Canadians' Attitudes and Awareness of the Year 2000 Millennium Bug

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Prepared for:
Treasury Board Secretariat – Year 2000
Project Office

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August, 1999

pn4521

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INTRODUCTION

Environics Research Group Limited is pleased to present this report to the Treasury Board Secretariat of Canada – Year 2000 Project Office regarding Canadians' attitudes in July of 1999 toward the Year 2000 Millennium computer bug. This is the second in a series of surveys on this topic being conducted as the year 1999 progresses. The first study was conducted in April, 1999. The primary objectives of the July survey were as follows:

- To determine overall awareness and concern among Canadians regarding Year 2000;

- To measure the proportions of Canadians planning personally to take various steps to prepare for Year 2000;

- To ascertain the credibility of various possible sources of information and stakeholders on Year 2000;

- To compare the results with those gathered in April, 1999 in order to determine the kind of evolution occurring among Canadians over time towards the Year 2000 issue.

A total of 2,035 Canadians, 18 years of age and over, were surveyed by telephone between July 6 and 14, 1999. The interviews lasted an average of 22 minutes. A sample of this size yields results that can be considered accurate to within 2.2 percentage points, 19 times out of 20.

The sample was weighted to ensure that at least 100 Canadians were interviewed in each of the ten provinces. In addition a further 150 interviews were conducted in the three territories combined. The sample frame is detailed in tabular form in the methodology at the conclusion of this report.

OVERALL ATTITUDES

- The percentage of Canadians who are aware of the Year 2000 computer problem has declined to 80 percent since April.

- Most Canadians still believe themselves to be very or somewhat familiar with the Year 2000 computer bug.

- Most Canadians remain unconcerned or only moderately concerned about the potential impact of the Year 2000 changeover. As was the case in April, just six percent of Canadians are very concerned.

EXPECTED IMPACTS

- One-third of Canadians believe that the Year 2000 millennium bug will affect them personally.

- Those who expect to be affected by the Year 2000 millennium bug most often predict disruptions to banking and financial systems and problems with electrical power.

- When asked to rate the likelihood of a list of possible effects of the millennium bug, Canadians cite disruptions to airline and transportation services, banking services, and federal government systems as the most likely consequences of the changeover. Expectation of most of these effects has dropped slightly since April.

- The most widely anticipated non-technical effect of the Year 2000 bug remains a major decline in the stock market. Almost half of Canadians consider such a decline very likely or somewhat likely.

- Most Canadians are at least somewhat concerned about the possible impact of the Year 2000 computer problem on other countries. The vast majority of Canadians believe that these problems in other countries would have at least some impact on Canada.

ASSESSMENT OF PREPARATION

- A substantial majority of Canadians are confident that the federal government will adequately prepare its internal computer systems for the Year 2000 changeover.

- Four in ten Canadians feel that they need to prepare themselves personally for the millennial computer changeover.

- Of those who believe that it will be necessary for them to personally prepare for Year 2000, more than half have already begun their preparations.

- The most common steps Canadians who plan to prepare for Year 2000 will take include obtaining print-outs of their financial records, choosing not to fly around the New Year, withdrawing extra cash from the bank and to a lesser extent stocking up on food and water and arranging alternate energy sources.

INFORMATION SOURCES

- Canadians overwhelmingly feel that it is very important for the federal government to communicate with Canadians about the Year 2000 computer problem.

- Although most Canadians feel they have received enough information about the Year 2000 computer changeover, one-quarter say they desire more information.

- Most Canadians do not name any specific Year 2000-related area about which they would like to receive more information.

- Television emerges once again as Canadians' primary source of information regarding the millennial computer bug.

- Canadians tend to regard all media and government as at least somewhat reliable sources of information about the Year 2000 problem.

- Canadians would most trust advice regarding Year 2000 from a university professor in the computer field, a computer expert from a large computer company, or a federal, provincial, or territorial emergency measures official.

EMERGENCY PLANNING

- The vast majority of Canadians are at least somewhat reassured to learn that there is a federal government organization assessing the impact of the Year 2000 computer bug on Canada's essential services and preparing back-up plans for the transition to the Year 2000.

- Most Canadians were unaware of the fact that the Canadian military will be on standby to deal with possible disruptions to Canada's essential services. Upon being informed of this most Canadians feel reassured.

DEMOGRAPHIC PATTERNS

- On the whole men and higher income earners continue to be more aware of and familiar with the Year 2000 problem than are women and lower income earners. Awareness and familiarity with the Year 2000 problem also continues to show a sharp drop-off in respondents older than age 65.

- While the level of concern has generally declined among all respondents, women continue to be slightly more concerned about the Year 2000 problem than are men. Women are also more likely to feel the need to personally prepare for the Year 2000.

- Generally, women, younger Canadians and those who are less educated feel most strongly that it is important for the federal government to communicate with them about the millennium bug although support for federal government communications remains strong regardless of demographic profile.
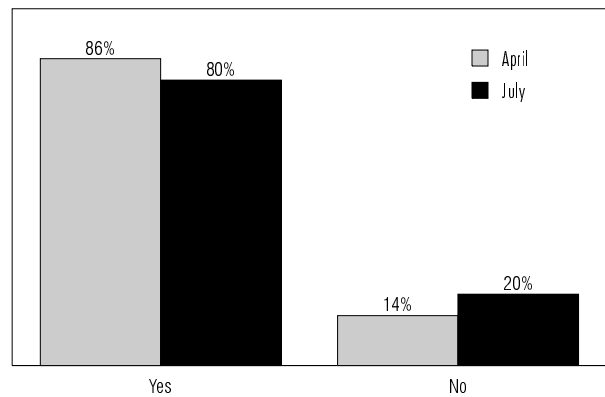
Awareness of Year 2000 Bug

The percentage of Canadians who are aware of the Year 2000 computer problem has declined to 80 percent since April.

The proportion of Canadians who report that they have read, seen, or head of possible computer problems associated with the changeover from the year 1999 to the year 2000 has dropped six points to 80 percent since the April survey.

Demographically, the percentage of males who are aware of the problem has declined six points to 82 percent, while the percentage of females has dropped six points to 78 percent. The decline in awareness of the Year 2000 computer problem has been particularly pronounced among lower income earners. Awareness among those who earn less than $20,000 annually has dropped 12 points to 64 percent. By contrast, awareness among those who earn $70,000 or more per year has dropped only two points to 93 percent.

Regionally, awareness of the Year 2000 computer problem has fallen substantially in the provinces which were noted as being most aware at the time of the first survey. In April, 90 percent of Prince Edward Islanders reported being aware of potential computer problems associated with the changeover from the year 1999 to the year 2000. In the more recent survey, however, only 67 percent of Prince Edward Islanders indicate that they have read, seen or heard of the problem. Similarly, awareness among Albertans has fallen 16 points to 74 percent. By contrast, awareness of the Year 2000 problem has not declined as significantly in Newfoundland or New Brunswick, provinces which were noted as the least aware in the April survey. Sixty-five percent of Newfoundlanders report having seen, read, or heard of problems associated with the millennial computer changeover, down from 72 percent in April. Seventy-three percent of New Brunswick residents indicate that they are aware of the potential computer problem, compared with 76 percent in the April survey.

Read, Seen or Heard of Computer Problems in Changeover from Year 1999 to 2000

Q.1
Have you read, seen or heard of any problems computers may have in the changeover from the year 1999 to 2000?

Awareness of the Year 2000 computer problem as recorded during the July survey is lowest in Nunavut (51%) and the Yukon (63%), but highest in the Northwest Territories (92%). Data for these areas was not gathered in the April poll.

English-speakers' awareness of the problem has declined six points to 80 percent, while French-speakers' awareness has declined only three points to 83 percent. Awareness of the possible computer problems associated with the changeover from 1999 to 2000 has declined only four points to 87 percent in Quebec.

Familiarity with Year 2000 Bug

Most Canadians still believe themselves to be very or somewhat familiar with the Year 2000 computer bug.

Sixty-eight percent of Canadians consider themselves very or somewhat familiar with the Year 2000 computer problem; a decline of two percent since April. Fifteen percent (down one point) of Canadians now say they are not very familiar with the problem, and 17 percent (up three points) say they are not at all familiar with the Year 2000 computer problem.

Demographically, familiarity with the possible computer problems surrounding Year 2000 now peaks at 77 percent among those in the 35 to 44 age range. In the last survey, eight in ten of those in the 45 to 54 age range believed themselves to be very or somewhat familiar with the problem; this figure has dropped to 71 percent. Familiarity with the Year 2000 bug continues to drop off sharply among those age 65 or more; 59 percent (up one point) of this age group claim to be either not at all familiar or not very familiar with the millennial computer changeover. Among Canadians aged 18 to 24, 71 percent (down three points) consider themselves either very or somewhat familiar with the Year 2000 bug.

Familiarity with the Year 2000 bug remains higher among Canadians with higher incomes and levels of education. Men continue to be more likely to be familiar with the problem than women, and English-speakers remain slightly more familiar with the millennial changeover problem than French-speakers. No significant changes have taken place among any of these groups with regard to Year 2000 bug familiarity since the April survey.

Ontarians have now overtaken residents of P.E.I. as the regional group most likely to be very familiar with the Year 2000 bug; 33 percent (up six points) of Ontario residents now report that they consider themselves very familiar with the millennial changeover problem, compared with nine percent (down 22 points) of P.E.I. residents. Prince Edward Island has overtaken both Newfoundland and New Brunswick as the province with the greatest proportion of those who are not at all familiar with the Year 2000 com-

Familiarity with Year 2000 Computer Problem
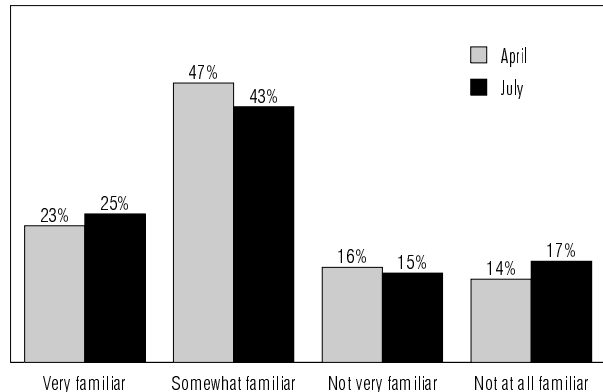
Q.2
How familiar would you say that you are with the Year 2000 computer problem, also known as the Y2K Millennium Bug?

puter problem. Thirty-four percent (up 19 points) of P.E.I. residents now report that they are not at all familiar with the Year 2000 computer problem, compared with 26 percent (unchanged) of Newfoundlanders and 26 percent (up two points) of New Brunswick residents.

Among the regional groups not surveyed in April, the Yukon emerges as the territory most familiar with the Year 2000 computer problem. Sixty-four percent of Yukon residents consider themselves very familiar with the Millennium Bug, as do 56 percent of residents of the Northwest Territories. Only 38 percent of Nunavut residents believe themselves to be very familiar with the Year 2000 computer bug, while 31 percent consider themselves not at all familiar with the problem.

Respondents who are connected to the Internet at home remain more likely than those without Internet access to be familiar with the Year 2000 computer bug; the proportion of respondents in this group who believe themselves to be very or somewhat familiar with the problem has risen from 86 to 88 percent.
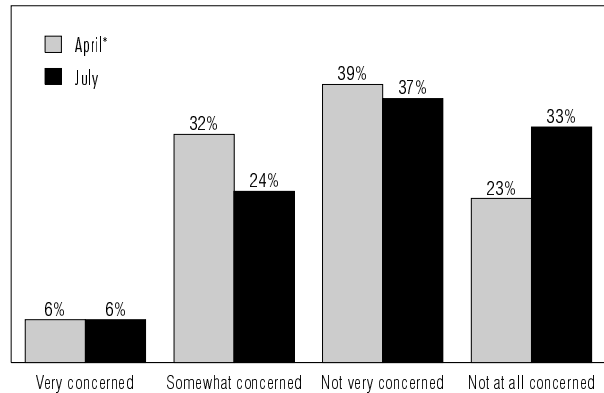
Concern about the Year 2000 Bug

Most Canadians remain unconcerned or only moderately concerned about the potential impact of the Year 2000 changeover. As was the case in April, just six percent of Canadians are very concerned.

Seven in ten Canadians feel either not very concerned (37%, down two points) or not at all concerned (33%, up ten points) about the Year 2000 computer problem. Twenty-four percent (down eight points since April) report that they are somewhat concerned, and as was the case in April, only six percent feel very concerned about the millennium bug. Much of this decline in concern can be explained by the fact that all Canadians were asked this question in July. In April, those who were "not at all familiar" were screened out of this question.

On the whole, women remain slightly more concerned about problems related to the changeover than are men, however concern among both women and men has declined since the last survey. In April, concern generally declined as age increased: 44 percent of those aged 18 to 24 felt very or somewhat concerned, compared with 29 percent among those over 65 years of age. The July survey, however, reveals similarly low levels of concern among Canadians of all ages. Seventy-four percent of Canadians in the 18 to 24 age group now report that they feel not at all or not very concerned about the Year 2000 computer problem, as do 72 percent of those in the 45 to 54 age group and 73 percent of those aged 65 or over. As was the case in April, the July survey reveals no significant trends in levels of concern with respect to income or education.

In April, residents of Newfoundland and New Brunswick were most likely to feel very concerned about the millennium bug. In the current survey, residents of Nova Scotia and Prince Edward Island are most likely to express strong concern. Overall concern is highest in Yukon and Nunavut, followed by Nova Scotia and Prince Edward Island.

Concern about Year 2000 Problem

Q.3a
And, how concerned are you about the Year 2000 computer problem?
*Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Residents of Quebec remain the least concerned about the possibility of Year 2000-related problems; 82 percent of Quebec residents are either not very concerned or not at all concerned about the Year 2000 millennium bug.

Although concern has declined in this group, those whose first language is neither English nor French remain more likely than either English-speakers or French-speakers to be concerned about the millennial computer changeover.

Those who consider themselves to be very familiar with the Year 2000 problem are more likely (37%) to express overall concern.

Celebrating the Millennium

More than four in ten Canadians will probably or definitely attend a New Year's Eve Millennium party outside their own homes.

Forty-four percent of Canadians report that they will probably (24%) or definitely (20%) attend a Year 2000 Millennium party outside their homes. Twenty-five percent indicate that they probably will not attend a party on December 31, 1999, and 28 percent state that they will definitely not attend such a party. Three percent are uncertain.

Younger Canadians are notably more likely than others to be planning to attend a New Year's Eve Millennium party. Almost half (48%) of those in the 18 to 24 age group report that they will definitely attend a New Year's Eve party, while 25 percent state that they will probably do so. In contrast, only 11 percent of those aged 65 or over definitely plan to attend a party; and 72 percent report that they probably or definitely will not attend a New Year's Eve gathering. Those with higher incomes and higher levels of education are slightly more likely than others to be planning to attend New Year's Eve parties.

Newfoundlanders (54%), Quebecers (50%), and residents of the north are the most likely to be planning to attend New Year's Eve festivities outside their own homes. Conversely, 70 percent of Prince Edward Islanders state that they probably or definitely will not attend a party to celebrate the millennium.

Likelihood of Attending New Year's Eve Millennium Party

Definitely 20% Probably 24% Probably not 25% Definitely not 28% dk/na/refused 3%
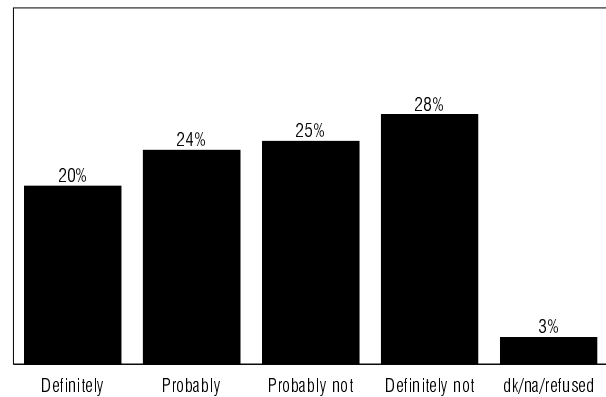
Q.3b
How likely are you to attend a New Year's Eve millennium party outside of your own home on December 31, 1999? Will you definitely, probably, probably not or definitely not?

Those who are concerned about the Year 2000 computer problem are only slightly less likely to be planning to attend a New Year's Eve party than those who are unconcerned. Forty-two percent of those who state that they are concerned about possible computer problems associated with the millennial changeover report that they plan to attend a New Year's Eve party, compared with 45 percent of those who are unconcerned with problems associated with the changeover.

Anticipated Effect on Self and Family

*One-third of Canadians believe that the Year 2000 millennium bug will affect them personally.*

The proportion of those who believe that they or their families will be personally affected by the Year 2000 changeover has declined seven points to 34 percent. Sixty-two percent of Canadians believe that they will be unaffected by the millennial computer changeover (up five points), while four percent are uncertain.

Those with higher levels of income and education are slightly more likely to believe that they or their families will be affected by the millennium bug. Women and younger respondents remain slightly more likely to feel that they will be affected personally by the Year 2000 problem than are men and older Canadians, although among all these groups the belief that they will be personally affected by the Year 2000 changeover has diminished.

In April, English-speakers (44%) were the most inclined to believe that they would be affected by the Year 2000 changeover, compared with 30 percent of French-speakers. The current survey indicates that 39 percent of Canadians who speak a language other than English or French believe that they will be personally affected by the Year 2000 computer changeover, compared with 37 percent of Anglophones and 23 percent of Francophones.

The percentage of Newfoundlanders (in April the group most likely to believe they would be personally affected by the Year 2000 bug) who believe that they will be personally affected by the computer changeover has dropped 25 points to 31 percent. Nova Scotians (47%, up five points) are now the most likely to believe that they will be personally affected by the changeover. Residents of Nunavut (7%) and Quebec (23%, down eight points) are the least likely to believe that they or their families will be personally affected by the Year 2000 computer bug.

Will Year 2000 Computer Problem Personally Affect You or Your Family?
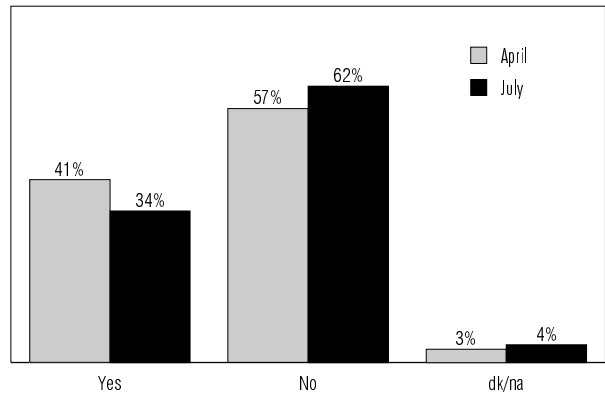
Q.4
Do you believe the Year 2000 computer problem will personally affect you or your family in any way?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Those who use computers at home (35%) remain only slightly more likely than others to believe that they will be personally affected by the changeover. Those who use computers at work (39%) are somewhat more likely to believe this.

Specific Anticipated Effects of the Year 2000 Bug

Those who expect to be affected by the Year 2000 millennium bug most often predict disruptions to banking and financial systems and problems with electrical power.

When asked in an unprompted question what consequences they expect to arise from the Year 2000 computer changeover, 43 percent (down three points) of those who expect to be affected by the Year 2000 changeover reply that they believe banking and financial systems will be disrupted. Another 31 percent (unchanged) believe that the provision of electrical power will be affected, and 12 percent (up five points) believe that home computer systems will be affected. About one in ten Canadians each anticipate the following effects of the millennium bug: difficulties with gas or oil supplies (11%, up two points), general computer problems (10%, up five points), disruptions in the workplace (9%, up one point), problems with home appliances and electronics (9%, up five points), disruptions in airline services (9%, up one point), and disruptions in the food supply (9%, up one point). Eight percent of Canadians believe the Year 2000 computer changeover will engender problems in each of the following: workplace computers (up five points), the fresh water supply (up three points), and telecommunications (up two points).

The areas in which there was the greatest increase between April and July in Canadians' expectations of difficulty were those of home computing (up seven points to 12%), general computing (up five points to 10%), workplace computing (up five points to 8%) and home electronics and appliances (up five points to 9%). The areas in which there was the greatest decline in Canadians' expectations of difficulties were those of banking and financial services (down three points to 43%), federal government systems (down two points to 3%) and the delivery of goods and services (down two points to 3%).

Ways Expect to be Affected by Year 2000

	APRIL %	JULY %
Banking and financial systems	46	43
Electrical power	31	31
Computer problems – home	7	12
Gas or oil supplies	9	11
Computer problems – general	5	10
Workplace disruptions	8	9
Food supply	8	9
Airlines and transportation services	8	9
Appliances/electronics/VCRs	4	9
Telephone and telecommunications services	6	8
Supply of fresh water	5	8
Computer problems – work	3	8
Hospitals and other parts of the health care system	5	6
Impact uncertain "something might happen"	4	6
Sewage or water treatment	4	4
Interruption in the delivery of and access to goods and services	5	3
Billings	2	3
Municipal/local government (e.g. building permits, snow clearing or traffic lights)	1	3
Federal government systems (e.g. the CPP, Income Tax or OAS)	5	2
Provincial government (e.g. drivers' licenses or the sales tax)	2	2
Schools/education system	2	2
Police and public safety	2	2
A major decline in stock market prices	1	2
Car problems	2	1
An increase in bankruptcies/small business	1	1
Riots or social unrest	2	–
VCR problems	2	–
Pension and other social security benefits	1	–
Disruptions in the nuclear industry	*	
A global recession	*	
Other	2	4
Dk/na/refused	7	5

Q.5
In what specific ways do you expect you or your family to be affected?
Subsample: Expect Year 2000 to affect self/family

Likelihood of Specific Effects of Year 2000

When asked to rate the likelihood of a list of possible effects of the millennium bug, Canadians cite disruptions to airline and transportation services, banking services, and federal government systems as the most likely consequences of the changeover. Expectation of most of these effects has dropped slightly since April.

In this question, Canadians were asked to rate the likelihood of various possible consequences of the Year 2000 changeover. Forty-eight percent (down six points) believe that disruptions to airline and transportation systems are either very or somewhat likely consequences of the Year 2000 bug, while 43 percent (down seven points) feel that problems in banking and financial systems are at least somewhat likely. Other effects

of the millennial computer problem deemed to be somewhat or very likely include problems in hospitals and health care facilities (41%, down seven points), disruptions to federal government services and systems (40%, down nine points), problems with pensions and social security benefits (40%, down six points), difficulties in provincial government services and systems (39%, down six points), disruptions in telecommunications services (38%, down eight points), problems with electrical power (37%, down three points), difficulties with municipal government systems (36%, down five points), disruptions in the nuclear industry (29%, down five points) and problems with gas and oil supplies (29%, down one point). Other less likely consequences of the Year 2000 computer changeover include problems with police and public safety (27%, down one point), difficulties in sewage and water treat-

Likelihood of Disruption Due to Year 2000

	Very Likely		Somewhat Likely	
	April %	July %	April %	July %
Airlines and transportation services	19	16	35	32
The banking and financial systems	17	14	33	29
Federal government services and systems (e.g. the Canada pension plan, income tax or old age security)	17	12	32	28
Hospitals and other parts of the health care system	16	11	32	30
Provincial government services and systems (e.g. drivers' licenses or the collection of sales tax)	14	11	31	28
Electrical power	12	11	28	26
The nuclear industry	10	10	24	19
Municipal or local government services and systems (e.g. issuing building permits, snow clearing or traffic lights)	12	9	29	27
Police and public safety	8	9	20	18
Pension and other social security benefits	13	9	33	28
Telephone and telecommunications services	14	8	32	30
Gas or oil supplies	7	7	23	22
Sewage or water treatment	6	6	21	20
The supply of fresh water	6	5	17	16
The food supply	5	5	20	19

Q.6
In your opinion, is it very likely, somewhat likely, not very likely or not at all likely that there will be disruptions to each of following things in Canada as a result of the Year 2000 computer problem ... ?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

ment (26%, down one point), problems with the food supply (24%, down one point) and problems with the fresh water supply (21%, down two points).

Those with lower incomes and lower levels of education remain generally more inclined to feel that the effects of all of the hypothetical Year 2000 problems listed are likely. Women remain more apt than men to believe that the listed effects are very or somewhat likely. Those whose first language is neither English nor French remain more likely than francophones to feel that most effects of the Year 2000 changeover are probable. This is particularly notable with regard to such possibilities as disruptions to the food and water supply and problems with electricity and oil and gas supplies.

Other Possible Impacts of Year 2000

The most widely anticipated non-technical effect of the Year 2000 bug remains a major decline in the stock market. Almost half of Canadians consider such a decline very likely or somewhat likely.

Canadians' expectations of most large-scale effects of the Year 2000 computer changeover have remained roughly the same. Canadians remain about as likely in July as in April to predict that the Year 2000 computer changeover might bring about the following: a major decline in stock market prices (48%, down two points), a global recession (37%, down one point), or increase in bankruptcies (35%, down two points).

Canadians are slightly more likely to predict riots or social unrest (37%, up three points) or significant religious events (34%, up three points) as somewhat or very likely consequences of the Year 2000 computer bug.

Younger Canadians, lower-income earners, and those with lower levels of education remain more likely to anticipate most of the possible non-technical effects of Year 2000 described above than are other respondents. Those whose first language is neither French nor English remain more likely to foresee the social and economic effects listed above as probable results of the Year 2000 problem.

Will Happen in Canada as a Result of Year 2000

	VERY LIKELY		SOMEWHAT LIKELY	
	APRIL %	JULY %	APRIL %	JULY %
A major decline in stock market prices	15	14	35	34
Significant religious events	12	13	19	21
Riots or social unrest	10	11	24	26
An increase in bankruptcies	12	10	25	25
A global recession	7	6	21	21
The end of the world	1	1	2	2

Q.7
*In your opinion, is it very likely, somewhat likely, not very likely or not at all likely that each of following things will happen in Canada as a result of the Year 2000 computer problem... ?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug*

Impact of Year 2000 on Other Countries

Most Canadians are at least somewhat concerned about the possible impact of the Year 2000 computer problem on other countries. The vast majority of Canadians believe that these problems in other countries would have at least some impact on Canada.

Nineteen percent of Canadians (down one point) report that they are very concerned about the potential impact of the Year 2000 computer problem on countries around the world, while 40 percent of Canadians (down three points) indicate that they are somewhat concerned about this possibility. Twenty-seven percent of Canadians (up four points) declare that they are not very concerned about the possible international effects of the Year 2000 computer bug, while another 14 percent (up one point) indicate that they are not at all concerned about this.

Canadians who have achieved higher levels of education are more likely to be concerned about the international effects of the Year 2000 changeover, however no significant patterns emerge with regard to age or income. Residents of Saskatchewan, Ontario and New Brunswick are the most concerned about the possible impact of Year 2000 on countries around the world, while Quebecers are the least likely to be concerned.

Those who consider themselves very familiar with the Year 2000 problem are more concerned about the potential international effects of the millennium bug than are those who consider themselves unfamiliar with the problem.

More than eight in ten Canadians (88%, up one point) believe that Year 2000-related problems in other countries will result in a great deal of impact (16%, down one point) or at least some impact (72%, up two points) on Canada. Just 11 percent (unchanged) believe that such difficulties will have no effect on Canada. One percent have no opinion.

Women, younger people and those whose home language is neither English nor French are generally more likely to believe that other countries' Year 2000 difficulties will significantly affect Canada, however no clear trends emerge with regard to income or education.

Concern about Impact of Year 2000 on Other Countries
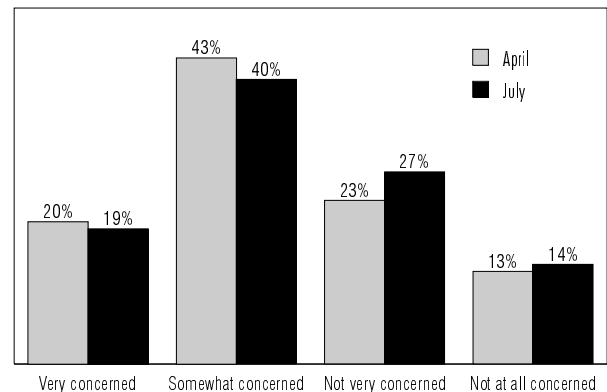
Q.19
How concerned are you about the impact the Y2K problem will have on other countries around the world?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Impact on Canada of Year 2000 Problems in Other Countries
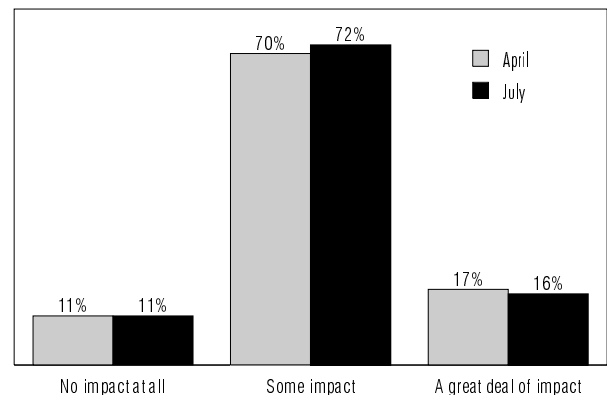
Q.20
How much impact do you think events related to the Y2K problem in other countries will have on Canada?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Confidence in the Federal Government's Year 2000 Preparations

A substantial majority of Canadians are confident that the federal government will adequately prepare its internal computer systems for the Year 2000 changeover.

The majority of Canadians (84%, up three points) are either very (34%, up four points) or somewhat (50%, down one point) confident that the federal government's efforts to prepare its own computer systems for the millennial changeover will be adequate. Eleven percent of Canadians (down two points) are not very confident that the federal government will be adequately prepared, and five percent of Canadians (unchanged) are not at all confident that this will be the case.

Higher-income earning and more educated Canadians generally have greater confidence in the federal government's Year 2000 preparations. English-speakers and those whose first language is neither English nor French are slightly more confident than French-speaking Canadians, but confidence among French-speakers is nonetheless high (80%, up two points).

In general, confidence in the federal government is very high in most regions; confidence is somewhat less marked, but still at high levels, in Nova Scotia, Manitoba and British Columbia. The Yukon is the only area in which the majority of respondents are not very (38%) or not at all (31%) confident in the federal government's preparations.

Those who believe themselves to be very familiar with computer issues associated with Year 2000 are generally more likely to be very confident (39%, up five points) in federal government preparations than are those who are less familiar with the problem (32%, up ten points).

Federal Government Computer Systems Prepared for Year 2000
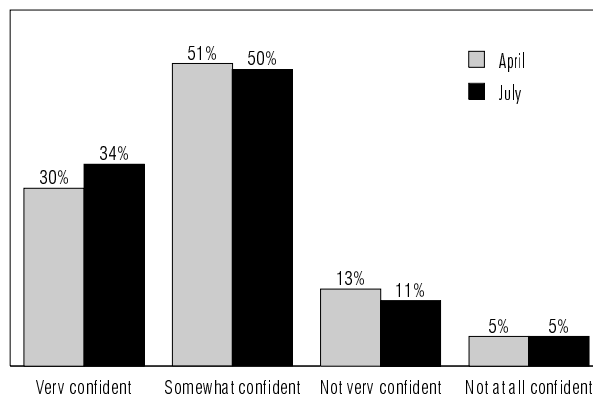
Q.8
How confident are you that the federal government will adequately prepare its internal computer systems to avoid serious problems in the Year 2000?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Need for Personal Preparation in Anticipation of Year 2000

Four in ten Canadians feel that they need to prepare themselves personally for the millennial computer changeover.

There has been little change in the proportion of Canadians who feel the need to personally prepare themselves and their families for the Year 2000 computer changeover. Forty percent of Canadians state that they feel they need to personally prepare for the millennial changeover; this figure is down only one percent from the April survey.

Demographically, there is no general trend with regard to age. However, Canadians aged 65 and older are more likely now than they were in April to feel the need to prepare for the millennial changeover (38%, up 11 points), while Canadians in the 18 to 24 age group are now less likely to feel the need to prepare themselves for the change (29%, down ten points). Those with higher levels of education and those with annual household incomes of $70,000 or more are more likely to prepare themselves for the Year 2000 changeover. French-speaking Canadians (27%, down six points) are less likely than English-speaking Canadians (44%, up one point) or those whose first language is neither English nor French (41%, down six points) to feel that they need to personally prepare. Men are somewhat less likely (36%, down three points) than women (43%, unchanged) to feel a need to prepare for the millennial computer changeover.

Residents of Saskatchewan, British Columbia and New Brunswick are more likely than others to feel the need to prepare for the millennial changeover. Residents of Quebec, Prince Edward Island and Newfoundland express the least interest.

Those who use personal computers either at work or at home remain more likely than those without computers to feel the need to personally prepare for Year 2000, and in general those who consider themselves very familiar with the problem are more inclined to prepare.

Need to Personally Prepare for Year 2000

Legend: April, July

Yes — April 41%, July 40%
No — April 59%, July 60%
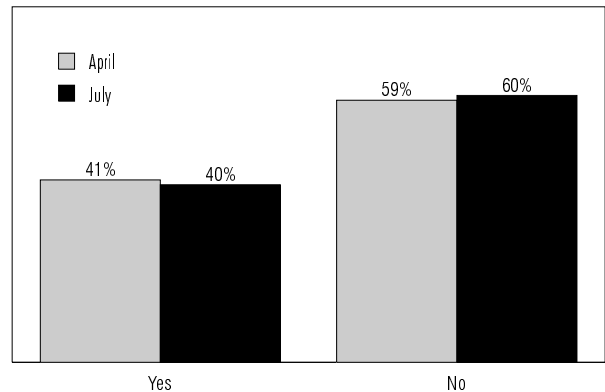
Q.9
Do you feel you need to personally prepare in any way for the Year 2000 computer problem?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Status of Canadians' Year 2000 preparations

Of those who believe that it will be necessary for them to personally prepare for Year 2000, more than half have already begun their preparations.

A greater proportion of Canadians now report having begun their personal Year 2000 preparations. Fifty-four percent of those surveyed in July who state that they feel the need to personally prepare for the millennial changeover also state that they have already begun these preparations. In contrast, only 46 percent of April respondents who stated that they felt the need to personally prepare for the Year 2000 computer changeover stated that they had already begun these preparations.

A plurality of Canadians (23%, up one point) still report that they plan to begin their personal Year 2000 preparations in the month of September, 1999. The majority of Canadians surveyed who feel the need to personally prepare for the Year 2000 computer changeover plan to do so in the final three months of 1999: October (19%, up ten points), November (13%, up one point) or December (19%, unchanged).

In the April survey, a total of 22 percent of Canadians reported that they would begin their Year 2000 preparations at some point between April and July. However, the number of respondents reporting in July that they have begun their personal preparations (54%) has risen only eight percent since April.

Specific Preparatory Measures

The most common steps Canadians who plan to prepare for Year 2000 will take include obtaining print-outs of their financial records, choosing not to fly around the New Year, withdrawing extra cash from the bank and to a lesser extent stocking up on food and water and arranging alternate energy sources.

The proportion of Canadians who are probably or definitely planning to obtain a print-out of their financial records prior to December 31, 1999 has declined five points to 75 percent. Seven percent fewer Canadians (60%) plan to purchase extra candles, batteries or flashlights in preparation for the millennial

Have Started Year 2000 Preparations
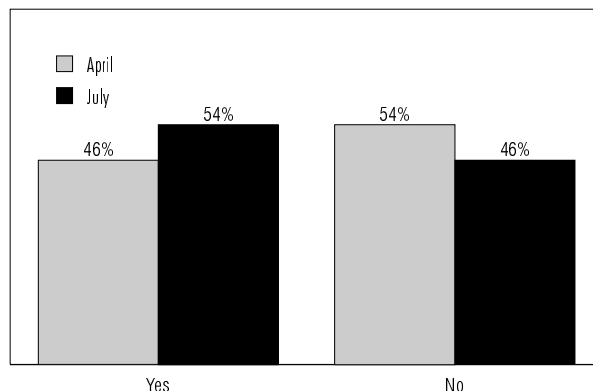
Q.10
Have you started these preparations?
Subsample: Feel need to prepare for Year 2000

When Planning to Start Preparing for Year 2000

	APRIL %	JUL %
April, 1999	1	–
May, 1999	3	–
June, 1999	8	–
July, 1999	10	3
August, 1999	6	6
September, 1999	22	23
October, 1999	9	19
November, 1999	12	13
December, 1999	19	19
January, 2000	1	1
No plans to prepare	1	–
Other	2	1
dk/na	7	13

Q.11
In what exact month do you plan to start to prepare?
Subsample: Have not started preparations but plan to prepare

changeover, The proportion of Canadians who plan to stockpile fresh water has diminished by five points to 54 percent, and 21 percent of Canadians (down five points) plan to purchase new computer equipment or software. Canadians are now also less likely to become involved in a community organization (21%, down six points) or to take a first aid course (12%, down five points) in an effort to prepare themselves for the Year 2000 computer change.

Canadians are roughly as likely in July as in April to report that they plan to withdraw cash from the bank (75%, down three points), purchase extra canned or dehydrated food (63%, down four points), stockpile fuel or gas (57%, unchanged), stay at home and/or keep family members at home around the New Year (53%, un-

changed), purchase extra propane (27%, down four points), arrange to have extra firewood (26%, down three points), buy an electricity generator (16%, unchanged), sell more stocks (12%, down two points), take a "how to survive" course (9%, down four points), or purchase gold or silver (4%, down one point).

The only measure Canadians are now substantially more likely to report that they are likely to take is refraining from flying in airplanes around the New Year (57%, up ten points).

Canadians are now more likely to report that they have already purchased new computer hardware or software (15%, up 11 points) or extra candles, batteries or flashlights (14%, up nine points).

Will Do Between Now and December 31st, 1999

	HAVE ALREADY DONE SO		DEFINITELY		PROBABLY	
	APRIL %	JULY %	APRIL %	JULY %	APRIL %	JULY %
Obtain a print-out of financial records just before December 31st	1	3	52	47	28	28
Not fly around the New Year	–	–	38	46	9	11
Take extra cash out of the bank just before December 31st, 1999	*	1	49	44	29	31
Buy extra food, dehydrated food, frozen food or canned goods	1	4	33	31	34	32
Purchase extra candles, flashlights or batteries	5	14	41	31	26	29
Stay at home/keep family members at home around the New Year	–	*	31	30	22	23
Stockpile fresh water	2	4	31	26	28	28
Stockpile fuel for car or house	1	2	16	16	21	21
Arrange to have more firewood	3	6	17	16	12	10
Buy extra propane or propane tanks	1	3	15	11	16	16
Buy a new computer and/or software or upgrade existing hardware/software	4	15	14	11	12	10
Buy an electricity generator	6	8	7	6	9	10
Take a first aid course	22	26	6	5	11	7
Get involved in a community organization	4	6	9	5	18	16
Take a "How to Survive" course	6	8	4	4	7	5
Sell more of your investments in stocks and mutual funds than you would otherwise	1	1	6	4	8	8
Buy gold or silver	–	*	2	2	3	2

Q.12
Will you definitely, probably, probably not or definitely not do each of the following things between now and December 31, 1999 because of concerns about Y2K computer problems... ?
Subsample: Feel need to prepare for Year 2000

Amount of Information Received Regarding Year 2000

Most Canadians feel they have received enough information about the Year 2000 computer changeover.

Most Canadians (59%, down one point) feel that they have received a sufficient amount of information about the possible problems associated with the computer changeover from the year 1999 to the year 2000. Sixteen percent of Canadians (up three points) feel they have received too much information, and 24 percent (down two points) report that they feel they have received insufficient information regarding the Year 2000 computer bug. These numbers have remained more or less unchanged since the April survey.

Younger Canadians, lower-income earners and those with lower levels of education remain most likely to feel that they have not received enough information about the millennium bug. Those whose first language is neither English nor French also remain more likely to feel that they have not been well enough informed regarding Year 2000-related issues. Women are now somewhat more likely than men to report that they have not received enough information regarding the Year 2000 computer problem.

Regionally, Newfoundlanders (32%, down nine points) and Manitobans (30%, down three points) remain the most likely to feel that they have not received enough information, while British Columbians (23%, up six points) are most likely to believe that they have heard too much about possible computer problems associated with the changeover to the year 2000.

Those without personal computers are more likely than personal computer users to feel that they have not received enough information.

Those with higher incomes and higher levels of education and those who are very familiar with Year 2000 are most likely to feel that they have received too much information.

Amount of Information Received Regarding Year 2000
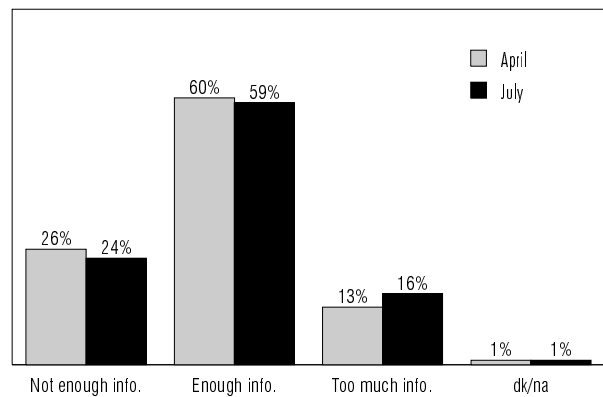
Q.13
Do you feel you have received too much, enough or not enough information regarding the Year 2000 computer problem?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Specific Areas of Information Required Regarding the Year 2000 Computer Changeover

Most Canadians do not name any specific Year 2000-related area about which they would like to receive more information.
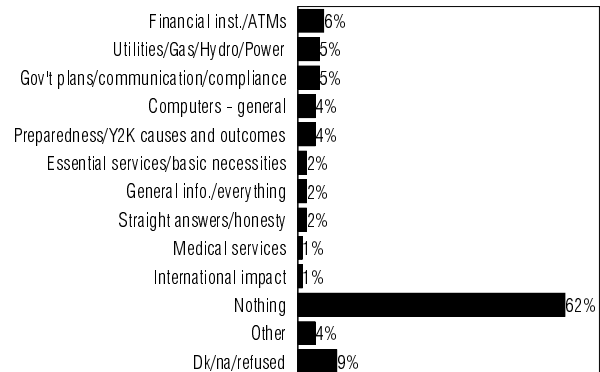
When asked whether there are specific areas surrounding the Year 2000 changeover about which they would like to receive more information, the majority of Canadians (62%) replied that there was no facet of the changeover about which they desired more information.

Six percent of Canadians surveyed reply that they would like to know more about the possible impact of the Year 2000 changeover on financial institutions, five percent desire more information about utilities such as hydro and gas, and an additional five percent wish to be better informed about the government's plans to address the possibility of computer failures at the turn of the millennium. Four percent of Canadians desire more information about how computers in general may respond to the change to the year 2000, and an additional four percent wish to be better informed of the causes of the millennium bug and the preparedness of their fellow Canadians for potential difficulties associated with the bug. Twelve percent mention other topics and nine percent give no opinion.

Residents of New Brunswick and Manitoba are somewhat more likely to desire more information about utilities such as hydro and gas. Residents of Prince Edward Island, Saskatchewan and Alberta are more likely to respond that there are no other specific topics about which they would like to receive more information.

Those whose first language is neither French nor English are more likely to desire more information about government plans and compliance.

Specific Topics About Which More Information is Wanted

Financial inst./ATMs 6%
Utilities/Gas/Hydro/Power 5%
Gov't plans/communication/compliance 5%
Computers - general 4%
Preparedness/Y2K causes and outcomes 4%
Essential services/basic necessities 2%
General info./everything 2%
Straight answers/honesty 2%
Medical services 1%
International impact 1%
Nothing 62%
Other 4%
Dk/na/refused 9%

Q.14
Can you think of any specific topics related to the Year 2000 on which you would like to receive more information?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Even among those who reply in the previous question that they have not received enough information about the Year 2000, there is little consensus as to what specific topic they want more information on. The most common responses include wanting more information on the following: financial institutions, ATMs and the economic impact (13%), overall Year 2000 preparedness (13%), utilities, such as gas, hydro and power (12%), government plans, communication and compliance (12%), computers in general (10%), general information (7%), essential services (6%), straight answers (5%), medical services (5%) and home preparations (3%). Nine percent mention other topics and 30 percent cannot think of any other topics (22%) or have no opinion (8%).

Main Sources Of Information Regarding Year 2000

Television emerges once again as Canadians' primary source of information regarding the millennial computer bug.

The majority of Canadians surveyed (59%, down six points) report that television has been their primary source of information regarding the Year 2000 computer problem. Fifty-six percent of respondents (down two points) indicate that newspapers have been their main source of information about the millennium computer bug, 24 percent (down three points) cite magazines, 22 percent (down one point) cite radio, 21 percent (up three points) cite friends and family and 19 percent (up three points) cite their place of employment as a source of information about the Year 2000 computer changeover.

Canadians' indications of reliance on other sources of information regarding the Year 2000 millennium bug remains largely unchanged from April: flyers (13%), the Internet (11%), the Canadian federal government (5%), schools (3%), and financial institutions (3%).

Older, higher-income earning, and better educated Canadians are more likely to seek information in print media such as newspapers and magazines than are others. Younger Canadians and those with post-secondary educations are the most likely to seek information on the Internet. English-speakers are more likely to mention newspapers and the Internet. French-speakers are more likely to mention television.

Residents of the Atlantic provinces are the most inclined to consult television for information. Those in Alberta, British Columbia and Ontario are the most likely to consult newspapers. Residents of Saskatchewan and British Columbia would be more apt to consult the Internet than those in other provinces.

Those who have a home computer that is connected to the Internet and those who are most familiar with the Year 2000 problem are more likely to cite the Internet or the workplace as an information source.

Main Sources of Information About Year 2000

	APRIL %	JULY %
TV	65	59
Newspapers	58	56
Magazines	21	24
Radio	23	22
Friends or family	18	21
Workplace	16	19
Flyers	15	13
Internet or World Wide Web	12	11
Canadian federal government	6	5
Banks/financial institutions/insurance companies	2	3
School/courses	3	3
Books	3	2
Professional associations and forums	2	2
Provincial government	2	2
Computer people/computer companies/ IT sector	2	2
Municipal government	1	1
No source of info.	*	—
Other	*	3
dk/na	1	1

Q.15
What have been your main sources of information about the Year 2000 computer problem?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Reliability of Year 2000 Information Sources

Canadians tend to regard all media and government as at least somewhat reliable sources of information about the Year 2000 problem.

Most Canadians (84%, up three points) continue to see television as an either very reliable or somewhat reliable source of information about the millennial computer changeover. Canadians exhibit a similar confidence in information they receive via newspapers (84%, unchanged), radio (80%, up one point), and magazines (78%, unchanged). With regard to Year 2000-related information, Canadians also continue to display a high level of trust in the federal government (80%, up three points), provincial governments (77%, up four points), and to a lesser extent municipal governments (72%, up four points).

As opposed to messages from mainstream media or government, Canadians have slightly less confidence in millennium bug information they might receive from friends or family (64%, up five points) and the Internet or World Wide Web (62%, up three points).

Importance Of Communication By Federal Government

Canadians overwhelmingly feel that it is very important for the federal government to communicate with Canadians about the Year 2000 computer problem.

The vast majority of Canadians (96%, up two points) believe that it is very important (67%, up two points) or somewhat important (29%, unchanged) for the Canadian federal government to communicate with Canadians on the topic of the Year 2000 computer changeover. Only three percent of Canadians surveyed (down two points since April) believe that such communication is not at all important.

In general, younger and less educated Canadians, women, and those who earn lower incomes feel most strongly that it is important for the federal government to communicate with Canadians about the millennium bug. French-speakers feel slightly less strongly than do English-speakers and other Canadians, but support for

Reliability of Information Sources

	VERY RELIABLE		SOMEWHAT RELIABLE	
	APRIL %	JULY %	APRIL %	JULY %
The Canadian federal government	21	21	56	59
Newspapers	18	20	66	64
Your provincial government	17	19	56	58
Television	18	18	63	66
Internet or the World Wide Web	17	18	42	44
Your municipal government	15	18	53	54
Radio	15	17	64	63
Magazines	15	17	63	61
Friends or family	14	16	45	48

Q.16
How reliable do you consider each of the following sources of information about the Year 2000 computer problem? Are they each very reliable, somewhat reliable, not very reliable or not at all reliable?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Importance of Communication from Federal Government about Year 2000
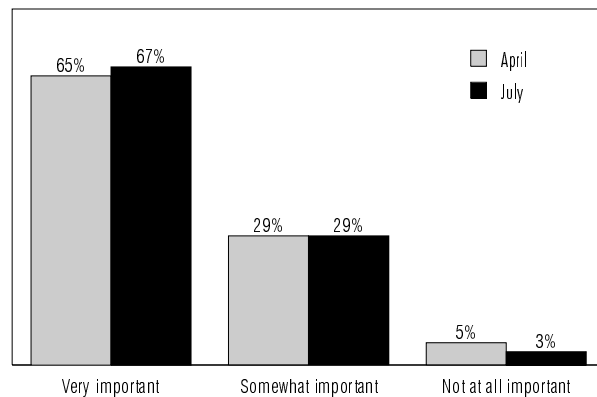
Q.17
How important do you think it is for the federal government to communicate with Canadians about the Year 2000 computer problem?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

federal government communication regarding the Year 2000 problem is generally strong regardless of the linguistic backgrounds of those polled.

Trustworthiness of Various Personalities

Canadians would most trust advice regarding Year 2000 from a university professor in the computer field, a computer expert from a large computer company, or a federal, provincial, or territorial emergency measures official.

In this question Canadians were asked to rate the extent to which they would trust information about the Year 2000 computer bug from various personalities. Ninety-three percent of Canadians (down one point) are most likely to trust a great deal (48%, unchanged) or somewhat (45%, down one point) a university professor in the computer field. Ninety percent (unchanged) of Canadians would also be likely to trust a great deal (43%, down two points) or somewhat (47%, up two points) a computer expert working for a large computer company. Eighty-nine percent (up one point) of Canadians would trust a Year 2000-related message from a federal or provincial emergency measures official somewhat (54%, unchanged) or a great deal (35%, down one point). Eighty-seven percent (up three points) of Canadians would trust a senior federal government official working on the Year 2000 computer problem great deal (32%, up two points) or somewhat (55%, up one point). Seventy-eight (unchanged) percent of Canadians report that they would trust a great deal (26%, up one point) or somewhat (52%, down one point) a senior spokesperson for the Department of National Defense.

In general, although Canadians appear most willing to trust computer experts' messages regarding this problem, Canadians' trust in politicians and other such public figures with regard to the Year 2000 changeover is high. Sixty-eight percent (up two points) of respondents say that they would trust a message from Prime Minister Jean Chrétien about the millennium computer bug a great deal (16%, unchanged) or somewhat (52%, up two points). Similarly, 68 percent (up two points) of Canadians would trust a senior federal cabinet minister at least somewhat in this area. The same

Trustworthiness of People Discussing Year 2000 Problem
Trust a Great Deal

	APRIL %	JULY %
A university professor in the field of computers	48	48
A computer expert working for a large computer company	45	43
A federal, provincial or territorial emergency measures official	34	35
A senior federal government official working on dealing with the Year 2000 problem	30	32
A Department of National Defence military official or spokesperson	25	26
The head of an industry association	22	24
A television news anchor (i.e. Peter Mansbridge, Lloyd Robertson)	18	21
A local bank, hydro, oil or gas representative	17	18
Prime Minister Jean Chrétien	16	16
Your provincial premier	14	15
Your local Mayor/Reeve or Municipal Councillor	12	13
Senior federal cabinet ministers	12	13
Your local federal MP	12	12
Your member of your provincial legislature	9	10
A radio news reporter	9	8
Peter de Jager	2	2

Q.18
If you heard or saw any of the following people discussing the Year 2000 issue, to what extent would you trust what this person said about it?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

proportion of Canadians would trust information from their federal M.P. (68%, up two points) either a great deal (12%, unchanged) or somewhat (56%, up two points). In addition, 68 percent (up four points) of Canadians say that they would trust their provincial premier a great deal (15%, up one point) or somewhat (53%, up three points); the same number would trust their member of a provincial legislature either a great deal (10%, up one point) or somewhat (58%, up one point).

On the topic of possible problems associated with computers' adjustments to the new millennium, Canadians would be likely to trust at least somewhat a prominent television news anchor (84%, up three points), the head of a large industry association (81%, up one point), a local bank, hydro, oil or gas representative (79%, up three points), a radio news reporter (70%, unchanged), or a local reeve or municipal councillor (69%, up five points).
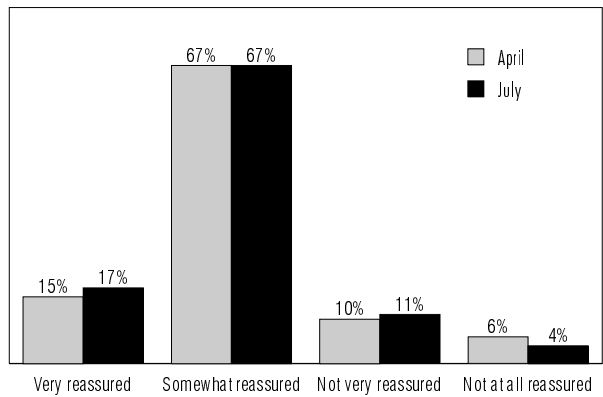
Federal Government's Year 2000 Preparation Organization

The vast majority of Canadians are at least somewhat reassured to learn that there is a federal government organization assessing the impact of the Year 2000 computer bug on Canada's essential services and preparing back-up plans for the transition to the Year 2000.

Eighty-four percent of Canadians (up two points) report that they are at least somewhat reassured to learn of the federal government preparations for the Year 2000 changeover. Seventeen percent of respondents (up two points) are very reassured by this news, and 67 percent (unchanged) report that they are somewhat reassured. Eleven percent (up one point) do not feel very reassured by news of the federal government's preparations for the Year 2000, and four percent (down two points) feel not at all reassured by this news.

While reported levels of reassurance at this knowledge of a federal government organization assessing the Year 2000 computer problem are high in all regions of Canada, residents of Quebec, British Columbia and Manitoba are less likely to report that they are very reassured by this information.

Reaction to Knowledge that There is a Federal Gov't Organization Assessing Year 2000 Impact and Preparing Back-up Plans

Q.21
There is a federal government organization assessing the impact of the Year 2000 computer bug on Canada's essential services and preparing back-up plans for the transition to the Year 2000? Knowing this, would you say you are very reassured ... somewhat reassured ... not very reassured ... not at all reassured ... ?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Awareness of Canadian Military Year 2000 Preparations

Most Canadians were unaware of the fact that the Canadian military will be on standby to deal with possible disruptions to Canada's essential services. Upon being informed of this, most Canadians feel reassured.

Over half of respondents (56%, unchanged) are unaware that the Canadian military will be on standby around January 1st, 2000 to deal with possible disruptions to Canada's essential services. Another 44 percent are aware of this fact.

Upon being informed of the Canadian military's Year 2000-readiness, the vast majority of Canadians surveyed feel at least somewhat reassured. Fifty-three percent (down three points) report that they are somewhat reassured by the news that the military will be on standby to assist at the commencement of the new millennium, while 29 percent of respondents (unchanged) report feeling very reassured by this news. Ten percent of Canadians (up one point) feel not very reassured, and five percent (unchanged) feel not at all reassured by news of the Canadian military's preparedness for the millennial computer changeover.

Women, lower-income earners and less educated Canadians are more likely to feel very reassured by the knowledge that the Canadian military will be on standby to help deal with potential Year 2000-related problems. No clear trend is apparent with respect to age.

Regionally, residents of the Atlantic provinces, Ontario and Alberta are more likely to be very reassured by this information.

Those who are familiar with the Year 2000 bug are more likely to be aware of the military's plan to assist with possible problems arising from the millennial changeover, and are somewhat more likely than others to be very reassured by this news.

Aware that Canadian Military Will be on Stand-by to Deal with Potential Year 2000 Disruptions
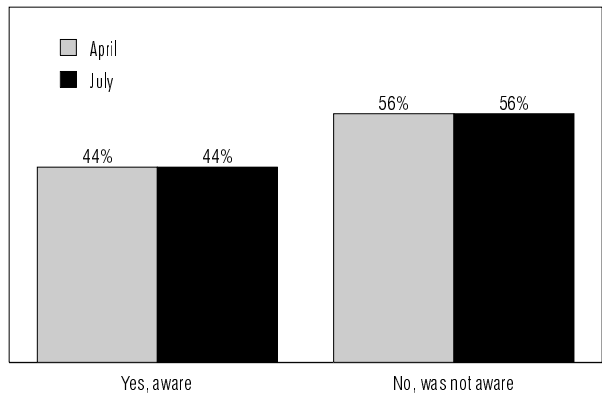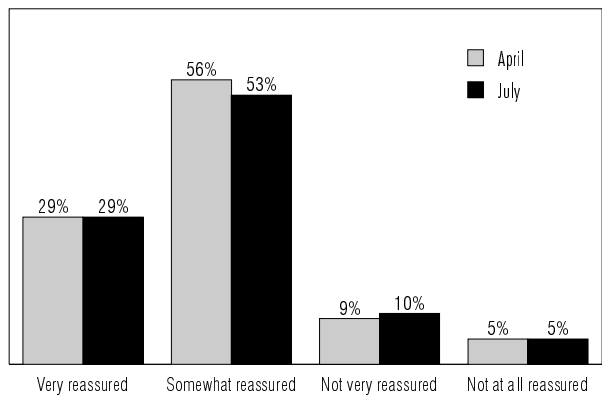

Q.22
The Canadian military will be on stand-by to deal with any potential disruption of Canada's essential services during the period around the New Year. Were you aware of this?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Reaction to Knowledge of Canadian Military Year 2000 Preparations

Q.23
How does knowing that Canadian military will be on stand-by for this period make you feel?
Subsample: All except those "not at all familiar" with Year 2000 millennium bug

Survey Methods

The results of the survey are based on a sample of 2,035 adults living in Canada. The survey was conducted by telephone from July 6 to 14, 1999.

SAMPLE SELECTION

The sampling method was designed by Environics in conjuction with the client to complete approximately 2,000 interviews within households randomly selected across the entire country of Canada. A disproportionate sample was used at the provincial and territorial level, while each province or territory was stratified proportionate to population based upon six community size groups using the 1996 Census data.

PROVINCIAL/TERRITORIAL SAMPLE FRAME

Region	Unweighted Sample	Weighted Sample	Margin of Error
Territories (NWT, Yukon, Nunavut)	151	15	8.2
Newfoundland	106	39	10.0
Nova Scotia	107	66	10.0
Prince Edward Island	100	15	10.0
New Brunswick	101	51	10.0
Quebec	398	512	5.0
Ontario	401	745	5.0
Manitoba	105	79	10.0
Saskatchewan	99	69	10.0
Alberta	205	180	7.1
British Columbia	264	264	6.3
TOTAL	2,035	2,035	2.2

Environics used a modified Waksburg Mitofsky sample selection technique. Telephone numbers are selected from the most recently published telephone directories. These numbers act as "seeds" from which the sample is actually generated. The original "seed" telephone number is not used in the sample. The Waksburg Mitofsky sample selection technique ensures that both unlisted numbers and numbers listed after the directory publication are included in the sample.

From within each multiperson household contacted, respondents 18 years of age and older were screened for random selection using the "Most recent birthday" method. No substitutions were allowed. The use of this technique produces results that are as valid and effective as enumerating all persons within a household and selecting one randomly.

TELEPHONE INTERVIEWING

Field supervisors were present at all times to ensure accurate interviewing and recording of responses. Ten percent of each interviewer's work was unobtrusively monitored for quality control in accordance with the standards set out by the Canadian Association of Marketing Research Organizations.

COMPLETION RESULTS

A total of 2,035 interviews were completed. The following table presents the detailed completion results.

The effective response rate for the survey is 19 percent: the number of completed interviews (2,035) divided by the total sample (18,167) minus the non-valid/non-residential numbers, the numbers not in service and the numbers that presented a language barrier (7,635).

The actual completion rate is 37 percent.

A sample of 2,035 persons within the population produces a sampling error of plus or minus 2.2 percent in 95 out of 100 samples. The margins are wider for demographic subsamples.

	N	%
Number of calls	18,167	100
Household not eligible	311	2
Non-residential/not in service	6,801	37
Language barrie	523	3
Subtotal	7,635	42
New Base (18,167 - 7,635)	10,532	100
No answer/line busy/ respondent not available	5,026	48
Refusals	3,471	33
Subtotal	8,497	81
Net Completions (10,532 - 8,497)	2,035	19
Completion Rate (2,035/[10,532-5,026])		37