ANU POLL (ATTITUDES TOWARDS SCIENCE)

SEPTEMBER 2010

TECHNICAL REPORT

PREPARED FOR
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1.   Introduction

1.1   About this report

This report covers the data collection and methodological aspects of the eighth ANU Poll (Attitudes towards Science).

Its purpose is to:

- Consolidate and summarise project information and assorted reports generated throughout the survey period;

- Provide analysis relating to sample characteristics and utilisation; and

- Consolidate issues for consideration relating to the improvement of the questionnaire and refinement of the methodology for future surveys

Detailed reference information is attached as appendices.

1.2   Project background

This poll is the eighth in an ongoing series of polls being undertaken by The Australian National University. Their purpose is to assess Australians' opinions on important and topical issues, with an emphasis on international comparisons. These surveys are planned to be conducted three times a year, or about every four months. Some questions appear in every poll in order to provide information about changes in opinion over time; the majority of questions appear in one poll only.

The main focus of this eighth poll was on Australians' attitudes towards science; its main aim was to gauge the extent to which people are interested in science and whether they think that it can solve problems.

1.3   Project overview

The in-scope population for the ANU Poll was adults (18 years of age or over) who are residents of private households in Australia.

The total sample size was 1,200, stratified by capital city/rest of state. The size of the quotas for each region can be seen at Table 2: Interviews achieved. A random digit dialling (RDD) sample frame was used, based on a product from Sampleworx[1], and the "next birthday" method was used to choose respondent within household.

Key project statistics are summarised at Table 1, following page. As can be seen, the target number of interviews was achieved, with a final participation rate (defined as interviews as a per cent of interviews plus refusals of all types: household refusals, respondent refusals, and mid-way

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[1] The Sampleworx product offers a technology-based, as opposed to a list-based, solution to the generation of working RDD numbers. The building blocks for the Sampleworx product are the ACMA exchange prefixes (not a directory listing) with all possible numbers within an exchange block generated and tested (i.e. confirmed as working or non-working phone numbers) by sending a signal to the exchange rather than having to send a signal down the line to the number itself. This means that (similar to Enhanced RDD) all working numbers across all ACMA exchange blocks are identified and included in the sample frame. The advantage the Sampleworx approach has over Enhanced RDD (SRC's in-house RDD sampling methodology) is that working telephone numbers have been pre-identified leading to a higher connection rate and greater fieldwork efficiencies.

terminations) of 44.3%, an average interview length of 14.9 minutes[2], and just over a 2-week fieldwork period.

Table 1 – Summary of key statistics

	Project total
Target interviews	1200
Total interviews achieved	1200
Participation rate	44.3%
Fieldwork start date	15-June-10
Fieldwork finish date	2-July-10
Average interview length (minutes)*	14.9

* Includes four questions asked on behalf of SRC

Data were weighted to 2009 ABS estimated residential population benchmarks using age and gender within each state[3].

A cleaned SPSS data file was provided to ANU on 12 July 2010.

All data collection activities were undertaken in accordance with the Australian Market and Social Research Society's Code of Professional Practice, the Market and Social Research Privacy Principles, and ISO 20252 standards.

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[2] This interview length includes four questions asked on behalf of SRC.
[3] Because the sample was already stratified by capital city/ rest of state, there was no need to weight to region.

2.   Sample Management

2.1   Sample generation

As can be seen in Table 2, a total of 5,646 RDD sample records were generated from the Sampleworx product.

The number of records generated for each region was based on the quota for that region along with our estimate of percent yield based on similar types of surveys we have conducted in these regions. As Table 2 shows, the average amount of sample used was 99 per cent, which shows that we were very accurate with the amount of sample we required. The average number of telephone numbers called to achieve an interview was 4.7, with a range of 2.9 in the ACT to 6.6 in Rest of NT.

Table 2 – Sample generation and usage

	Sample generated	Sample used	% sample used	Interviews achieved	Avg records initiated per interview
Sydney	810	810	100%	155	5.2
Rest of NSW	292	292	100%	79	3.7
Melbourne	737	737	100%	143	5.2
Rest of VIC	188	188	100%	48	3.9
Brisbane	519	519	100%	103	5.0
Rest of QLD	534	534	100%	109	4.9
Adelaide	366	366	100%	95	3.9
Rest of SA	146	146	100%	33	4.4
Perth	547	547	100%	103	5.3
Rest of WA	157	157	100%	32	4.9
ACT	298	289	97%	100	2.9
Hobart	209	209	100%	43	4.9
Rest of TAS	240	240	100%	57	4.2
Darwin	305	305	100%	55	5.5
Rest of NT	298	298	100%	45	6.6
Total	**5,646**	**5,637**	**99%**	**1,200**	**4.7**

The average sample records per interview statistics at Table 2 can be used to guide sample generation requirements for future surveys.

2.2   Sample release

Sample was released in batches so that:

- Calls to each batch could be exhausted, as far as was possible within the project schedule, prior to initiating calls to a fresh batch of sample; and

- The interview rate by location and sample type could be assessed, with a view to estimating the minimum number of records to release in ensuing batch(es) to enable the timely completion of the project and minimise the proportion of residual non-contacts at the end of the fieldwork period.

2.3 Call procedures

The call procedures included:

- A six-call regime; and

- Controlling the spread of call attempts such that, subject to other outcomes being achieved, contact attempts were spread over weekdays late afternoon to early evening (4pm to 6pm), weekdays mid to late evening (after 6pm to 8.30pm), and weekends (10am to 5pm). No calls were attempted outside these times, except by firm appointment.

There was no interviewing in languages other than English and no messages were left on answering machines.

2.4 Procedures to maximise response

Procedures to maximise response for the ANU Poll included:

- Operation of a 1800 number throughout the survey period by The Social Research Centre, to help establish survey bona fides, address sample members' queries, and encourage response;

- Provision of the ANU website upon request, where respondents could view additional information about the study;

- Provision upon request of contact details for the ANU Human Research Ethics Committee;

- Batched release of sample as described in 2.2 above; and

- Focus on interviewer training and respondent liaison techniques.

3.   Questionnaire Design and Testing

3.1   Questionnaire design and pre-testing

An initial draft of questions for the ANU Poll was written by ANU, with feedback from SRC.

3.2   Questionnaire pilot testing

Prior to pilot test interviewing, standard operational testing procedures were applied to ensure that the CATI script truly reflected the agreed "hard copy" questionnaire. These included:

- Reading the questionnaire directly into the CATI program;

- Programming the skips and sequence instructions as per the hard copy questionnaire;

- Rigorous checking of the questionnaire in "practice mode" by the Social Research Centre project coordinator and the project quality supervisor, including checks of the on-screen "presentation" of questions and response frames; and

- Randomly allocating dummy data to each field in the questionnaire and examining the resultant frequency counts to check the structural integrity of the CATI script.

A pilot test of 20 interviews was conducted on 3 - 4 June. Pilot test interviews were included in the final data file.

Changes to the questionnaire made as a result of pilot testing included:

- Minor wording changes to questions E1, E2, Dem2

The final questionnaire is provided at Appendix 1.

4.   Interviewer Briefing & Quality Control

4.1   Interviewer briefing

All interviewers and supervisors selected to work on the ANU Poll attended a two-hour briefing session delivered by the Social Research Centre project manager, which focused on all aspects of survey administration, including:

- Survey context and background;

- Survey procedures and sample management protocols;

- Respondent selection procedures;

- Strategies to gain and maintain co-operation;

- Detailed examination of the survey questionnaire, with a focus on the use of pre-coded response lists and item-specific data quality issues; and

- Comprehensive practice interviewing;

A total of 20 interviewers worked on the project.

Briefing notes are provided at Appendix 2.

4.2   Fieldwork quality control procedures

The in-field quality monitoring techniques applied to this project included:

- Validation of 81 interviews (or approximately 4% of each interviewer's work) via remote monitoring (covering the interviewer's approach and commitment-gaining skills, as well as the conduct of the interview). This number compares with a target of 60 interviews, or 3%;

- Field team de-briefing after the first shift, and thereafter, whenever there was important information to impart to the field team in relation to data quality, consistency of interview administration, techniques to avoid refusals, appointment-making conventions, or project performance;

- Examination of "Other" responses;

- Monitoring of the interview-to-refusal ratio by interviewer; and

- An end of survey de-briefing.

A final interviewer de-briefing was conducted on 9 July, in which interviewers discussed their perceptions of the performance of the survey as a whole and of specific questions in terms of respondent interpretation and data quality issues. Issues raised included:

- B1: interviewers found the phrase, "sports news" odd, and wondered if it just meant "sports"

- E1 & E2: interviewers found that some respondents had difficulty understanding these questions and asked that they be repeated; several interviewers reported that they felt some respondents were giving their own opinion on global warming and its causes, rather than on whether they thought there was agreement or disagreement among scientists on these issues

- E2: it is unclear whether this question has an implied assumption: 'of scientists who agree the earth has been warming…'

- Dem7: interviewers reported that some respondents said they were Christian, but no particular denomination; they also wondered why such major religions as Muslim and Hindu were not listed

5.   Response Analysis

5.1   Analysis of call outcomes

A total of 21,060 call attempts were made to the 5,637 numbers that were initiated. As can be seen in Table 3, the most frequent call outcome was no answer (33.8%), followed by answering machine (21.6%), appointment (11.6%) and engaged (11.1%).

Table 3 – All call attempts

Call attempt outcome	n	%
No answer	7,116	33.8%
Answering machine	4,550	21.6%
Appointment	2,437	11.6%
Engaged	2,335	11.1%
Household refusal	1,293	6.1%
Completed interviews	**1,200**	**5.7%**
Telstra message, number disconnected	478	2.3%
Not a residential number	459	2.2%
Fax/Modem	431	2.0%
Respondent refusal	205	<1.0%
Too old / frail / deaf / unable to do survey	177	<1.0%
Language difficulty (LOTE)	161	<1.0%
Named person not known (when called back to honour appointment)	103	<1.0%
Selected respondent away duration	74	<1.0%
Claims to have done survey	15	<1.0%
No one 18+ in the household	14	<1.0%
Other out of scope	3	<1.0%
Respondent requested we remove number from list	9	<1.0%
Total call attempts	**21,060**	**100.0%**
Average calls per interview	17.5	
Average calls per number initiated	3.7	

On average, an interview was achieved every 17.5 calls, and the average number of calls for each number initiated was 3.7.

Table 4 presents the final call result for all numbers initiated. As can be seen, of the 5,637 numbers to which calls were initiated, interviews were achieved with 1,200 households.

Table 4 – Result at last call attempt

Final outcome	n	%	
Total numbers initiated	5,637	100.0%	
Ineligible numbers			
Telstra message; number disconnected	307	5.4%	
Not a residential number	420	7.5%	
Fax/Modem	338	6.0%	
Subtotal ineligible numbers	**1,065**	**18.9%**	
No contact			
Engaged	132	2.3%	
Answering machine	372	6.6%	
No answer	599	10.6%	
Appointment (unresolved at end of fieldwork)	268	4.8%	
Subtotal no contact	**1,371**	**24.3%**	
Out of scope contacts			
Selected respondent away duration	63	1.1%	
No one 18+ in the household	14	0.2%	
Too old / frail / deaf / unable to do survey	171	3.0%	
Claims to have done survey	14	0.2%	
Language difficulty (LOTE)	161	2.8%	
Other out of scope	3	0.1%	
Subtotal out of scope contacts	**426**	**7.5%**	
In-scope contacts			
Completed interviews	**1,200**	**21.3%**	**43.2%**
Household refusal	1,293	22.9%	46.6%
Respondent refusal	205	4.5%	7.3%
Named person not known (when called back to honour appointment)	68	1.2%	2.4%
Respondent requested we remove number from list	9	0.2%	0.3%
Subtotal in-scope contacts	**2,776**	**49.2%**	**100.0%**

To determine the participation rate for ANU Poll, it is necessary to exclude those numbers initiated:

- That were not connected, or not residential numbers, and therefore unusable (18.9% of numbers initiated);

- Where there was no contact within the call cycle (24.3%); and

- That resulted in a contact confirming that the selected respondent was out of scope (7.5%).

The final overall participation rate, where this is defined as completed interviews as a proportion of sample members who could be contacted within the call cycle and were not identified as out of scope, was 43.2%[4].

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[4] The calculation was completed interviews (1200) divided by the sum of completed interviews, household refusals, respondent refusals, remove number from list, and terminated midway (2,776).

5.2 Overview of reason for refusal

Reason for refusal was collected wherever possible.

As can be seen at Table 5, the most commonly cited reason for refusal was lack of interest (not interested, 52.1%), followed by outright refusals (just hung up, 21.6%), and temporal refusals (too busy, 15.5%).

Table 5 – Review of reason for refusal

Reason	%
Base	*1,508*
Not Interested	52.1%
No comment / just hung up	21.6%
Too Busy	15.5%
All Other	6.5%
Never do surveys	2.3%
Silent Number	0.7%
Too personal/intrusive	0.7%
Not a residential number (business, etc)	0.5%
Language difficulty	0.1%
Total	100.0%

6.   Data Processing

6.1   Coding

Back coding and code frame extensions (A2a, A2b and Dem2) were conducted by SRC.

6.2   Output editing and data file preparation

Data were cleaned and checked by both the programmer and the project manager. A final SPSS data file was sent on 12 July 2010.

6.3   Weighting

Data were weighted back to the sample size of 1,200 and in accordance with the age (18 to 34, 35 to 54 and 55 years and over) by sex distribution within state / territory. The within state / territory capital city / rest of state split was controlled at the sample design stage. Data were weighted using the latest available Estimated Residential Population figures (June 2008). These adjust for census under-counting and people overseas at the time of the. The weighting matrices are provided at Appendix 3.

7. Issues for Future Studies

7.1 Survey design and methodology

The ANU Poll (Attitudes Towards Science) was well received by respondents, based on feedback from interviewers and the operations supervisor.

7.2 Questionnaire issues

Because questions are sourced from other surveys with an eye towards comparing outcomes, there is often little scope for change. Moreover, it is unlikely the same questions will be repeated in future surveys. Nevertheless, SRC makes the following recommendations regarding the questions contained in this ANU Poll:

- B1: replace "sports news" with "sports" to ease comprehension

- E2: clarify whether this question means 'of scientists who agree the earth has been warming…'. If not, then anyone who answers "a lot of disagreement" to E1 should automatically answer the same for E2.

- Dem7: suggest adding 'Non-denominational Christian' and perhaps 'Other (specify)'

Appendix 1 - Final Questionnaire

Questionnaire Structure

Modules

Screening and Introduction
A: Most Important Problems
B: Knowledge and Interest in Science
C: Science and Society
D: Science and Religion
E: Science and Policy
Demographics
Recruitment /Permission to re-contact

Call outcome codes (SMS screen)
1. Proceed with interview
2. No answer
3. Answering machine
4. Fax machine / modem
5. Engaged
6. Appointment
7. Stopped interview
8. LOTE – No follow up
9. Named person not known (only applies if calling back to keep an appointment and phone answerer denies knowledge of named person)
10. Telstra message / Disconnected
11. Not a residential number
12. Too old / deaf / disabled/health/family reasons
13. Claims to have done survey
14. Away for duration
15. Other out of scope (SUPRESS)
16. Terminated during screening / midway (HIDDEN CODE)

*INTRODUCTION

(*ALL)
Good afternoon/evening my name is (...). I'm calling on behalf of the Australian National University from the Social Research Centre. The university is doing a short survey of community attitudes. The results will be used to measure public opinion.

IF NECESSARY: It's mainly about peoples' attitudes towards science, though it also covers some other issues

S1   To help with this important study we'd like to arrange a short interview with the person aged 18 or over who is going to have the next birthday.

       May I speak to that person please?

       1. Selected respondent (GO TO S3)
       2. Change respondents (GO TO S2)
       3. Stop interview, make appointment (RECORD NAME AND GENDER AND ARRANGE CALL BACK)
       4. Household refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
       5. Queried about how telephone number was obtained (DISPLAY ATELQ)

6. Wants further information about survey (GO TO AINFO)
7. No one in household over 18 (GO TO TERMINATION SCRIPT)

*(SELECTED RESPONDENT)
S2   REINTRODUCE IF NECESSARY: Good afternoon/evening my name is (...). I'm calling on behalf of the Australian National University from the Social Research Centre. The university is doing a short survey of community attitudes. The results will be used to measure public opinion.

1. Continue

IF NECESSARY: It's mainly about peoples' attitudes towards science, though it also covers some other issues

*(SELECTED RESPONDENT)
S3   This survey is mainly about your opinions. There are no right or wrong answers. If I come to any question you prefer not to answer, just let me know and I'll skip over it. You can withdraw from the study at any point and the information collected will not be retained, or you may complete the rest of the interview at another time. All interviews are voluntary, and we will treat all information you give in strict confidence.

This interview should take around 12 minutes depending on your answers. I'll try and make it as quick as I can. Are you happy to continue?

1. Continue   (GO TO S4)
2. Stop interview, make appointment (RECORD NAME AND GENDER AND ARRANGE CALL BACK)
3. Respondent refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
4. Wants further information about survey (GO TO AINFO)
5. Queried about how telephone number was obtained (DISPLAY ATELQ)

TERMINATION SCRIPT:
T1   Thanks anyway, but for this survey we need to speak to people aged 18 or more. Thanks for being prepared to help.

*(QUERIED HOW TELEPHONE NUMBER WAS OBTAINED)
ATELQ Your telephone number has been chosen at random from all possible telephone numbers in Australia. We find that this is the best way to obtain a representative sample and to make sure we get opinions from a wide range of people.

    1.   Snap back to S1 / S3

*(WANTS ADDITIONAL INFORMATION)
AINFO Further information can also be found on our website www.srcentre.com.au or the ANU website at http://poll.anu.edu.au

I can also give you a telephone number so that you can talk with the researchers:

02 6125 2135

    1.   Snap back to S1 / S3

*(REFUSED)
RR1   OK, that's fine, no problem, but could you just tell me the main reason you do not want to participate, because that's important information for us?

1. No comment / just hung up
2. Too busy
3. Not interested
4. Too personal / intrusive
5. Don't like subject matter
6. Don't believe surveys are confidential / privacy concerns
7. Silent number
8. Don't trust surveys / government
9. Never do surveys
10. 12 minutes is too long
11. Get too many calls for surveys / telemarketing
12. Too old / frail / deaf / unable to do survey (CODE AS TOO OLD / FRAIL / DEAF)
13. Not a residential number (business, etc) (CODE AS NOT A RESIDENTIAL NUMBER)
14. Language difficulty (CODE AS LANGUAGE DIFFICULTY NO FOLLOW UP)
15. Going away / moving house (CODE AS AWAY DURATION)
16. Asked to be taken off list (add to do not call register)
17. Other (Specify)

*(REFUSED)
RR2   RECORD RE-CONTACT TYPE

1. Definitely don't call back
2. Possible conversion

*(ALL)
S4   This call may be monitored for training and quality purposes. Is that OK?

1. Monitor
2. Do not monitor

A: Most Important Problems

[A1 and A2a, b are trackers]

*(ALL)
A1   I'd like to start with a general question about your views on life in Australia. All things
        considered, are you satisfied or dissatisfied with the way the country is heading?
        (PROBE FOR VERY OR JUST)

        1. Very satisfied
        2. Satisfied
        3. Neither satisfied nor dissatisfied
        4. Dissatisfied
        5. Very dissatisfied
        6. (Don't know / Not sure)
        7. (Refused)

*(ALL)
A2a   What do you think is the most important problem facing Australia today?
        (SINGLE RESPONSE)

        1. Economy/jobs
        2. Industrial relations
        3. Interest rates
        4. Housing affordability
        5. Health care
        6. Education
        7. Defence/national security
        8. Terrorism
        9. Iraq war
        10. Afghan war
        11. Environment/global warming
        12. Water management
        13. Immigration
        14. Indigenous affairs
        15. Taxation
        16. Other (Specify _____)
        17. (Don't Know / Can't Say)
        18. (None/ no other)
        19. (Refused)

[PROGRAMMER NOTE: IF A2a = 17, 18 OR 19, SKIP TO B1]

*(ALL)
A2b   And what do you think is the second most important problem facing Australia today?
        (SINGLE RESPONSE) [PROGRAMMER NOTE: DO NOT DISPLAY RESPONSE
        GIVEN IN A2a]

        1. Economy/jobs
        2. Industrial relations
        3. Interest rates
        4. Housing affordability
        5. Health care
        6. Education
        7. Defence/national security
        8. Terrorism
        9. Iraq war
        10. Afghan war
        11. Environment/global warming

12. Water management
13. Immigration
14. Indigenous affairs
15. Taxation
16. Other (Specify _____)
17. (Don't Know / Can't Say)
18. (None/ no other)
19. (Refused)

B: KNOWLEDGE AND INTEREST IN SCIENCE

[Eurobarometer 2005 (People, Science and Policy UK]

*(ALL)
B1   I'm going to read out a list of issues. For each issue, please tell me if you are very interested, moderately interested, or not at all interested in it. (READ OUT)

PROGRAMMER NOTE: ROTATE STATEMENTS

STATEMENTS
a) Sports news
b) Politics
c) New medical discoveries
d) Environmental issues
e) New inventions and technologies
f) New scientific discoveries
g) Health issues
h) Crime or anti-social behaviour
i) Music
j) Films

RESPONSE FRAME
1. Very interested
2. Moderately interested
3. Not at all interested
4. (Don't know)
5. (Refused)

 [**People Science and Policy UK 2008]**

*(ALL)
B4   How well informed do you feel about science? Would you say.. (READ OUT)
(PROBE TO CODEFRAME)

1.   Very well informed
2.   Fairly well informed
3.   Not very well informed, or
4.   Not at all informed
5.   (Don't know)
6.   (Refused)

C: SCIENCE AND SOCIETY

[Pew 2009, People, Science and Policy 2008]

*(ALL)

C3   I'm going to read out a list of professions. Please tell me how much you think each contributes to the well being of our society. Would you say <INSERT PROFESSION> contribute a lot, some, not very much or nothing at all to the well being of our society?

How about [INSERT NEXT RPOFESSION]?

[IF NECESSARY: Do [PROFESSION] contribute a lot, some, not very much, or nothing at all to the well being of our society?

PROGRAMMER NOTE: ROTATE STATEMENTS

STATEMENTS
a.   Scientists
b.   Doctors
c.   Engineers
d.   Teachers
e.   Priests or ministers of religion
f.   Police
g.   Politicians
h.   Journalists
i.   Artists
j.   Lawyers
k.   Entertainers
l.   Members of the military

CODEFRAME
1.   Contribute a lot
2.   Some
3.   Not very much
4.   Nothing at all
5.   (Don't know)
6.   (Refused)

[Pew 2009]
*(ALL)
C1   Overall, would you say science has made life easier or more difficult for most people?

1.   Easier
2.   More difficult
3.   (Not had much of an effect)
4.   (Don't know)
5.   (Refused)

[Eurobarometer 2005]

*(ALL)
C2   Please tell me if you agree or disagree with each of the following statements.
(PROBE TO CODEFRAME)

PROGRAMMER NOTE: ROTATE STATEMENTS

STATEMENTS
a.   Scientific and technological progress will help to cure illnesses such as AIDS, cancer, etc.
b.   Science and technology make our lives healthier, easier and more comfortable.
c.   Thanks to science and technology, there will be more opportunities for future generations.

   d.   The benefits of science are greater than any harmful effects it may have.

   e.   Science and technology will help eliminate poverty and hunger around the world.

   f.   Science and technology can sort out any problem.

   g.   Science and technology make our way of life change too fast.

   h.   We depend too much on science and not enough on faith.

CODEFRAME
1   Strongly agree
2   Agree
3   Neither agree nor disagree
4   Disagree
5   Strongly disagree
6   (Don't know / Not sure)
7   (Refused)

D: SCIENCE AND RELIGION

[Pew 2009]
*(ALL)
D1   Which of the following statements do you MOST agree with… (READ OUT)

   1.   Science and religion are often in conflict, or
   2.   Science and religion are mostly compatible
   3.   (Don't know)
   4.   (Refused)

[Pew 2009]
*(ALL)
D2   Now thinking about your OWN religious beliefs, does science sometimes conflict with your religious beliefs?

   1.   Yes, science conflicts with own beliefs
   2.   No, science does not conflict with own beliefs
   3.   (Not religious)
   4.   (Don't know)
   5.   (Refused)

E: SCIENCE AND GLOBAL WARMING

[Newsweek Poll conducted by Princeton Survey Research Associates International.
Aug. 1-2, 2007.]
*(ALL)
E1   Thinking specifically about the issue of global warming… Do you think most climate scientists AGREE that the earth has been warming in recent years, or do you think there is a lot of DISAGREEMENT among climate scientists about whether the earth has been warming?

   1.   Most Agree
   2.   A Lot of Disagreement
   3.   (Unsure/ Don't know)
   4.   (Refused)

*(ALL)
E2   Do you think most climate scientists AGREE that human activities, such as burning coal and oil, are a major cause of global warming, or do you think there is a lot of DISAGREEMENT among climate scientists about whether human activities are a major cause?

1. Most Agree
2. A Lot of Disagreement
3. (Unsure/ Don't know)
4. (Refused)

F: SCIENCE AND POLICY

[Eurobarometer 2005, People, Science and Policy 2008]

*(ALL)
F1   Please tell me if you tend to agree or disagree with each of the following statements.
(PROBE TO CODEFRAME)

ROTATE STATEMENTS

STATEMENTS
a.   Politicians should rely more on the advice of expert scientists.
b.   Politicians are too easily swayed by the media's reaction to scientific issues.
c.   Scientists employed by the government should not comment on government policies.
d.   Research conducted by industry is well controlled and regulated.
e.   There should be no limit to what science is allowed to investigate.

CODEFRAME
1   Strongly agree
2   Agree
3   Neither agree nor disagree
4   Disagree
5   Strongly disagree
6   (Don't know / Not sure)
7   (Refused)

[Pew 2009]

*(ALL)
F2   Which of the following statements comes closer to your view? (READ OUT)

1   Government investment in research is ESSENTIAL for scientific progress, or
2   Private investment will ensure that enough scientific progress is made even without government investment
3   (Don't know)
4   (Refused)

[Pew 2009]

*(ALL)
F3   Comparing Australia to other industrialized countries in terms of its scientific achievements, do you think that Australia is… (READ OUT)

1. The best in the world
2. Above average
3. Average, or
4. Below average
5. (Don't know)
6. (Refused)

[Newspoll]

*(ALL)
F4   If a federal election for the House of Representatives was held today, which one of
        the following parties would you vote for? [READ OUT]

        INTERVIEWER NOTE: IF 'UNCOMMITTED', SAY: 'TO WHICH ONE OF THESE DO
        YOU HAVE A LEANING?'

        1. Liberal
        2. Nationals
        3. Labour
        4. Greens, or
        5. Some other party
        6. (Don't know / Not sure)
        7. (Refused)

G: ADDED HEALTH QUESTIONS

*(ALL)
PREG1 Next I'd like to ask you just a few questions on a different topic (PAUSE) these are
        about your general health.
        1. Continue

*(ALL)
G1   Overall, how would you rate your health during the last 4 weeks? Would you say it
        is…
        (READ OUT)

        1   Excellent
        2   Very good
        3   Good
        4   Fair
        5   Poor, or
        6   Very poor
        7   (Don't know)
        8   (Refused)

PROGRAMMER NOTE: FOR NEXT QUESTION, RANDOMLY ASSIGN RESPONDENT TO
EITHER G2i, G2ii, or G2iii

G2i   How tall are you without shoes?
G2ii   I'm now going to ask you your height and weight. It's very important that we get as
        accurate data on these questions as possible. Can you tell me, how tall are you
        without shoes?
G2iii   I'm now going to ask you your height and weight. Research shows that people tend
        to overestimate their height and underestimate their weight. It's very important that
        we get as accurate data on these questions as possible. Can you tell me, how tall
        are you without shoes?

        EXPLAIN IF NECESSARY: We ask height and weight information to enable
        researchers to calculate Body Mass Index

        1. Response given in centimetres (SPECIFY) (RANGE 90 TO 300) *(DISPLAY
            "UNLIKELY RESPONSE" IF <120 or >200) (ALLOW DECIMALS)
        2. Response given in feet and inches

        Feet (SPECIFY) (RANGE 3 TO 8) *(DISPLAY "UNLIKELY
        RESPONSE" IF feet <4 or >7)
        Inches (SPECFIY) (RANGE 0 TO 12) (ALLOW DECIMALS)

3. (Don't know) (AVOID)
4. (Refused)

PROGRAMMER NOTE: FOR THE NEXT QUESTION, RANDOMLY ASSIGN RESPONDENT
TO EITHER G3i OR G3ii

G3i   How much do you weigh? (ONLY IF QUERIED: 'Without clothes or shoes')
G3ii   How much do you weigh without clothes or shoes?

      EXPLAIN IF NECESSARY: We ask height and weight information to enable
      researchers to calculate Body Mass Index

1. Response given in kilograms (SPECIFY) (RANGE 20 TO 300) *(DISPLAY
   "UNLIKELY RESPONSE" IF<40 or >200) (ALLOW DECIMALS)
2. Response given in stones and pounds
       *(PROGRAMMER NOTE: SPECIFY STONES FIRST THEN POUND ON
       SEPARATE SCREEN)
       Stone (SPECIFY) (RANGE 3 TO 40) *(DISPLAY "UNLIKELY RESPONSE"
       IF stones <6 or >30)
       Pounds (SPECIFY) (RANGE 0 TO 14) (ALLOW DECIMALS)
3. Response given in pounds only (SPECIFY) (RANGE 40 TO 560 POUNDS)
   *(DISPLAY "UNLIKELY RESPONSE" IF<88 or >420) (ALLOW DECIMALS)
4. (Don't know) (AVOID)
5. (Refused)

G4   Do you have a scale in your house?
    1.   Yes
    2.   No
    3.   (Don't know)
    4.   (Refused)

INTERVIEWER NOTE: COUNT ONLY IF SCALE WORKS

Demographics

*(ALL)
DEM1 Record Gender

    1. Male
    2. Female

*(ALL)
DEM2 And finally just a few questions to make sure we've spoken to a good range of
       people.

       How would you describe this household? For example, a couple, a couple with
       children, a single person household or something else? (PROBE TO CLARIFY)

    1. Couple without children
    2. Couple with children (INCLUDES CHILDREN AGED 18 YEARS AND
       OLDER)
    3. One parent family (INCLUDES CHILDREN AGED 18 YEARS AND OLDER)
    4. Group household (all people in household are non-related)
    5. One person household, or

6. Something else (specify) (e.g. siblings living together and multigenerational families)
7. (Don't know)
8. (Refused)

PREDEM2A   IF DEM2 IS 2 OR 3 CONTINUE OTHERWISE GO TO DEM3

*(CHILDREN IN HOUSEHOLD (DEM2=2 OR 3))
DEM2a What are the ages of the children in this household? (ACCEPT MULTIPLES)

1. 0-5 years
2. 6-12 years
3. 13 - 17 years
4. 18 years and over
5. (Don't know)
6. (Refused)

PREDEM2B   IF DEM2a=1, 2 OR 3 (ANY CHILD UNDER 18 IN HOUSEHOLD) CONTINUE OTHERWISE GO TO DEM3

*(CHILDREN UNDER 18 IN HOUSEHOLD (DEM2A=1, 2 OR 3))
DEM2b Are you a parent of any of the children under the age of 18 in this household?

1. Yes
2. No
3. (Don't Know)
4. (Refused)

DEM3 Were both of your parents born in Australia? (PROBE TO CODEFRAME)
1. Both parents born in Australia
2. One parent born in Australia
3. Neither parent born in Australia
4. (Don't know)
5. (Refused)

DEM4 In which country were you born?
1   Australia
2   Canada
3   China (excluding Taiwan)
4   Croatia
5   Egypt
6   Fiji
7   Germany
8   Greece
9   Hong Kong
10 Hungary
11 India
12 Indonesia
13 Ireland
14 Italy
15 Lebanon
16 Macedonia
17 Malaysia
18 Malta
19 Netherlands (Holland)
20 New Zealand
21 Philippines
22 Poland

23 Serbia / Montenegro
24 Singapore
25 South Africa
26 Sri Lanka
27 Sudan
28 United Kingdom (England, Scotland, Wales, Nth Ireland)
29 USA
30 Vietnam
31 Other (please specify)
32 Don't know
33 (Refused)

*(ALL)
Dem5   Would you mind telling me how old you are?

1. Age given (RECORD AGE IN YEARS (RANGE 18 TO 99) (GO TO DEM7)
2. (Refused)

*(REFUSED AGE)
Dem6   Would you mind telling me which of the following age groups are you in? READ OUT

1. 18 - 24 years
2. 25 - 34 years
3. 35 - 44 years
4. 45 – 54 years
5. 55 – 64 years
6. 65 – 74 years, or
7. 75 + years
8. (Refused)

Dem7   What is your religion or faith? (DO NOT READ OUT)

1. Roman Catholic
2. Anglican/Church of England
3. Uniting Church/Methodist
4. Orthodox Church
5. Presbyterian
6. Other
7. No Religion (includes Atheist and Agnostic)
8. (Don't know)
9. (Refused)

Dem8   Apart from weddings, funerals and baptisms, about how often do you attend religious services? (PROBE TO CODEFRAME)

1. At least once a week
2. At least once a month
3. Several times a year
4. At least once a year
5. Less than once a year
6. Never
7. (Don't know)
8. (Refused)

*(ALL)
Dem9   What is the highest level of education you have completed?

1   Never attended school
2   Primary school
3   Year 7 to Year 9

     4   Year 10
     5   Year 11
     6   Year 12
     7   Trade/apprenticeship
     8   Other TAFE/Technical Certificate
     9   Diploma
     10   Bachelor Degree
     11   Post-Graduate Degree
     12   Other (please specify)
     13   (Refused)

*(ALL)

Dem10 Which of these best describes your current employment situation? Are you… (READ OUT)

1.   Working full-time for pay
2.   Working part-time for pay
3.   Unemployed and looking for work
4.   Retired on pension
5.   Self funded retiree
6.   Combination of pension and self funded
7.   A full-time school or university student
8.   Keeping house, or
9.   Something else (Specify)
10.   (Don't know)
11.   (Refused)

IF Dem10=CODES 1 OR 2 CONTINUE OTHERWISE GO TO Dem11a

*(WORKING)

Dem11 What's your (main) occupation?   (PROBE IF REQUIRED; JOB TITLE AND MAIN DUTIES)

1.   Managers (Chief Executives, General Managers, Specialist Managers, Farmers and Farm Managers and Hospitality, Retail and Service Managers)
2.   Professionals (Arts and Media professionals, Business, HR and marketing professionals, Design, education, ICT, legal, social and welfare professionals)
3.   Technicians and trade workers (Engineers, ICT and science technicians, automotive, engineering and construction trade workers, electro-technology and telecommunications trades workers, food trades, skilled animal and horticultural workers and other trade and technical workers)
4.   Community and personal service workers (Health and welfare support workers, carers and aides, hospitality workers, protective service workers and sports and service workers)
5.   Clerical and administrative workers (Office managers and program administrators, personal assistants and secretaries, general clerical workers, Inquiry clerks and receptionists, numerical clerks, clerical office and support workers and other clerical and administrative workers)
6.   Sales workers (sales reps and agents, sales assistants and sales persons and sales support persons)
7.   Machine operators and drivers (machine and plant operators, road and rail drivers and store persons)
8.   Labourers (Cleaners and laundry workers, construction and mining labourers, factory process workers, factory, forestry and garden workers, food preparation assistants and other labourers
9.   Other(Specify)
10.   (Don't know/ not sure)
11.   (Refused)

*(ALL)
Dem11a.   What is your total annual household income before tax or anything else is taken
          out? Would it be… (READ OUT)

          1. Less than $20,000
          2. $20,000 to less than $40,000
          3. $40,000 to less than $60,000
          4. $60,000 to less than $80,000
          5. $80,000 to less than $100,000
          6. $100, 000 to less than $150,000, or
          7. $150,000 or more
          8. (Don't know / can't say)
          9. (Refused)

*(ALL)
Dem12 Can the internet be accessed at this dwelling?

          1. No internet connection
          2. Yes broadband (incl. ADSL, Cable, Wireless and Satellite connections)
          3. Yes, dial up (incl. analogue modem and ISDN connections)
          4. Yes, but not sure how connected
          5. Other (internet access through mobile phones, etc)
          6. (Don't know/ not sure)
          7. (Refused)

(Above response frame from March poll)

*(ALL)
Dem13 And finally, can I please have your postcode?
          (EXPLAIN IF NECESSARY: It is important that we collect this information so we can
          analyse the results at a local level)
          1. Record postcode
          2. (REFUSED)

Recruitment Questions

Rec1   The ANU may be undertaking further surveys of this nature in the future. If so would
       you be prepared to provide your first name and telephone number so that we could
       re-contact you in the future?

          1. Yes (SAY: We will keep your first name and telephone number only for the
              purpose of recontacting you)
          2. No   GO TO END1

*(AGREED TO BE RECONTACTED)
Rec2   RECORD FIRST NAME _____

*(AGREED TO BE RECONTACTED)
Rec3   RECORD TELEPHONE NUMBER (NOTE: DISPLAY PHONE NUMBER FROM
SAMPLE AND EDIT AS REQUIRED – INCLUDE AREA CODE)

*(AGREED TO BE RECONTACTED)
Rec4   And finally do you have an email address? (INTERVIEWER NOTE: IF
RESPONDENT ASKS WHY WE NEED THIS, SAY: WE MAY EMAIL YOU IF WE HAVE
TROUBLE REACHING YOU BY PHONE)

          1. Yes – ENTER EMAIL ADDRESS
          2. No

*End of Survey, Ethics and Thank you

END1   And that's the end of our questions. Thank you for taking the time to complete this interview. Just in case you missed it, my name is (…) and this survey was conducted on behalf of the Australian National University. If you have any queries or concerns about the survey I can give you the contact details for the ANU Human Research Ethics Committee.

Human Ethics Officer, Research Office, The Australian National University, Canberra ACT 0200, human.ethics.officer@anu.edu.au, 02 6125 3427

If you would like to talk to a researcher, the number is 02 6125 2135.

1. Yes – GIVE DETAILS AND CONTINUE
2. No - CONTINUE

CLOSE SUITABLY

Appendix 2 - Interviewer Briefing Notes

Australian National University (ANU) Poll
(June, 2010 – Attitudes Towards Science)

A Research Project for:

Dept of Political Science, ANU

THE SOCIAL
RESEARCH CENTRE

ANU Poll: Background

- Focus on topical issues for Australians

- Polls conducted about 3 times a year

- Some questions from international studies to enable comparisons

- **This poll**: focus on attitudes towards science

- **Main aim:** gauge to what extent people are interested in science and think it can solve problems

- Many of these ANU polls attract widespread media attention

THE SOCIAL
RESEARCH CENTRE

ANU Poll : Study overview

- 1200 respondents
- 18+ yrs
- Across Australia
- Quotas by region: capital city / rest of state
- Method of selection: next birthday

THE SOCIAL
RESEARCH CENTRE

ANU Poll : Study overview

- Standard evening & weekend calling hours
- Make appointments for any day / time
- No LOTES, answering machine messages, refusal conversions, advance letters
- Interview length = 14 min; aiming to bring that down a bit
- In field (main study) 15 Jun – 2 July (17 days)

THE SOCIAL
RESEARCH CENTRE

ANU Poll : Survey Modules

- Screening and introduction
- A: Most important problems
- B: Knowledge and Interest in Science
- C: Science and Society
- D: Science and Religion
- E: Science and Global Warming
- F: Science and Policy
- G: Health
- Demographics
- Recruitment /Participation to re-contact

ANU Poll : General interviewing issues

- Keep it neutral; no opinions or editorialising
- Let respondent answer
- Always probe to the scale (do not go outside)
- Read questions as given, unless clarification necessary

ANU Poll : Issues with specific questions

- **A2a & b - Lists of problems facing Australia today**:
  - Be sure you understand them – pre-coded from March 2008 and used ever since
  - however, code any you're unsure of as 'other' and check with supervisor immediately
- **E1 and E2 (scientists agree/disagree with each other)**:
  - Quite wordy; read a bit more slowly
  - 'agree' / 'disagree' in caps for emphasis
- **Additional health questions (gen health; height; weight; have scale)**:
  - Rs randomly assigned to different wordings of height & weight questions (height: 3; weight: 2)
  - Practice entering height & weight
  - Decimals allowed
  - Encourage a best guess
  - Avoid DK/Ref

ANU Poll : Issues with specific questions

- **Dem2**: note that "children" INCLUDES children 18+
- **Postcode:** important that we get this; it's at the end
- **Email address:** enter first part, then separately, second part
- **If unsure how to code something, ASK SUPERVISOR immediately**

4

ANU Poll: Questions?

5

Appendix 3 - Weighting Matrix

ACT

Age	Males	Females	Total	
18-34	4	3	7	
35-54	4	4	7	
55+	2	3	5	19

SA

Age	Males	Females	Total	
18-34	13	13	26	
35-54	16	16	32	
55+	15	17	32	91

NSW

Age	Males	Females	Total	
18-34	61	60	122	
35-54	70	71	141	
55+	60	68	128	391

Tas

Age	Males	Females	Total	
18-34	4	4	7	
35-54	5	5	10	
55+	5	5	10	27

NT

Age	Males	Females	Total	
18-34	2	2	5	
35-54	2	2	5	
55+	1	1	2	12

Vic

Age	Males	Females	Total	
18-34	48	47	96	
35-54	54	55	109	
55+	45	51	96	300

QLD

Age	Males	Females	Total	
18-34	38	37	75	
35-54	44	44	88	
55+	36	38	75	238

WA

Age	Males	Females	Total	
18-34	20	19	39	
35-54	23	23	46	
55+	18	19	37	122