

Survey Report to the
Scrappage Management Committee
Vehicle Emissions Team
Clean Air Strategic Alliance

On the
Breathe Easy
Vehicle Scrappage Program

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Executive Summary

1. The Breathe Easy Program gathered data from participant surveys and from pre program and post publicity questions on omnibus polls.
2. Participant respondents did not match the Calgary demographic profile.
 - Men, persons aged 34 to 54 years, and people from the northeast quadrant were over-represented among respondents.
 - Respondents' median household income was 15% lower than Calgary levels.
3. All demographic groups and groups of program users were satisfied with the service that they received.
4. Both omnibus and participants respondents listed media and word of mouth as first information sources. Many participants listed the media, word of mouth, transit ads and the web site as sources of program information .
5. Choices for sources of information affected the likelihood that different demographic groups would learn about the program.
 - Newspapers were important to reach seniors.
 - Transit ads were more important to lower income households and the east side of the city.
 - Media were more important source to higher income households and the west side of the city.
6. Those most likely to access the web site were men and working age persons rather than either seniors or younger persons.
7. Respondents with household incomes of \$35,000 plus and seniors chose vehicle credits significantly more often.
8. Respondents from the northeast and young respondents were more likely to choose transit.
9. There was a positive relationship between obtaining a quicker approval and using a quicker method of sending in the application form.
10. Between the two omnibus surveys public responses changed.

- The percentage choosing the correct answers to knowledge questions rose.
 - The percentage who were strongly in favour of a scrappage program that offered a \$500 incentive rose at a low level of significance.
11. Participant and omnibus respondents were in favour of a scrappage program. On average, the lower the respondents' assessments of air quality, the less likely were they to support a solely government program, despite strong support for a scrappage program.

1. Overview

The Breathe Easy Program used participant and omnibus surveys to gather data for the program evaluation.

The participant survey was conducted in two phases, one in August and one after program closure. Questions were placed on two omnibus surveys to provide data on outcomes of the communications plan. Questions were run previous to the program in February 2002 and after the program publicity had ended in late June 2002.

The survey instruments were prepared and approved by the Scrappage Communications Committee. Calgary Transit took the lead in preparing the first draft of all surveys and presented the proposed questionnaires to the Committee. A contracted research firm, Hargroup Management Consultants, completed the data gathering, data entry, and initial data analyses for all surveys. Their Participants Survey report is in an Appendix to the Breathe Easy Final Report.

This report details additional data results from the participant and omnibus surveys. These results were obtained by conducting additional analyses of data from the surveys and producing additional visual representations of relevant data.

The Hargroup report described findings including

- 1) Most participants learned about the program from the newspaper, word of mouth, radio/TV, and the transit ads.
- 2) Many participants accessed the web site (62%) and hotline (38%).

- 3) Of the respondents, 50% reported obtaining their application from the web site, and 67% sent in their application by facs.
- 4) Respondents reported waiting an average of 13 days for their authorization letter.
- 5) Respondents with a household income of \$35,000 or higher were significantly more likely to have chosen the vehicle credit option.

From the participant survey data, this report

- 1) documents factors relevant to findings
- 2) displays findings concerning specific demographic groups (e.g. young men, gender/income profiles and others)
- 3) compares the data between the participant and the omnibus surveys.

From the omnibus data, the report

- 4) compares the two omnibus surveys
- 5) documents factors relevant to differences and findings and
- 6) displays findings concerning specific demographic groups (e.g. young men, gender/income profiles and others).

2. Participant Survey

1) Demographic Groups

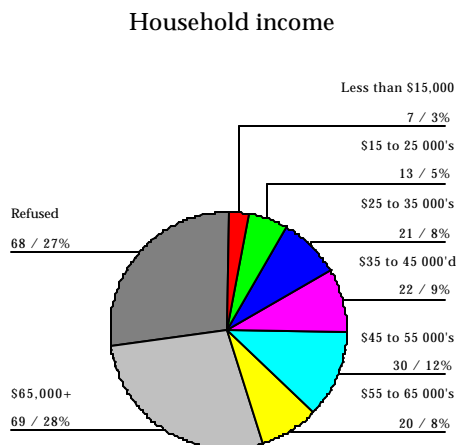
Income

The average Breathe Easy respondent reported a lower income than did the average Calgary household. The following chart shows the household incomes that the surveyed participants reported.

Half of the respondent households reported incomes of \$45 - \$55,000 or less, and half of the households reported incomes of \$45 - \$55,000 or more. That is, the median income range for respondent households was \$45 - \$55,000.

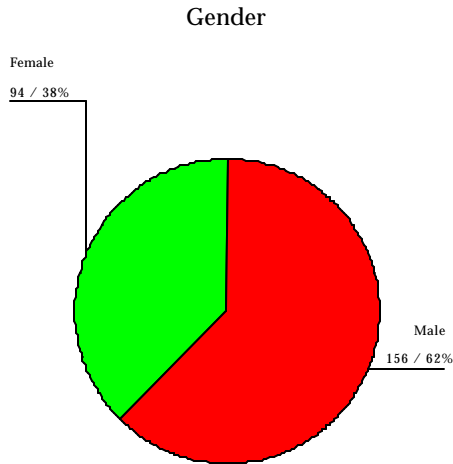
The surveyed households reported lower incomes, on average, than Calgarians as a whole. Statistics Canada's Census Update 2000 found that the median household income in Calgary was \$60,700.

The range of participants' household incomes represented the full range of incomes in Calgary. Over one-third (37.9%) reported incomes in the \$65,000 and higher range, the highest range listed.



Gender

Men were over-represented among the surveyed participants. The City of Calgary 2001 Census found that men constituted only 50% of the population, compared to the 60% of respondents who were male.

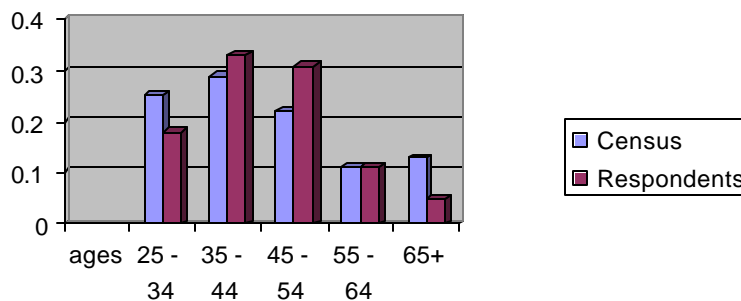


Age

The following table shows the age distribution among respondents and in the 2001 Civic Census for Calgarians aged 25 years and older.

Group	ages	25 - 34	35 - 44	45 - 54	55 - 64	65+
Census		25%	29%	22%	11%	13%
Respondents		18%	33%	31%	11%	5%

Breathe Easy respondents did not represent the Calgary population in age. A larger proportion of Breathe Easy respondents were in the parent aged groups between ages 35 and 54. Younger and older aged groups were underrepresented among respondents. The following chart shows the differences.



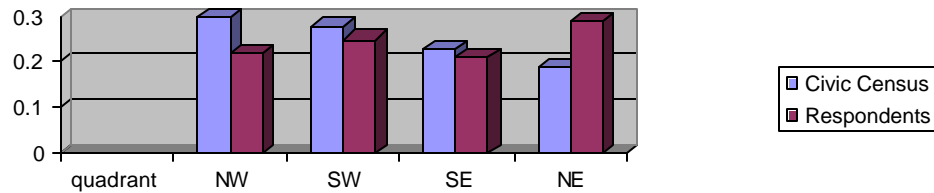
Quadrant

The data were recombined to produce data on the quadrant of the City of Calgary that respondents lived in at the time of the survey.

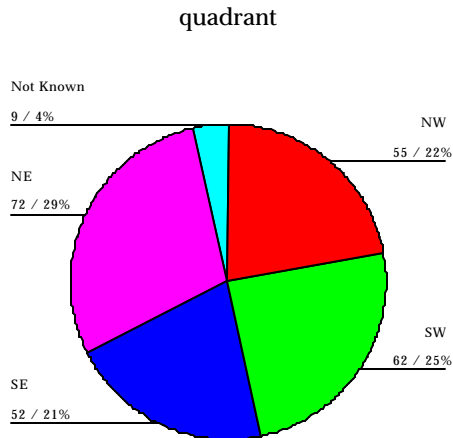
The following table shows the distribution between quadrants among respondents and in the 2001 Civic Census for Calgarians.

Group	quadrant	NW	SW	SE	NE
Civic Census		30%	28%	23%	19%
Respondents		22%	25%	21%	29%

The NW quadrant was under-represented and the NE quadrant was over-represented among respondents. Since the vehicles surrendered to Breathe Easy were older vehicles, the finding that the more wealthy areas of Calgary were under-represented was expected.



The following chart shows that significant numbers of respondents came from all quadrants of Calgary.



2) Different Impacts for Demographic Groups

Respondent Satisfaction with Operations

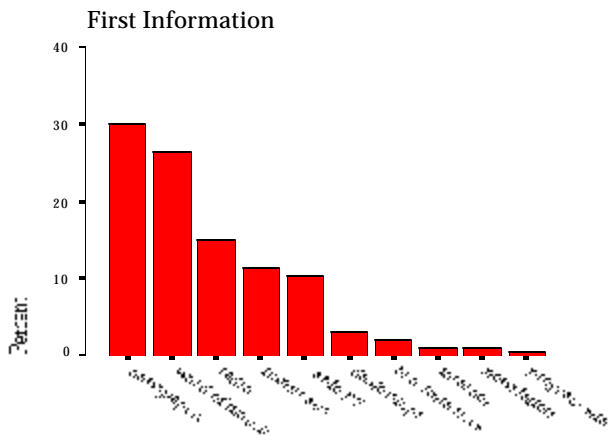
Most indices of satisfaction with the program and program associates were overwhelmingly positive. The satisfaction rates were at 98% or over, as shown in the following list of findings from the Hargroup study.

- The Breathe Easy representatives were polite (100%) and knowledgeable (99%).
- Surrendering the vehicle was accomplished without problems for 98% of respondents.
- Vehicle credit respondents found salespeople to be cooperative (98%)
- Transit pass respondents found that the transit agents were aware of the program (99%).

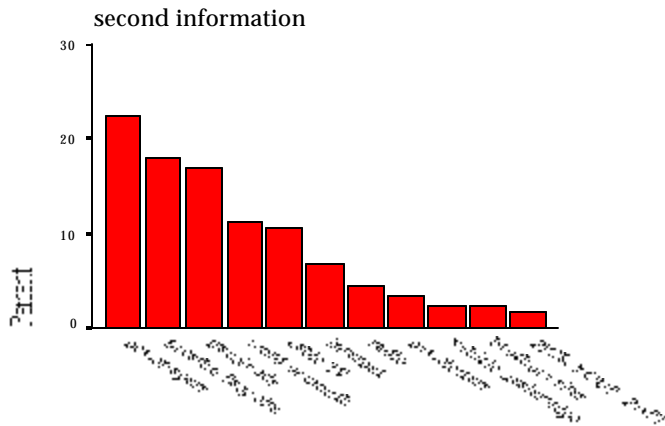
At these levels of satisfaction, additional analyses were not fruitful. All demographic groups and groups of persons using different aspects of the program were satisfied with the service that they received.

Information Sources

The media, particularly newspapers and radio, was the first source of information about Breathe Easy for most respondents. Word of mouth was the second most common source of first information. Transit ads were the fourth most reported source. The influence of newspapers, word of mouth, radio/TV and transit ads were each more important by themselves than the combined reach provided by all other sources of first information.



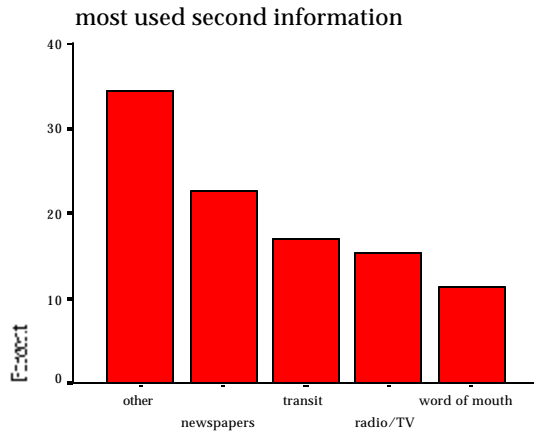
Most respondents reported that they had received information from a second source. The Breathe Easy web site and transit ads were sources of information



that were more important as second sources of information than as first sources.

Despite the importance of several major sources of second information, the total influence of the many sources that were not by themselves important (the other bar below) outweighs the influence of any one major factor.

The conclusion was that the use of multiple sources of information was important to the program's ability to reach applicants.

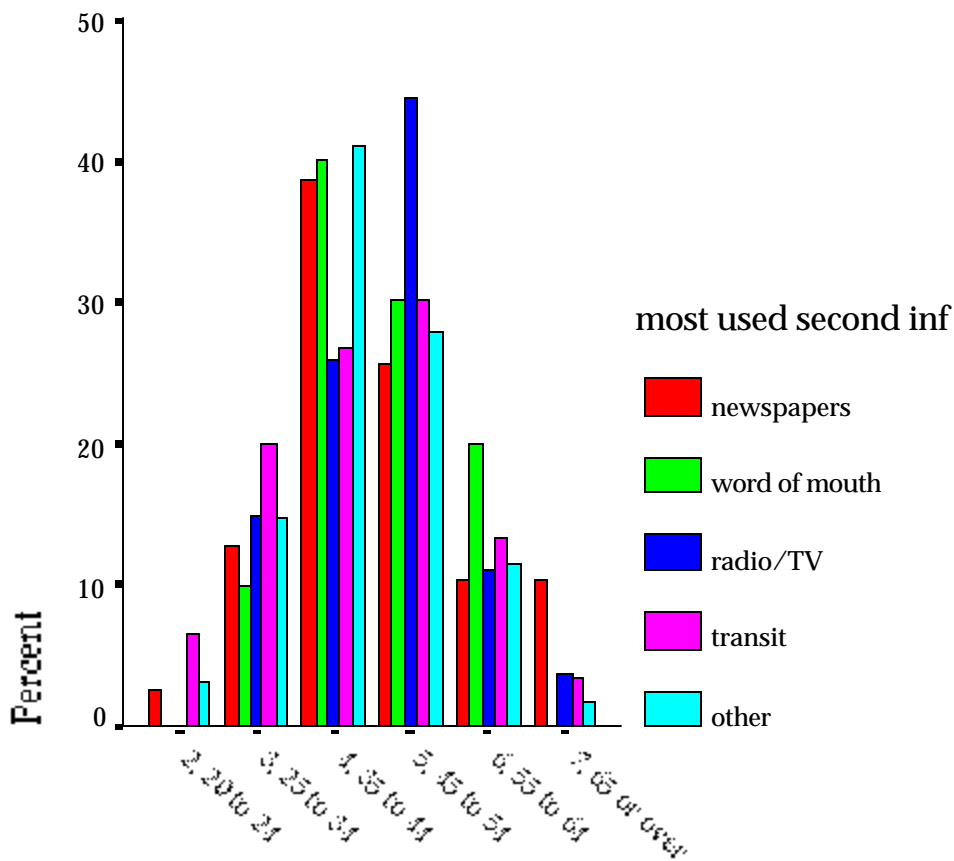


The analysis of the sources of information shows that the different second sources reached different demographic groups.

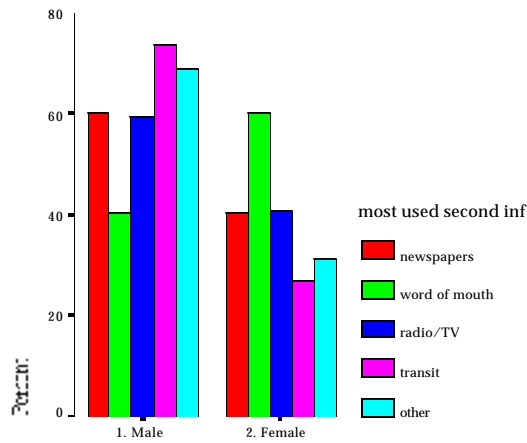
Newspapers were an important source of information for all age groups. Newspapers were the major sources of information for seniors.

Word of mouth was important to age groups in the workforce, most particularly the age group 35 – 44 years. Word of mouth was not important at all to seniors. The sample size was not sufficient to determine if the lack of reach by word of mouth among seniors was related to the lower representation of seniors among respondents than among the Calgary population.

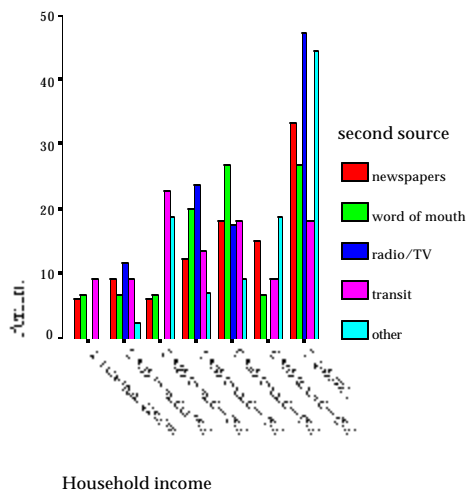
Radio/TV and transit ads were important to all age groups and were most important to those 45 - 54



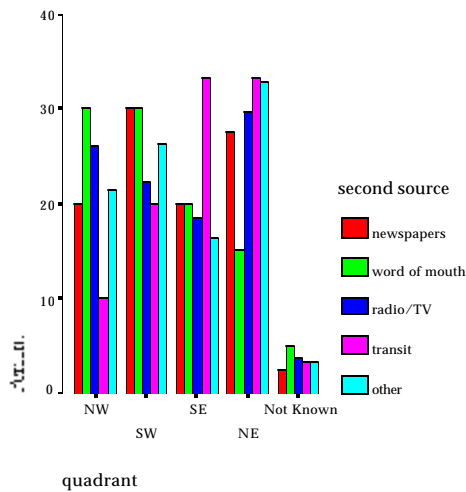
Women were more affected by word of mouth than were men. Men were more affected by transit ads, newspapers and radio/TV than were women.



Income influences were less clear. Word of mouth and transit ads influenced persons from all income levels. The influence of transit ads peaked at the \$35,000 and under level. The influence of media that require leisure time, such as newspapers and radio/TV, peaked at the highest income level.



Transit ads were most important in the east of the city. Word of mouth was most important in the west. Newspapers and media were important everywhere.



In summary, newspapers were important to reach seniors. Word of mouth was most important to women. Transit ads was a more important source for lower incomes and the east side of the city. Media were a more important source for higher incomes and the west side of the city.

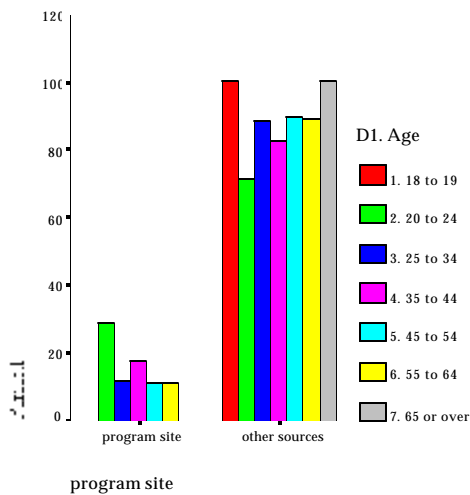
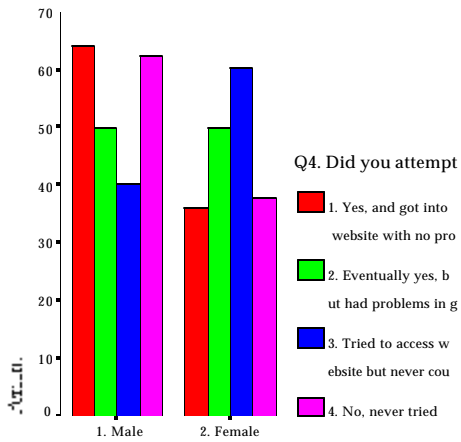
A future program’s choices of information sources may affect the likelihood that different demographic groups would learn about the program.

Web Site

The web site was important as a second source of information and as a source of application forms.

About two-thirds of respondents (69%) tried to access the Breathe Easy web site. Most (62%) of the respondents did not have problems accessing the site. Half of the respondents (50%) used the application form on the web site.

Income and quadrant did not interact reliably with web site usage. Those most likely to use the web were men rather than women, and working age rather than either seniors or younger persons.

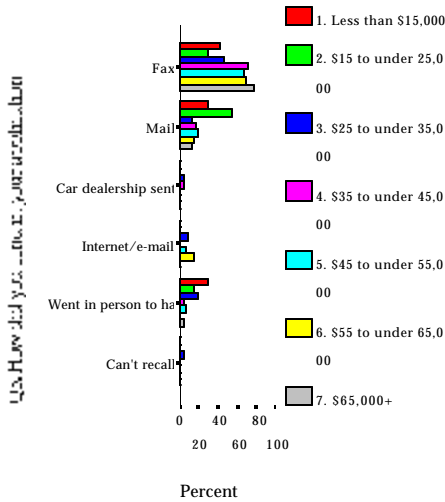


Hotline

A minority of the respondents (42%) had tried to access the hotline. While respondents who tried the hotline did get through, it required on average two tries before they got through. Neither interest in accessing the hotline, nor the number of times it took to get through was related to age, sex, income or quadrant.

Using the Facsimile

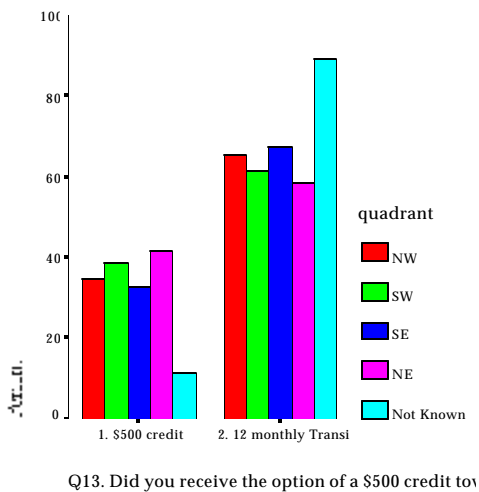
There was no relationship between age, sex, or quadrant and using the facts to send in applications. Respondents with higher incomes faxed their applications more often than did respondents with lower incomes.



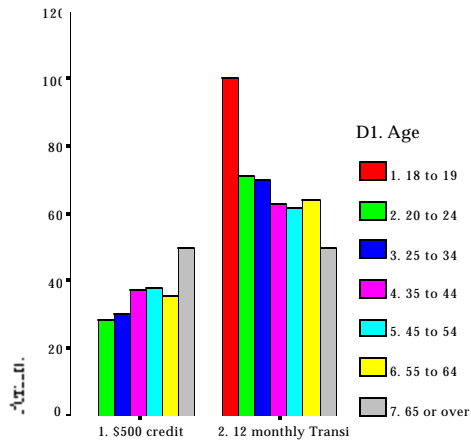
Incentive

The findings were that those with a household income of \$35,000 or higher were significantly more likely to choose the vehicle credit option.

Respondents from the northeast quadrant were more likely to take the transit option than were other respondents.



Young respondents were more likely to obtain transit passes. A larger proportion of seniors obtained a vehicle credit compared to other age groups.



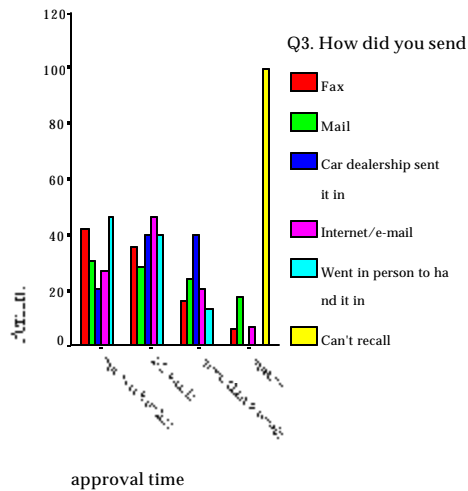
Q13. Did you receive the option of a \$500 credit to

3) Factors Relevant to Differences and Findings

Waiting Time for Approval

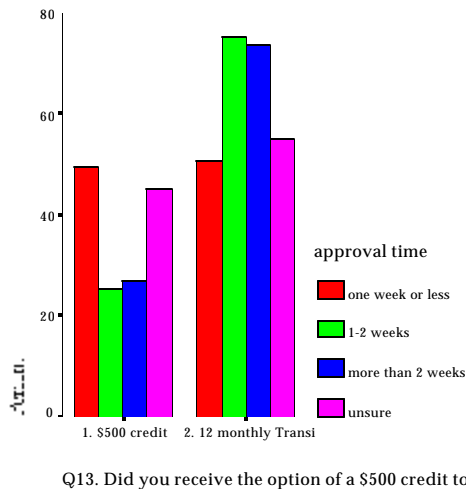
There was a positive relationship between obtaining a quicker approval and using a quicker method of sending in the application form. Those who obtained approvals within a week more often faxed their applications or brought the application in to the office.

Respondents who relied on someone else to send in the application, or who used email experienced longer waits for approval. Email applications were not accepted, so each email applicant was called and requested to send in the application again in a form that allowed a signature.



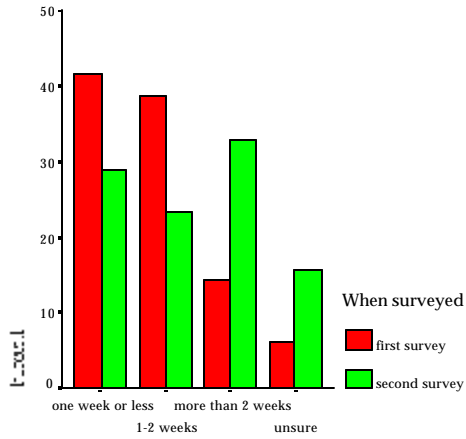
Incentive and Wait Time

Longer wait times for approval were associated with the transit pass option.



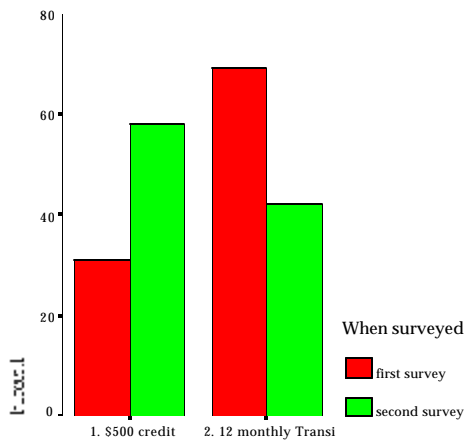
A possible reason was that there was a longer waiting list for passes when applications were closed. Those on the waiting list waited for authorization letters until someone else dropped out of the program.

Waiting times may have been related to the existence of a waiting list. The following chart shows that respondents who waited longer for approval were significantly more often interviewed in the later survey group. This finding supports the possibility that the waiting list was responsible for some of the longer approval waiting times.



Length of time to Complete Breathe Easy Process

Respondent who chose the vehicle credit option took a longer time before receiving their incentive. This longer time is reflected in the larger proportion of transit respondents who were interviewed in the first survey, and the larger proportion of vehicle credit recipients who were interviewed in the second survey.



3. Omnibus Survey

1) Comparison between the Pre and Post Omnibus Surveys

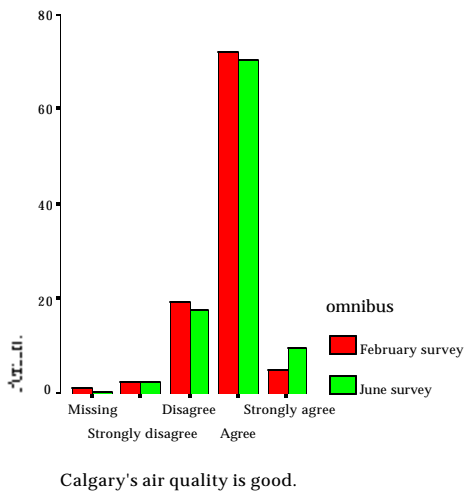
Breathe Easy ran questions on two omnibus surveys. One omnibus was run in February 2002 before the program publicity began. A comparison omnibus was run in June after the communications program had been completed.

The surveys interviewed 400 randomly selected Calgarians in each survey. The results are reliable within plus or minus 5 percentage points, 19 times out of 20.

The following sections show the comparison between the results of the pre and post surveys. Public attitudes had changes in the planned direction between the two surveys.

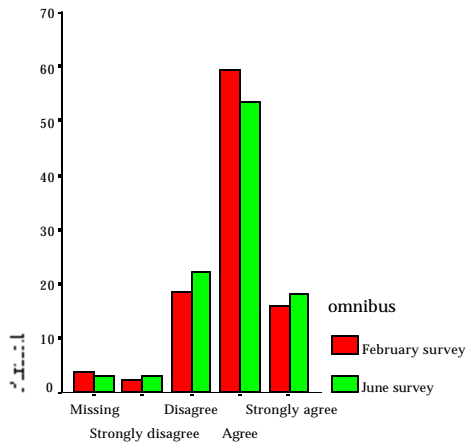
Air Quality

Between the surveys, the percentage of respondents who strongly agreed that air quality is good rose. The result was not statistically significant.



Vehicles Cause Air Pollution

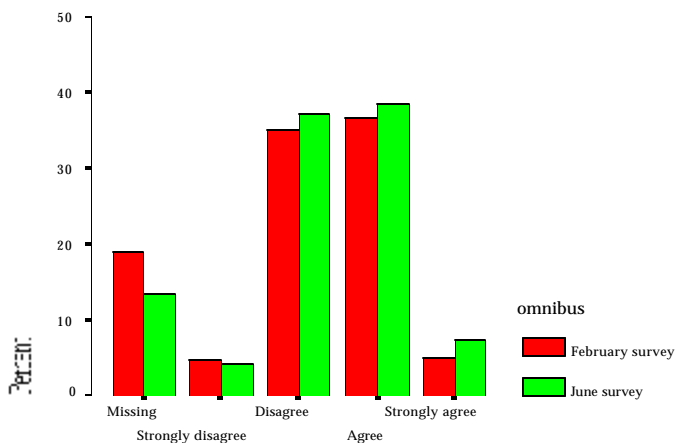
Most of the public received the message that vehicles are a source of air pollution. The percentage that strongly agreed that vehicles are the biggest source of air pollution rose. However, the percent that disagreed with that message rose as well.



Vehicle emissions are the biggest source of air pollut

Less than 10% Cause 80%

The percentage of the public that strongly agreed and agreed that less than 10% of vehicles cause 80% of the pollution rose. The percentage that strongly disagreed fell. However, the percentage that disagreed rose. The movement was in the expected and desired direction.

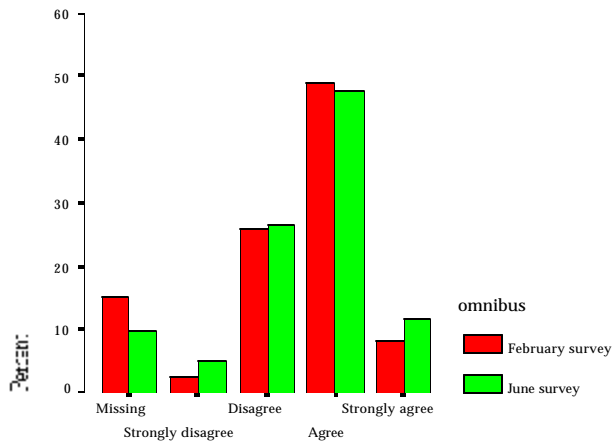


Less than 10% of the vehicles in Calgary are responsible fo

Major Polluters

In the post survey, a higher percentage of persons answered the statement that pre 1988 vehicles produce more pollution than answered in the pre survey. A higher percentage of the public could relate to this question after the communications campaign.

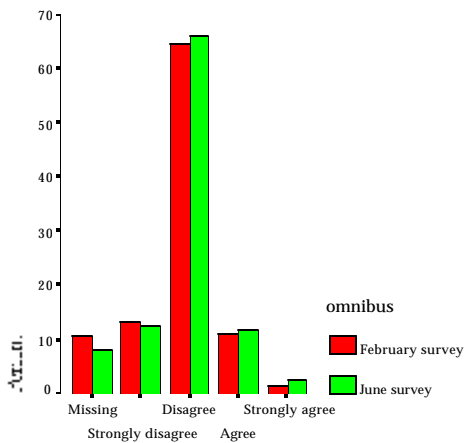
Both the strongly disagree and strongly agree percentages grew.



Vehicles made before 1988 are responsible for the majority

Pre-1987 Vehicles

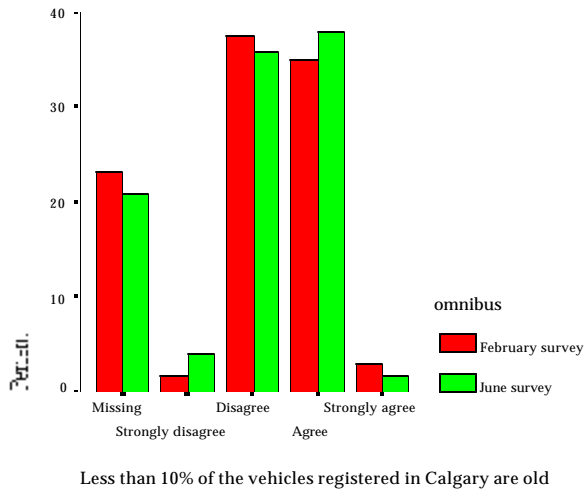
The surveys included a question that required a negative answer if the respondent wanted to give a correct answer. The statement was that vehicles made after 1987 produce more pollution. A large majority of respondents recognized the question and answered correctly.



Vehicles made after 1987 produce more pollution than

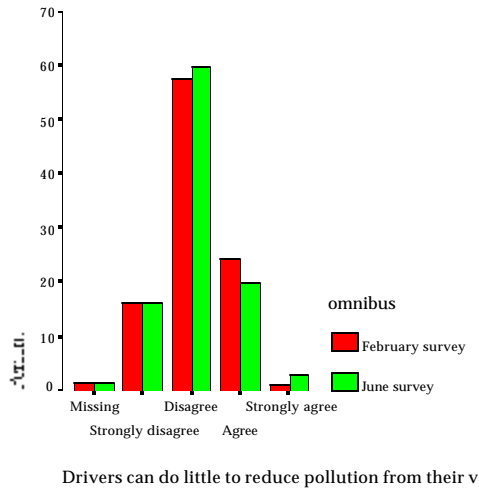
Older Vehicles

The percentage of respondents who agreed that less than 10 % of vehicles registered in Calgary are 1987 and older vehicles rose.



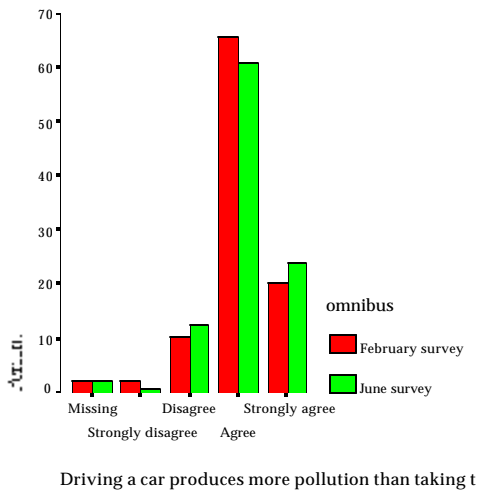
Driving Habits

The message that driving habits can affect pollution was not strengthened. More respondents disagreed that driving habits can affect pollution in the post survey than in the pre survey.



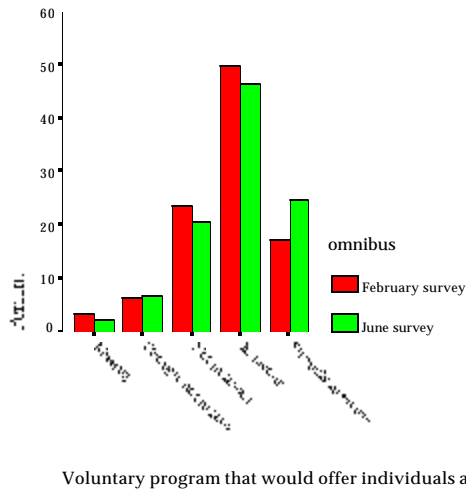
Transit

Most Calgarians understood the message that driving produced more pollution than taking transit. However, there was a small increase in the percentage that disagreed between the pre and post surveys.

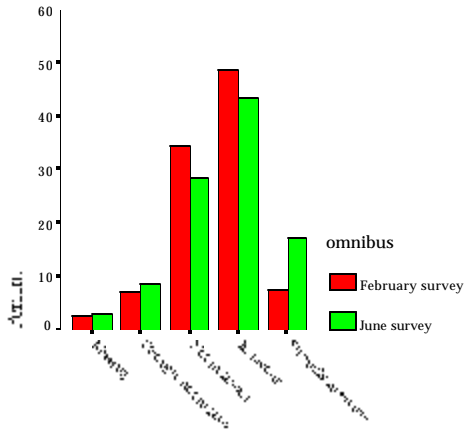


Attitudes to Future Programs

Between the pre and post surveys, there was an increase in the percentage of respondents who were strongly in favour of a voluntary scrappage program, and a decrease in the percentage that were not in favour.

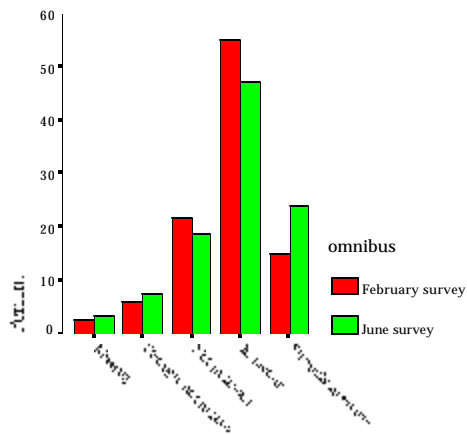


There was a statistically significant increase in the percentage of respondents who were strongly in favour of a scrappage program that offered a \$5000 incentive.

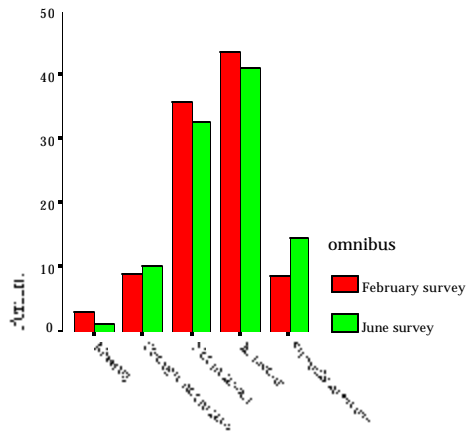


If the program provided a \$500 incentive to the indi

There a higher level of strong support for a scrappage program in the post survey. However, the percentage that was not in favour of a program funded only by government was much higher than the percentage that was not in favour of a program funded jointly between many groups.



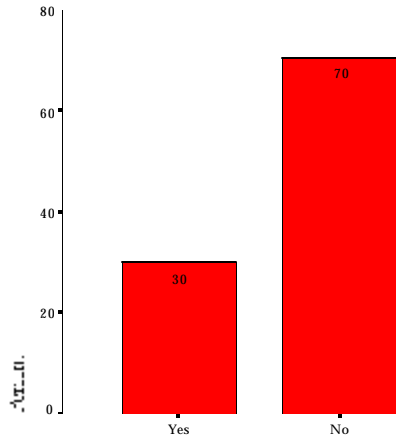
If the government, corporations & non-profit agencies



If the government funded the program alone.

2) Post Publicity Questions on Program Information Sources

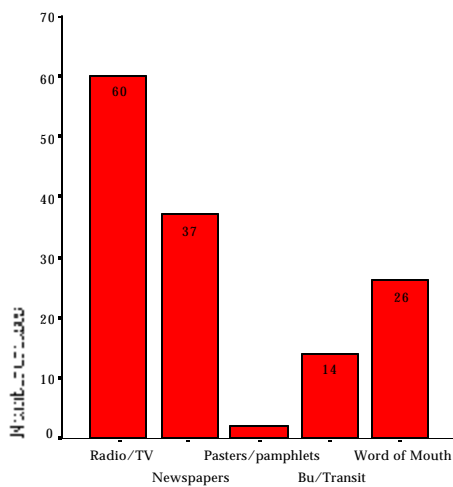
The post omnibus included a question about Awareness of Breathe Easy. Thirty percent of respondents to the post omnibus were aware of the Breathe Easy program.



Are you aware of the Breathe Easy Program, a Calgis

Respondents who were aware of Breathe Easy were asked to name their information sources.

The media coverage of radio/TV and newspapers were the most popular choices. Word of mouth and bus/transit ads were the next most popular.



3) Differences between Demographic Groups

There were no statistically significant differences between the genders, ages, income levels or quadrants on any of the questions. More women than men refused to answer some questions, but the difference was not significant and the numbers of refusals were small.

In addition, there were few directional consistencies. That is, where there were small differences between categories, the difference was in the opposite direction in the neighbouring category.

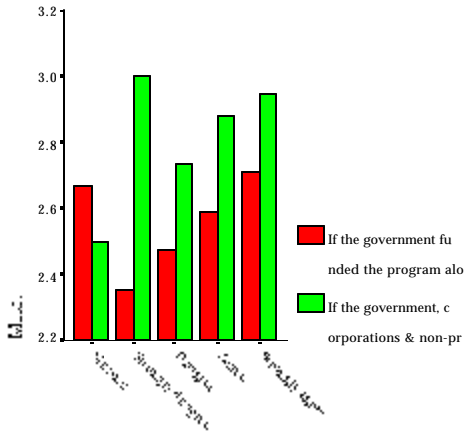
The conclusion was that knowledge about vehicle emissions is widely diffused in Calgary. The communications plan for Breathe Easy reached all genders, income levels, and quadrants of the city.

4) Factors Relevant to Differences

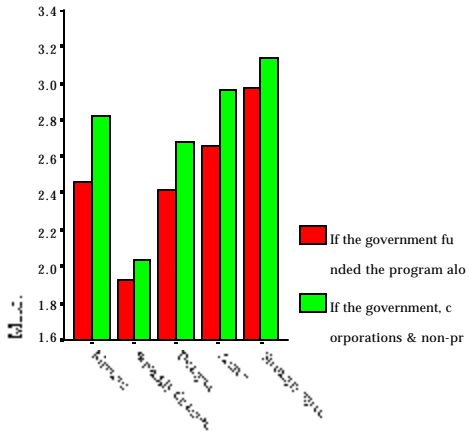
Support for Scrappage

Respondents who believed that Calgary's air quality was not good were slightly more likely to support a scrappage program. On average, the lower the respondents' assessments of air quality, the less likely were they to support a government program.

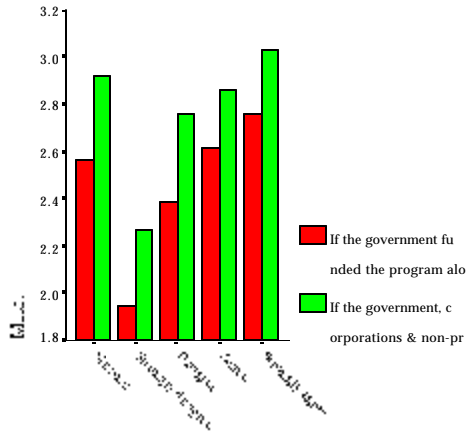
A similar result held for respondents who believed that vehicles were the biggest polluters, and that pre 1988 vehicles are the worst polluters. The worse respondents believed the situation, the more they wanted a program.



Calgary's air quality is good.



Vehicles made before 1988 are responsible for the n



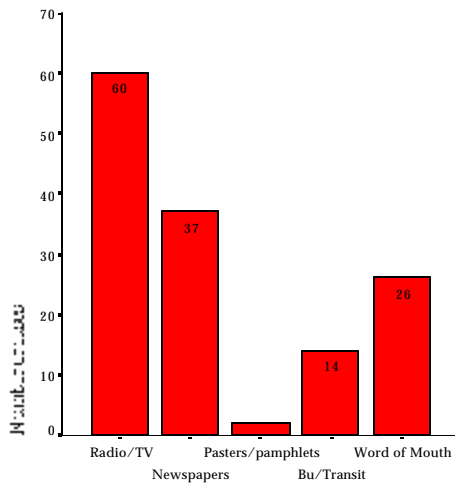
Vehicle emissions are the biggest source of air pollution

4. Comparisons Between the Omnibus and the Participant Survey

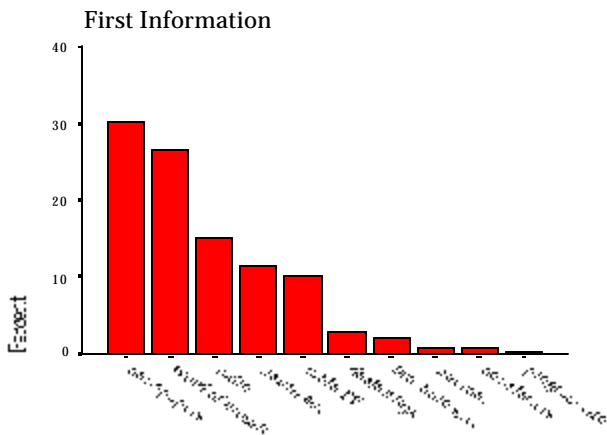
Information Sources

The direct comparison between the participant and omnibus surveys was the list of information sources that respondents recalled. Both omnibus and participants respondents listed media and word of mouth as major sources of information.

Omnibus Respondents' Sources



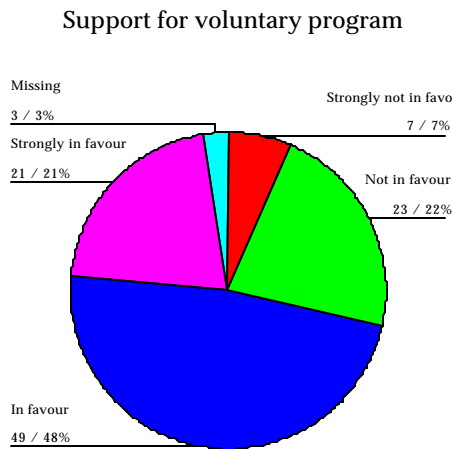
Participant Respondents' First Sources



A greater percentage of omnibus respondents mentioned radio /TV than did participant respondents. The radio/TV events were remembered more often than the newspaper articles in the minds of people who were not taking action. The omnibus respondents had no reason to search for further information and investigate the web site, or to notice a second source of information such as transit ads.

Support for Scrappage Programs

Omnibus respondents supported scrappage programs. The following pie chart shows that 69% of omnibus respondents were in favour or strongly in favour of a scrappage program.



Participants also strongly supported a scrappage program. There were no comments that were not in support of scrappage programs. Comments about the programs were such as advertising more heavily.

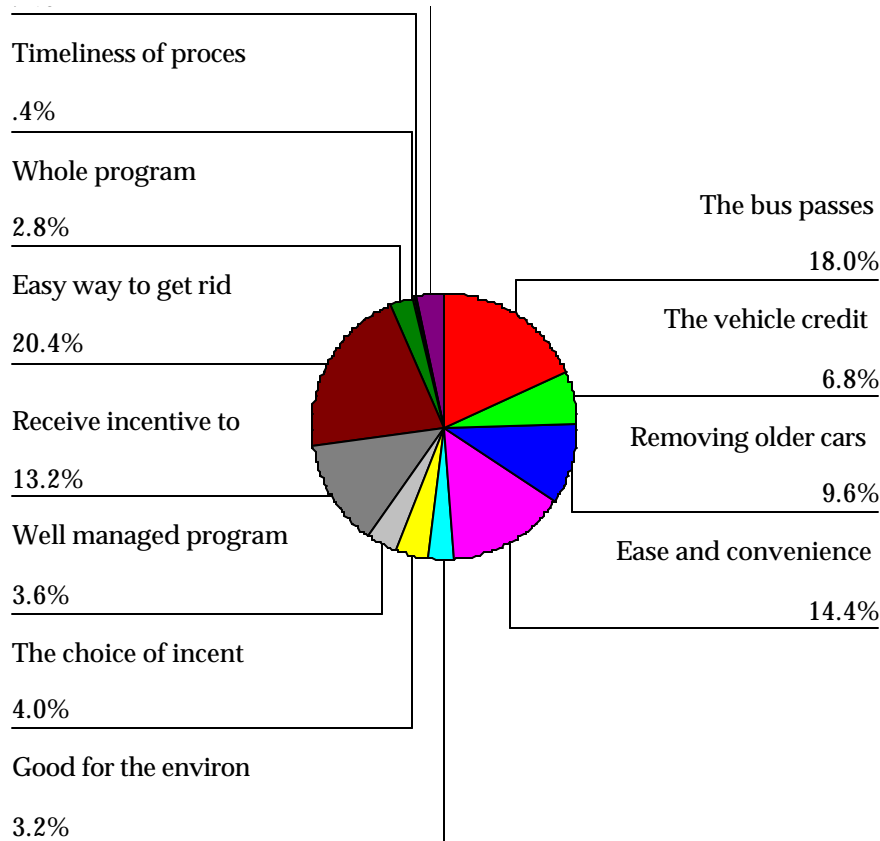
5. Visual Representations Suitable For Distribution

The omnibus and participant surveys offer data that may be useful to different audiences. The following sections show visual representations that may be useful to readers.

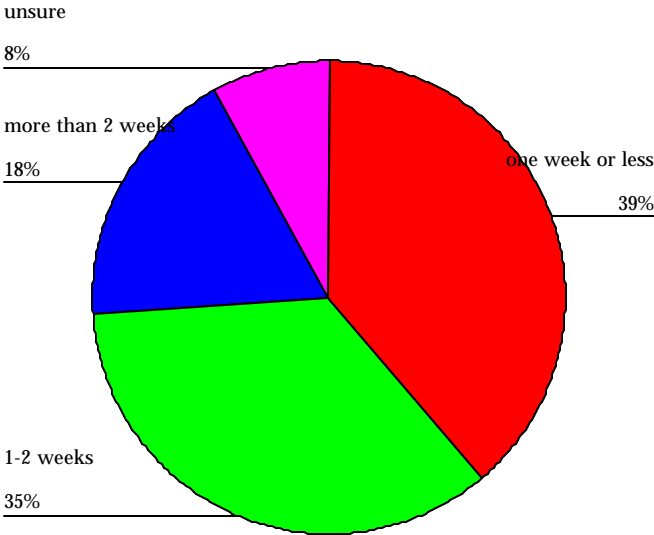
Public

The public may be interested in learning that participants support the program and that the program provided good service. The following charts detail findings from the participant survey.

The best feature of the program



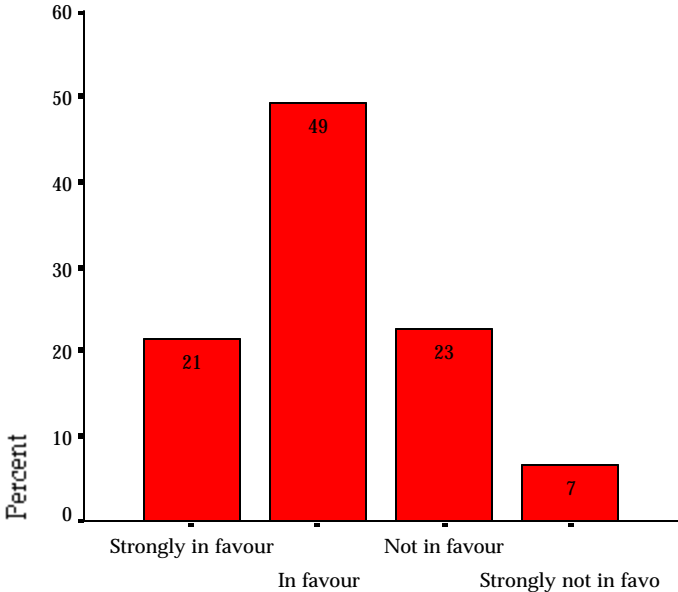
approval time



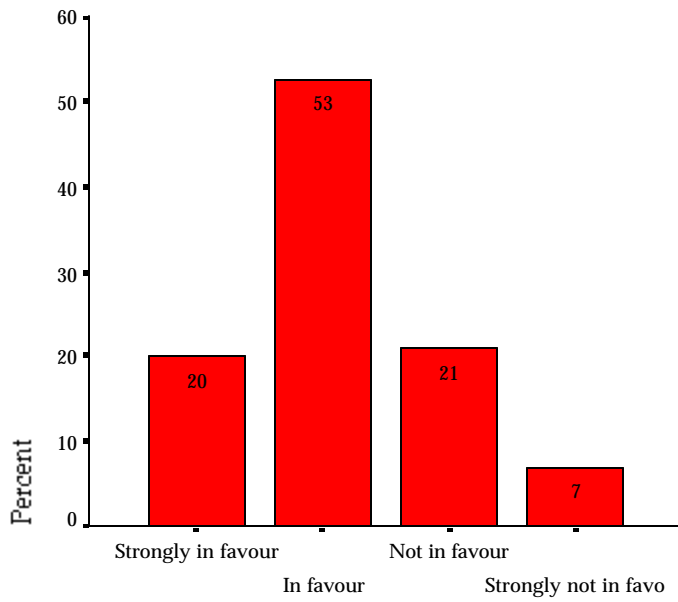
Project Partners/Stakeholders

Project partners/stakeholders may be interested in learning that the public supports the program and that the participants were satisfied with the program and with the existing partners.

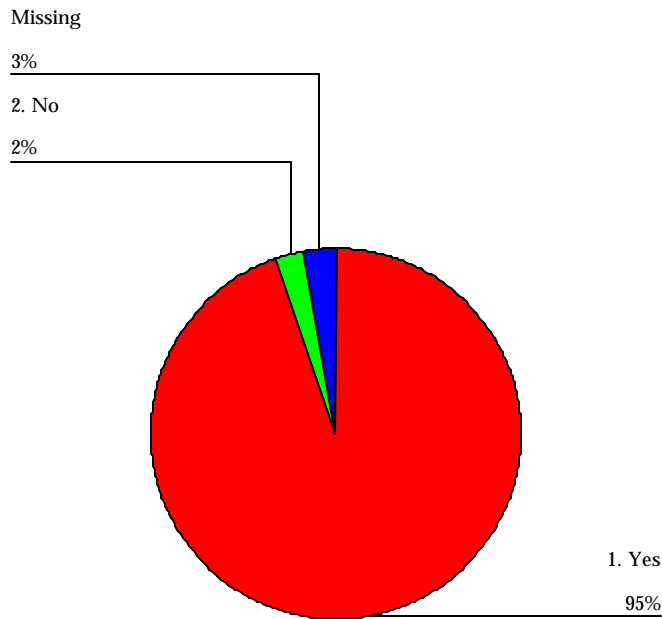
Support for voluntary program



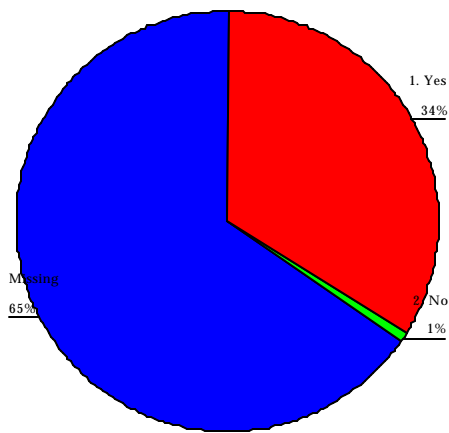
support for multi-agency program



was the scrappage dealer helpful

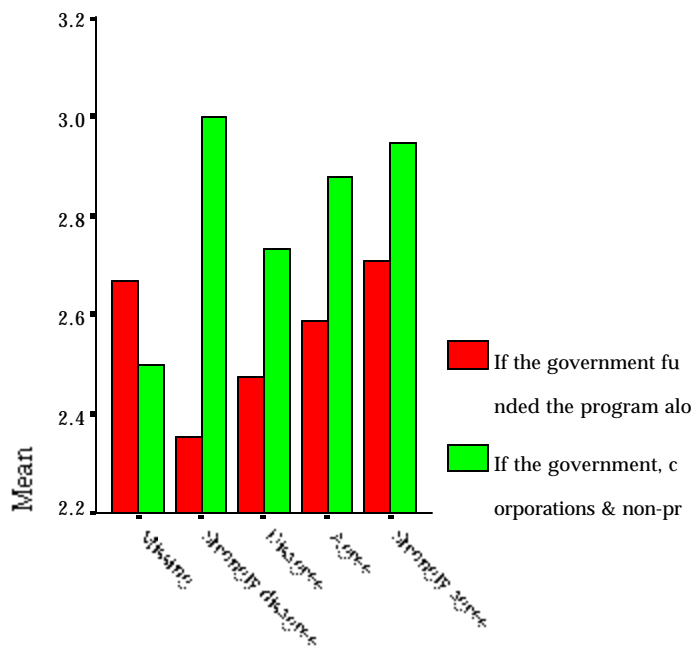


was the vehicle salesperson cooperative



Technical Community

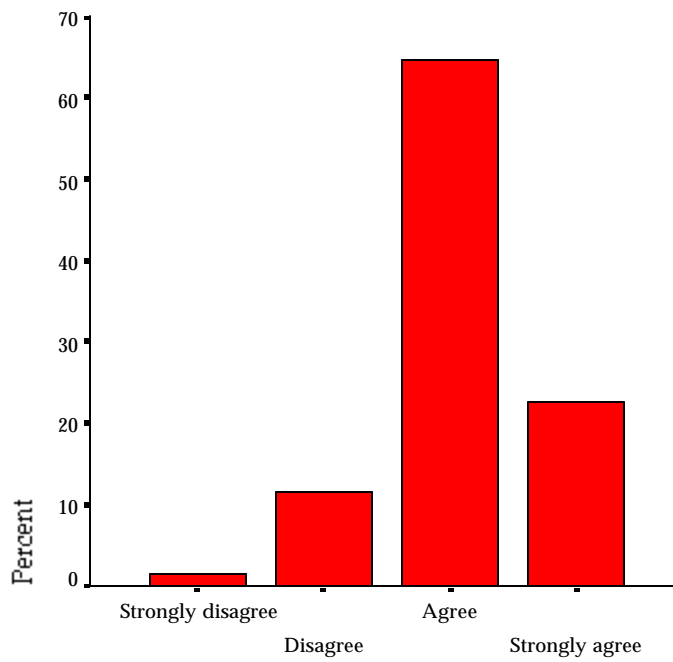
The technical community may be interested in learning that beliefs about technical matters influence respondents' decisions to support a program. They may also be interested in the public's opinions on technically related information. The following chart provides both pieces of information.



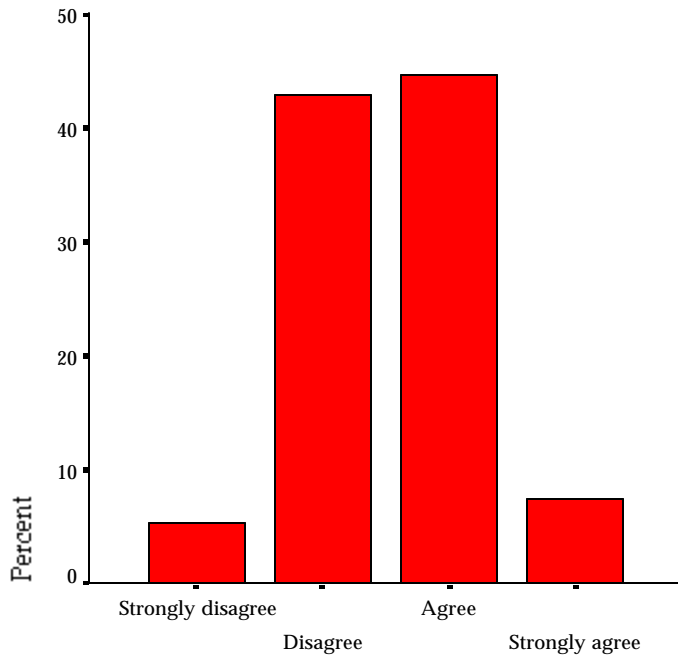
Calgary's air quality is good.

Environmental/Emissions Interest

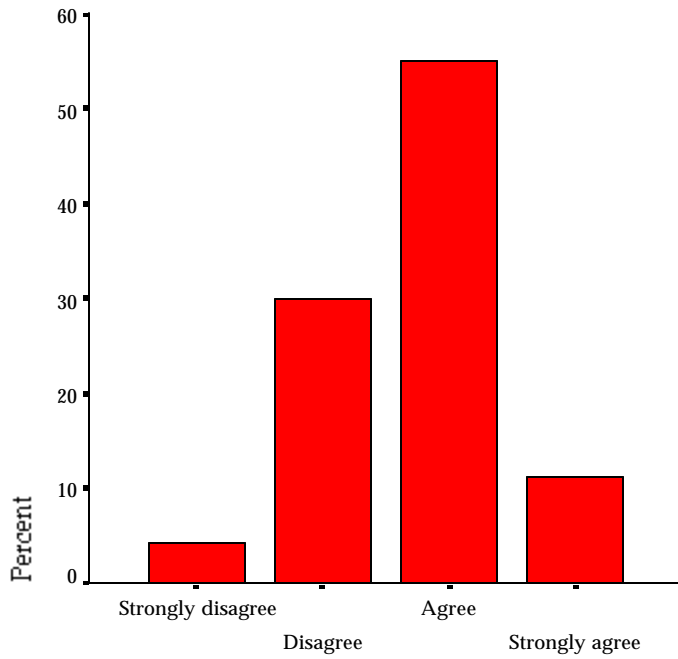
Persons interested in the environment and emissions issues may be interested in learning about the level of knowledge in the public about emissions facts. The following charts provide data from the omnibus surveys.



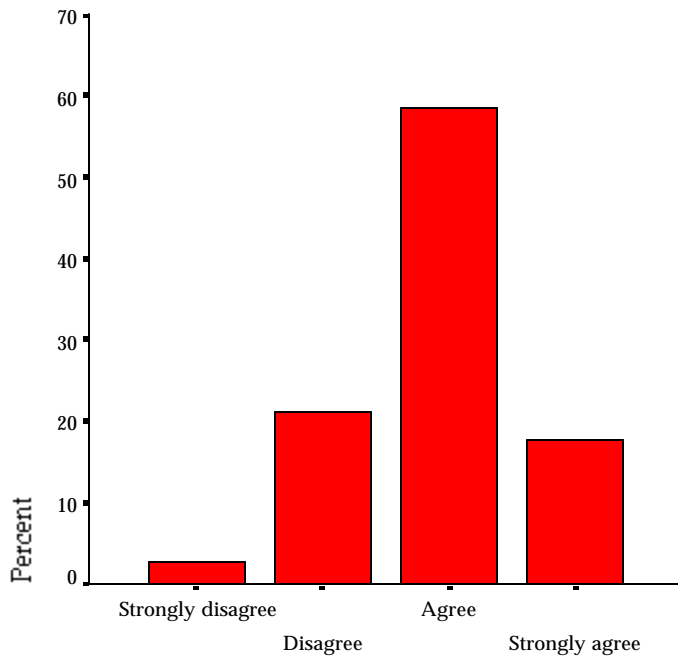
taking transit causes less pollution than driving



10% of Calgary vehicles cause 80% of pollution



pre-1988 vehicles pollute more than newer vehicles

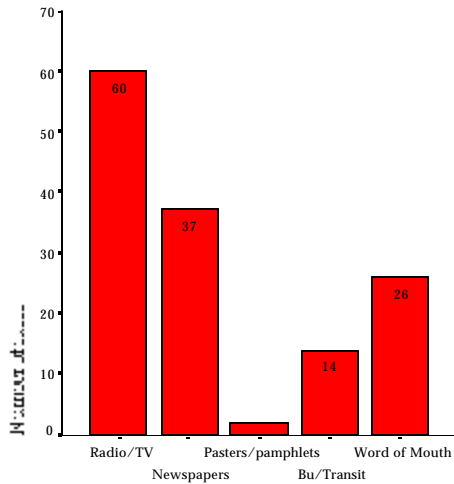


Vehicle emissions are the biggest source of air pollutants

Governments

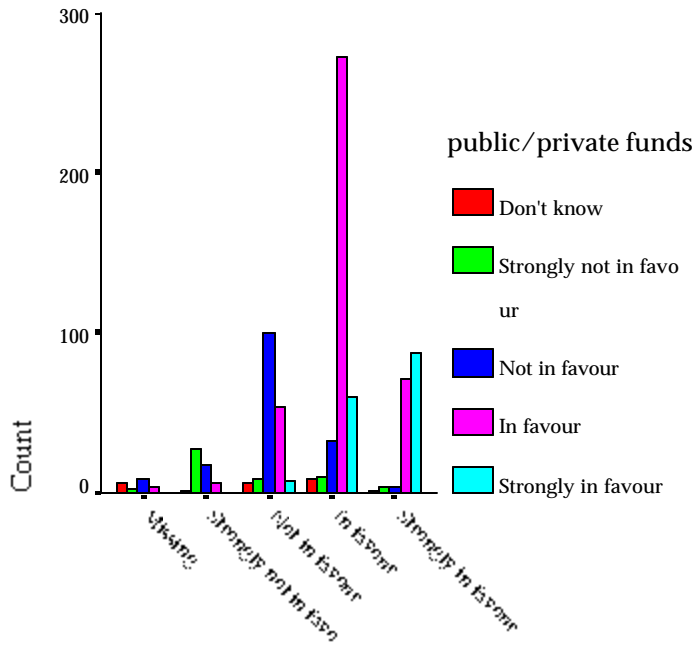
Governments may be interested in learning what sources of information reached people and the level of public support for a scrappage program. The charts that detailed level of support were shown above.

The following chart shows the sources of information that respondents remembered after some months.

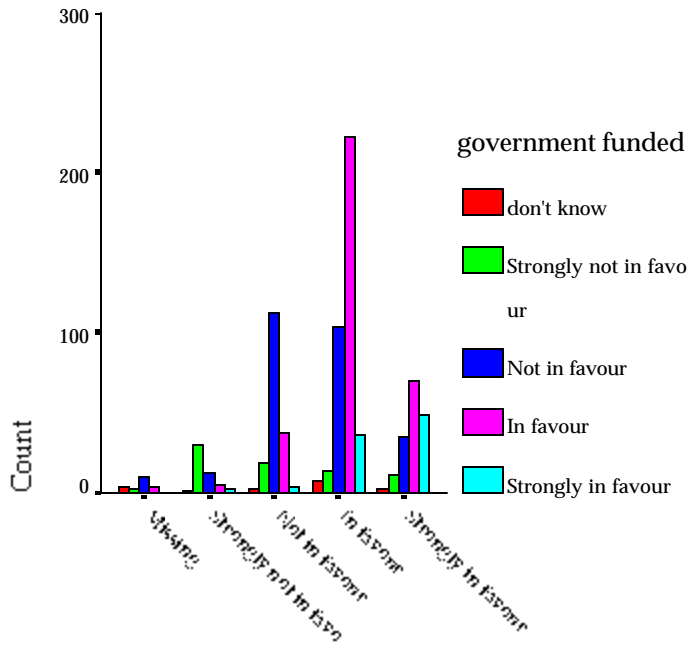


Private Sector Companies and Associations

The private sector may be interested in learning that the public expected that their companies and associations should be involved in scrappage programs. The following chart shows that the public preferred a scrappage program that was funded by a group of agencies and companies.



support for voluntary scrappage program



Support for voluntary scrappage program