Public Views of Safety and Emergency Technology

Final Report

Aussi disponible en français, sur demande.

Presented to • *Présenté à*
Industry Canada

ORDER OF CONTENTS

Page

I

FOREWORD

A.   BACKGROUND

The Radiocommunications and Broadcasting Regulatory Branch at Industry Canada is interested in better understanding the general public's views on the need for a national public alerting system using radio, television, cell phones, Internet and other media to reach Canadians in the event of a life threatening, natural or man made disaster.

At the same time, the department is also interested in knowing Canadians' reactions to the possibility of wireless services (cell phone, pager, Blackberries etc.) being temporarily interrupted, in limited geographic areas, under exceptional circumstances.

B.   OBJECTIVES

The primary objective is to provide information about how the public perceives national emergency public alerting, which can be used for radio communications and broadcasting policy development, and for input into the implementation of a Canada-wide public alert system.

C.   METHOD

The survey questions were fielded on the TNS Canadian Facts Telephone Express, a bi-weekly omnibus survey, the week of October 31, 2005. A total of 1,015 nationally representative Canadian adults were interviewed between October 17 and 20.

The survey results are considered accurate to 3.1 percentage points, 19 times out of 20. The margin of error is larger when examining sub-group differences within the population. Due to rounding the percentages reported in some tables and figures do not add to 100.

Completions and Margin of Error by Region

	Number of completions	Margin of Error
National	1015	3.1
Atlantic	105	9.8
Quebec	247	6.4
Ontario	334	5.5
Prairies	177	7.5
B.C.	152	8.1

The TNS Express Telephone sample is a national representative sample of Canadian adults 18 years of age and older designed to provide coverage of all households with telephones, except those in the northern territories. Although distributed disproportionally by region across Canada, within any region, the sample is drawn proportionate to household population.

Telephone numbers are randomly selected from an up-to-date electronic directory and then entered into the FACTS System. At the household level, one person for each household is selected from all household members 18 of age and over using a most recent birthday selection procedure. No substitutions at the household or individual stages are permitted. Completion rate data are shown in the Appendix to this report.

Prior to final analysis, the TNS Express Telephone sample undergoes four levels of weighting. Full details of the sampling and weighting procedures used are also appended to this report.

II

EXECUTIVE SUMMARY

Although other countries have had to deal with a number of natural or manmade disasters recently (e.g. the U.S. with Hurricane Katrina), Canada has not had to deal with a major national disaster in the past year. Certainly some Canadians, about one in five, think that a natural or manmade disaster is likely to occur in the next two years.[1]

The lack of recent Canadian experience with a disaster may be evident in the assessments of Canadians about our own national public alert system. Approximately one in three (37%) think that Canada has such a system. When it comes to the effectiveness of such a system, there are more people who think the system is effective (37%) than think it is not effective (23%), but one in five don't know whether it is or is not effective. Clearly, there have not been public displays of success or failure that would directly influence awareness or understanding of this type of measure.

Canadians do not know much about the current Canadian approach to public alerting but they certainly see it as important. Eighty-one per cent think a public alerting system reduces the impact of the disaster on those affected, and it is important for 86% that the Government of Canada invest resources in a national public alert system.

On the question of briefly interrupting wireless service in a small geographic area in the interest of safety and security, Canadians largely see this as acceptable (73%). This is even truer of wireless users (78%).

---

[1] Since this survey occurred after the highly publicized Hurricane Katrina in the U.S., there is the possibility that Canadians are more attuned to the risks of danger and to the government response than they would be at other times.

It is also worth noting that numerous Canadian regions that have been affected by natural disasters, such as Hurricane Juan, major ice storms, floods and forest fires .

III

GENERAL SUMMARY

A.   Likelihood of Disaster

Just over one in five (22%) think that there is a high likelihood (6 or 7 on 7-point scale) that there will be a national emergency that would require a national public alert system in the next few years. Slightly fewer (16%) think there is a low likelihood. As such, the majority are somewhere in the middle.

Perceptions of the likelihood of a disaster are not strongly related to demographic variables; Canadians of all walks of life agree on the likelihood for the most part. Of the differences, the following are statistically significant:

- Men (20%) are somewhat more likely to express a low likelihood than women (12%).
- Higher educational attainment is associated with a more neutral assessment (medium likelihood).

Exhibit 1:
Likelihood of Disaster
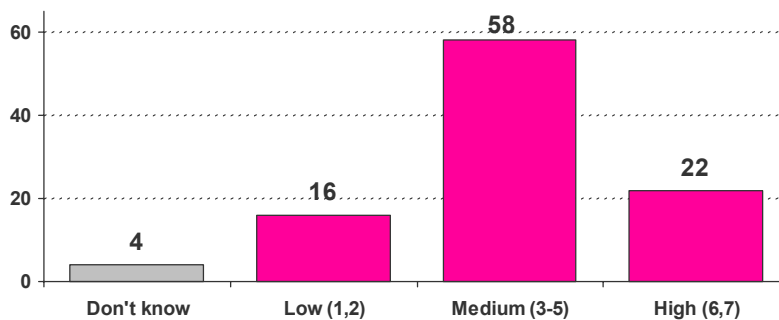
Q: In your view, how likely is it that, in the next few years, Canada will suffer a natural or man-made disaster that would require officials to use a national emergency public address system to inform people in the affected areas about what to do? Please use a 7-point scale, where 1 means "not at all likely" and 7 means "extremely likely".
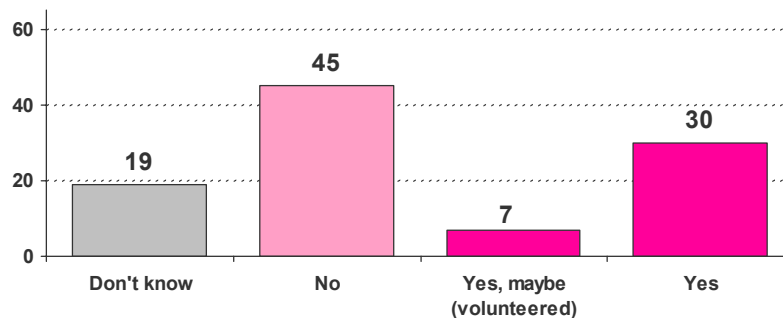
2005 TNS Canadian Facts

B. National Public Alert System

1. Awareness

The perception that Canada has a national emergency public alerting system is not widespread.[2] Three in ten say that they know there is a system and 7% volunteer a qualified (yes, maybe) answer. Almost half (45%) are of the view that there is no country-wide public alerting system, and 19% don't know whether one exists.

- There are a number of demographic differences in awareness. Women and older Canadians are the least likely to be aware.
- Interestingly, those who think that a disaster is highly likely are not more likely to think that Canada has a national public alert system.

Awareness of Existing Emergency Alert System

Q: Do you know if Canada has a country-wide emergency public alerting system that could be used to reach Canadians in the event of a natural or man-made disaster?

2005 TNS Canadian Facts

---

[2] It is worth acknowledging that awareness questions tend to overstate awareness because the existence of the question tends to imply the existence of whatever is being tested. That said, awareness is a good indicator of what people think, especially when it can be compared across time or across issues.

2.   Effectiveness of Existing System

Given the relatively small percentage of the public who believe there is a national public alert system, it comes as no surprise that the system does not get very good assessments from the perspective of effectiveness. There are more people who think the system is effective (37%) than think it is ineffective (23%), but one in five don't know either way. Clearly, there have not been public displays of success or failure that would directly impact this type of measure.

As one would ex-pect, given that it is difficult to be confident that something is effective when one is not aware of it, effectiveness is strongly related to awareness. Effectiveness is, however, also related (though weakly) to the perception of the likelihood of a disaster. Almost one third (31%) of those who think that a disaster is likely do not think the system is effective. Those who think a disaster is unlikely (or low) lean toward viewing the system as effective (45%) rather than ineffective (19%).

Exhibit 3:
Effectiveness of Public Alerting System
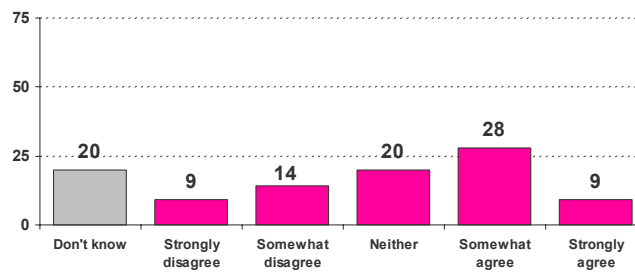
Q: In thinking about the information needs of Canadians at the time of a disaster, to what extent would you agree or disagree with the following statements: *Canada's current emergency public alerting system is effective.*

Base: Total Canadians. N = 1015.

2005 TNS Canadian Facts

Table 1: Effectiveness by Awareness and Perceived Likelihood of Disaster

|		Awareness		Likelihood of Disaster		
	Total (1015)	**No** (472)	**Yes**[*] (355)	**Low** (154)	**Medium** (597)	**High** (222)
Agree (effective)	37	26	**57**	45	34	37
Neither	20	24	16	17	23	17
Disagree (not effective)	23	32	14	**19**	**22**	**31**
Don't know	20	19	14	19	21	16
[*] Includes those who volunteered "Yes, maybe".						

3.   Impact of Alerting System

In general, Canadians (81%) think public alerting system would reduce the impact of the disaster on those affected. Since we would expect people to lean toward thinking that a system would have a positive impact, it is interesting to examine the strength of response within the 81% who agree. Just under four in ten (38%) strongly agree and 43% somewhat agree that the system would have an impact.

- There is considerable regional variation in responses. Residents of the Atlantic provinces (88%), the Prairies (88%) and B.C. (88%) are the most positive, while those in Ontario (81%) and Quebec (69%) are less positive. Quebec clearly stands out among regions for this question.

- Those with more education tend to be more likely to think that a national public alerting system would reduce the impact of a disaster on those affected. For example, 85% of those who graduated with post secondary education agree, compared with 76% of those with some high school or less.

Exhibit 4:
Impact of a Public Alerting System
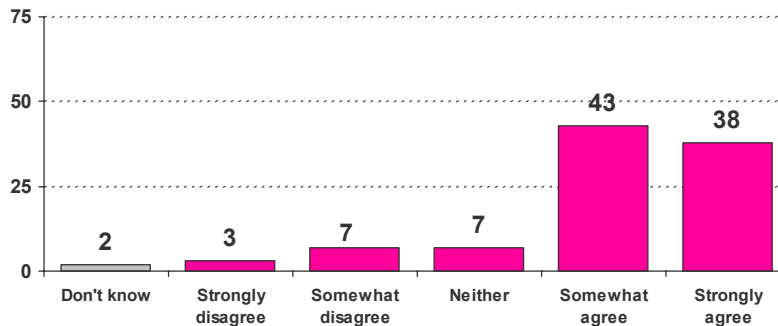
Q: In thinking about the information needs of Canadians at the time of a disaster, to what extent would you agree or disagree with the following statements: *A public alerting system would reduce the impact of the disaster on those affected.*

Base: Total Canadians. N = 1015.
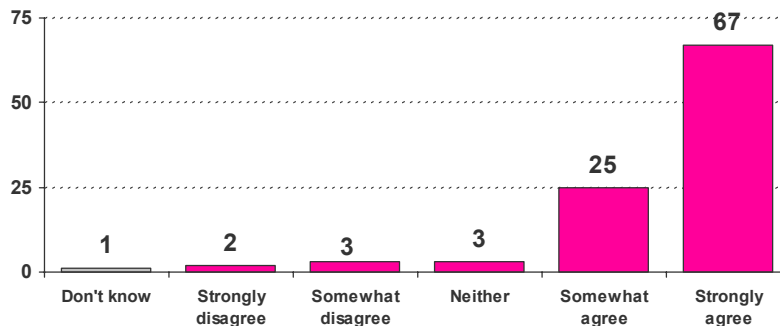
2005 TNS Canadian Facts

4.   Television and Radio as Most Effective Means of Communicating

Canadians agree (67% strongly and 25% somewhat) that television and radio are the most effective means of providing supplementary information and instructions to the public during a disaster.

Demographically, there is little that distinguishes Canadians on this question with the exception of age.

- The belief that television and radio are the most effective is more strongly held by younger Canadians (i.e. the "wired generation"). More than three in four (76%) of those under 24 years and 74% of those 25 to 34 strongly agree –compared with 68% of seniors.
- Gender, region and education are unrelated to attitudes about the most effective means of communicating.

.

Exhibit 5:
Most Effective Means to Alert Public

Q: In thinking about the information needs of Canadians at the time of a disaster, to what extent would you agree or disagree with the following statements: *Television and radio are the most effective means of providing supplementary information and instructions to the public during a disaster.*
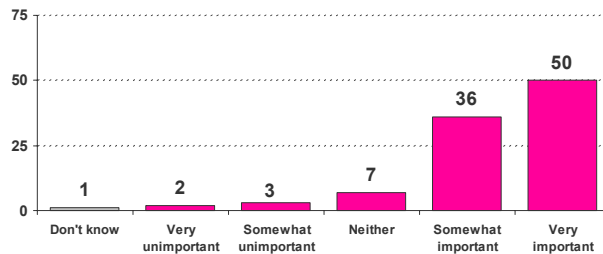
Base: Total Canadians. N = 1015.

2005 TNS Canadian Facts

5. Importance of Investing in Public Alerting System

There is considerable (86%) support for investing in a national public alerting system. Half of Canadians believe it is very important and 36% believe it is somewhat important.

- Regionally, Quebec (77%) stands out as being less likely to think that it is important to invest in a national system compared with the other regions (B.C., 85%; Atlantic, 88%; Ontario, 89%; and Prairies 91%). The lower support in Quebec is consistent with Quebec residents being less likely to perceive an impact of a public alert system.

Exhibit 6:
Importance of Investing in System

Q: How important is it to you personally that the Government of Canada invest resources in a country-wide emergency public alerting system? Would you say it is...?

Base: Total Canadians. N = 1015.
2005 TNS Canadian Facts

- Women are slightly more likely than men (89% versus 82%) to feel investing in a countrywide system is important.

As one would expect, people who think that a disaster is likely, think that investing in a national system is more important than those who do not think a disaster is highly likely. Importance is not, however, related to perceived effectiveness of the system. Those who do not think the system is effective are no more likely than those who think the system is effective to say that it is important to invest in a system.

Table 2: Importance by Effectiveness and Perceived Likelihood of Disaster

	Total (1015)	Effectiveness of System			Likelihood of Disaster		
		Disagree (234)	Neither (192)	Agree (378)	Low (154)	Medium (597)	High (222)
Important	86	89	83	88	71	87	95
Neither	7	1	13	7	13	8	3
Unimportant	6	8	5	5	13	5	2
Don't know	1	2	0	0	2	†	†
† less than 0.5							

C. Cell Phone Jamming

Overall, 73% of Canadians think that it is acceptable to interrupt or prevent the use of wireless devices for a short duration, within a limited geographic space, in the interests of safety and security. It is very acceptable for more than four in ten (43%) and somewhat acceptable for 30%.

Exhibit 7:
Acceptability of Interrupting Wireless Devices
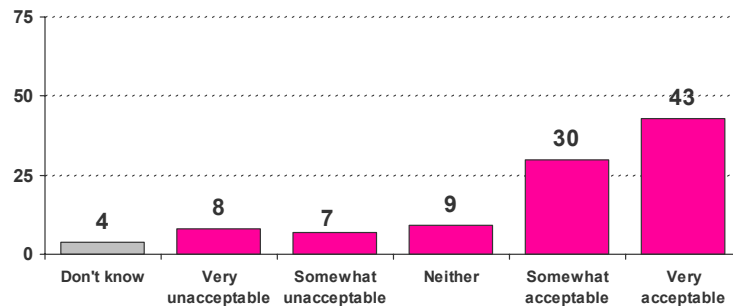
Q: How acceptable would it be if the ability to use wireless devices was briefly interrupted under exceptional circumstances, for short durations and within limited areas, if this meant an increase in the personal safety and security of yourself and others? Would you say it would be...

Base: Total Canadians. N = 1015.

2005 TNS Canadian Facts

Users of wireless devices are actually more likely (78%) than non-users (64%) to find the blocking of wireless use to be acceptable (47% very and 31% somewhat.

- Higher levels of education are also associated with a greater acceptance. For example, 49% of those with graduate degrees say it is very acceptable compared with 40% of those with a high school degree and 25 per cent of those with some high school or less. The education effect continues to be true even when one looks only at those who have cell phones.
- Women are more likely to find it acceptable than men (46% versus 39% very acceptable).
- Younger Canadians (18 to 24) and seniors (65 and older) are the groups most likely to not have an opinion (18% of young Canadians say neither, and 15% of seniors don't know).

- Regionally, there are some differences in acceptability. Quebec residents are the least likely to accept jamming (32% very) compared with Atlantic (43%), B.C. (46%), Ontario (46%) and the Prairies (48%). Although some of the regional differences are a product of different use of cell phones and wireless devices across the country – Ontario (73%), and B.C. (72%) have the highest use of cell phones – the differences exist even if we control for wireless use.

- Although there are not significant differences based on community size, residents of communities with less than 10,000 (43%) are equally likely as those in larger communities (43%) to see it as very acceptable, people who live in our two largest urban areas (Toronto, 50%) and Vancouver (53%) are slightly more accepting.

D. Appendix

1. Questionnaire – English

INTRO Now I'd like to ask you some questions about public safety and emergency technology.

Q1 In your view, how likely is it that, in the next few years, Canada will suffer a natural or man-made disaster that would require officials to use a national emergency public address system, to inform people in the affected areas about what to do? Please use a 7-point scale, where 1 means "not at all likely" and 7 means "extremely likely".

INTERVIEWER NOTE: IF ASKED, a man-made disaster includes accidents, such as a chemical spill, or deliberate actions, such as acts of terrorism.

AL 1 - Not at all likely
2
3
4
5
6
7 - Extremely likely
DON'T KNOW (DO NOT READ)

Q2 Do you know if Canada has a country-wide emergency public alerting system that could be used to reach Canadians in the event of a natural or man-made disaster?

AL YES
NO
YES MAYBE (DO NOT READ)
DON'T KNOW

Q3 In thinking about the information needs of Canadians at the time of a disaster, to what extent would you agree or disagree with the following statements?

REPEAT LIST AS NECESSARY
AL Strongly agree
Somewhat agree
Neither
Somewhat disagree
Strongly disagree

DON'T KNOW

MT   RANDOMIZE MT

a) A public alerting system would reduce the impact of the disaster on those affected.
b) Canada's current emergency public alerting system is effective.
c) Television and radio are the most effective means of providing supplementary information and instructions to the public during a disaster.

Q4   How important is it to you personally that the Government of Canada invest resources in a country-wide emergency public alerting system? Would you say it is...?

[READ LIST]
AL   Very important
             Somewhat important
             Neither important nor unimportant
             Somewhat unimportant, or
             Very unimportant
             DON'T KNOW (DO NOT READ)

Q5   Do you own or use a wireless communication device such as a cell phone, pager or other handheld device?

AL   YES
             NO
             REFUSED

Q6   How acceptable would it be if the ability to use wireless devices was briefly interrupted under exceptional circumstances, for short durations and within limited areas, if this meant an increase in the personal safety and security of yourself and others? Would you say it would be...

READ LIST

AL   Very acceptable
             Somewhat acceptable
             Neither acceptable nor unacceptable
             Somewhat unacceptable
             Very unacceptable
             DON'T KNOW (DO NOT READ)

2. Questionnaire – French

Maintenant, j'aimerais vous poser quelques questions sur la sécurité publique et la technologie en matière d'urgence.

Q1 Selon vous, dans quelle mesure est-il probable qu'au cours des prochaines années le Canada soit victime d'une catastrophe naturelle ou causée par l'homme qui forcerait le gouvernement à utiliser un système d'information publique en cas d'urgence nationale, afin d'informer les habitants des régions affectées des mesures à prendre? Veuillez utiliser une échelle de 7 points, où 1 signifie «pas du tout probable» et 7 signifie «extrêmement probable».

INTERVIEWEUR : SI ON VOUS LE DEMANDE, une catastrophe causée par l'homme comprend des accidents comme des déversements de produits chimiques ou des actes délibérés comme des actes de terrorisme.

AL   1 - Pas du tout probable
      2
      3
      4
      5
      6
      7 - Extrêmement probable
      NE SAIT PAS (NE LISEZ PAS)

Q2 Savez-vous si le Canada a un système d'information publique d'urgence partout au pays, qui pourrait être utilisé pour avertir les Canadiens en cas de catastrophe naturelle ou causée par l'homme?

AL   OUI
      NON
      OUI PEUT-ÊTRE (NE LISEZ PAS)
      NE SAIT PAS

Q3 En pensant aux besoins des Canadiens d'être informés d'une catastrophe naturelle ou causée par l'homme, dans quelle mesure êtes-vous d'accord ou en désaccord avec les énoncés suivants :

RÉPÉTEZ LA LISTE AU BESOIN
AL   Fortement d'accord
      Plutôt d'accord
      Ni d'accord ni en désaccord
      Plutôt en désaccord
      Fortement en désaccord

NE SAIT PAS

MT   RANDOMISEZ MT
a) Un système d'information publique réduirait l'impact d'une catastrophe pour les personnes affectées.
b) Le système actuel d'information publique d'urgence au Canada est efficace.
c) La télévision et la radio sont les moyens les plus efficaces de fournir au public de l'information et des directives additionnelles en cas de catastrophe.

Q4   Dans quelle mesure est-il important pour vous personnellement que le gouvernement du Canada investisse dans un système d'information publique d'urgence à la grandeur du pays? Diriez-vous que c'est...?

[LISEZ LA LISTE]

AL   Très important
Plutôt important
Plus ou moins important
Peu important, ou
Pas du tout important
NE SAIT PAS (NE LISEZ PAS)

Q5   Possédez-vous ou utilisez-vous un appareil sans fil comme un téléphone cellulaire, un téléavertisseur ou autre appareil de communication portable?

AL   OUI
NON
REFUSE

Q6   Dans quelle mesure serait-il acceptable que la possibilité d'utiliser un appareil sans fil soit brièvement interrompue dans des circonstances exceptionnelles, pendant de courtes périodes et dans des zones limitées, si cela signifiait que votre propre sécurité et celle des autres était accrue? Diriez-vous que ...?

LISEZ LA LISTE

AL   Tout à fait acceptable
Plutôt acceptable
Plus ou moins acceptable
Plutôt inacceptable
Tout à fait inacceptable
NE SAIT PAS (NE LISEZ PAS)

3.   Methodological Appendix

i)   Universe Covered

The universe for TNS Canadian Facts' Express telephone survey is the population of Canada aged 18 years and over. The sample is designed to provide coverage of all households with telephones, except those living in the northern territories.

ii)   Selection Of Sample

A four-stage selection procedure is employed.

a)   Allocation Of The Sample
To allow for better regional analysis, the sample selection is disproportionate in favour of the less populated regions. Within region, the sample allocation is proportionate to household population.

b)   Defining The Telephone Directories Covering Each Selected Area
The most up-to-date electronic white pages telephone directory covering each area is used for sample selection.

c)   Selection Of Telephone Numbers
Telephone numbers are randomly selected from the electronic directory and then entered into the FACTS system.

d)   Respondent Selection
One person in each household is selected from all household members 18 years of age and over. Most recent birthday at home selection procedure is used for this purpose.

iii)   Non-Responders
No substitutions at the household or individual selection stages are permitted.

iv)   Weighting Procedures

Four stages of weighting are applied to the data.

a)   Stage 1

In some regions the sample is stratified geographically across multiple Central Location Interviewing Centres (CLTs). The first weighting stage entails application of a stratum weight to bring the within region geographic calling areas into their correct relative proportions.

b)   Stage 2

A household size within region weight is applied at the household level to restore the sample to the correct balance of one-person and multiple-person households.

c)   Stage 3

The individual's household weight is computed because only one person per household is interviewed. The respondent selection weight, i.e., the inverse of selection probability, is applied to the selected respondent.

d)   Stage 4

An age within gender within region and major centre adjustment is applied to bring the data in line with the most recent Statistics Canada population estimates.

v)   Record of Call

Every number was called on average 1.7 times. TNS Canadian Facts equates a call with a shift of interviewing. If a number was busy it could be dialled up to 3 times during a shift, which would count as 1 call.

Total Telephone Sample Dialed	**9171** **76%**	
Base: Total Sample Dialed	**100%**	
Sample Excluded From Frame	**1075** **12%**	
Not In Service		769
Non-Residential		108
FAX / Modem		123
Others		75
Total In-Frame Telephone Sample	**8096** **88%**	
Base: Total In-Frame Sample	**100%**	
Unresolved In-Scope Sample	**3140** **39%**	
Busy		26
No Answer		487
Answering Machine - Residential		689
Household Contacted - Not Convenient		57
Household Refusal		1742
Household Language Problem		139
Resolved but Non-Responding	**2409** **30%**	
Appointment / Callback		187
Refusals - Respondent		2027
Respondent Never Available		114
Language Problem - Respondent		81
Language Problem - Business		0
Others		187
Resolved and Responding	**1030** **13%**	
Completed Interviews		1015
Terminated		0
Disqualified Respondents		15
Response Rate		13%