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Public User Survey – Summer 2009
A Report of Research Findings

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prepared for
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1.0 EXECUTIVE SUMMARY

This report presents results from the summer 2009 Public User Survey and provides comparisons with results from previous surveys.

A total of 1761 members of the Australian public were interviewed in summer 2009 to assess their weather information requirements, usage, understanding and perceptions as well as their overall satisfaction with the weather services provided by the Bureau of Meteorology through various sources.

The Australian public continues to be highly satisfied with the overall weather information received. Overall, a total of 93% of respondents reported satisfaction, a stable result over the last six months. This level of satisfaction exceeded the Bureau's target of 90% even when the margin of error is considered (± 1% CI @ 95% CL).

Base: All respondents	Location			Total
	Metro	Regional	Rural	
KEY PERFORMANCE INDICATORS				
Overall Satisfaction - % satisfied (Q19)	94	92	**83**	93
Overall Satisfaction - Index (Q19)	*84.0*	*80.6*	***74.8***	*82.7*
Accuracy of information - % accurate (Q16)	82	79	**66**	81
Information meets requirements - % regularly (Q11)	69	**59** ⇩	**54**	65
Timeliness of information - % on time (Q15)	96 ⇧	92	**80**	94

**Arrows denote statistically significant changes since winter 2009*

Metropolitan residents were the most satisfied with weather information followed by regional and then rural respondents, though all respondent groups reported high to very high levels of satisfaction. Satisfaction among metropolitan respondents has remained unchanged (94%) unlike satisfaction among regional respondents which has slightly improved and rural respondents which has slightly decreased in satisfaction. This may be an indication of maintained improvements to metropolitan forecasts or simply an indication that these respondent groups perceived improvements that were not evident to regional or rural respondents.

Going forward, the real challenge for the Bureau lies in responding to rural Australians, who continue to display lower levels of satisfaction and less positive perceptions. Their complex needs means that they are more likely to access in depth weather forecast information, particularly from the Bureau's website. This information may not be understood or interpreted correctly resulting in perceived inaccuracies. It would therefore be worthwhile for the Bureau to consider seeking additional feedback from rural Australians in the form of qualitative research. In this setting, the Bureau could further explore the types of information they are accessing on the website as well as their perceptions and comprehension of this information. This will assist in identifying any gaps in information provision and raise any potential issues relating to the presentation and interpretation of information.

Overall however, it is clear that improvements implemented by the Bureau over the last twelve months have not gone unnoticed by the Australian public. This is evident across results recorded for other key performance indicators (KPIs), with high proportions of respondents indicating that the weather information they receive is accurate (81%), timely (94%) and regularly meets their needs (65%). Greater accuracy was most likely to have been perceived in the temperature and rain forecasts.

The Australian public typically checks weather information to make decisions regarding personal and leisure activities and does so on a frequent basis, highlighting the importance of weather information with rain, storm, and temperature forecasts the most common information accessed. This information is typically accessed via free to air television and the Bureau's website which were also the most valued sources of information, with the Bureau's website more likely to be valued among rural respondents.

Overall usage of the Bureau's website has slightly decreased (down from 51% to 49%), although awareness of the website has remained relatively stable. Around 1 in 4 accessed other websites to obtain their weather information, while a segment of the population is still unaware of the existence of the Bureau's website.

The Australian public who access weather information to make decisions about sun protection were more likely to use the maximum temperature and cloud or sunshine forecasts. Furthermore, around 1 in 3 respondents used the maximum UV Index indicating that more work is required by the UV Alert working group, of which the Bureau is a member, to increase awareness of UV forecasts and improve educational initiatives.

97% of respondents indicated that replacing the term "fine" with words to describe conditions such as "sunny", "cloudy" or "partly cloudy" would be for the better or make no difference in helping to understand the weather forecast. This result suggests that the introduction of this new terminology could potentially increase satisfaction levels with the Bureau's service.

Once again, rain forecasts were highly used, with 90% of respondents using rain forecasts to make decisions regarding their day to day activities. Also, respondents were asked if they would utilise more rainfall information if provided. 86% indicated they would use either the chance of rainfall in percentage terms or daily rainfall totals if it was provided. This result suggests that the provision of supplementary forecast rainfall information would help meet user requirements particularly in the regional and rural sectors.

Overall, the summer 2009 Public User Survey continues to demonstrate the Bureau's success in maintaining and improving high levels of satisfaction with weather information services which is tied in with wider perceptions of accuracy. Due to these high levels further improvements may be incremental particularly among rural Australians given their complex needs. Therefore the ongoing challenge is to cement positive perceptions, maintain the current levels of satisfaction and seek ways to improve information flow to the Australian public.

2.0 INTRODUCTION

2.1 Background

Since 1997, the Bureau has conducted regular telephone surveys of the Australian public to assess their weather information requirements, including which weather elements they refer to (e.g. temperature, rain, wind), which products they use (e.g. forecasts, weather charts, satellite images), their understanding and perceived usefulness of weather information, access means through various media, perception of accuracy, and overall satisfaction of weather services.

Public User research is conducted on a half-yearly basis to measure seasonal variation and potentially identify longer term trends. Questionnaires comprise a standard core component, such as performance measures, and a variable component depending on weather service requirements.

In winter 2009, the Public User research placed a greater emphasis on how decisions (e.g. what to wear, ability to work, and planning activities) are based on or influenced by the weather. The Bureau was interested to know which types of weather information people use to make their decisions, how often and which method of access they use, and the extent to which weather information meets their needs. The research also encompassed perceptions of accuracy for the Bureau's forecast and warning services.

Results from the Public User research are used as performance measures for inclusion in the Bureau's annual report.

This report details findings from the summer 2009 survey and where possible compares results from previous surveys to identify changes and trends over time.

2.2 Research Objectives

The overall objective of the research was to understand community needs, identify any gaps and trends in service, and provide information to assist in strategic planning of future weather services.

Specific objectives related to measuring the following regarding weather information provided by the Bureau:

- Overall satisfaction
- Perceived accuracy (including accuracy over time)
- Perceived usefulness in terms of meeting requirements
- Perceived timeliness of information delivery

2.3 Methodology

A previously developed questionnaire was provided by the Bureau of Meteorology and was reviewed with functionality and currency in mind as well as the comparability of results. As a consequence, some changes were made to the questionnaire but few affected the comparability of results over time. Market Solutions worked closely with the Bureau of Meteorology to ensure the questionnaire would yield results of the greatest relevance and interest to the Bureau.

Questionnaire changes to be noted in summer 2009 comprise additional questions aimed at gauging the use of weather information for sun protection purposes, reactions to recent or proposed changes in weather terminology and use of rainfall information. The questionnaire is attached as Appendix 1.

2.3.1 Sampling and Data Collection

The sample utilised a number of methods to draw respondents from metropolitan, regional and rural Australia. More specifically:

- The sample for the **Metropolitan survey** was drawn at random from an up to date electronic phone database. To randomise within the household, the interviewer asked to speak with the person in the household over 16 years of age who had the last birthday. The sample was therefore approximately representative of the demographics of the wider community in terms of age profile and male/female ratio.

- In the case of the **Regional survey**, a number of rural/regional towns were nominated (in discussion with the Bureau) and a representative sample was drawn from each. Postcodes for these towns were identified and survey respondents were randomly generated from listings with the nominated postcodes, using the electronic phone directory. There were no age or sex quotas.

- In the **Rural survey**, a number of rural/regional towns were nominated where a representative sample, comprising a cross-section of farming industries, could be drawn. Postcodes for these towns were identified and survey respondents were randomly generated from listings with the nominated postcodes, using the electronic phone directory. Respondents were screened to ensure that the respondent used weather information primarily for farming or primary production decisions. There were no age or sex quotas.

To correct any biases in the sample, the data has been weighted by postcode to reflect the general population of the areas on important characteristics and hence the results can be generalised as representing all Australian citizens.

2.3.2 Fieldwork

Interviewing was conducted by telephone between 30th November and 14th December 2009. A total of 1761 citizens residing within metropolitan, regional and rural Australia were interviewed.

Quotas were imposed by geographical location (metropolitan, regional and rural) and respondents needed to be at least 16 years old to participate.

SUMMER 2009	Metro	Regional	Rural	Total
NSW	80	66	153	299
VIC	80	69	122	271
QLD	85	65	121	271
SA	85	65	84	234
WA	85	64	82	231
TAS	85	63	63	211
NT	84	57	20	161
ACT	83	0	0	83
Total	**667**	**449**	**645**	**1761**

Pilot testing was conducted prior to the commencement of fieldwork. Following pilot testing, minor changes were made to the program. The pilot testing stage was also used to estimate the average interview length. The final average interview length was 13 minutes.

Figure 1 provides a summary of call result codes. It shows that 32% of in scope contacts resulted in a completed interview. A total of 47% of in scope contacts resulted in a refusal.

A total of 31% of not in scope contacts were non qualifying respondents. These were individuals who were not farmers (in the case of rural contacts) or reported that they do not check the weather (at Q.4) or have not accessed weather information over the past 6 months (at Q.8).

Attempts resulting in no contact (no answer, answering machine and engaged) were tried a minimum of three times to minimise sample loss and possible sample bias.

Figure 1: Final Call Result Codes (After All Attempts)

Final Call Result	Count of numbers dialled	% of numbers dialled	% of contacts
IN SCOPE CONTACTS			
Completed Interviews	1837	14%	32%
Outstanding Appointments	752	6%	13%
Declined to Participate	2668	21%	47%
Communication difficulty	353	3%	6%
Terminated Early	61	0%	1%
Total in scope contacts	**5671**	**44%**	**100%**
NOT IN SCOPE CONTACTS			
Non Qualifying Respondents	2260	18%	31%
Government/ Business Number	80	1%	1%
Over Quota	4892	38%	68%
Total not in scope contacts	**7232**	**56%**	**100%**
Total Contacts	**12903**	**47%**	**100%**
NON CONTACTS			
Not Available for Duration of Study	251	1%	
No Answer on final attempt	5584	20%	
Answering Machine on final attempt	4256	16%	
Engaged on final attempt	355	1%	
Non Working Numbers	4104	15%	
Total Non Contacts	**14550**	**53%**	
TOTAL	**27453**	**100%**	

2.4 Respondent Profile

Figure 2 presents the weighted demographic profile of the responding sample obtained in summer 2009. It should be noted that the rural sample was weighted by farming activity and not age and gender as in the case of the metropolitan and regional samples.

Figure 2: Weighted Respondent Profile by Region – Summer 2009

Base: All respondents	Metro (n=667)	Regional (n=449)	Rural (n=645)	Total (n=1761)
	%	%	%	%
GENDER				
Male	49	50	60	49
Female	51	50	40	51
AGE				
16 to 24 years	20	16	3	17
25 to 34 years	19	15	6	17
35 to 44 years	16	18	19	18
45 to 54 years	17	18	28	17
55 to 64 years	13	15	21	14
65 to 74 years	8	10	14	9
75 years or older	7	9	7	8
Refused	0	0	2	0
MAIN FARMING ACTIVITY				
Cattle/ beef			28	
Grain or cropping			24	
Sheep			12	
Fruit growing			6	
Viticulture (grapes)			4	
Forestry/ wood lots			4	
Dairy			3	
Vegetable growing			3	
Broadacre			3	
Sugar			2	
Wool			2	
Cotton			1	
Pigs			1	
Chickens			0	
Other			10	

2.5 Data Analysis

2.5.1 Data Weighting

In any sample survey sampling biases can occur. When conducting telephone surveys, there are generally a higher proportion of females and older people who respond. To adjust for this sampling bias, a procedure known as weighting has been applied to the data using a matrix of age and gender by postcode for the metropolitan and regional samples. This procedure applies more weight to the population segments under represented in the sample (e.g. males, younger people) and less weight to the segments over represented. In the case of the rural sample, weighting using a matrix of industry type by state was applied to the data.

2.5.2 Significance Tests

A significance test shows how likely it is that any difference observed between two means or proportions reflects a real difference in the population and not just a chance difference in the sample.

Throughout this report, when it is stated that a proportion is statistically significantly different at the .05 level of significance, it means there is only a 5% chance that the observed discrepancy is a spurious occurrence rather than a genuine difference. In other words, this means that the observed result cannot reasonably be attributed to random variation alone.

Significant differences are highlighted throughout the report by the depiction of arrows on charts, with the direction of the arrow signifying whether the change represents an increase or decrease.

2.5.3 Interpretation of Time Series Changes

Throughout this survey, a trend has been defined as a consecutive increase or decrease for an aspect over three or more measures. Therefore three or more consecutive increases for an aspect have been noted as an 'upward trend' and three or more consecutive decreases for an aspect have been noted as a 'downward trend'.

A result has been defined as 'stable' if it does not differ more than one point from the result last measured.

2.5.4 Interpretation of Index Scores

In this survey, respondents were asked to rate their satisfaction with the information they receive from the Bureau. To gain insight into satisfaction levels, an index was calculated.

Very satisfied	=	*100*
Fairly satisfied	=	*75*
Neither	=	*50*
Fairly dissatisfied	=	*25*
Very dissatisfied	=	*0*

Every response to this question received a score as shown above. So, if a person provided a rating of "very satisfied" their response received the highest score of 100, and if a person provided a rating of "very dissatisfied" their response received a score of 0.

The index represents an average of these scores. The index takes into account all responses to the question (i.e. all levels of satisfaction and dissatisfaction) excluding those who responded "don't know".

3.0 NATIONAL RESULTS

3.1 Overall Satisfaction - % Very/Fairly Satisfied (Q.20 & Q.21)

Figure 3 presents combined results for the top two levels of overall satisfaction. Of those able to answer (did not respond with "don't know"), 93% were either very or fairly satisfied with the information they receive from the Bureau through various sources. This high level of satisfaction was similar to the result obtained in the previous survey, revealing the significant increase recorded in winter 2009 has been maintained over the past 6 months.

Figure 3: Overall Satisfaction with BoM Information - % Very/Fairly Satisfied

Q.19 Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied?

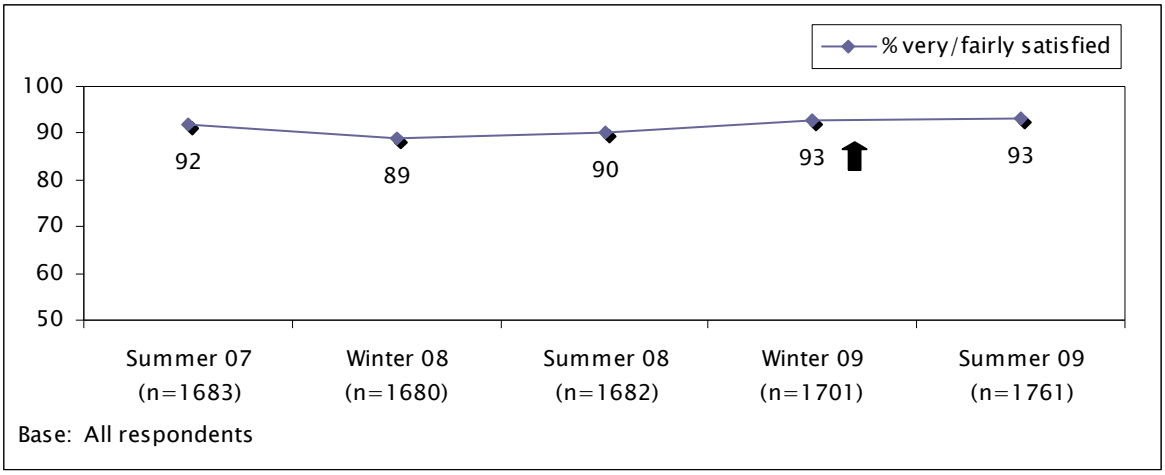
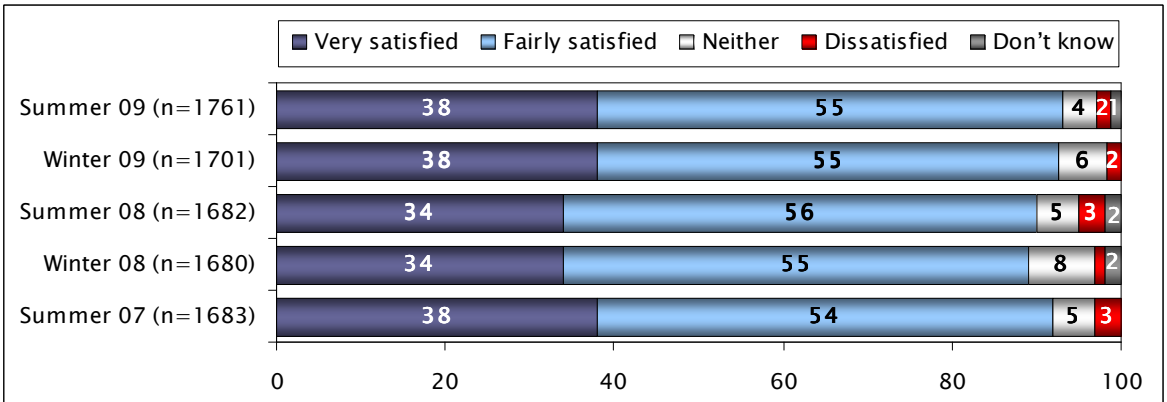


Figure 4: Overall Satisfaction with BoM Information – Full Distribution



Base: All respondents

	Summer 07 (n=1683)	Winter 08 (n=1680)	Summer 08 (n=1682)	Winter 09 (n=1701)	Summer 09 (n=1761)
Don't know	0	2	2	0	1
Dissatisfied	3	1	3	2	2
Neither	5	8	5	6	4 ⬇
Fairly satisfied	54	55	56	55	55
Very satisfied	38	34	34	38 ⬆	38

3.2 Overall Satisfaction – Index (Q.20 & Q.21)

Figure 5 presents results from an analysis of all levels of overall satisfaction. Each level of satisfaction is given a score out of 100 as follows:

- 100 = Very satisfied
- 75 = Fairly satisfied
- 50 = Neither
- 25 = Fairly dissatisfied
- 0 = Very dissatisfied

An average of all these scores is then taken to establish an index score out of 100. In this way, satisfaction can be expressed by looking at the results from all respondents rather than just those who reported the top two levels.

Expressing satisfaction in this way has the advantage of being more sensitive to when a respondent shifts across levels, particularly within the top two levels, as an index will reflect this shift (by assigning a lower score to the second level). In contrast, expressing satisfaction as a percentage will not reflect this shift as it does not differentiate the top two satisfaction levels, it simply adds them together.

For further explanation about calculation of the satisfaction index, please refer to Section 2.5.4.

In summer 2009 a satisfaction index score of 82.7 was observed. This represented a slight increase (not statistically significant) since winter 2009 and an increasing trend over the last four surveys. This indicates that over time respondents have been shifting up levels of satisfaction.

Figure 5: Overall Satisfaction with BoM Information – Index

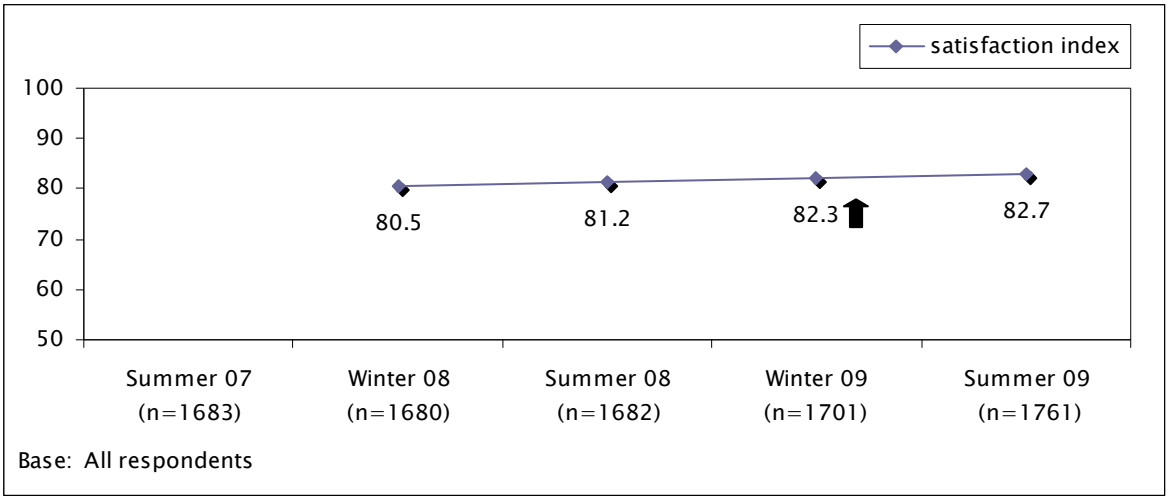


Figure 6: Overall Satisfaction with BoM Information – Results by Age and Gender

Base: All respondents	Gender		Age			Total
	Male	Female	16 to 34 Years	35 to 54 Years	55 Years or Older	
KEY PERFORMANCE INDICATORS						
Overall Satisfaction - % satisfied	94	93	92	93	94	93
Overall Satisfaction - Index	*82.9*	*82.6*	*78.9*	*85.5*	*83.7*	*82.7*
Accuracy of information - % accurate	79	83	84	81	78	81
Information meets requirements - % regularly	60	70	62	69	66	65
Timeliness of information - % on time	92	96	93	96	93	94
OTHER PERFORMANCE INDICATORS						
% Check weather for personal activities	85	86	82	86	88	86
% Check weather for leisure activities	91	85	91	91	82	88
% Check weather for domestic activities	65	74	73	66	71	70
% Check weather for special occasions	59	66	61	64	63	63
% Check weather information daily	60	62	51	56	79	61
% Used Bureau of Meteorology website	54	44	47	63	34	49

Figure 7: Overall Satisfaction with BoM Information – Results by Location and Workplace

Base: All respondents	Location			Outdoor Worker		Total
	Metro	Regional	Rural	Yes	No	
KEY PERFORMANCE INDICATORS						
Overall Satisfaction - % satisfied	94	92	83	89	95	93
Overall Satisfaction - Index	*84.0*	*80.6*	*74.8*	*81.0*	*83.5*	*82.7*
Accuracy of information - % accurate	82	79	66	81	81	81
Information meets requirements - % regularly	69	59	54	57	69	65
Timeliness of information - % on time	96	92	80	93	95	94
OTHER PERFORMANCE INDICATORS						
% Check weather for personal activities	89	78	-	86	85	86
% Check weather for leisure activities	92	81	-	91	87	88
% Check weather for domestic activities	72	66	-	63	73	70
% Check weather for special occasions	64	60	-	58	64	63
% Check weather information daily	65	53	72	61	61	61
% Used Bureau of Meteorology website	48	50	63	61	44	49

Figure 8: Overall Satisfaction with BoM Information – Results by Use of Website

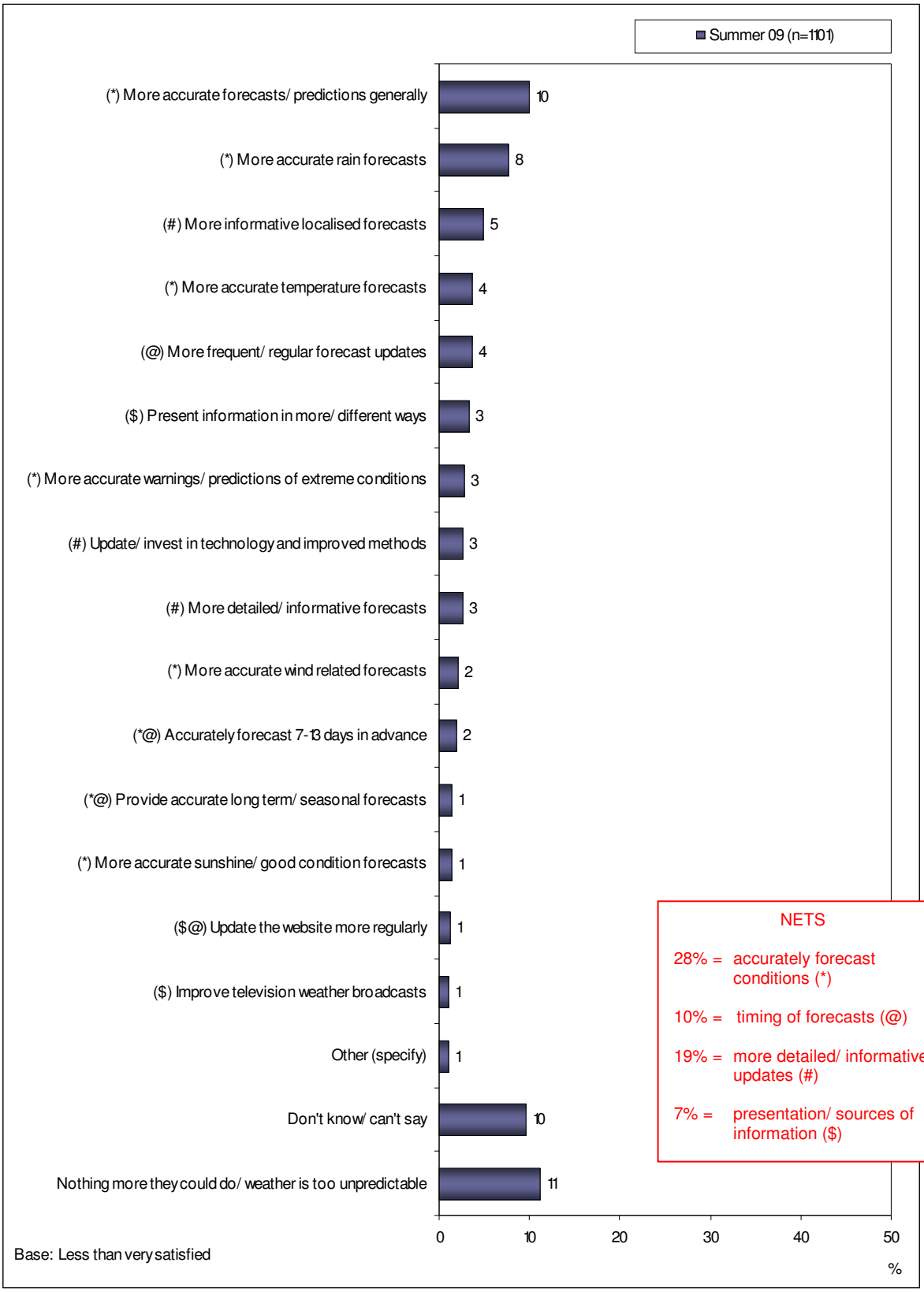
Base: All respondents	BoM Website		BoM Website		Total
	Aware	Unaware	Use	Do Not Use	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	94	91	94	93	93
Overall Satisfaction - Index	*83.0*	*81.5*	*83.5*	*82.0*	*82.7*
Accuracy of information - % accurate	80	84	83	79	81
Information meets requirements - % regularly	69	51	73	58	65
Timeliness of information - % on time	94	94	94	94	94
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	87	80	91	80	86
% Check weather for leisure activities	90	82	93	84	88
% Check weather for domestic activities	69	74	70	69	70
% Check weather for special occasions	62	68	60	65	63
% Check weather information daily	61	63	65	58	61
% Used Bureau of Meteorology website	61	-	100	-	49

Figure 9: Overall Satisfaction with BoM Information – Results by Frequency of Checking Weather

Base: All respondents	Frequency of Checking Weather				Total
	Daily	2-3 Times a Week	Once a Week	< Once a Week	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	94	82	94	87	93
Overall Satisfaction - Index	*83.2*	*82.6*	*81.2*	*80.9*	*82.7*
Accuracy of information - % accurate	80	86	86	69	81
Information meets requirements - % regularly	67	68	67	41	65
Timeliness of information - % on time	95	94	99	83	94
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	94	79	64	61	86
% Check weather for leisure activities	92	83	84	75	88
% Check weather for domestic activities	76	66	56	43	70
% Check weather for special occasions	69	57	53	44	63
% Check weather information daily	100	-	-	-	61
% Used Bureau of Meteorology website	52	46	51	32	49

Figure 10: Suggestions to Increase Satisfaction with BoM Weather Information

Q.20 What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?



Following their rating of satisfaction, respondents who reported that they were fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied were asked what could be done to make them feel more satisfied with the weather information from the Bureau.

Responses were recorded verbatim during the interview and coded into themes post data collection. The percentage of responses relating to each theme has been charted in Figure 10 (note please refer to the Detailed Tables at Appendix 2 for a full list of themes – see separate volume). Themes were further grouped together to form nets (see box insert on chart), as many themes were similar in nature.

Whilst a number of respondents felt nothing could be done to improve their satisfaction (11%), around 1 in 4 (28%) reported improving forecast accuracy would make them feel more satisfied. Accuracy was by far the most common thread throughout respondents' comments whether in relation to specific types of forecasts such as rainfall or temperature or just in general.

The next most common theme related to providing more detailed or informative updates (19%), especially in relation to localised forecasts.

Less common were comments in relation to improving the timing of forecasts (10%), including providing more frequent/ regular forecasts and longer term forecasts (7 days or more, seasonal etc). Comments in relation to how weather information is presented via various mediums (7%) were the least common.

The following provides examples of verbatim comments recorded for each theme:

Accurately forecast conditions (28%)

> *"I feel they could be more accurate with their predictions as they are letting farmers down. We rely on those forecasts and they are very inaccurate at times."*
>
> *"We would like more accurate forecasting with temperature and rainfall, and also a more reliable three day forecast for general weather."*
>
> *"Improve the cyclone prediction service by updating the website more frequently, perhaps daily."*
>
> *"Forecasts for minimum temperatures at night time could be more accurate, especially in winter as we arrange bed clothes and windows accordingly."*

More detailed / informative updates (19%)

> *"I would like to get more accurate and detailed weather information about my area."*
>
> *"We are in a position where we are in between Albury and Wangaratta. Therefore, the forecasts for these two towns do not adequately reflect Chiltern Valley's weather properly."*
>
> *"Provide more accurate localised weather information, particularly with rain forecasting."*
>
> *"We need more stations in smaller towns so we know exactly what is going on."*
>
> *"Perhaps update their technology to obtain more accurate weather forecasts."*

Timing of forecasts (10%)

"A 6 – 7 day forecast in the newspaper, rather than 4 days."

"A more accurate longer range forecast, they quite accurately predict four days but it would be nice to have up to ten days as it helps with forward planning."

"More accuracy in long range forecasting such as rainfall and maximum and minimum temperatures."

"They should provide 15 day forecasts and be clearer with the terminology."

Presentation/ sources of information (7%)

"More regular updates on the Bureau of Meteorology website."

"Make the website more user friendly. It needs to be easier to understand and navigate through and also have clearer maps."

"Improve the weather forecasts on television. For example, they predicted storms but gave no information of when it was expected."

"It would be good to have the two week forecast available on the Bureau website."

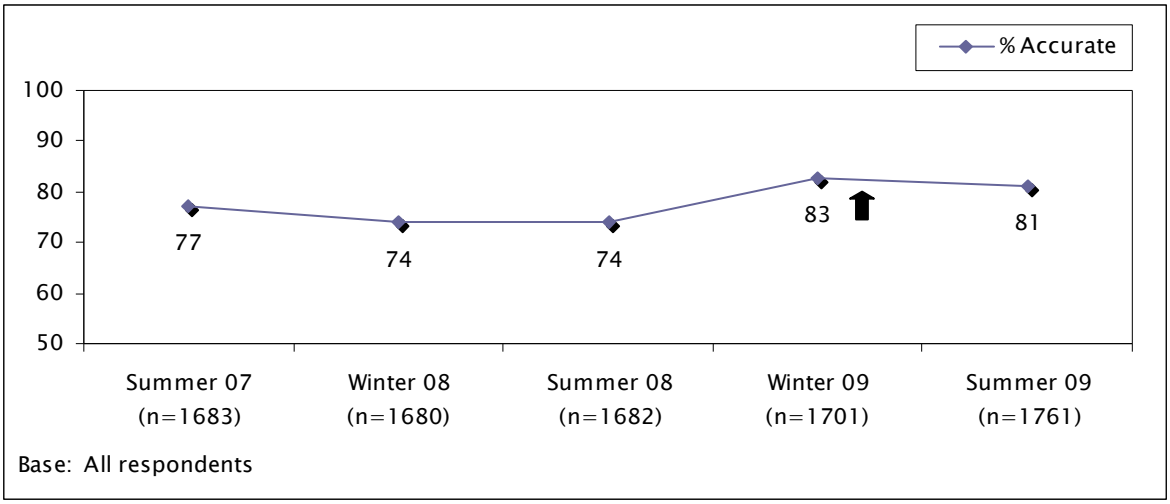
"Weather reports vary a lot and are sometimes clearly inaccurate on local radio stations. The Bureau of Meteorology forecast should be more widely spread."

3.3 Accuracy of Forecasts and Warnings (Q.16, Q.17, Q.18)

Figure 11 shows a relatively similar result for perceived accuracy of weather forecasts and warnings across the past 6 months. However, care must be taken when comparing 2009 results against previous years as the question wording changed in the winter 2009 survey and this could have impacted on results.

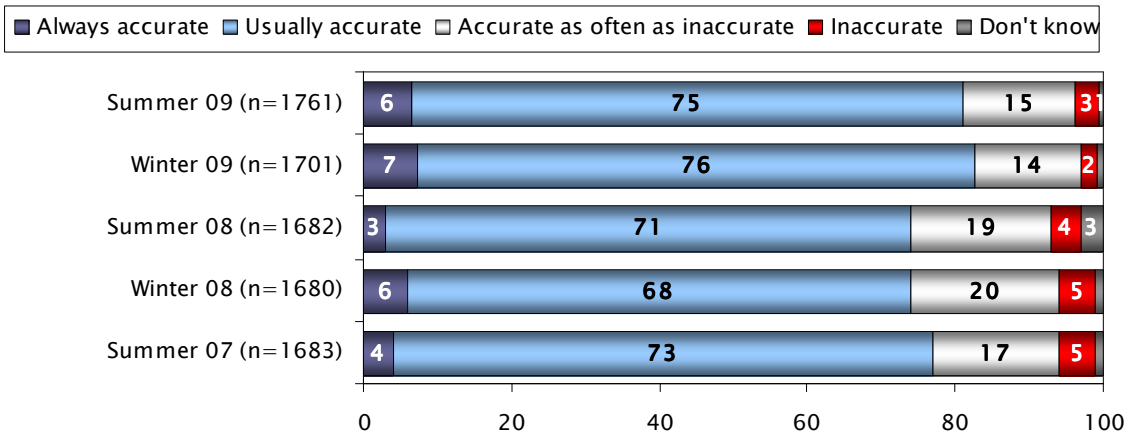
Figure 11: Accuracy of Forecasts and Warnings – % Accurate

Q.16 For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been always accurate, usually accurate, accurate as often as inaccurate, usually inaccurate or always inaccurate?*



** Note – question wording changed in 2009 to refer to last 6 months instead of last 12 months*

Figure 12: Accuracy of Forecasts and Warnings – Full Distribution



Base: All respondents	Summer 07 (n=1683)	Winter 08 (n=1680)	Summer 08 (n=1682)	Winter 09 (n=1701)	Summer 09 (n=1761)
Don't know	1	1	3	1 ⬇	1
Inaccurate	5	5	4	2 ⬇	3
Accurate as often as inaccurate	17	20	19	14 ⬇	15
Usually accurate	73	68	71	76 ⬆	75
Always accurate	4	6	3	7 ⬆	6

Figure 13: Perceived Changes in Accuracy of Forecasts and Warnings – % More Accurate

Q.17 Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?

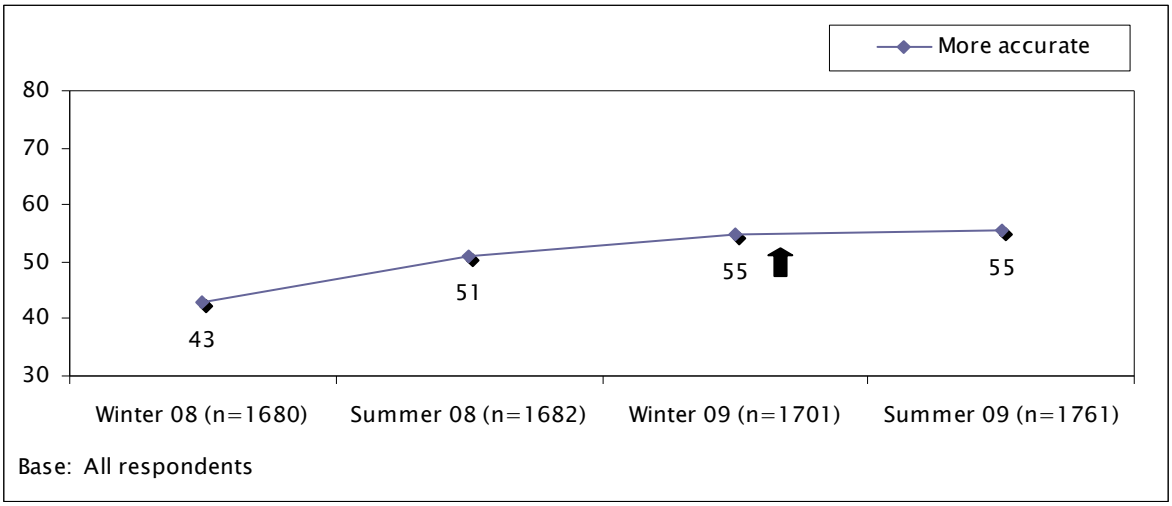
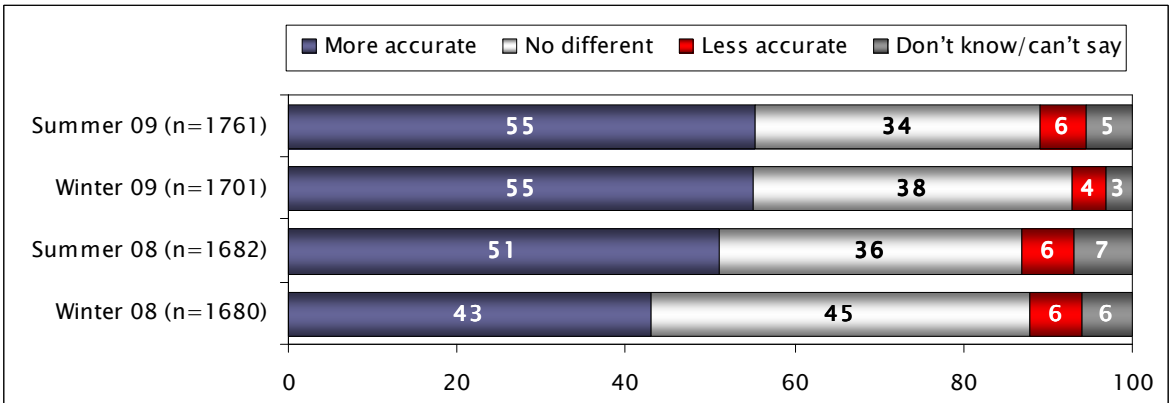


Figure 14: Change in Accuracy of Forecasts and Warnings – Full Distribution

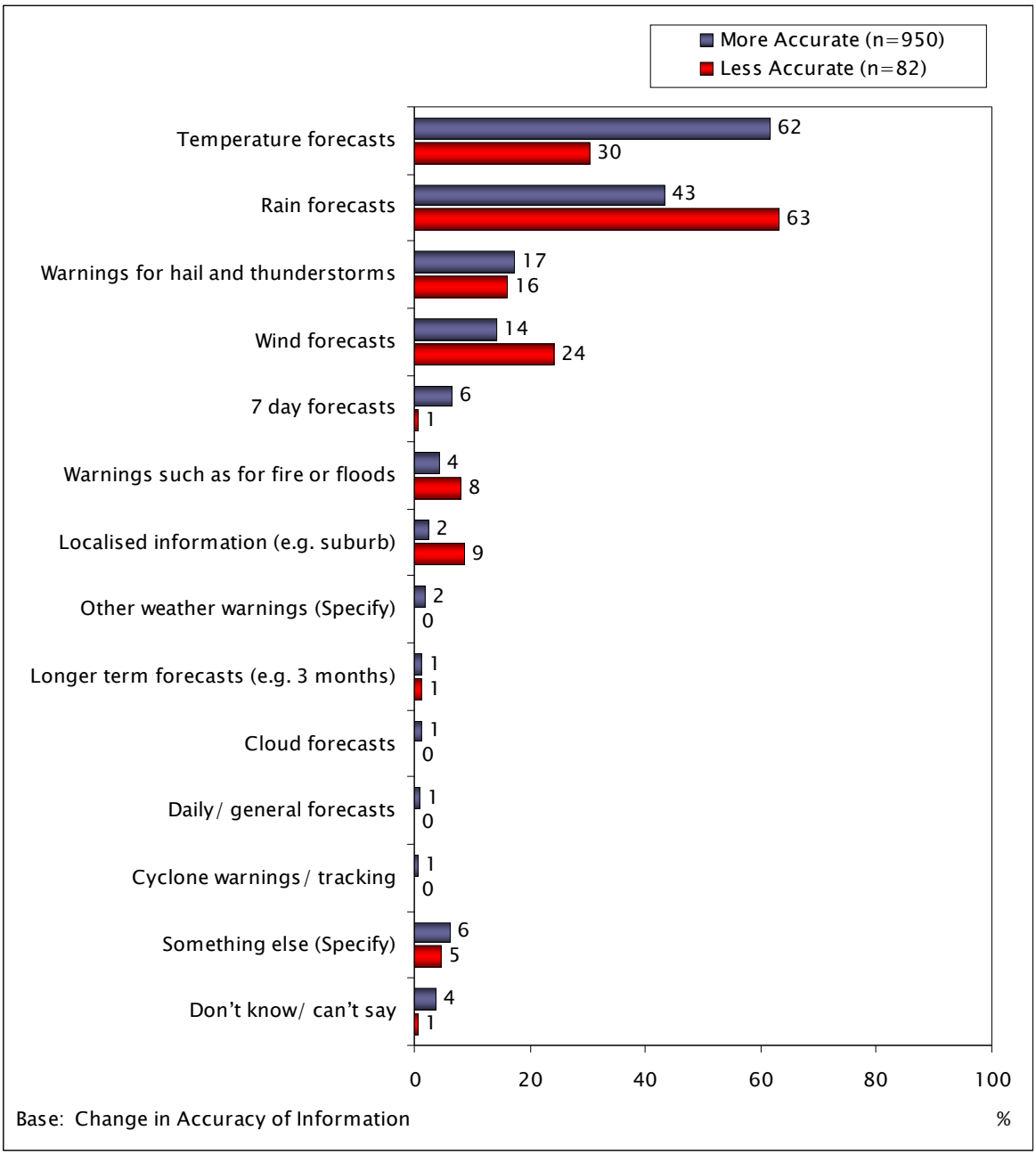
Q.17 Generally, do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?



Base: All respondents	Winter 08 (n=1680)	Summer 08 (n=1682)	Winter 09 (n=1701)	Summer 09 (n=1761)
Don't know/can't say	6	7	3 ↓	5 ↑
Less accurate	6	6	4	6 ↑
No different	45	36	38 ↑	34 ↓
More accurate	43	51	55 ↑	55

Figure 15: Reasons for Perceived Change in Accuracy – % Giving Reason

*Q.18 Which part of the weather information has become more or less accurate?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

3.4 Weather Information Meets Requirements (Q.11 & Q.12)

Figure 16: Weather Information Meets Requirements – % Regularly

Q.11 Would you say the weather information you access or receive regularly meets your requirements, sometimes meets your requirements or never meets your requirements…?

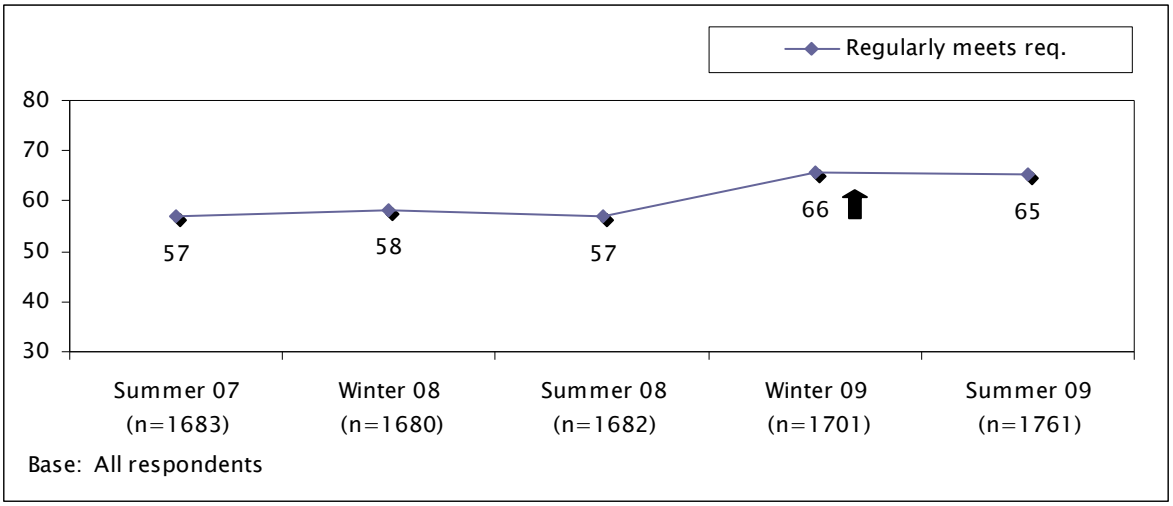
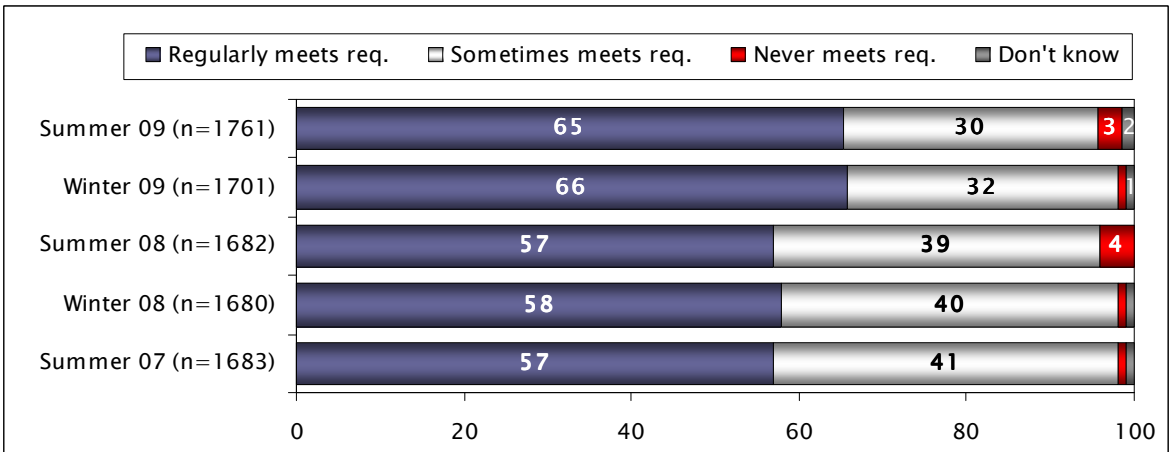


Figure 17: Weather Information Meets Requirements – Full Distribution



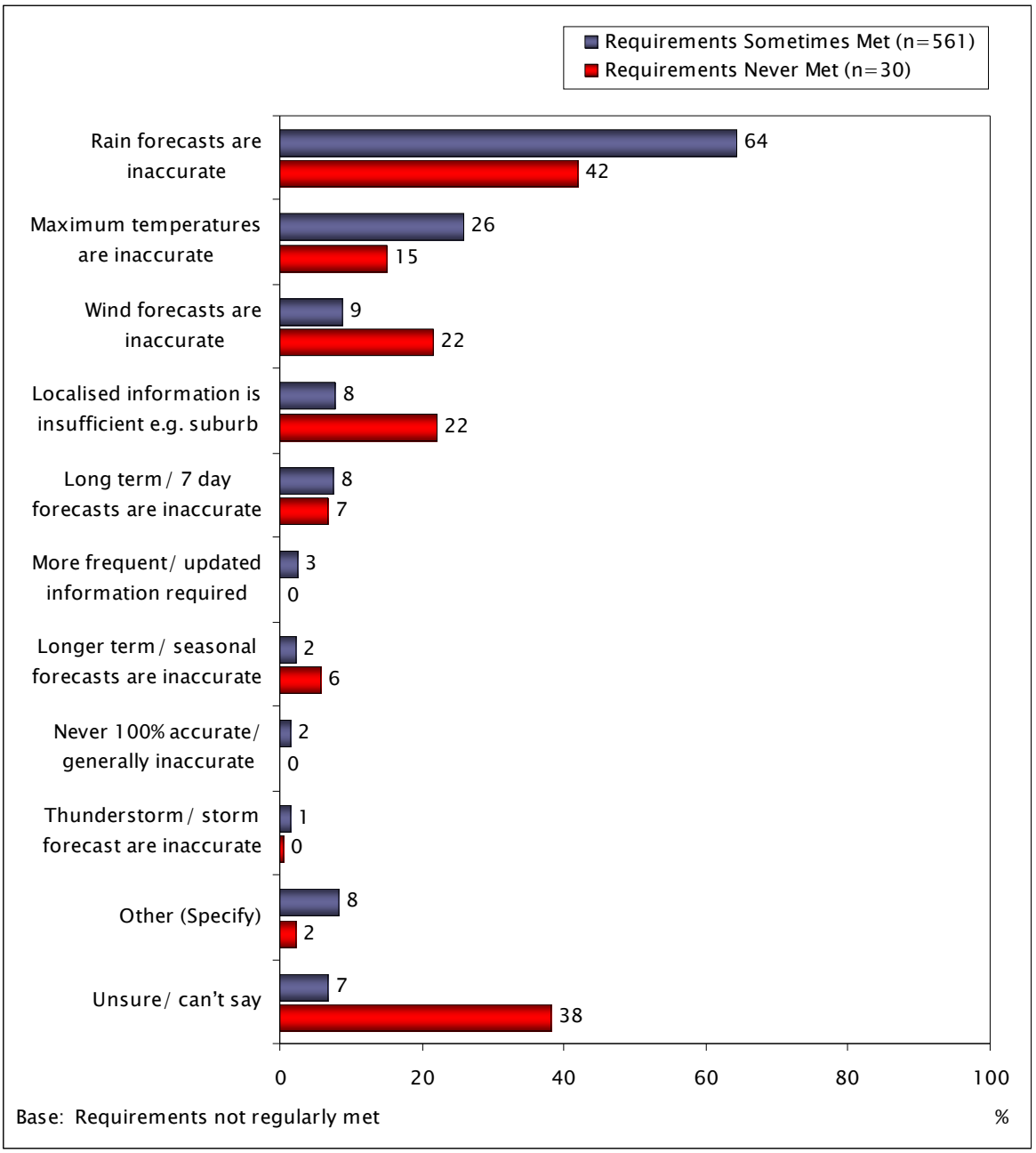
Base: All respondents	Summer 07 (n=1683)	Winter 08 (n=1680)	Summer 08 (n=1682)	Winter 09 (n=1701)	Summer 09 (n=1761)
Don't know	1	1	1	1	2
Never meets req.	1	1	4	1 ↓	3 ↑
Sometimes meets req.	41	40	39	32 ↓	30 ↓
Regularly meets req.	57	58	57	66 ↑	65

Upon investigation it appears that those sub-groups that more often indicated that weather information regularly meets their requirements included:

- Those residing in metropolitan areas
- Users of and those who value the Bureau's website
- Females
- Those very satisfied with the information provided by the Bureau
- Those who indicated that the accuracy of weather forecasts has improved

Figure 18: Reasons for Requirements Not Being Met – % Giving Reason

*Q.12 In what way does the weather information you receive not meet your requirements?^*



^*Multiple responses accepted, therefore results do not add up to 100%. *Caution small sample size.*

3.5 Timeliness of Weather Information (Q.13, 14 & 15)

Figure 19: Weather Information is Available in Time – % Available in Time

Q.15 Is the weather information available in time to meet your needs?

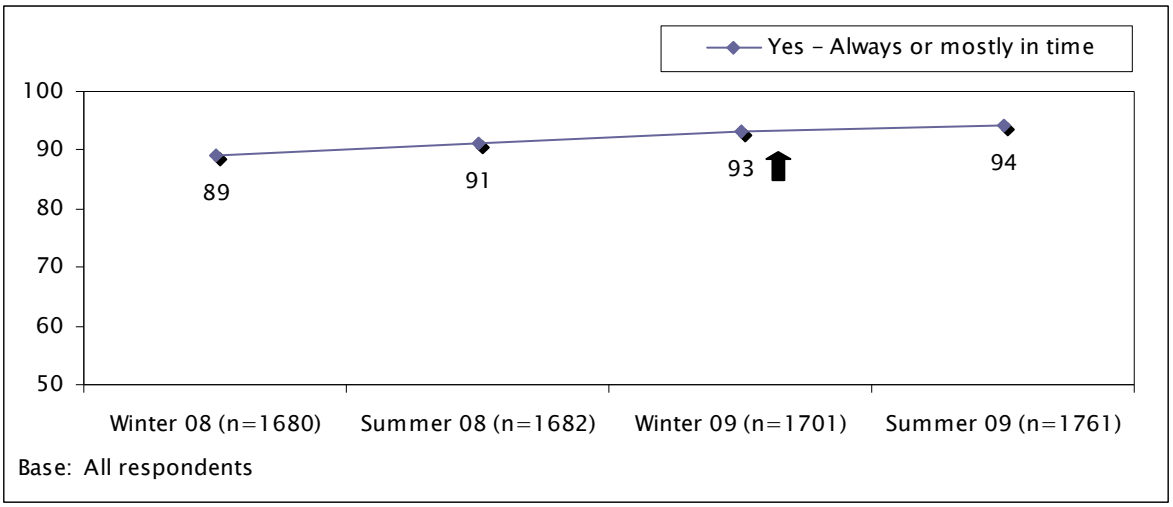
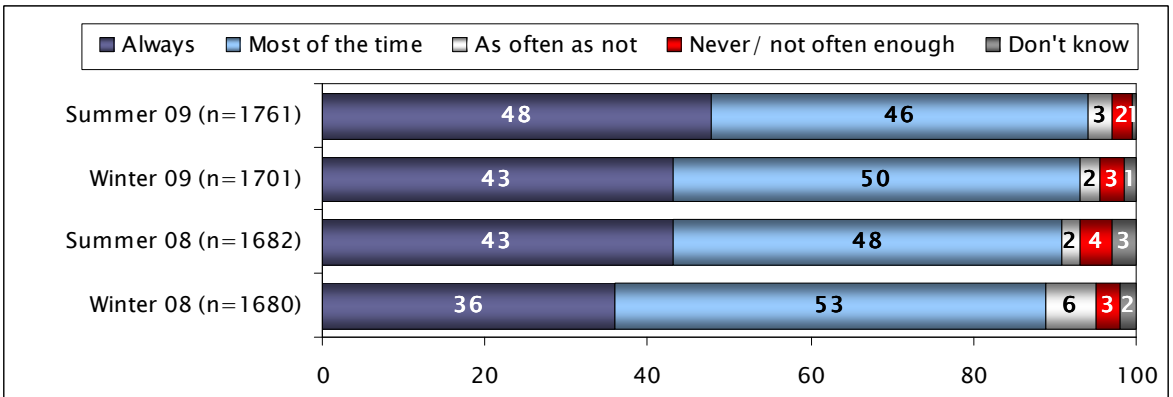


Figure 20: Weather Information is Available in Time – Full Distribution

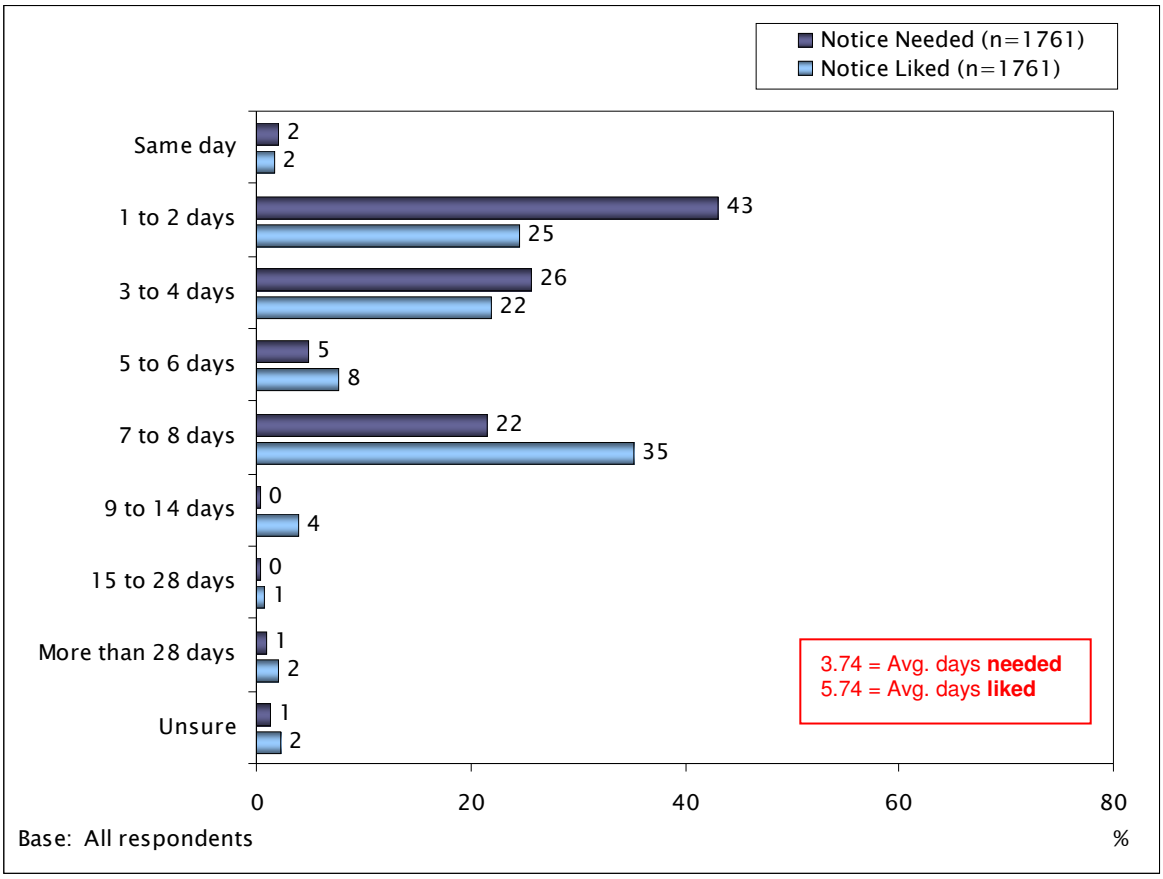


Base: All respondents	Winter 08 (n=1680)	Summer 08 (n=1682)	Winter 09 (n=1701)	Summer 09 (n=1761)
Don't know	2	3	1 ↓	1
Never / not often enough	3	4	3	2
As often as not	6	2	2	3
Most of the time	53	48	50	46 ↓
Always	36	43	43	48 ↑

Figure 21: Necessary and Preferred Notice of Weather Forecasts – % Days

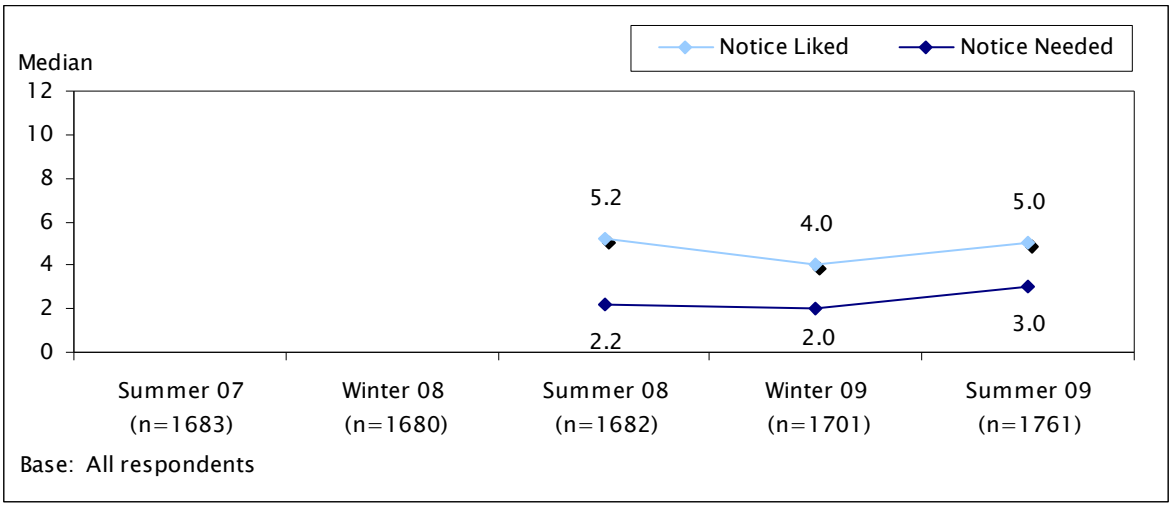
Q.13 Typically, how many days ahead of time do you need to know the weather forecast? (metro/ regional) / In order for you to make good farming related decisions, typically, how many days ahead of time do you need to know the weather forecast? (rural)

Q.14 Typically, how many days ahead of time would you like to know the weather forecast? (metro/ regional) / In order for you to make good farming related decisions, typically, how many days ahead of time would you realistically like to know the weather forecast? (rural)



The average number of days ahead of time that respondents indicated they need to know the forecasts was 3.74 days. The average number of days' notice that would be liked was 5.74. This indicates that, while respondents would prefer to have more notice of weather forecasts, they did not consider this as a necessity.

Figure 22: Necessary and Preferred Notice of Weather Forecasts – Median No. of Days



The chart above presents a time series for the median amount of notice liked and needed in regards to weather forecasts. Results prior to summer 2008 have not been charted above as the base responding to the question changed (prior to summer 2008 asked of metropolitan respondents regarding work activities only).

The results in summer 2009 reveal increases in both the amount of notice liked and needed compared to winter 2009. However these increases do not appear to be driven by a particular group of respondents. All groups (metro, regional and rural) recorded similar results to the previous survey (see table below).

	Summer 08	Winter 09	Summer 09
Notice Needed - Median			
National	2.2	2.0	3.0
Metro	2.2	2.0	3.0
Regional	2.1	2.0	2.0
Rural	4.1	5.0	5.0
Notice Liked - Median			
National	5.2	4.0	5.0
Metro	5.2	5.0	5.0
Regional	4.5	4.0	4.0
Rural	7.0	7.0	7.0

It is difficult to conclude whether changes over time have been affected by a seasonal influence or changes to the questionnaire wording. In winter 2009, the term "realistically" was added to the question put to rural respondents in regards to the amount of notice needed and prior to winter 2009 all respondents were asked about their current checking behaviour *"How many ahead of time do you currently check the weather"* as opposed to their needs.

The national results do appear to suggest a seasonal influence. The summer 2009 results relatively mirror the summer 2008 results suggesting that the warmer months bring about a greater need and desire for weather forecast information. Overall, rural respondents continue to record the highest amount of notice liked and needed.

3.6 Accessing and Using Weather Information (Q.4 to Q.10)

Figure 23: Reasons for Checking Weather – % Giving Reason

Q.4 Thinking about weather information, do you typically check the weather to make decisions regarding…?

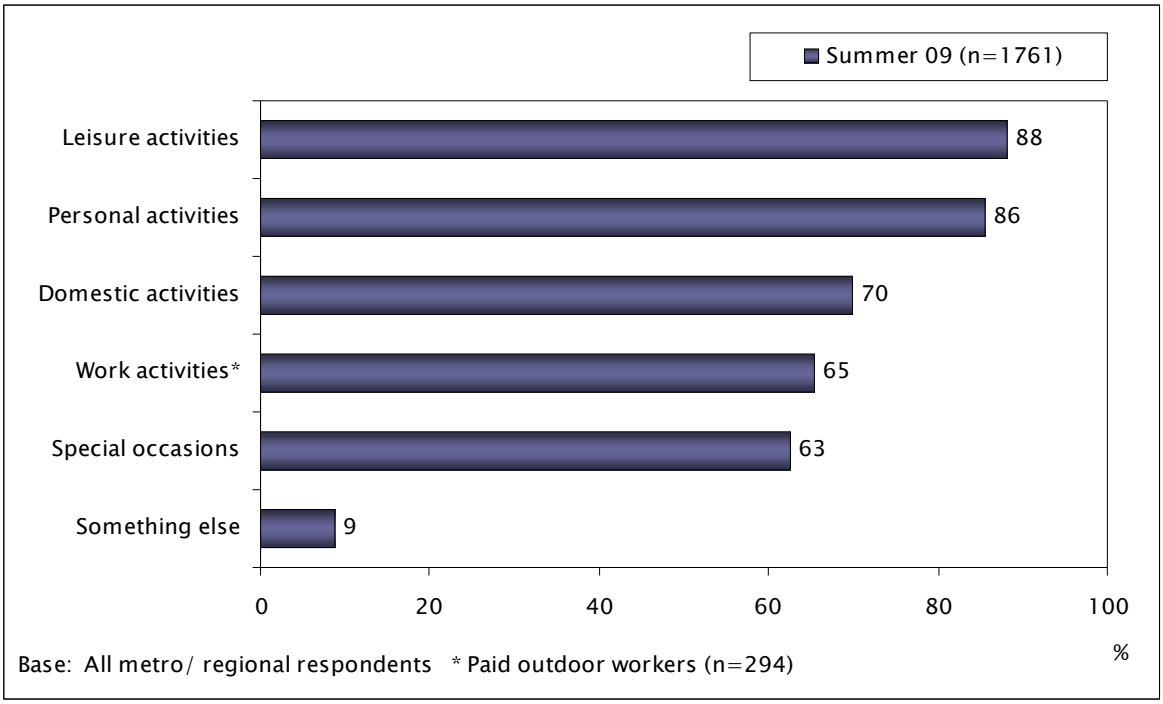


Figure 24: Frequency of Checking Weather for Decision Making – % Checking

Q.5 How often do you typically check the weather to make decisions regarding the activities you mentioned? (metro/ regional) / How often do you typically check the weather to make decisions regarding [your farming activities? (rural)

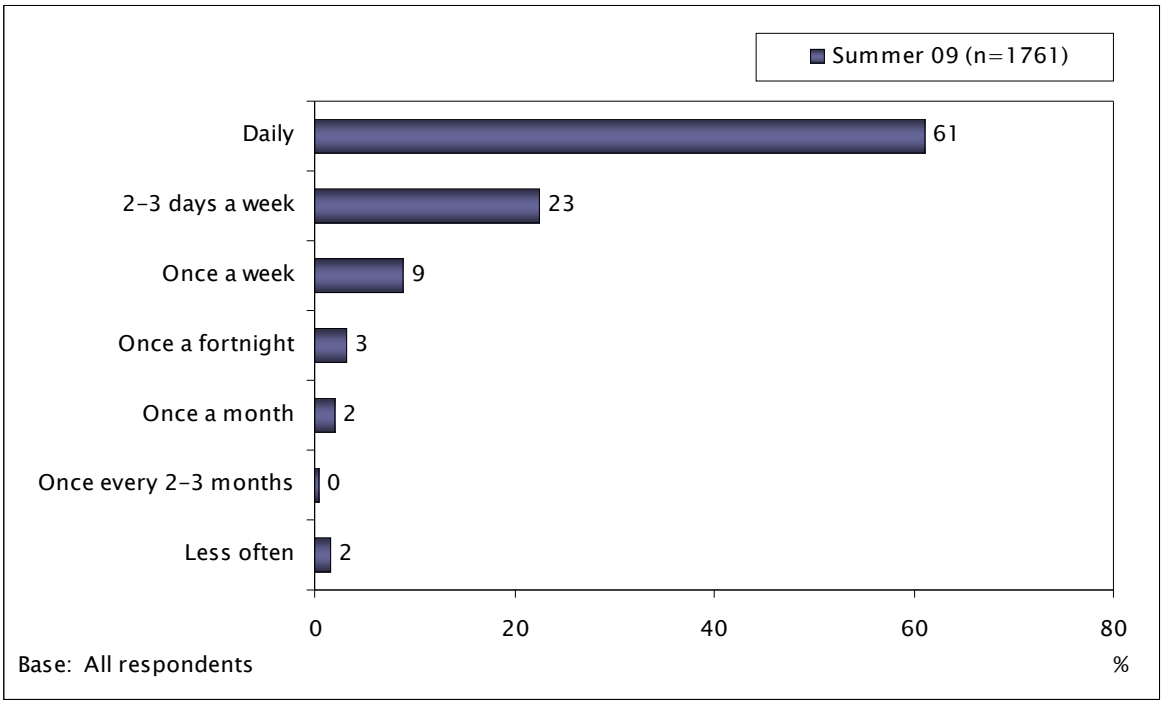
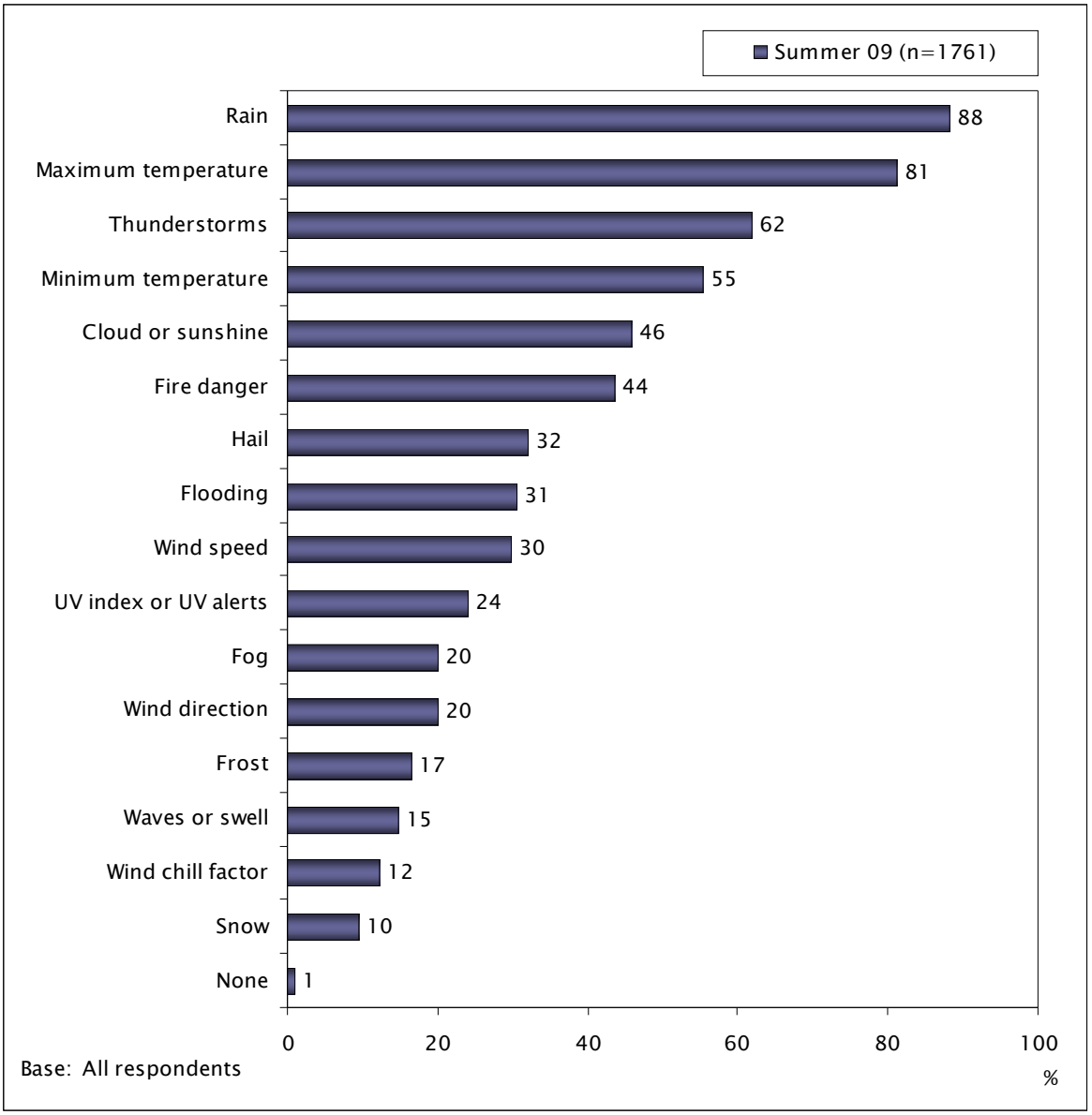


Figure 25: Use of Weather Elements for Decision Making – % Using Element

*Q.6 Typically, which of the following weather types have you recently used to make decisions about your day to day activities? (metro/ regional) / Typically, which of the following weather types have you recently used to make decisions about your farming activities? (rural)^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

Some of the indicators used more by rural than metropolitan or regional respondents were wind speed and direction, checking for fire danger and frost. Metropolitan and, to a lesser degree, regional respondents were more likely to have used maximum and minimum temperatures in their decision making.

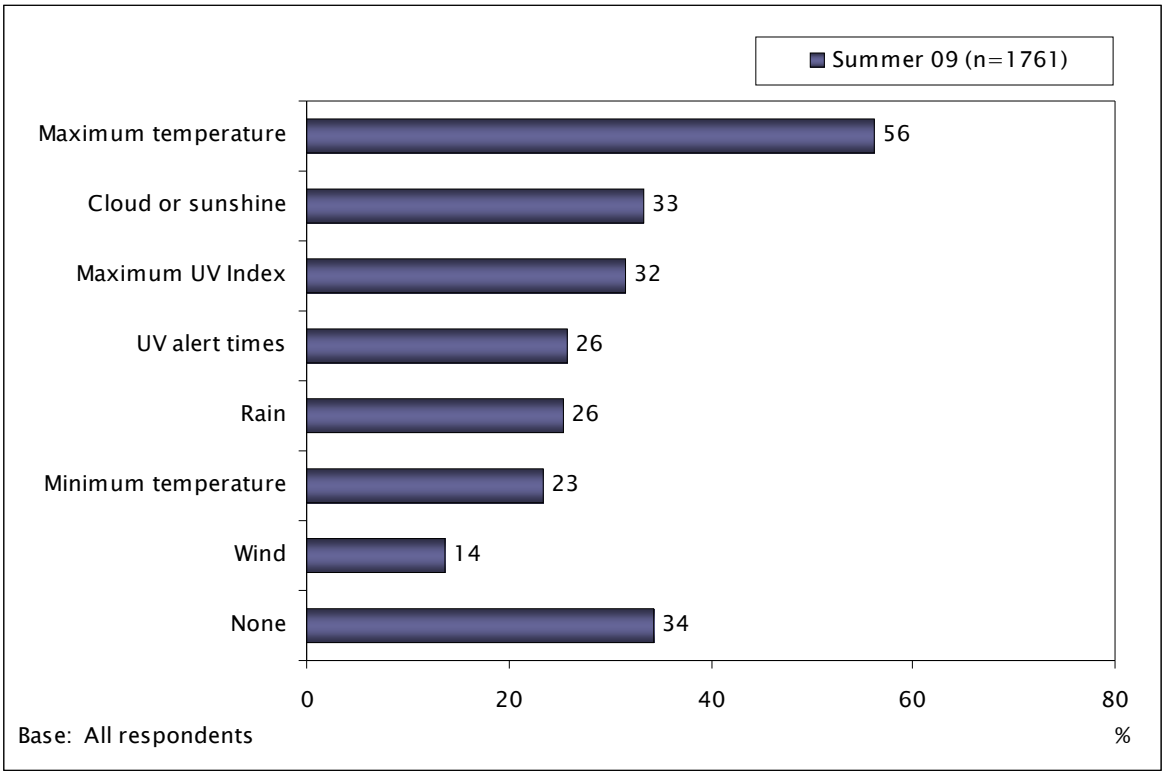
There were few differences in the elements used to make decisions dependent on whether the respondents' main information source was television, radio or the Bureau's website. The only notable differences were that the radio was more often the preferred method among those who use wind speed, hail, fire danger or thunderstorms as indicators, whereas those who prefer to use the Bureau's website were more likely to check wind direction, waves or swell and thunderstorms.

The percentage who had used fire danger as an indicator more often resided in Victoria and Tasmania. However, there had been little change in the average percentage of respondents who had used fire danger for decision making when compared with previous results (44% in the current round compared with 46% in winter 2009 and 44% in summer 2008).

However, this percentage remains higher compared with results recorded prior to summer 2008 (between 30 and 40%).

Figure 26: Use of Weather Elements for Sun Protection Decisions – % Using Element

*Q.7 Have you recently used any of the following weather types to make decisions about sun protection?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

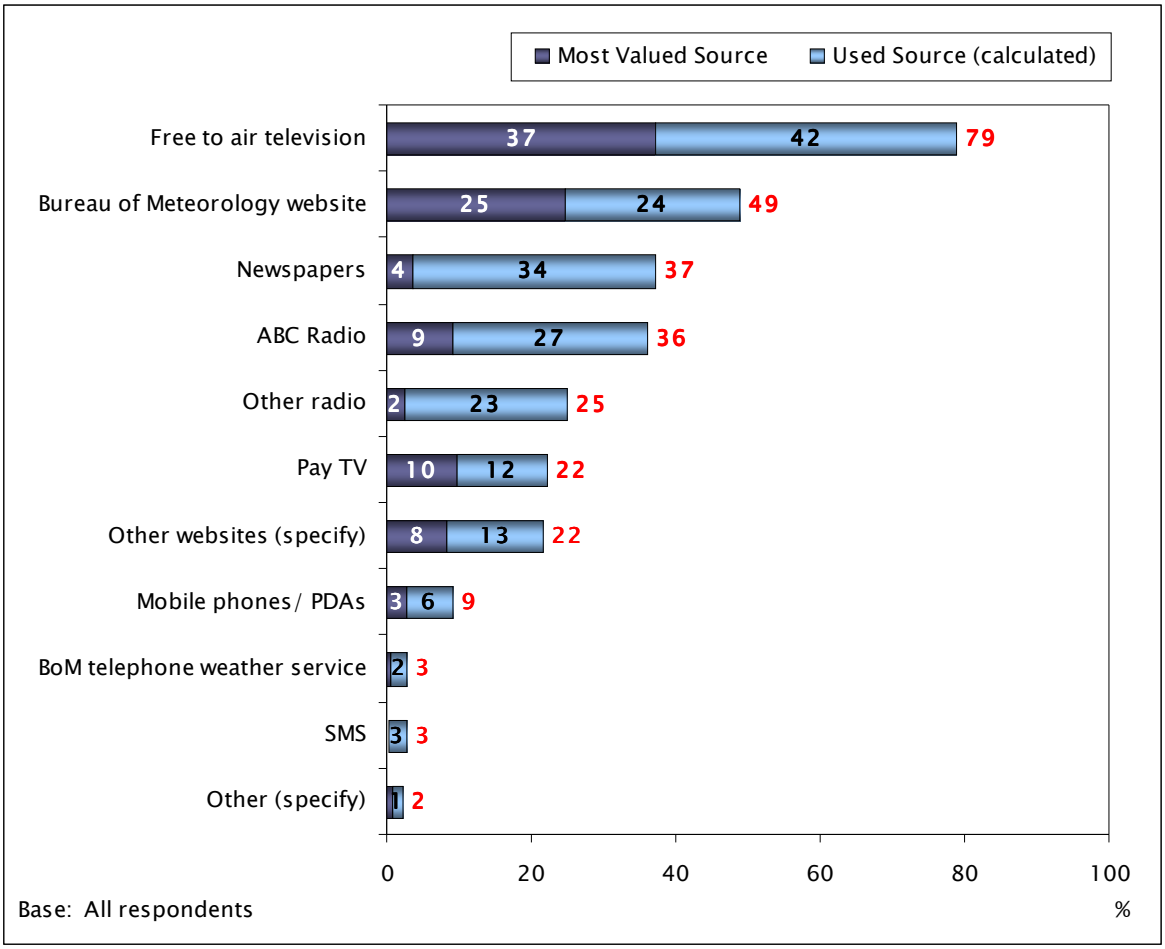
Results for this new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature. Other weather elements such as the maximum UV index and UV alert times were used to a lesser extent.

Around 1 in 3 respondents reported that they do not use weather information to make decisions about sun protection. It should be noted however that this percentage may include individuals who use sun protection either everyday or when going outdoors regardless of the weather forecast and not just individuals who do not strive to protect themselves from the sun.

Figure 27: Use and Value of Weather Information Sources – % Using or Valuing Source

*Q.8 Which of the following have you used over the past 6 months to get weather information…?^*

*Q.9 Of those you have mentioned, which one do you find to be the most valuable sources of weather information to enable you to make weather related decisions? (metro/ regional) / Of those you have mentioned, which one do you find to be the most valuable sources of weather information to enable you to make weather related farming decisions? (rural)^*



^*Multiple responses accepted, therefore results do not add up to 100%.*
Note: Most valued source + used source may not add up to exact total due to rounding of decimal places.

Figure 28: Awareness and Use of Bureau of Meteorology Website – % Aware & Use

Q.10 Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

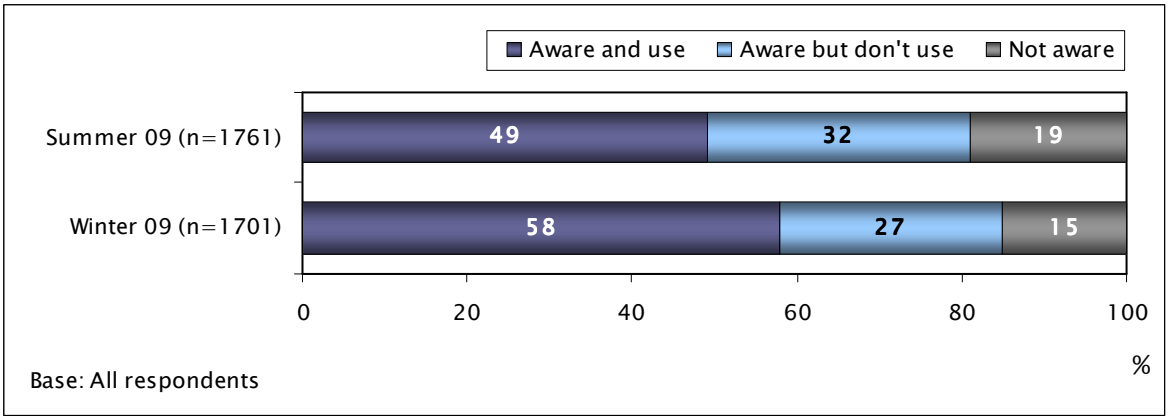


Figure 29: Use of Bureau of Meteorology Website – % Users

Q.8 Which of the following have you used over the past 6 months to get weather information…?

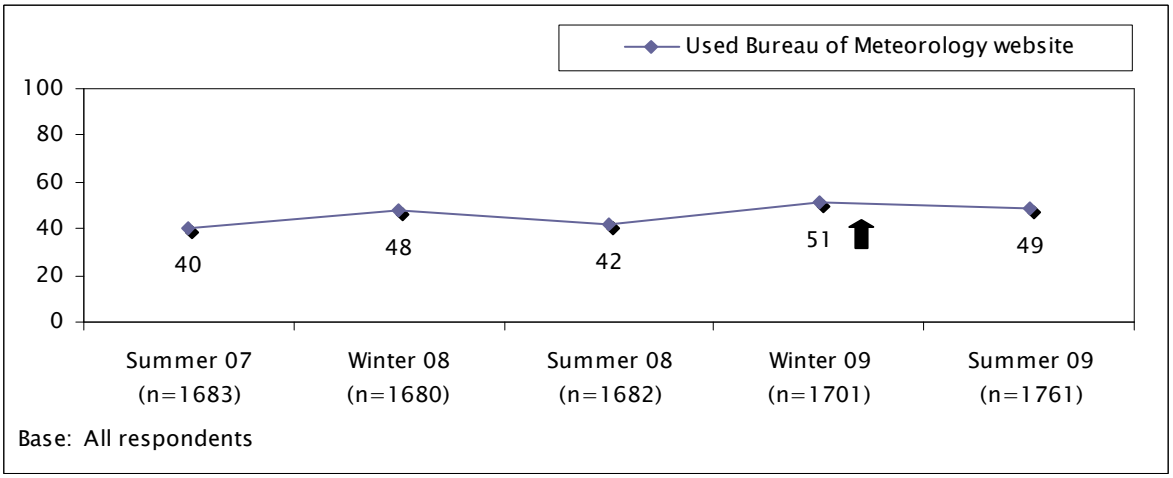


Figure 30: Other Websites for Weather Information – % Other Websites Used

Base: Use other website (n=405)	% use website
NINEMSN	21
Google	14
Newspaper/ news website	13
Elders	13
Yahoo	9
Weather Zone	7
Bigpond	5
Windows Vista/ pop up weather gadget	4
Weather.com.au	3
Seabreeze.com	3
BUOY Weather	2
ABC website	2
Weather channel website	2
Company websites e.g. Coles/ Banks	2
CFA website	2

3.7 Improvements (Q.21 & Q.22)

Figure 31: Reactions to Replacement of the Term "Fine" – % Giving Response

Q21. The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

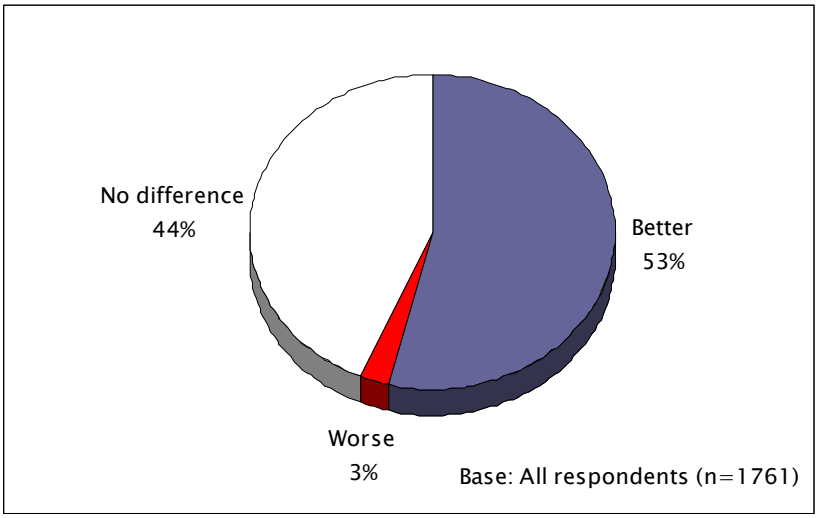
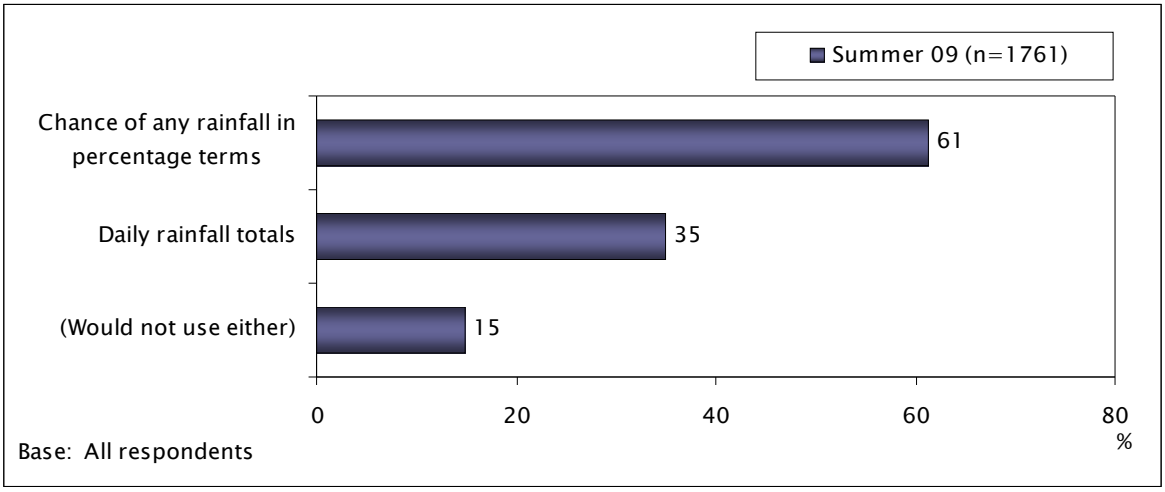


Figure 32: Use of Rainfall Information – % Giving Response

*Q22. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

The above charts display results from two new questions added to the survey in summer 2009. The first chart shows mixed reactions to replacing the term "fine" with words to describe sky conditions to help the public better understand the weather forecast. However most felt this change would for the better or else make no difference; very few felt the change would be for the worse.

The second chart reveals that the majority of respondents would use additional rainfall information provided by the Bureau in making decisions about their day to day activities, and this would primarily be the chance of any rainfall in percentage terms.

3.8 National Summary

Overall, the level of satisfaction with the information provided by the Bureau of Meteorology was similar to the result obtained in the previous survey, revealing that the significant increase recorded in winter 2009 has been maintained throughout summer 2009. Satisfaction remains at the high levels previously recorded in summer 2007.

Satisfaction with the information provided was highest amongst those who were aware of the Bureau of Meteorology website and those who do not rely on weather information for farming or other outdoor work. Those with higher satisfaction also tended to be more positive about other elements such as the accuracy of information and its ability to meet their needs.

Stable results were also noted for the three other key performance indicators (KPIs). That is, a similar proportion of respondents now see the information provided as being accurate, timelier and as regularly meeting requirements.

The significant improvement in perceptions of information more regularly meeting requirements in winter 2009 has been maintained throughout summer 2009.

- Those who indicated that weather information and forecasts were more accurate equated this to increased accuracy in the temperature and rain forecasts.
- The few who indicated that forecasts have been less accurate were often unable to give a reason why this was the case, perhaps indicating they are dispassionate and their satisfaction is unlikely to increase.
- Inaccuracies were also the main reason for people stating that their weather information needs are not always met. Rain forecasts, in particular, were said to be inaccurate.

For around one in ten the Bureau could do nothing to improve its information provision. More specifically, some said that weather information could never be entirely accurate due to the unpredictable or fickle nature of the weather. For these respondents, an improvement in the accuracy of information is likely to be the best means of improving their satisfaction.

Supporting this, the most common improvement suggestion was for the Bureau to improve the accuracy of its forecasts, particularly its rain forecasts.

In terms of the desired notice period for weather forecasts, many indicated they would *like* to know at least seven days in advance, however, fewer indicated that they *need* to know in that time. Just under half indicated that they only need one or two days' notice of weather forecasts. Still, around one in five indicated that they require at least 7 days' notice of weather forecasts.

The majority of respondents check the weather daily or two to three days a week. Most commonly, they do so to make decisions regarding leisure or personal activities.

Rain forecasts were used by nine out of ten respondents to make decisions regarding day to day activities, highlighting their importance. Many also based decisions on the temperature range and thunderstorms. These could, therefore, be considered to be priority areas.

Results for the new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature forecast.

The medium most often used for checking forecasts was free to air television. This was considered to be the most valued source alongside the Bureau's own website.

The use of the Bureau's website has slightly decreased since winter 2009; however awareness of the website has remained relatively stable. There still remains a segment of the population who are unaware of the existence of the site.

4.0 METROPOLITAN RESULTS

4.1 Overall Satisfaction - % Very/Fairly Satisfied (Q.19 & Q.20)

Figure 33 presents combined **metropolitan** results for the top two levels of overall satisfaction. Of those able to answer (did not respond with "don't know"), 94% were either very or fairly satisfied with the information they receive from the Bureau through various sources. This result indicates satisfaction levels have remained stable over the last 6 months, thus maintaining the significant improvement observed in winter 2009.

Figure 33: Overall Satisfaction with BoM Information - % Very/Fairly Satisfied

Q.19 Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied?

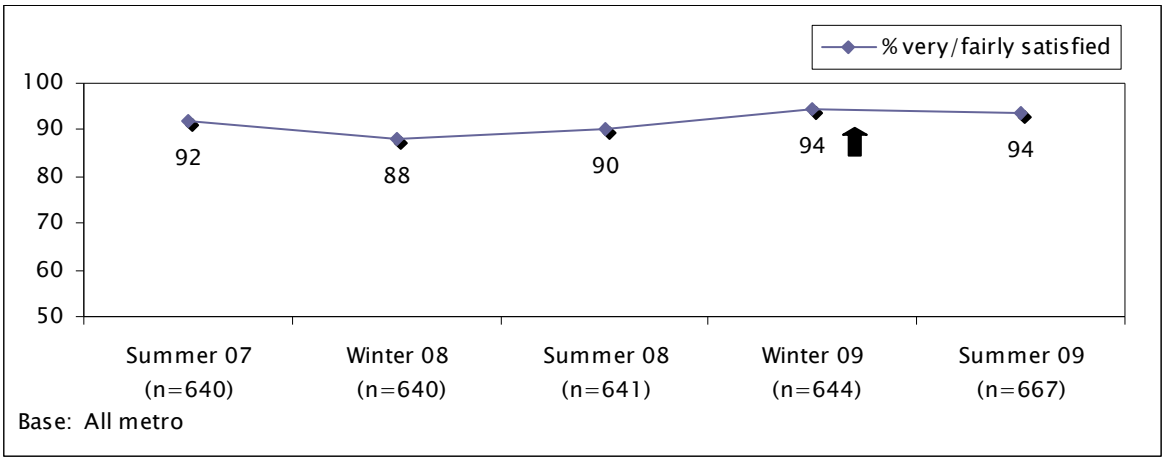
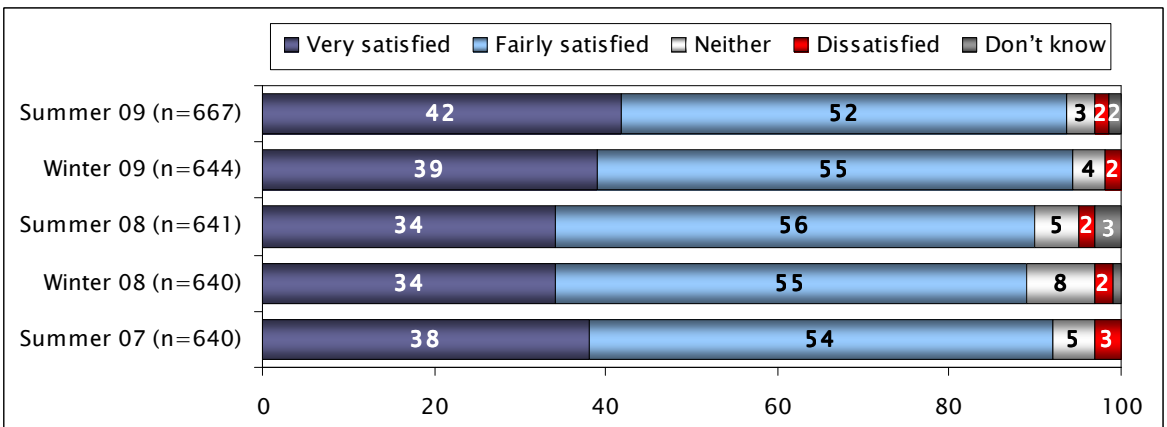


Figure 34: Overall Satisfaction with BoM Information – Full Distribution



Base: All metro	Summer 07 (n=640)	Winter 08 (n=640)	Summer 08 (n=641)	Winter 09 (n=644)	Summer 09 (n=667)
Don't know	0	1	3	0	2
Dissatisfied	3	2	2	2	2
Neither	5	8	5	4	3
Fairly satisfied	54	55	56	55	52
Very satisfied	38	34	34	39	42

4.2 Overall Satisfaction – Index (Q.19 & Q.20)

Figure 35 presents **metropolitan** results from an analysis of all levels of overall satisfaction. Each level of satisfaction is given a score out of 100 as follows:

- 100 = Very satisfied
- 75 = Fairly satisfied
- 50 = Neither
- 25 = Fairly dissatisfied
- 0 = Very dissatisfied

An average of all these scores is then taken to establish an index score out of 100. In this way, satisfaction can be expressed by looking at the results from all metropolitan respondents rather than just those who reported the top two levels.

Expressing satisfaction in this way has the advantage of being more sensitive to when a respondent shifts across levels, particularly within the top two levels, as an index will reflect this shift (by assigning a lower score to the second level). In contrast, expressing satisfaction as a percentage will not reflect this shift as it does not differentiate the top two satisfaction levels, it simply adds them together.

For further explanation about calculation of satisfaction index, please refer to Section 2.5.4.

In summer 2009 a satisfaction index score of 84.0 was observed. This represented an increase (non significant) since winter 2009 and an increasing trend over the last four surveys, indicating that over time metropolitan respondents have been shifting up levels of satisfaction.

Figure 35: Overall Satisfaction with BoM Information – Index

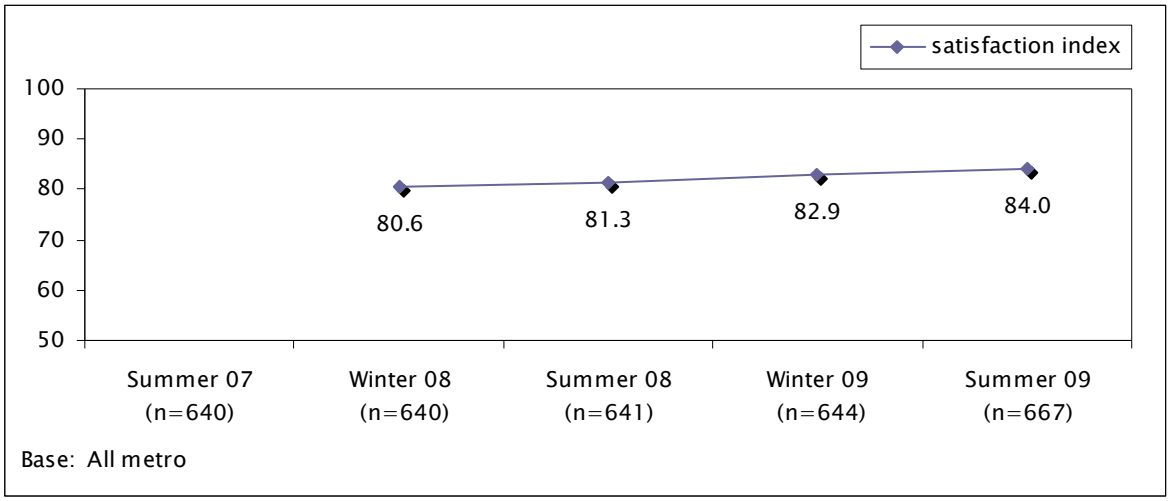


Figure 36: Overall Satisfaction with BoM Information – Results by Age and Gender

Base: All metro	Gender		Age			Total
	Male	Female	16 to 34 Years	35 to 54 Years	55 Years or Older	
KEY PERFORMANCE INDICATORS						
Overall Satisfaction - % satisfied	94	93	93	94	95	94
Overall Satisfaction - Index	*84.8*	*83.4*	*79.9*	*87.6*	*85.0*	*84.0*
Accuracy of information - % accurate	82	82	84	85	77	82
Information meets requirements - % regularly	68	71	63	74	72	69
Timeliness of information - % on time	95	97	96	98	93	96
OTHER PERFORMANCE INDICATORS						
% Check weather for personal activities	91	88	88	90	90	89
% Check weather for leisure activities	94	91	96	93	87	92
% Check weather for domestic activities	68	75	69	73	75	72
% Check weather for special occasions	89	69	88	70	65	64
% Check weather information daily	65	66	57	60	82	65
% Used Bureau of Meteorology website	54	42	46	63	32	48

Figure 37: Overall Satisfaction with BoM Information – Results by Workplace

Base: All metro	Outdoor Worker		Total
	Yes	No	
KEY PERFORMANCE INDICATORS			
Overall Satisfaction - % satisfied	91	95	94
Overall Satisfaction - Index	*82.8*	*84.4*	*84.0*
Accuracy of information - % accurate	81	83	82
Information meets requirements - % regularly	61	72	69
Timeliness of information - % on time	96	96	96
OTHER PERFORMANCE INDICATORS			
% Check weather for personal activities	89	90	89
% Check weather for leisure activities	94	92	92
% Check weather for domestic activities	64	75	72
% Check weather for special occasions	55	67	64
% Check weather information daily	67	65	65
% Used Bureau of Meteorology website	58	45	48

Figure 38: Overall Satisfaction with BoM Information – Results by Use of Website

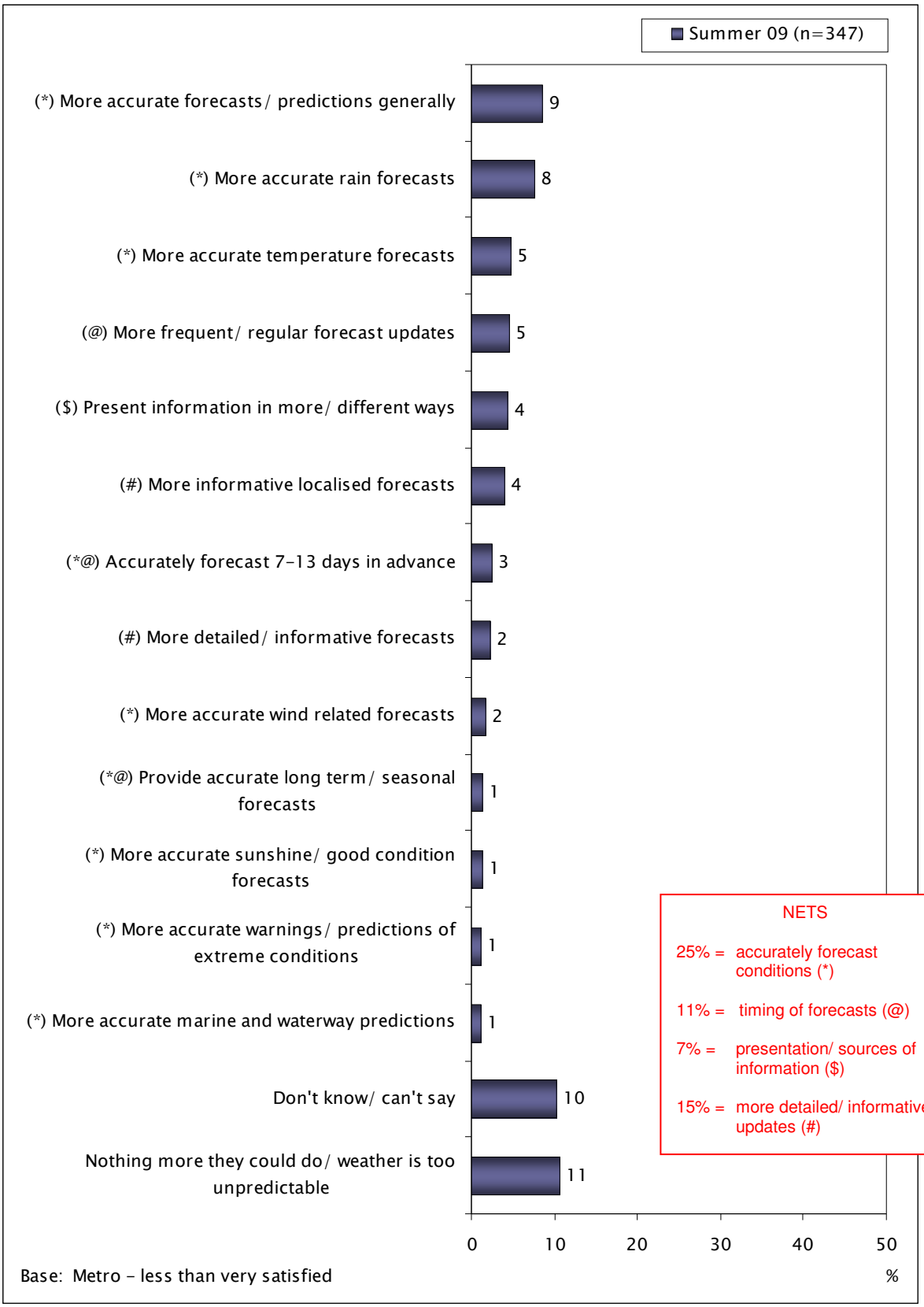
Base: All metro	BoM Website		BoM Website		Total
	Aware	Unaware	Use	Do Not Use	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	94	93	94	94	94
Overall Satisfaction - Index	*84.2*	*83.4*	*84.8*	*83.3*	*84.0*
Accuracy of information - % accurate	81	85	86	79	82
Information meets requirements - % regularly	73	55	76	63	69
Timeliness of information - % on time	96	95	98	94	96
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	90	87	92	87	89
% Check weather for leisure activities	94	86	95	90	92
% Check weather for domestic activities	70	78	73	71	72
% Check weather for special occasions	64	66	62	66	64
% Check weather information daily	64	69	67	64	65
% Used Bureau of Meteorology website	61	-	100	-	48

Figure 39: Overall Satisfaction with BoM Information – Results by Frequency of Checking Weather

Base: All metro	Frequency of Checking Weather				Total
	Daily	2-3 Times a Week	Once a Week	< Once a Week	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	95	90	93	89	94
Overall Satisfaction - Index	*84.8*	*80.5*	*86.2*	*86.2*	*84.0*
Accuracy of information - % accurate	80	89	87	76	82
Information meets requirements - % regularly	71	71	76	46	69
Timeliness of information - % on time	97	98	100	77	96
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	97	85	81	75	89
% Check weather for leisure activities	95	93	85	75	92
% Check weather for domestic activities	79	66	53	43	72
% Check weather for special occasions	71	58	43	32	64
% Check weather information daily	100	-	-	-	65
% Used Bureau of Meteorology website	49	51	36	41	48

Figure 40: Suggestions to Increase Satisfaction with BoM Weather Information

Q.20 What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?



Following their rating of satisfaction, respondents who reported that they were fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied were asked what could be done to make them feel more satisfied with the weather information from the Bureau.

Responses were recorded verbatim during the interview and coded into themes post data collection. The percentage of responses relating to each theme has been charted in Figure 40 (note please refer to the Detailed Tables at Appendix 2 for a full list of themes – see separate volume). Themes were further grouped together to form nets (see box insert on chart), as many themes were similar in nature.

Whilst a number of **metropolitan** respondents felt nothing could be done to improve their satisfaction (11%), 1 in 4 (25%) reported improving forecast accuracy would make them feel more satisfied. Accuracy was by far the most common thread throughout respondents' comments whether in relation to specific types of forecast such as rainfall or temperature or just in general.

The next most common theme related to providing more detailed or informative updates (15%), especially in relation to localised forecasts.

Less common were comments in relation to improving the timing of forecasts (11%), including providing more frequent/ regular forecasts. Comments in relation to how weather information is presented via various mediums (7%) were the least common.

The following provides examples of verbatim comments recorded for each theme:

Accurately forecast conditions (25%)

> *"More accurate weather forecasts and detailed information would be helpful."*
>
> *"A quicker and more detailed rain forecast would be very helpful and maybe a monthly rainfall report."*
>
> *"More coverage of maximum and minimum temperature forecasts away from the city."*
>
> *"More accurate rain and storm forecasts and it would be good to have local temperature updates for my suburb, not just for the closest/main suburb."*

More detailed / informative updates (15%)

> *"As we have an evaporative cooler humidity forecasts would be good."*
>
> *"More local weather information with updates on wind, rain etc."*
>
> *"As I need specific weather information on certain regions of outback NSW, I feel that I am not getting accurate information."*

Timing of forecasts (11%)

"More frequent updates on weather information. For example: every couple of hours."

"More frequent cyclone updates. It is currently every four hours which is not frequent enough."

"More accuracy and regular updates on the phone and internet in more detail."

Presentation/ sources of information (7%)

"The speed of the information coming through on the internet is not fast enough. It is sometimes not up to date."

"It could be slightly easier to navigate around the website."

"The forecast on the television is generally delayed on the weekends, mostly the rainfall predications."

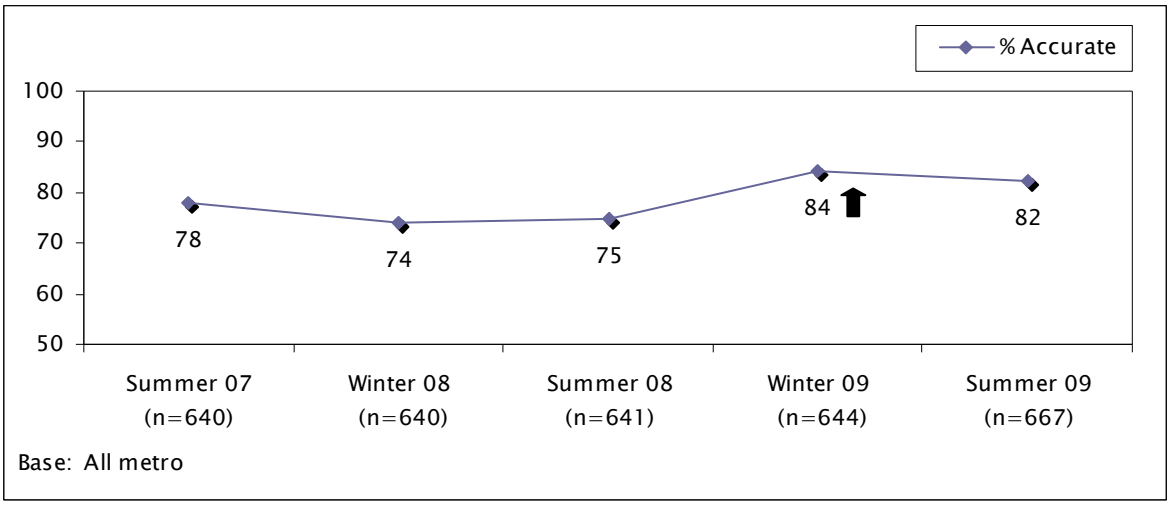
"Simple information about the weather in simple terms would be appreciated."

4.3 Accuracy of Forecasts and Warnings (Q.16, Q.17, Q.18)

Figure 41 shows a slight decrease in perceived accuracy of weather forecasts and warnings in the past 6 months among **metropolitan** respondents, though the result continues to be an improvement on 2007 and 2008 findings. However, care must be taken in interpreting results as the question wording changed in the winter 2009 questionnaire meaning this could have impacted on results.

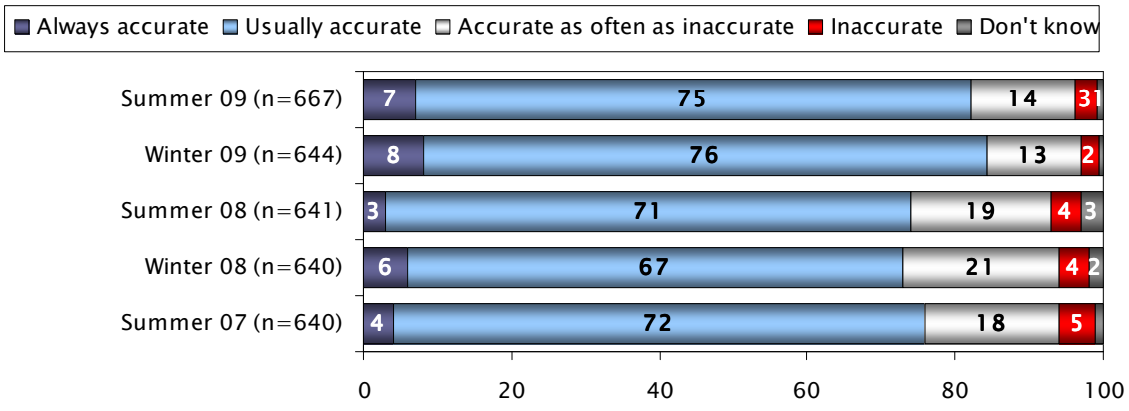
Figure 41: Accuracy of Forecasts and Warnings – % Accurate

Q.16 For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been always accurate, usually accurate, accurate as often as inaccurate, usually inaccurate or always inaccurate?*



** Note – question wording changed in 2009 to refer to last 6 months instead of last 12 months*

Figure 42: Accuracy of Forecasts and Warnings – Full Distribution



Base: All metro	Summer 07 (n=640)	Winter 08 (n=640)	Summer 08 (n=641)	Winter 09 (n=644)	Summer 09 (n=667)
Don't know	1	2	3	1 ↓	1
Inaccurate	5	4	4	2 ↓	3
Accurate as often as inaccurate	18	21	19	13 ↓	14
Usually accurate	72	67	71	76	75
Always accurate	4	6	3	8 ↑	7

Figure 43: Perceived Changes in Accuracy of Forecasts and Warnings – % More Accurate

Q.17 Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?

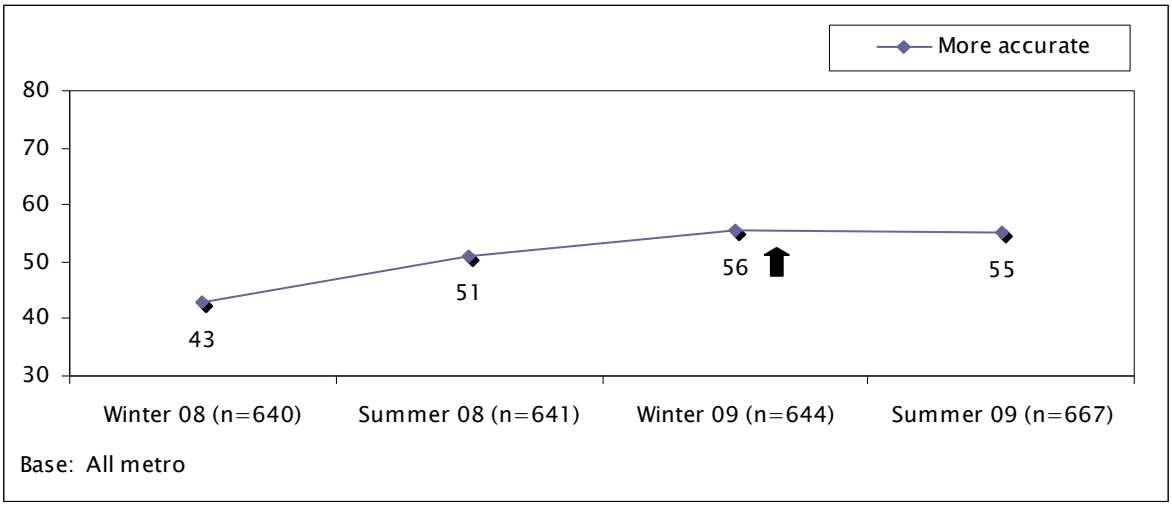
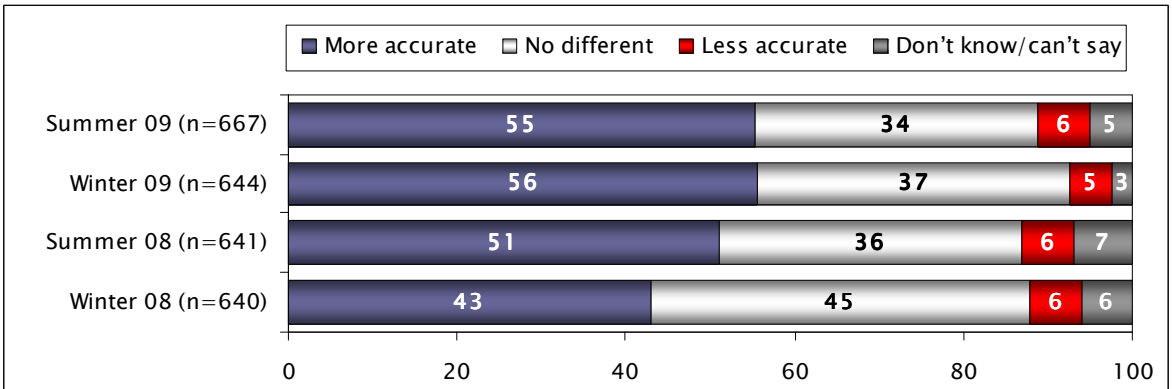


Figure 44: Change in Accuracy of Forecasts and Warnings – Full Distribution

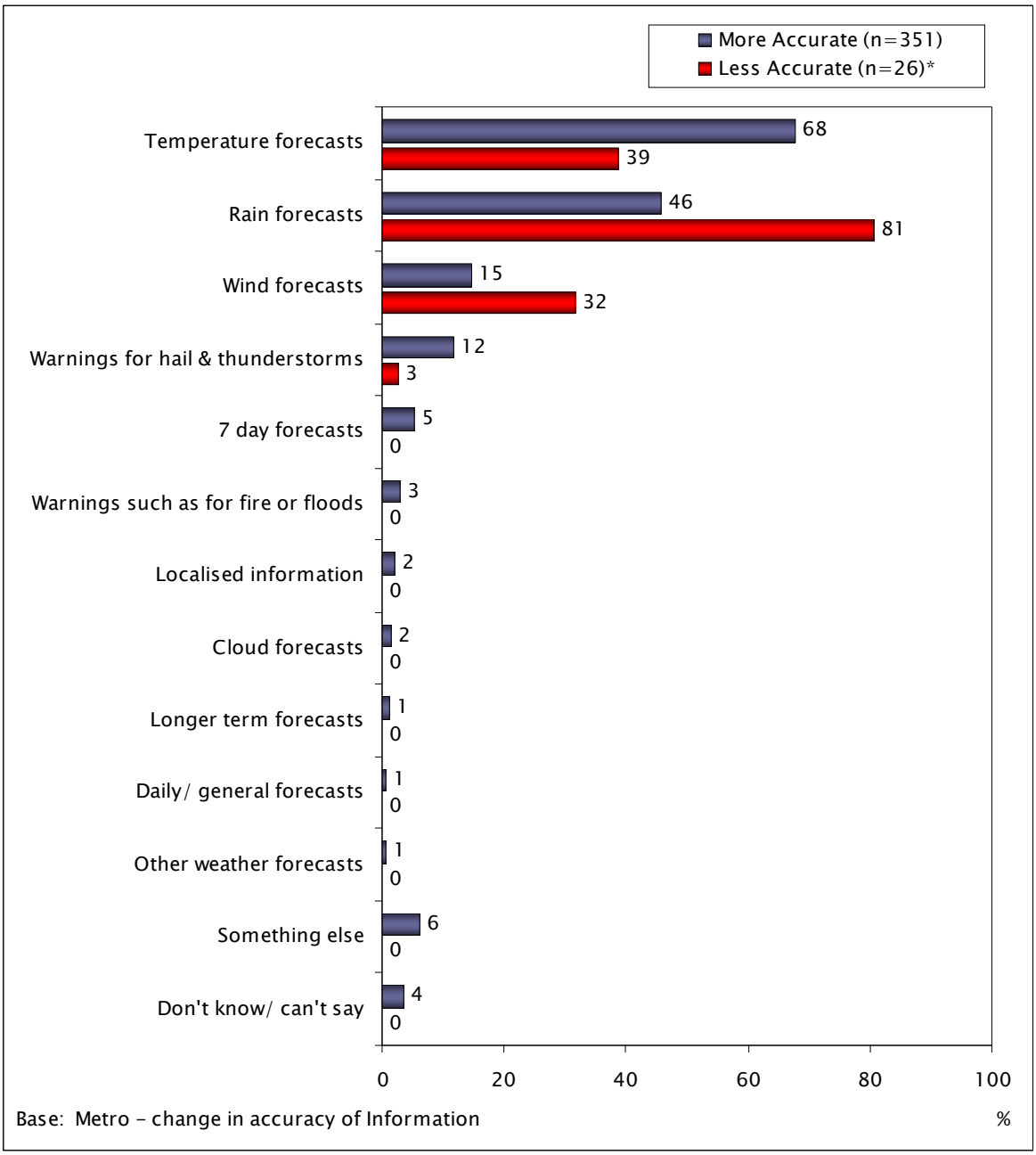
Q.17 Generally, do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?



Base: All metro	Winter 08 (n=640)	Summer 08 (n=641)	Winter 09 (n=644)	Summer 09 (n=667)
Don't know/can't say	6	7	3 ⬇	5
Less accurate	6	6	5	6
No different	45	36	37	34
More accurate	43	51	56	55

Figure 45: Reasons for Perceived Change in Accuracy – % Giving Reason

*Q.18 Which part of the weather information has become more or less accurate?^*



*^Multiple responses accepted, therefore results do not add up to 100%. *Caution: small sample size*

4.4 Weather Information Meets Requirements (Q.11 & Q.12)

Figure 46: Weather Information Meets Requirements – % Regularly

Q.11 Would you say the weather information you access or receive regularly meets your requirements, sometimes meets your requirements or never meets your requirements…?

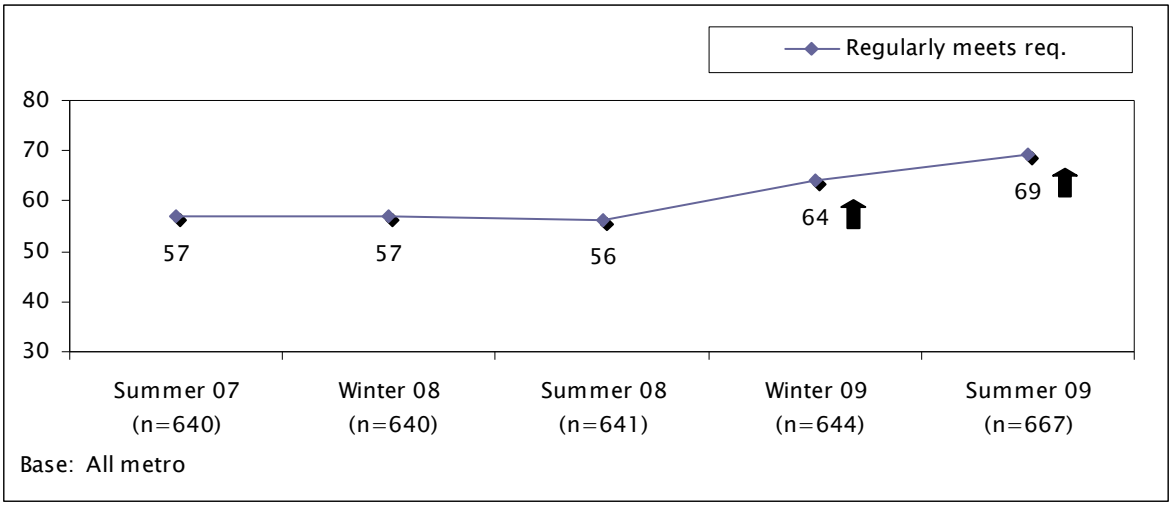
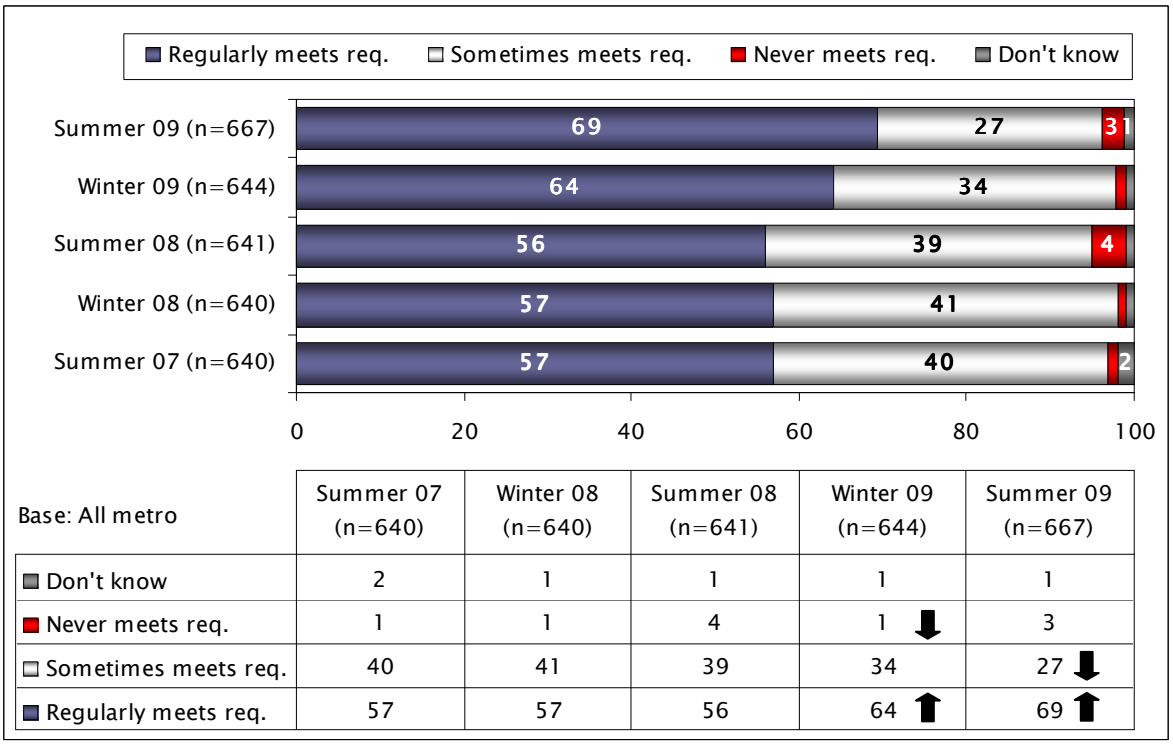


Figure 47: Weather Information Meets Requirements – Full Distribution



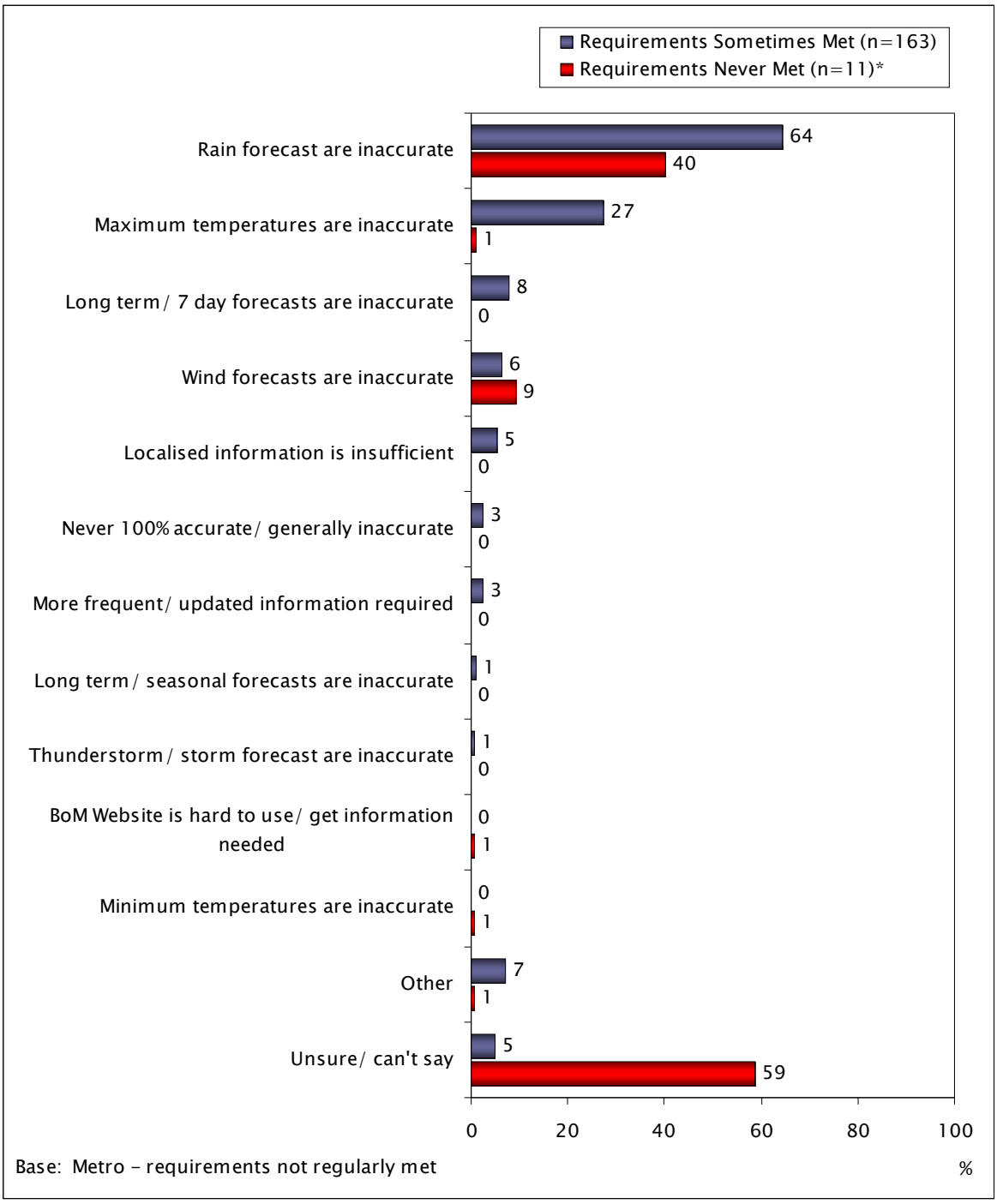
Base: All metro	Summer 07 (n=640)	Winter 08 (n=640)	Summer 08 (n=641)	Winter 09 (n=644)	Summer 09 (n=667)
Don't know	2	1	1	1	1
Never meets req.	1	1	4	1 ↓	3
Sometimes meets req.	40	41	39	34	27 ↓
Regularly meets req.	57	57	56	64 ↑	69 ↑

Upon investigation it appears that those **metropolitan** sub-groups that more often indicated that weather information regularly meets their requirements included:

- Those residing in WA, ACT, NT, TAS, SA & QLD
- Users of and those who value the Bureau's website
- Those very satisfied with the information provided by the Bureau
- Those who feel that the weather forecasts are accurate
- Those who require 7 or more days' notice of the weather forecast

Figure 48: Reasons for Requirements Not Being Met – % Giving Reason

*Q.12 In what way does the weather information you receive not meet your requirements?^*



^*Multiple responses accepted, therefore results do not add up to 100%. *Caution small sample size.*

4.5 Timeliness of Weather Information (Q.13, 14 & 15)

Figure 49: Weather Information is Available in Time – % Available in Time

Q.15 Is the weather information available in time to meet your needs?

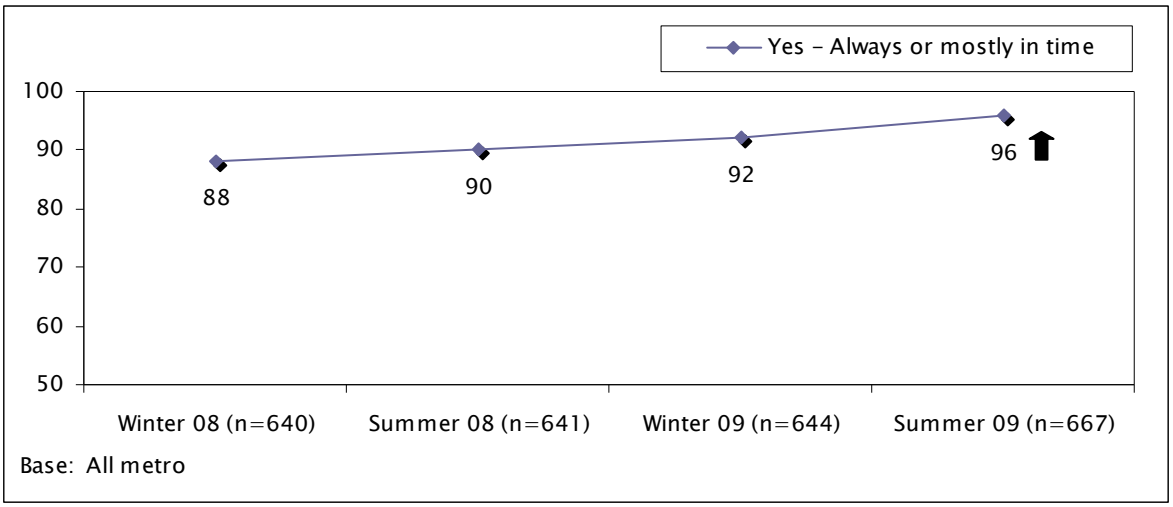
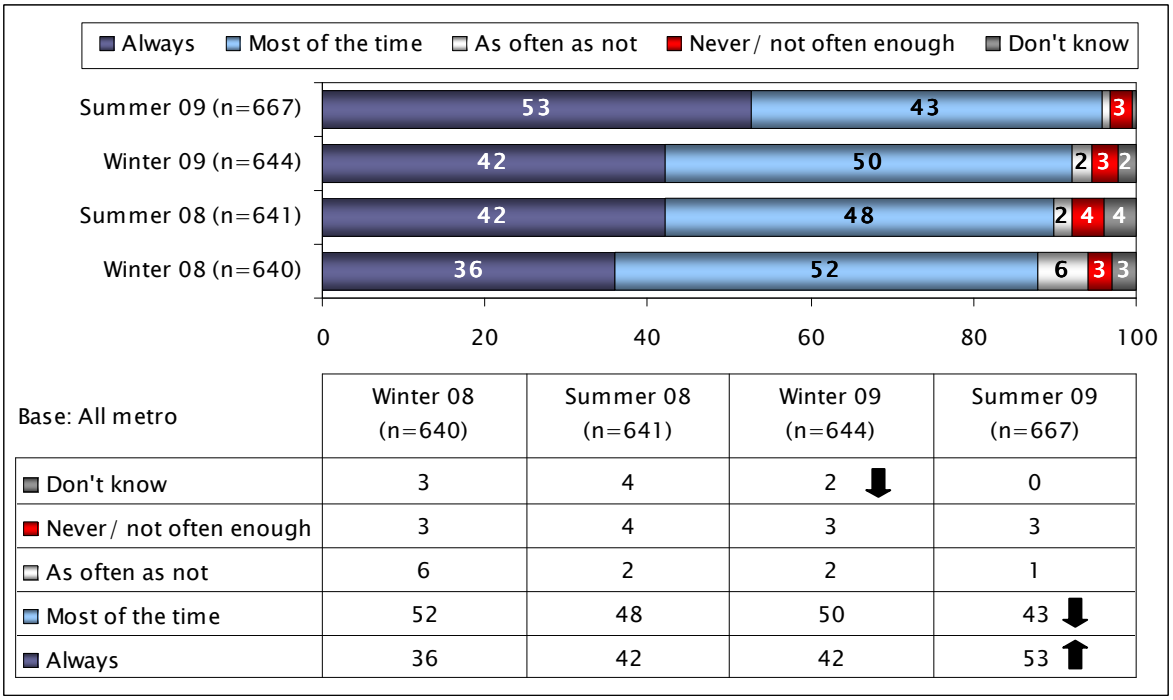


Figure 50: Weather Information is Available in Time – Full Distribution

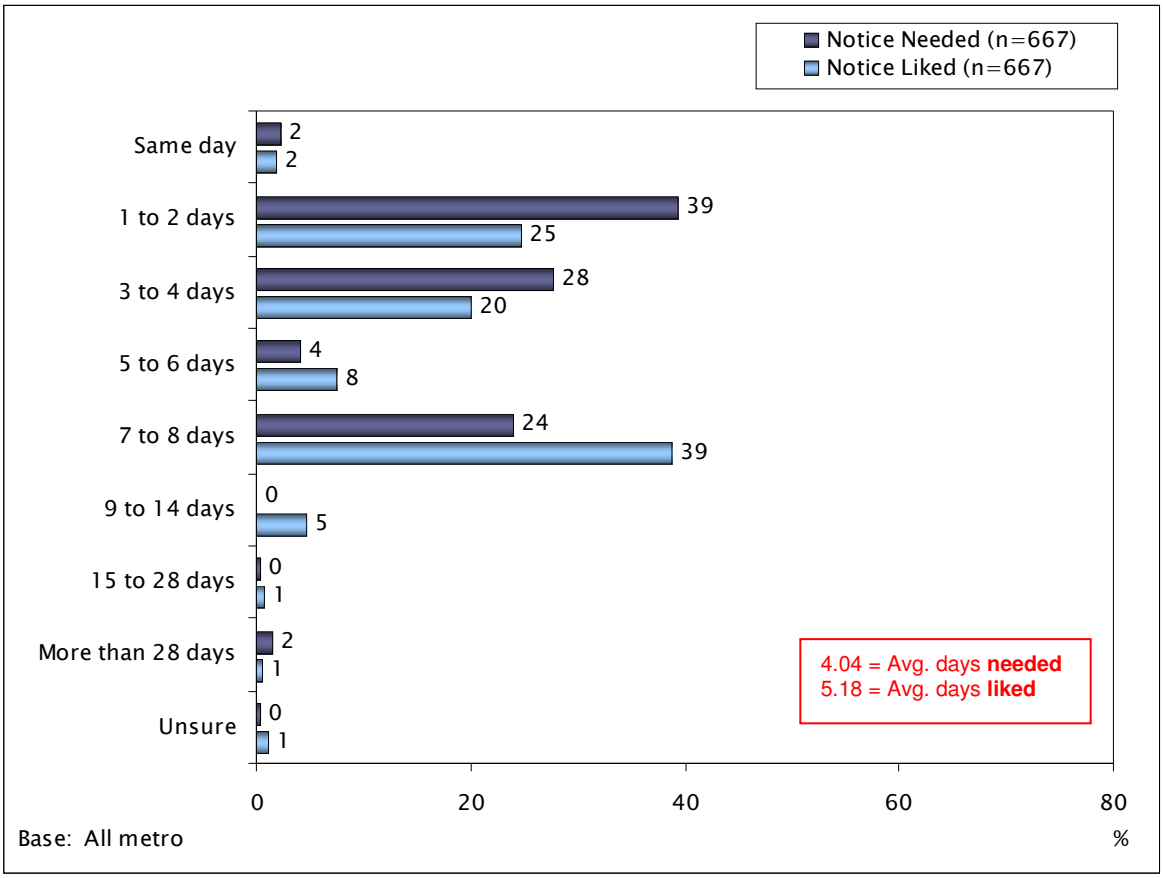


Base: All metro	Winter 08 (n=640)	Summer 08 (n=641)	Winter 09 (n=644)	Summer 09 (n=667)
Don't know	3	4	2 ⬇	0
Never / not often enough	3	4	3	3
As often as not	6	2	2	1
Most of the time	52	48	50	43 ⬇
Always	36	42	42	53 ⬆

Figure 51: Necessary and Preferred Notice of Weather Forecasts – % Days

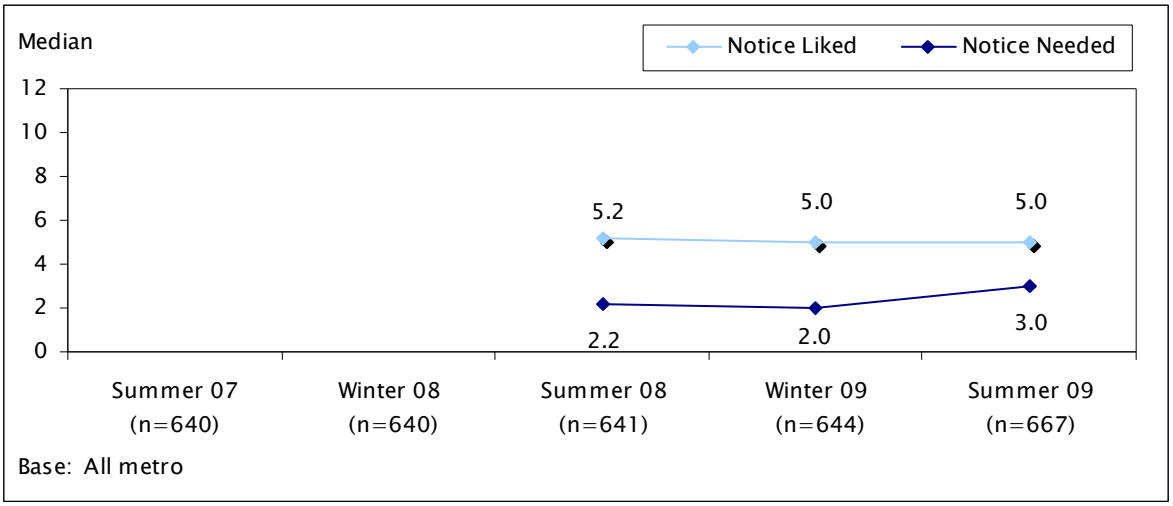
Q.13 Typically, how many days ahead of time do you need to know the weather forecast?

Q.14 Typically, how many days ahead of time would you like to know the weather forecast?



The average number of days ahead of time that **metropolitan** respondents indicated they need to know the forecasts was 4.04 days. The average number of days' notice that would be liked was 5.18. This indicates that, while respondents would prefer to have more notice of weather forecasts, they did not consider this as a necessity.

Figure 52: Necessary and Preferred Notice of Weather Forecasts – Median No. of Days



The chart above presents a time series for the amount of notice liked and needed in regards to weather forecasts. Results prior to summer 2008 have not been charted above as the base responding to the question changed (prior to summer 2008 asked of metropolitan respondents regarding work activities only).

The results in summer 2009 were very similar to those recorded in winter 2009 in terms of the amount of notice liked, though there has been an increase in the amount of notice needed which was driven by NSW, VIC, QLD and WA respondents.

In summer 2008 the median number of days liked by respondents was 5.2. At that time, there was a higher percentage of respondents who indicated that they would like the forecasts to be provided 7-8 days in advance, particularly in Tasmania and South Australia. There was also a percentage who wanted the information to be available at least 28 days in advance. This percentage was highest amongst respondents from South Australia and Western Australia.

However, care must be taken when comparing summer 2008 results as the context of the question changed after this survey. In summer 2008 respondents were asked about their current checking behaviour whereas from winter 2009 onwards respondents were asked about their needs.

4.6 Accessing and Using Weather Information (Q.4 to Q.10)

Figure 53: Reasons for Checking Weather – % Giving Reason

Q.4 Thinking about weather information, do you typically check the weather to make decisions regarding…?

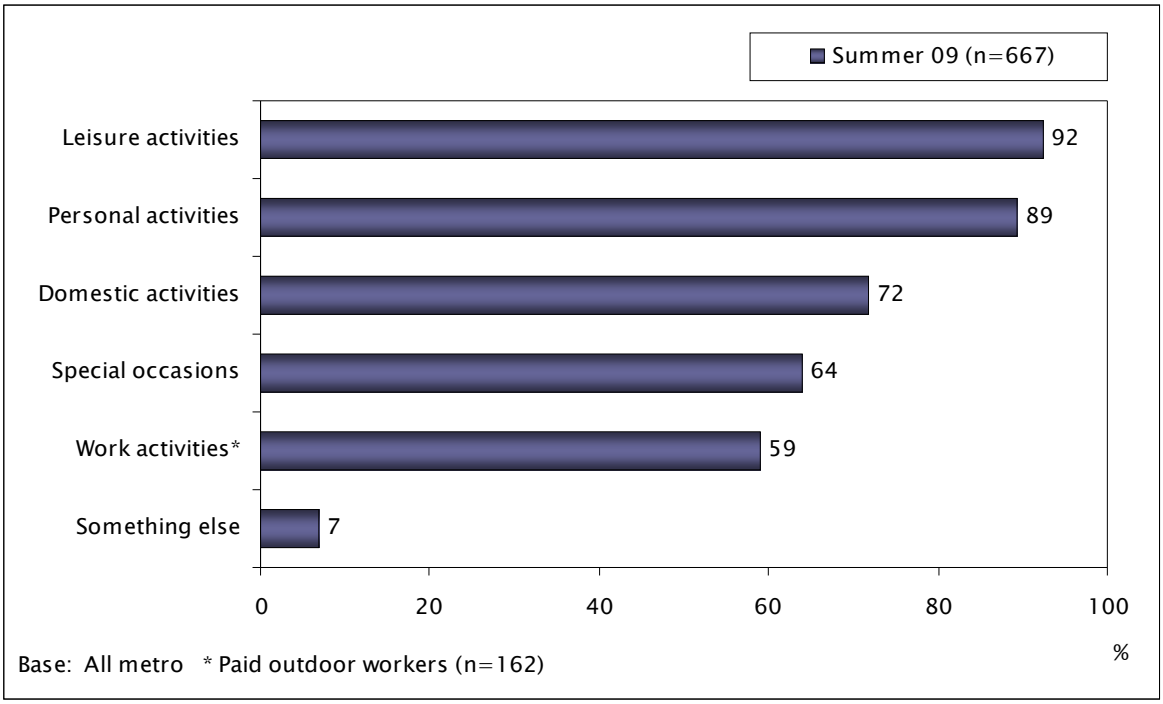


Figure 54: Frequency of Checking Weather for Decision Making – % Checking

Q.5 How often do you typically check the weather to make decisions regarding the activities you mentioned?

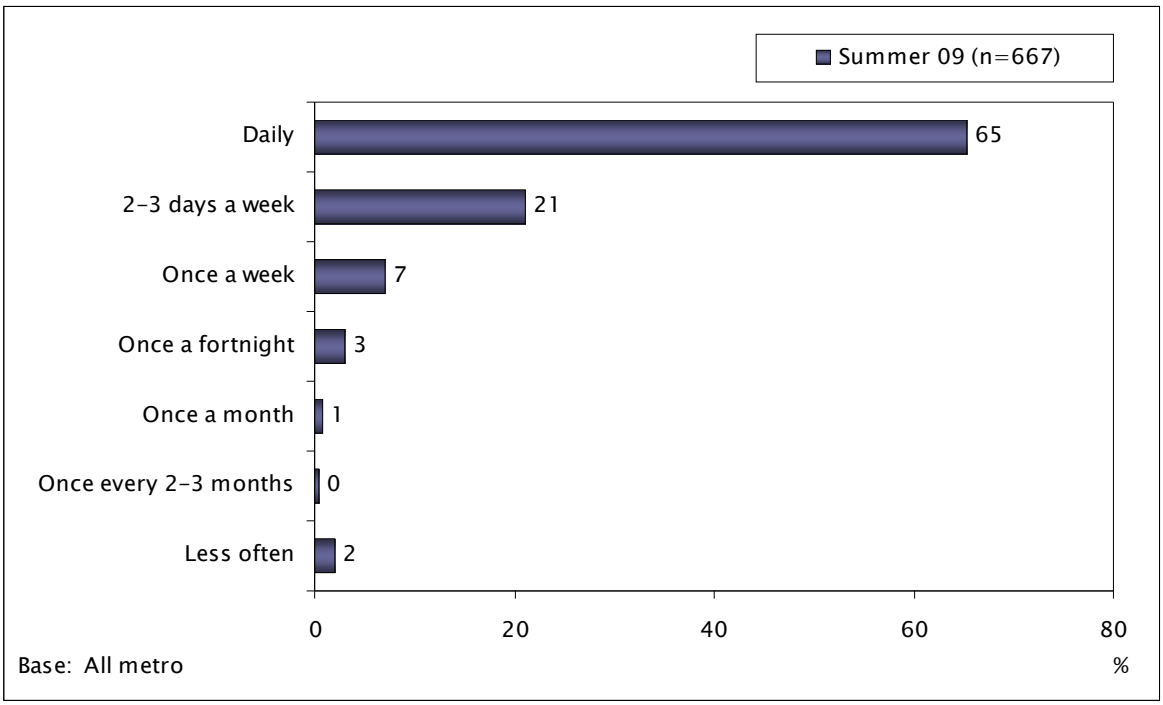
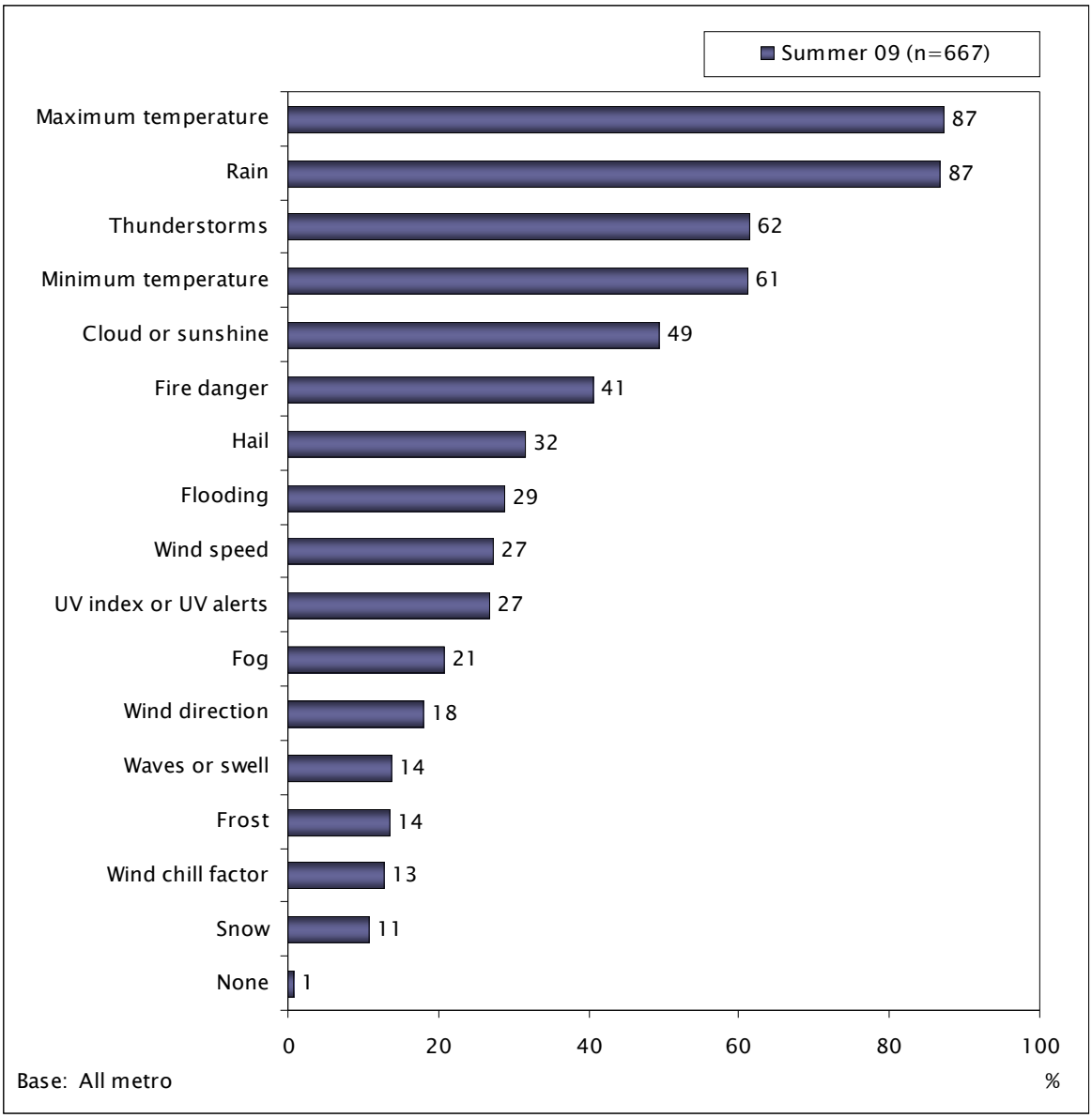


Figure 55: Use of Weather Elements for Decision Making – % Using Element

*Q.6 Typically, which of the following weather types have you recently used to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

Victorian respondents were by far more likely to use fire danger which is not surprising after the bushfires that occurred the previous summer. However the percentage of Victorian metro respondents that reported using fire danger has remained stable (57%) while the overall metropolitan result has decreased (41% down from 45% in winter 2009).

Respondents from QLD and NT were much more likely to use information regarding thunderstorms whilst respondents from SA and ACT were much more likely to use the UV index or UV alerts. Tasmanians and to some extent Western Australian respondents were more likely to access wind forecasts.

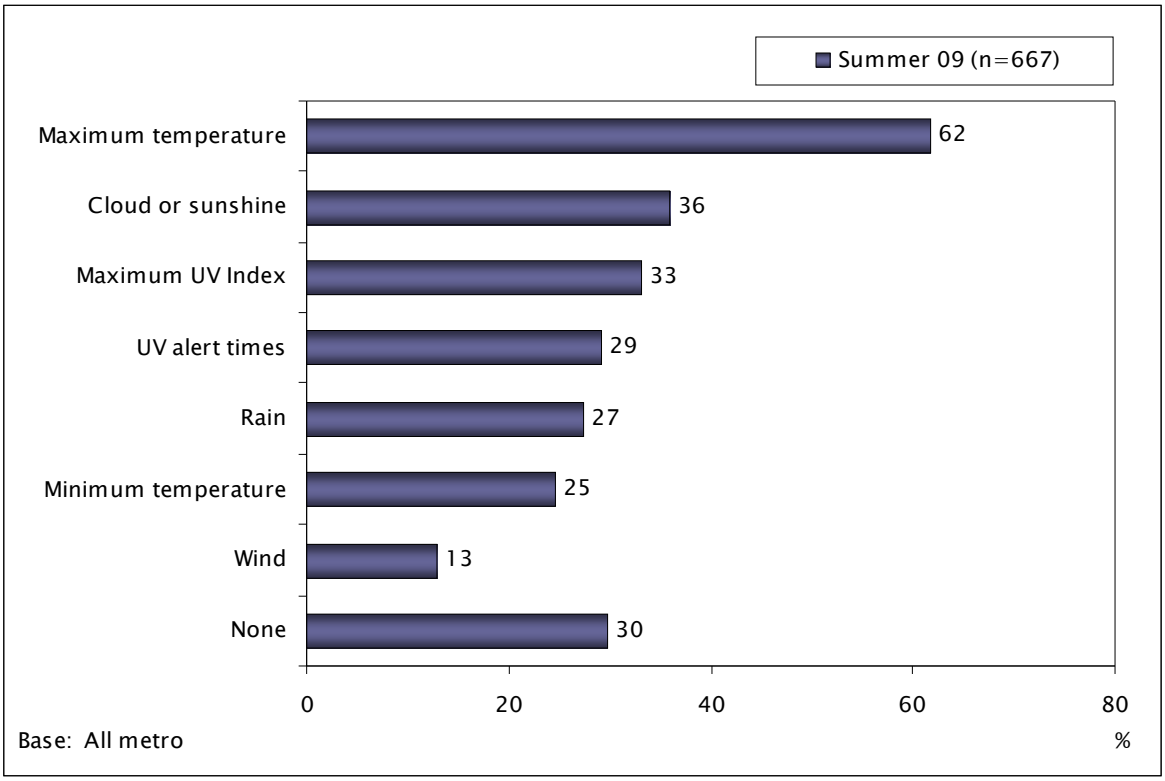
There were some differences in the elements used to make decisions dependent on whether the respondents' main information source was television, radio or the Bureau's website.

Notable differences were that television was more often the preferred method among those who use minimum temperature and rain. Hail and flooding were more often indicators among those who prefer to use radio.

Those who check waves or swell, wind direction, or thunderstorms were more likely to prefer to use the Bureau's website.

Figure 56: Use of Weather Elements for Sun Protection Decisions – % Using Element

*Q.7 Have you recently used any of the following weather types to make decisions about sun protection?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

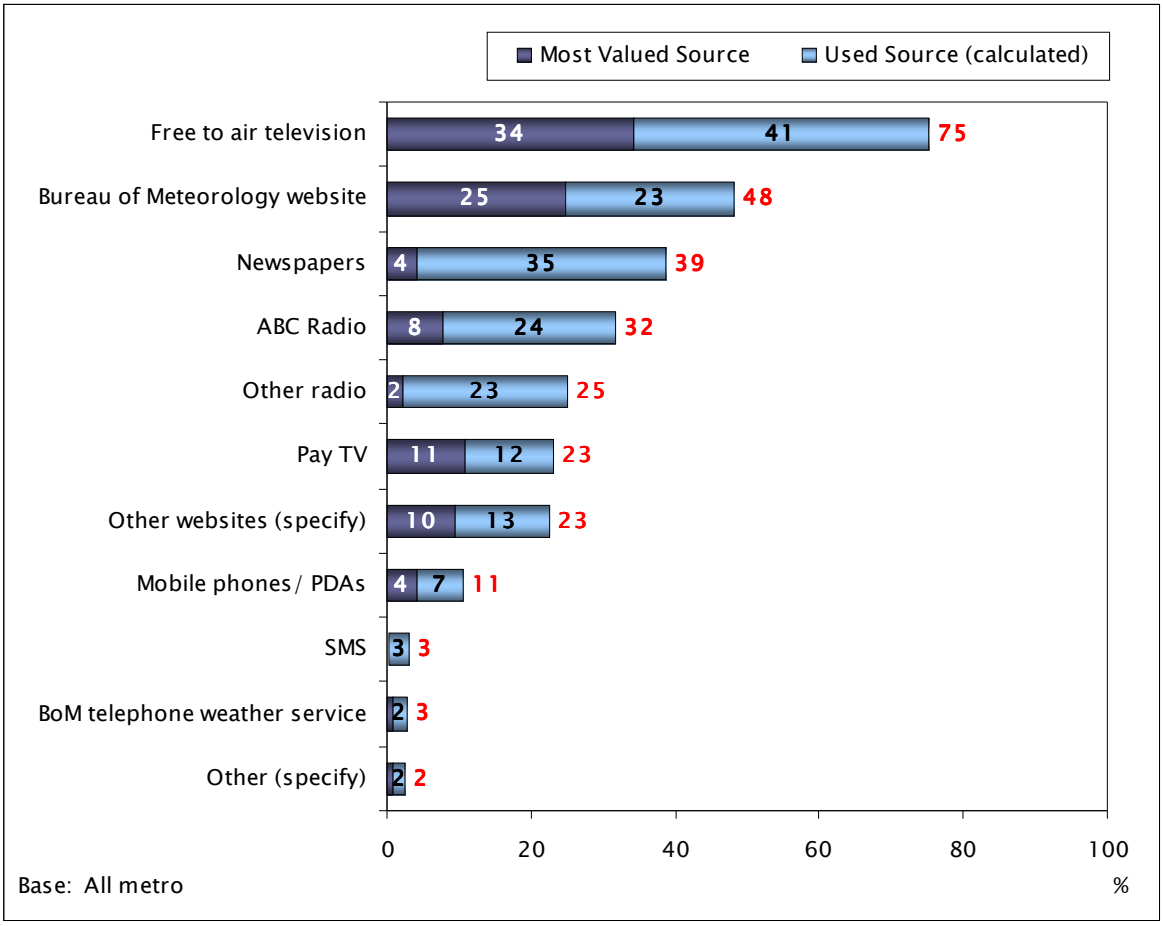
Results for this new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature. Other weather elements such as the maximum UV index and UV alert times were used to a lesser extent.

Around 1 in 3 metropolitan respondents reported that they do not use weather information to make decisions about sun protection. It should be noted however that this percentage may include individuals who use sun protection either everyday or when going outdoors regardless of the weather forecast and not just individuals who do not strive to protect themselves from the sun.

Figure 57: Use and Value of Weather Information Sources – % Using or Valuing Source

*Q.8 Which of the following have you used over the past 6 months to get weather information…?^*

*Q.9 Of those you have mentioned, which one do you find to be the most valuable sources of weather information to enable you to make weather related decisions?^*



^Multiple responses accepted, therefore results do not add up to 100%.
Note: Most valued source + used source may not add up to exact total due to rounding of decimal places.

Figure 58: Awareness and Use of Bureau of Meteorology Website – % Aware & Use

Q.10 Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

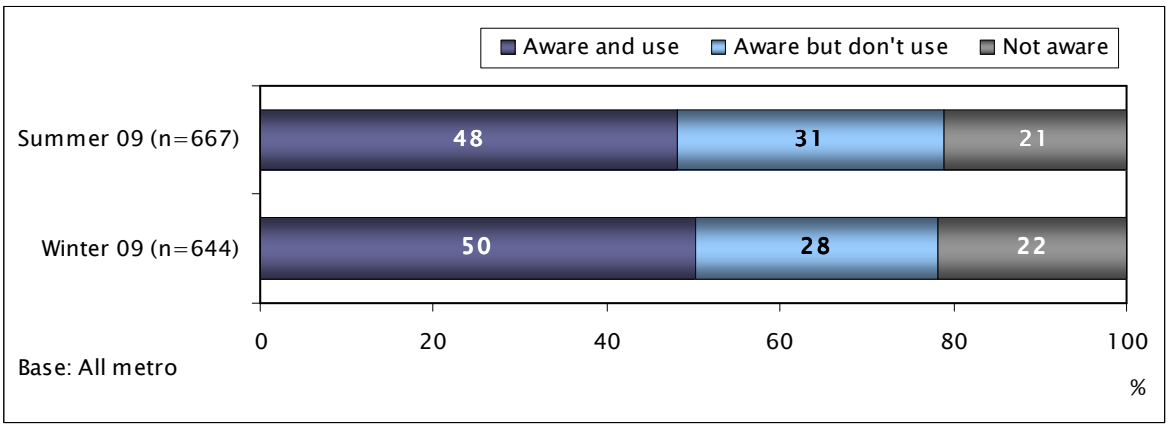


Figure 59: Use of Bureau of Meteorology Website – % Users

Q.8 Which of the following have you used over the past 6 months to get weather information…?

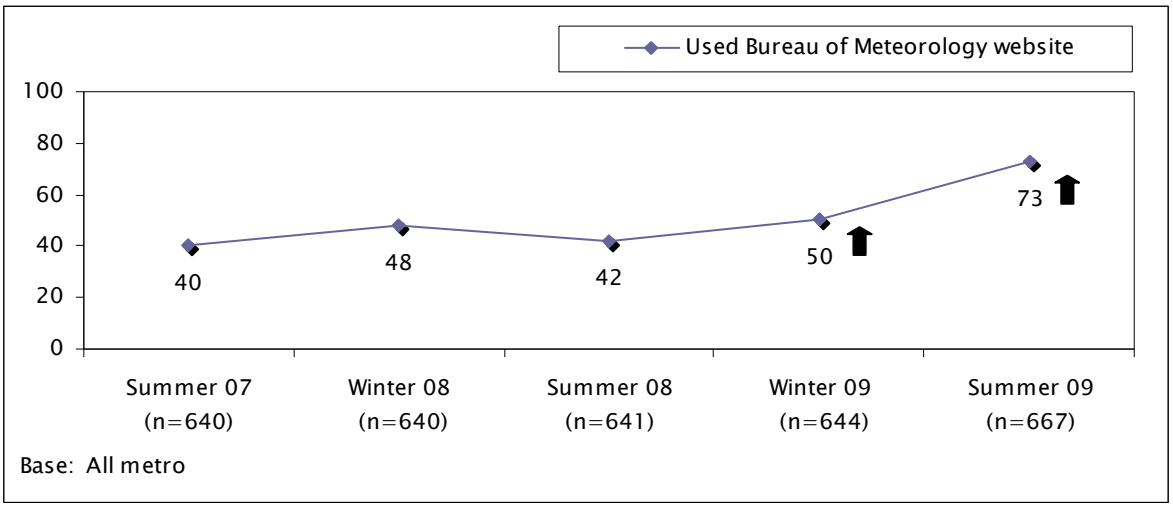


Figure 60: Other Websites for Weather Information – % Other Websites Used

Base: Use other website (n=116)	% use website
NINEMSN	27
Google	19
Newspaper/ news website	18
Yahoo	14
Windows Vista/ pop up weather gadget	5
Weather.com.au	5
Weather Zone	4
ABC website	3
Seabreeze.com	3
Company websites e.g. Coles/ Banks	3
Weather channel website	2
Elders	2
BUOY Weather	2
Swellnet.com	2
Bigpond	2
Coast Watch	1
BBC.co.uk	1
Ourbrisbane.com	1
Don't know/ can't remember	4

4.7 Improvements (Q.21 & Q.22)

Figure 61: Reactions to Replacement of the Term "Fine" – % Giving Response

Q21. The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

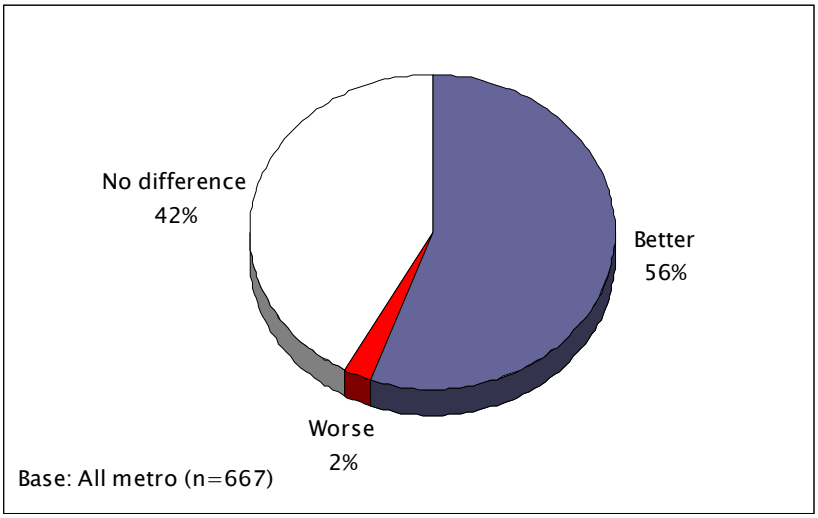
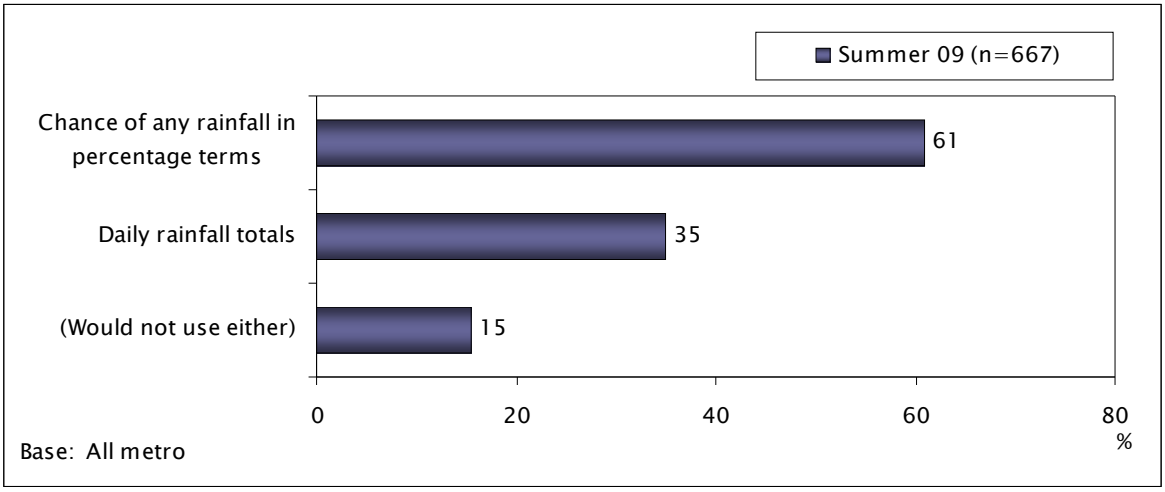


Figure 62: Use of Rainfall Information – % Giving Response

*Q22. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

The above charts display results from two new questions added to the survey in summer 2009. The first chart shows mixed reactions to replacing the term "fine" with words to describe sky conditions to help the public better understand the weather forecast. However most felt this change would for the better or else make no difference; very few felt the change would be for the worse.

The second chart reveals that the majority of respondents would use additional rainfall information provided by the Bureau in making decisions about their day to day activities, and this would primarily be the chance of any rainfall in percentage terms.

4.8 Metropolitan Summary

Overall, satisfaction with the information provided by the Bureau of Meteorology has remained stable over the last six months, therefore maintaining the significant improvement observed in winter 2009. Satisfaction levels have remained above the high levels previously recorded in summer 2007.

Satisfaction with the information provided was highest amongst those who do not rely on weather information for outdoor work. Those with higher satisfaction also tended to be more positive about other elements such as the accuracy of information and its ability to meet their needs.

Significant improvement was noted for two of the three other key performance indicators (KPIs). That is, a higher proportion of respondents now see the information provided as more regularly meeting requirements and timelier. Although a non significant result, a slightly lower proportion of respondents now see the information provided as being more accurate. Also of note is that an upward trend has been observed for information regularly meeting requirements since summer 2008, revealing steady improvements in this KPI over time.

- Those who indicated that weather information and forecasts were more accurate equated this to increased accuracy in the temperature and rain forecasts.
- The few who indicated that forecasts have been less accurate were often unable to give a reason why this was the case, perhaps indicating they are dispassionate and their satisfaction is unlikely to increase.
- Inaccuracies were also the main reason for people stating that their weather information needs are not always met. Rain forecasts and maximum temperatures in particular, were said to be inaccurate.

For around one in ten metropolitan respondents the Bureau could do nothing to improve its information provision. More specifically, some said that weather information could never be entirely accurate due to the unpredictable or fickle nature of the weather. For these respondents, an improvement in the accuracy of information is likely to be the best means of improving their satisfaction.

Supporting this, the most common improvement suggestion was for the Bureau to improve the accuracy of its forecasts in general, but also its rain forecasts more specifically.

In terms of the desired notice period for weather forecasts, many indicated they would *like* to know at least three days in advance, with around one third stating they would *like* to know seven to eight days in advance. However, fewer indicated that they *need* to know in that time. Around one third indicated that they only need one or two days' notice of weather forecasts. Still, around one in four indicated that they require at least 7 days' notice of weather forecasts.

The majority of respondents check the weather daily or two to three days a week. Most commonly, they do so to make decisions regarding leisure or personal activities.

Rain forecasts and maximum temperatures were used by nine out of ten respondents to make decisions regarding day to day activities, highlighting their importance. Many also based decisions on whether storms were forecast and the minimum temperature. These could, therefore, be considered to be priority areas.

Results for the new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature forecast.

The medium most often used for checking forecasts was free to air television. This was considered to be the most valued source alongside the Bureau's own website.

While use of the Bureau's website has increased (statistically significant), there remains a segment of the metropolitan population who are unaware of the existence of the site.

5.0 REGIONAL RESULTS

5.1 Overall Satisfaction - % Very/Fairly Satisfied (Q.19 & Q.20)

Figure 63 presents **regional** combined results for the top two levels of overall satisfaction. Of those able to answer (did not respond with "don't know"), 92% were either very or fairly satisfied with the information they receive from the Bureau through various sources. This result represents a slight increase in satisfaction since it was last measured in winter 2009 as well as the highest level of satisfaction over the last five surveys.

Figure 63: Overall Satisfaction with BoM Information - % Very/Fairly Satisfied

Q.19 Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied?

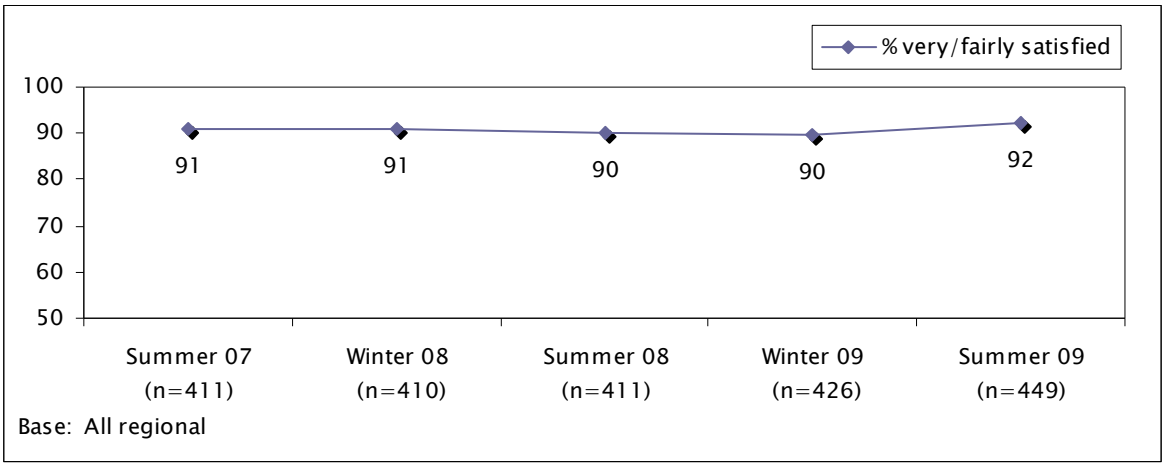
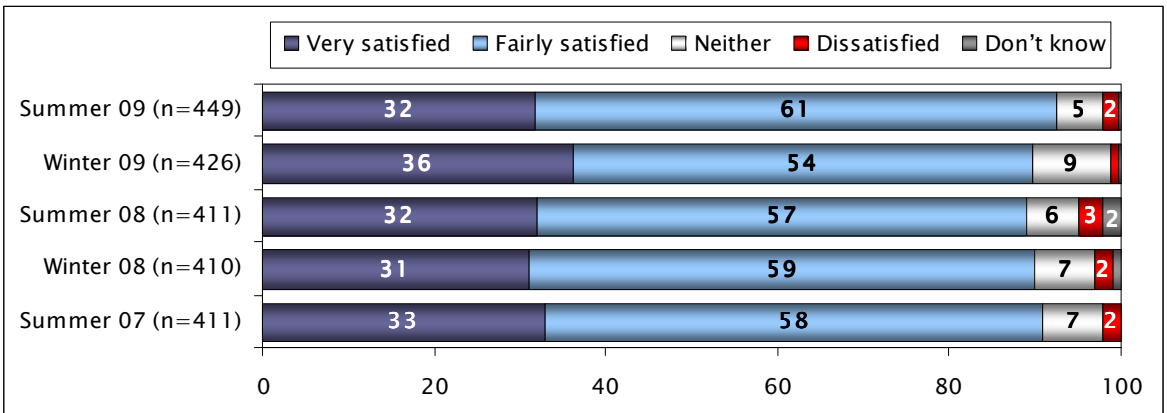


Figure 64: Overall Satisfaction with BoM Information – Full Distribution



Base: All regional

	Summer 07 (n=411)	Winter 08 (n=410)	Summer 08 (n=411)	Winter 09 (n=426)	Summer 09 (n=449)
Don't know	0	1	2	0 ⬇	0
Dissatisfied	2	2	3	1	2
Neither	7	7	6	9	5 ⬇
Fairly satisfied	58	59	57	54	61 ⬆
Very satisfied	33	31	32	36	32

5.2 Overall Satisfaction – Index (Q.19 & Q.20)

Figure 65 presents **regional** results from an analysis of all levels of overall satisfaction. Each level of satisfaction is given a score out of 100 as follows:

- 100 = Very satisfied
- 75 = Fairly satisfied
- 50 = Neither
- 25 = Fairly dissatisfied
- 0 = Very dissatisfied

An average of all these scores is then taken to establish an index score out of 100. In this way, satisfaction can be expressed by looking at the results from all respondents rather than just those who reported the top two levels.

Expressing satisfaction in this way has the advantage of being more sensitive to when a respondent shifts across levels, particularly within the top two levels, as an index will reflect this shift (by assigning a lower score to the second level). In contrast, expressing satisfaction as a percentage will not reflect this shift as it does not differentiate the top two satisfaction levels, it simply adds them together.

For further explanation about calculation of satisfaction index, please refer to Section 2.5.4.

In summer 2009 a satisfaction index score of 80.6 was observed. This represented a slight decrease (not statistically significant) since winter 2009, perhaps due to seasonal fluctuations, and a relatively consistent level of satisfaction over time among regional respondents.

Figure 65: Overall Satisfaction with BoM Information – Index

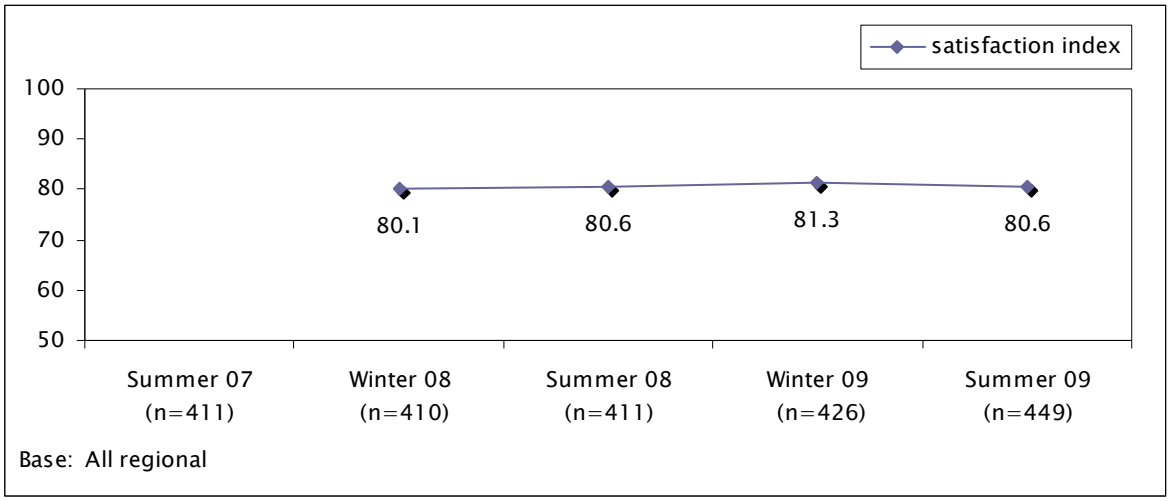


Figure 66: Overall Satisfaction with BoM Information – Results by Age and Gender

Base: All regional	Gender		Age			Total
	Male	Female	16 to 34 Years	35 to 54 Years	55 Years or Older	
KEY PERFORMANCE INDICATORS						
Overall Satisfaction - % satisfied	93	92	92	93	93	92
Overall Satisfaction - Index	*80.0*	*81.3*	*76.7*	*82.3*	*82.1*	*80.6*
Accuracy of information - % accurate	73	85	85	75	80	79
Information meets requirements - % regularly	47	70	58	60	58	59
Timeliness of information - % on time	88	95	86	94	94	92
OTHER PERFORMANCE INDICATORS						
% Check weather for personal activities	74	82	70	79	85	78
% Check weather for leisure activities	86	75	79	88	74	81
% Check weather for domestic activities	59	73	81	54	66	66
% Check weather for special occasions	59	62	70	53	60	60
% Check weather information daily	57	55	33	50	75	53
% Used Bureau of Meteorology website	54	47	51	64	35	50

Figure 67: Overall Satisfaction with BoM Information – Results by Workplace

Base: All regional	Outdoor Worker		Total
	Yes	No	
KEY PERFORMANCE INDICATORS			
Overall Satisfaction - % satisfied	87	95	92
Overall Satisfaction - Index	*78.7*	*81.6*	*80.6*
Accuracy of information - % accurate	80	79	79
Information meets requirements - % regularly	53	62	59
Timeliness of information - % on time	90	92	92
OTHER PERFORMANCE INDICATORS			
% Check weather for personal activities	83	76	78
% Check weather for leisure activities	88	77	81
% Check weather for domestic activities	62	68	66
% Check weather for special occasions	64	59	60
% Check weather information daily	52	54	53
% Used Bureau of Meteorology website	66	43	50

Figure 68: Overall Satisfaction with BoM Information – Results by Use of Website

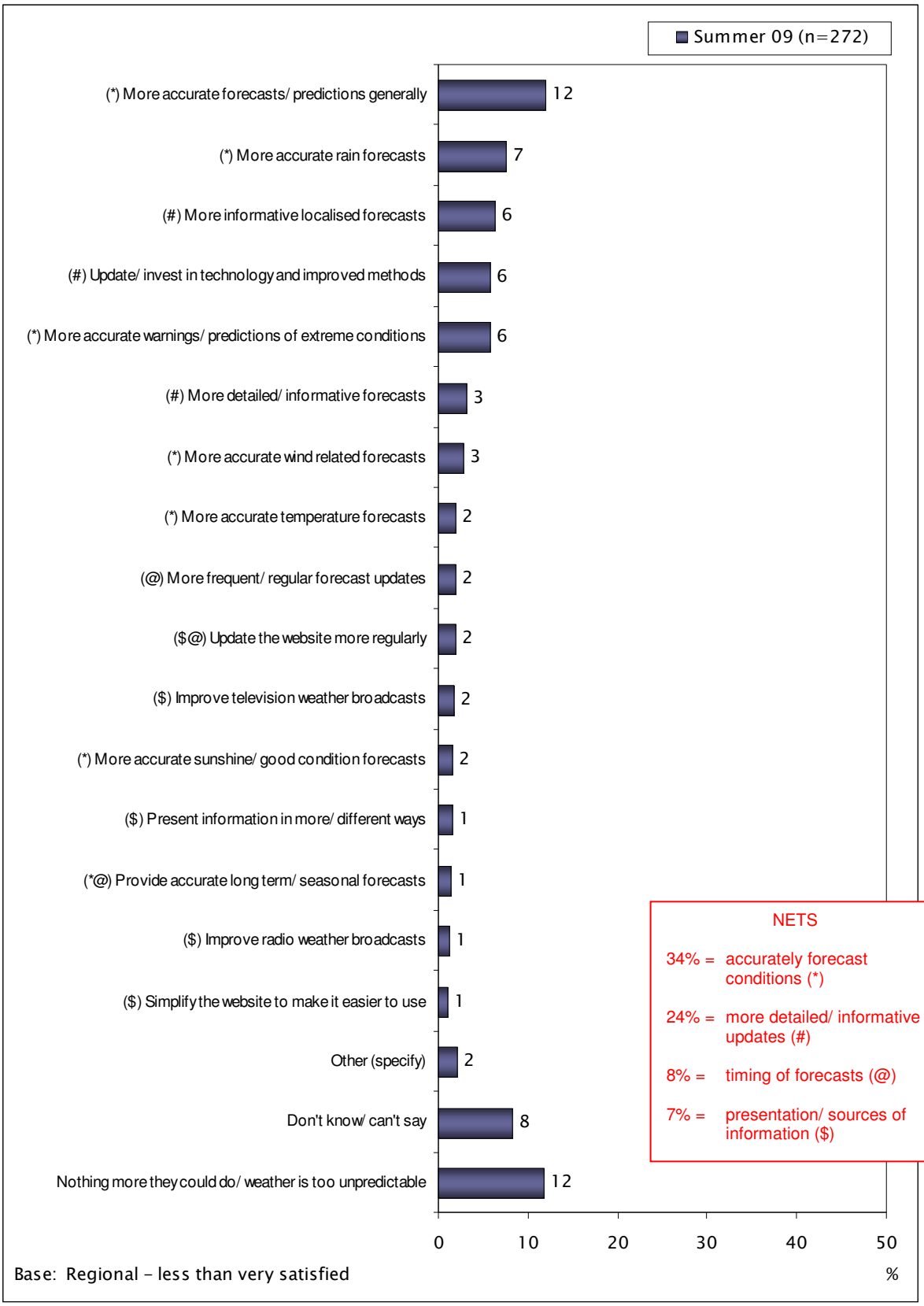
Base: All regional	BoM Website		BoM Website		Total
	Aware	Unaware	Use	Do Not Use	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	93	87	94	91	92
Overall Satisfaction - Index	*81.3*	*77.3*	*81.5*	*79.7*	*80.6*
Accuracy of information - % accurate	79	82	79	80	79
Information meets requirements - % regularly	62	40	69	49	59
Timeliness of information - % on time	92	91	89	94	92
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	82	61	90	67	78
% Check weather for leisure activities	82	73	89	72	81
% Check weather for domestic activities	67	62	66	66	66
% Check weather for special occasions	58	72	57	64	60
% Check weather information daily	55	47	60	47	53
% Used Bureau of Meteorology website	60	-	100	-	50

Figure 69: Overall Satisfaction with BoM Information – Results by Frequency of Checking Weather

Base: All regional	Frequency of Checking Weather				Total
	Daily	2-3 Times a Week	Once a Week	< Once a Week	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	92	95	94	86	92
Overall Satisfaction - Index	*80.1*	***86.0***	*76.1*	***75.0***	*80.6*
Accuracy of information - % accurate	80	81	86	60	79
Information meets requirements - % regularly	60	64	58	36	59
Timeliness of information - % on time	92	89	98	90	92
OTHER PERFORMANCE INDICATORS					
% Check weather for personal activities	89	70	77	73	78
% Check weather for leisure activities	87	69	83	74	81
% Check weather for domestic activities	72	66	58	43	66
% Check weather for special occasions	63	54	63	59	60
% Check weather information daily	100	-	-	-	53
% Used Bureau of Meteorology website	57	40	67	21	50

Figure 70: Suggestions to Increase Satisfaction with BoM Weather Information

Q.20 What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?



Following their rating of satisfaction, respondents who reported that they were fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied were asked what could be done to make them feel more satisfied with the weather information from the Bureau.

Responses were recorded verbatim during the interview and coded into themes post data collection. The percentage of responses relating to each theme has been charted in Figure 70 (note please refer to the Detailed Tables at Appendix 2 for a full list of themes – see separate volume). Themes were further grouped together to form nets (see box insert on chart), as many themes were similar in nature.

Whilst a number of **regional** respondents felt nothing could be done to improve their satisfaction (12%), around one third (34%) reported improving forecast accuracy would make them feel more satisfied.

Accuracy was by far the most common thread throughout respondents' comments whether in relation to specific types of forecast such as rainfall or warnings or just in general.

The next most common theme among regional respondents related to providing more detailed or informative updates (24%), especially in relation to localised forecasts and updating/ investing in technology and improved methods.

Less common were comments in relation to improving the timing of forecasts (8%) and how weather information is presented via various mediums (7%).

The following provides examples of verbatim comments recorded for each theme:

Accurately forecast conditions (34%)

> *"More accurate information on wind effect on the sea for such activities like fishing."*
>
> *"Higher level of accuracy in the temperature and snow forecasts."*
>
> *"The weather information given is easy enough to understand, it's just not always accurate."*

More detailed / informative updates (24%)

> *"I would like the weather forecasts to be more specific to our area, rather than relying on the weather forecasts for our closest main town."*
>
> *"Greater level of detail with the current weather forecasts."*

Timing of forecasts (8%)

> *"An hourly update on the weather, rather than just the one forecast for the whole day."*
>
> *"Regular updates with more information on the Bureau of Meteorology website and free to air television."*
>
> *"More long term and precise forecasting."*

Presentation/ sources of information (7%)

"Include more areas on the free to air television weather forecasts."

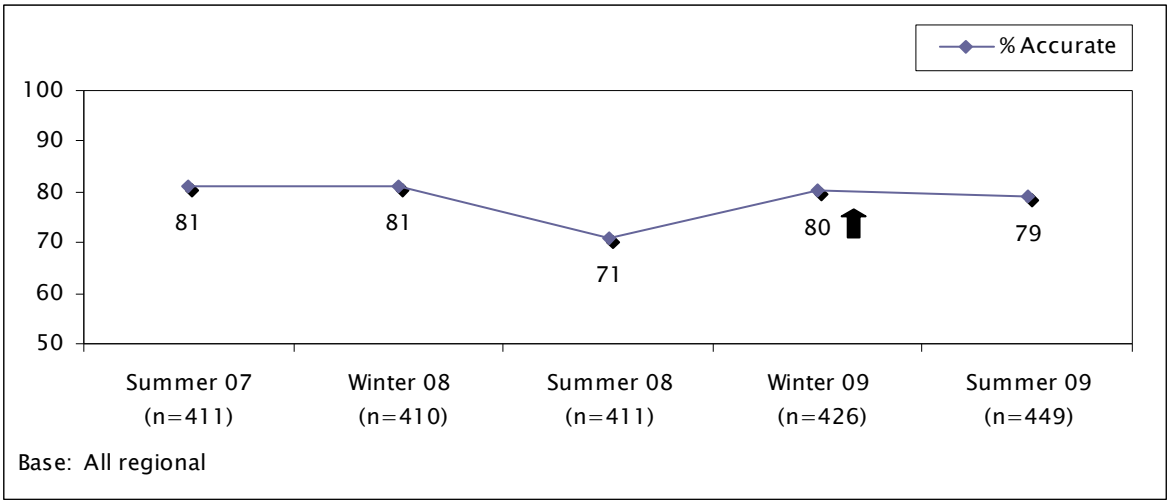
"More updates during the day on the Bureau of Meteorology website."

5.3 Accuracy of Forecasts and Warnings (Q.16, Q.17, Q.18)

Figure 71 shows perceived accuracy of weather forecasts and warnings has remained stable over the past 6 months among **regional** respondents, maintaining the significant improvement recorded in winter 2009. However, care must be taken in comparing results prior to winter 2009 as the question wording was changed meaning this could have impacted on results.

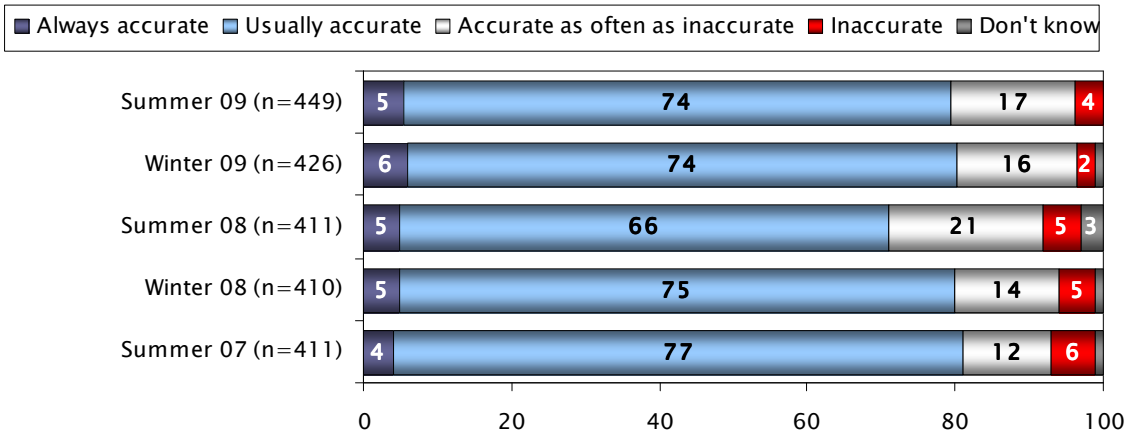
Figure 71: Accuracy of Forecasts and Warnings – % Accurate

Q.16 For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been always accurate, usually accurate, accurate as often as inaccurate, usually inaccurate or always inaccurate?*



** Note – question wording changed in 2009 to refer to last 6 months instead of last 12 months*

Figure 72: Accuracy of Forecasts and Warnings – Full Distribution



Base: All regional	Summer 07 (n=411)	Winter 08 (n=410)	Summer 08 (n=411)	Winter 09 (n=426)	Summer 09 (n=449)
Don't know	1	1	3	1 ⬇	0
Inaccurate	6	5	5	2 ⬇	4
Accurate as often as inaccurate	12	14	21	16	17
Usually accurate	77	75	66	74 ⬆	74
Always accurate	4	5	5	6	5

Figure 73: Perceived Changes in Accuracy of Forecasts and Warnings – % More Accurate

Q.17 Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?

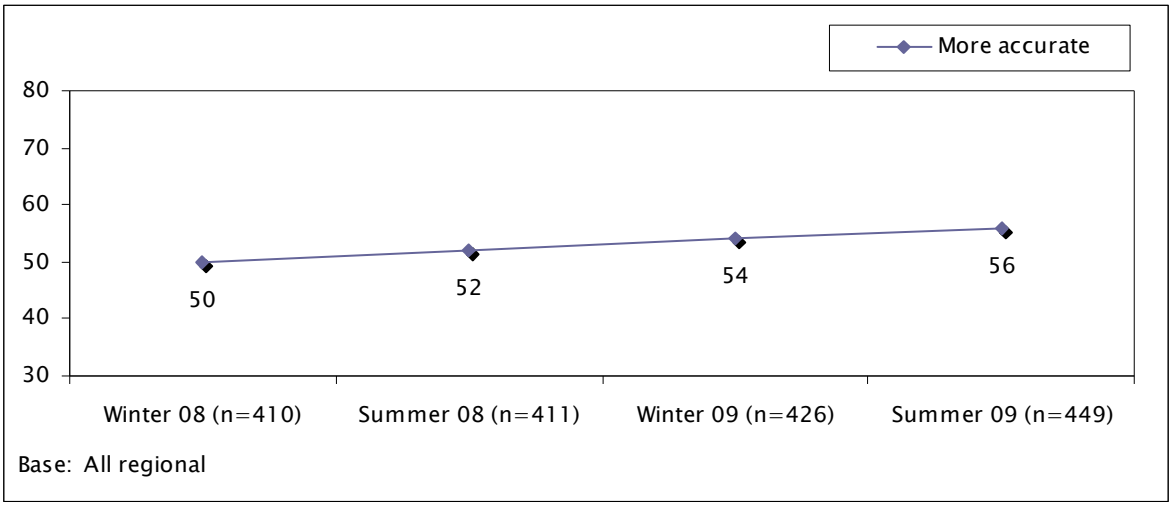
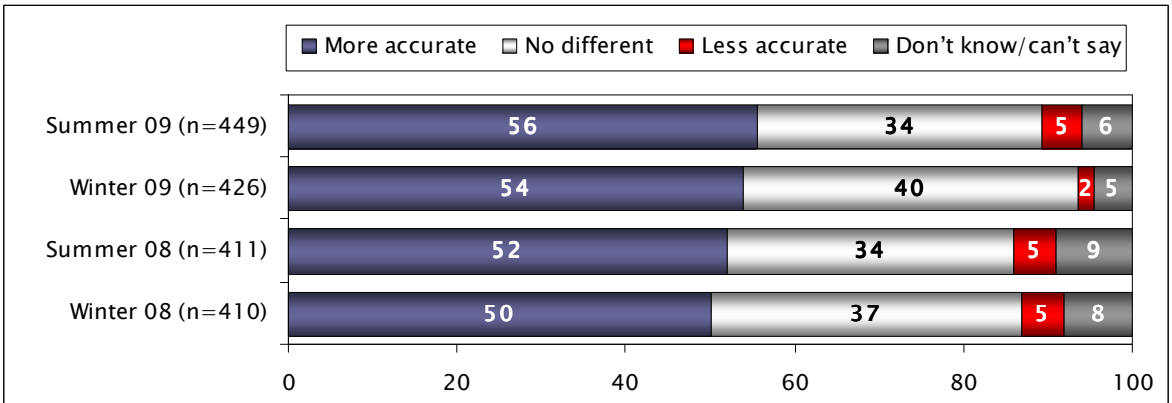


Figure 74: Change in Accuracy of Forecasts and Warnings – Full Distribution

Q.17 Generally, do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?

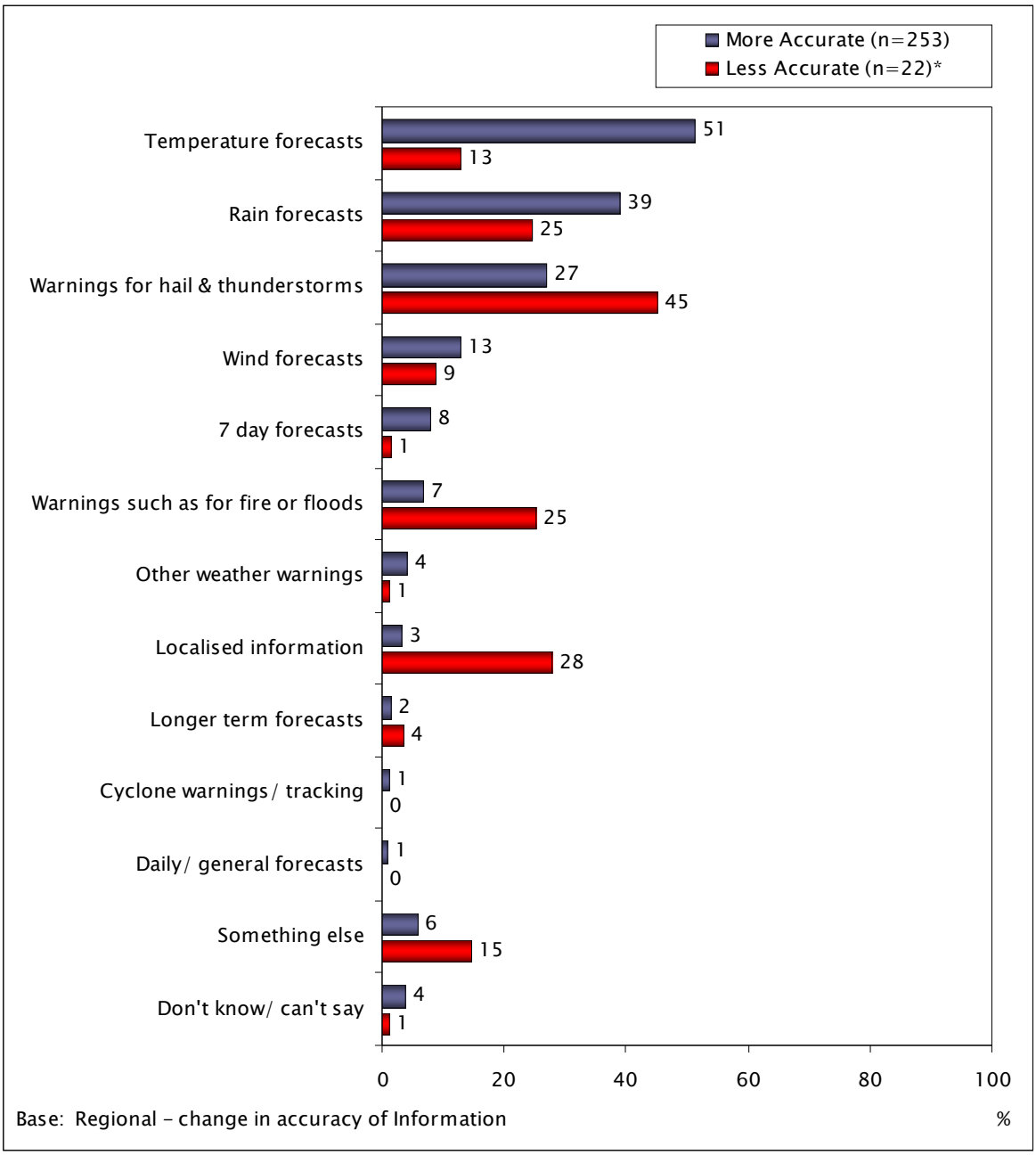


Base: All regional

	Winter 08 (n=410)	Summer 08 (n=411)	Winter 09 (n=426)	Summer 09 (n=449)
Don't know/can't say	8	9	5 ⬇	6
Less accurate	5	5	2 ⬇	5
No different	37	34	40	34
More accurate	50	52	54	56

Figure 75: Reasons for Perceived Change in Accuracy – % Giving Reason

*Q.18 Which part of the weather information has become more or less accurate?^*



^Multiple responses accepted, therefore results do not add up to 100%. *Caution: small sample size.

5.4 Weather Information Meets Requirements (Q.11 & Q.12)

Figure 76: Weather Information Meets Requirements – % Regularly

Q.11 Would you say the weather information you access or receive regularly meets your requirements, sometimes meets your requirements or never meets your requirements…?

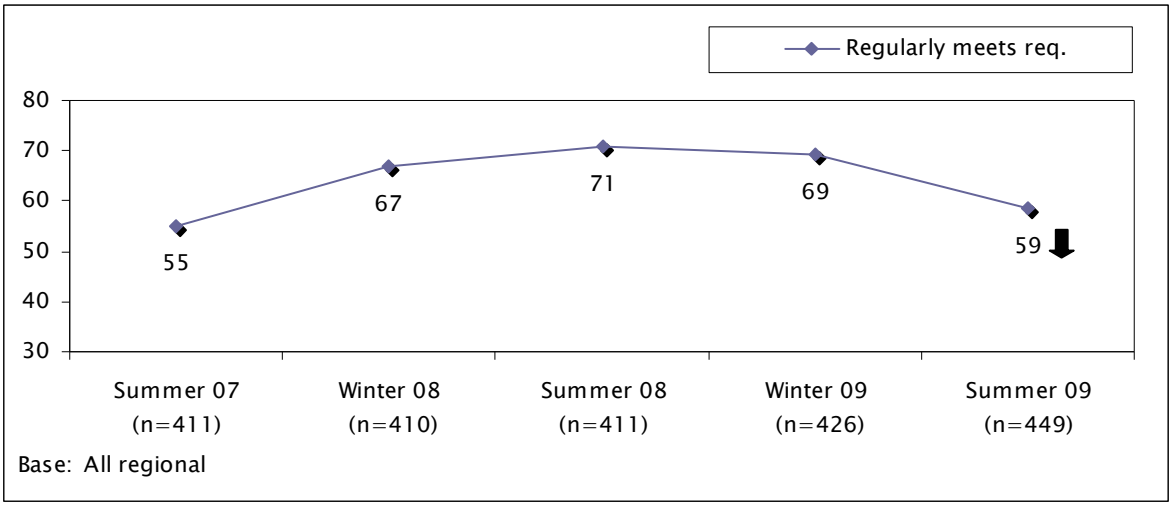
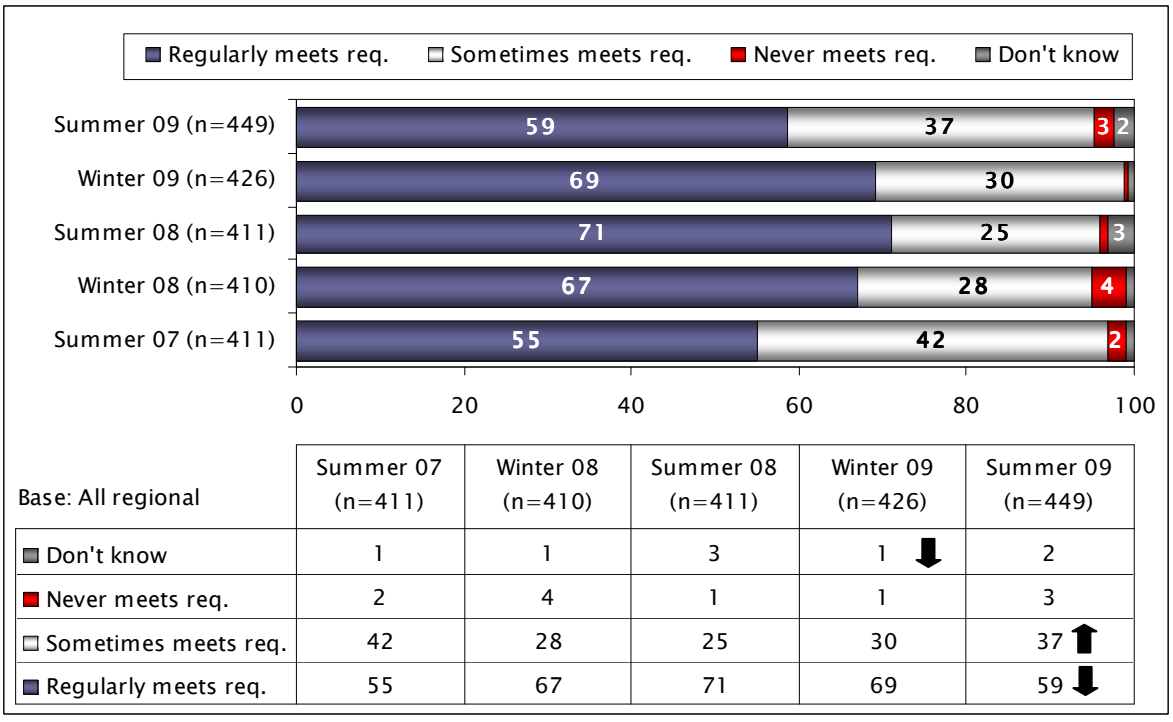


Figure 77: Weather Information Meets Requirements – Full Distribution



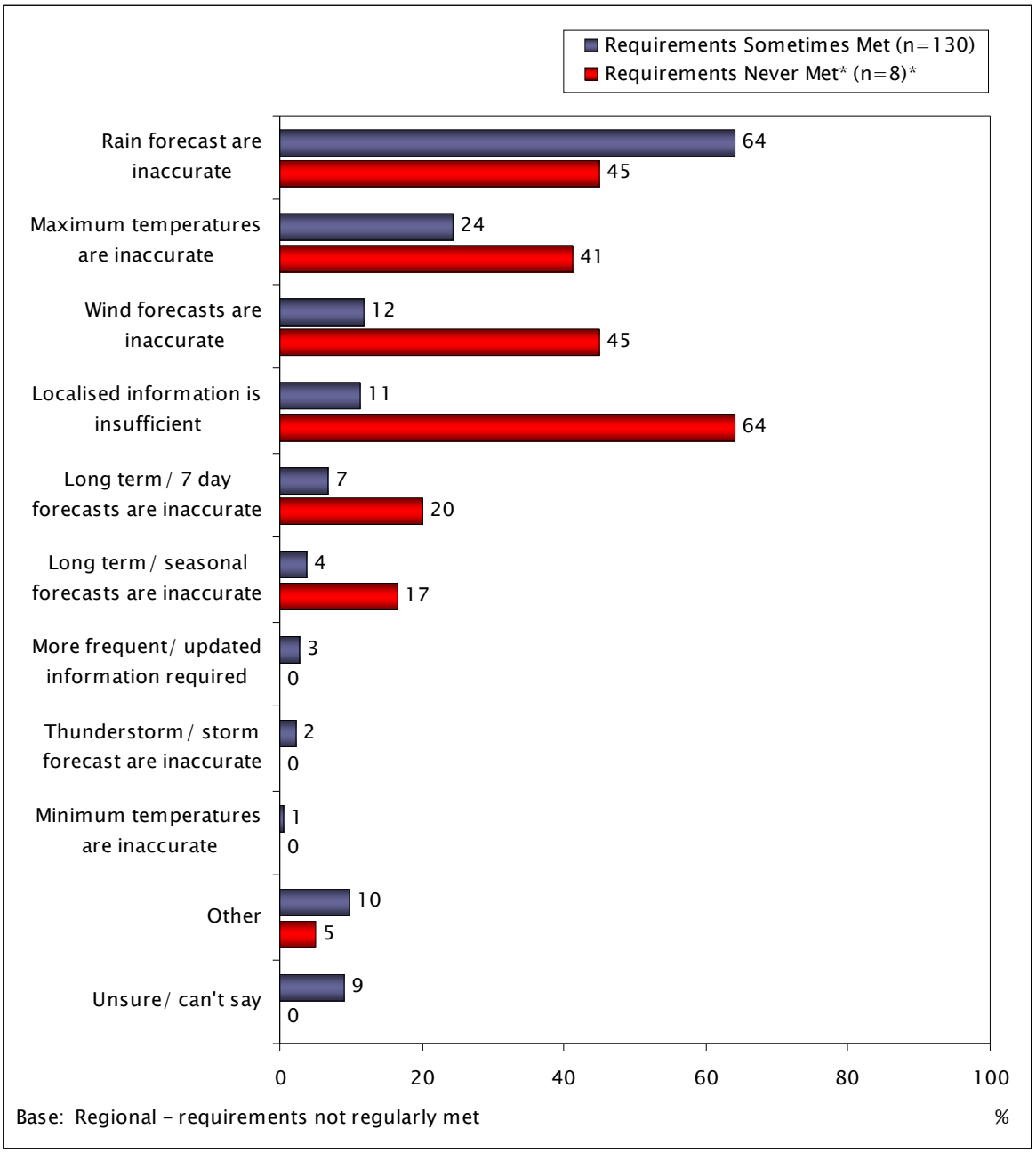
Base: All regional	Summer 07 (n=411)	Winter 08 (n=410)	Summer 08 (n=411)	Winter 09 (n=426)	Summer 09 (n=449)
Don't know	1	1	3	1 ⬇	2
Never meets req.	2	4	1	1	3
Sometimes meets req.	42	28	25	30	37 ⬆
Regularly meets req.	55	67	71	69	59 ⬇

Upon investigation it appears that those **regional** sub-groups that more often indicated that weather information regularly meets their requirements included:

- Those residing in South Australia, Western Australia or Tasmania
- Users of and those who value the Bureau's website
- Females
- Those very satisfied with the information provided by the Bureau
- Those who indicated that the accuracy of weather forecasts has improved
- Those who do not undertake paid outdoor work

Figure 78: Reasons for Requirements Not Being Met – % Giving Reason

*Q.12 In what way does the weather information you receive not meet your requirements?^*



^*Multiple responses accepted, therefore results do not add up to 100%. *Caution small sample size.*

5.5 Timeliness of Weather Information (Q.13, 14 & 15)

Figure 79: Weather Information is Available in Time – % Available in Time

Q.15 Is the weather information available in time to meet your needs?

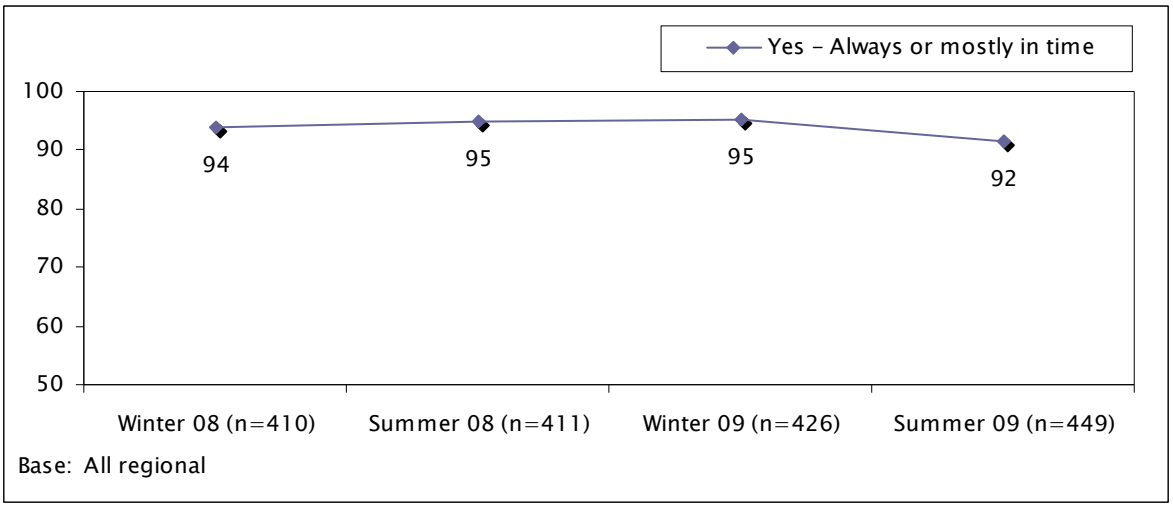
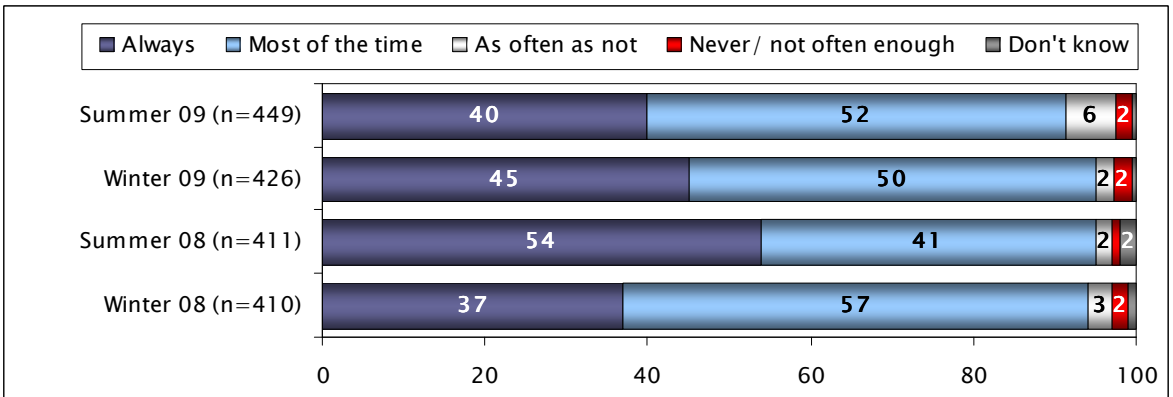


Figure 80: Weather Information is Available in Time – Full Distribution

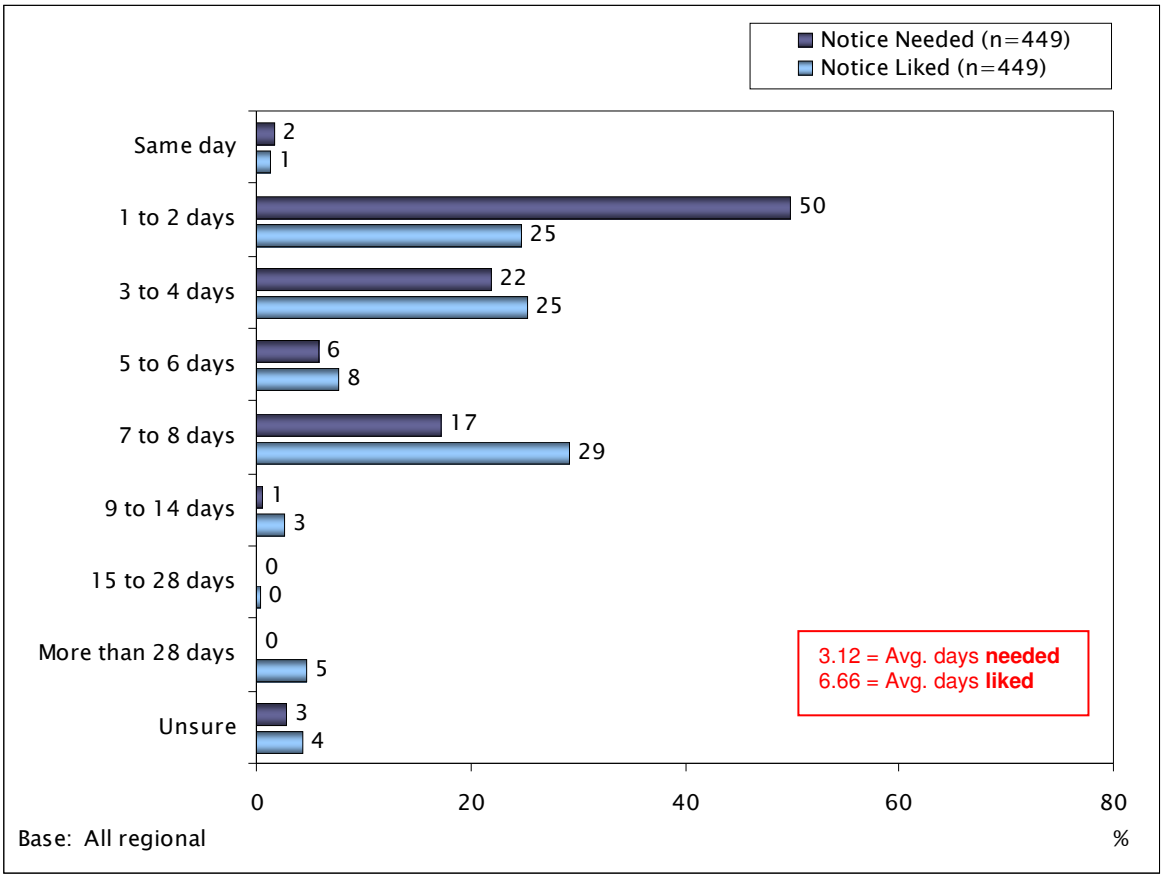


Base: All regional	Winter 08 (n=410)	Summer 08 (n=411)	Winter 09 (n=426)	Summer 09 (n=449)
Don't know	1	2	1	1
Never / not often enough	2	1	2	2
As often as not	3	2	2	6
Most of the time	57	41	50 ⬆	52
Always	37	54	45 ⬇	40

Figure 81: Necessary and Preferred Notice of Weather Forecasts – % Days

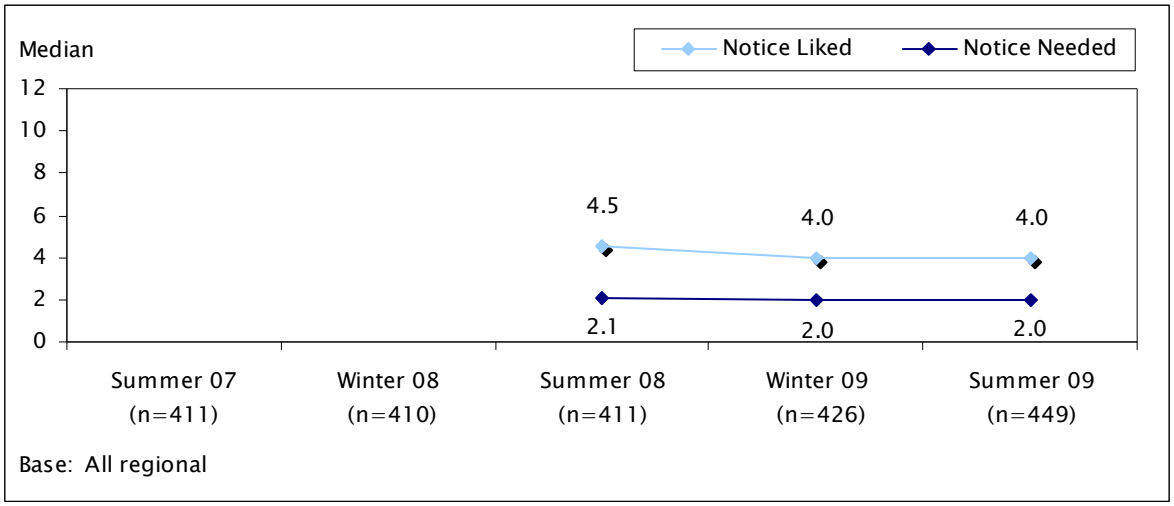
Q.13 Typically, how many days ahead of time do you need to know the weather forecast?

Q.14 Typically, how many days ahead of time would you like to know the weather forecast?



The average number of days ahead of time that **regional** respondents indicated they need to know the forecasts was 3.12 days. The average number of days' notice that would be liked was 6.66. This indicates that, while respondents would prefer to have more notice of weather forecasts, they did not consider this as a necessity.

Figure 82: Necessary and Preferred Notice of Weather Forecasts – Median No. of Days



The chart above presents a time series for the amount of notice liked and needed in regards to weather forecasts. Results prior to summer 2008 have not been charted above as the base responding to the question changed (prior to summer 2008 asked of metropolitan respondents regarding work activities only).

The results in summer 2009 indicate no change in the amount of notice needed or liked by regional respondents. However looking at state by state results, Victorian regional respondents were much more likely to state that they would like 7-8 days notice (54% up from 40%).

In summer 2008 the median number of days liked by respondents was 4.5. At that time, there was a higher percentage of respondents who indicated that they would like the forecasts to be provided 7-8 days in advance, particularly in Victoria, South Australia, Western Australia and Tasmania. There was also a percentage who wanted the information to be available at least 28 days in advance. This percentage was highest amongst respondents from New South Wales, South Australia and Tasmania.

However, care must be taken when comparing summer 2008 results as the context of the question changed after this survey. In summer 2008 respondents were asked about their current checking behaviour whereas from winter 2009 onwards respondents were asked about their needs.

5.6 Accessing and Using Weather Information (Q.4 to Q.10)

Figure 83: Reasons for Checking Weather – % Giving Reason

Q.4 Thinking about weather information, do you typically check the weather to make decisions regarding…?

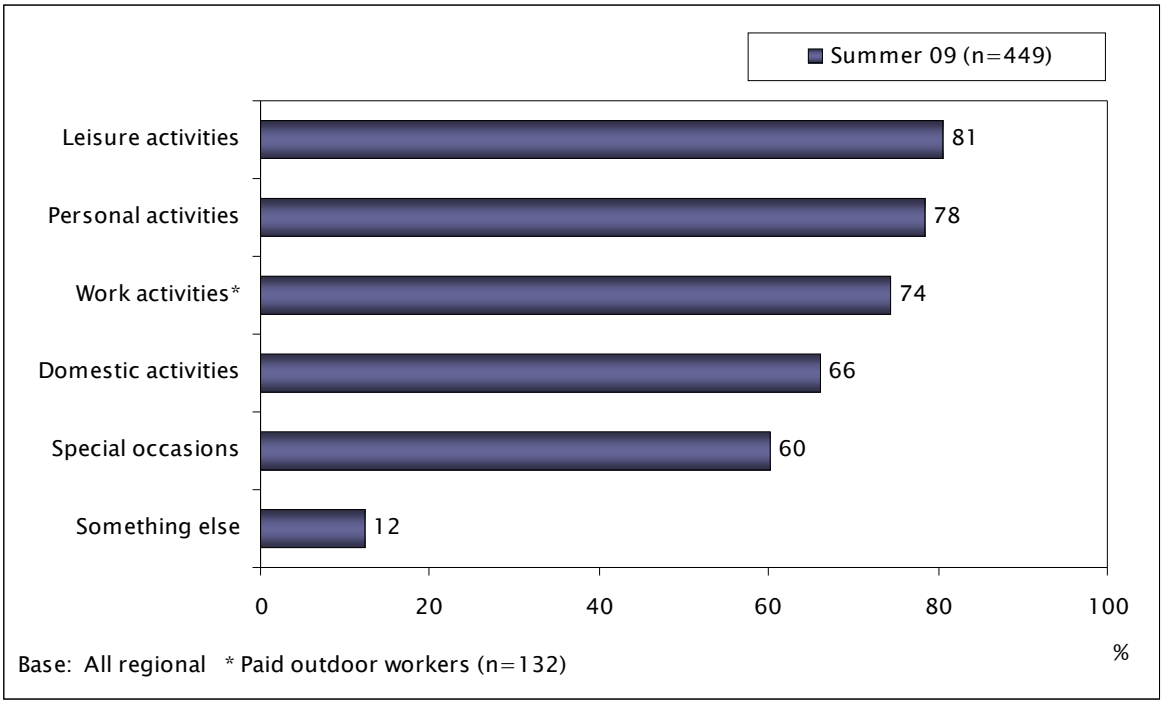


Figure 84: Frequency of Checking Weather for Decision Making – % Checking

Q.5 How often do you typically check the weather to make decisions regarding the activities you mentioned?

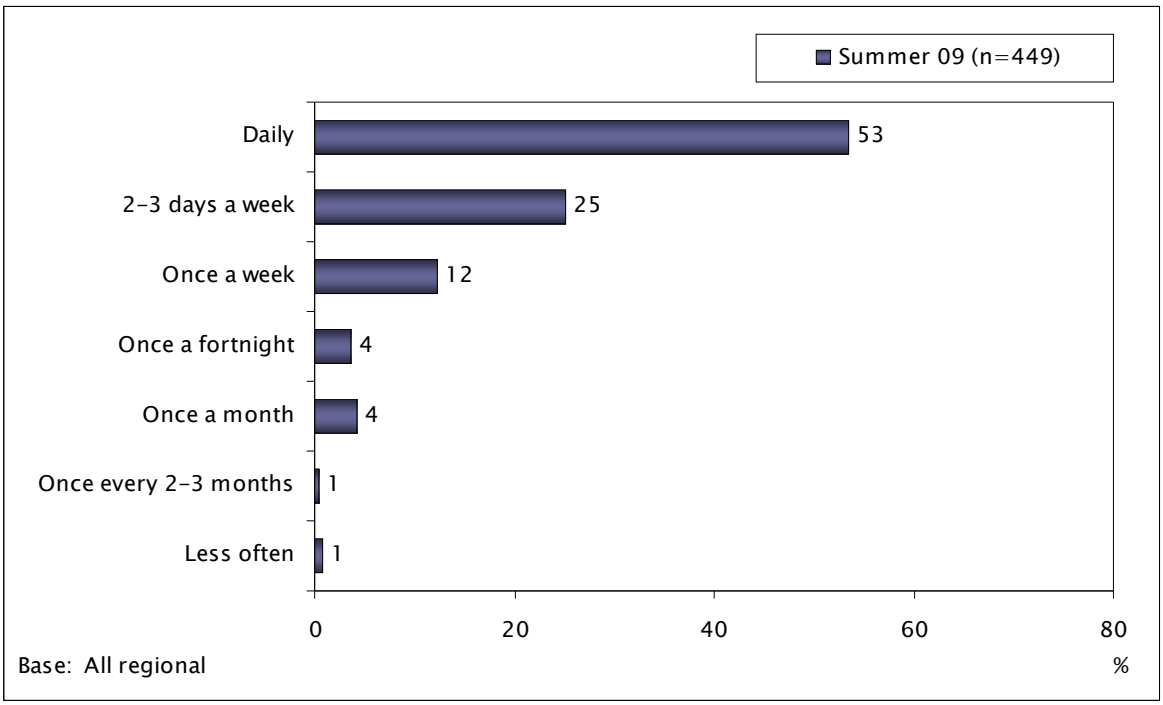
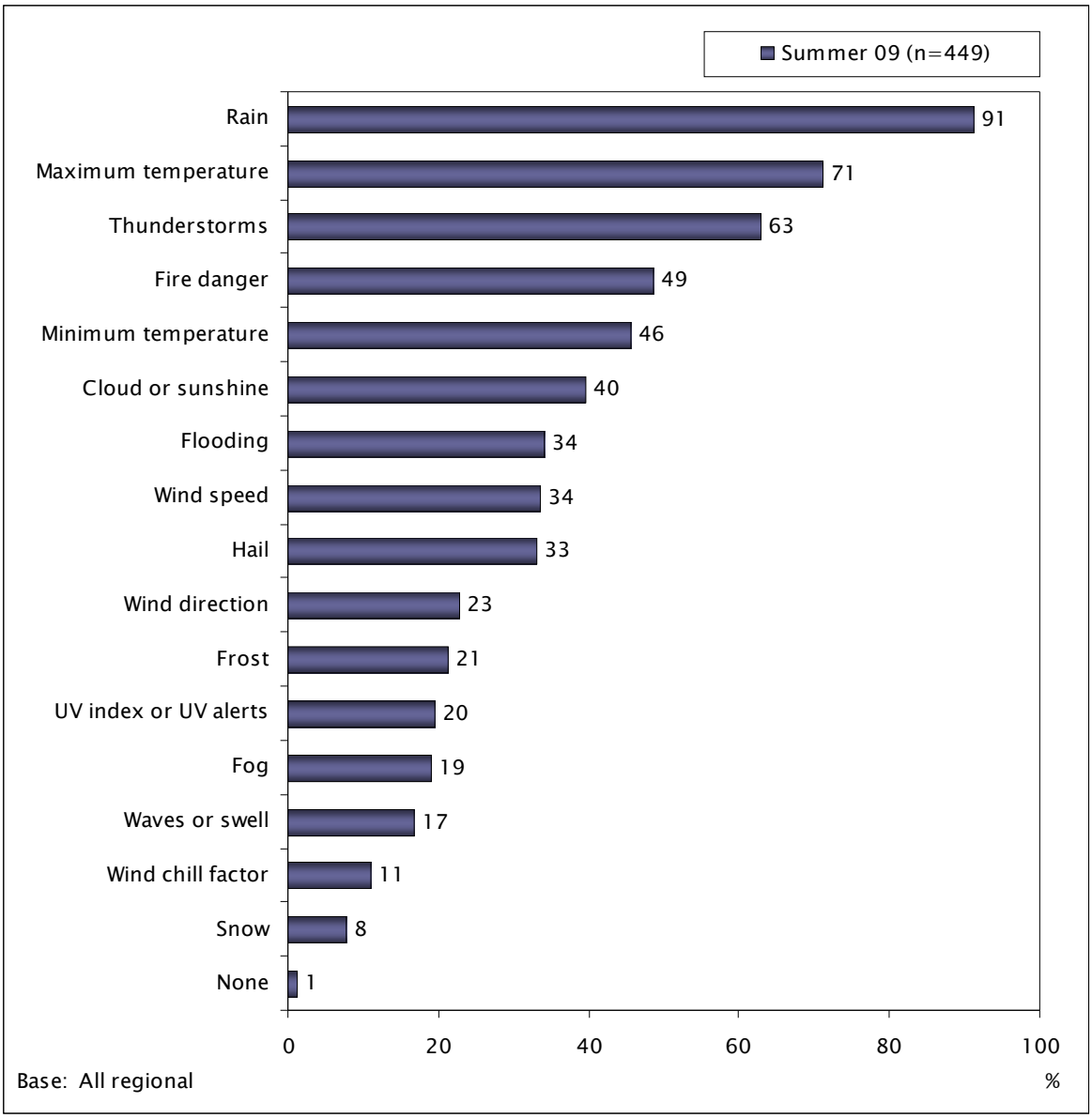


Figure 85: Use of Weather Elements for Decision Making – % Using Element

*Q.6 Typically, which of the following weather types have you recently used to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

Maximum temperature, minimum temperature and rain were more likely to have been used as indicators by respondents from eastern states (namely QLD, NSW, VIC and SA). Rain was also highly used by TAS respondents. Thunderstorms and flooding were more likely to have been used by QLD and NT residents (SA also highly used thunderstorms).

Interestingly, TAS respondents were the most likely to have used the UV index and UV alerts followed by SA and WA. Fire danger was most likely to have been used by SA and TAS residents. The overall proportion of regional respondents using fire danger slightly increased (49% compared with 46% in winter 2009) as a results of more respondents in Victoria and Tasmania using this weather type which is no doubt related to the bushfires that plagued Victoria the previous summer.

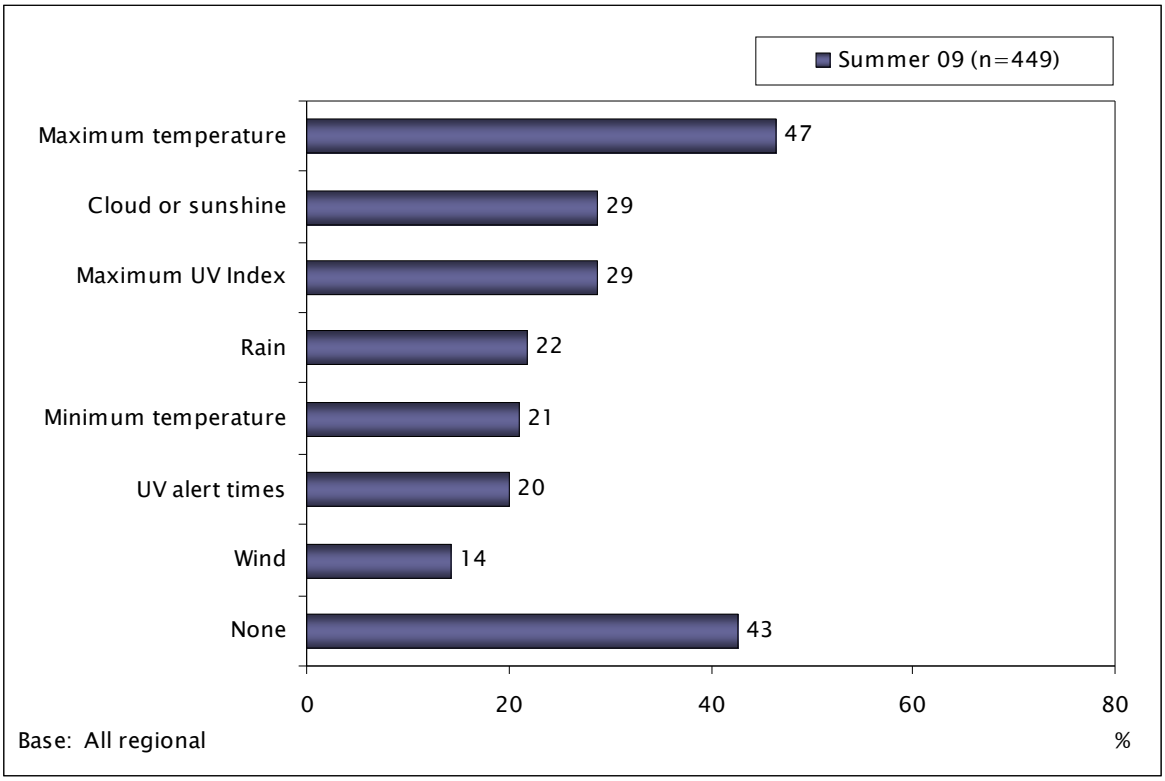
There were some differences in the elements used to make decisions dependent on whether the respondents' main information source was television, radio or the Bureau's website. Notable differences were that television was more often the preferred method among those who use rain and hail as indicators.

In contrast, radio was more often preferred method among those who use maximum and minimum temperature, wind forecasts, waves or swell, thunderstorms, fire danger and UV index / UV alerts. Those who check rain forecasts were also more likely to prefer to use the Bureau's website.

The percentage who had used fire danger as an indicator more often resided in South Australia or the Western Australia. However, there has been a decrease in the average percentage of respondents who had used fire danger for decision making when compared with results from summer 2008 (50% compared to 46% in the current round). However, the percentage has remained stable compared to results recorded in winter 2008 (45%).

Figure 86: Use of Weather Elements for Sun Protection Decisions – % Using Element

*Q.7 Have you recently used any of the following weather types to make decisions about sun protection?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

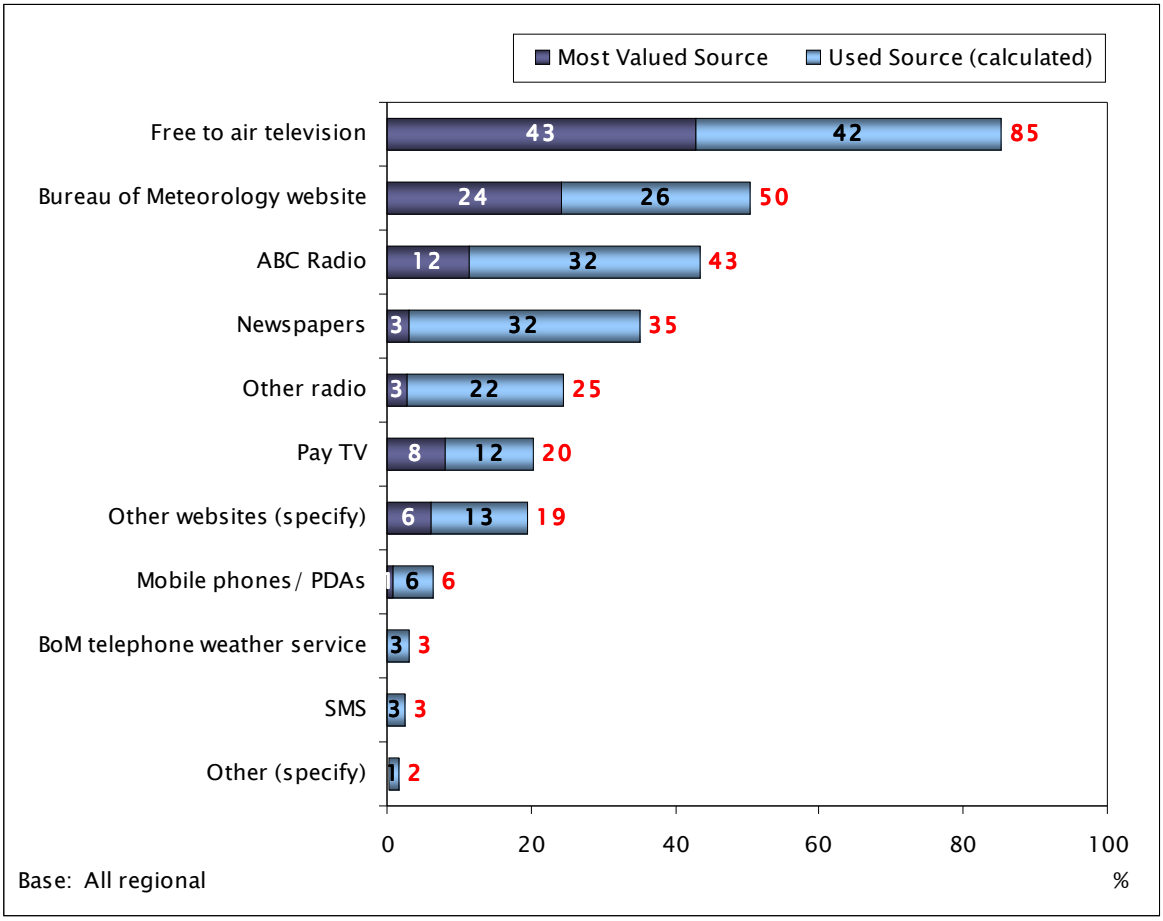
Results for this new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature. Other weather elements such as the maximum UV index and UV alert times were used to a lesser extent.

Around 2 in 5 regional respondents reported that they do not use weather information to make decisions about sun protection. It should be noted however that this percentage may include individuals who use sun protection either everyday or when going outdoors regardless of the weather forecast and not just individuals who do not strive to protect themselves from the sun.

Figure 87: Use and Value of Weather Information Sources – % Using or Valuing Source

*Q.8 Which of the following have you used over the past 6 months to get weather information…?^*

*Q.9 Of those you have mentioned, which one do you find to be the most valuable sources of weather information to enable you to make weather related decisions?^*



^Multiple responses accepted, therefore results do not add up to 100%.
Note: Most valued source + used source may not add up to exact total due to rounding of decimal places.

Figure 88: Awareness and Use of Bureau of Meteorology Website – % Aware & Use

Q.10 Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

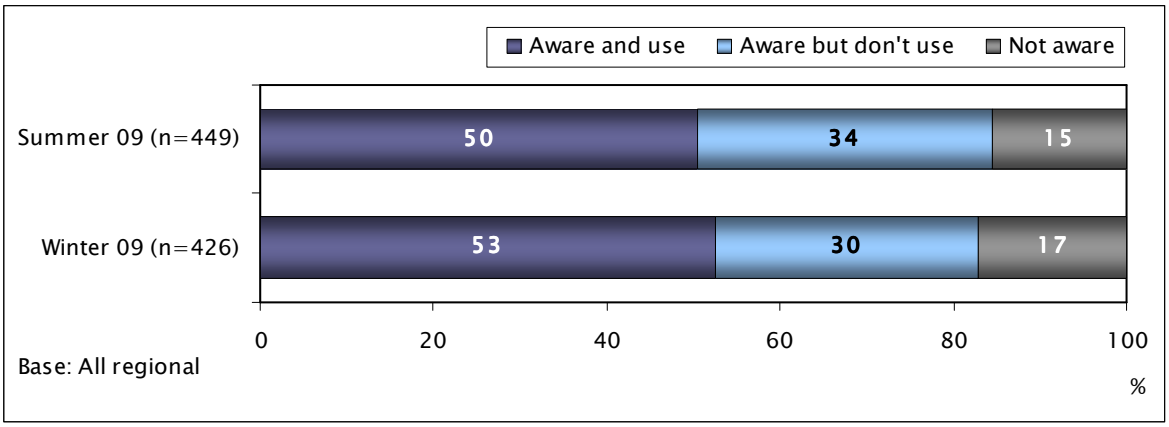


Figure 89: Use of Bureau of Meteorology Website – % Users

Q.8 Which of the following have you used over the past 6 months to get weather information…?

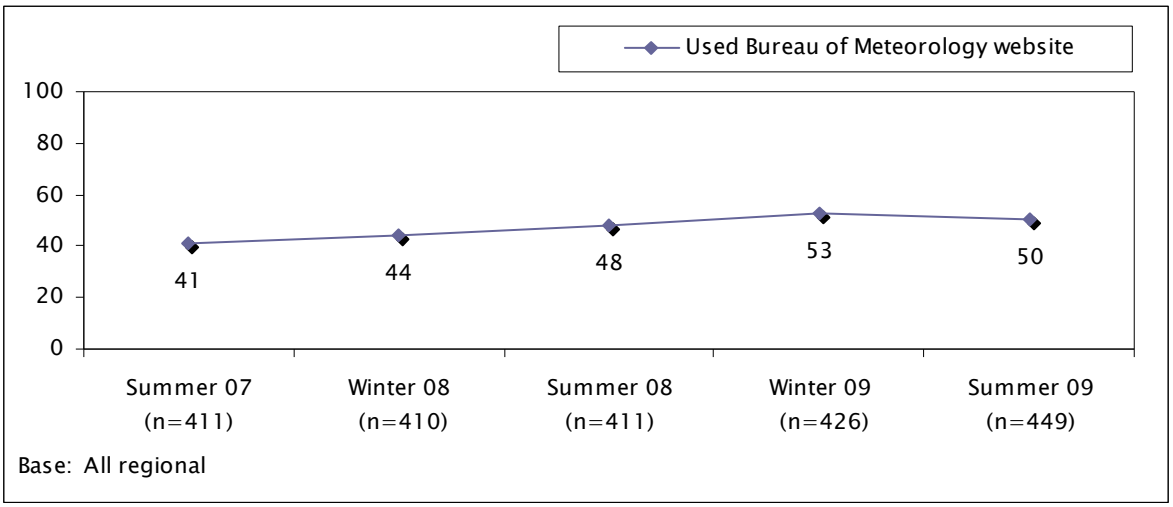


Figure 90: Other Websites for Weather Information – % Other Websites Used

Base: Use other website (n=73)	% use website
Elders	34
Bigpond	16
Weather Zone	14
NINEMSN	8
CFA website	5
Newspaper/ news website	5
Google	4
BUOY Weather	4
Weather channel website	3
ABC website	2
Seabreeze.com	2
Windfinder.com	2
Tide-times.com.au	1
Austar	1
Don't know/ can't remember	3

5.7 Improvements (Q.21 & Q.22)

Figure 91: Reactions to Replacement of the Term "Fine" – % Giving Response

Q21. The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

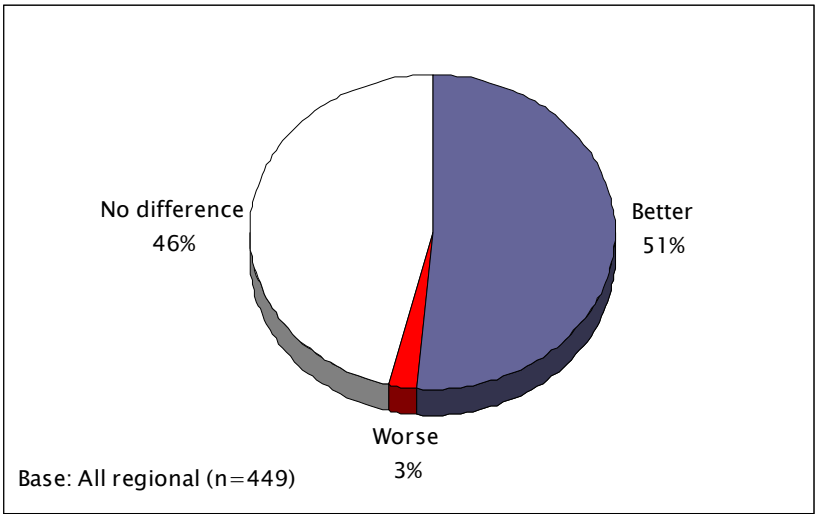
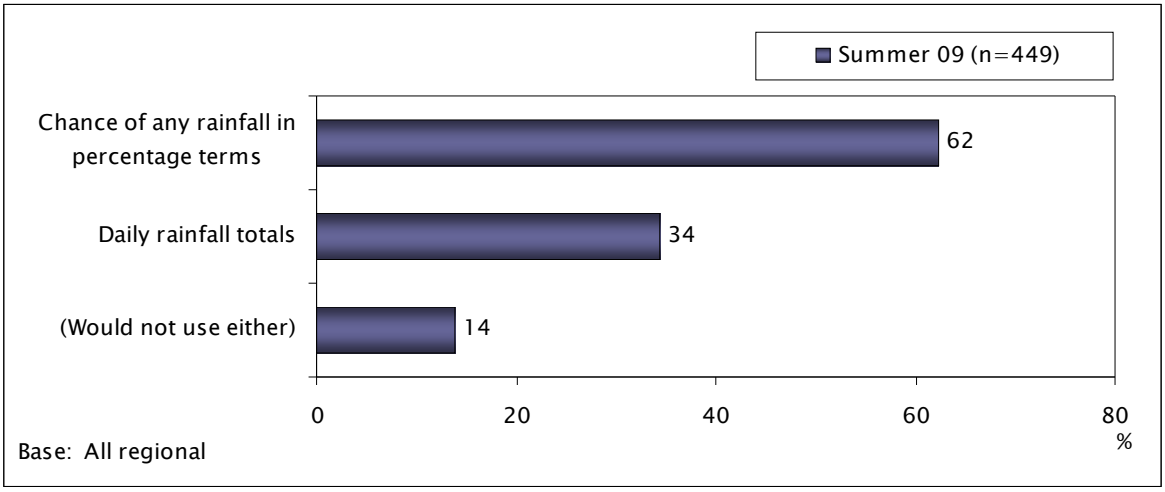


Figure 92: Use of Rainfall Information – % Giving Response

*Q22. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

The above charts display results from two new questions added to the survey in summer 2009. The first chart shows mixed reactions to replacing the term "fine" with words to describe sky conditions to help the public better understand the weather forecast. However most felt this change would for the better or else make no difference; very few felt the change would be for the worse.

The second chart reveals that the majority of respondents would use additional rainfall information provided by the Bureau in making decisions about their day to day activities, and this would primarily be the chance of any rainfall in percentage terms.

5.8 Regional Summary

Overall, satisfaction with the information provided by the Bureau of Meteorology has slightly increased since winter 2009.

Satisfaction with the information provided was highest amongst more regular users and those who do not rely on weather information for outdoor work. Those with higher satisfaction also tended to be more positive about other elements such as the accuracy of information and its ability to meet their needs.

Results for the three other key performance indicators (KPIs) differed. Regional respondents were less likely to now see the information provided as timely and regularly meeting requirements (significantly less likely to meet requirements). A similar proportion of respondents in summer 2009 saw the information provided as being accurate.

- Those who indicated that weather information and forecasts were more accurate equated this to increased accuracy in the temperature and rain forecasts, and to some extent increased accuracy in warnings for hail and thunderstorms and wind forecasts.
- The few who indicated that forecasts have been less accurate equated this to decreased accuracy in warnings for fires, floods, hail or thunderstorms as well as rain forecasts.

For around one in ten the Bureau could do nothing to improve its information provision. More specifically, some said that weather information could never be entirely accurate due to the unpredictable or fickle nature of the weather. For these respondents, an improvement in the accuracy of information is likely to be the best means of improving their satisfaction.

Supporting this, the most common improvement suggestion was for the Bureau to improve the accuracy of its forecasts, particularly its rain forecasts.

In terms of the desired notice period for weather forecasts, many indicated they would *like* to know at least three days in advance, with around one in five stating they would *like* to know seven to eight days in advance. However, fewer indicated that they *need* to know in that time. Half indicated that they only need one or two days' notice of weather forecasts whereas only around one in six indicated that they would need seven or eight days' notice.

The majority of respondents check the weather daily or two to three days a week. Most commonly, they do so to make decisions regarding leisure or personal activities.

Rain forecasts were used by nine out of ten respondents to make decisions regarding day to day activities, highlighting their importance. Many also based decisions on whether storms were forecast and the temperature range. These could, therefore, be considered to be priority areas.

Results for the new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature forecast.

The medium most often used for checking forecasts was free to air television. This was considered to be the most valued source alongside the Bureau's own website.

While fewer regional respondents used the Bureau's website in summer 2009, they were more likely to be aware of the Bureau's website. However, there still remains a segment of the population who are unaware of the existence of the site.

6.0 RURAL RESULTS

6.1 Overall Satisfaction - % Very/Fairly Satisfied (Q.19 & Q.20)

Figure 93 presents combined **rural** results for the top two levels of overall satisfaction. Of those able to answer (did not respond with "don't know"), 83% were either very or fairly satisfied with the information they receive from the Bureau through various sources. This result represents a decrease (non significant) since satisfaction was last measured in winter 2009 but is still an improvement when compared with the result recorded in summer 2008.

Figure 93: Overall Satisfaction with BoM Information - % Very/Fairly Satisfied

Q.19 Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied?

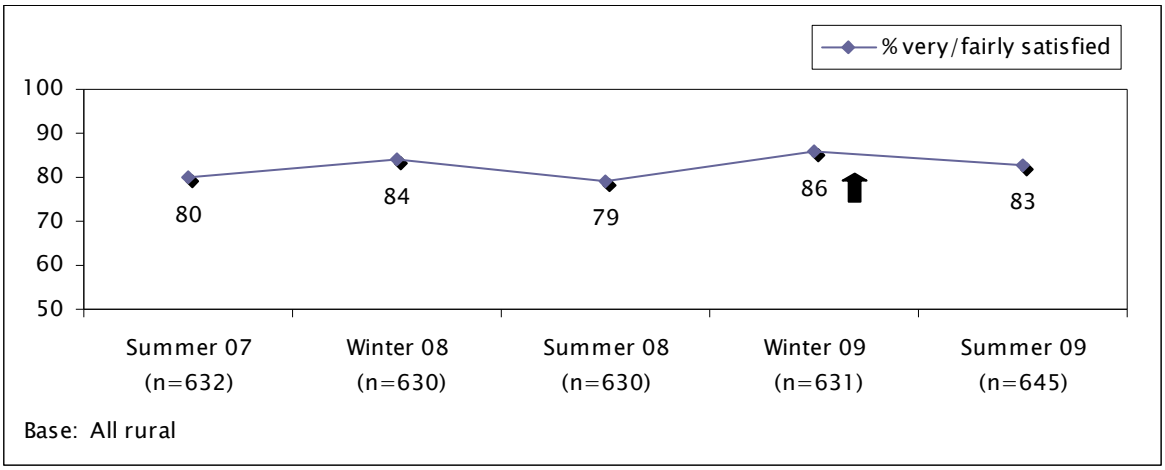
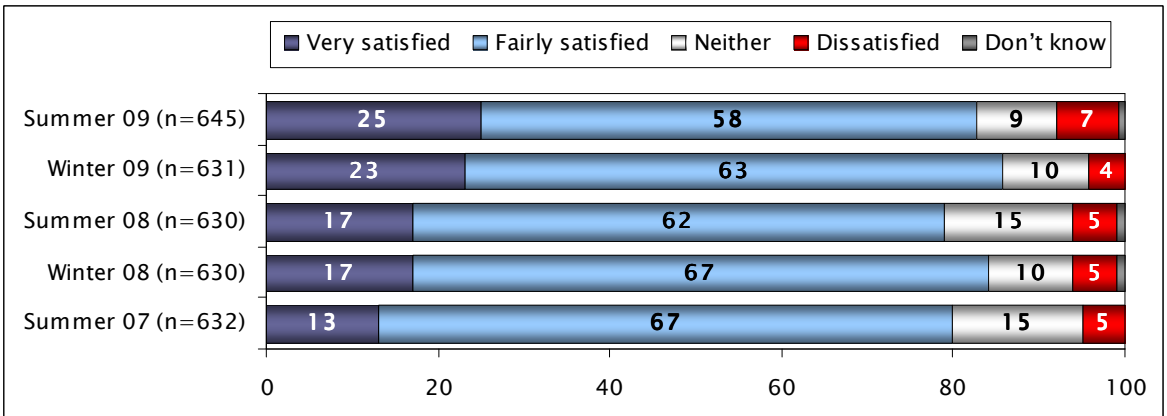


Figure 94: Overall Satisfaction with BoM Information – Full Distribution



Base: All rural	Summer 07 (n=632)	Winter 08 (n=630)	Summer 08 (n=630)	Winter 09 (n=631)	Summer 09 (n=645)
Don't know	0	1	1	0	1
Dissatisfied	5	5	5	4	7 ⬆
Neither	15	10	15	10 ⬇	9
Fairly satisfied	67	67	62	63	58
Very satisfied	13	17	17	23 ⬆	25

6.2 Overall Satisfaction – Index (Q.19 & Q.20)

Figure 95 presents **rural** results from an analysis of all levels of overall satisfaction. Each level of satisfaction is given a score out of 100 as follows:

- 100 = Very satisfied
- 75 = Fairly satisfied
- 50 = Neither
- 25 = Fairly dissatisfied
- 0 = Very dissatisfied

An average of all these scores is then taken to establish an index score out of 100. In this way, satisfaction can be expressed by looking at the results from all respondents rather than just those who reported the top two levels.

Expressing satisfaction in this way has the advantage of being more sensitive to when a respondent shifts across levels, particularly within the top two levels, as an index will reflect this shift (by assigning a lower score to the second level). In contrast, expressing satisfaction as a percentage will not reflect this shift as it does not differentiate the top two satisfaction levels, it simply adds them together.

For further explanation about calculation of satisfaction index, please refer to Section 2.5.4.

In summer 2009 a satisfaction index score of 74.8 was observed. This represented a decrease (non significant) since winter 2009 but was also an improvement when compared with summer 2008.

Figure 95: Overall Satisfaction with BoM Information – Index

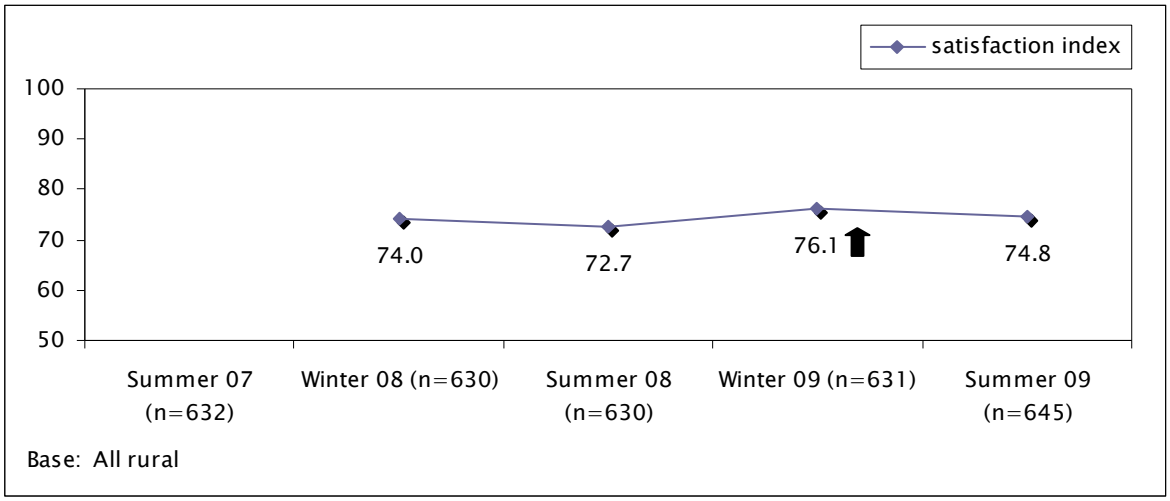


Figure 96: Overall Satisfaction with BoM Information – Results by Age and Gender

Base: All rural	Gender		Age			Total
	Male	Female	16 to 34 Years	35 to 54 Years	55 Years or Older	
KEY PERFORMANCE INDICATORS						
Overall Satisfaction - % satisfied	83	83	**94**	83	80	83
Overall Satisfaction - Index	*74.5*	*75.2*	***80.5***	*74.1*	*74.0*	*74.8*
Accuracy of information - % accurate	65	67	66	66	65	66
Information meets requirements - % regularly	55	54	56	**62**	**45**	54
Timeliness of information - % on time	82	78	**88**	84	75	80
OTHER PERFORMANCE INDICATORS						
% Check weather information daily	74	69	**65**	67	**78**	72
% Used Bureau of Meteorology website	63	62	65	**75**	**48**	63

Figure 97: Overall Satisfaction with BoM Information – Results by Use of Website

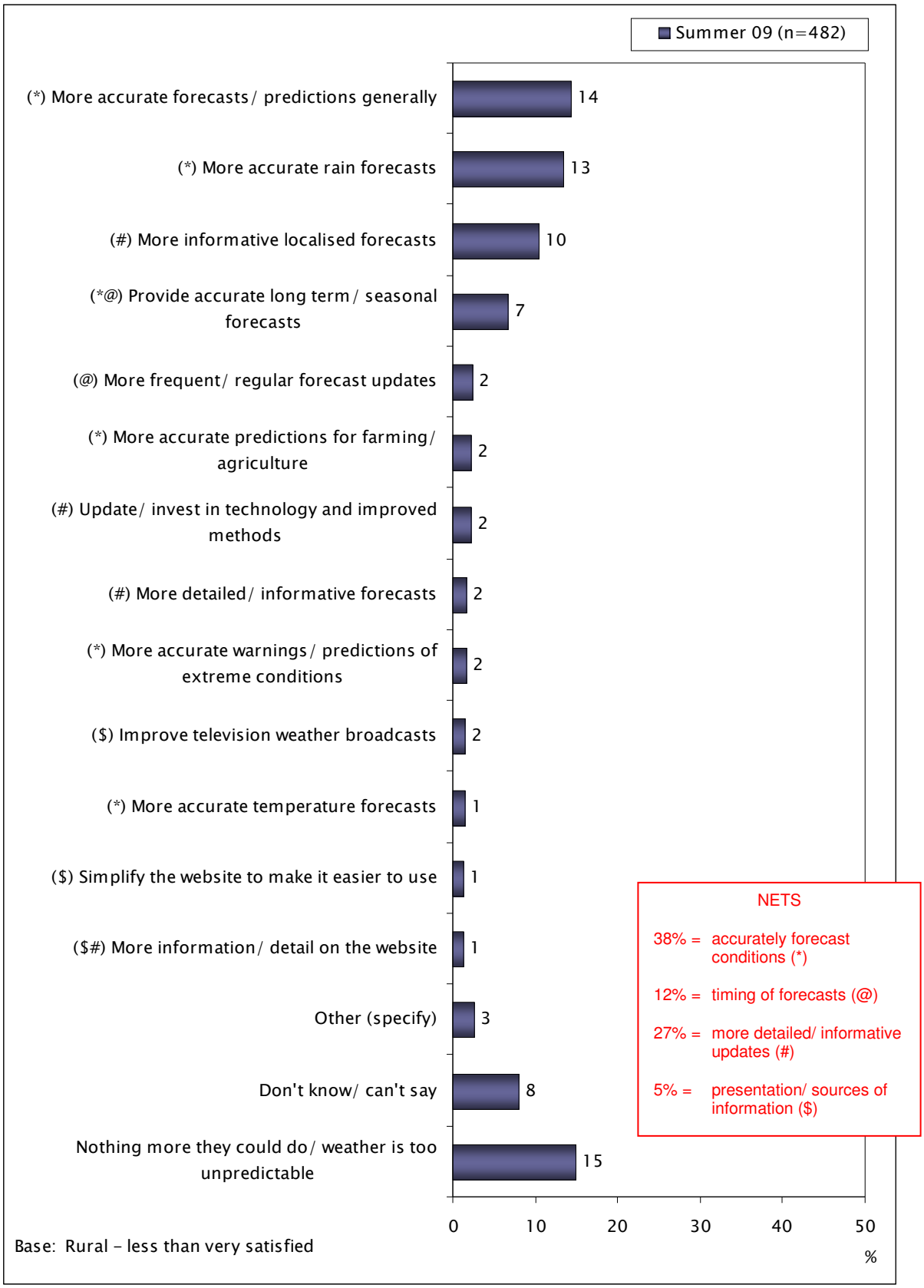
Base: All rural	BoM Website		BoM Website		Total
	Aware	Unaware	Use	Do Not Use	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	83	80	84	80	83
Overall Satisfaction - Index	*74.6*	*76.7*	*74.8*	*74.8*	*74.8*
Accuracy of information - % accurate	66	63	66	66	66
Information meets requirements - % regularly	56	**42**	**60**	**46**	54
Timeliness of information - % on time	82	**68**	84	**75**	80
OTHER PERFORMANCE INDICATORS					
% Check weather information daily	73	**65**	72	71	72
% Used Bureau of Meteorology website	**69**	**-**	**100**	**-**	63

Figure 98: Overall Satisfaction with BoM Information – Results by Frequency of Checking Weather

Base: All rural	Frequency of Checking Weather				Total
	Daily	2-3 Times a Week	Once a Week	< Once a Week	
KEY PERFORMANCE INDICATORS					
Overall Satisfaction - % satisfied	86	**71**	**93**	**69**	83
Overall Satisfaction - Index	*76.3*	***68.4***	*78.7*	*71.2*	*74.8*
Accuracy of information - % accurate	69	**56**	62	64	66
Information meets requirements - % regularly	57	50	51	**43**	54
Timeliness of information - % on time	83	77	82	**54**	80
OTHER PERFORMANCE INDICATORS					
% Check weather information daily	**100**	**-**	**-**	**-**	72
% Used Bureau of Meteorology website	63	**74**	65	**23**	63

Figure 99: Suggestions to Increase Satisfaction with BoM Weather Information

Q.20 What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?



Following their rating of satisfaction, respondents who reported that they were fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied were asked what could be done to make them feel more satisfied with the weather information from the Bureau.

Responses were recorded verbatim during the interview and coded into themes post data collection. The percentage of responses relating to each theme has been charted in Figure 99 (note please refer to the Detailed Tables at Appendix 2 for a full list of themes – see separate volume). Themes were further grouped together to form nets (see box insert on chart), as many themes were similar in nature.

Whilst some **rural** respondents felt nothing could be done to improve their satisfaction (15%), over one third reported improving forecast accuracy would make them feel more satisfied and this was predominantly in relation to rainfall forecasts. Clearly, rural respondents were much more concerned with accuracy issues compared to their metropolitan and regional counterparts.

The next most common theme among rural respondents related to providing more detailed or informative updates (27%), especially in relation to localised forecasts.

Less common were comments in relation to improving the timing of forecasts (12%), including providing accurate long term / seasonal forecasts and more frequent/ regular forecasts. Comments in relation to how weather information is presented via various mediums (5%) were the least common.

The following provides examples of verbatim comments recorded for each theme:

Accurately forecast conditions (38%)

> *"The wind forecasts need to be more accurate as it affects us in being able to spray our crops."*
>
> *"There should be an aim for greater accuracy for fire warnings."*
>
> *"The Bureau needs to access more information to obtain better results and therefore more accurate weather forecasts."*

More detailed / informative updates (27%)

> *"You have to be able to apply what is on the chart to where you live. The weather forecasts need to be more precise in areas – more localised predictions."*
>
> *"They need to pinpoint weather conditions in more detail for the Western Agriculture area."*
>
> *"We need better localised information. Because we are grouped in with Lakes Entrance and other places, days when we have really bad fire danger it is not mentioned."*

Timing of forecasts (12%)

"Weather reports every hour on free to air television. We need a dedicated weather and emergency services channel."

"More frequent weather reports during the day on the radio, to allow us to hear the weather reports while we work."

"A long range forecast for rain."

"They need to have accurate weather predictions seven days ahead, especially for hot weather."

Presentation/ sources of information (5%)

"Make the website more accessible."

"Better organise the information on the Bureau of Meteorology website and avoid extra pages."

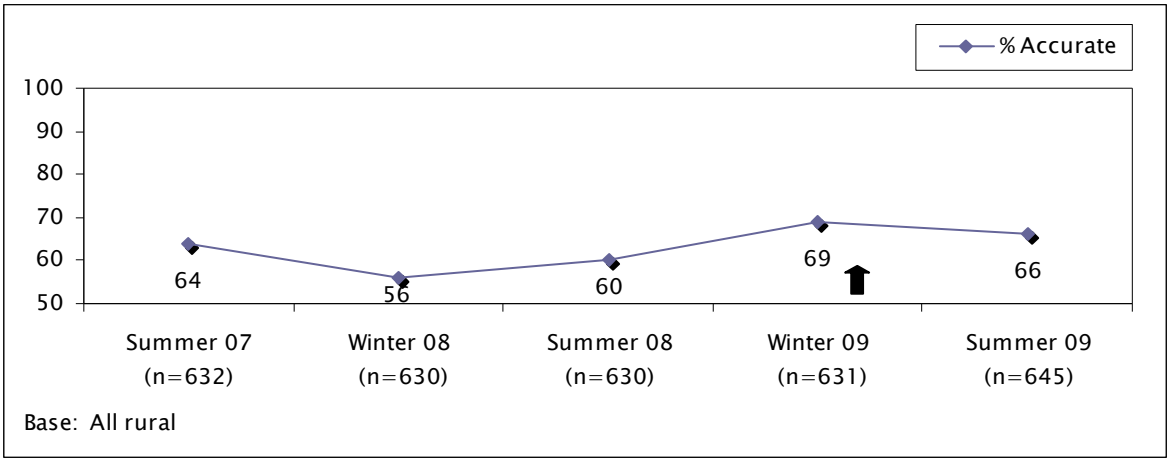
"More contact about the weather like a daily email or sms."

6.3 Accuracy of Forecasts and Warnings (Q.16, Q.17, Q.18)

Figure 100 shows a decrease in perceived accuracy of weather forecasts and warnings in the past 6 months among **rural** respondents, although this result was still higher when compared to summer 2008. However, care must be taken in comparing 2009 results with previous results as the question wording changed in the winter 2009 questionnaire meaning this could have impacted on results.

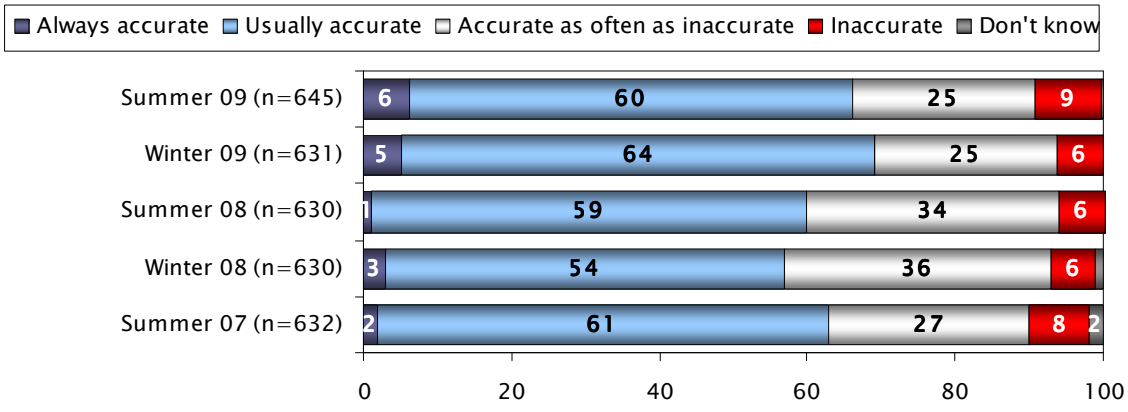
Figure 100: Accuracy of Forecasts and Warnings – % Accurate

Q.16 For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been always accurate, usually accurate, accurate as often as inaccurate, usually inaccurate or always inaccurate?*



** Note – question wording changed in 2009 to refer to last 6 months instead of last 12 months*

Figure 101: Accuracy of Forecasts and Warnings – Full Distribution



Base: All rural	Summer 07 (n=632)	Winter 08 (n=630)	Summer 08 (n=630)	Winter 09 (n=631)	Summer 09 (n=645)
Don't know	2	1	0	0	0
Inaccurate	8	6	6	6	9
Accurate as often as inaccurate	27	36	34	25 ⬇	25
Usually accurate	61	54	59	64	60
Always accurate	2	3	1	5 ⬆	6

Figure 102: Perceived Changes in Accuracy of Forecasts and Warnings – % More Accurate

Q.17 Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?

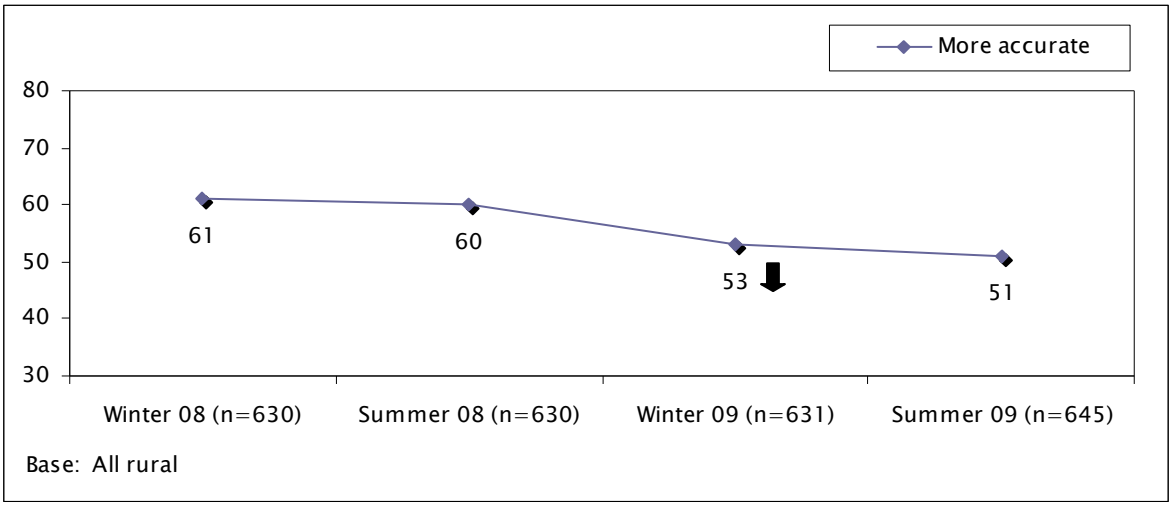
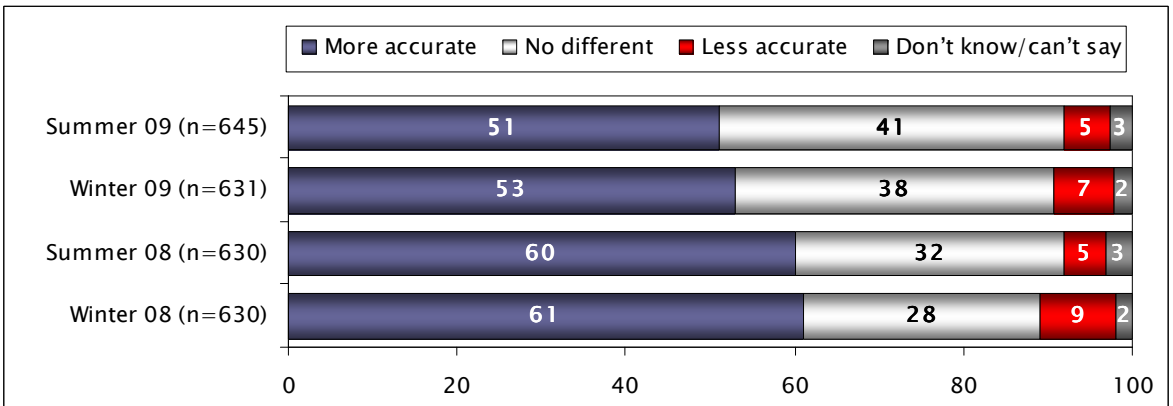


Figure 103: Change in Accuracy of Forecasts and Warnings – Full Distribution

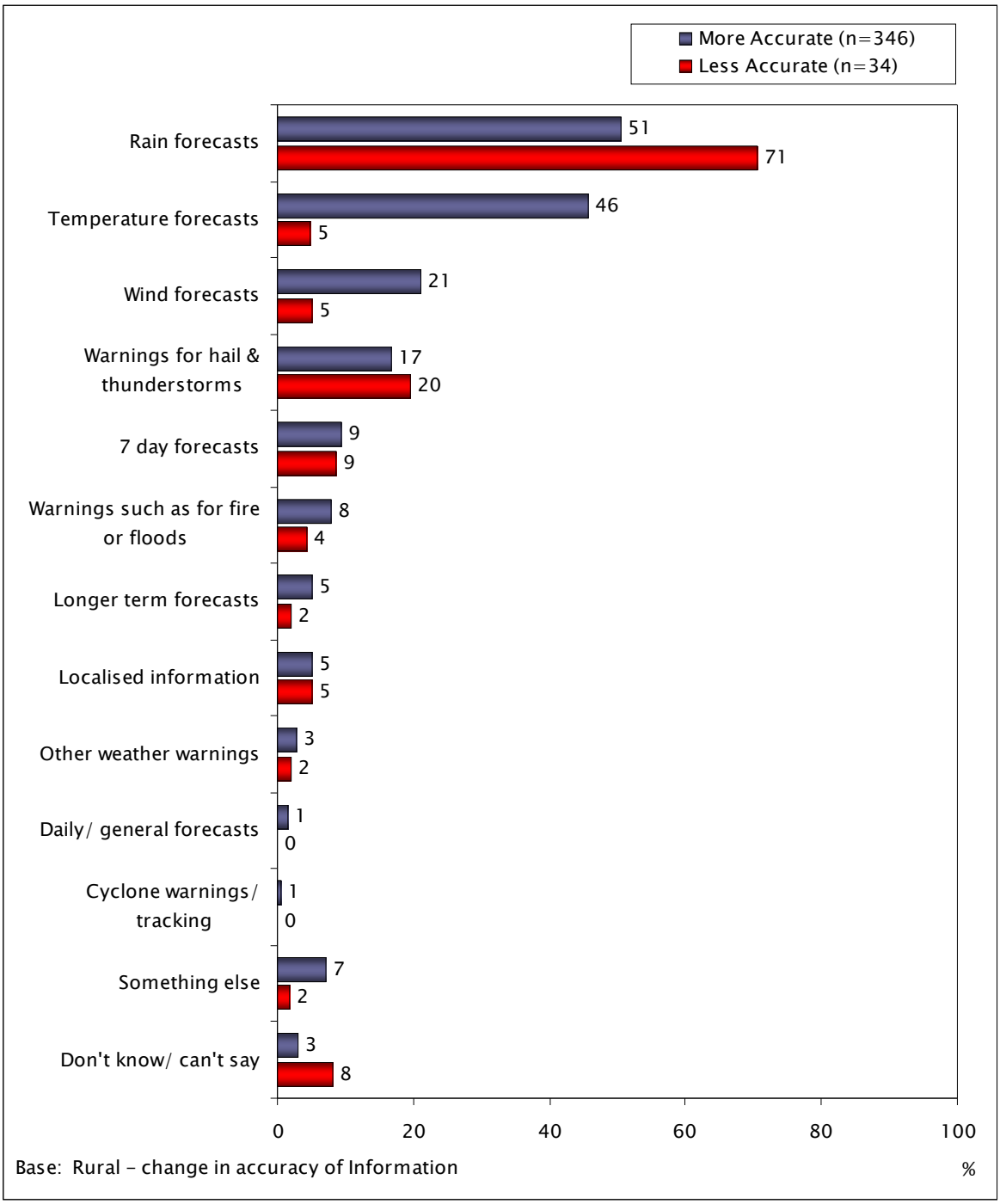
Q.17 Generally, do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?



Base: All rural	Winter 08 (n=630)	Summer 08 (n=630)	Winter 09 (n=631)	Summer 09 (n=645)
Don't know/can't say	2	3	2	3
Less accurate	9	5	7 ⬆	5
No different	28	32	38 ⬇	41
More accurate	61	60	53	51

Figure 104: Reasons for Perceived Change in Accuracy – % Giving Reason

*Q.18 Which part of the weather information has become more or less accurate?^*



^Multiple responses accepted, therefore results do not add up to 100%.

6.4 Weather Information Meets Requirements (Q.11 & Q.12)

Figure 105: Weather Information Meets Requirements – % Regularly

Q.11 Would you say the weather information you access or receive regularly meets your requirements, sometimes meets your requirements or never meets your requirements…?

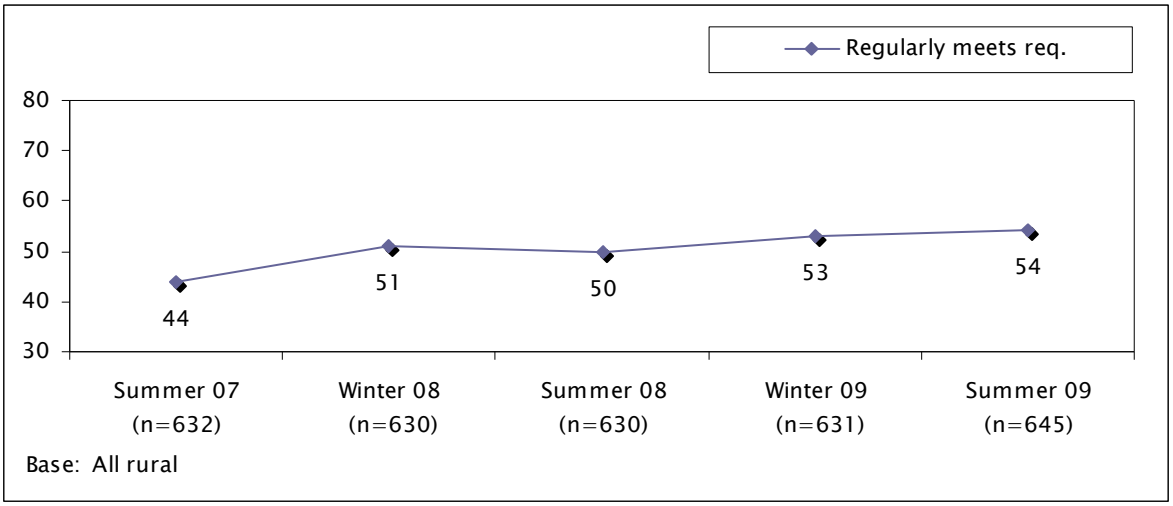
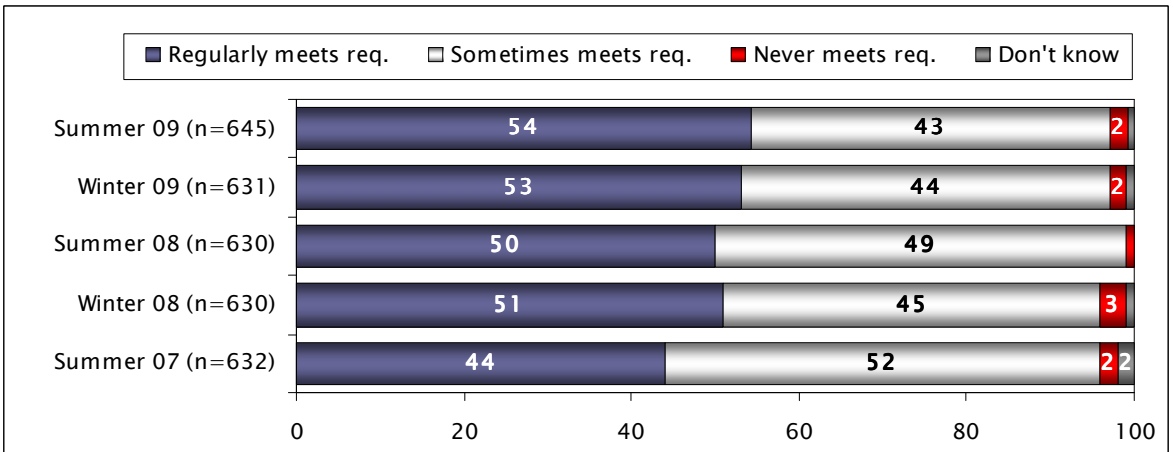


Figure 106: Weather Information Meets Requirements – Full Distribution



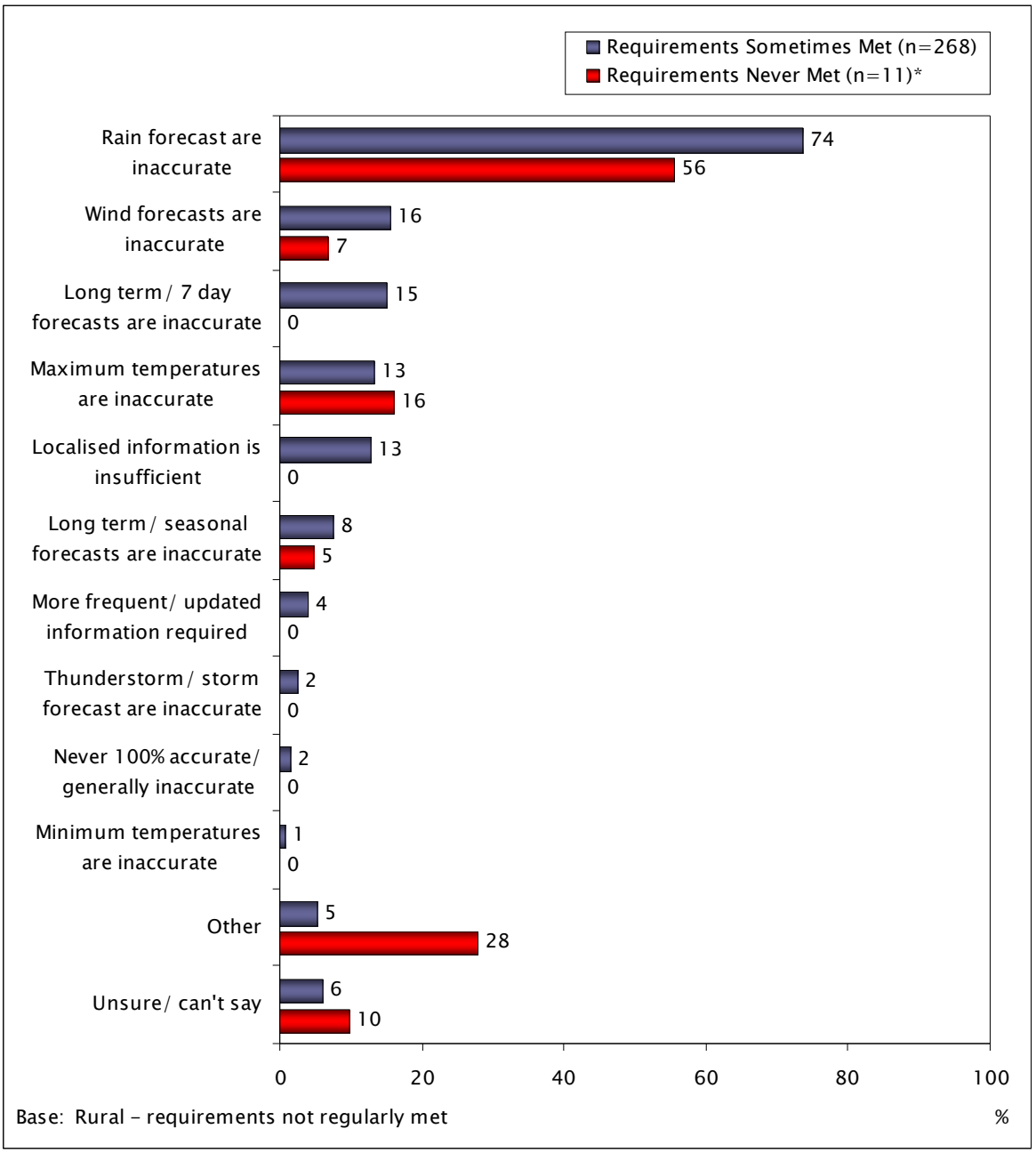
Base: All rural	Summer 07 (n=632)	Winter 08 (n=630)	Summer 08 (n=630)	Winter 09 (n=631)	Summer 09 (n=645)
Don't know	2	1	0	1	1
Never meets req.	2	3	1	2	2
Sometimes meets req.	52	45	49	44	43
Regularly meets req.	44	51	50	53	54

Upon investigation it appears that those **rural** sub-groups that more often indicated that weather information regularly meets their requirements included:

- Those residing in Tasmania, Northern Territory, Western Australia and Victoria
- Users of and those who value the Bureau's website
- Those very satisfied with the information provided by the Bureau
- Those who indicated that the accuracy of weather forecasts has improved

Figure 107: Reasons for Requirements Not Being Met – % Giving Reason

*Q.12 In what way does the weather information you receive not meet your requirements?^*



^*Multiple responses accepted, therefore results do not add up to 100%. *Caution small sample size.*

6.5 Timeliness of Weather Information (Q.13, 14 & 15)

Figure 108: Weather Information is Available in Time – % Available in Time

Q.15 Is the weather information available in time to meet your needs?

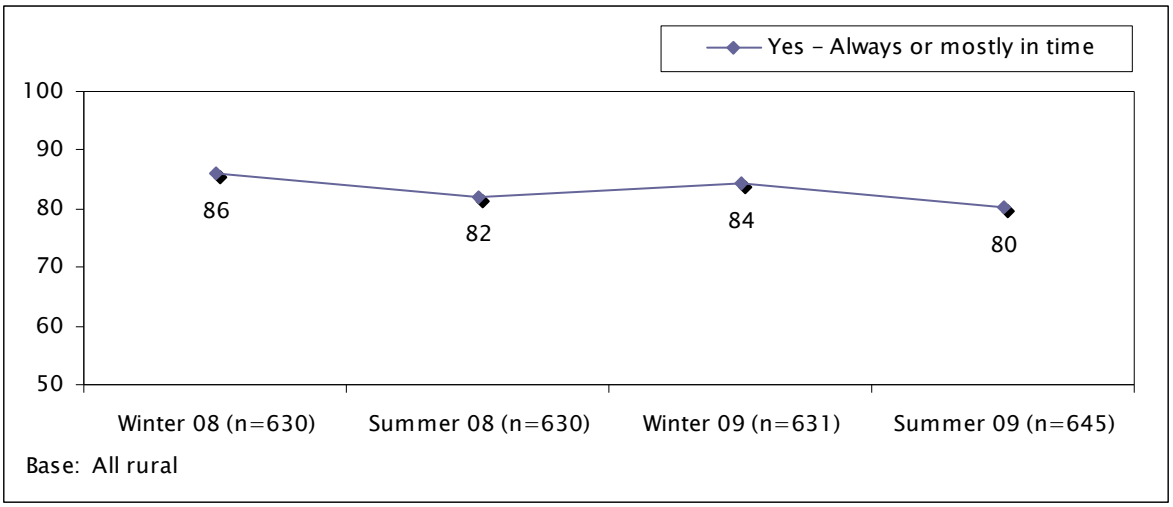
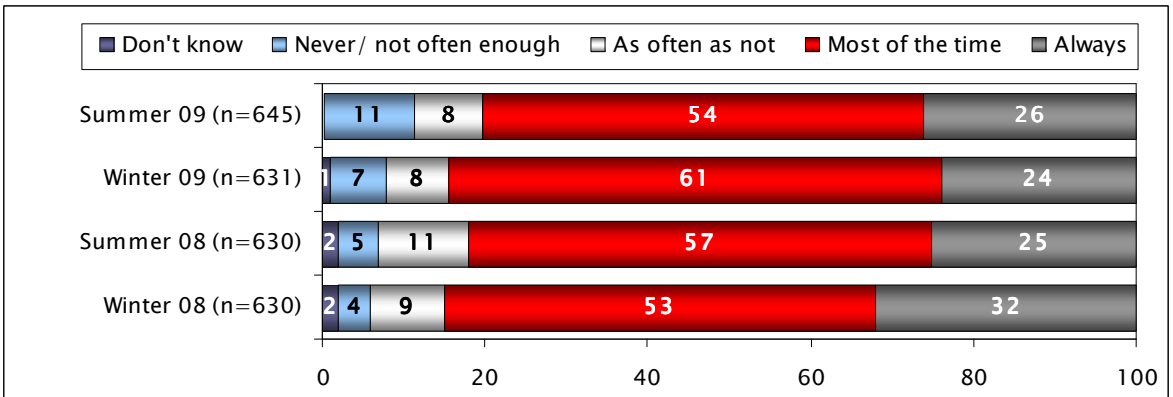


Figure 109: Weather Information is Available in Time – Full Distribution

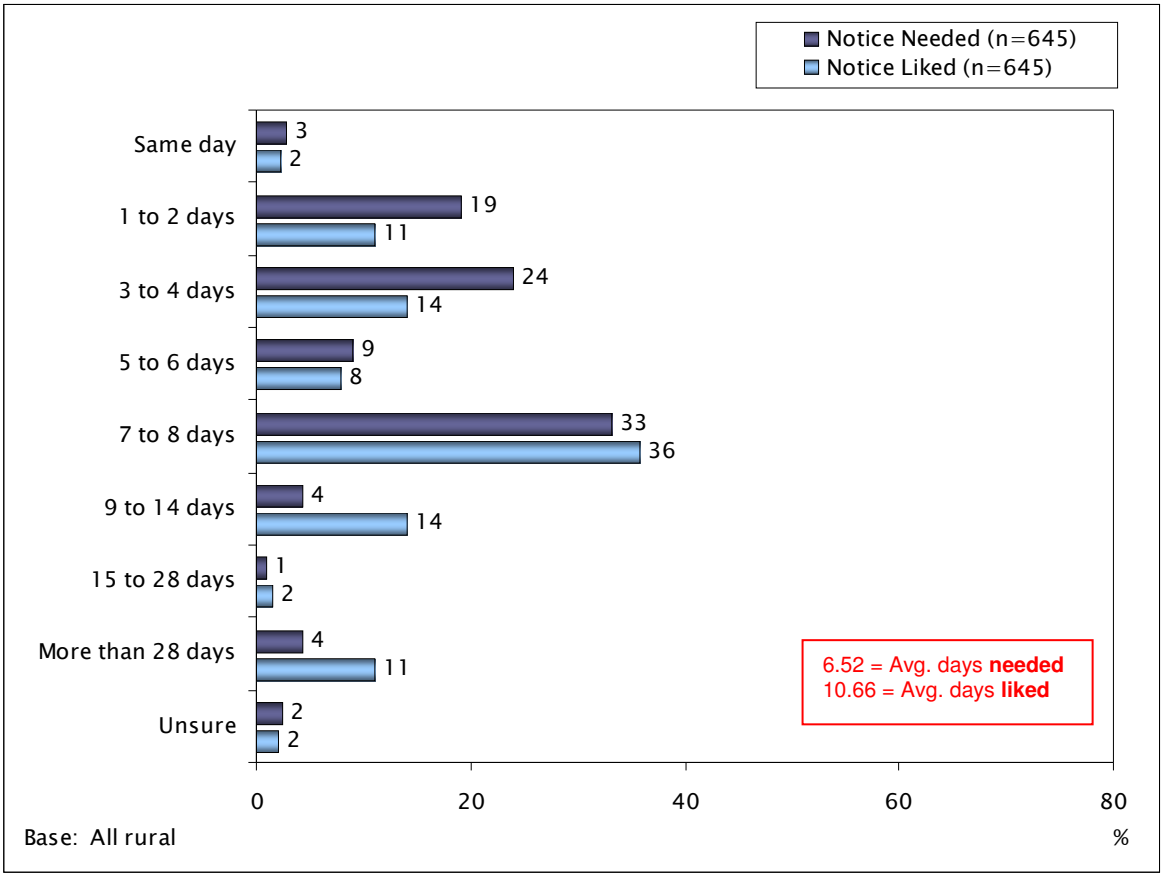


Base: All rural	Winter 08 (n=630)	Summer 08 (n=630)	Winter 09 (n=631)	Summer 09 (n=645)
Always	32	25	24	26
Most of the time	53	57	61	54 ⬆
As often as not	9	11	8	8
Never / not often enough	4	5	7	11 ⬆
Don't know	2	2	1	0

Figure 110: Necessary and Preferred Notice of Weather Forecasts – % Days

Q.13 In order for you to make good farming related decisions, typically, how many days ahead of time do you need to know the weather forecast?

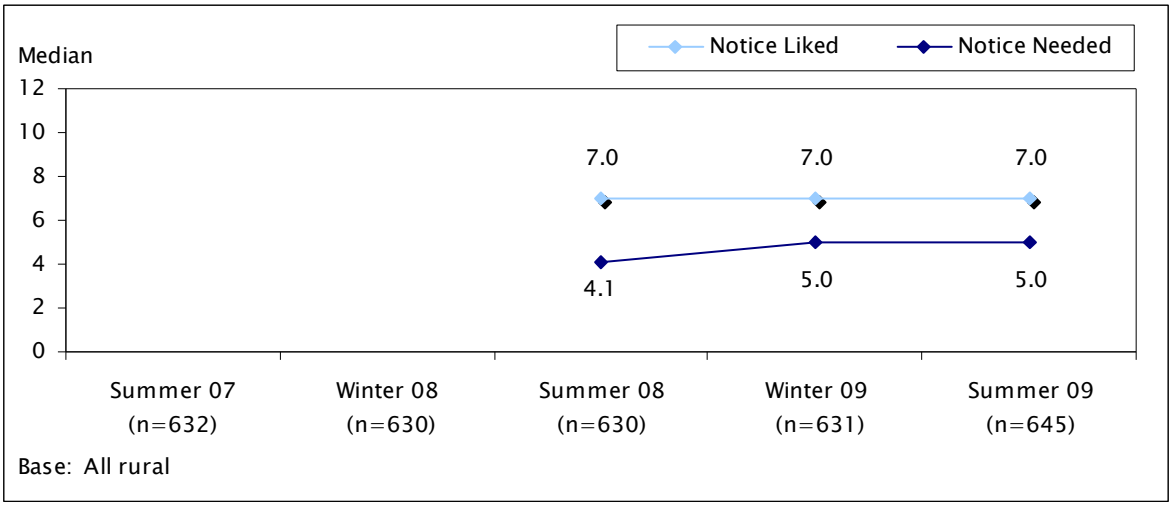
Q.14 In order for you to make good farming related decisions, typically, how many days ahead of time would you realistically like to know the weather forecast?



The average number of days ahead of time that **rural** respondents indicated they need to know the forecasts in order for them to make good farming related decisions was 6.52 days. The average number of days' notice that would be realistically liked was 10.66.

Clearly rural respondents demonstrated a greater gap between the number of days they need versus the number of days they would like compared to their metropolitan and regional counterparts as their livelihood often depends on the weather. However this gap was not expansive (difference of 4 days), questioning the necessity of their preference to have greater notice of weather forecasts.

Figure 111: Necessary and Preferred Notice of Weather Forecasts – Median No. of Days



The chart above presents a time series for the amount of notice liked and needed in regards to weather forecasts. Results prior to summer 2008 have not been charted above as the base responding to the question changed (prior to summer 2008 asked of metropolitan respondents regarding work activities only).

The summer 2009 results indicate no change in the amount of notice liked and needed among rural respondents. However a closer look at summer 2009 results revealed rural respondents from New South Wales, Victoria, Queensland and Tasmania typically reported a lower number of days for their forecast needs compared with winter 2009. This was the result of lower proportions of respondents within these states to report that they would like to know the weather at least 28 days in advance.

As for the previous increase in the amount of notice needed in winter 2009, it is difficult to determine whether this was influenced by wording changes (adding of the term "realistically" and asking about current checking behaviour as opposed to their needs). Despite this, a seasonal influence does not appear to explain the increase either.

Clearly though, rural respondents continue to require and desire a greater amount of notice when it comes to weather forecasts compared to metropolitan and regional respondents.

6.6 Accessing and Using Weather Information (Q.5 to Q.10)

Figure 112: Frequency of Checking Weather for Decision Making – % Checking

Q.5 How often do you typically check the weather to make decisions regarding your farming activities?

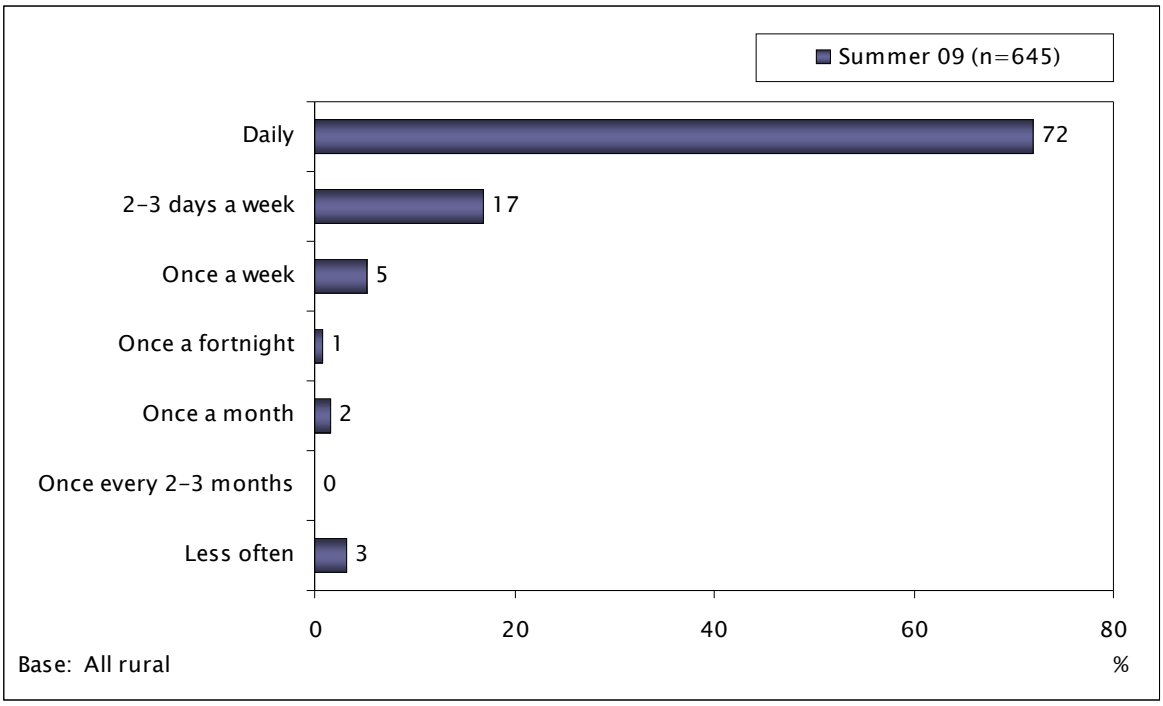
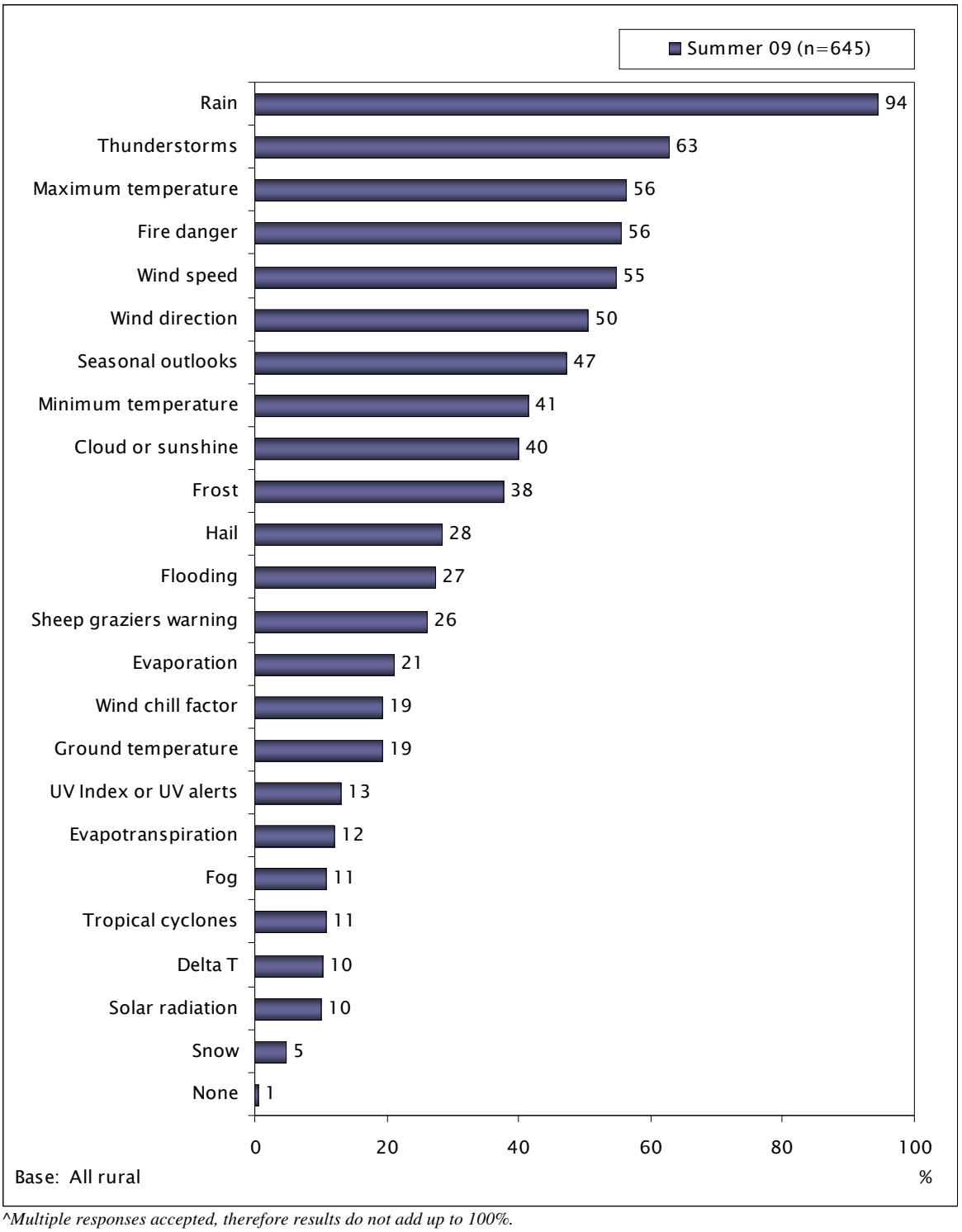


Figure 113: Use of Weather Elements for Decision Making – % Using Element

*Q.6 Typically, which of the following weather types have you recently used to make decisions about your farming activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

Respondents from South Australia and Western Australia were more likely to use a range of indicators to make decisions about their farming particulars compared with respondents from other states and territories. These included wind speed or direction, thunderstorms and fire danger. South Australians were also more likely to use maximum temperature, hail and frost. These results were fairly consistent with results observed in winter 2009.

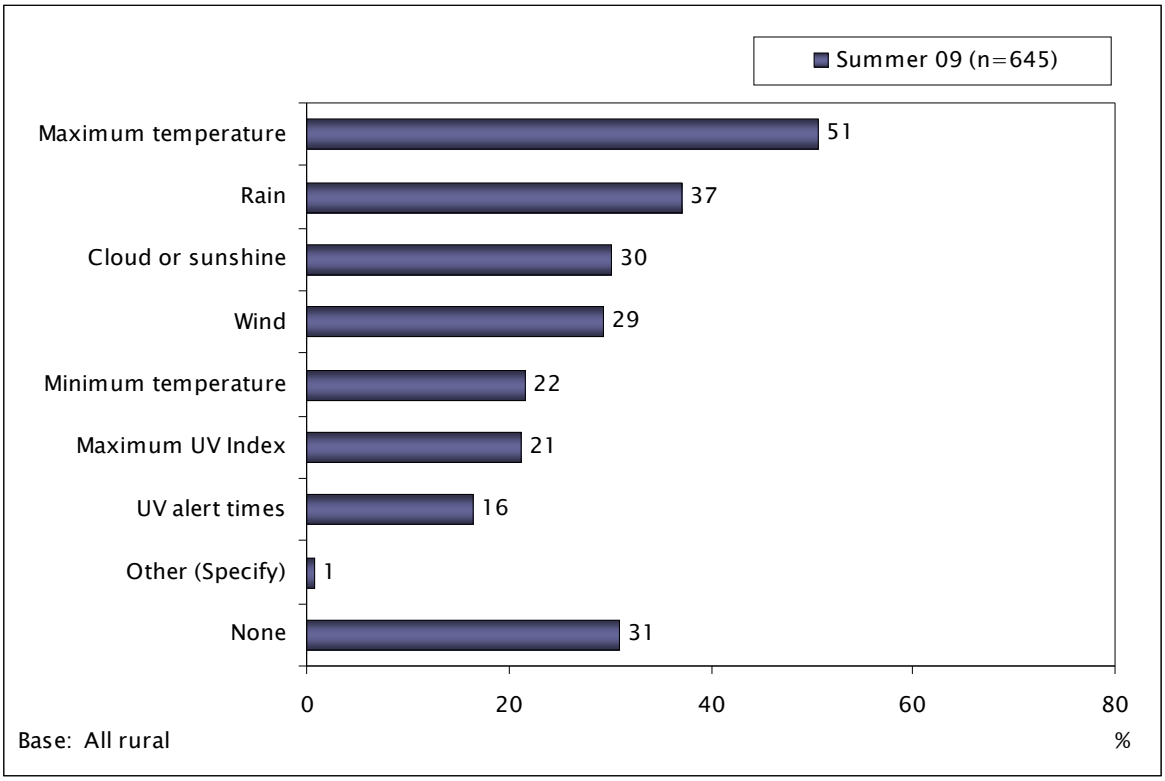
There were some differences in the elements used to make decisions dependent on whether the respondents' main information source was television, radio or the Bureau's website. Notable differences were that television was more often the preferred method among those who use minimum temperature, wind chill factor, and fire danger as indicators.

Wind chill factor, fog, fire danger, UV index/ alerts, evapotranspiration and solar radiation were less often indicators among those who prefer to use radio. Those who check wind speed / direction / chill factor, thunderstorm, fire danger, evapotranspiration and seasonal outlooks were more likely to prefer to use the Bureau's website.

As mentioned earlier, the percentage who had used fire danger as an indicator more often resided in South Australia or Western Australia and to some extent Victoria. However, there has been a decrease in the average percentage of respondents who had used fire danger for decision making over time (56% down from 60% in winter 2009 and 72% in summer 2008).

Figure 114: Use of Weather Elements for Sun Protection Decisions – % Using Element

*Q.7 Have you recently used any of the following weather types to make decisions about sun protection?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

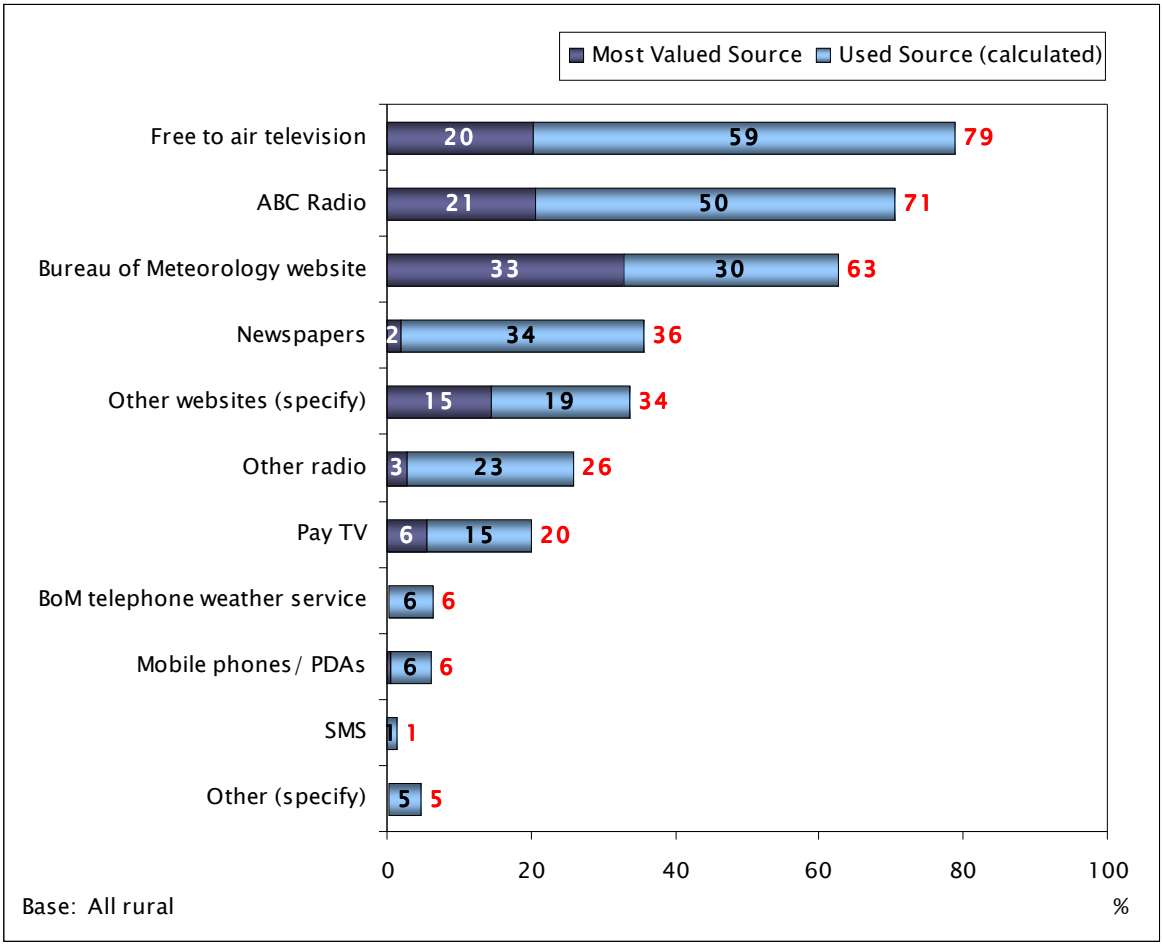
Results for this new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature. Other weather elements such as the maximum UV index and UV alert times were used to a much lesser extent.

Around 1 in 3 rural respondents reported that they do not use weather information to make decisions about sun protection. It should be noted however that this percentage may include individuals who use sun protection either everyday or when going outdoors regardless of the weather forecast and not just individuals who do not strive to protect themselves from the sun.

Figure 115: Use and Value of Weather Information Sources – % Using or Valuing Source

*Q.8 Which of the following have you used over the past 6 months to get weather information…?^*

*Q.9 Of those you have mentioned, which one do you find to be the most valuable sources of weather information to enable you to make weather related farming decisions?^*



^Multiple responses accepted, therefore results do not add up to 100%.
Note: Most valued source + used source may not add up to exact total due to rounding of decimal places.

Figure 116: Awareness and Use of Bureau of Meteorology Website – % Aware & Use

Q.10 Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

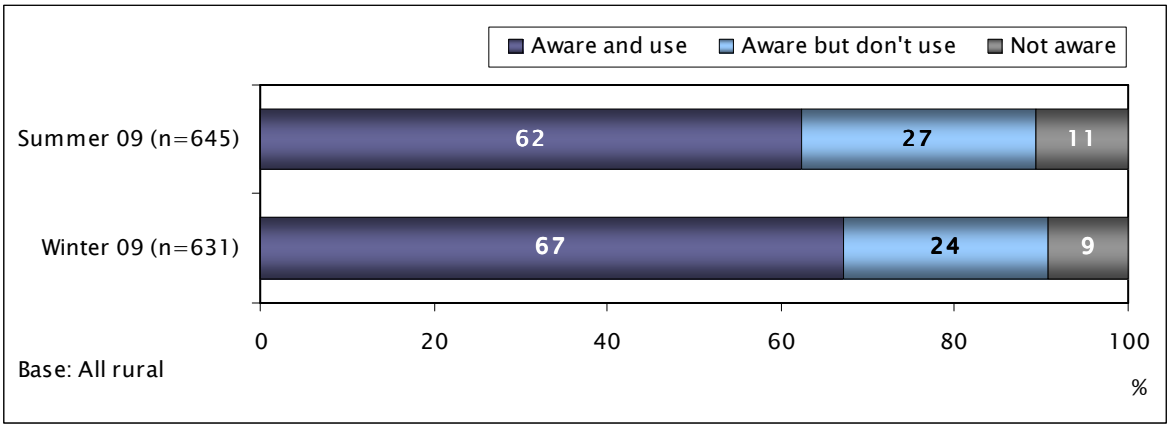


Figure 117: Awareness of "Water and the Land" on BoM Website - % Aware

Q11. Are you aware that the Bureau of Meteorology website includes a dedicated area called Water and the Land for agricultural weather services?

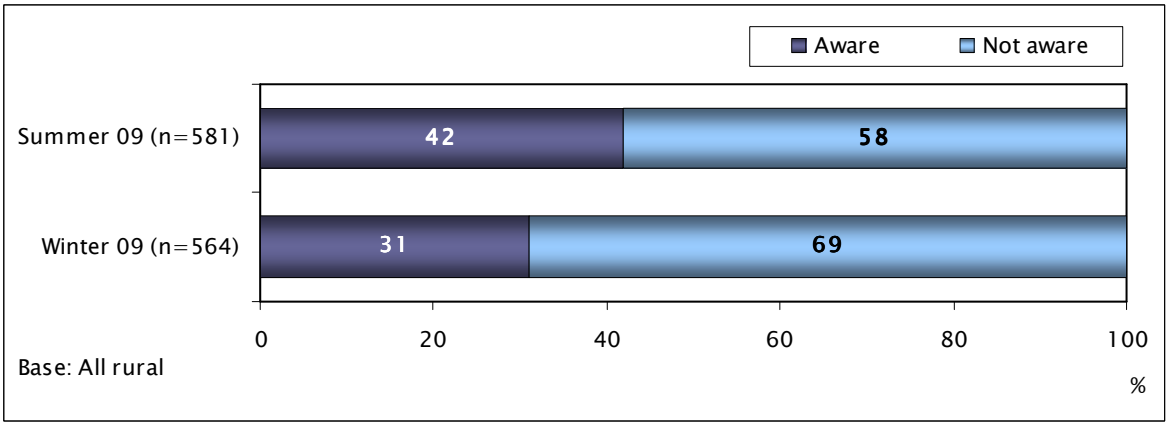


Figure 118: Use of Bureau of Meteorology Website – % Users

Q.8 Which of the following have you used over the past 6 months to get weather information…?

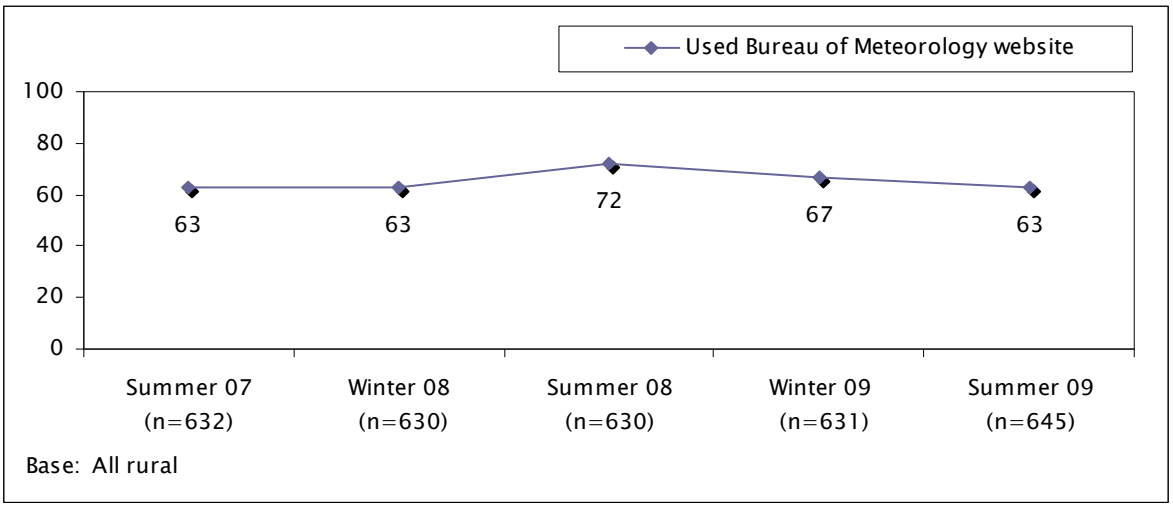


Figure 119: Other Websites for Weather Information – % Other Websites Used

Base: Use other website (n=216)	% use website
Elders	74
Weather Zone	12
Newspaper/ news website	4
Colarweather.com	3
NZ Bureau Meteorology	3
WX MAPS	3
US Navy Website	3
BUOY Weather	2
Google	2
ACCU.com.au	2
Weatherwatch.net	1
Bigpond	1
Ozweather.com.au	1
Country energy	1
Spraywise	1
Weather.com.au	1
GFS Forecast	1
Landmark	1
AGNET.com.au	1
Holtonweather.com	1
E-Farming.com.au	1
ABC website	1
Company websites e.g. Coles/ Banks	1
NINEMSN	1
NAIPS	1
Don't know/ can't remember	6

6.7 Improvements (Q.21 & Q.22)

Figure 120: Reactions to Replacement of the Term "Fine" – % Giving Response

Q21. The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

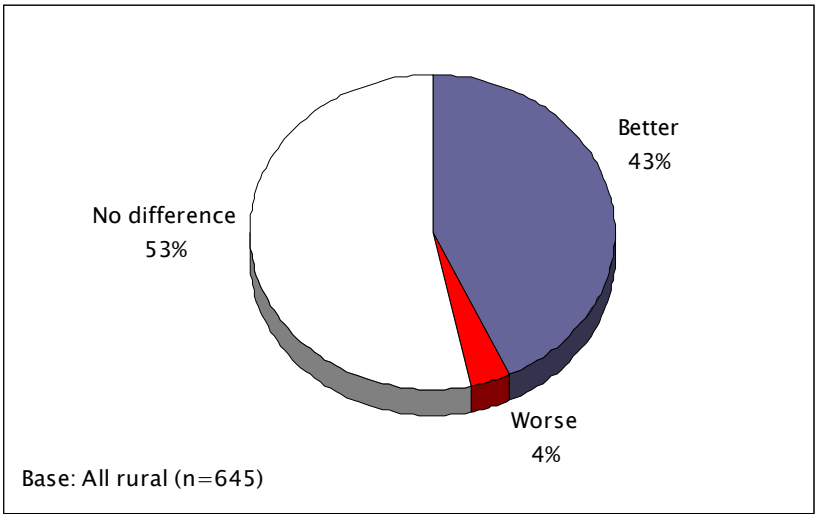
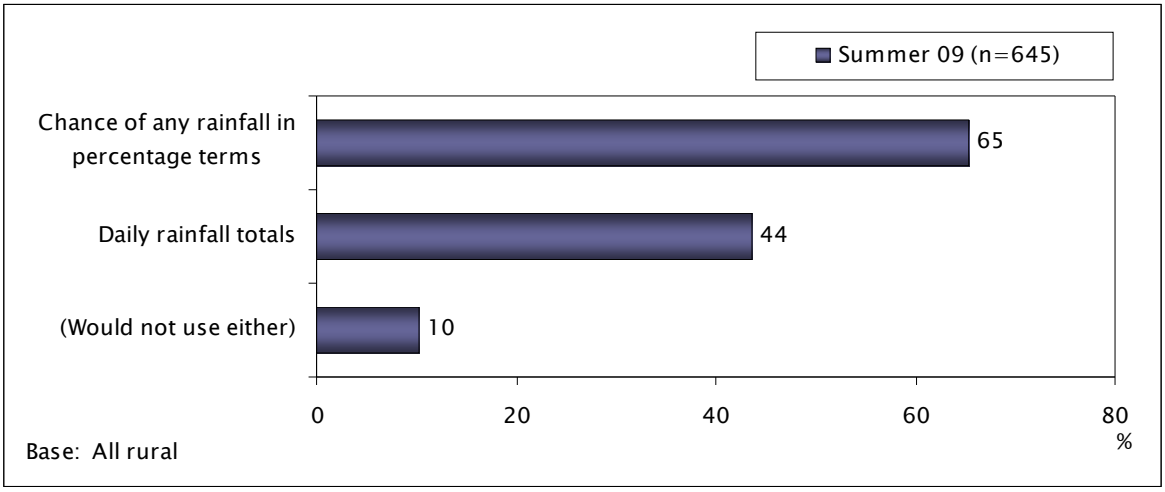


Figure 121: Use of Rainfall Information – % Giving Response

*Q22. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities?^*



^*Multiple responses accepted, therefore results do not add up to 100%.*

The above charts display results from two new questions added to the survey in summer 2009. The first chart shows mixed reactions to replacing the term "fine" with words to describe sky conditions to help the public better understand the weather forecast. However most felt this change would for the better or else make no difference; very few felt the change would be for the worse.

The second chart reveals that the majority of respondents would use additional rainfall information provided by the Bureau in making decisions about their day to day activities, and this would primarily be the chance of any rainfall in percentage terms.

6.8 Rural Summary

Overall, there has been a slight decrease in satisfaction with the information provided by the Bureau of Meteorology since winter 2009, suggesting there may be a seasonal influence on satisfaction among rural respondents with results higher during winter and lower during summer.

Satisfaction with the information provided was highest amongst more regular users, younger respondents (16-34 years) and those requiring less notice for weather forecasts. Those with higher satisfaction also tended to be more positive about other elements such as the accuracy of information and its ability to meet their needs.

Results for the three other key performance indicators (KPIs) differed. A slightly lower proportion of rural respondents now see the information provided as timely and accurate, while a similar proportion of respondents see the information regularly meeting requirements.

- Those who indicated that weather information and forecasts were more accurate equated this to increased accuracy in the rain, temperature and wind forecasts.
- Those who indicated that forecasts have been less accurate equated this to decreased accuracy in the rain forecasts predominantly, and to some extent the warnings for hail and thunderstorms.

For around one in seven the Bureau could do nothing to improve its information provision. More specifically, some said that weather information could never be entirely accurate due to the unpredictable or fickle nature of the weather. For these respondents, an improvement in the accuracy of information is likely to be the best means of improving their satisfaction.

Supporting this, the most common improvement suggestion was for the Bureau to improve the accuracy of its forecasts, particularly its rain forecasts.

In terms of the desired notice period for weather forecasts, many indicated they would *like* to know at least seven days in advance, however, fewer indicated that they *need* to know in that time. Just under half indicated that they only need up to four days' notice of weather forecasts. Still, around one in three indicated that they require at least 7 days' notice of weather forecasts. These results indicate that greater notice of weather forecasts is both desired and needed among rural respondents compared with metropolitan and regional respondents.

The majority of respondents check the weather daily, with rain forecasts used most commonly (by 9 out of 10 respondents) to make decisions regarding farming activities, highlighting their importance. Many also based decisions on maximum temperature and whether storms were forecast. These could, therefore, be considered to be priority areas.

Results for the new question added in summer 2009 revealed that those who access weather information to make decisions about sun protection were most likely to use the maximum temperature and rain forecasts.

The mediums most often used for checking forecasts were free to air television and ABC radio, followed by the Bureau's website. However it was the Bureau's website that was considered to be the most valued source of weather information.

While the majority of rural respondents were aware of the Bureau's website, around one in ten remains unaware of the existence of the site. Around two thirds of those aware of the website have used it over the last 6 months, though this proportion represented a slight decrease since winter 2009. Users however were more likely to be aware of the area on the website dedicated to agricultural weather services then winter 2009 users.

7.0 KEY PERFORMANCE INDICATORS – COMPARATIVE RESULTS

7.1 Metropolitan, Regional & Rural Comparisons

Base: All respondents	Location			Total
	Metro	Regional	Rural	
KEY PERFORMANCE INDICATORS				
Overall Satisfaction - % satisfied (Q19)	94	92	83	93
Overall Satisfaction - Index (Q19)	*84.0*	*80.6*	*74.8*	*82.7*
Accuracy of information - % accurate (Q16)	82	79	66	81
Information meets requirements - % regularly (Q11)	69	59	54	65
Timeliness of information - % on time (Q15)	96	92	80	94
CHECKING WEATHER				
% Check weather for personal activities (Q4)	89	78	-	86
% Check weather for leisure activities (Q4)	92	81	-	88
% Check weather for domestic activities (Q4)	72	66	-	70
% Check weather for special occasions (Q4)	64	60	-	63
% Check weather information daily (Q5)	65	53	72	61
MAIN WEATHER TYPES USED				
% Use rain (Q6)	87	91	94	88
% Use maximum temperature (Q6)	87	71	56	81
% Use thunderstorms (Q6)	62	62	63	63
% Use minimum temperature (Q6)	61	46	41	55
% Use cloud or sunshine (Q6)	49	40	40	46
MAIN WEATHER SOURCES USED				
% Use free to air TV (Q8)	75	85	79	79
% Use newspapers (Q8)	39	35	36	37
% Use ABC radio (Q8)	32	43	71	36
% Use Bureau of Meteorology website (Q8)	48	50	63	49
% Use other radio (Q8)	25	25	26	25
MOST VALUABLE WEATHER SOURCE				
% Most valuable - free to air TV (Q9)	34	43	20	37
% Most valuable - Bureau of Meteorology website (Q9)	25	24	33	25
BUREAU WEBSITE				
% Aware of Bureau of Meteorology website (Q10	79	85	90	81
% Used Bureau of Meteorology website (Q8)	48	50	63	49
% Aware of 'Water and the Land' (Q11 Rural)	-	-	42	42
WHY FORECAST DOES NOT REGULARLY MEET REQUIREMENTS				
% Rain forecasts are inaccurate (Q11)	62	63	73	63
% Maximum temperatures are inaccurate (Q11)	25	26	14	25
% Wind forecasts are inaccurate (Q11)	7	14	15	10
FORECAST NEEDS & PREFERENCES				
Avg. days need to know forecast (Q13)	4.0	3.1	6.5	3.7
Avg. days like to know forecast (Q14)	5.2	6.7	10.7	5.7
WEATHER ACCURACY				
% Think weather more accurate (Q17)	55	56	51	55
% Think temperature forecasts affected accuracy (Q17)	65	48	47	59
% Think rain forecasts affected accuracy (Q17)	49	38	52	45
WOULD IMPROVE OVERALL SATISFACTION				
%NET accurately forecast conditions (Q20)	25	34	38	28
% NET timing of forecasts (Q20)	11	8	12	10
% NET more detailed/ informative updates (Q20)	15	24	27	19
% NET presentation/ sources of information (Q20)	7	7	5	7

Appendix 1

The Questionnaires

Market Solutions Pty Ltd
Market & Social Research Consultants
Investigate > Communicate > Integrate

Bureau of Meteorology

Public User Survey – December 2009 – METRO & REGIONAL
Revised: Thursday, 26 November 2009 (FINAL)
(Ref: 2404)

SAMPLE DETAILS: Phone number, address, postcode

INTRODUCTION

Good (…), my name is (…) calling on behalf of the Bureau of Meteorology from Market Solutions, a social and market research company. Today we are conducting a study to collect feedback on the community use and perception of weather information. The research will be used to both measure and improve the Bureau's products and services.

For this interview, we need to speak to the person in your household who is aged 16 years or older who had the last birthday - would that be you?

(SCHEDULE CALLBACK - DO NOT SUBSTITUTE FOR ANOTHER HOUSEHOLD MEMBER)
(REINTRODUCE IF NECESSARY)

I want to reassure you that your answers will be completely confidential. Only combined results will be provided to the Bureau to help them improve their service. I also need to let you know that my supervisor may listen to parts of this interview to assist in quality control monitoring. The interview will take about 10 minutes - may I continue now?

CONTINUE	1
Schedule Callback	2
Refused	3
Non qualifying	4
Government/Business	5
Terminated early	6
Non working number	7
Communication difficulty	8
No contact on 5 attempts	9
Duplicate	10

SECTION 1: DEMOGRAPHICS

Q.1. Firstly we have just a few questions to ensure we have a good cross section of the community. RECORD GENDER AUTOMATICALLY.

Male	1
Female	2

Q.2. Which of the following age groups do you fall into?

16 to 24 years	1
25 to 34 years	2
35 to 44 years	3
45 to 54 years	4
55 to 64 years	5
65 to 74 years	6
75 years or older	7
(Refused)	8

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Q.3. Do you undertake paid work outdoors?

Yes	1
No	2

SECTION 2: USAGE

Q.4. Now we want to talk about accessing and using weather information. Thinking about weather information, do you typically check the weather to make decisions regarding...?
(READ OUT AND CODE ONE AT A TIME) (ACCEPT MULTIPLES)

a) Personal activities such as what to wear or how to travel
b) Leisure activities such as having a barbecue or visiting places on the weekend
c) Domestic activities such as hanging out the washing or doing other work around the house
d) Special occasions such as going to a wedding
e) *Ask only if work outdoors:* Work activities
f) Something else (Specify)
g) (Do not check the weather) - TERMINATE

Q.5. And how often do you typically check the weather to make decisions regarding the activities you mentioned? (READ OUT)

Daily	1
2-3 days a week	2
Once a week	3
Once a fortnight	4
Once a month	5
Once every 2-3 months	6
Less often	7

Q.6. Typically, which of the following weather types have you **recently** used to **make decisions** about your day to day activities?
(READ OUT AND CODE ONE AT A TIME) (ACCEPT MULTIPLES)

Maximum temperature	1
Minimum temperature	2
Rain	3
Wind speed	4
Wind direction	5
Wind chill factor	6
Cloud or sunshine	7
Waves or swell	8
Hail	9
Fog	10
Thunderstorms	11
Flooding	12
Fire danger	13
UV Index or UV alerts	14
Snow	15
Frost	16
(None)	17

Q.7. Have you **recently** used any of the following weather types to **make decisions** about **sun protection**? (READ OUT AND CODE ONE AT A TIME) (ACCEPT MULTIPLES)

Maximum temperature	1
Minimum temperature	2
Rain	3
Wind	4
Cloud or sunshine	5
Maximum UV Index	6
UV alert times	7
Other (Specify)	8
(Do not use weather information to make decisions about sun protection)	9

Q.8. Which of the following have you used over the past 6 months to get weather information? (READ OUT) (ACCEPT MULTIPLES)

Free to air television	1
Pay TV	2
ABC Radio, for example Radio National, Triple J, ABC FM, News Radio or ABC local	3
Other radio	4
Newspapers	5
Bureau of Meteorology website	6
Telephone weather service from the Bureau	7
Other websites (Specify)	8
Mobile phones/ PDAs	9
SMS	10
Other (Specify)	11
(None of the above) - TERMINATE	12

Q.9. Of those you have mentioned, which one do you find to be the **most valuable source** of weather information to enable you to make weather related decisions? (READ OUT ONLY ANSWERS PICKED IN PREVIOUS QUESTION) (ONE ONLY)

Free to air television	1
Pay TV	2
ABC Radio, for example Radio National, Triple J, ABC FM, News Radio or ABC local	3
Other radio	4
Newspapers	5
Bureau of Meteorology website	6
Telephone weather service from the Bureau	7
Other websites (Specify)	8
Mobile phones/ PDAs	9
SMS	10
Other (Specify)	11

Q.10. Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

(Interviewer note: Bureau's website is: www.bom.gov.au)

Yes - aware	1
No – not aware	2

SECTION 3: PERCEPTIONS

Q.11. Now we want to talk about what you think of the weather information provided. Would you say the weather information you access or receive…?
(READ OUT) (ONE ONLY)

Regularly meets your requirements	1
Sometimes meets your requirements	2
Never meets your requirements	3
(Unsure/ can't say)	4

Q.12. ***Weather information does not regularly meet requirements - otherwise skip to next question***
In what way does the weather information you receive not meet your requirements?
(DO NOT READ OUT) (ACCEPT MULTIPLES)

(Interviewer note: probe forecasts/ factors e.g. temperature, rainfall etc)

Rain forecasts are inaccurate	1
Maximum temperatures are inaccurate	2
Wind forecasts are inaccurate	3
Long term/ 7 day forecasts are inaccurate	4
Longer term/ seasonal forecasts are inaccurate e.g. 3 months	5
Localised information is insufficient e.g. suburb	6
More frequent/ updated information required	7
Other (Specify)	8
(Unsure/ can't say)	9

Q.13. Typically, how many days ahead of time do you **need to know** the weather forecast?

RECORD DAYS.....____

Q.14. Typically, how many days ahead of time would you **like to know** the weather forecast?

RECORD DAYS.....____

Q.15. Is the weather information available in time to meet your needs?
(READ OUT) (ONE ONLY)

Yes - Always	1
Yes – Most of the time	2
As often Yes as No	3
No – Not often enough	4
No – Never	5
(Don't know/ can't say)	6

Q.16. For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been…?
(READ OUT) (ONE ONLY)

Always accurate	1
Usually accurate	2
Accurate as often as inaccurate	3
Usually inaccurate	4
Always inaccurate	5
(Don't know/ can't say)	6

Q.17. Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?
(DO NOT READ OUT) (ONE ONLY)

More accurate	1
No different	2
Less accurate	3
(Don't know/ can't say)	4

Q.18. ***Think weather information is more or less accurate - otherwise skip to next question***
Which part of the weather information has become (insert answer to previous question)?
(DO NOT READ OUT) (ACCEPT MULTIPLES)

Temperature forecasts	1
Rain forecasts	2
Wind forecasts	3
Warnings for hail and thunderstorms	4
Warnings such as for fire or floods	5
Other weather warnings (Specify)	6
7 day forecasts	7
Longer term forecasts (e.g. 3 months)	8
Localised information (e.g. suburb)	9
Something else (Specify)	10
(Don't know/ can't say)	11

Q.19. Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you…? (READ OUT) (ONE ONLY)

Very satisfied	1
Fairly satisfied	2
Neither satisfied nor dissatisfied	3
Fairly dissatisfied	4
Very dissatisfied	5
(Don't know/ can't say)	6

Q.20. ***Less than very satisfied - otherwise skip to next section***
What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?

(PROBE FULLY) (RECORD VERBATIM)

SECTION 4: IMPROVEMENTS

Q.21. Now just a few questions about improvements the Bureau is making.

All except VIC - otherwise skip to next question

a) The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

Better	1
Worse (Specify – why do you say that?)	2
No difference	3

VIC only - otherwise skip to next question

b) The term "fine" was previously used to describe when no rain is forecast. The Bureau has now replaced this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change is for the better, the worse or makes no difference in helping you understand the weather forecast?

Better	1
Worse (Specify – why do you say that?)	2
No difference	3

Q.22. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities? (READ OUT AND CODE ONE AT A TIME)

Daily rainfall totals	1
Chance of any rainfall in percentage terms	2
(Would not use either)	3

CLOSE

Q23. As part of quality control procedures, someone from our project team may wish to re-contact you to verify a couple of responses you provided today. For this reason, may I please have your first name?

RECORD FIRST NAME

Q24. As this is market research, it is carried out in compliance with the Privacy Act and the information you provided will be used only for research purposes. Your answers will be combined with those of other participants, no individual responses will be identified.

We do re-contact people from time to time for related research projects. Would it be okay if we contacted you again in the future to invite you to participate in any similar research? We will only use this information to contact you to invite you to participate in research, your details will not be passed onto any third party.

IF AGREE, SAY: We will only keep your contact details on record for 12 months. You may ask to have your details removed at any time over the next 12 months.

Agree to future research	1
Do not agree to future research	2

CLOSE: That's the end of the interview. Thank you for your time and responses. My name is (…) from Market Solutions, if you have any queries about this survey feel free to call this office during business hours – would you like the number? (Provide number if required – 03 9372 8400 and ask to speak to Danielle Jenner). If you have any general queries, you can call the Market Research Society's Survey Line on 1300 364 830.

RECORD INTERVIEWER'S ID

AUDITING (OFFICE ONLY)

Q25. Was the date and time of interview correct?

Yes..... 1
No..... 2

Q26. Was the interview recorded correctly?

Yes..... 1
No..... 2

Q27. Was the interviewer courteous?

Yes..... 1
No..... 2

Q28. AUDITOR'S ID

ENTER ID..... _____

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Bureau of Meteorology

Public User Survey – December 2009 – RURAL
Revised: Thursday, 26 November 2009 (FINAL)
(Ref: 2404)

SAMPLE DETAILS: Phone number, address, postcode

INTRODUCTION

Good (…), my name is (…) calling on behalf of the Bureau of Meteorology from Market Solutions, a social and market research company. Today we are conducting a study to collect feedback on regional and rural Australia's use and perception of weather information. The research will be used to both measure and improve the Bureau's products and services.

For this interview, we need to speak to people who use weather information predominantly for primary production or farming. Would you or anyone in your household use weather information for this purpose? (IF NO: Go to non qualifying close)

(REINTRODUCE IF NECESSARY)

I want to reassure you that your answers will be completely confidential. Only combined results will be provided to the Bureau to help them improve their service. I also need to let you know that my supervisor may listen to parts of this interview to assist in quality control monitoring. The interview will take about 10 minutes - may I continue now?

CONTINUE	1
Schedule Callback	2
Refused	3
Non qualifying	4
Government/Business	5
Terminated early	6
Non working number	7
Communication difficulty	8
No contact on 5 attempts	9
Duplicate	10

SECTION 1: DEMOGRAPHICS

Q.1. Firstly we have just a few questions to ensure we have a good cross section of the community. RECORD GENDER AUTOMATICALLY.

Male	1
Female	2

Q.2. Which of the following age groups do you fall into?

16 to 24 years	1
25 to 34 years	2
35 to 44 years	3
45 to 54 years	4
55 to 64 years	5
65 to 74 years	6
75 years or older	7
(Refused)	8

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Q.3. What is the **main type** of farming are you engaged in? (DO NOT READ OUT) (ONE ONLY)

Cattle/beef	1
Cotton	2
Chickens	3
Dairy	4
Forestry/wood lots	5
Fruit growing	6
Vegetable growing	7
Grain or cropping	8
Broadacre	9
Pigs	10
Sheep	11
Sugar	12
Viticulture (grapes)	13
Wool	14
Other (specify)	15

Q.4. Are you engaged in any **other types** of farming? (DO NOT READ OUT) (ACCEPT MULTIPLES)

Cattle/beef	1
Cotton	2
Chickens	3
Dairy	4
Forestry/wood lots	5
Fruit growing	6
Vegetable growing	7
Grain or cropping	8
Broadacre	9
Pigs	10
Sheep	11
Sugar	12
Viticulture (grapes)	13
Wool	14
Other (specify)	15
(Not engaged in any other types)	16

SECTION 2: USAGE

Q.5. Now we want to talk about accessing and using weather information. How often do you typically check the weather to make decisions regarding your farming activities? (READ OUT)

Daily	1
2-3 days a week	2
Once a week	3
Once a fortnight	4
Once a month	5
Once every 2-3 months	6
Less often	7

Q.6. Typically, which of following weather types have you **recently** used to **make decisions** about your farming activities?
(READ OUT AND CODE ONE AT A TIME) (ACCEPT MULTIPLES)

Maximum temperature	1
Minimum temperature	2
Ground temperature	3
Rain	4
Wind speed	5
Wind direction	6
Wind chill factor	7
Cloud or sunshine	8
Evaporation	9
Hail	10
Snow (only VIC, NSW, TAS)	11
Fog	12
Thunderstorms	13
Solar radiation	14
Tropical cyclones (only North WA, QLD & NT)	15
Flooding	16
Fire danger	17
Frost	18
UV Index or UV alerts	19
Delta T (used for pesticide spraying)	20
Evapotranspiration	21
Sheep graziers warnings	22
Seasonal outlooks	23
(None)	24

Q.7. Have you **recently** used any of the following weather types to **make decisions** about **sun protection**?
(READ OUT AND CODE ONE AT A TIME) (ACCEPT MULTIPLES)

Maximum temperature	1
Minimum temperature	2
Rain	3
Wind	4
Cloud or sunshine	5
Maximum UV Index	6
UV alert times	7
Other (Specify)	8
(Do not use weather information to make decisions about sun protection)	9

Q.8. Which of the following have you used over the past 6 months to get weather information? (READ OUT) (ACCEPT MULTIPLES)

Free to air television	1
Pay TV	2
ABC Radio, for example Radio National, Triple J, ABC FM, News Radio or ABC local	3
Other radio	4
Newspapers	5
Bureau of Meteorology website	6
Telephone weather service from the Bureau	7
Other websites (Specify)	8
Mobile phones/ PDAs	9
SMS	10
Other (Specify)	11
(None of the above) - TERMINATE	12

Q.9. ***Obtained weather information over past 6 months - otherwise skip to next section***
Of those you have mentioned, which one do you find to be the **most valuable source** of weather information to enable you to make weather related farming decisions?
(READ OUT ONLY ANSWERS PICKED IN PREVIOUS QUESTION) (ONE ONLY)

Free to air television	1
Pay TV	2
ABC Radio, for example Radio National, Triple J, ABC FM, News Radio or ABC local	3
Other radio	4
Newspapers	5
Bureau of Meteorology website	6
Telephone weather service from the Bureau	7
Other websites (Specify)	8
Mobile phones/ PDAs	9
SMS	10
Other (Specify)	11

Q.10. Before today, were you aware that the Bureau of Meteorology has a website where you can find weather information?

(Interviewer note: Bureau's website is: www.bom.gov.au)

Yes - aware	1
No – not aware	2

Q.11. ***Aware of Bureau website - otherwise skip to next section***
Are you aware that the Bureau's website includes a dedicated area called Water and the Land for agricultural weather services?

Yes - aware	1
No – not aware	2

SECTION 3: PERCEPTIONS

Q.12. Now we want to talk about what you think of the weather information provided. Would you say the weather information you access or receive…?
(READ OUT) (ONE ONLY)

Regularly meets your requirements	1
Sometimes meets your requirements	2
Never meets your requirements	3
(Unsure/ can't say)	4

Q.13. ***Weather information does not regularly meet requirements - otherwise skip to next question***
In what way does the weather information you receive not meet your requirements?
(DO NOT READ OUT) (ACCEPT MULTIPLES)

(Interviewer note: probe forecasts/ factors e.g. temperature, rainfall etc)

Rain forecasts are inaccurate	1
Maximum temperatures are inaccurate	2
Wind forecasts are inaccurate	3
Long term/ 7 day forecasts are inaccurate	4
Longer term/ seasonal forecasts are inaccurate (e.g. 3 months)	5
Localised information is insufficient (e.g. suburb)	6
More frequent/ updated information required	7
Other (Specify)	8
(Unsure/ can't say)	9

Q.14. In order for you to make good farming related decisions, typically how many days ahead of time do you **need to know** the weather forecast?

RECORD DAYS.....____

Q.15. In order for you to make good farming related decisions, typically how many days ahead of time would you realistically **like to know** the weather forecast?

RECORD DAYS.....____

Q.16. Is the weather information available in time to meet your needs?
(READ OUT) (ONE ONLY)

Yes - Always	1
Yes – Most of the time	2
As often Yes as No	3
No – Not often enough	4
No – Never	5
(Don't know/ can't say)	6

Q.17. For your needs, would you say that over the past 6 months, the weather forecasts and warnings provided by the Bureau have been…?
(READ OUT) (ONE ONLY)

Always accurate	1
Usually accurate	2
Accurate as often as inaccurate	3
Usually inaccurate	4
Always inaccurate	5
(Don't know/ can't say)	6

Q.18. Generally do you think that weather forecasts and warnings are getting more accurate, less accurate or haven't changed over the past few years?
(DO NOT READ OUT) (ONE ONLY)

More accurate	1
No different	2
Less accurate	3
(Don't know/ can't say)	4

Q.19. ***Think weather information is more or less accurate - otherwise skip to next question***
Which part of the weather information has become (insert answer to previous question)?
(DO NOT READ OUT) (ACCEPT MULTIPLES)

Temperature forecasts	1
Rain forecasts	2
Wind forecasts	3
Warnings for hail and thunderstorms	4
Warnings such as for fire or floods	5
Other weather warnings (Specify)	6
7 day forecasts	7
Longer term forecasts (e.g. 3 months)	8
Localised information (e.g. suburb)	9
Something else (Specify)	10
(Don't know/ can't say)	11

Q.20. Thinking about all aspects of weather information, how satisfied are you with the information you receive from the Bureau of Meteorology through the different sources you use, are you…? (READ OUT) (ONE ONLY)

Very satisfied	1
Fairly satisfied	2
Neither satisfied nor dissatisfied	3
Fairly dissatisfied	4
Very dissatisfied	5
(Don't know/ can't say)	6

Q.21. ***Less than very satisfied - otherwise skip to next section***
What could be done to make you feel more satisfied with the weather information from the Bureau of Meteorology?
(PROBE FULLY) (RECORD VERBATIM)

SECTION 4: IMPROVEMENTS

Q.22. Now just a few questions about improvements the Bureau is making.

All except VIC - otherwise skip to next question

a) The term "fine" is currently used to describe when no rain is forecast. The Bureau intends to replace this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change will be for the better, the worse or will make no difference in helping you understand the weather forecast?

Better	1
Worse (Specify – why do you say that?)	2
No difference	3

VIC only - otherwise skip to next question

b) The term "fine" was previously used to describe when no rain is forecast. The Bureau has now replaced this term with words to describe sky conditions such as "sunny", "cloudy" or "partly cloudy". Do you think this change is for the better, the worse or makes no difference in helping you understand the weather forecast?

Better	1
Worse (Specify – why do you say that?)	2
No difference	3

Q.23. The Bureau is also looking at ways of improving its forecast services by providing additional rainfall information. Which of the following rainfall information, if any, would you use to make decisions about your day to day activities? (READ OUT AND CODE ONE AT A TIME)

Daily rainfall totals	1
Chance of any rainfall in percentage terms	2
(Would not use either)	3

CLOSE

Q24. As part of quality control procedures, someone from our project team may wish to re-contact you to verify a couple of responses you provided today. For this reason, may I please have your first name?

RECORD FIRST NAME

Q25. As this is market research, it is carried out in compliance with the Privacy Act and the information you provided will be used only for research purposes. Your answers will be combined with those of other participants, no individual responses will be identified.

We do re-contact people from time to time for related research projects. Would it be okay if we contacted you again in the future to invite you to participate in any similar research? We will only use this information to contact you to invite you to participate in research, your details will not be passed onto any third party.

IF AGREE, SAY: We will only keep your contact details on record for 12 months. You may ask to have your details removed at any time over the next 12 months.

Agree to future research	1
Do not agree to future research	2

CLOSE: That's the end of the interview. Thank you for your time and responses. My name is (…) from Market Solutions, if you have any queries about this survey feel free to call this office during business hours – would you like the number? (Provide number if required – 03 9372 8400 and ask to speak to Danielle Jenner). If you have any general queries, you can call the Market Research Society's Survey Line on 1300 364 830.

RECORD INTERVIEWER'S ID

AUDITING (OFFICE ONLY)

Q26. Was the date and time of interview correct?

Yes..... 1
No..... 2

Q27. Was the interview recorded correctly?

Yes..... 1
No..... 2

Q28. Was the interviewer courteous?

Yes..... 1
No..... 2

Q29. AUDITOR'S ID

ENTER ID..... _____