicate that the data set as a whole is reliable. In this survey (74.7 points) it has risen by a non-significant 1.0 points since Survey 20 but remains firmly within its normal range. It remains not different (+1.5 points) from its level at Survey 1.

Historically, this domain rose briefly at March 2003 (S6:Pre-Iraq war) but quickly returned to its original level. It is notable that the level of significance at Survey 6 was marginal ($p=.02$) and so probably reflects a random fluctuation. The overall ANOVA between surveys is non-significant ($p = .078$) (Table A 2.1). It is evident that satisfaction with personal health is little influenced by either world or national events and this stability is confirmation that the change in other domains since Survey 1 are valid. The range of scores is 2.4 points between April 2001 (S1:73.6) and March 2003 (S6:Pre-Iraq war:76.0).

Achieving in Life

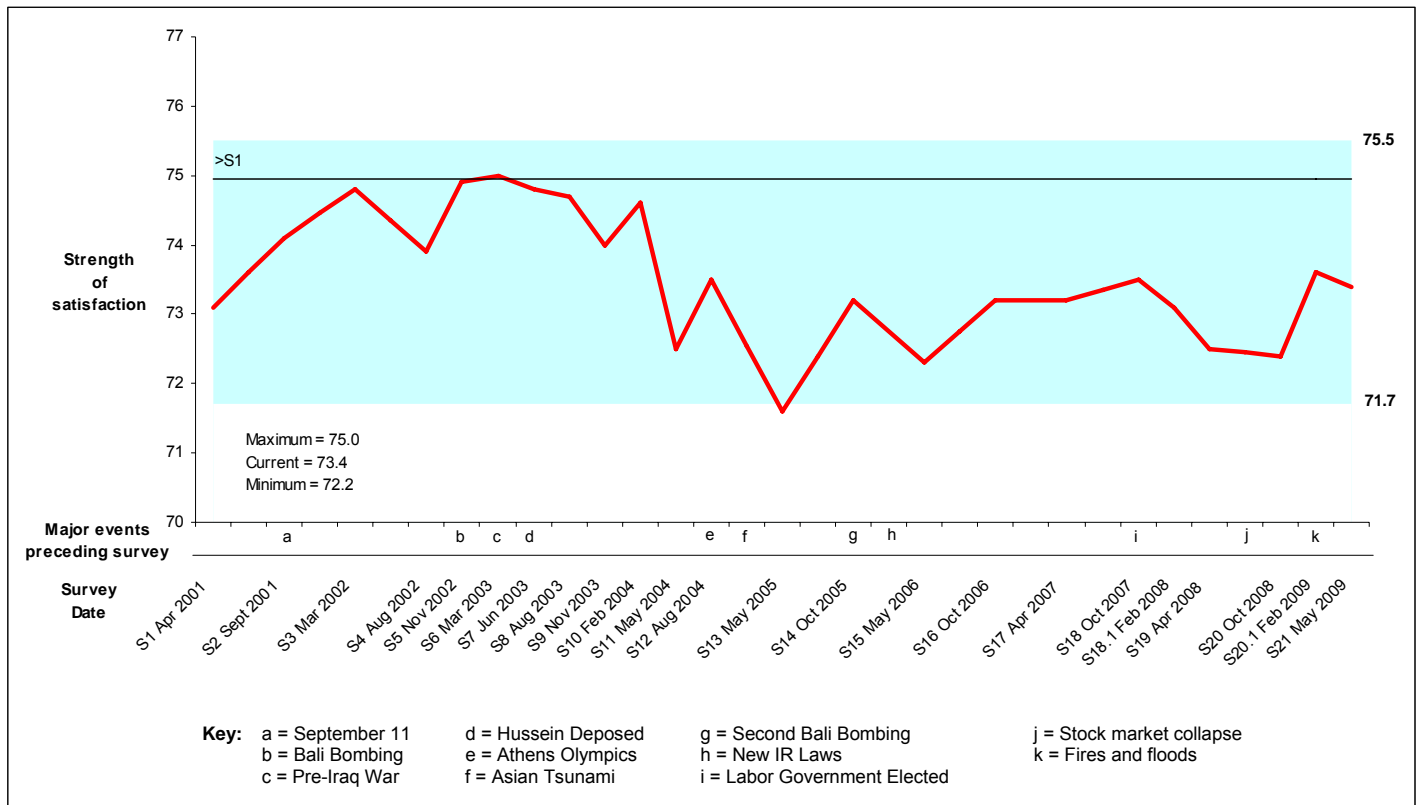


Figure 2.5: Satisfaction with **What you are Currently Achieving in Life**

Achieving in life, now at 73.4 points, has fallen by a non-significant 0.2 points since Survey 20. It remains no different than it was at Survey 1.

The wording of this item has changed once. From Survey 1 to Survey 10, satisfaction with ‘what you achieve’ barely changed over the surveys. It was marginally higher at Survey 6 (Pre-Iraq war), and over this period the range of scores was 1.8% between April 2001 (S1:73.2) and March 2003 (S6:Pre-Iraq war:75.0).

In Survey 11 the wording of this item changed from ‘How satisfied are you with what you achieve in life?’ to ‘How satisfied are you with what you are currently achieving in life?’. The reason for this change is to make it more explicit that the question referred to current life rather than to some past aggregation of achievement.

The effect of this word change has significantly reduced the score for this domain. The average value over Survey 1 to Survey 10 is 74.47 (SD=0.45). The average value over Survey 11-Survey 17 is 72.96 (SD = 0.53). So it appears to still be a highly reliable measure that has stabilised about 1.5 points below the original and no different from Survey 1.

Relationships

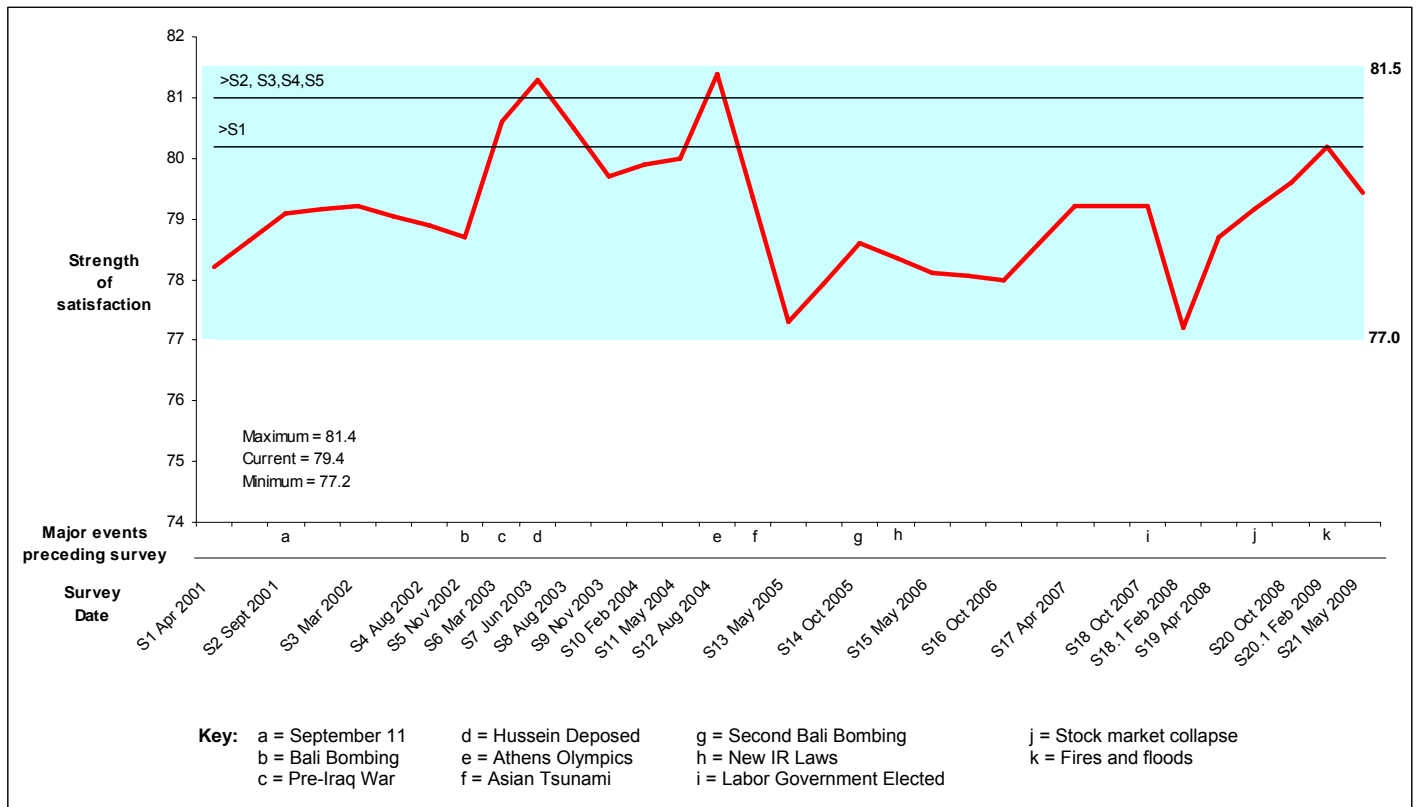


Figure 2.6: Satisfaction with Relationships

Satisfaction with relationships, now at 79.4 points, has fallen by only 0.2 points since S20. It remains firmly within its normal range and no different from its level at Survey 1.

The highest value for this domain has been 81.39 points at the time of the Athens Olympics (S12). At Survey 13 this domain dropped to one of its lowest values (77.64) down 3.8 points from the Olympics level. It has not statistically changed since then.

The overall pattern of change for this domain does not conform to that of the Personal Wellbeing Index (Figure 2.1) in that the earlier rise is restricted to the period surrounding the Iraq war. It therefore differs from the domains Standard of Living, Safety, Community, and Future Security, all of which rose significantly in the period following September 11. Perhaps this difference is due to the fact that these other domain changes were reactions to a past event, whereas the rise in Satisfaction with relationships at Survey 6 was in anticipation of the looming war, to which Australian troops were clearly to be committed. At this time, both of the domains involving other people rose significantly (relationships and community). Perhaps the anticipation of war drew people closer to their family and friends as well as enhancing bonding with the general community. These changes then dissipated as the period of the war was left behind, but the domain was again briefly elevated during the period of the Olympics. The range of scores is 4.2 points between February 2008 (S18.1:77.2) and February 2008 (S18.1: Olympics:81.4).

Safety

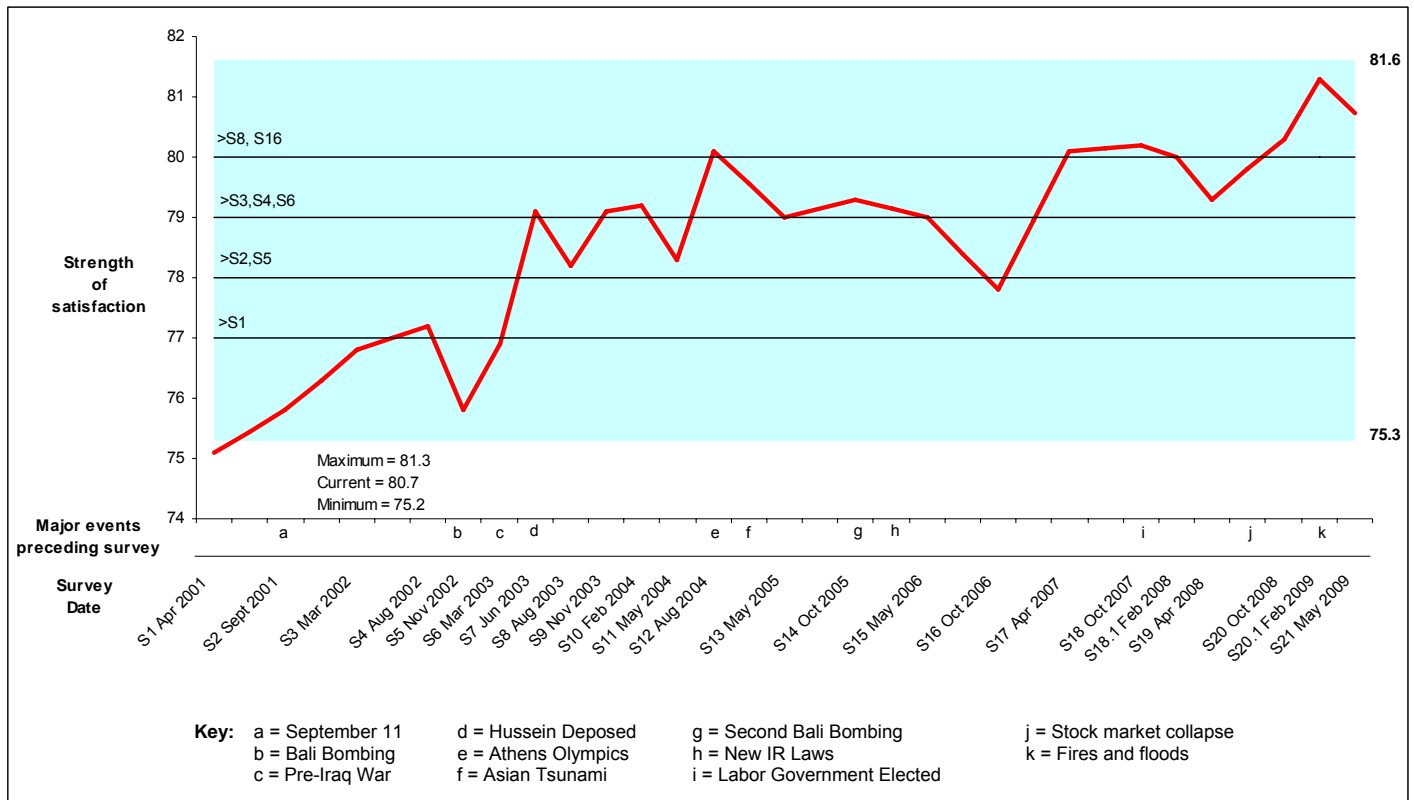


Figure 2.7: Satisfaction with **How Safe you Feel**

Satisfaction with personal safety, now at 80.7 points, is at its second highest level yet recorded, up a non-significant 0.5 points since Survey 20. At Survey 20.1 it rose by a non-significant 1.1 points since Survey 20 (Table 2.1), but this continued a long trend of rising satisfaction with safety. It is possible that this was the result of a contrast effect. That the images of danger from fire and floods had been so vividly portrayed by the media, yet the majority of people living in unaffected areas, such as the major cities, which dominate our samples. It is possible that these city dwellers felt an enhanced sense of safety in contrast.

The first major rise followed the defeat of Saddam Hussein in Iraq at Survey 7 and has been maintained ever since. This sustained rise may have been linked to the positive feelings of relief following the defeat of Hussein without unleashing weapons of mass destruction, and subsequently our increasingly strong American alliance. The rise during the Olympics (S12) may have been more due to the overall sense of elevated wellbeing than to specific feelings of greater safety. The further rise is hard to explain but is associated with a decreasing proportion of the sample feeling that a terrorist attack is likely. The range of scores is 5.1 points between April 2001 (S1:75.2) and October 2008 (S20: 80.3).

It is interesting to relate these data on safety to the sense of terrorist threat that is felt by the population. Since Survey 9 (November 2003) we have asked people ‘whether they think a terrorist attack is likely in Australia in the near future’ and, if they say ‘Yes’, we ask about the strength of their belief that such an attack will occur.

These data are combined with the population levels of ‘Satisfaction with Safety’ in Table A2.9. It can be seen that the average level of safety satisfaction correlates negatively with the percentage of people who think an attack is likely ($r = -.65$, which is highly significant) but much less strongly with the

strength of belief among those respondents who think an attack likely ($r = -.12$, non-significant). The correlation of $-.65$ explains about 42% of the variance between these two measures, which is a significant degree of co-variation. Other factors that will be contributing variance to safety are homeostasis, personal circumstances and, quite possibly, the sense of security offered by an effective wellbeing military force and alliance with the USA. The latter influence, exemplified by the rise in safety at Survey 7 (defeat of Hussein) may represent a constant background factor onto which the fluctuations in terrorist attack probabilities are imposed.

One implication of these results is that raising terrorist attack fears through issuing terrorist alerts, harms the safety satisfaction, and thereby compromises the overall wellbeing of vulnerable members of the population. However, the most remarkable feature of this graph is its continued rise over the period of these surveys. This is further discussed in Section 2.4.1.

Community

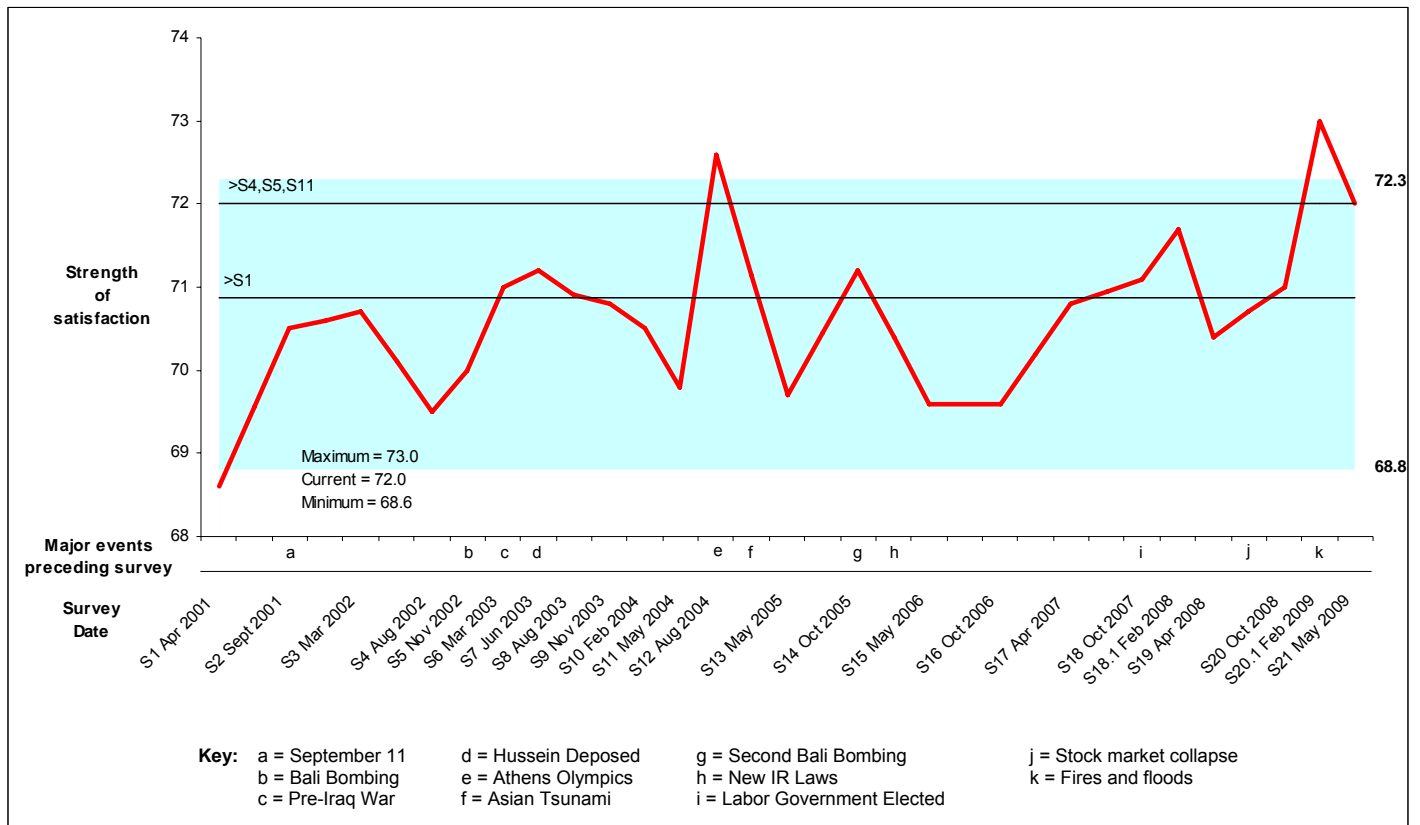


Figure 2.8: Satisfaction with **Feeling Part of Your Community**

People’s satisfaction with feeling part of their community, now at 72.0 points, is down 1.0 points from its highest level yet recorded at Survey 20.1. At this time it had risen by a significant 2.0 points since Survey 20 and was 0.3 points higher than it was at the time of the Athens Olympics, and 4.4 points higher than it was in Survey 1. It seems self-evident that this rise has been due to the increased sense of community generated by the tragedy of the floods and fires. These events generated an enormous out-pouring of sympathy and tangible assistance, which caused the population to experience a heightened sense of belonging to the ‘Australian family’.

Apart from the Olympic period elevation (S12) and the current survey, the previous rises are coherently related to times of major conflict. In the six months following September 11, satisfaction with community connectedness went up from its lowest level in April 2001, and was maintained at this higher level for a further six months. It then fell, but returned to an even higher level in the lead-up to the Iraq war (S6). This higher level was maintained for six months following the defeat of Hussein (S9), then dissipated only to be recharged once again following the second Bali bombing (S14). This pattern is consistent with social psychological theory. A perceived source of threat will cause a group (or population) to become more socially cohesive. However, it must also be noted that the level of safety satisfaction also rose at the time of the Athens 2004 Olympics (Survey 12) and around the period of the election of the new Labor Government (Surveys 18 and 18.1). The range of scores is 4.4 points between April 2001 (S1:68.6) and February 2009 (S20.1:Victorian Fires:72.99).

Future Security

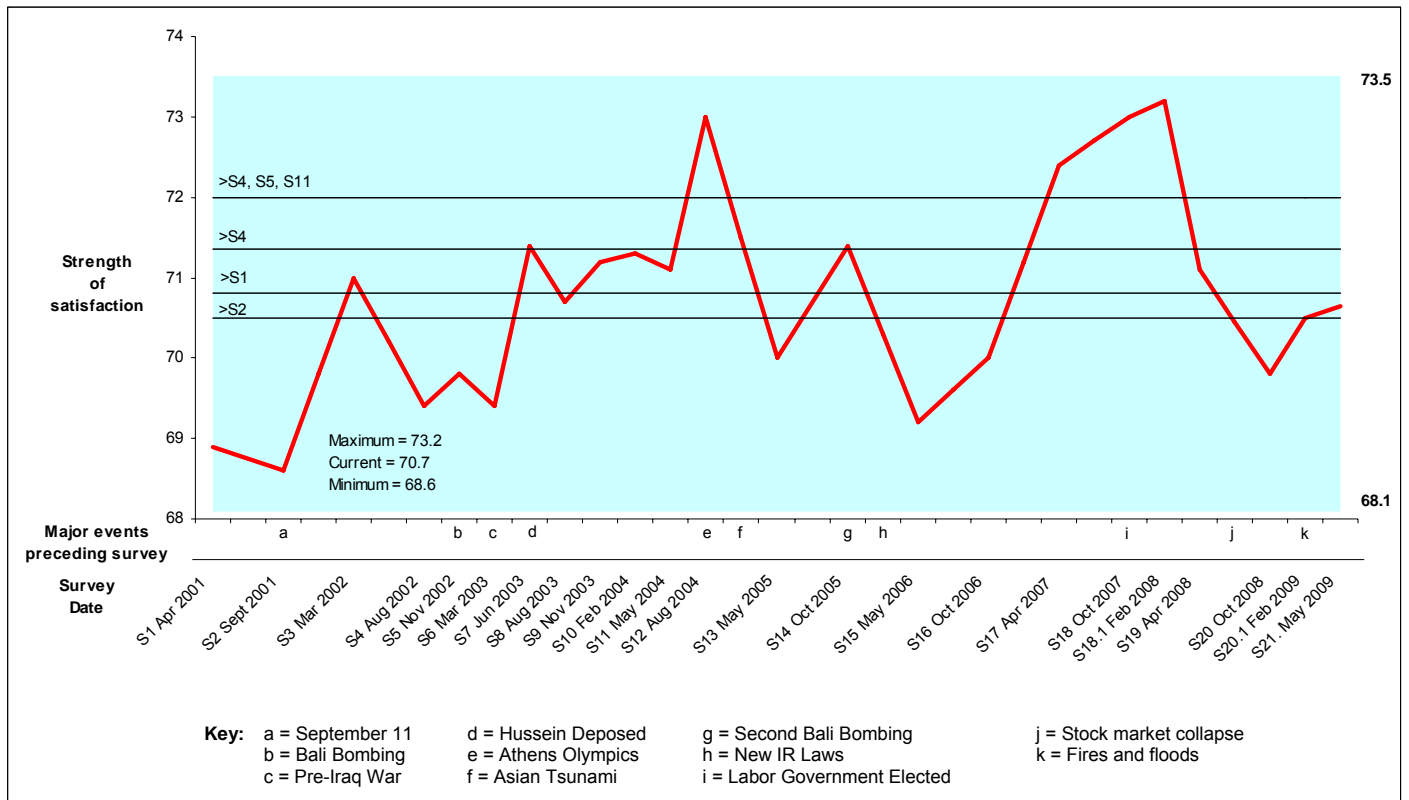


Figure 2.9: Satisfaction with **Future Security**

Satisfaction with future security, now at 70.7 points, has risen by a non-significant 0.9 points since Survey 20. It seems evident that the economy is dominating people’s views of their future. It remains at a level no different from Survey 1.

In previous surveys, satisfaction with future security dropped to its lowest level immediately following September 11, and then rose to a significantly higher level six months later (S3). It then rose again immediately following the Iraq war (S7), and then gradually fell back. This pattern is very similar to that shown by safety and the explanations are probably similar to those that have been stated for the safety domain. The correlation between the survey mean scores for safety and future security is $r = .45$ (Table A2.18). The range of scores is 4.6 points between September 2001 (S2: 68.6) and February 2008 (S18.1: 73.2).

Spiritual/Religious

The new Personal Wellbeing Index domain ‘How satisfied are you with your spiritual fulfilment or religion’ was included for the first time in Survey 16. In Survey 17 this was changed to ‘How satisfied are you with your spirituality or religion?’ The current value of 71.8 points at the same level as Survey 20.1 and 0.5 points higher than at Survey 20. It is evident that these natural disasters have not had a significant effect on satisfaction in this domain.

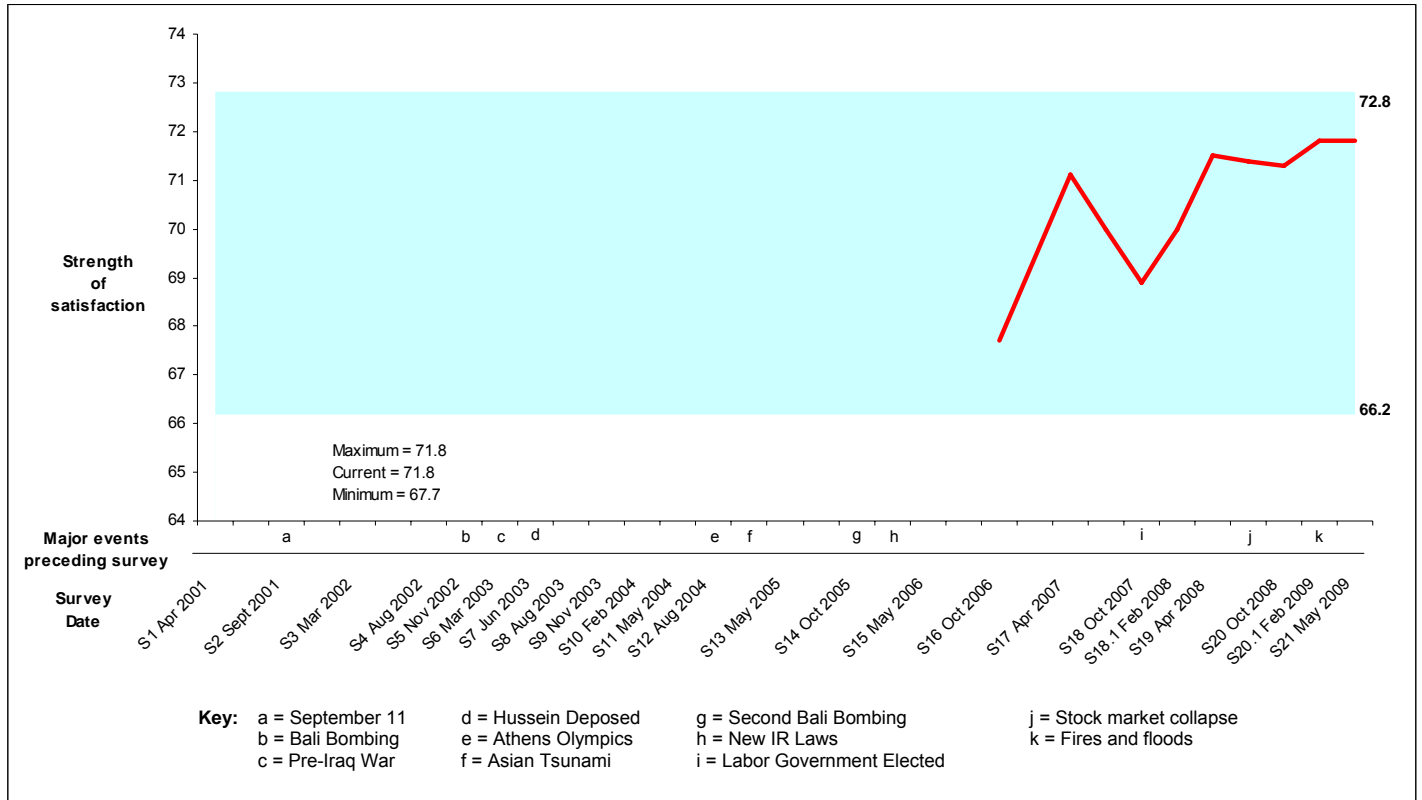


Figure 2.10: Satisfaction with **Spirituality/Religion**

The first survey to include Satisfaction with Spirituality/Religion was conducted in October 2006. Since that time satisfaction with this domain has increased and it is now at its maximum level yet recorded.

While 11.6 percent of the combined sample respond that they do not have the Spiritual/Religious experience, there is another 3.2% who respond that they are zero satisfied with their experience. These are two very different groups of people as seen by matching of the strength of the Spiritual/Religious experience to the Personal Wellbeing Index. This is shown in Table A2.14 and below.

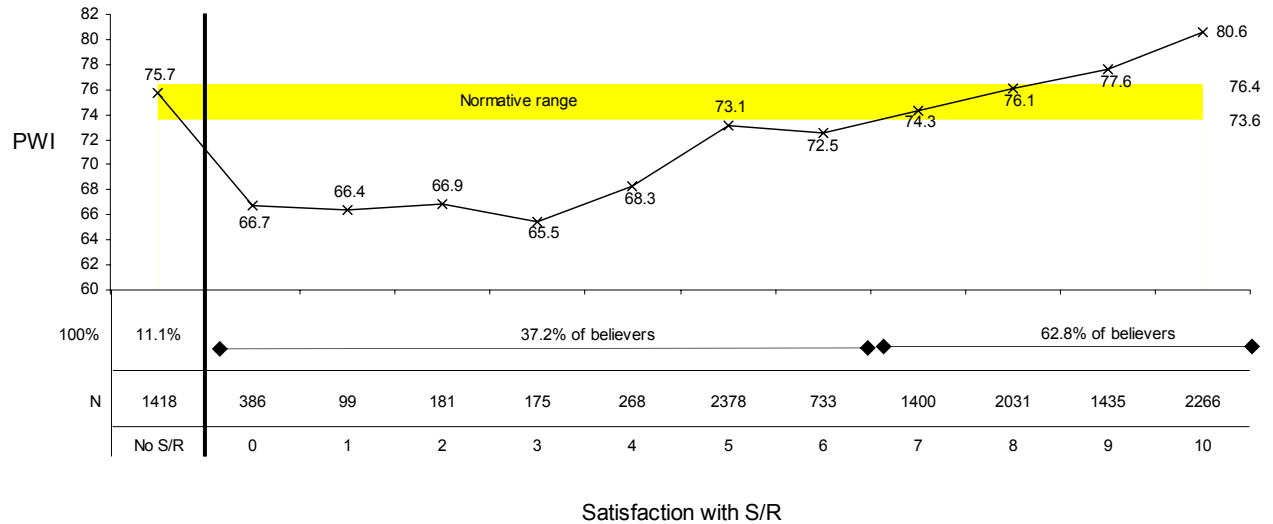


Figure 2.11: Satisfaction with Spiritual/Religious vs. Personal Wellbeing Index (combined sample)

This figure shows the relationship between the Spiritual/Religious experience and personal wellbeing. These can be summarised as:

1. People who have no spiritual/religious experience (11.1% of the combined samples) have normal levels of wellbeing.
2. People who rate their spiritual/religious experience as providing 0-6 levels of satisfaction have a level of personal wellbeing that lies below the normal range (37.2% of the sample of believers).
3. The Personal Wellbeing Index of the spiritual/religious group does not enter the normal range until people rate their level of satisfaction as 7/10.

The three groups of Spiritual/Religious experience are shown in relation to the Personal Wellbeing Index domains in Table A2.15. From this it can be seen that:

1. There are no significant differences in the Personal Wellbeing Index between people who do, and those who do not have the Spiritual/Religious experience, on any other domain.
2. For all domains, the zero Spiritual/Religious satisfaction group are significantly lower than the other two groups.

In conclusion: People who have low satisfaction (0-6) with their Spiritual/Religious beliefs are likely to have very low wellbeing. The wellbeing of 'believers' only reaches that of 'non-believers' when the strength of satisfaction with their beliefs reaches 7/10.

An important perspective onto the interpretation of these results is that the low Personal Wellbeing Index for the people rating 0-6 on Spiritual/Religious is typical of all the domains. The level of domain satisfaction more strongly reflects overall subjective wellbeing than the specific domain. If someone is depressed, they will register low levels of satisfaction with all domains. Whether the domains differ in their sensitivity to low SWB remains to be determined.

Implications for the Personal Wellbeing Index

The inclusion of the Spiritual/Religious domain changes the composition of the Personal Wellbeing Index. The implications of this are shown in Table A2.15 where comparative statistics have been calculated over Surveys 17-21.

The results show that the mean score for the Personal Wellbeing Index that includes the Spiritual/Religious domain is 0.67 points lower than for the original seven-domain scale (74.62 vs 75.29 points). Thus, satisfaction for Spiritual/Religious domain is rated lower than the average of the other seven domains.

2.4. Life as a Whole

“How satisfied are you with your Life as a Whole?”

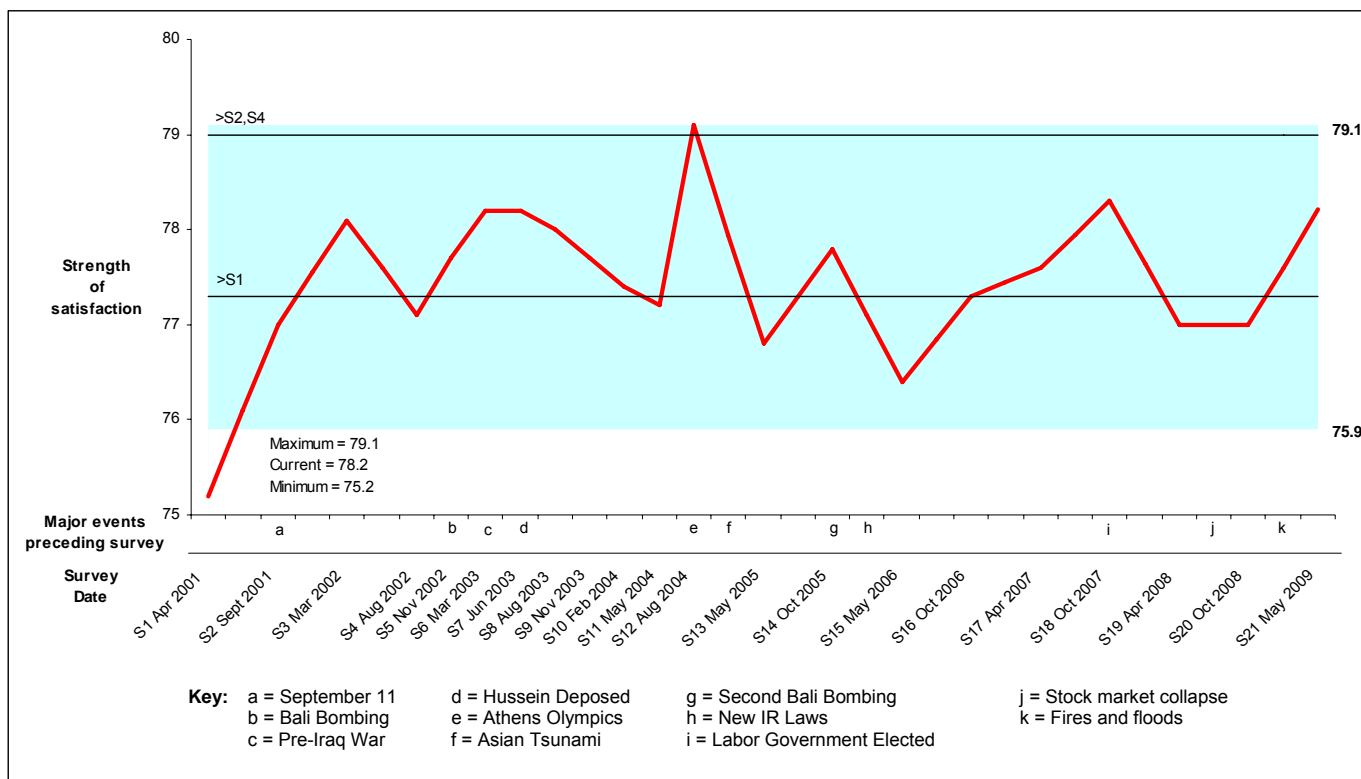


Figure 2.12: Satisfaction with **Life as a Whole**

Satisfaction with life as a whole has risen to 78.2 points, which is a significant 1.2 point rise since Survey 20. It is once again higher than its level at Survey 1.

After the initial rise one year following September 2001 (S3), this global item dropped back 6 months later, only to rise again after the Bali bombing (S5) and during the period of the Iraq war (S6-S7). Then it gradually decreased until, one year after Hussein had been defeated it was no different from Survey 1 once again. Since Survey 12 it seems to have stabilized at about 77-78 points which is marginally significantly higher than at Survey 1. The range of scores is 3.9 points between April 2001 (S1:75.2) and August 2004 (S12:Olympics:79.1).

2.4.1. *Summary of the Changes in Personal Wellbeing*

The personal wellbeing of Australians has risen by a non-significant 0.7 points since November 2007. It remains higher than it was at Survey 1 at a very similar level to the special survey conducted in February of this year.

Looking back over the entire record of the Index (Figure 2.1) it appears that it has mainly varied within a band of just two percentage points, from 76 to 74. There have been two slight variations outside this range. The first of these was the very first survey, which registered 73.2 points. The second was the survey run at the time of the Athens Olympics (76.3 points). It is the first survey which is most deviant. Even though the data have been checked and the result appears reliable, the deduction that the events of September 11 somehow triggered a rise in the Personal Wellbeing Index rests entirely on this initial value.

It is interesting to reflect on the domains that have fuelled this rise and those that have not.

Table 2-2: The Reliability of Survey 1

Domains	Standard	Health	Achieving	Relationships	Safety	Community	Future
S1 arithmetically lower than all others	✓	X	X	X	✓	✓	✓
S1 lower than the normal range	✓	X	X	X	✓	✓	X
S2 lower than the normal range	X	X	X	X	X	X	X
Other values outside the normal range	+	X	X	X	X	✓S12	X
	-	X	X	X	X	X	X

In summary of these results:

- (a) In terms of simple arithmetic comparisons, Survey 1 is the lowest value for 4/7 domains.
- (b) In statistical terms, Survey 1 is lower than the normal range for 3/7 domains.
- (c) Only one domain (Community) has registered a subsequent value outside (above) the normal range.

Conclusion

The fact that only about half of the domains registered a highly unusual value at Survey 1 is encouraging to the view of Survey 1 data as generally reliable. However, the fact that, of the total 4 values that lie outside the normal range, 75% are found in Survey 1 remains a concern.

At Survey 12 (Athens Olympics, August 2004) all domains except Health and Achieving were significantly higher than normal. The domains of Health and Achieving have shown virtually no change through the entire survey sequence and since Survey 13 (May, 2005) no significant change has occurred in Relationships, which has remained at the same statistical level as Survey 1.

Since Survey 13, the other domains have changed as follows:

Safety: This domain has been crescent since Survey 16 (October 2006) and remains at one of its highest levels. While the correlation of $-.65$ with the % of the sample expecting a terrorist attack is interesting (Table A2.9), this cannot explain the full pattern of results. The lowest level of safety was immediately prior to September 11; a time at which the possibility of terrorist attacks in Australia were not even being considered by the general population.

Future Security: This domain has changed markedly since its recent nadir in Survey 15, (May, 2006) it rose to unprecedented heights in Survey 18.1 (February 2008) and then plummeted. It is currently at the same statistical level as Survey 1, but higher than Survey 2. The reason for this fall seems likely to be linked to the recent falls in personal wealth.

It is important to note that these two domains do not measure the same experience. While the mean scores between surveys show a high correlation ($.64$, Table A2.13), the within-survey correlation, using the scores of individuals (Table A2.18) is much lower ($.42$). It can also be noted that, while Safety remained high over Surveys 15-16 (Table A2.1), Future Security fell to be no different from Survey 1.

Why, then, did population satisfaction with Safety and Security suddenly rise to such heights? It is most unclear, but some co-indicators can be identified.

The reason for rising satisfaction with safety is uncertain. One possibility is that the continued presence of a 'terrorist threat' during this period has given people a heightened sense of safety because the threat has not materialised as an attack on Australian soil. This may give rise to feelings that the anti-terrorist measures, so evident at airports and in the media, are effective. This brings to consciousness a domain of life that is normally of little real consequence to most Australians, and so they have increased positive regard for their safety, instead of the more neutral feelings they held before the threat was evident.

It may also be fuelled by perceptions of competence in the military and the police to deal with difficult situations. In terms of the military, Australian troops are playing an increasingly active role as peace-keepers within the Pacific region, with troops deployed in New Guinea, the Solomon Islands, and East Timore. The Australian police have uncovered terrorist threats and, working with other authorities, successfully prevented a recurrence of the Sydney 'race riots' of November 2005. There is also increasing evidence of Islamic integration within Australia and, perhaps therefore, a sense that potential threats are being effectively managed.

Community: This domain has peaked twice, with values above the normal range. The first occasion was Survey 12 (August 2004) at the time of the Athens Olympics, and the second was Survey 20.1 (February 2009) at the time of the devastating Victorian bushfires. It seems likely that either national elation at the demonstration of sporting prowess or national horror at the level of bush-fire destruction, bonds the community and makes people feel more connected to one another.

2.5. National Wellbeing Domains

“How satisfied are you with the Economic Situation in Australia?”

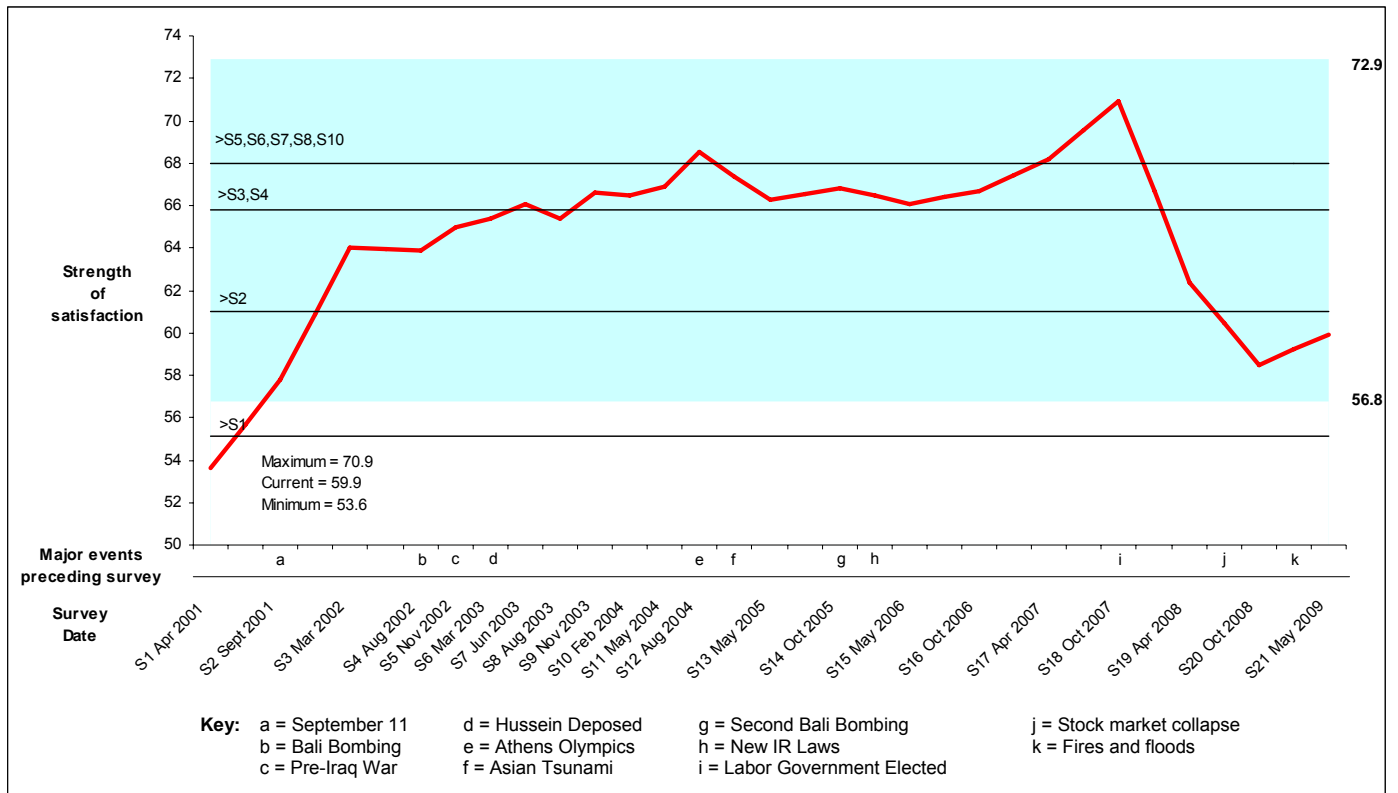


Figure 2.13: Satisfaction with the **Economic Situation in Australia**

Satisfaction with the economic situation has risen by a significant 1.4 points since Survey 20. It is now at a level only higher than Survey 1.

In historical terms, this domain rose significantly from its baseline (S1) immediately following September 11 (S2) and again six months later (S3). This was followed by a sustained and gradual rise up to Survey 18. It then showed a precipitous 12.4 point fall between Survey 18 (October 2007) and Survey 20 (October 2009). The reason is almost certainly tied to the major fall in the stock market over this period. This is the most volatile domain. The range of values is 14.9 points, being between April 2001 (S1:53.6) and October 2007 (S18: 70.9 points).

“How satisfied are you with your state of the Natural Environment in Australia?”

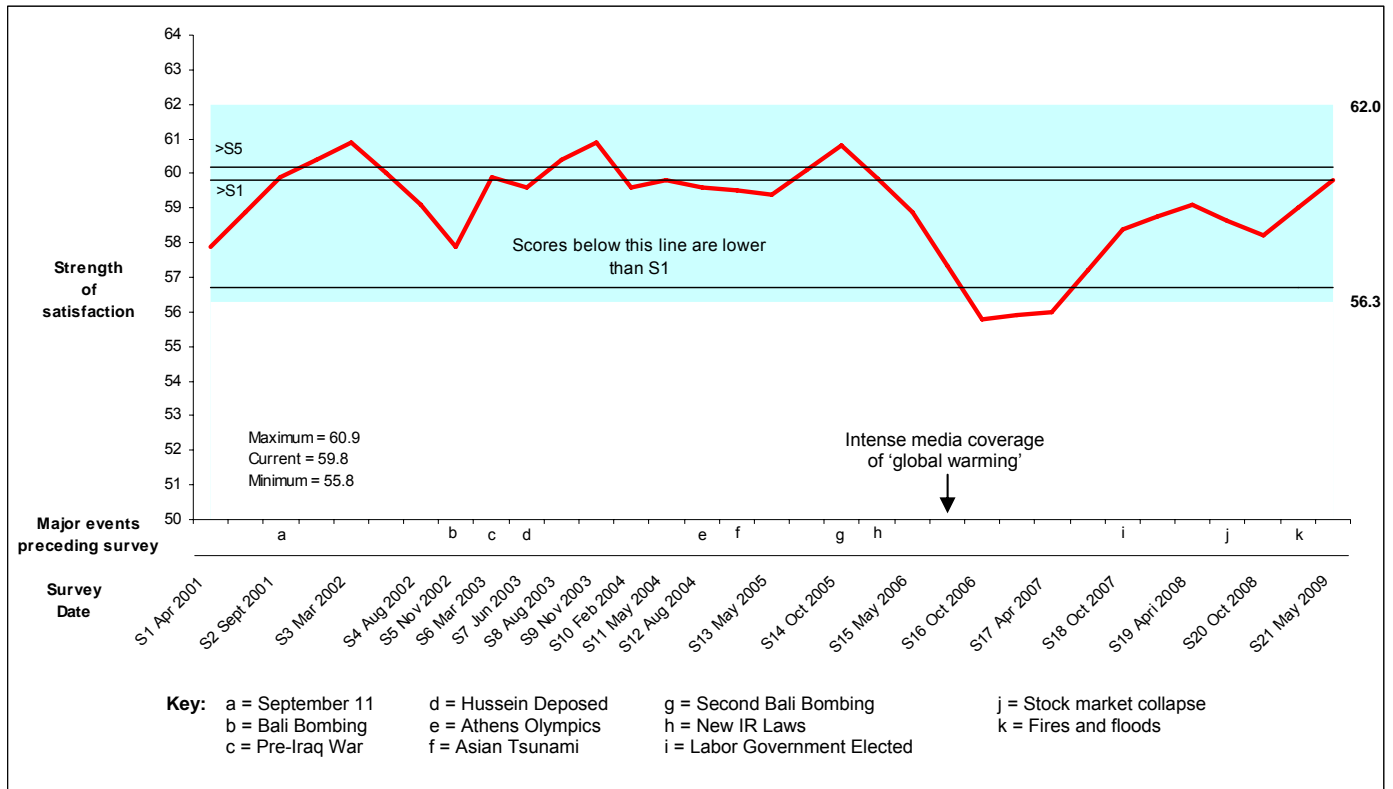


Figure 2.14: Satisfaction with the **State of the Natural Environment in Australia**

Satisfaction with the state of the environment has risen to 59.8 points, which is a significant 1.6 point rise since Survey 20. It fell by a dramatic 3.1 points between Survey 15 to Survey 16 and remained significantly below its value at Survey 1 at least six months, up to Survey 17. Then returned to be no different from Survey 1 once again.

This is the only domain to have fallen significantly below the level of Survey 1 values in any survey. Prior to Survey 16 the domain was very stable, fluctuating by only 3.0 points over the entire time-series. While the satisfaction with the natural environment has, on occasion, moved to be significantly higher than Survey 1, the reason is not clear but probably reflects general increases and decreases in the Index overall, rather than anything directly attributable to the environment.

In this context of stability, the fall of 3.1 points at Survey 16 is both remarkable and attributable. In the period since the previous survey Al Gore’s film ‘An Inconvenient Truth’ had been released and widely discussed in Australia. Moreover, in the few months prior to Survey 16 the media had repeatedly featured ‘global warming’ and the various doomsday scenarios. Thus it appears that this negative publicity has changed people’s perception of the degree to which they feel satisfied with the natural environment.

This decreased level of satisfaction is interesting for two reasons. First, it is one of the few times we have been able to link a change in a particular domain to a national phenomenon (negative publicity). Second, it reinforces the separate performance of objective and subjective variables. The actual state of the natural environment had not changed discernibly between Survey 15 and Survey 16.

It is also interesting that this lower satisfaction lasted somewhere between 6-12 months. People then generally adapted to the negative information and it lost the power to influence their satisfaction with the environment.

The range is 5.1 points between October 2006 (S16:55.8) and November 2003 (S9:5 months/following the Iraq War: 60.9).

“How satisfied are you with Social Conditions in Australia?”

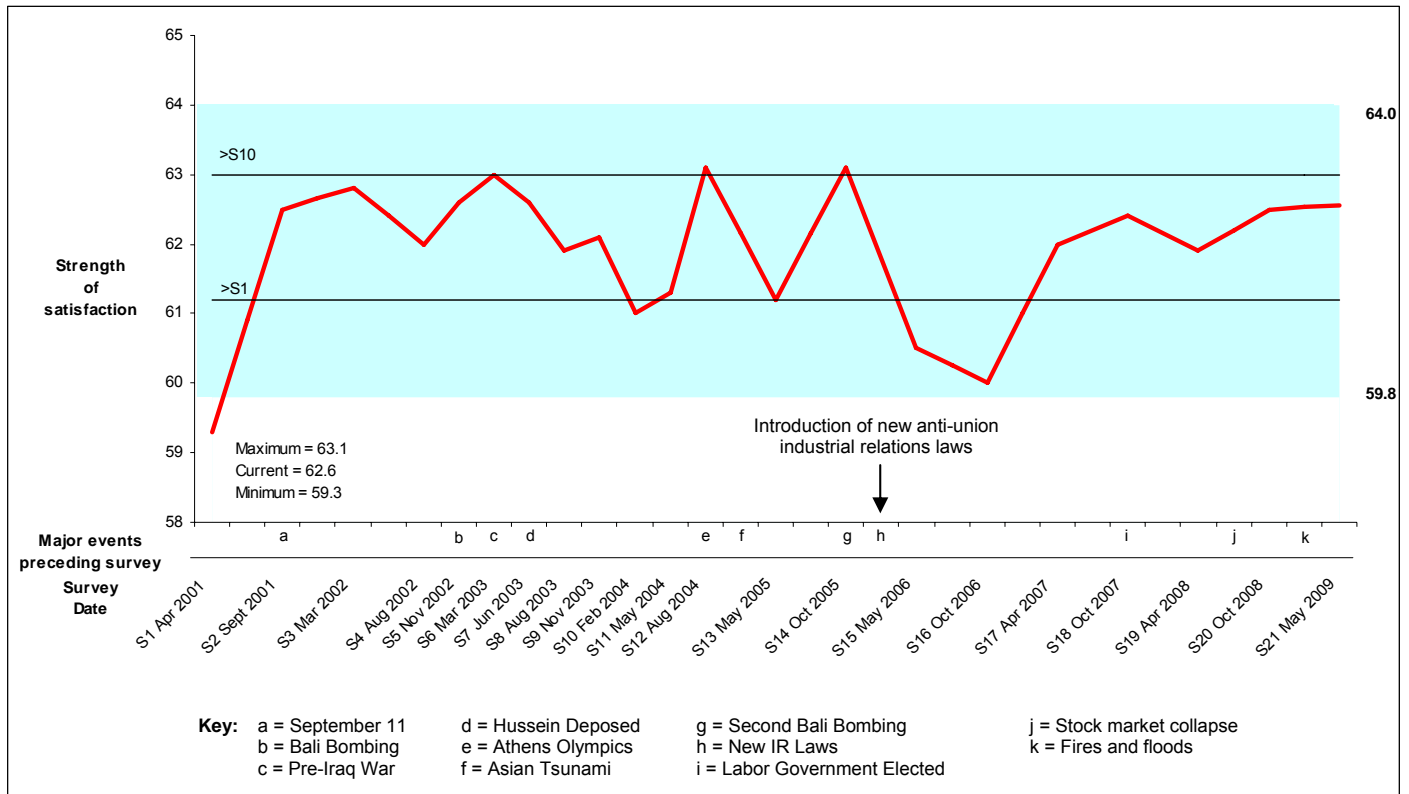


Figure 2.15: Satisfaction with the **Social Conditions in Australia**

Satisfaction with social conditions is now at 62.6 points and has risen by a non-significant 0.1 points since Survey 20, to remain higher than Survey 1.

Looking over the whole record, the rise in satisfaction with social conditions, evident following September 11 (S2), was sustained over the next two years (S9), after which it fell back to be no different from Survey 1. Then, at the time of the Olympics, it rose to its record high and reached this level again at Survey 14. If the falls from Survey 14 to Survey 16 reflected the new Industrial Relations laws that came into effect shortly before Survey 15, this effect has now dissipated. The range of values is 3.8% between April 2001 (S1:59.3) and August 2004 (S12 - Olympics and S14:63.1).

“How satisfied are you with Government in Australia?”

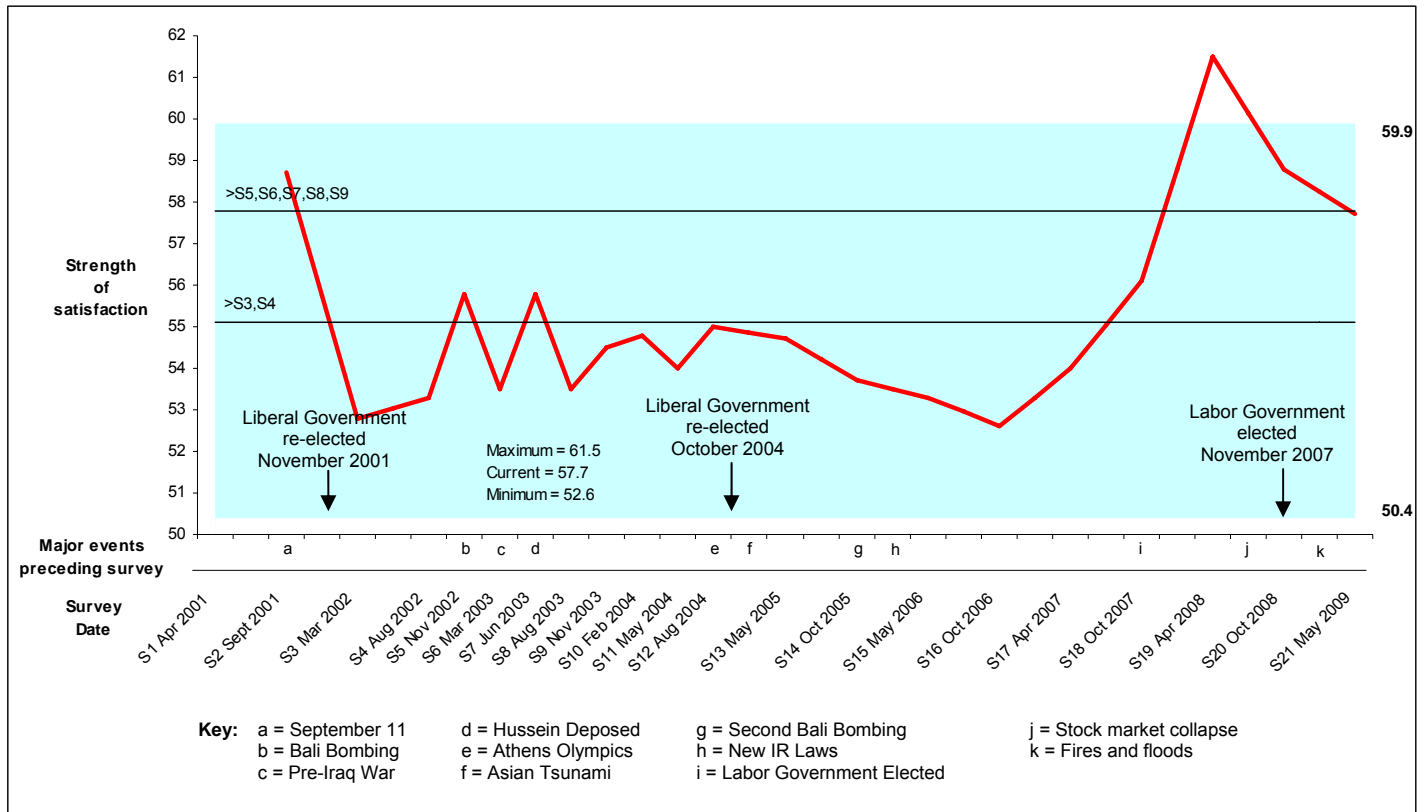


Figure 2.16: Satisfaction with **Government in Australia**

Satisfaction with Government is now at 57.7 points. It has fallen a non-significant 1.1 points since Survey 20. However, it remains high and approximates the highest level recorded for the Howard Government (S2) immediately following September 11.

Satisfaction with Government rose a significant 2.1 points between Surveys 17 to 18, and a further 5.4 points between Surveys 18 and 19. This took the total rise from April 2007 to April 2008 to 7.5 points. It recorded its lowest level at Survey 16 (52.6 points) and is currently about 5 points above this earlier level. The 2.7 point fall over the 18 month period from Survey 13 to Survey 16 is significant.

Satisfaction with Government appears to rise in times of national threat. If this is correct, it explains the elevated satisfaction with Government in September 2001 (S2) as a direct result of the September 11 attacks. A similar, but more muted rise is evident in the Bali bombing (S5) survey, and again following the overthrow of Hussein (S7). The most obvious explanation for the September 11 (S2) and Bali (S5) rise is that the perception of external threat causes satisfaction with Government (authority) to increase.

The pre-Iraq war situation (S6) was different. While it constituted a threat to Australia in so far as there were fears of Weapons of Mass Destruction being unleashed in Iraq and perhaps elsewhere, Australian troops were committed to fight in the front-line. This involvement divided the nation, with 23% in favour and 53% opposed to the war (Report 6.0). Perhaps because of this division, the rise in satisfaction with Government did not materialise. Moreover, the subsequent rise at S7 may represent an increased satisfaction for a quite different set of reasons, which involve relief at no deaths among the Australian troops and the bolstered American alliance.

It is interesting that none of these rises associated with external threat are sustained over more than three months and that the substantial rise in national wellbeing occasioned by the Olympics was not reflected in Satisfaction with Government.

The rise following Survey 16 may be linked to the election of a new leader of the opposition (Labor) party in December 2006 and the general feeling since that time that a change of government was due. This was followed in November 2007 with the election of the Labor Government and a significant rise in satisfaction with Government that has now been sustained for one year. The range of values is 8.9 points between October 2006 (S16:52.6) and April 2008 (S19:61.5).

“How satisfied are you with Business in Australia?”

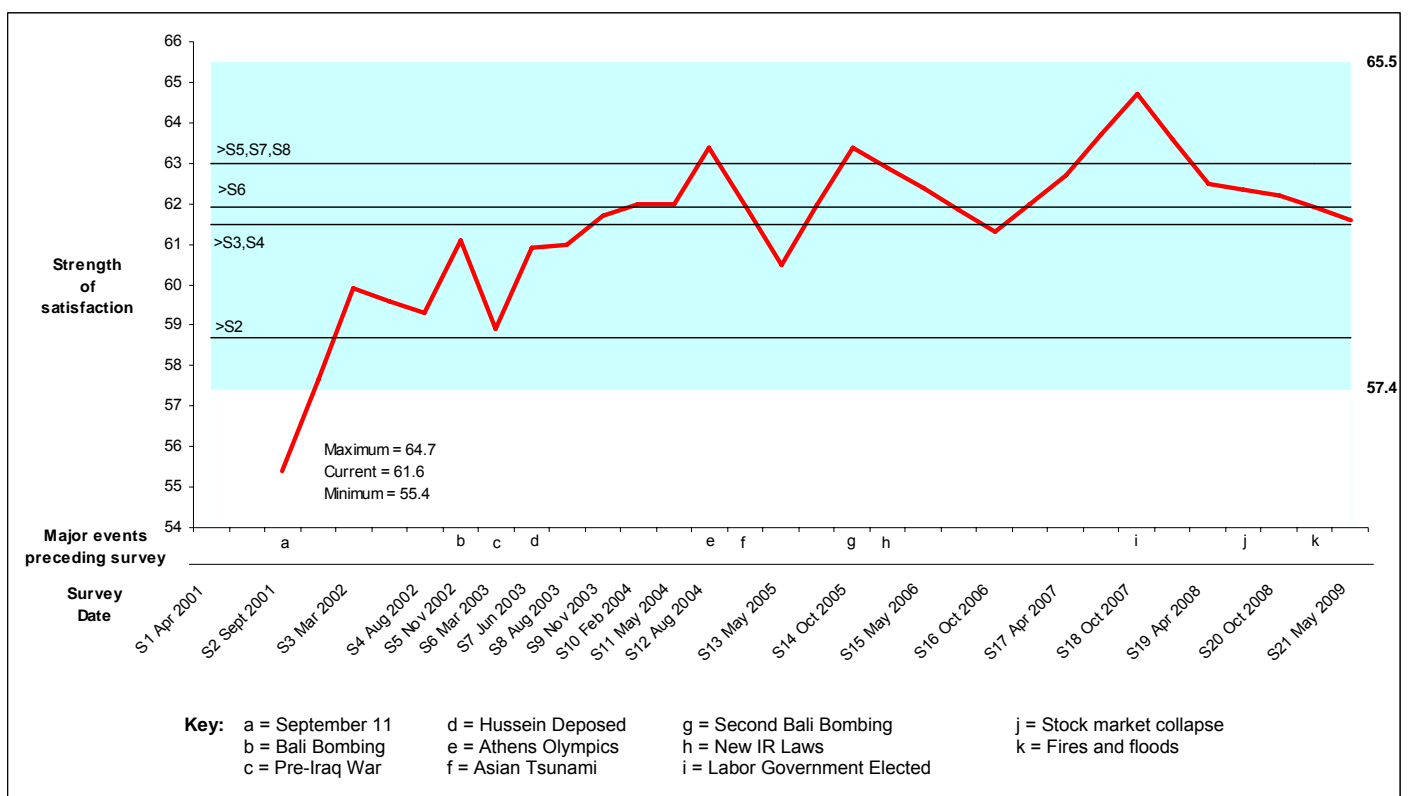


Figure 2.17: Satisfaction with **Business in Australia**

Satisfaction with Business is at 61.6 points. It has fallen by a non-significant 0.6 points since Survey 20, down from its highest recorded level (64.7 points).

Satisfaction with both Business and the economy may have increased following September 11 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-September 11 period. The range of values is 9.3 points between September 2001 (S2:55.4) and October 2007 (S18: 64.7 points).

“How satisfied are you with National Security in Australia?”

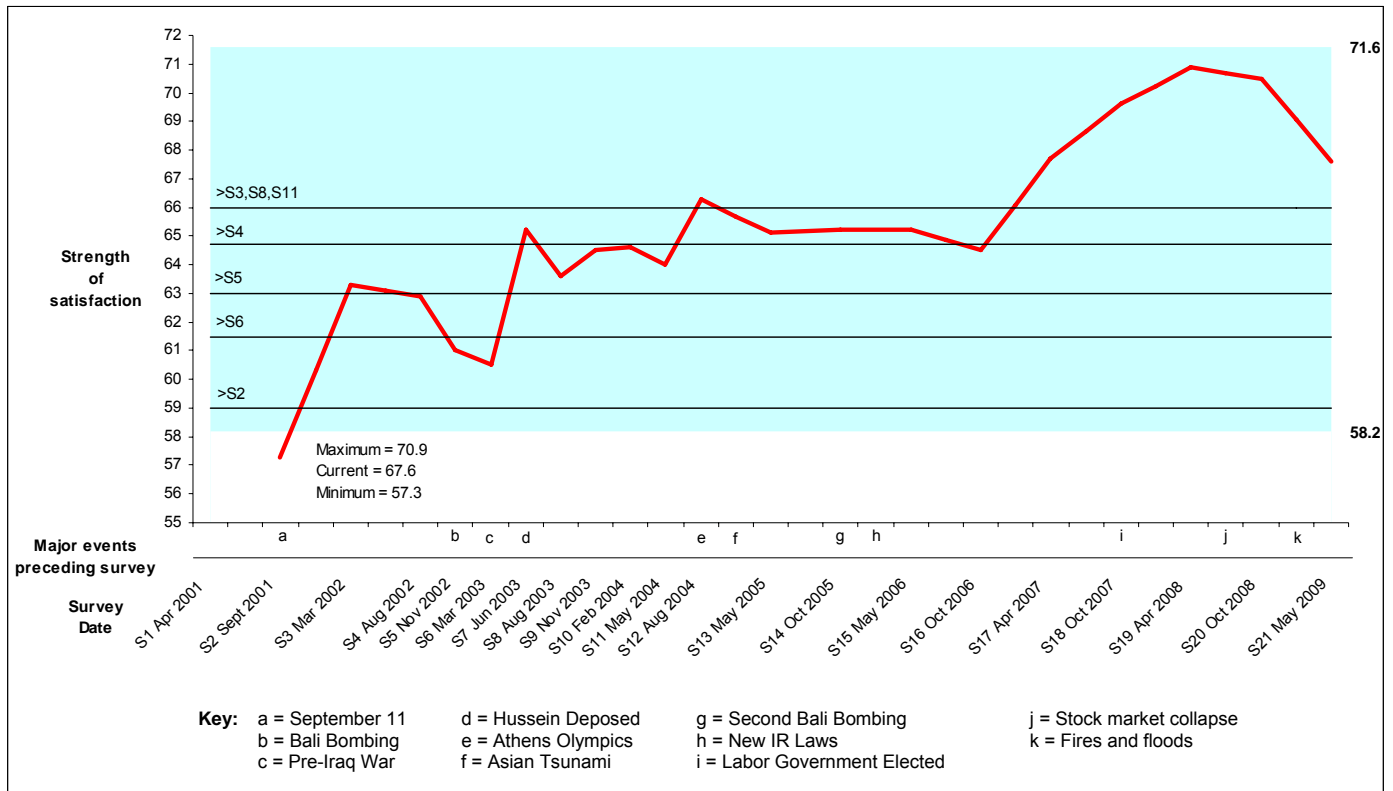


Figure 2.18: Satisfaction with **National Security**

Satisfaction with national security is at 67.6 points. It has fallen by a significant 2.9 points since Survey 20, down from its highest level yet recorded at Survey 19. It is possible that this recent fall may be attributed to the surge in ‘boat people’ arriving as illegal immigrants in Australian waters. These events may remind Australians that our borders are not completely secure.

The dramatic rise of 4.6 points from Survey 2 to Survey 7 probably reflects the September 11 induced low point followed by the strengthened American alliance and the lack of terrorist events in Australia. However, this has now been eclipsed by the 6.4 point rise over the 18 month period between October 2006 (Survey 16) and April 2008 (Survey 19). It is notable that this rise parallels the rise in Satisfaction with Government. However, over all of the surveys, the mean scores of these two national domains are not significantly correlated with one another ($r = .15$, Table A2.13).

The range of values is 13.6 points between September 2001 (S2:57.3) and April 2008 (S19: 70.9)

2.6. Life in Australia

“How satisfied are you with Life in Australia?”

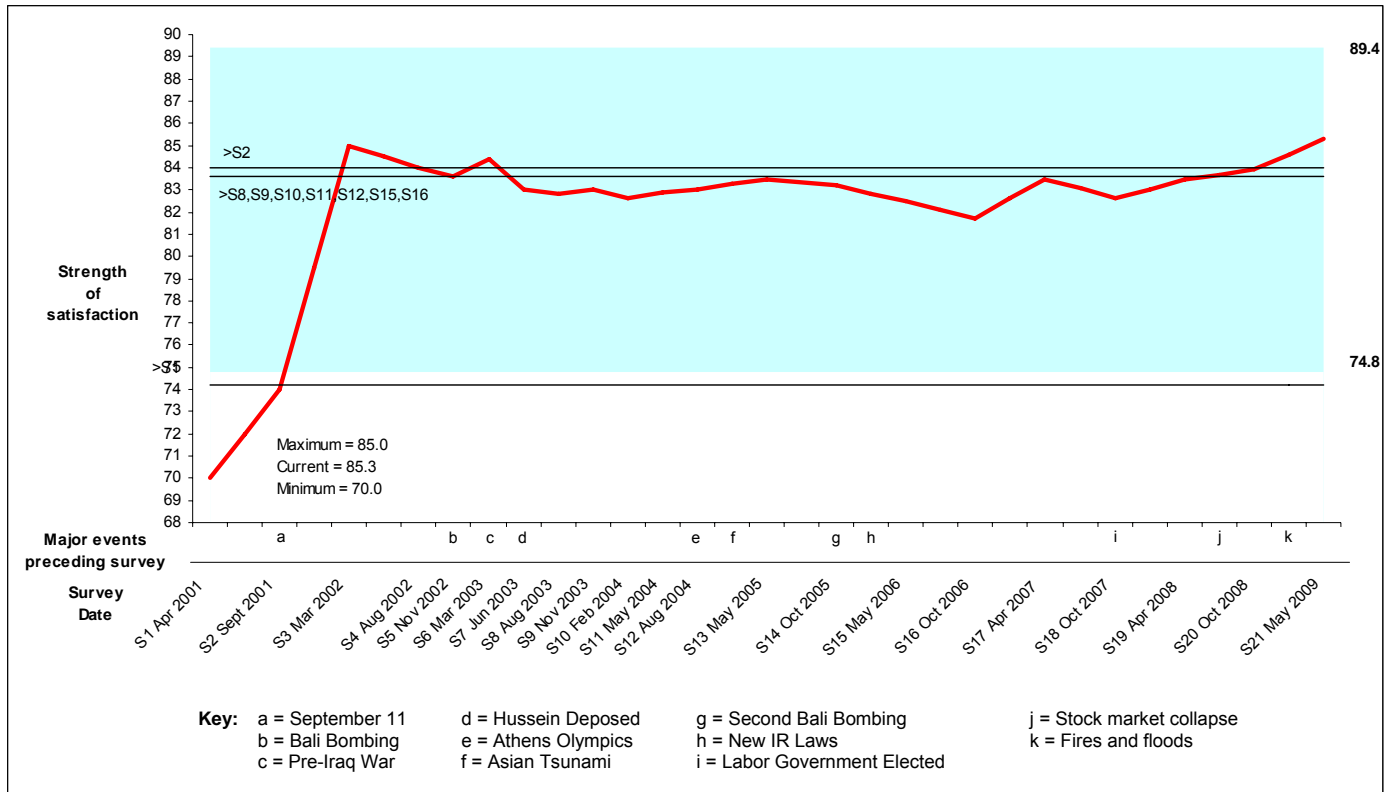


Figure 2.19: Satisfaction with **Life in Australia**

Satisfaction with life in Australia is at 85.3 points. It has risen by a significant 1.3 points since Survey 20 and is now at its highest level yet recorded. This may well be due to the fact that Australia has weathered the economic storm so well and people are contrasting Australia with other countries that have not been so lucky.

This domain rose consistently from April 2001 (S1) to March 2002 (S3) and has since remained fairly stable and high. The major change occurred between S2 and S3, when the strength of satisfaction rose by 10.9%. Since then it appears to be gradually falling, but remains very substantially higher than it was at Survey 1.

The range of scores is 15.2% between April 2001 (S1:69.7) and May 2009 (S20:85.3).

Of all the personal and national measures, ‘Life in Australia’ has shown the strangest behaviour. Over the first three surveys it increased by around 15 points and has since remained quite stable. The reason for this early rise between April 2001 and March 2002 is not known. However, it is notable that it involves both Survey 1 and Survey 2, thereby giving credibility to the initial survey.

Summary of changes in National Wellbeing

The National Wellbeing Index has remained fairly steady between Surveys 20 and 21. However, this average masks changes at the level of individual domains. Two domains have risen (Economic Situation and Environment), one has fallen (National Security), and Satisfaction with Life in Australia continues its seemingly inexorable rise. The details are as follows:

1. The domains of Economic Situation and Business in Australia showed an almost continuous rise over the six-year period of these surveys from 2001 to 2007. This run ended in October 2007 with both domains posting significant falls (Economic situation -8.5 points and Business -2.2 points). These falls may have been influenced by rising interest rates or by popular perceptions of Labor governments in general as poor economic managers. The stock-market collapse in 2008 further enhanced this loss of satisfaction. The current rise of 1.4 points may be due to the Government's various measures to stimulate the economy, most particularly the \$900 one-off cash payments to tax-payers and school-age children in March/April.
2. The sudden decrease in satisfaction with the natural environment, that occurred towards the end of 2006, was sustained over just two surveys (Survey 16 and Survey 17) conducted six months apart. By the following survey in November 2007, satisfaction had returned to its original level, and this has now been sustained, with the current 1.6 point rise being part of this recovery process. These results attest to the speed of adaptation by the population to continuous negative publicity.
3. National Security: This domain has fallen by a significant 2.9 points since Survey 20. This may represent a return to the baseline level for this domain of about 62-65 points, but if so this still leaves the question of why there was such a surge in satisfaction with this domain over the period 2006-2009 (Figure 2.18). There are two obvious contenders as:
 - (a) The diminishing threat from terrorism. Over the period 2006-2008 the proportion of our sample expecting a terrorist attack 'in the near future' dropped from around 60% to 40% and this level may represent a stable baseline (Figure 2.21). However, this does not explain the rise in satisfaction with national security following the First Bali Bombing (Figure 2.18).
 - (b) The arrival of illegal immigrants by boat. This really started to become a significant problem for Australia around the turn of the century. Whereas in 1997/8 only 157 people arrived by boat, by 1999/2000 the number had swelled to 4,175. The Howard Government responded to this threat by instigating increasingly harsh penalties for arrivals, which were internationally publicised and were associated with a reduced number of new arrivals. The Labor Government, elected in November 2007, was known to have a more humane attitude, and new arrivals increased once again. The rise in the number of boat people became most evident only during the past year or so, and this may be associated with the decrease in Satisfaction with National Security.
4. Life in Australia: This has been the most volatile domain, showing an extraordinary 15 point rise from 2001 to 2002. Since then it has stabilised at about 82-85 points, and its current 1.3 point rise takes it to the highest level yet recorded. This may be due to the common perception that Australia has weathered the economic storm so well and people are contrasting Australia with other countries that have not been so lucky.

2.7. Australian Wellbeing Summary

A summary of these changes in population wellbeing is shown in Figure 2.33 below. In this figure, the vertical bars show the normal range for the Personal Wellbeing Index and for each domain. The bold vertical lines indicate the strength of satisfaction in Survey 21.

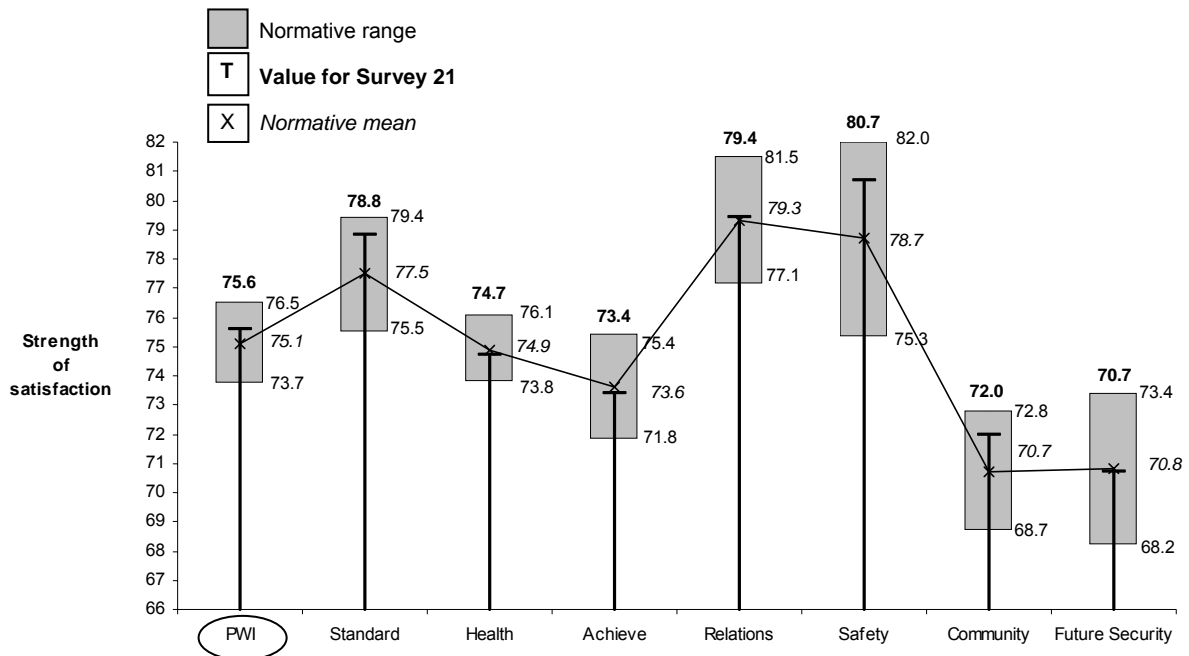


Figure 2.20: Normative Range for Group Data: **Personal Wellbeing** Mean Scores (N=21)

It can be seen that the Personal Wellbeing Index and all domains lie well within their normal range.

Over the course of these surveys, changes have occurred in both the Personal Wellbeing Index and National Wellbeing Index. While, for the most part, the cause of these changes is unclear, they are not occurring at random. This is evidenced by those domains that do not change, such as the Health and Achieving domains in the Personal Wellbeing Index. Other domains seem to change in a manner which shows at least the possibility of causality. Satisfaction with Government appears to rise at times of perceived national threat, at the prospect of a change in leadership, and during the first six months of office. Satisfaction with the Natural Environment fell over the period of one year with the public perception of climate change as a reality.

Other, speculative comments on these domain changes are as follows:

Threat Events

International events that are either nationally threatening (terrorist threats or war) can enhance personal and national wellbeing. Moreover, they involve much the same set of domains as:

Enhanced satisfaction with material conditions (Standard of Living, Social Conditions, Natural Environment, Business and Economy). The purpose of this, terms of a threat response, may be to encouraging satisfaction with the living environment that requires defending. The alternative would be to leave the living environment for somewhere else, but for most people this is not a realistic option due to issues of personal investment.

Enhanced satisfaction with the other people who share the environment under threat (personal relationships and feeling connected to the community) and with the leaders of these people (Government). The increased strength of these connections means people feel they are not alone in facing the threat and that they have worthy leaders.

Enhanced satisfaction with general issues of safety (personal safety, future security, national security). If the source of threat is to be approached and met, with the aim of defending the living environment, then it is necessary that people have confidence in their own survival as a consequence of such action.

Domain exceptions

While most of the 13 domains are accounted for in the above description, one domain (Health) shows no reliable change as a consequence of these national and international events. There are various possible reasons for the stability of this domain as follows:

1. The sense of personal health could be under competing forces. In a threat situation, it could be adaptive to have a heightened sense of one's own powers to defend oneself, and this would be expected to cause an increased satisfaction with health. However, perceived health may be more chronically under threat than the other domains. Practically everybody has some source of health concern and, thus, the homeostatic devices that maintain health satisfaction are already working overtime, such that another source of external threat has little additional impact.
2. The perceptions of personal health may be driven more by comparisons with other people than the other domains. That is, the most obvious systematic changes in health, on a population basis, are due to age. Thus, given such obvious differences between age-groups, perhaps people judge their health against their age-cohort rather than using an internal standard. The result of such comparisons, if this is true, would be a dominant reference for health satisfaction (age-cohort) that would attenuate the influence of other external influences.

Nationally Enhancing Events

While both threat and enhancement events caused wellbeing to rise, the cause of each rise should be different. The preceding description is based on a sociobiological interpretation of an adaptive response to threat. The rise in wellbeing due to nationally enhancing events has no such adaptive links and is more simply explained in the personal pride of being part of a winning team.

There are likely to be two major differences between these two event types. First, the threat event should be longer lasting. It may be adaptive to maintain a sense of threat for a long period after the event, thereby maintaining the alertness to detect a new source of harm and the resources to deal with it. Enhancement events, on the other hand, are likely to be far more transitory. The fact of the team's success is soon submerged within the caldron of current life realities. This is consistent with the data shown in Report 12.0 at the time of the Athens Olympics.

The second difference is in the domains that are responsive. The Olympic enhancement event had no effect on the following domains:

Health:	This may be for the reasons already described.
Achieving:	The grand achievements of others is a double-edge sword. The reflected glory is tempered by an upward-comparison against lower personal achievement.
Natural environment:	This is not a domain that involves connection to other people.
Government:	The achievements are those of the athletes, not of the leaders.

Regional disasters

Survey 20.1 was conducted at the tail-end of savage bushfires in Victoria that claimed 173 lives. This regional disaster generated out pourings of grief and sympathy from across Australia, and was associated with a significant rise in the Personal Wellbeing Index. This was led most conspicuously by the domain of Community but all other personal domains showed an upward trend.

Prospect of a change in Government

Survey 17 was held at a time when a new and credible contender for the position of Prime Minister had appeared and satisfaction with Government in the preceding survey showed an all-time low. The polls at this time showed a real sense that the control of the Government could change to the Labor party at the forthcoming election later in the year. This represented the strongest potential challenge to the Government since its time in office, which spans the series of these surveys from Survey 1 to Survey 17.

It is notable that the domains most positively affected over this period were been safety and security. It is possible that this is a consequence of the voters having the prospect of two good candidates. One is the steady and reliable incumbent and the other a well-equipped challenger who offers the prospect of limited change. The population would be well served by any election outcome and this may be a source of security.

Conclusion

While this explanatory account is stronger in some respects than in others, and suffers from the inevitable post-hoc nature of the arguments, it does appear to have some degree of cohesion. But perhaps the most important observation is at least some of the significant changes that have been observed, and the lack of change in some domains, clearly indicates that these patterns are not due to random variation.

2.8. Likelihood of a Terrorist Attack

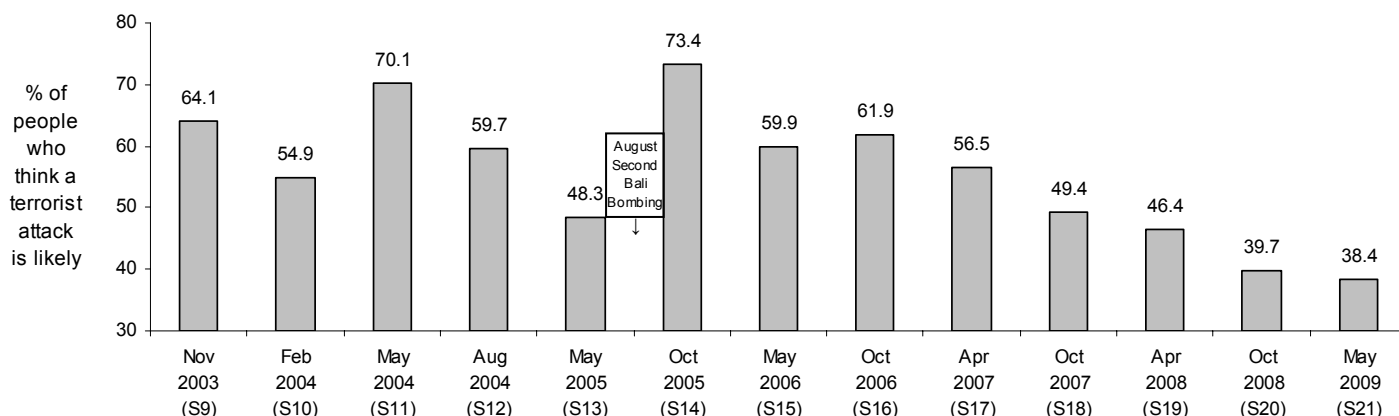


Figure 2.21: Percentage who think a terrorist attack is likely

The above figure indicates the percentage of respondents in each survey (since Survey 9) who think that a terrorist attack in Australia is likely in the near future. As markers of such attacks, the first Bali Bombing occurred prior to Survey 5 (November 2002), which was one year prior to the start of this record. The Second Bali Bombing occurred in October 2005, just before Survey 14. It is evident from Table 2.21 that the proportion of people expecting an attack has decreased by only 1.3% since the previous survey. It is possible that this value has now stabilized.

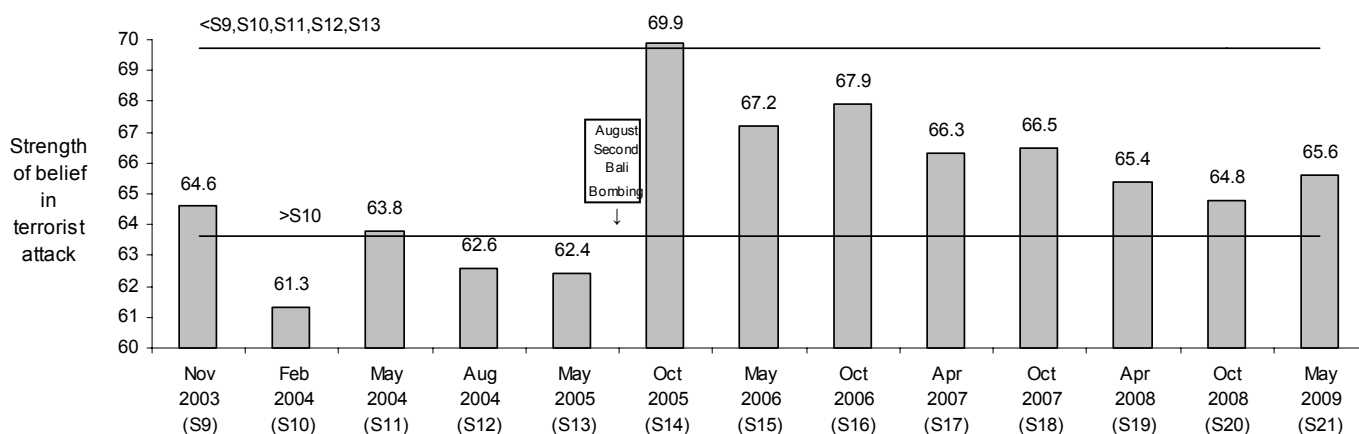


Figure 2.22: Strength of Belief in a Terrorist Attack

Figure 2.22 shows data that are restricted to the people who consider a terrorist attack likely (i.e. the 38.4% who said 'Yes' in Survey 21). They are asked to rate the strength of their belief that such an attack will occur (Table A2.1). The mean scores representing the strength of their belief for each survey are shown.

As can be seen, the strength of this belief has changed little over the past three years but remains higher than it had been over the period February 2004 to May 2005.

The following observations can be made:

1. One year following the first Bombing (Survey 9) 64.1 of the sample thought an attack to be likely. One year following the second bombing (Survey 16) the percentage of such people (61.9) is 2.2% lower. Moreover, 2 years after each event the figures are 59.7% (Survey 12) and 49.4% (Survey 18) a difference of 10.3%. It is evident that more people are adapting faster to the second bombing in terms of its perceived threat to Australian security. This is as expected.

2. The strength of belief shows the reverse pattern (Figure 2.21). One year following the first Bombing (Survey 9) the mean strength of belief was 64.6 points. This is 3.3 points less than the equivalent period (Survey 16) following the second Bombing. The same pattern is shown two years after each event (Survey 12: 62.6 points vs. Survey 18: 66.5 points) with a 3.9 point higher estimation after the second bombing. Thus, at each of these time intervals, the second bombing produced fewer people who regarded a future attack likely but with stronger convictions.

The explanation for these changes may lie with the threshold belief strength people require to answer 'Yes'. That is, there is likely to be some minimal level of belief strength (say 7/10) that causes people to say 'Yes' an attack is likely.

Then, assuming that the average strength of belief will decrease over time, fewer people will meet the threshold for a 'Yes response, and so the proportion of the sample responding in this way will progressively decrease. However, since the 'Yes' responders have a supra-threshold strength of belief, the belief strength within this group will decrease only marginally over time.

While this explanation is consistent with the data pattern following each attack, it does not explain why the threshold for the 'Yes' response is higher after the Second Bali Bombing. This change, however, could be explained through adaptation. That is, repeated exposure makes the organism less responsive.

Figure 2.23 has been prepared on the basis of the accumulated data shown in Table A2.3.

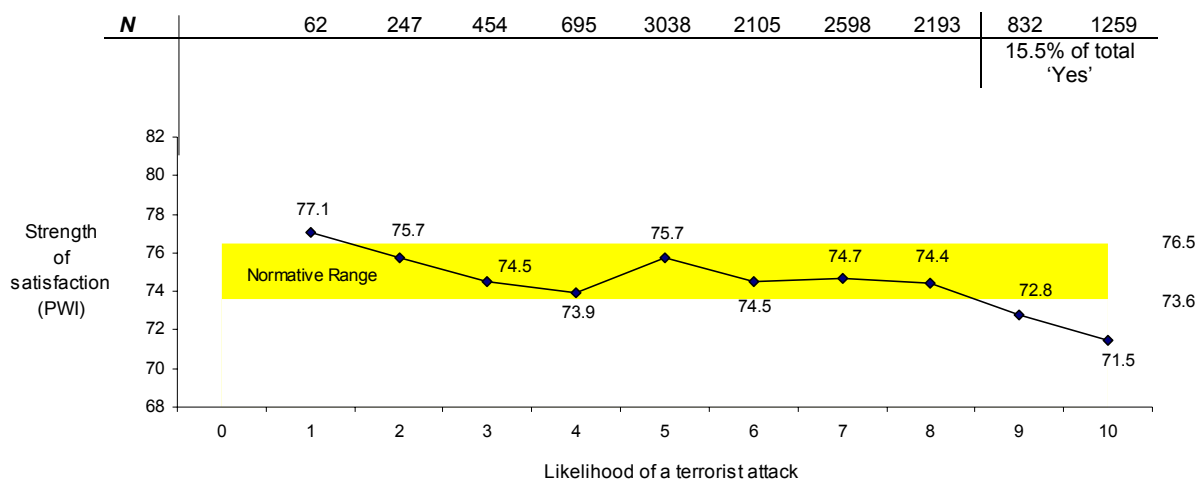


Figure 2.23: Likelihood of Terrorist Attack x Personal Wellbeing Index (combined surveys 9-15)

Using the PWI mean scores in Table A2.3 and Figure 2.23, the correlation between the perceived likelihood of a terrorist attack and personal wellbeing is $-.82$ ($p < .01$). This is the statistic that would normally be reported, but it is quite misleading. It implies that there is a simple, progressive decrease in SWB as the perceived likelihood of an attack increases. This is quite wrong as can be shown by some additional calculations and thought.

The correlation of $.816$ shows that 66.6% of the variance in SWB can be explained by perceived attack probability. However, this estimate is exquisitely sensitive to the extreme values as follows.

Only 0.5% of the sample have answered 'Yes' on this basis of an estimated attack probability of 1/10. Their inclusion is problematic. Not only do most people require a higher level of probability before answering 'Yes' but their Personal Wellbeing Index of 77.1 points is also anomalous, being 0.6 points above the normative range. Thus, their inclusion powerfully influences the correlation. If the correlation calculation includes all probabilities 1-8, the $r = -.606$ (36.7% explained variance) whereas

if the calculation omits those extreme values and includes the probabilities 2-8, then $r = -.345$ (11.9% explained variance). Thus, an alternative interpretation of these results is as follows.

People who rate the probability as 1/10 are anomalous and should be removed from the analysis. Then, over the range of probability from 2/10 to 8/10 personal wellbeing does not reliably change. Thus, for most of the probability range, believing there is a probability of a terrorist attack has no measurable effect on wellbeing. This changes at a probability estimate of 9 or 10/10. These people comprise 15.8% of the sample and are mainly responsible for the high overall linear correlation. If the correlation calculation includes values 2-10 then $r = .742$ explaining 55.1% of the variance.

It is therefore evident that the $-.74$ correlation has been generated by the distributional extremes and cannot be validly used to indicate a progressive negative influence of one variable upon the other. This is perfectly consistent with homeostasis theory, such that personal wellbeing is being actively managed. Only at the extreme levels of perceived probability is there evidence of a damaging influence of attack beliefs on wellbeing.

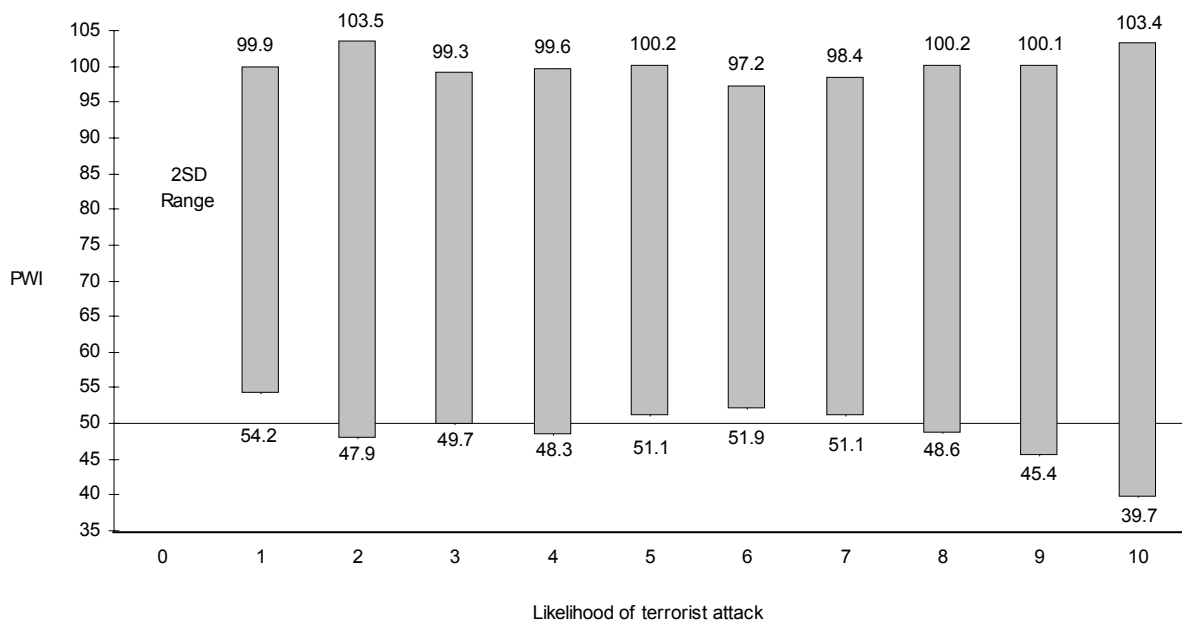


Figure 2.24: Likelihood of Attack x Personal Wellbeing Index Showing 2SD Below the Mean

Figure 2.24 shows the two-standard deviation range of the Personal Wellbeing Index for each level of attack likelihood (Table A2.3). The interpretation of this figure is as follows:

1. The 50 point level marks the transition from positive satisfaction (above) to negative dissatisfaction (below). Since we propose on the basis of homeostatic theory, that people normally have a positive level of SWB, all values should normally lie above 50 points.
2. The mean and standard deviation of the Personal Wellbeing Index has been calculated for each sub-group representing a level of perceived likelihood of an attack. The lower margin of the distribution for each sub-group has been calculated as the mean - (2 x SD). To be consistent with (1) above, this lower margin should lie above 50 points.
3. It can be seen that, for likelihood estimations ranging from 1 (10%) to 8 (80%), the lower margin of each distribution approximates 50 points.
4. The sample that represents the lowest likelihood of an attack (10% likely) has the highest mean score (77.1) and the highest margin above 50 points (54.2). The implications of this are as follows:

5. The actual value for the Personal Wellbeing Index is determined by the following two influences:
 - (a) A genetically determined set-point range. On average this set point is 75 and the magnitude of the range is about 12 points. Ranges can be set higher or lower than this but will be (approximately) equally distributed throughout the likelihood sub-groups.
 - (b) The probability of someone, at any moment, providing a response that represents the top or the bottom of their range depends on their current state. That is, normal fluctuations in their current experience will influence Personal Wellbeing within a 12 point range.
6. Within any survey there will be a small group of people who are being unusually positively influenced by their circumstances. These people will not only record a high Personal Wellbeing Index but will also, as a consequence, be more likely to record a low probability of attack. It is well known that one consequence of high SWB is the perception of low levels of risk. Thus, this group will record a higher-than-normal level of SWB.
7. At higher levels of attack probability the cognitive assessment of the probability does not systematically influence the distribution of set-point ranges or the likelihood that people are operating at the top or bottom of their range. As a consequence, the distribution of SWB is normal between the attack probabilities of 20-80%.
8. At a perceived probability of 90% the influences mentioned before are at work as:
 - (a) People who are under the influence of a sad experience will be more likely to perceive a high risk of attack. They will, as a consequence, tend to cluster in the high risk categories.
 - (b) Because of their recent experience they are likely to provide a Personal Wellbeing Index that represents the bottom of their set-point range.
 - (c) Some of these people will be suffering homeostatic-defeat. This is unlikely to be caused by the perception of an imminent attack. More likely, their prior depressed condition causes them to regard the risk of an attack, and no doubt other negative events, as high.

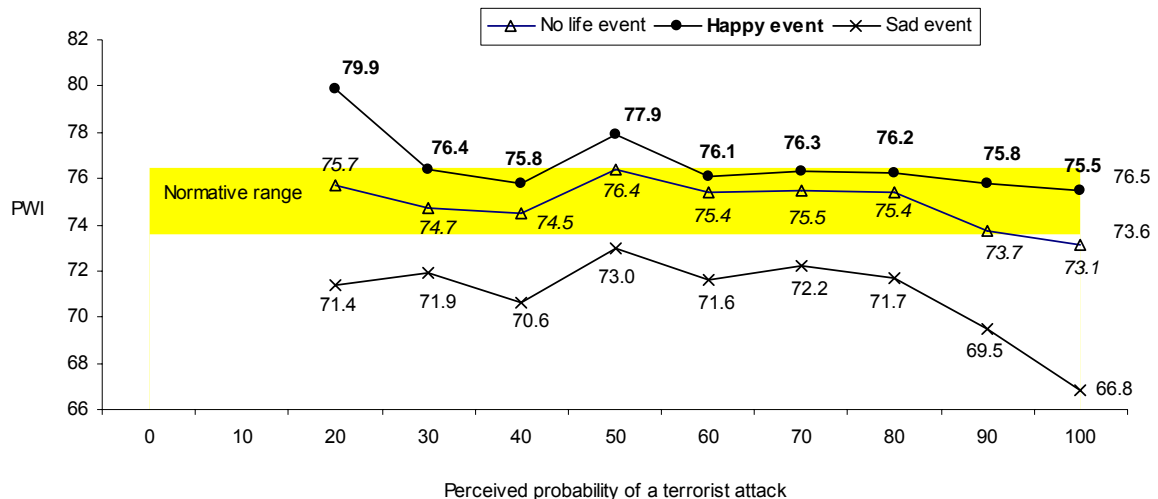


Figure 2.25: Personal Wellbeing Index x Attack Probability x Life Events

Figure 2.25 depicts the Personal Wellbeing Index of people characterized in two separate ways (Table A2.7). First by whether they have recently experienced a happy or sad event (or no event). Second by

their perceived probability of a terrorist attack. Values <20% probability are omitted since the number of cases is too small to be reliable.

To take the 'no event' group first, it can be seen that all levels of attack probability failed to shift Personal Wellbeing Index much beyond the normal range. Thus, even when people perceived an attack as 100% certain (N=496) their Personal Wellbeing Index remained only just below the normal range. This surely indicates that such perceptions are not able, of themselves, to defeat SWB homeostasis. The total range of values for the Personal Wellbeing Index for this group is 2.6 points.

People who recall having recently experienced a happy event lie at the top or above the normal Personal Wellbeing Index range. The range of values spans 4.4 percentage points, from 79.9 to 75.5. This may represent people with high set-points who are pre-disposed to recall happy events and to optimistically regard the probability of a terrorist attack as low. The perception of a high risk of attack may take their SWB towards the bottom of their set-point range, but this level still represents the top of the normal range for the general population.

The range of Personal Wellbeing Index values for the happy event group (4.4 points) is double the range of 2.4 points for the no-event group. The interpretation that is offered is that these two groups are constitutionally different in terms of their relative set-point ranges. The 'happy event' group are more likely to perceive things positively due to their high set point. However, the effect of the perceived probability of a terrorist to decrease SWB within each group's set-point-ranges is the same for both.

The 'sad event' group exhibits a less regular pattern than the other two. However, the pattern has two interesting characteristics as:

- (a) The range of values is 6.2 points, which is higher than the other two groups. However, there is something strange about the PWI value of 73.0 points at 50% probability. This value lies well above the trend-line for the other mean scores. If this value is ignored then the range becomes 5.4 points, which is similar to the happy event group.
- (b) The value of Personal Wellbeing Index does not systematically decrease with increasing attack probability. Rather it does not reliably change between probability estimates of 20 to 80/100. Then, at higher levels of probability, the Personal Wellbeing Index falls.

This is highly relevant because we have argued elsewhere, on theoretical and empirical grounds, that 70 points represents the level that is most vigorously defended by the homeostatic system. Thus, the interpretation of these 'sad event' data is as follows. These people have naturally low set-point-ranges. This gives them a less positive view of their life which, in turn, makes them more likely to recall sad events and to perceive threat. As a consequence, their homeostatic system is working harder to maintain SWB and at a perceived threat of 90-100% the system fails. At a mean Personal Wellbeing Index of 66.8 points a higher-than-normal proportion of the people will be experiencing symptoms of depression.

2.8.1. Satisfaction with Safety and Terrorist Attack Probability

As a point of validation, it would be expected that there would be some degree of correlation between changes between surveys in satisfaction with safety and the perceived probability of a terrorist attack. These data are presented in Table A2.9. With only 13 survey mean scores to work with the one-tail criterion for significance is $r = .48$. Thus, the actual correlations with safety (percentage who think an attack likely = $-.65$; strength of belief = $-.12$). Only the former is significant. There are several reasons for this as:

1. The fear of a terrorist attack is not the only factor influencing the population's sense of safety.

- 2. Only a minority of people with strong convictions that an attack is highly likely and with a low set-point will be likely to drive this relationship (see Figure 2.25).

It is also notable that the correlation between the percentage of the sample who think an attack is likely and the strength of their belief is .29. This is convergent validation for the two measures between surveys.

2.9. State Comparisons

The data for this survey were collected from Victoria (VIC), Queensland (QLD), and South Australia (SA). See the Methodology section (1.2) for a more complete description.

Before studying the data from this survey, it is useful to observe the baseline comparisons between the states, produced by combining all of our data from the regular surveys.

2.9.1. State/Territory Comparisons using Cumulative Data

Table A2.10 shows the mean Personal Wellbeing Index score for each State and Territory using the combined data (N = 42,085). The results are shown below.

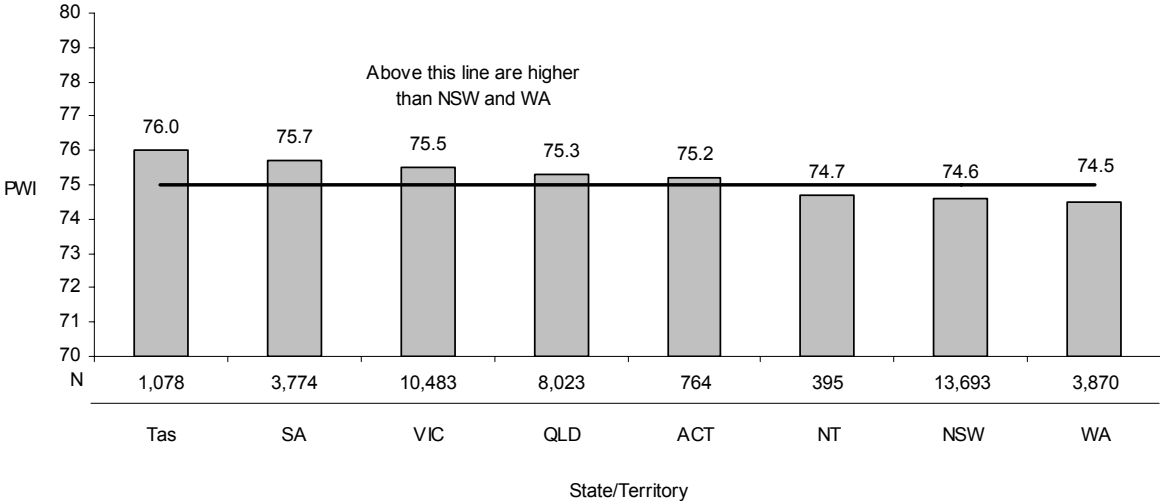


Figure 2.26: State/Territory Comparisons using Combined Data using Combined Data (Personal Wellbeing Index)

Statistical tests of significance show that TAS, VIC, SA, QLD > NSW, WA. However, it is important to note that these differences, while significant due to the large number of cases, are very small, with the maximum difference between States of only 0.5 points.

The comparisons in Figure 2.25.2 are derived from Tables A2.11 and A2.12. Apart from the first survey which stands alone, all other consecutive surveys have been combined. This is necessary in order to have sufficient numbers of respondents in each analytic cell to stabilize the patterns of change. Unfortunately the numbers of respondents from Tasmania, ACT and NT are too small to be reliable, and so have not been included. These small numbers come about because our sampling for each survey is based on a proportional basis relative to the geographic distribution of population across Australia.

What is evident from this pattern of change is that the five States were not different from one another at the time of the first survey. Following this, however, they can be roughly separated into three groups as follows:

Victoria, Queensland and South Australia all showed a significant rise following September 11 (Survey 2) and maintained much the same elevated pattern up to Surveys 12/13. In other words, the Personal Wellbeing of people in these states was elevated above normal between September 2001 and May 2005, a period of about 6.5 years.

New South Wales also shows a significant rise that parallels VIC, QLD and SA, but the rise is more muted such that, over this 6.5 year period, the NSW values generally lie below the level of the other three states.

Western Australia shows a pattern of change that is different from the other states. It shows no significant elevation following September 11 and the only significant change is at Surveys 12/13 when population wellbeing rises to be the same level as the other states. The general rise in wellbeing at this time coincided with the Athens Olympic Games during Survey 12.

From Surveys 12/13 to Surveys 16/17 the wellbeing in all states has gone down and, once again, there is no difference in wellbeing between the states. Then, at Surveys 18.1/18 VIC>NSW and WA once again.

Conclusions

Our preferred explanation for this general rise in wellbeing following September 11 is that the sense of an external threat caused people to become more socially cohesive. This elevated their satisfaction with the domains of Relationships, Community connectedness and Safety. Satisfaction with Standard of Living also rose. This sense of threat was then maintained by the First Bali Bombing and the start of the war with Iraq. It is not clear why wellbeing in WA failed to also rise at the time of these events. Possible explanations might be:

- (a) That, due to the relative isolation of WA, the sense of threat was more real than in the rest of Australia, and a sense of personal fear counteracted the general trend evident elsewhere.
- (b) That the explosive economic growth in WA, and the massive influx of new workers and their families, is disrupting the sense of social cohesion.

2.10. Normative Data

Two forms of normative data can be generated as follows:

- (a) The scores of individuals can be combined. The variance of the resulting statistic will indicate the degree of variation between individuals and between surveys.
- (b) The mean scores of surveys can be combined. The variance from this procedure indicates the extent to which each measure varies between surveys and the range indicates the normative band of values for the mean of any general population group.

2.10.1. Normative Data from Individual Scores

The distribution of values on the 0-10 response scale is given below for the Personal Wellbeing Index using the aggregate data from all surveys S10-S21 (N=25,293, Table A2.5).

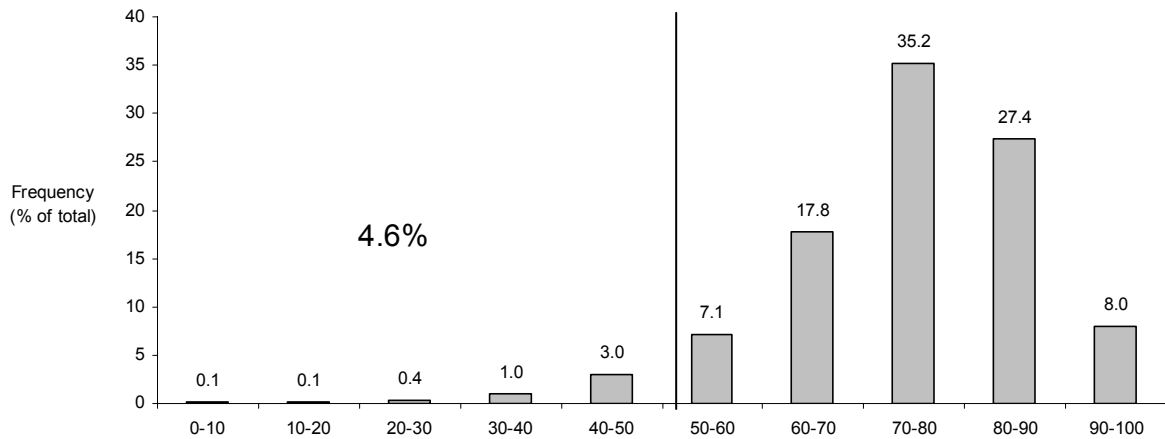


Figure 2.27: Frequency Distribution of Personal Wellbeing Index

The important feature of this Figure is the highly regular normal distribution that involves all of the intermediate scale values. This is strong evidence to support the use of a 0-10 scale. It is also notable that a total of 4.6% of the combined sample fall below 50 points. The value of 50 points is critical in that scores below this are indicative of a high risk for depression.

This is confirmed in the next Figure that shows the frequency of responses to the single item ‘How satisfied are you with your life as a whole?’ (Table A2.4, N=43,835).

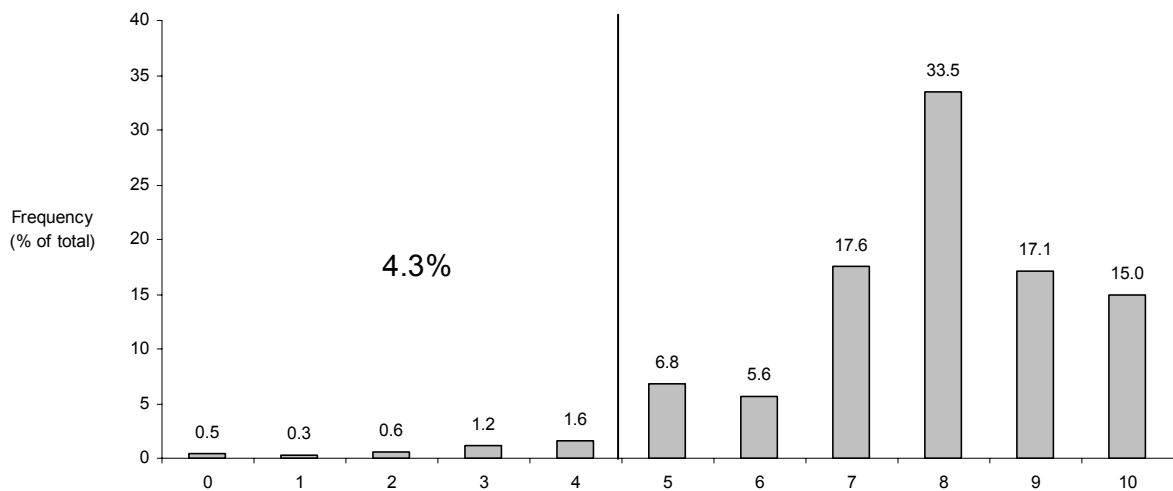


Figure 2.28: Frequency Distribution of ‘Life as a Whole’

As can be seen, the distribution is again highly regular, again reinforcing the reliability of the 0-10 scale. The proportion of people scoring <50 is also very similar to the proportion derived from the Personal Wellbeing Index.

Personal Wellbeing Index and Domains (individual scores)

The size of the smallest data-set used in Figure 2.29 is N=42,503 for the Personal Wellbeing Index (Table A2.21). Each range represents two standard deviations on each side of the mean. It can be

seen that while the range of the Personal Wellbeing Index almost exactly matches the range of positive wellbeing (50-100), the range for the domains consistently exceed these boundaries. The fact that the Personal Wellbeing Index almost perfectly covers the range of positive wellbeing in an empirical-theoretical match. The highest degree of variability is given by Relationships, which extends over 84.5 percentage points.

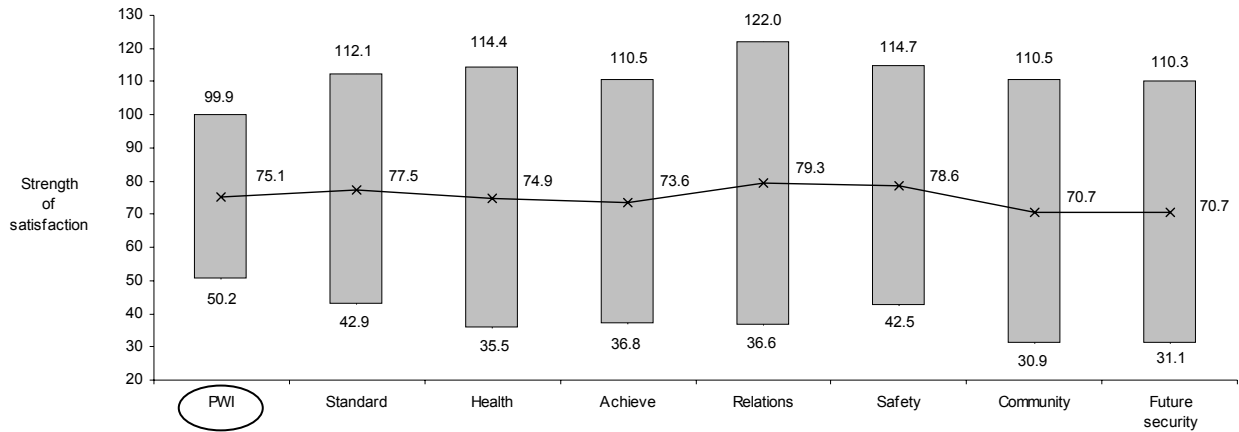


Figure 2.29: Normative Range for Individual Data: **Personal Wellbeing Index**

These normative are highly stable, with the variation being no more than 0.1 percentage point from the calculations using the previous data set.

National Wellbeing Index and Domains (individual scores)

The size of the smallest data-set for the ranges in Figure 2.30 is N=36,102 for National Wellbeing Index (Table A2.21). The ranges are generally larger than for personal wellbeing and the largest is for Government which is 97.9 percentage points. It is notable that the range of the National Wellbeing Index (58.7 percentage points) is larger than that of the Personal Index (49.7). Moreover, the National Wellbeing Index range does not cover the top 9.3% of the positive range, and the extension of the range magnitude has mainly occurred from the bottom. This is consistent with the idea that distal (national) life aspects are under less homeostatic control, and more cognitive control, than proximal (personal) life aspects (Cummins, et al., 2003).

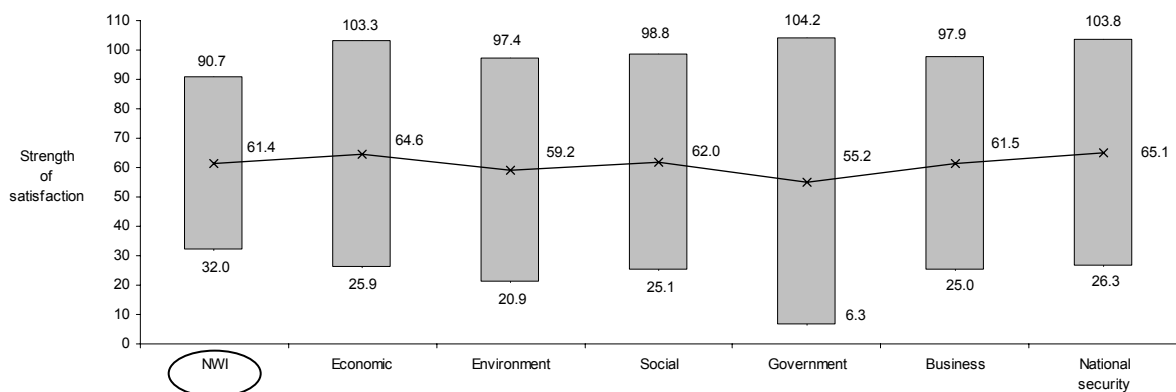


Figure 2.30: Normative Range for Individual Data: **National Wellbeing Index**

These values are all highly stable. The maximum degree of change since Report 11.0 has been 0.3 points.

Life as a Whole and Life in Australia (individual scores)

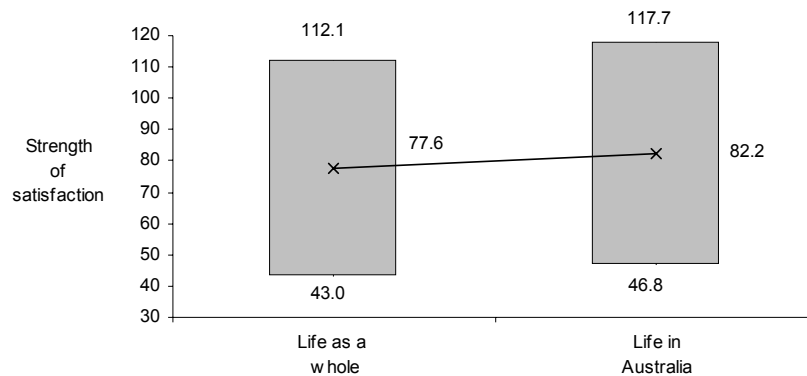


Figure 2.31: Normative Range for Life as a Whole and Life in Australia

The ranges and mean scores of these two variables are very similar (Table A2.19).

This does not fit with theory. Here, the distal variable (life in Australia : 82.2) is being rated as higher than the proximal variable (Life as a whole : 77.6), which is against theory. However, it was not always so as the Figure below shows.

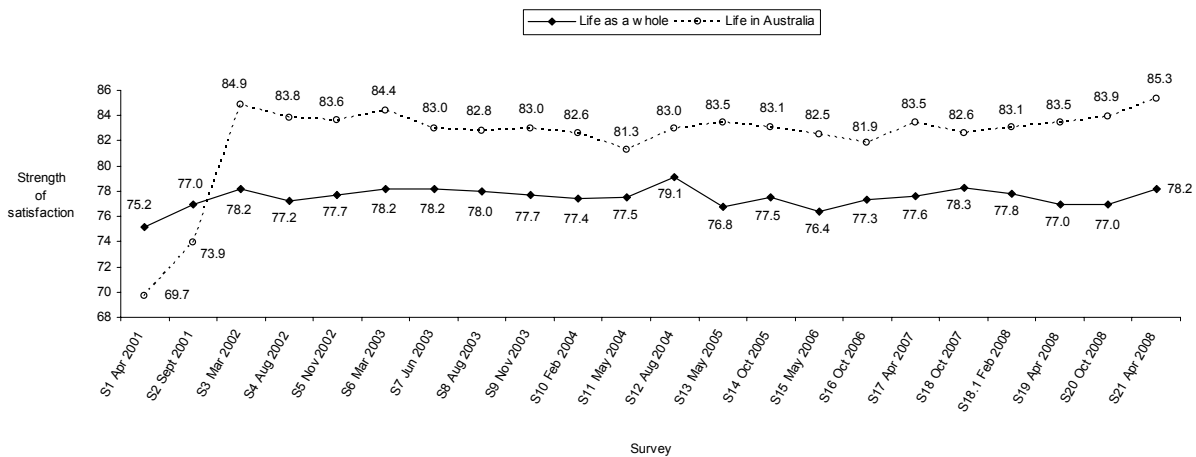


Figure 2.32: Life as a Whole vs. Life in Australia: Survey Means

It is evident that the ordering of the means was consistent with proximal-distal theory prior to, and immediately following, September 11. Then, six months following September 11 (S3), satisfaction with life in Australia increased by an astonishing 11.0 percentage points. Then there was a decreasing trend, with the Survey 11 value of 81.6 being the lowest since Survey 3. The rate of decrease was very gradual, with only 3.6 percentage points shed since the peak at Survey 3. Then the Olympic success (S12) caused both measures to rise again.

Pretty clearly, the terrorist attacks, Iraq war, and the Olympic success caused Australians to think more positively about their country. It also caused them to think more positively about themselves, but the change here is less marked, as homeostasis would predict.

Interestingly, however, these two distributions are related to one another. A correlation coefficient applied to the mean scores of each variable across the surveys yields $r=.65$, $p<.001$ (Table A2.13). Thus, when the population as a whole think more positively about themselves, they also think more positively about life in Australia, but the latter is more responsive in measurement terms.

Table A2.6 shows the distribution of Life as a Whole matched to the distribution of the Personal Wellbeing Index, and Table A2.8 shows the distribution of the Personal Wellbeing Index matched to the distribution of life as a whole. The correlation between these two measures is quite modest using individual scores ($r = .65$) which means they share only 42.3% of their variance. There are many more people scoring very low on life as a whole than on the Personal Wellbeing Index.

2.10.2. Normative Data using Survey Mean Scores as Data (N=23)

Personal Wellbeing Index and Domains (mean scores as data: N=23)

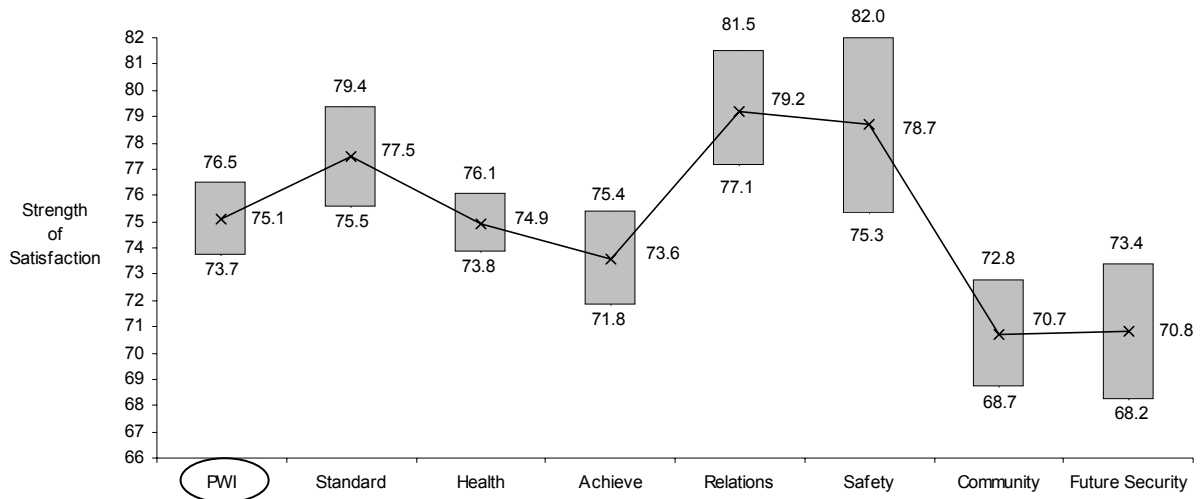


Figure 2.33: Normative Range for Group Data: **Personal Wellbeing** Mean Scores (N=20)

As can be seen from Figure 2.33 and Table A2.22, the ranges show modest variation with a 13.3% difference between the top of the highest range (Relationships: 81.5) to the bottom of the lowest range (Future Security: 68.2). The ranges also differ in magnitude, from the largest (Safety: 6.7 points) to the smallest (Health : 2.3 points). These ranges are used to judge whether the domain scores produced by the population sub-groups, described later in this report, lie above or below the normal range.

Of particular importance in this regard are the values for the Personal Wellbeing Index. The overall mean (75.1) is remarkably close to the predicted mean for Western populations (75.0). However, the range of 73.7 to 76.5 is just 2.8 percentage points, which is far smaller than the 70 to 80 range that has been previously estimated from the data reported from general reviews of the literature. This figure of 2.8 points is the most accurate estimate of the true range of population values yet published due to the use of consistent methodology between the surveys.

It is quite remarkable to be able to predict the population mean score on subjective wellbeing with 95% confidence to within 2.8 percentage points.

National Wellbeing Index and Domains (mean scores as data N=21)

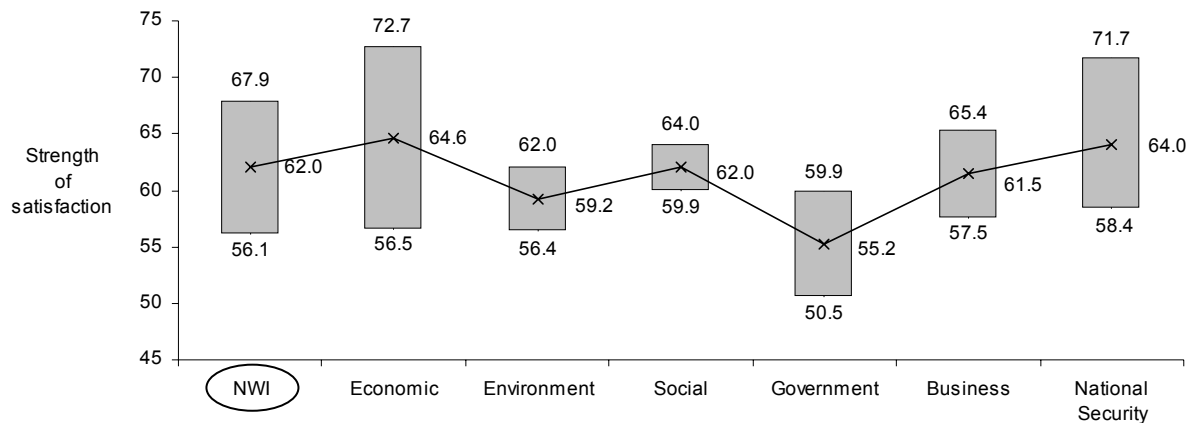


Figure 2.34: Normative Range: **National Wellbeing** Mean Scores (N=19)

The normative range for the National Wellbeing Index (Table A2.22) calculated from survey mean scores is 11.8 percentage points. This is higher than the range for the Personal Wellbeing Index (2.8 points). This indicates that the National Wellbeing Index is more volatile between surveys than the Personal Wellbeing Index, as predicted by homeostatic theory.

The domains differ widely in the extent to which they have varied across the surveys. The most volatile is Economic Situation, with a range that spans 16.2 percentage points. The smallest are Environment (5.6) and Social Condition (4.1), which makes sense since these two domains represent highly stable entities over most of the temporal range of the surveys.

Life as a Whole and Life in Australia (mean scores as data: N=21)

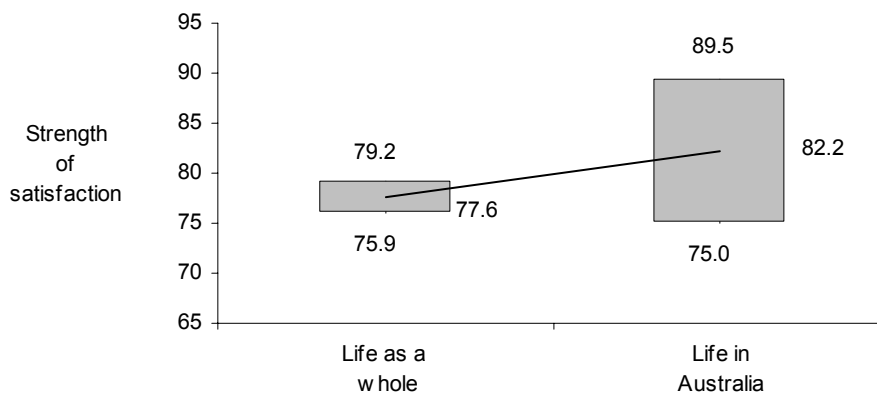


Figure 2.35: Normative Range of **Life as a Whole** and **Life in Australia**

Both the mean score and the normative range of 'Life in Australia' are higher than for 'Life as a Whole' (Table A2.20). The x2 standard deviation range of 14.5 percentage points indicates that this variable is much more volatile between surveys than is Life as a Whole (range 3.3 percentage points). This is consistent with homeostasis theory.

2.10.3. Relationships Between the Indices and Their Domains (survey mean scores as data)

The correlation matrix showing the relationship between the survey mean scores for the Personal Wellbeing Index, National Wellbeing Index and their constituent domains is shown in Table A2.13.

The crucial information in understanding this table is that the correlations do not involve raw data from individuals within surveys. If this was the case then all of the values would be positive, reflecting the power of the SWB set-point to influence all domains in the same direction.

Instead, the data used for these correlations are the mean scores from surveys. Thus, the correlations are a measure of the extent to which these sample mean scores vary together between surveys. The following observations pertain:

1. In terms of the Personal Wellbeing Index domains (top-left quadrant of Table A2.13), the correlations are mainly positive and significant, showing that the domains tend to move together between surveys. This is interesting in showing that there must exist some common force for change in domain satisfaction that is experienced at the level of the whole sample. This could be sampling bias, such as if the samples differed markedly in the ratio to high to low income households, or it could be some common experiential variable, such as national elation at Olympic success. These possibilities require further analysis for their resolution.

Some domains, on the other hand, are showing a high level of independent variation between surveys. These include Health, where only 1/6 of the correlations with other domains is significant, and Relationships, with only 2/6 significant. All other domains have at least 3/6 significant correlations with other Personal Wellbeing Index domains. The most strongly interdependent domains, each with 4/6 significant, are Standard of Living and Community Connection.

It is interesting to note that, even though Health is generally unrelated to the movement of the other domains, it is strongly tied to Achieving in Life ($r = .67$), sharing 44.9% of the variance. It is not clear why this link occurs.

2. The extent of co-variation between the National Wellbeing Index domains is generally much weaker than for the Personal Wellbeing Index domains. This is predicted from homeostasis theory on the basis that they refer to more distal targets, and so contain less core affect. Indeed, all six domains contain just one significant link to another domain.

Of these significant correlations, one of the most interesting is the negative relationship (-.59) between satisfaction with government and satisfaction with the economic situation in Australia.

2.11. Composition of the Personal Wellbeing Index

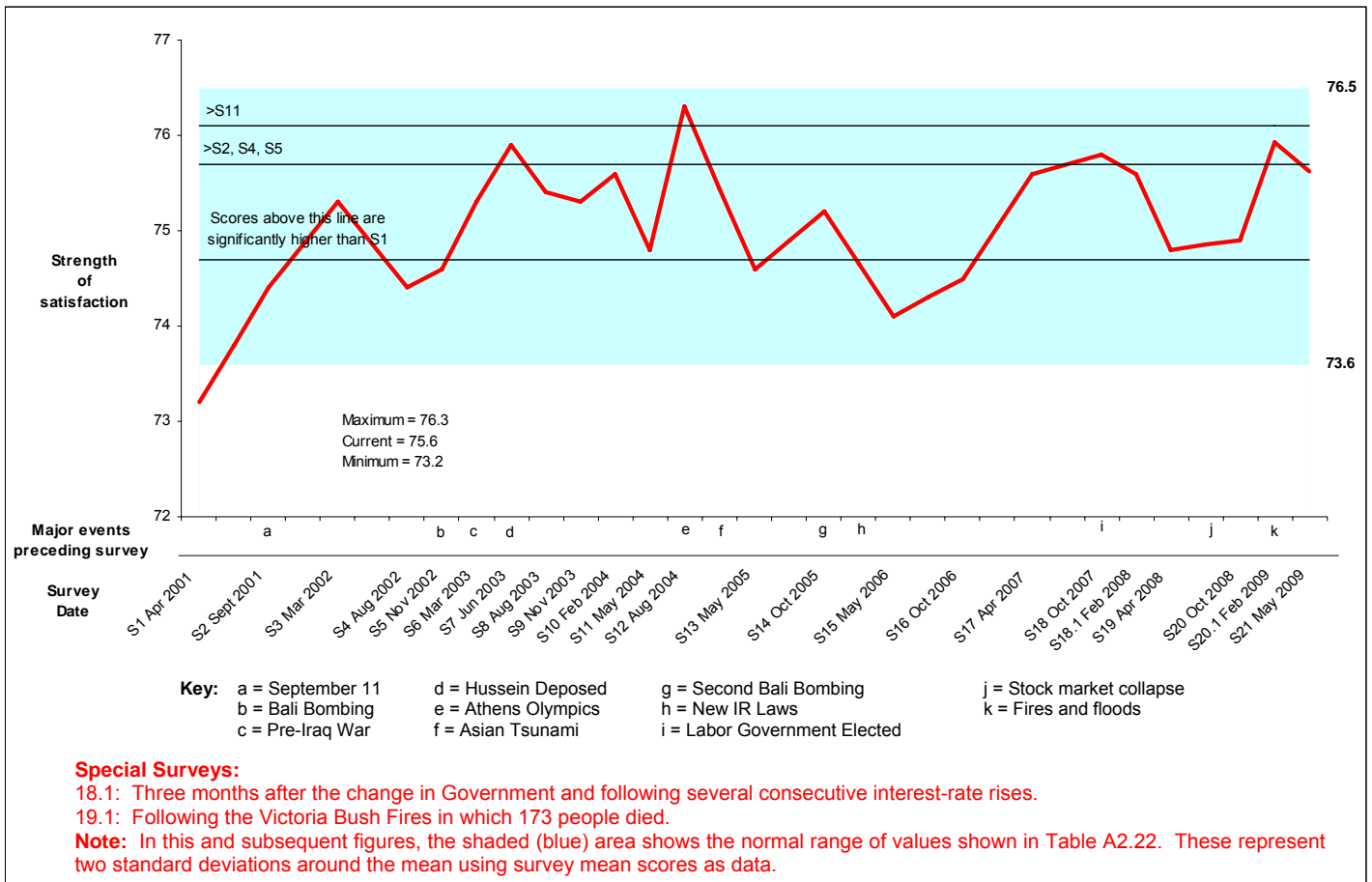
Tables A2.17 and A2.18 show the regression of 7 and 8 domains respectively on Life as a Whole. This is the criterion test for a domain – that to be included in the Personal Wellbeing Index it must make a unique and significant contribution to Life as a Whole.

It can be seen that all domains make a significant unique contribution. This is a most unusual result. Usually neither Safety nor Spiritual/Religious make a contribution. Notably also, the contribution for Safety is negative.

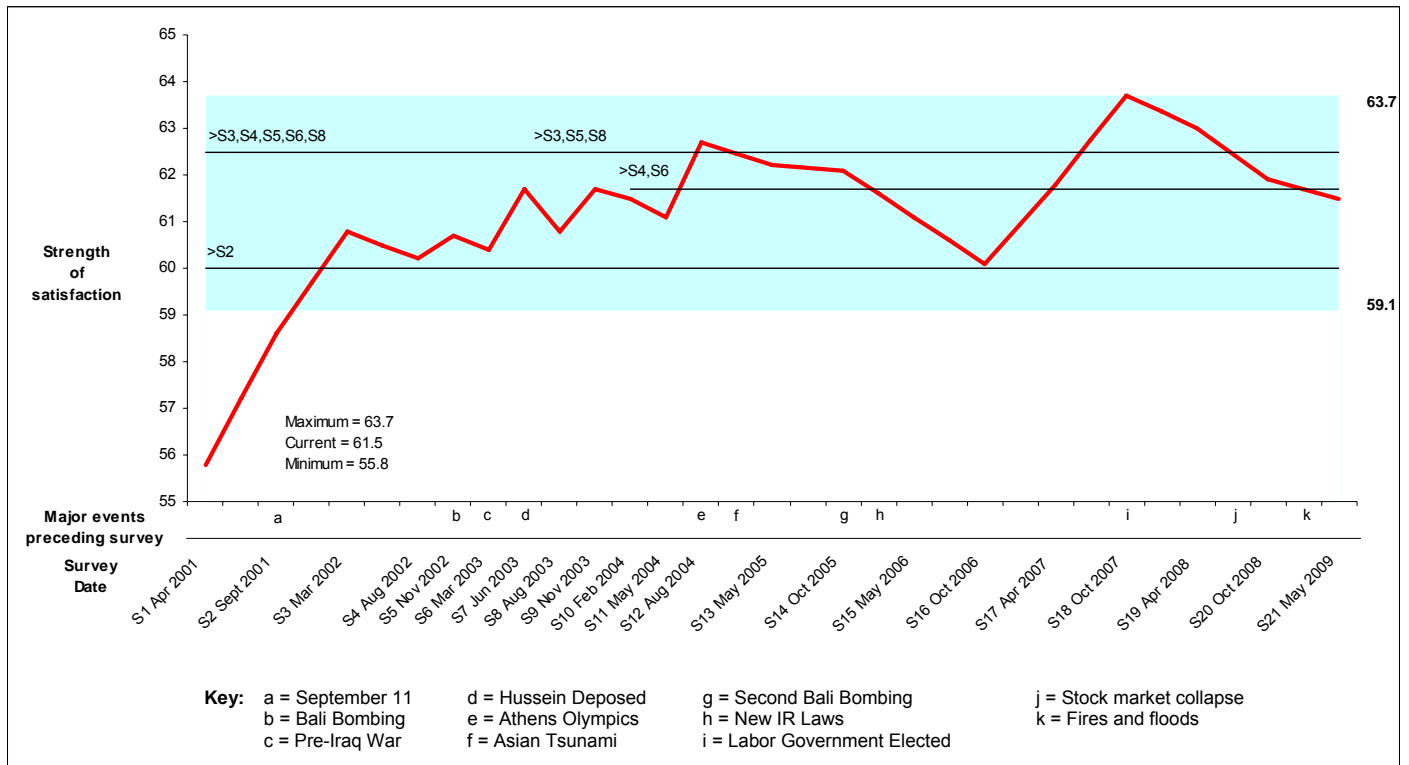
In order to determine whether strong satisfaction with the Spiritual/Religious domain causes it to make a stronger contribution, the combined surveys have been split as 0-6 (Table A2.19) and 7-10 (Table A2.20). Indeed, contribution for both Spiritual/Religious and Safety are significant in the 7-10 group.

Dot Point Summary for the Wellbeing of Australians

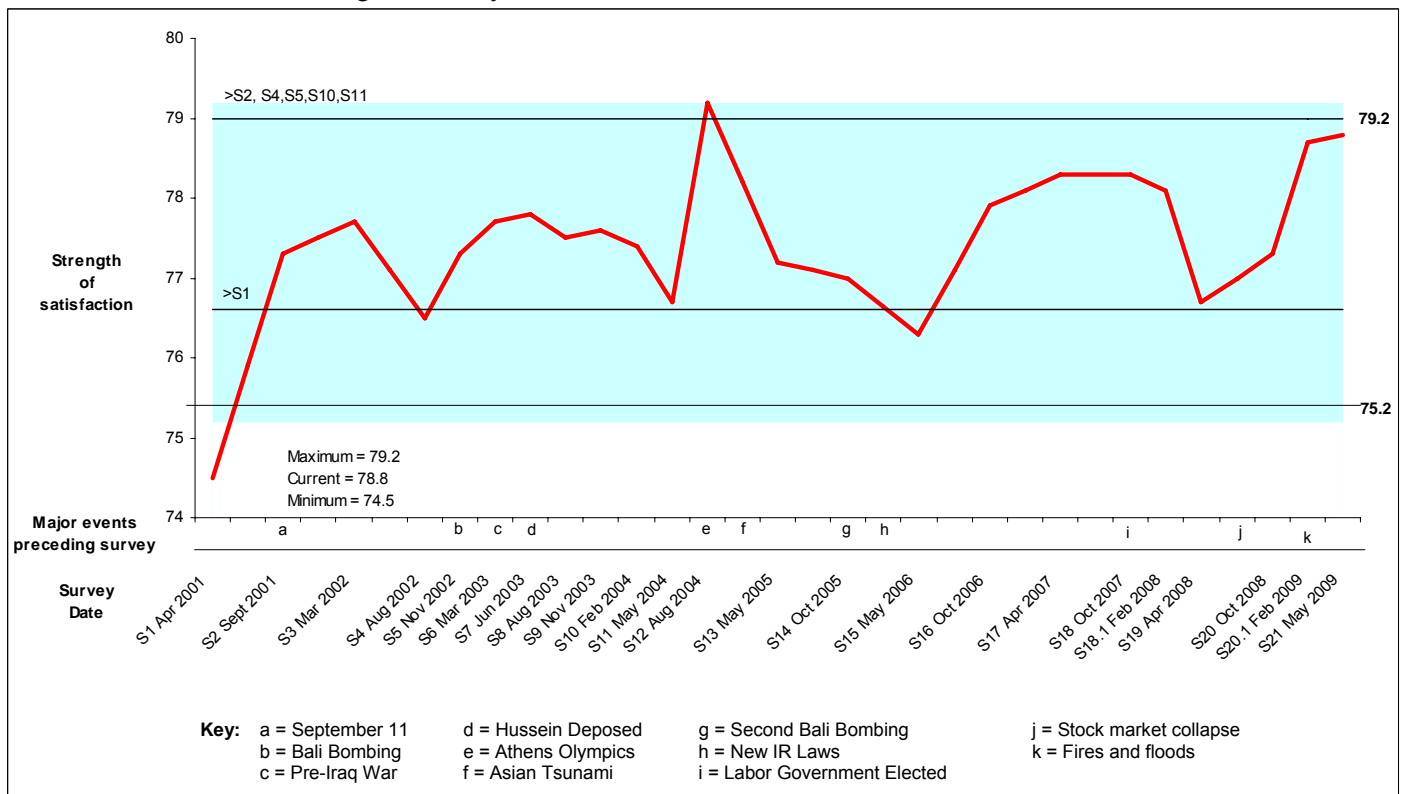
1. The Personal Wellbeing Index has risen to its second-highest level yet recorded. It is only 0.4 points less than the peak value of 76.30 recorded at the time of the Athens Olympics.



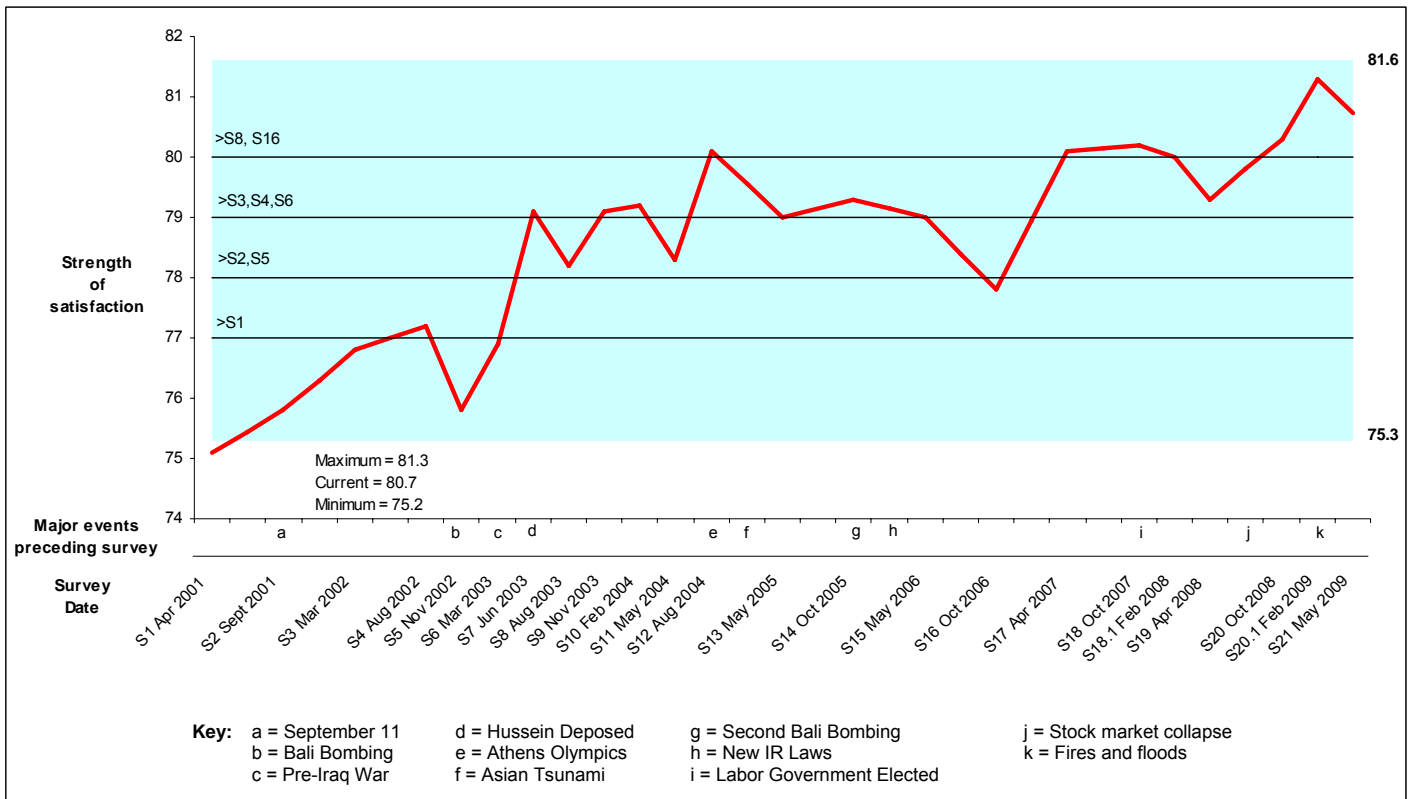
2. The National Wellbeing Index has fallen by a significant 1.2 points since April 2008, slightly down from its highest level yet recorded.



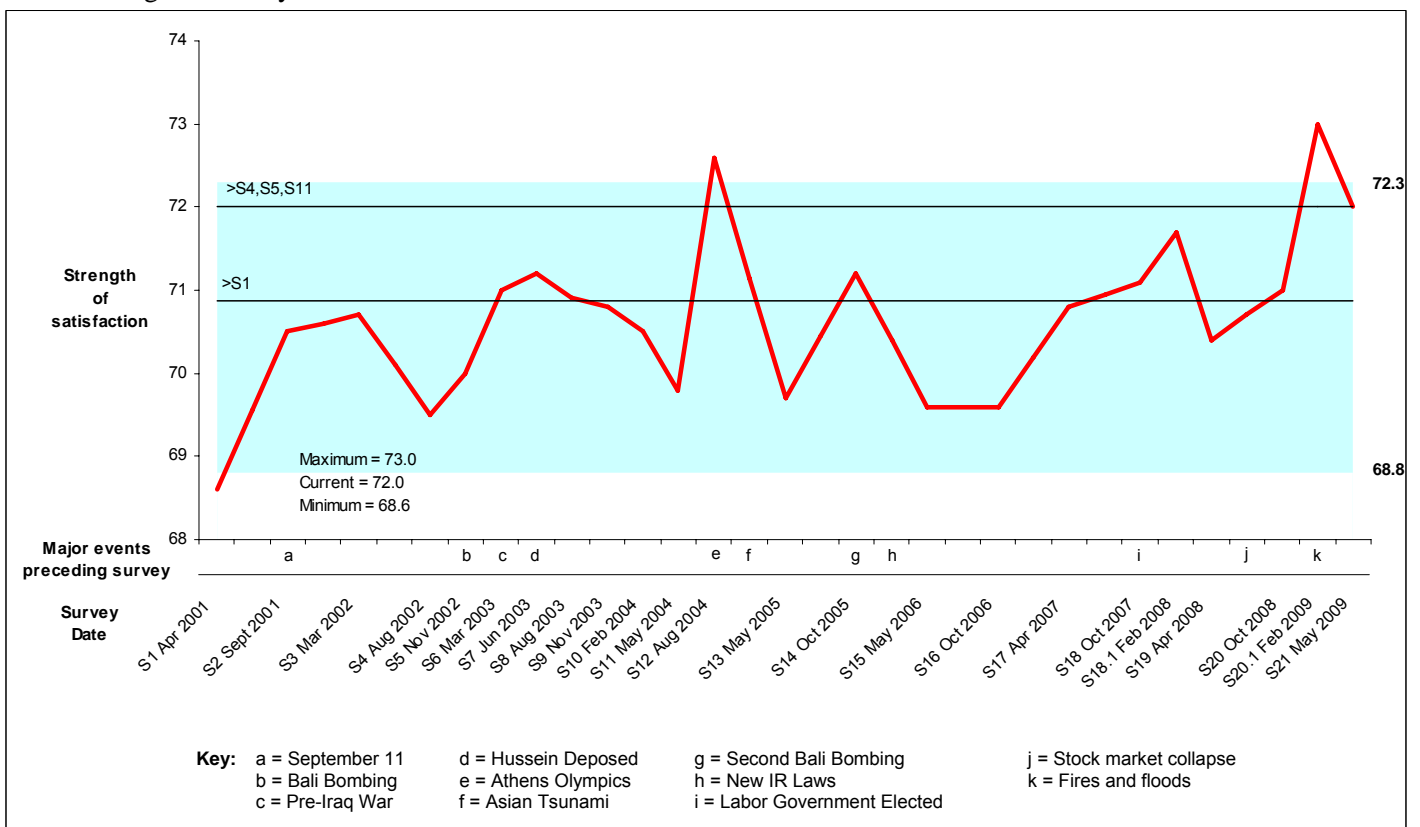
3. Satisfaction with Standard of Living has risen by a significant 1.4 points since Survey 20 and is now at its second highest level yet recorded.



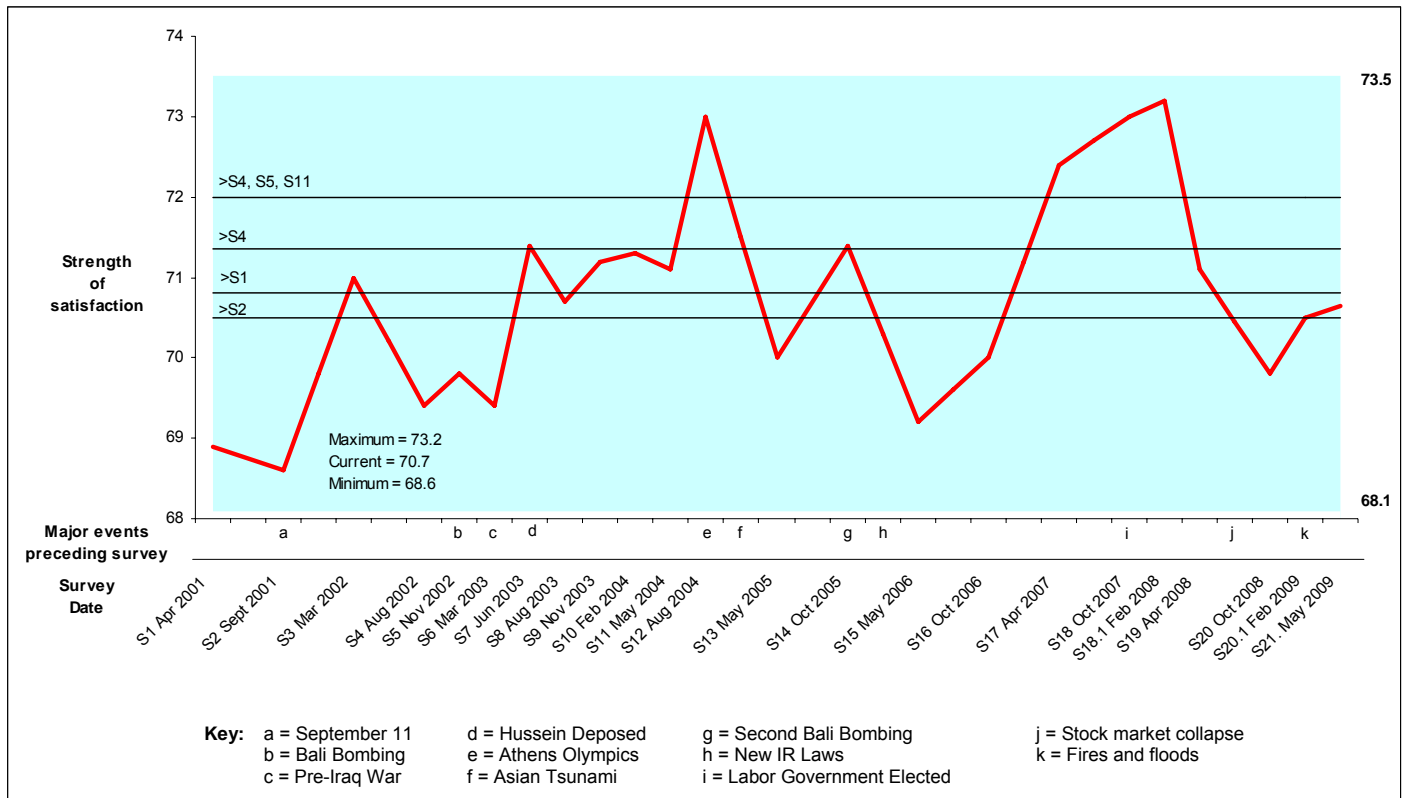
4. Satisfaction with Safety has risen to its highest level yet recorded.



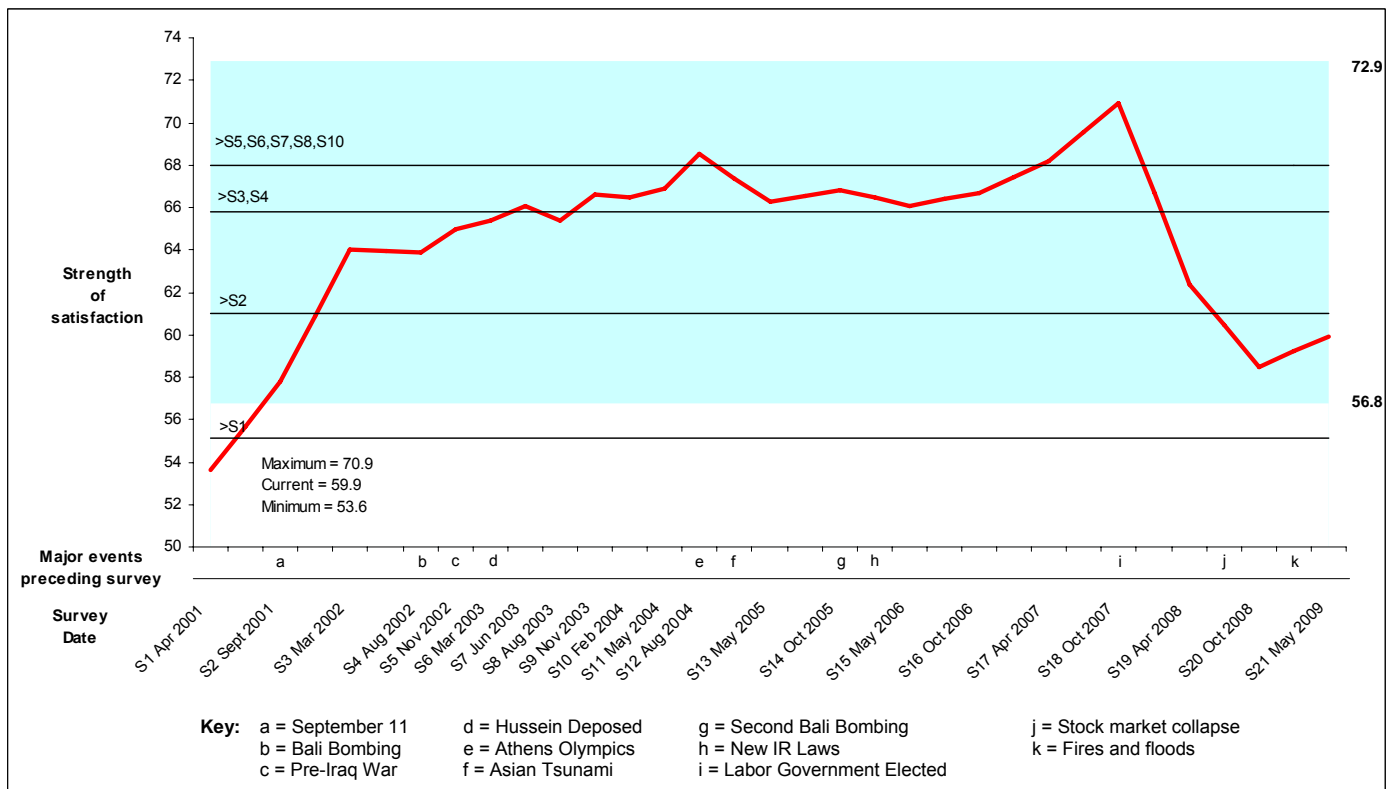
5. Satisfaction with Community has risen a significant 2.0 points since Survey 20 and is now at its highest level yet recorded.



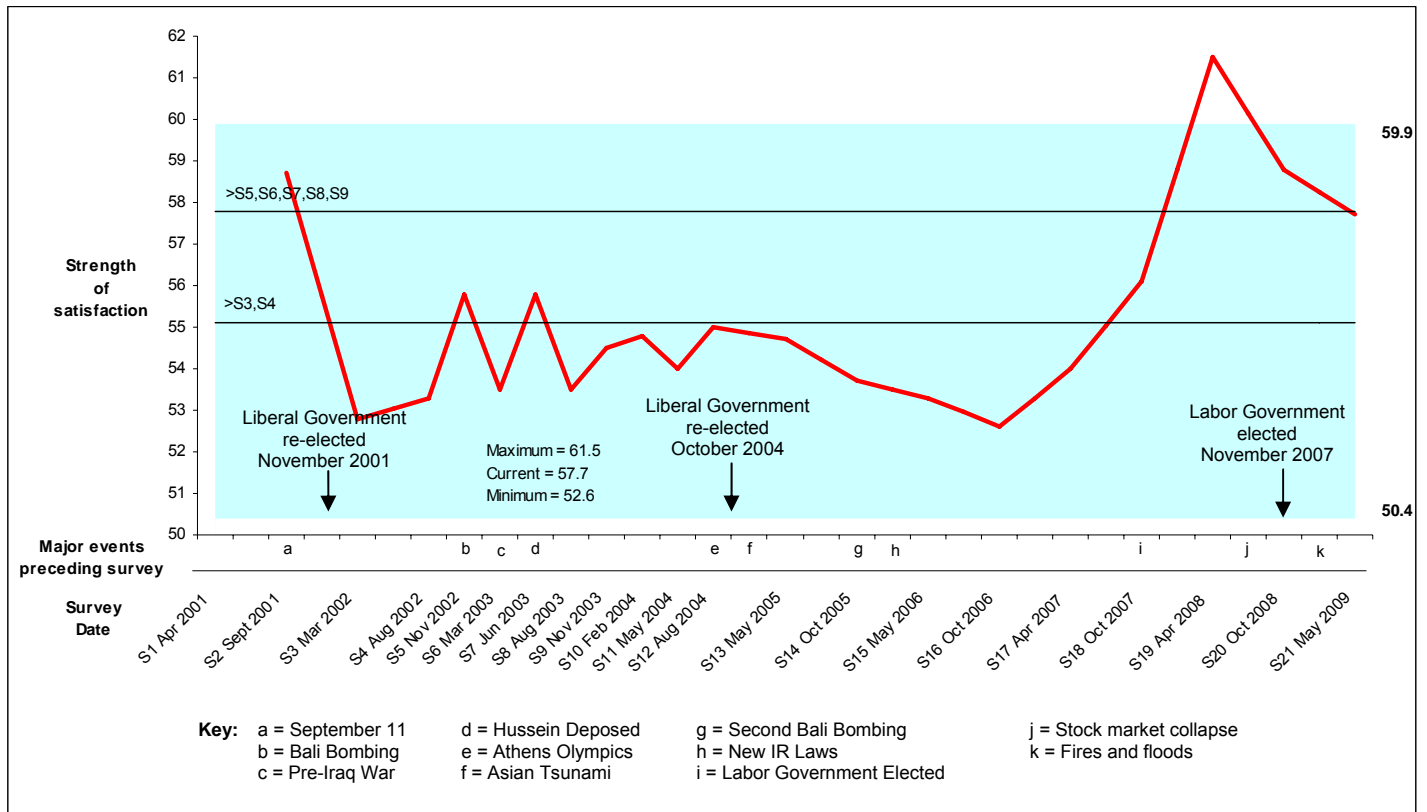
6. Satisfaction with Future Security has fallen by a significant 1.3 points since April 2008. It remains higher than it was at Survey 1.



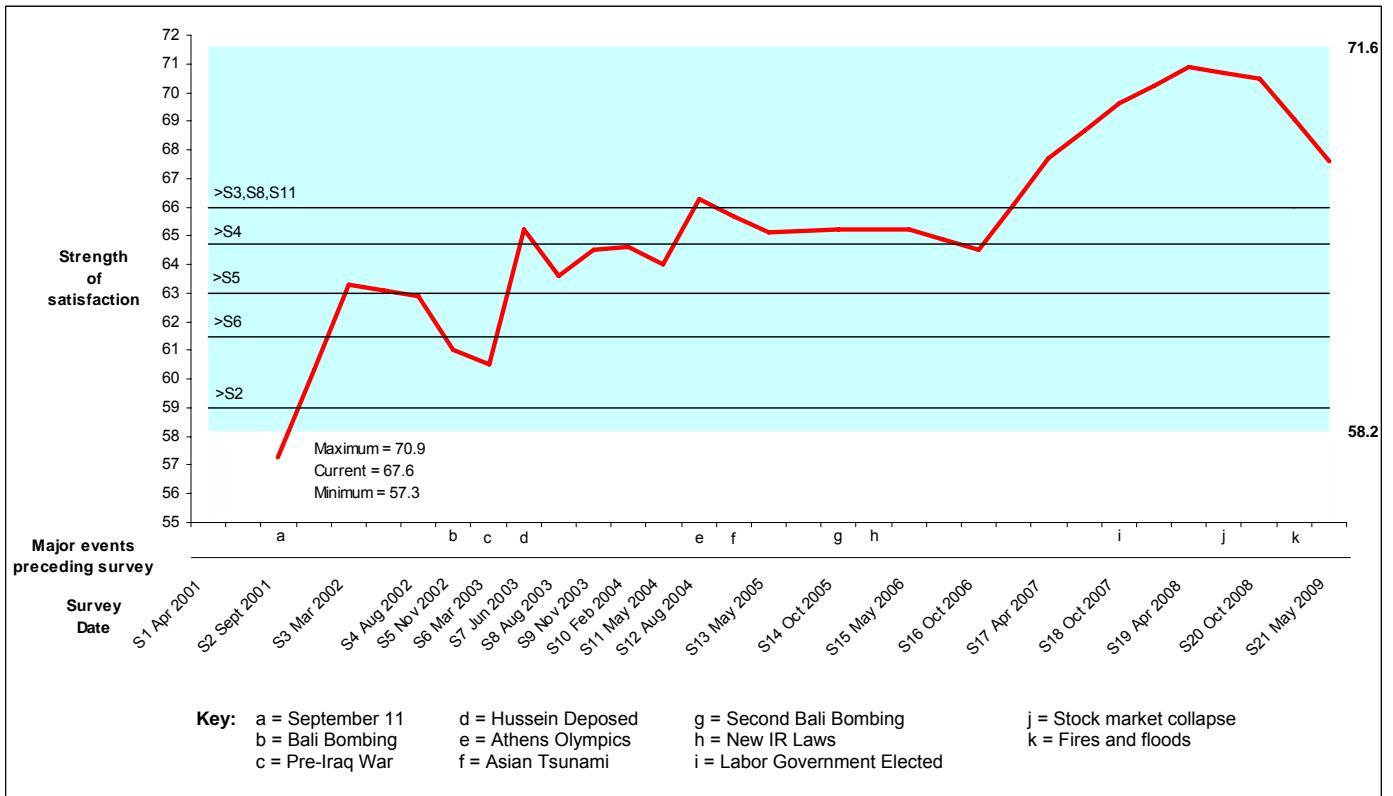
7. Satisfaction with the Economic Situation in Australia has fallen a massive 12.4 points since October 2007 and is now at one of its lowest levels. It is notable that Satisfaction with Business has decreased far less.



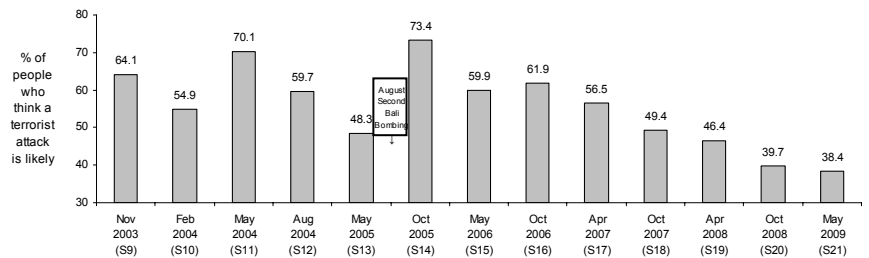
8. Satisfaction with Government in Australia has decreased since Survey 19 but remains higher than the level of satisfaction with the Liberal government immediately following September 11.



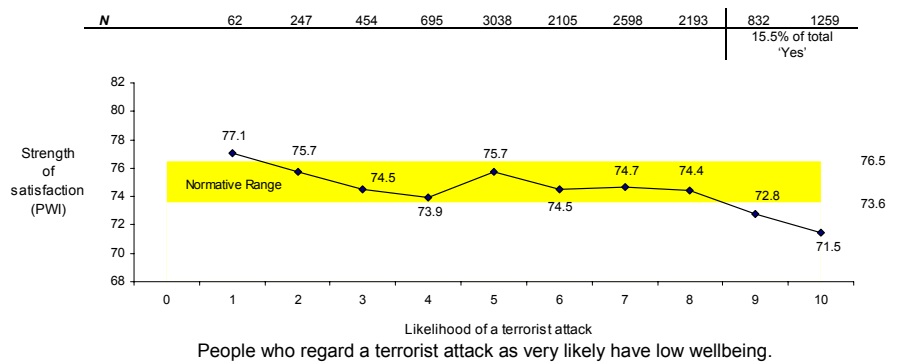
9. Satisfaction with National Security remains at an all-time high. It is notable that the proportion of the population who think a terrorist attack likely in the near future has fallen to its lowest level (39.7) in 5.0 years.



10. The percentage of people who consider that there will be a terrorist attack 'in the near future' has fallen by 6.7% since April 2008.



11. People who regard the probability of a terrorist attack as 9 or 10/10 (15.8% of the total sample) have lower than normal wellbeing.



12. Using combined data, five states and territories have a level of wellbeing that does not differ from one another, and which is higher than both NSW and WA. However, all levels lie within the normal range.

