

CHOICES

***In Clean, Affordable
Transportation***

**Evaluation of the
CHOICES Vehicle
Scrap Program
*Final Report***

Prepared For:

Nina DeConcini
Oregon Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, Oregon 97204

Prepared By:

Steven Scott
MetaResource Group
and

Jane Peters, Ph.D.
Research Into Action, Inc.

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EXECUTIVE SUMMARY

Program Summary

The CHOICES vehicle scrap pilot program offered drivers whose vehicles failed emissions inspection incentives in exchange for scrapping their cars. These incentives were for transportation alternatives and included discounted transit passes, savings on conventional or electric bicycles, membership in a car sharing organization, or a discounts on a new or late model vehicle.

CHOICES was promoted from September 2000 to February 2001. During that six month period over 400 people requested information on the scrap program. Seven individuals participated by scrapping their vehicles in exchange for CHOICES incentives.

This evaluation of the CHOICES vehicle scrap program gathered information through three surveys to determine general interest and acceptance of the program concept. The three surveys were a mail survey of nonparticipants, a telephone surveys of repair shops, and a telephone survey of participants.

General Response to CHOICES

In terms of demographics compared to all Portland area residents, those with interest in the program (nonparticipants) were older than average, had higher incomes, and higher educational attainment than the general population. They were less likely to live alone and had more cars. The demographics of the few participants appeared to be similar in age, but had even higher incomes and education levels than the nonparticipants.

Sixty-six percent of nonparticipants heard about CHOICES at a DEQ vehicle inspection station. Another 22% of the respondents had heard about it through the media or by word of mouth. In contrast, the participants in the program had heard about the program more often through media or other means, rather than from brochures distributed at a DEQ vehicle inspection station.

Thirty-two percent of nonparticipants said they requested information about CHOICES because they were interested in the incentives and 22% asked for information because their car had recently failed the DEQ emissions test. A significant number cited other reasons for requesting information, including curiosity about the program and concern for the environment. About 20% of additional open-ended comments made by nonparticipants were explicitly supportive and positive about the program.

An open-ended question was used in the nonparticipant survey asking what it might take to get them to participate. Three-quarters of nonparticipants provided some response. The list below summarizes the results into four major categories:

- 21% Asked for cash incentive or larger incentive for replacement vehicle.
- 14% Asked for improvements in alternative transportation incentives.
- 21% Asked that the incentive be greater than repair costs.
- 5% Expressed interest in vehicle donation alternatives.

Altogether, 42% said that they might have participated if there was a cash incentive, if there was a larger incentive for a replacement vehicle, or if the incentive was greater than repair costs. Fourteen percent of the nonparticipants desired improvements to the alternative transportation incentives. The bicycle discounts and discounted Tri-Met passes were also of the most interest to nonparticipants as determined in another question.

A survey of repair shops found every one of them was willing to promote a vehicle scrap program in the future. This was despite the fact that only a few had positive comments about CHOICES in its current state, and others felt that some of the program offerings were impractical. Many of the repair shops had well thought-out suggestions that could lead to improvements of CHOICES or other DEQ programs.

Summary of Conclusions and Recommendations

By scrapping vehicles that failed emissions inspection, the CHOICES program reduced total air emissions of hydrocarbons, oxides of nitrogen, carbon monoxide, and carbon dioxide by an estimated 15,000 pounds annually.

The market segment that responded most favorably to this alternative transportation vehicle retirement program were people with transportation flexibility and environmental leanings. Those interested in the CHOICES program and program participants were on average better educated, had higher incomes, and were somewhat older.

While two-thirds of the nonparticipants were exposed to the CHOICES program through brochures distributed at the Northeast DEQ vehicle inspection station, this was not a substantial influence for attracting potential participants. Attention given the program through the media, particularly television news programs, and word of mouth were the major influences for participation.

Compared to the pool of nonparticipant vehicles, vehicles that were scrapped seemed to be at the end of their economic life. The scrapped vehicles had an average self-reported vehicle value of \$450 or about 12% of the self-reported value of nonparticipant vehicles. Average self-reported costs for emissions repair of the scrapped vehicles was about three times the vehicle value.

Not all transportation alternatives were of interest or of use to the respondents. Bicycle and transit passes were of the most interest. The level of incentives offered, both in terms of value and type, were considered insufficient to motivate more than half of respondents to scrap their vehicles. There was interest in direct cash incentives or more broadly redeemable coupons.

Primary Recommendations

The CHOICES program may benefit from focusing on the incentives that were most appealing to those surveyed: bicycle discounts, transit pass discounts, and new or late model vehicle discounts.

Nonparticipants were interested in cash incentives for scrapping a vehicle. This would also be more in line with vehicle early retirement programs offered in other states. CHOICES might still offer incentives for transportation alternatives, but they should be more attractive (or more valuable) than any cash incentives.

Programs implemented in conjunction with repair shops to assist low-income individuals to maintain their cars, such as cost sharing for parts or low or no interest loans, might be an approach for vehicle repair in lieu of scrapping.

Currently vehicle owners can obtain trip permits indefinitely through the Department of Motor Vehicles (DMV) and circumvent state requirements for vehicle inspection, emissions repair and registration. The prevention of recurring trip permits would likely be one of the greatest incentives to vehicle repair or scrapping. The DMV has pending revisions to the trip permit program in the 2001 Oregon State Legislature that would curtail the abuses inherent in the program. As of the date of this report the bill has passed in both the House and Senate and is presently awaiting the Governor's signature.

INTRODUCTION

CHOICES Program Description

The goal of the CHOICES vehicle scrap pilot program was to offer options other than repair to drivers whose vehicles fail DEQ emissions inspection. DEQ partnered with Bike Gallery, CarSharing Portland, Tri-Met, and Ron Tonkin Dealerships to offer the following incentives to individuals who decide to scrap their car:

- Discounted transit passes,
- Savings on conventional or electric bikes,
- Free membership in CarSharing Portland, and
- Discount on a new or late model vehicle.

CHOICES was aimed at motivating drivers of failed vehicles to seriously consider scrapping their vehicles in favor of transportation alternatives. DEQ secured commitments from the public and private partners noted above that agreed to provide the incentives needed to entice drivers to select an alternative to expensive vehicle repairs. The partners also included Schnitzer Steel Industries, a regional metal recycler that secured participation from a wrecking yard to ensure appropriate environmental safeguards were followed when a vehicle was scrapped.

Along with the promotion of transportation alternatives, CHOICES offered discounts on environmentally friendly products. These included solvent-free paints, car maintenance, hazardous waste disposal, and car washes. Respondents to the CHOICES promotion could choose either information on vehicle scrapping, the environmentally friendly product discounts, or both.

Funded by a grant from the EPA, CHOICES was a pilot program to be offered for six months or until funding was exhausted. The program kicked off in September 2000 with informational brochures distributed at the DEQ Northeast Portland Vehicle Inspection Station, located close to urban neighborhoods with numerous transit lines, CarSharing Portland locations, and bike shops. Altogether 65,000 brochures were distributed at DEQ vehicle inspection stations, repair shops, and in response to telephone and web inquiries. CHOICES received 142 requests for additional information on the vehicle scrap in the first two months of implementation, and a total of 434 inquiries at the end of six months (February 2001).

Actual participation in the CHOICES program was at a lower level than expected. At the end of February 2001 seven individuals scrapped their vehicles in exchange for CHOICES incentives.

The EPA grant supported the development of marketing materials and underwrote the costs of some of the incentives associated with the desired behavior change. DEQ staff

supported all the administrative burdens of the program. The target for the project was to scrap 10% or 850 of the approximately 8,500 vehicles that fail the emission test annually.

Evaluation Goals

There were three major goals for the CHOICES evaluation. The evaluation performed an analysis and evaluation of the total emissions reduction based on vehicles scrapped and alternative mode chosen by participants. The evaluation also examined whether the types of incentives offered and their monetary value were adequate or of interest to vehicle owners. This report makes recommendations of other incentives or monetary values to induce owners to scrap non-compliant vehicles.

EVALUATION APPROACH

Evaluation of the CHOICES program was based primarily on information collected through three separate surveys. A mail survey of nonparticipants was used to provide general insight into interest in the CHOICES incentives. A telephone survey of participants was used to obtain information on motivation and satisfaction with the program, and a telephone survey of ‘participating’ repair shops gathered impressions on the practicality and usefulness of the program.

Each of the surveys is described below. Details on the approach used and a summary of the results of each survey are included. The survey instruments and complete responses to each question are also provided in the report Appendices.

Nonparticipant Mail Survey

Nonparticipants for the purposes of this CHOICES survey are those people that requested information on the program but did not go forward with scrapping a vehicle. For the six months of the pilot program, from September 2000 to February 2001, almost 900 requests were made for CHOICES information, which included other air and water quality information and coupon offerings. Out of the 900 requests for information approximately half, or 434, specifically asked for additional information on vehicle scrapping through CHOICES. The remaining 466 requested the discounts offered on environmentally friendly products.

The survey mailing was prepared in a manner consistent with the Dillman Total Design Method. The survey itself was in booklet form, eight pages in length, and 5.5 inches by 8.5 inches in size. Included in the mailing was a cover letter ‘signed’ by the Air Quality Division Administrator and a postage-paid return envelope.

As an incentive to encourage response, returned completed surveys that included the name and address of the respondent were entered into a drawing for one of six \$20 gift certificates to a local restaurant chain. Ninety-four percent of those completing surveys included their name and address for a chance at this incentive.

The mail survey of program nonparticipants was conducted in two waves. Two samples of 100 were randomly selected from people that had asked for information on CHOICES. For those not responding to the initial mail survey, a follow-up post card was sent after approximately one and one-half weeks. For those not responding after the post card, a second survey was sent after approximately three weeks. Data from respondents was entered into an Excel worksheet for analysis.

Table 1 provides the mailing history for each of the two survey waves. Overall there was a 53%¹ return rate, in line with expectations for this type of survey.

¹ Included in this return rate were seven surveys received after the nonparticipant analysis was completed.

Table 1. Nonparticipant Survey Summary

	First Wave	Second Wave
Sample Pool	233	201
Surveys Mailed	100 (February 7)	100 (March 21)
Reminder Postcards Mailed	74 (February 20)	85 (April 2)
Second Survey Mailed	68 (February 27)	77 (April 12)
Returned, Refused, or Dupe	2	3
Total Surveys Returned	58	42

Several respondents answered only a portion of the questions. The overall average was 89% of questions answered, but 12 respondents answered less than 28 of the 36 questions, or only 75%, and one answered only five questions. Those who answered less than 28 questions were considered non-responsive and were not included among the 88 responses used for the analysis below. Five of the 88 responses did not include their name for the drawing (6%), while three of the 12 (25%) in the non-responsive group did not include their name. Also note that four people did not believe they had requested information on the program and were confused about being included in the survey.

Nonparticipant Survey Demographics

In terms of demographics, respondents were compared to 1990 Census figures² for urban Portland, Oregon when data were available. This group is older than average, has higher income, and higher educational attainment. They are less likely to live alone than the average and have more cars. Please see Tables 2 through 9 for details.

Table 2. Respondent Age Range

Age Range	Nonparticipant Survey	1990 Census
21 to 24 years old	6%	8%
25 to 34 years old	24%	25%
35 to 44 years old	19%	24%
45 to 64 years old	33%	23%
Over 65 years old	18%	20%

n=88

Table 3. Educational Level Attained

Education	Nonparticipant Survey	1990 Census
High school or GED	15%	31%
Some college, no degree	33%	31%
Four-year degree or more	52%	38%

n=88

² 2000 Census figures at this level of detail are not yet available.

Table 4. Annual Household Income

Income	Nonparticipant Survey	1990 Census
Under \$10,000	11%	17%
\$10,000 to \$15,000	6%	10%
\$15,000 to \$20,000	5%	11%
\$20,000 to \$25,000	7%	10%
\$25,000 to \$30,000	12%	9%
\$30,000 to \$40,000	18%	15%
\$40,000 to \$50,000	12%	10%
Over \$50,000	29%	18%

n=83

Table 5. Shift Worked Most of the Time

Shift Worked	Nonparticipant Survey
Day shift	70%
Swing shift	3%
Third shift	2%
Not employed	25%

n=86

Table 6. Average Hours Worked Per Week

Hours Worked	Nonparticipant Survey
Full-time	60%
Part-time	17%
Not employed	23%

n=87

Table 7. Number of People in Household

Number of People	Nonparticipant Survey	1990 Census
1 person	15%	34%
2 persons	44%	33%
3 persons	18%	14%
4 persons	18%	11%
5 or more persons	5%	8%
Average	2.7 persons	

n=88

Table 8. Number of Vehicles in Household

Number of Vehicles	Nonparticipant Survey	1990 Census
1 vehicle	27%	42%
2 vehicles	53%	42%
3 vehicles	16%	12%
4 or more vehicles	3%	4%
Average	2.0 vehicles	

n=88

Table 9. Number of Licensed Drivers in Household

Number of Drivers	Nonparticipant Survey
1 driver	28%
2 drivers	61%
3 drivers	8%
4 drivers	2%
Average	1.8 drivers

n=88

Participant Telephone Survey

The participant survey was conducted by telephone in March and April 2001. As of February 2001 there were seven participants in the program who scrapped their cars for various incentives. One of the participants could not be reached by phone and was contacted by email. Despite being offered the opportunity to complete the survey by email, this participant never responded. Six of the seven were eventually reached and surveyed.

The survey included questions about program participation and demographics identical to the nonparticipant survey. There were 31 questions, with the majority of the questions being closed-ended. Two of the questions provided opportunities for open-ended responses. There was a very short follow-up survey by telephone (and email) conducted in early May to determine if unused incentives had been redeemed and if selected incentives were still being used. Although all agreed to be recontacted, only four of the six original respondents could be reached for this follow-up.

Participant Survey Demographics

In terms of demographics, selected responses of participants are compared to nonparticipants in Tables 10 through 12. Participants are older than nonparticipants and thus also older than the average, and again have higher income and higher educational attainment.

Table 10. Respondent Age Range

Age Range	Nonparticipant	Participant
21 to 24 years old	6%	17%
25 to 34 years old	24%	17%
35 to 44 years old	19%	0%
45 to 64 years old	33%	66%
Over 65 years old	18%	0%

n=6 participants, n=88 nonparticipants

Table 11. Educational Level Attained

Education	Nonparticipant	Participant
No high school diploma	0%	0%
High school or GED	15%	33%
Some college, no degree	33%	0%
Four-year degree or more.	52%	67%

n=6 participants, n=88 nonparticipants

Table 12. Annual Household Income Before Taxes

Income	Nonparticipant	Participant
Under \$10,000	11%	17%
\$10,000 to \$15,000	6%	0%
\$15,000 to \$20,000	5%	0%
\$20,000 to \$25,000	7%	17%
\$25,000 to \$30,000	12%	0%
\$30,000 to \$40,000	18%	17%
\$40,000 to \$50,000	12%	17%
Over \$50,000	29%	33%

n=6 participants, n=83 nonparticipants

Repair Shop Telephone Survey

A telephone survey was performed of automobile repair shops participating in the CHOICES vehicle scrap program. These shops ‘participated’ by making information on CHOICES available to their customers, either in the form of a poster or brochure, or most often by a combination of the two. Program records show that eight of the shops had both a poster (one had three) and brochures, four had a poster alone, and one had only brochures.

The original evaluation workplan called for a telephone survey of six of the thirteen participating repair shops. The surveys took less than ten minutes each, and shop representatives were easy to contact. The information provided during the first six interviews offered many useful insights to the program and therefore we completed interviews with all thirteen repair shops.

EVALUATION RESULTS

Avoided Emissions

Emissions test results were available for four of the seven participants. Emissions test results for two of the vehicles were not available because the tests were aborted due to other vehicle problems and, in one case, the test results were not available. One of the vehicles was a light truck or utility vehicle, another was a diesel truck, and the remaining five were gas-powered passenger cars. For the purposes of this analysis, the emissions of the vehicles without test results was assumed to be the same as the average of the four other vehicles. Emission test readings are in Table 13.

The U.S. EPA prepared annual emissions and fuel consumption figures for “average” passenger cars and light trucks on the road in 1997 (the latest figures available). These are described in Table 14 along with Oregon emissions standards, and Federal Certification Standards for both types of vehicles. Annual emissions measured in pounds are also included from the EPA data. EPA assumes 12,500 annual miles for a passenger car and 14,000 for a light truck.

Note for Table 14 that a standard for CO₂ is not appropriate as this emission reflects fuel consumption and overall efficiency, a value that varies widely across vehicle types. Also note that the EPA average vehicle has hydrocarbon emissions greater than the Oregon standard, and that the Federal Certification Standards for new vehicles are only a fraction of the allowable Oregon standards.

Table 13. Participant Emission Readings

Vehicle	HC gram/mile	NO _x gram/mile	CO gram/mile	CO ₂ gram/mile
1-light truck	9.94	2.11	139.70	549.60
2-pass. car	10.83	4.03	50.50	477.30
3-pass. car	1.71	5.72	25.84	665.14
4-pass. car	2.33	3.66	8.87	337.85
5-pass. car	Engine speed too high, test aborted.			
6-diesel truck	Couldn't start, test aborted.			
7-pass. car	Test results not available.			

Table 14. Emission Averages and Standards

Data	HC gram/mile	NO _x gram/mile	CO gram/mile	CO ₂ gram/mile
EPA 1997 Averages	2.9 (3.7 for trucks)	1.5 (1.9 for trucks)	22 (29 for trucks)	363 (545 for trucks)
EPA Annual Emissions, Pounds	80 (114 for trucks)	41 (59 for trucks)	606 (894 for trucks)	10,000 (16,800 for trucks)
Oregon Standards	2.00 (4.00 for trucks)	3.70 (8.32 for trucks)	3.70 (8.32 for trucks)	Not applicable
Federal Standards	0.41 (0.80 for trucks)	1.00 (1.20 for trucks)	3.40 (10.0 for trucks)	Not applicable

A variety of approaches were combined to estimate the annual reduction in emissions by participation in CHOICES. The CHOICES incentive selected by each participant has an effect on emissions and annual vehicle miles traveled (VMT). The values used are described in the following paragraphs and in Table 15.

Emissions of late-model vehicles would be expected to lie somewhere between the Federal Certification Values and the Oregon Standards. For the purposes of this analysis, the more conservative EPA average values were selected for most participants, as several were determined to acquire used vehicles about four years old. The EPA average values were used with the exception of hydrocarbons, where a value of 50% of the Oregon Standard was used. For the car sharing participant, values of 150% of the Federal Standards were used, as these vehicles are only one or two years old and should not have the degradation in emissions control as reflected in the EPA values. None of the values for CO₂ were modified because of their reflection on vehicle efficiency as mentioned earlier.

Table 15. Assumed Participant Emissions and VMT

Vehicle	CHOICES Incentive	HC gram/mile	NO _x gram/mile	CO gram/mile	CO ₂ gram/mile	Assumed Annual VMT
1	Used replacement vehicle ³	2.00	1.90	29	545	14,000
2	Bicycle, non-commuting	1.00	1.50	22	363	9,000 ⁴
3	Bicycle, non-commuting	1.00	1.50	22	363	9,000 ⁵
4	Used replacement vehicle	1.00	1.50	22	363	12,500
5	Used replacement vehicle ⁶	1.00	1.50	22	363	12,500
6	Car sharing	0.80	1.50	6.8	363	2,266 ⁷
7	Used replacement vehicle	1.00	1.50	22	363	12,500

Those selecting a replacement vehicle were assumed to have the same VMT as the EPA values. For those selecting a bicycle, values from an unpublished study on transportation behaviors show that self-reported car trips drop 28% for those making 3-10 bicycle trips per month as compared to those making no bike trips (Scott). Car sharing participants

³ Assumed late model light truck – program data not available.

⁴ Unpublished analysis for BTA Public Service Announcement Evaluation, S. Scott.

⁵ Ibid.

⁶ Assumed – coupon not redeemed as of analysis date.

⁷ CarSharing Portland: Review and Analysis of Its First Year, R. Katzev, July 1999.

were estimated to have VMT of 2,266 miles per year compared to 12,484 for nonparticipants (Katzev 1999).

Differences between the assumed participant emissions and VMT of Table 15 and the participant emission readings from the scrapped vehicles of Table 13 were used to determine overall emissions reductions. Some of the resulting values were negative, as emissions of the scrapped vehicles may have been lower in one component than the standard. These negative values were retained for this analysis, except in the case of CO₂. Since CO₂ emissions reflect vehicle efficiency that is expected to vary, negative values were not summed when obtaining total emission reductions. Total reductions are shown in Table 16.

Table 16. CHOICES Program Emission Reductions

HC pounds/year	NO_x pounds/year	CO pounds/year	CO₂ pounds/year
752	316	5,629	8,405

Nonparticipant Survey Results

The more important results of the nonparticipant survey are summarized below and are described in complete detail in Appendix A. The cover letter used with the survey mailing is provided in Appendix D.

Two-thirds of the respondents (66%) had heard about CHOICES at a DEQ vehicle inspection station, 11% of the respondents had heard about it through television, radio, or newspaper, and another 11% learned about it from a friend, neighbor, or co-worker.

Respondents most often said that they requested information about the CHOICES program because they were interested in the incentives (32%). The second most often stated reason was that their car recently failed the DEQ emissions test (22%). A substantial number, 21%, had other reasons for requesting information. Two-thirds of these, or 15% of the “Other” responses, can be attributed to general curiosity and a concern for the environment.

Most respondents (27%) said that they would have the car repaired and retested if it did not pass the DEQ emissions test. Some of the other reasons for not scrapping included selling the vehicle, donating it to charity, or driving the car with a trip permit (a total of 24% for all three reasons). A large number said that they didn’t know why they had requested information, that their vehicle passed, or provided other reasons (a total of 38%). Some people, about 7%, said that they would scrap the car through CHOICES. Fifteen percent of respondents did not answer this question. Only about a quarter of people knew that they would need to scrap their car to get the discounts through CHOICES.

The age, value, and make of respondent vehicle varied. The oldest described was from 1970 and the newest made in 2000, with an average model year of 1988. Mileage on the

vehicles ranged from 10,000 to 280,000, with an average of 122,000 miles. Most of the vehicles (40%) were manufactured by Toyota, Ford, and Chevrolet respectively. Twenty percent of respondents said that they didn't know the value of their vehicle. The remainder provide a self-reported average value of \$3,760.

For most respondents the vehicle described was their primary transportation means (45%). For 32% the vehicle they described was a second vehicle. Twenty-three percent had only one vehicle. Most used their vehicle for their own shopping or errands (27%), 21% used the vehicle for a work commute, and 18% for pleasure or entertainment.

When asked about major reasons that have kept them from scrapping their car through CHOICES, 31% thought the incentives too small or not convenient, 24% considered their car worth too much to scrap, and 9% preferred to donate their car to a charity. Ten percent of the responses included other comments. Selected verbatim comments include:

- *[The alternatives provide] NO OPTIONS TO GET OUT TO HIKING AREAS, ETC.*
- *I LIKE IT [my car] TOO MUCH.*
- *DID NOT WANT TO GET INTO CAR PAYMENTS AT RON TONKIN, CONSIDERED BUS OR BIKE.*
- *[My car was] TOWED BEFORE I COULD USE CHOICES.*
- *[I] USED [the car] AS TRADE-IN [on a new vehicle].*

A critical open-ended question in the survey asked the respondent to assume that their vehicle was driveable and could not pass the DEQ emission test. Of the 88 respondents, 66 provided answers for conditions under which they would have considered scrapping their vehicle. Many would have participated if there was a cash incentive or larger incentive for a replacement vehicle (21%) or if the incentive was greater than repair costs (also 21%). Fourteen percent looked for improvements in alternative transportation incentives, and 5% were interested in the potential for vehicle donation. Selected verbatim comments include:

- *[I would consider CHOICES if] ALTERNATIVE TRANSPORTATION INCENTIVES WERE HIGHER [for] BUS PASSES, CAR-SHARE, BETTER OFFERS, [a] TAX BREAK PERHAPS FOR NOT DRIVING OR FOR BUYING NEW HYBRID CAR, ETC.*
- *[I would consider it if] CAR SHARING CLOSE TO HOME.*
- *CHOICES PROVIDED ENOUGH [cash] INCENTIVE TO GET A DIFFERENT CAR THAT WOULD PASS DEQ.*
- *I COULD GET A FREE 3 ZONE BUS PASS FROM TRI-MET OR THE EQUIVALENT VALUE TOWARDS THE PURCHASE OF A BIKE AND BIKE RELATED ACCESSORIES OR ELECTRIC BIKE.*
- *[I would consider CHOICES if] I COULD NOT HAVE SOLD IT FOR MORE THAN I FELT THE VALUE OF THE INCENTIVES WERE.*
- *I HAVE MONEY BACK, NO LESS THAN \$1000.*
- *NO, I WOULD DONATE IT FIRST.*
- *THE CASH OR DISCOUNT INCENTIVES TOWARD A NEW CAR WERE HIGHER.*
- *THE COST OF REPAIRS WERE HIGHER THAN THE VALUE OF THE CAR IS TO ME.*
- *THE INCENTIVES WERE EQUAL TO WHAT I COULD SELL IT FOR AND WERE CONVENIENT.*
- *THE PUBLIC TRANSPORTATION INCENTIVES WERE GREAT ENOUGH.*

A series of four questions was designed to test the respondents’ potential to use the various incentives offered by CHOICES. The questions asked respondents if they could use a bicycle, if they could use mass transit, if they could use car sharing, and if they were able to buy a new car. Table 17 summarizes the responses. Note that a significant number of people said they did not understand car sharing.

Table 17. Nonparticipant Potential to Use Incentives

Incentive	Yes, Sometimes	Could, but Don’t	No, or Never	Other
Cycling	29%	28%	39%	4% don’t know
Transit	59%	21%	18%	2% don’t know
Car Sharing	2%	44%	42%	12% don’t understand car sharing
Purchase Car	48%		39%	13% don’t know

n=87 for cycling and purchase, n=86 for transit and car sharing

The respondents were then asked directly to rate their interest in each of the options offered by CHOICES. There were a significant number of respondents that did not provide any response to some of the options, thus no response was assigned as no interest. Table 18 summarizes the results. The bicycle discounts and the discounted Tri-Met passes garnered the most interest, while CarSharing Portland membership, car discounts from Tonkin, and electric bike discounts were of the least interest to respondents.

Table 18. Interest in CHOICES Incentives

CHOICES Incentive	Percent Interest
Bicycle discount from the Bike Gallery	55%
Electric scooter or bike discount from Ron Tonkin	31%
Car sharing membership with CarSharing Portland	27%
Three-months of half-price transit passes from Tri-Met	50%
\$400 discount on new or late-model car from Ron Tonkin	30%

n=88

Few of the respondents, only 22%, knew that it was possible to combine some of the incentives – for example, to get both a bicycle discount and a membership in CarSharing Portland.

At the end of the survey respondents were also asked if they would like to provide additional comments about CHOICES. Of the 43% that provided comments, the majority (45%) were positive and supportive of the program. The remainder of comments provided by respondents were either neutral, provided suggestions, or showed some confusion about the program. Selected comments are provided verbatim below, and the entire survey results are detailed in Appendix A.

- *ALTHOUGH I AM NOT PLANNING TO GET RID OF MY CAR, HEARING ABOUT THE CHOICES OPTIONS HELPS ME THINK OF ALTERNATIVES. I PLAN TO BIKE TO WORK THIS SUMMER.*
- *AN EFFORT SHOULD BE MADE TO ASSIST LOW-INCOME PEOPLE WHOSE AUTOS FAIL THE EMISSIONS PROGRAMS - PERHAPS EVEN A WAIVER OF THE FAILURE IF IT IS NOT A GREAT POLLUTER AS VEHICLES ARE EXPENSIVE TO REPAIR TO TODAY'S COMPLICATED TECHNOLOGY.*

- I COMMUTE TO WORK ON BUS AND ONLY USE CAR FOR ERRANDS. IT WOULD BE NICE TO HAVE [an] INCENTIVES TO USE [the] BUS WITHOUT SCRAPPING A CAR.
- I CONSIDER MYSELF EARTH-FRIENDLY AND DON'T LIKE DRIVING A SMOGGIER OLDER CAR BUT I'M FRUGAL AND DRIVE VERY FEW MILES PER YEAR AND WANT TO "USE IT UP." THANKS FOR THIS PROGRAM. WHEN I "HAVE TO" RETIRE MY CAR, I'LL PARTAKE IF I PASS.
- I HAVE NO NEED FOR THIS PROGRAM NOW. I WAS JUST INTERESTED IN WHAT IT IS SO I CAN RECOMMEND IT TO SOMEONE WHO NEEDS IT. THANK YOU!
- I LIKE THE IDEA - BUT WOULD LIKE THE CASH TO USE ANY WAY I'D LIKE TO BUY A REPLACEMENT CAR.
- I THINK CHOICES IS A GOOD IDEA. I AM CONCERNED ABOUT THE EFFECTS MY CAR MAY HAVE ON THE ENVIRONMENT. I WISH THE BIKE GALLERY COULD OFFER A ROAD BIKE DISCOUNT [as] I ALREADY HAVE A TREK 800 MT. BIKE.
- I THINK CHOICES IS A NICE PROGRAM, BUT I ALSO THINK [there] SHOULD BE AN INCENTIVE FOR PEOPLE WHO PASS. FOR INSTANCE, THE TRI-MET DISCOUNT IS A GREAT WAY TO ENCOURAGE LESS DRIVERS ON THE ROAD. A LARGER DISCOUNT SHOULD BE OFFERED TO THOSE WHO DON'T PASS THE TEST.
- I THINK CHOICES SHOULD BE PUBLICIZED MORE OPENLY NOT JUST WHEN YOU GET YOUR CAR TESTED.
- I THINK IT'S GREAT THAT DEQ IS MAKING THE EFFORT TO PROVIDE INCENTIVES TO KEEP THE AIR CLEANER! UNFORTUNATELY THE PROGRAM WILL NOT WORK FOR ME AT THIS TIME.
- I WAS EXCITED ABOUT THE PROGRAM WHEN I READ THE BROCHURE. I ENDED UP SELLING THE BEAST AND BUYING SOMETHING EASIER ON THE ENVIRONMENT AND MORE ECONOMICAL. THANKS FOR THE OPTIONS.
- IF AND WHEN I SCRAP A DEQ FAILURE OF A CAR I WOULD BE INTERESTED IN THE RON TONKIN ELECTRIC BIKE INCENTIVE.
- PLEASE USE MORE RECYCLED PAPER IN YOUR MAILINGS. THE QUALITY AND COLOR OF PAPER IS TREATED LIKE BREAD USED TO BE IT DOES NOT HAVE TO BE WHITE OR BLEACHED BEYOND RECOGNIZING.
- THANKS FOR HAVING THE PROGRAM - MAYBE I'LL USE IT IN THE FUTURE.
- THE INCENTIVES ARE TOO LOW - IT MAKES MORE SENSE FOR ME TO CONTINUE TO DRIVE MY CAR AS IS - UNTIL I CAN AFFORD TO FIX IT OR IT JUST DIES. THANK YOU FOR YOUR INTEREST.
- THIS IS AN EXCELLENT PROGRAM. IF MY CAR DIDN'T PASS I WOULD DO IT.
- YOU'RE ON THE RIGHT TRACK.

Reasons for Nonparticipation

The reasons for nonparticipation by those requesting information on CHOICES may be summarized into categories of marketing, message, and value.

The focus of the majority of the distribution of CHOICES marketing materials was at the Northeast DEQ Inspection Station. This was clearly reflected in the survey results. The intention was to reach those people whose vehicles may have just failed inspection, and this was also reflected in the results. Still, this marketing may not have reached enough people to find those that would potentially participate. It also would not have reached owners of vehicles with trip permits, a significant potential market for vehicle retirement. The suggestion of a broader marketing reach through electronic and print media was

mentioned in comments by several of the nonparticipants. Less significant was that the CHOICES materials did not have a clear environmental message, which was an element of interest to a number of nonparticipants.

Economic necessity was not likely a barrier to participation. In fact, those that may not have a need for the incentives and can maintain their vehicles may be more likely to be willing to give up the value in a problem vehicle. Even so, many nonparticipants said that they would have participated if there was a cash incentive or a larger incentive for them to obtain a replacement for their vehicle or if the incentive was greater than repair costs.

Few respondents looked for improvements to the alternative transportation incentives. The bicycle and transit pass discounts were perceived to be of the most interest, and the offering of car sharing membership and the electric scooter/bike option appeared to be confusing to some. Combining incentives could have increased perceived value, but few respondents understood that it was possible. It appears that cash would be more valuable compensation to many participants than discounts on transportation alternatives.

Participant Survey Results

The more important results of the participant survey are summarized below and are described in complete detail in Appendix B. Some comparisons are made in the discussions below, but note that this is a small population and it is not always possible to draw conclusions about the behavior or intentions of participants for a larger scale program or to reasonably compare them to the nonparticipants.

Participants heard about CHOICES from a variety of sources, with the most significant being TV and radio. One heard about it from a friend, while others heard about CHOICES from the DEQ inspection station, or through flyers distributed by CarSharing Portland. There is a marked difference in the information source for participants and nonparticipants, as shown in Table 19.

Table 19. Nonparticipant vs. Participant Information Source

Information Source	Nonparticipant	Participant
DEQ vehicle inspection station	66%	17%
TV, radio, or newspaper	11%	50%
Repair shop	2%	0%
Friend, neighbor, or co-worker	11%	17%
Other	4%	17%

If they had not participated in CHOICES, participants would most likely have junked their vehicle. Responses are shown in Table 20 along with those of nonparticipants.

Table 20. Nonparticipant vs. Participant Failure Options

	Nonparticipant	Participant
Repair and retest	42%	0%
Sell the car	14%	17%
Donate the car to charity	15%	17%
Drive the car with a trip permit	8%	17%
Other	28%	50%

“Other” responses for nonparticipants included many responses to repair the car and for participants, two of the six said that they would junk the car, and one said that they would have kept it and used a trip permit.

Although nonparticipants were not clear on the requirement for scrapping a vehicle, all participants did understand that they would need to scrap their car to receive the incentives. Table 21 compares participants to nonparticipants for this question.

Table 21. Understand Need to Scrap Vehicle

	Nonparticipant	Participant
Yes	24%	100%
No	76%	0%

n=6 participants, n=86 nonparticipants

An open-ended question asked what motivated the participants to scrap their car through CHOICES. Select verbatim comments include:

- *BECAUSE I THOUGHT I WAS GOING TO GET A BETTER CAR.*
- *I HAVE A BROTHER-IN-LAW THAT WORKS AT TONKIN. WITH HIS INSIGHT AND THE COUPON, IT SHOULD GIVE ME A GOOD VALUE. BESIDES, MY WIFE HATED THE CAR.*
- *TO RID MYSELF OF THE HUMILIATION OF BEING A POLLUTER. I [even] GOT A TICKET FOR EXCESSIVE POLLUTION (SMOKE) FROM THE PORTLAND POLICE.*
- *I THOUGHT SOME OF THE DISCOUNT BUS PASSES AND OTHER THINGS WERE A GOOD IDEA. MY REAL NEED IS TO FIX UP THE HOUSE, AND I THOUGHT THAT SOME OF THE INCENTIVES WERE FOR MONEY OR COULD BE CASHED IN.*
- *IT WASN'T WORTH REPAIRING. I COULD GET SOME OTHER THINGS IN RETURN. THE CAR WAS LIKE A CURSE, I WOULDN'T GIVE IT TO ANYONE ELSE.*
- *I AM ENVIRONMENTALLY CONCIOUS. HATED THE IDEA OF SEEING MY VEHICLE REPAIRED AND STILL ON THE ROAD.*

The vehicles that were scrapped by participants were older on average than those reported by nonparticipants and had higher mileage. The oldest vehicle was from 1981 and the newest from 1988, with an average model year of 1984 (nonparticipant vehicle average vintage was 1988). The mileage on the participant vehicles ranged from a minimum of 120,000 miles to a maximum of 195,000 miles, with an average of 164,000 miles (nonparticipant vehicle average was 122,000 miles). Participants self-reported an average vehicle value of \$450, compared to \$3,760 for nonparticipants. The vehicles needed a self-reported average of \$1,200 of repairs to make them pass the emissions test.

Participant incentive activities are summarized in Table 22. They were asked what incentives they chose, if they were already using them (and redeemed appropriate coupons), and what incentives other than those selected might be of interest.

To determine persistence of incentive use, a short follow-up survey by telephone (and email) contacted four of the six participants (although all agreed to be recontacted, not all could be reached). In each case the incentives that were already being used were still in use, and those incentives unused remained so.

Table 22. Participant Incentive Activity

Incentive	Chosen	Using & Redeemed	Also Interested
Bicycle discount from the Bike Gallery	2	2	1
Electric scooter or bike discount from Tonkin	1		
Membership with CarSharing Portland	1	1	
Three-months of half-price transit passes	2		3
\$400 discount on car from Ron Tonkin	3	1	

n=6

Table 23 compares the understanding of nonparticipants and participants regarding the possibility of combined incentives. Although they had a better understanding of this program offering, participants still were not fully aware that more than one incentive could have been part of their package.

Table 23. Understanding of Combining Incentives

Combine?	Nonparticipant	Participant
Yes	22%	50%
No	78%	50%

n=6 participants, n=86 nonparticipants

Similar to the nonparticipant survey, a series of four questions was designed to test the potential for program participants to use the various incentives offered by CHOICES. The questions asked the respondent if they could use a bicycle, if they could use mass transit, if they could use car sharing, and if they could buy a new car. Table 24 summarizes the responses. Note that a significant number of participants said that they did not understand car sharing. The responses from the nonparticipant survey are shown in parenthesis after each value for participants. In general, participants appear to be more amenable to transportation alternatives than nonparticipants.

Table 24. Participant Potential to Use Incentives

Incentive	Yes, Sometimes	Could, but Don't	No, or Never	Other
Cycling	50% (29%)	17% (28%)	33% (39%)	0% (4%) don't know
Transit	0% (59%)	100% (21%)	0% (18%)	0% (2%) don't know
Car Sharing	17% (2%)	0% (44%)	17% (42%)	67% (12%) don't understand car sharing
Purchase Car	67% (48%)		33% (39%)	0% (13%) don't know

Participant n=6, nonparticipants n=87 for cycling and purchase, n=86 for transit and car sharing, nonparticipant results are shown as (xx%).

Participants were asked if there were any other comments they would like to make about CHOICES, including suggestions for improvements, other ideas for incentives, or any problems they experienced. Selected verbatim responses include:

- *...I SCRAPPED MY CAR, BUT DIDN'T WANT SOMETHING THAT WAS MORE TROUBLE...*
- *CHOICES IS IN COMPETITION WITH THE DONATION PROCESS. CHOICES SHOULD HAVE MORE MONEY INCENTIVES (FOR A CAR), PERHAPS \$500 OR \$600 TO PUT ONE AHEAD OF A TYPICAL TAX DONATION VALUE. ALSO, IT SHOULD BE SO YOU COULD RETIRE MORE THAN ONE VEHICLE PER YEAR...*
- *...IT WOULD HAVE BEEN NICE IF THE COUPONS WOULD HAVE BEEN GOOD FOR DISCOUNTS ON ANYTHING.*
- *IT JUST SEEMED LIKE NO ONE KNEW ABOUT IT...IN DECEMBER ONLY ONE PERSON AT DEQ KNEW ABOUT CHOICES. I HAD TO TELL THEM ABOUT IT...*
- *NO PROBLEMS, VERY HAPPY WITH PROGRAM. MY FRIEND IS READY TO SCRAP A CAR.*

The short follow-up survey by telephone (and email) contacted four of the six participants (although all agreed to be recontacted, not all could be reached). In each case the incentives that were already being used were still in use, and unused incentives remained unused.

Perceived Value and Persistence of Incentive Choice

A sample of six participants is not large enough to draw conclusions about perceived value. Since several said that they would have junked their cars without the program, getting anything in return was clearly valuable to these individuals. Still, of the total of eight incentives provided to the six participants surveyed, three have yet to be redeemed. This suggests that the incentives may not have significant value to participants.

Similarly to perceived value, the sample of six participants is not large enough to draw a conclusion about persistence of incentive choice. However, all the participants are still using any incentives that they have redeemed, and only one of the participants seems to have any dissatisfaction with the incentive.

Repair Shop Survey Results

A summary of the responses to selected questions is shown below and a complete response summary can be found in Appendix C.

Nine of the respondents described themselves as owners or owner/managers, and four of them used the title of manager or service manager. Most of the repair shops had three repair technicians (31%), and shops with two or four technicians were represented with 23% of the respondents each. The shops serviced up to 425 vehicles per month, with a

minimum number of 50 and an overall average of 200 vehicles in a typical month. There is a 67% correlation between the number of vehicles serviced and the number of repair technicians. On average, 24% of the repair work of these shops was related to correcting emissions problems in vehicles, with one shop doing more than half of their work in emissions (65%).

The respondents were asked to describe a typical range of repair costs for vehicles with emissions problems. The range was very large, with minimum values of \$0 to \$300, and maximum values of \$350 to \$2,000. The highest value includes the expensive emissions-related parts for luxury cars.

The shop managers/owners had not been asked to track interest in CHOICES, but they were asked about the number of customers they thought had taken a form to find out more about the program. In general, they said there was very little interest, with perhaps an average of two customers taking information at each shop. The manager/owners were also asked to give their opinion about the incentives offered by the CHOICES program in terms of potential interest to their customers. If the “Interesting” and “Somewhat Interesting” categories are summed together, the incentives of interest in descending order are transit passes, car dealer discount, and car sharing membership. Table 25 shows the complete results.

Table 25. Repair Shop Perceived Interest in Incentives

Incentive	Interesting	Somewhat interesting	Not interesting	Don't know
Bicycle discount from the Bike Gallery	0	3	8	2
Electric scooter or bike discount from Ron Tonkin	0	2	8	3
Car sharing membership with CarSharing Portland	0	5	6	2
Three-months of half-price transit passes from Tri-Met	3	5	3	2
\$400 discount on new or late-model car from Ron Tonkin	4	3	4	2

n=13

When asked if they thought there was a need for a vehicle scrap program in the Portland area, the majority of shop managers/owners said yes (77%). Some of their verbatim comments are included below.

- *MOST OF THE VEHICLES WE WORK ON WE CAN GET TO PASS DEQ. IT'S UNUSUAL TO HAVE THOSE FEW CARS THAT ARE SO OLD AND EXPENSIVE TO REPAIR THAT THE OWNER GIVES UP ON THEM.*
- *PREFER THE DONATION ALTERNATIVES.*
- *SOME KIND OF POLICING IS NECESSARY. THERE IS A DEMAND FOR KEEPING VEHICLES [either] MAINTAINED OR OFF THE ROAD.*
- *I TURN AWAY ABOUT 10-15% OF PEOPLE AFTER DOING A QUICK CHECK BECAUSE THEIR VEHICLE IS NOT WORTH PUTTING MONEY INTO. AN O2 SENSOR AND CATALYTIC CONVERTER COST SOMETHING LIKE \$300.*

- *IN THEORY, IT'S A GREAT IDEA. BUT OURS IS A SHOP WHOSE CLIENTELE MAINTAIN THEIR VEHICLES WELL.*
- *NEED TO DEFINITELY HAVE IT. IF THE CAR IS NO GOOD, NEED TO HAVE AN INCENTIVE TO GET THE CAR OFF THE ROAD.*
- *LOTS OF CUSTOMERS WITH CARS THAT DO NOT PASS AND CAN'T AFFORD TO MAKE THEM PASS BUT STILL NEED VEHICLES..*
- *TO A DEGREE, VEHICLE SCRAPPING [for emissions] IS HAPPENING ANYWAY. BUT I DON'T THINK IT'S A PLACE FOR THE GOVERNMENT TO BE INVOLVED. IF THEY WOULD ENFORCE LICENSING REQUIREMENTS, THE PROBLEM WOULD BE FIXED [no recurring trip permits].*

The shop manager/owners were asked what major reasons they thought kept people from scrapping their car through CHOICES. Most often they said that none of the alternatives were convenient (27%) and that their customers would prefer to donate their cars to charity (21%). The respondents also felt that the incentives were too small (15%) and that cars are generally worth too much to scrap (13%). There were quite a few other responses, some of them are included verbatim below.

- *HALF OF MY CUSTOMERS ARE OLDER PEOPLE THAT DRIVE OLDER CARS AND CAN'T BIKE OR USE THE BUS CONVENIENTLY.*
- *WHEN DONATING PEOPLE CAN CLAIM ANY VEHICLE VALUE UP TO \$5,000 (greater than that an appraisal is required). SO PEOPLE STRETCH THE VALUE.*
- *CARS ARE WORTH TOO MUCH TO THEIR OWNERS.*
- *LOTS HAVE PEOPLE HAVE NOT FIGURED OUT THAT THE GOVERNMENT IS CHANGING THINGS TO MAKE IT MORE EXPENSIVE TO DRIVE. I'VE SEEN MANY PEOPLE GIVE UP CARS THIS YEAR TO GO TO PUBLIC TRANSIT, SOME OF THE ELDERLY THAT NEED TO GET TO REGULAR DOCTOR APPOINTMENTS OR GROCERY SHOPPING AND TRANSIT IS VERY DIFFICULT FOR THEM.*
- *LOW INCOME PEOPLE CAN'T AFFORD THE MAINTENANCE OF NEWER CARS..*
- *PEOPLE NEED TO HAVE A CAR AND IT IS CHEAPER TO BUY A TRIP PERMIT.*
- *SOME PEOPLE SHOULDN'T BE DRIVING BECAUSE THEY CAN'T MAINTAIN THEIR VEHICLE IN OTHER WAYS, A \$900 BRAKE JOB FOR EXAMPLE.*
- *TAX BENEFITS OF DONATION OF NO USE TO LOW INCOME PEOPLE. MOST OF THESE PEOPLE, THEIR FINANCES ARE IN VERY BAD SHAPE. THEY JUST DON'T HAVE THE MONEY, LOTS OF OLDER AND FIXED INCOME PEOPLE.*
- *WE'VE BEEN ABLE TO REPAIR MOST VEHICLES FOR EMISSIONS.*

The respondents were asked three additional open-ended questions, two about potential incentives and the last for general thoughts about CHOICES. The first asked for alternatives to cash and the second asked for suggestions for the amount of direct cash payment. Select verbatim results are shown below.

Select comments on other incentives:

- *BOOSTING PEOPLE'S EDUCATION IS MORE IMPORTANT THAN ANY PROGRAM. FURNISH PEOPLE WITH REASONS TO WORK WITH DEQ TO CLEAN OUR WORLD.*
- *AN EMISSIONS WAIVER WOULD APPEAL TO MANY - IF REPAIR COSTS <\$500 THEN THEY COULD HAVE A YEAR TO BUY A NEW CAR.*
- *LOCAL CAR DEALERS WITH INCENTIVE PROGRAM TO PROVIDE TRADE-IN VALUE AS IF CAR WOULD PASS DEQ TESTS.*
- *THE GOVERNMENT CAN CONTRIBUTE TO CAR REPAIRS.*

- *IN SOME OTHER STATES, IF YOU DO REPAIRS OVER \$500 OR SO BUT STILL DON'T PASS DEQ, YOU TAKE THE VEHICLE TO A REFEREE STATION THAT CONFIRMS THE WORK AND GIVES YOU TAGS ANYWAY. NOT SURE THAT THAT'S THE BEST OPTION, AS POLLUTING VEHICLES SHOULD BE OFF THE ROAD. ALSO POLICE SHOULD TICKET CARS WITH OBVIOUS EMISSIONS.*
- *OFFER LOW OR NO INTEREST LOAN FOR CATALYTIC CONVERTER OR OTHER PARTS.*

Select comments on direct cash payment:

- *EVERY CAR IS WORTH SOMETHING DIFFERENT. PERHAPS SOME PORTION OF THE CARS BLUE BOOK VALUE IF IT WAS DRIVEABLE OR PASSED DEQ.*
- *A FORMULA WOULD BE NEEDED FOR EACH VEHICLE.*
- *MOST PEOPLE TRY TO FIND A WAY AROUND DEQ TESTING BY REGISTERING A CAR OUT OF THE AREA OR TRIP PERMITS. PEOPLE WHO CAN'T AFFORD REPAIRS CAN'T BUY A CAR. IT WOULD BE BETTER TO HELP THEM WITH REPAIRS INSTEAD.*
- *\$1000-\$1500.*
- *I SUPPORT THE IDEA, BUT DON'T KNOW THE AMOUNT.*
- *PREFER TO HELP THEM REPAIR CAR RATHER THAN SCRAP.*
- *LOOK AT OTHER STATES, IN CALIFORNIA IT IS \$1000 NOW.*

Select additional comments about CHOICES:

- *IT'S A GOOD PROGRAM, JUST NEEDS TO BE REFINED. BUT I'VE SHOWN THE POSTER TO 50 CUSTOMERS, AND 45 HAVE LAUGHED AT IT.*
- *I DON'T KNOW WHO PUT THIS TOGETHER, BUT I DON'T THINK IT WAS THOUGHT OUT REAL WELL.*
- *THE BIKE INCENTIVE GOT A GOOD LAUGH. CAN'T IMAGINE ANYONE WOULD DO THAT.*
- *NOT SUPPORTIVE OF FULL CHARITY, BUT OF SHARING COSTS FOR EMISSIONS REPAIRS. PAY THE SHOP DIRECTLY AND HAVE THEM INVOLVED. MAJOR WORK IS OFTEN THROTTLE BODY AND INJECTOR CLEANING, INJECTOR, CATALYTIC CONVERTER AND O2 SENSOR REPLACEMENT.*
- *THIS IS A GOOD MOVE IN THE GENERAL DIRECTION OF CLEANER AIR. BUT WHILE DEQ IS CHECKING EMISSIONS, THE SHOULD ALSO CHECK VEHICLE SAFETY IN GENERAL. MOST CUSTOMERS CONSIDER CHOICES A LAUGHABLE JOKE TO SUGGEST THAT THEY SCRAP THEIR CAR FOR ALTERNATIVES.*
- *ALL OF MY CUSTOMERS DIDN'T THINK IT WAS A VERY GOOD PROGRAM. THEY CAN DONATE THEIR CAR AND GET A BETTER BENEFIT.*

Position and Recommendations of Repair Shops

Few of the repair shop respondents had positive comments about CHOICES and some of them regarded it somewhat derisively (three used the word 'laugh' in their descriptions). Still, they were unanimous in that they would promote a vehicle scrap program in the future. Many had well thought-out suggestions that could lead to improvements in this or other DEQ programs. Suggestions from the repair shops included:

- Some had a preference for vehicle donation alternatives (however, this may not keep vehicles with emissions problems off the road).

- ❑ Improvement in administering of trip permits, for police enforcement of gross emitters, and for programs for citizen informants on gross emitters.
- ❑ They suggested owner education in proper vehicle maintenance and education regarding proper vehicle preparation for emissions testing.
- ❑ A number of respondents suggested programs to assist those with low income in maintaining their cars. The ideas included a time-limited emissions waiver, a program for car dealers to provide full trade-in value as if the car would pass DEQ tests, that DEQ could contribute to car repairs, and low or no interest loan for expensive emissions parts.
- ❑ Along with emissions general vehicle safety should be enforced.

The repair shop owner/managers felt that the incentives of greatest interest to their customers were transit passes and the car dealer discount. In general they did not regard the bicycling incentives as viable transportation for their customers (but recall that participants and nonparticipants had interest in the bicycle incentive).

The repair shops were sincere in their interests in both serving their customers and in cleaner air, had an excellent understanding of the issues, both technical and social, and seemed willing to work on potential solutions. It may be advantageous to work in various ways with repair shops to design future air quality programs. They could be valuable allies in marketing programs or in offering services.

CONCLUSIONS AND RECOMMENDATIONS

Discussion of Key Findings and Conclusions

By scrapping vehicles that failed emissions inspection, the CHOICES program reduced air emissions of hydrocarbons, oxides of nitrogen, carbon monoxide, and carbon dioxide by an estimated 15,000 pounds annually.

The market segment that responded most favorably to this alternative transportation vehicle retirement program were people with transportation flexibility and environmental leanings. Those interested in the CHOICES program and participants in the program are on average better educated, have higher incomes, and are somewhat older. It would appear that most have the financial wherewithal to properly maintain or to replace a non-compliant vehicle. For these people there are no economic barriers to bicycling, transit use, or car sharing. This would suggest that a somewhat different message in the marketing materials, directed at this group, might be more successful in recruiting participants.

Promotion of the program through brochures distributed to all customers at the Northeast DEQ vehicle inspection station, while picked up by two-thirds of the nonparticipants, did not substantially influence or attract potential participants. Promotion through television, radio, or newspapers was more effective and was the primary source of information for one-half of participants. Word of mouth was also important in reaching participants.

The best time to reach a person with a message about vehicle retirement is close to a point of decision – when their vehicle fails the emissions test, or when they are told about repair costs. This evaluator believes that those driving vehicles with trip permits may be a good target for information about vehicle retirement programs. (Unfortunately for the CHOICES program, trip permit holders could not be reached through DMV offices due to DMV rules.) Trip permit holders may also be a different market segment than those who responded most favorably to the program in terms of age, income, and education.

Compared to the pool of nonparticipant vehicles, vehicles that were scrapped seemed to be at the end of their economic life. The scrapped vehicles had an average self-reported vehicle value of \$450 or about 12% of the self-reported value of nonparticipant vehicles. Average cost for emissions repairs for scrapped vehicles were about three times the vehicle value.

Not all transportation alternatives were of interest or of use to the respondents. Bicycle and transit pass discounts were of the most interest. The level of incentives offered, both in terms of value and type, were considered insufficient to motivate more than half of nonparticipants to scrap their vehicles. There was significant interest in direct cash incentives or more broadly redeemable coupons in lieu of the incentives offered in the pilot.

One point of confusion for both participants and nonparticipants was the possibility of combining incentives. Most were not aware that more than one incentive could have been part of a total incentive package.

Detailed Recommendations

The CHOICES program may benefit from focusing on the incentives that were most appealing to those surveyed. This would be bicycle discounts, transit pass discounts, and new (or late model) vehicle discounts. The incentives should be more flexible where possible, so that they could use them for different bicycles, or at different dealerships. If incentive combination remains an element of the program, potential for combining incentives should be made clear. This might be done in terms of “Pick any two of these four great deals...” or “Choose any of these up to a value of \$xxx...”

General misunderstanding of car sharing is an impediment to choosing this option. Instead of promoting a car sharing for vehicle retirement through DEQ, it might be more successful to allow CarSharing Portland to offer this as a value-added service for new customers. This would allow those who already have some sense of car sharing to respond to an offer of vehicle retirement in exchange for a one-year free membership.

There was significant interest in cash incentives. This would be more in line with vehicle early retirement programs offered in other states. There was also some interest in vehicle donation, but for donated vehicles it would be important to be certain that the vehicles are either scrapped or completely restored for safety and emissions. In order to retain the alternative transportation elements in the CHOICES offering it might work to make the incentives look somewhat better to most people than cash incentives or value for another vehicle. For example, the program might offer \$200 cash, but also a new \$300 bicycle, or otherwise an alternative of greater value.

Programs implemented in conjunction with repair shops to assist low-income individuals maintain their cars, such as cost sharing or low or no interest loans, might be an approach for vehicle repair in lieu of scrapping. Repair shops could be valuable allies in marketing programs or in offering services, and would be useful contributors to a focus group to develop any emissions or maintenance program.

The prevention of recurring trip permits would likely be one of greatest incentives to vehicle repair or scrapping. Currently vehicle owners can obtain trip permits indefinitely through the Department of Motor Vehicles (DMV) and circumvent state requirements for vehicle inspection, emissions repair and registration. The DMV has pending revisions to the trip permit program in the 2001 Oregon State Legislature that would curtail the abuses inherent in the program. As of the date of this report the bill has passed in both the House and Senate and is presently awaiting the Governor's signature. Additionally, the ability to promote a vehicle scrap program at DMV offices or to target a mailing to those holding trip permits could be a successful marketing approach.

A somewhat different message in the marketing materials directed at those that may not need the incentives but would find them attractive for social or environmental reasons may be more successful in recruiting participants. It may also be more effective to promote the program through television, radio, newspapers or direct mail (if addresses of targets can be identified) than through brochures.

All programs, especially pilots, have difficulties in maintaining consistent program records. Design of program administration with the end in mind, what records will be necessary and/or desirable in one month, one year, or five years, would be a worthwhile investment.

APPENDIX A

Nonparticipant Survey Instrument and Detailed Results

The nonparticipant mail survey was prepared in a portrait booklet form (8.5 inches by 5.5 inches) of eight pages (two letter sheets) printed double-sided. The majority of the surveys were printed on color stock (green) with the remainder printed on white paper.

The front of the survey included graphics, the survey title, and a discussion of the participation incentive. The back of the survey had space for entering the drawing for the participation incentive, and an area for additional comments about CHOICES. There were 29 questions, with two of the questions having multiple parts. The majority of the questions were closed-ended using check boxes, and a number also had a blank space to fill in for “Other” responses.

The survey questions and check box responses are included below along with the overall percent response to each question and verbatim responses for the “Other” responses and the open-ended questions.

1. Where did you hear about **CHOICES**?
61 (66%) At a DEQ vehicle inspection station (or Clean Air Station).
10 (11%) I heard about it through television, radio, or newspaper.
2 (2%) From a repair shop.
10 (11%) From a friend, neighbor, or co-worker.
4 (4%) Don't remember.
4 (4%) Other _____ (Please specify.)
1 (1%) No response marked.

Total responses – 92

Other responses:

- DMV
- EMAIL
- PAPERS AT DEALERSHIP WHERE I WORK.

2. Why did you request information about the **CHOICES** program?
30 (22%) My car recently failed the DEQ emissions test.
8 (6%) I'm tired of paying for car emissions repairs.
14 (10%) My car currently needs other major repairs.
45 (32%) I'm interested in the incentives.
12 (9%) I'm currently driving with a trip permit.
29 (21%) Other _____ (Please specify.)
1 (1%) No response marked.

Total responses – 139

Other responses (comments are verbatim):

- *SOLD OLDSMOBILE OFF.*
- *I AM ALWAYS INTERESTED IN RECYCLING AND SAVING MONEY.*
- *VEHICLE ACCIDENT DAMAGED CAR.*
- *I WAS SURE IT WOULD NOT PASS EMISSIONS TEST.*
- *CURIOUS TO KNOW WHAT IT WAS ABOUT.*
- *ENVIRONMENTAL CONCERN.*
- *FAMILY MEMBERS COULD USE THE BUSES.*
- *I APPRECIATE NON-CAR ALTERNATIVES.*
- *I CARE ABOUT THE ENVIRONMENT.*
- *INTERESTED IN LESS POLLUTION.*
- *INTERESTED IN OTHER OPTIONS.*
- *PARTNER WORKS FOR COMMUNITY NON-PROFIT. THOUGHT HIS STUDENTS MIGHT BE INTERESTED.*
- *WANT TO GET RID OF CAR AND USE ALTERNATIVES.*
- *CURIOSITY.*
- *DON'T KNOW.*
- *GENERAL INTEREST.*
- *GENERAL INTEREST.*
- *I DON'T KNOW.*
- *I TRY TO BE ENVIRONMENTALLY FRIENDLY & MY CAR IS OLD - MAY PURCHASE NEW ONE NEXT YEAR.*
- *I WOULD LIKE TO CUT AIR POLLUTION - FIND BETTER COMMUTE ALTERNATIVE.*
- *INFORMATION ON RECYCLING.*
- *INTERESTED IN ENVIRONMENTAL QUALITY.*
- *JUST TO KNOW.*
- *MAY APPLY TO SON'S CAR.*
- *PASSED DEQ TEST BUT DON'T LIKE CARS.*
- *THESE DO NOT APPLY.*
- *TO KNOW WHAT IS GOING ON - I AM ALSO AN OLD CAR PERSON.*
- *WANT TO BE FAMILIAR TO LET OTHERS KNOW.*
- *WANTED TO BE INFORMED.*

“Curiosity” can be attributed to 9 of these 29 responses.

“Environment” can be attributed to 11 of these 29 responses.

3. If your car did not pass the DEQ emissions test, what have you done about it, or might you do about it?

30 (27%) Have the car repaired and retested.

10 (9%) Sell the car.

8 (7%) Scrap the car through CHOICES.

11 (10%) Donate the car to charity.

6 (5%) Drive the car with a trip permit.

8 (7%) Don't know.

14 (13%) Vehicle Passed.

20 (18%) Other _____ (Please specify.)

17 (15%) No response marked.

Total responses – 110

Other responses (comments are verbatim):

- MOVE.
- IT COULD QUIT ANYTIME.
- FIND OUT WHY THIS VTELL IS STAINING OUT.
- HAD REPAIR SHOP LOOK AT CAR - IT WAS WORTH FIXING.
- HAVE THE CAR REPAIRED, THEN IN FUTURE SCRAP IT OR DONATE.
- IT WAS A COMPANY CAR. MY COMPANY FIXED IT AND IT PASSED.

4. When you first heard about **CHOICES**, did you know that you would need to scrap your car to get the discounts?

21 (24%)Yes

65 (74%)No

2 (2%) No response marked.

5. Tell us about your vehicle and the emissions test:

57 (65%)My vehicle passed the emissions test.

27 (31%)My vehicle did not pass the emissions test.

2 (2%) My vehicle is exempt from the emissions test.

2 (2%) No response marked.

Total responses – 88

6. What is the year, make, and model of this vehicle?

Oldest – 1970

Newest – 2000

Average – 1988

TOYOTA 16, FORD 14, CHEVY 5, JEEP 4, VOLVO 4, HONDA 4, BUICK 4,

DODGE 4, PLYMOUTH 4, OTHERS (3 or less) 27

(model not summarized)

2 No response marked.

7. About how many miles are on this vehicle?

Minimum – 10,000

Maximum – 280,000

Average – 122,000

8 Don't know.

1 No response marked.

8. Is this car your primary vehicle (drive more frequently) or a secondary vehicle (drive less frequently)?

40 (45%)Primary.

28 (32%)Secondary.

20 (23%)I have only one vehicle.

0 No response marked.

Total responses – 88

9. This vehicle that you could consider scrapping is now used for what kind of trips?
35 (21%) For a work commute.
13 (8%) For deliveries and errands at work.
45 (27%) For my own shopping or errands.
30 (18%) For my own pleasure or entertainment.
37 (22%) I'm not considering scrapping my vehicle.
7 (4%) No response marked.

Total responses – 167

10. What value do you think this vehicle has in a private sale in its existing condition?
Minimum – \$0
Maximum – \$30,000
Average – \$3,760
18 Don't know
2 No response marked.
11. About how much have you spent on repairs to this vehicle in the past year?
Minimum – \$0 (11 responses)
Maximum – \$2,000
Average – \$490
15 Don't know
1 No response marked.
12. About how much do you think repairs would cost to make this vehicle pass the emissions test?
Minimum – \$0 (3 responses) maximum \$2,000, average \$590.
17 (19%) Don't know
46 (52%) Passed the test
4 (5%) No response marked.
13. About how much do you think other repairs that this vehicle needs would cost, not including emissions repairs?
Minimum – \$0 (10 responses) maximum \$2,500, average \$875.
44 (50%) Don't know
6 (7%) No response marked.

14. What major reasons have kept you from scrapping your car as part of **CHOICES**?
- 31 (20%)The incentives were too small.
 - 38 (24%)My car is worth too much to scrap.
 - 17 (11%)None of the alternatives were convenient to me.
 - 2 (1%) My car does not take the emissions test (didn't qualify).
 - 22 (14%)My car did not fail the emissions test (didn't qualify).
 - 7 (4%) My car is not driveable (didn't qualify).
 - 14 (9%) I prefer to donate my car to a charity.
 - 8 (5%) Don't know.
 - 16 (10%)Other_____(*Please specify.*)
 - 2(1%) No response marked.

Total responses – 157

Other responses (comments are verbatim):

- *NO OPTIONS TO GET OUT TO HIKING AREAS, ETC.*
 - *CHEAP & FAST.*
 - *I LIKE IT TOO MUCH.*
 - *MY CAR IS STILL VERY FUNCTIONAL.*
 - *LIMITED PERMIT ONLY.*
 - *DID NOT WANT TO GET INTO CAR PAYMENTS AT RON TONKIN, CONSIDERED BUS OR BIKE.*
 - *WAITING TO MOVE RESIDIENCES.*
 - *SOLD CAR.*
 - *WHEN I FOUND OUT ABOUT THE CHOICES PLAN MY CAR FAILED DEQ IN MAY 2000.*
 - *ONLY 70,000 MILES EXCELLENT MECHANICAL COSMETIC DAMAGE.*
 - *DON'T NEED TO.*
 - *I FIXED THE CAR.*
 - *NEW CAR.*
 - *NOT SCRAPPING.*
 - *TOWED BEFORE I COULD USE CHOICES.*
 - *USED AS TRADE-IN.*
15. Please complete the following: Assuming my vehicle was driveable and could not pass the DEQ emission test, I would have considered scrapping my vehicle if... (Comments are verbatim.)
- *A CHARITY REFUSED IT.*
 - *ALTERNATIVE TRANSPORTATION INCENTIVES WERE HIGHER BUSS PASSES, CAR-SHARE, BETTER OFFERS, TAX BREAK PERHAPS FOR NOT DRIVING OR FOR BUYING NEW HYBRID CAR, ETC.*
 - *CAR SHARING CLOSE TO HOME.*
 - *CHOICES PROVIDED ENOUGH INCENTIVE TO GET A DIFFERENT CAR THAT WOULD PASS DEQ.*
 - *GET A RELIABLE CAR AT A GOOD PRICE.*
 - *I COULD GET A FREE 3 ZONE BUS PASS FROM TRI-MET OR THE EQUIVALENT VALUE TOWARDS THE PURCHASE OF A BIKE AND BIKE RELATED ACCESSORIES OR ELECTRIC BIKE.*

- I COULD NOT HAVE SOLD IT FOR MORE THAN I FELT THE VALUE OF THE INCENTIVES WERE.
- I COULD NOT REPAIR IT REASONABLY COMPARED TO BUYING A NEW VEHICLE.
- I COULD RECEIVE A DISCOUNT ON A BICYCLE OF MY CHOICE RATHER THAN BE LIMITED TO A TREK 800 MOUNTAIN BIKE.
- I COULDN'T AFFORD TO BRING IT INTO COMPLIANCE.
- I COULDN'T REPAIR MY VEHICLE.
- I COULDN'T SELL IT FOR ENOUGH TO BALANCE THE 'CHOICES' BENEFITS.
- I DIDN'T HAVE TO USE A SPECIFIC DEALER - RON TONKIN WAS THE ONLY CHOICE. ALSO I HAVE MS AND A BICYCLE IS NOT AN OPTION FOR ME.
- I DIDN'T WANT IT ANYMORE.
- I DON'T KNOW.
- I GOT LOTS OF MONEY FOR IT!
- I HAD A CHEAPER, EASIER FORM OF TRANSPORTATION. I TRAVE 3 MILES TO WORK, THAT COSTS ABOUT \$0.25 EACH WAY - EVEN IF I DIDN'T PASS EMISSIONS, I WOULD HAVE IT REPAIRED. IT IS MUCH CHEAPER THAN THE BUS OR EVEN RIDING A BIKE WHEN YOU CONSIDER THE EXTRA TIME/SHOWER AT WORK INVOLVED, AND THE COST OF A BIKE.
- I HAD A SECOND ONE. THERE WAS A REASONABLE OPTION TO GET ME TO AREAS OUT OF TOWN WHEN I WANT TO.
- I HAD NO OTHER CHOICE OF IF I COULD GET CURRENT MARKET VALUE IN TRADE OR OTHERWISE.
- I HAD THE PHONE NUMBER TO THE SCRAPPER.
- I HAVE MONEY BACK, NO LESS THAN \$1000.
- I RETIRE - AND GIVE UP DRIVING.
- I WANT TO SCRAP MY CAR.
- I WAS NOT ALREADY RECEIVING A DISCOUNTED BUS PASS AS A PSU STUDENT. ALSO I AM GOING TO LIVE AND WORK IN ANOTHER COUNTRY SO WILL NOT NEED THE BENEFITS OF CHOICES.
- I WAS OTHERWISE READY TO GET A NEW CAR (FELT IT WAS BETTER FINANCIALLY AND OTHER PERSONAL DISTRACTIONS WERE LESS.)
- I WAS PAID THE PRIVATE SALE AMOUNT OF MY CAR AND WAS PROVIDED A FREE RENTAL CAR FOR A REASONABLE AMOUNT OF TIME WHILE I SEARCH FOR ANOTHER CAR TO PURCHASE (A USED CAR).
- IF CAR-SHARING DID NOT REQUIRE CREDIT CARD/CREDIT CHECK. I NEED A CAR TO DRIVE MY DAUGHTER TO SCHOOL & GET TO WORK, SO I NEEDED CAR TRANSPORT RATHER THAN BUS OR BIKE.
- IF IT COST TOO MUCH TO REPAIR.
- IF IT DIDN'T PASS EMISSIONS AND COST TOO MUCH TO REPAIR AND INCENTIVES WERE BETTER.
- IF IT LOOKED LIKE CAR SHARING WOULD WORK FOR A SAFE AND A SECOND CAR FOR SHUTTLLING KIDS PLACES.
- IF IT WAS NOT 4X4. IF INCENTIVES WERE MORE WORKABLE FOR POOR PEOPLE.
- IF IT WAS NOT DONATEABLE.
- IF IT WAS THE RIGHT FINANCIAL DECISION.
- INCENTIVES HIGHER. SAME AS CALIFORNIA.
- INSTEAD OF BEING SCRAPPED, THE CAR WAS REPAIRED AND THEN USED FOR SOME OTHER PURPOSE (COULD BE DONATED TO CHARITY ETC.) SCRAPPING CARS LIKE MINE WOULD BE A WASTE OF ITS EMBODIED ENERGY.
- IT COST TOO MUCH TO REPAIR.
- IT WAS DRIVEABLE.

- *IT WAS IN WORSE CONDITION - BODY & INTERIOR ARE GOOD - HAS NEW TIRES. IF CASH TOWARD PURCHASE OF CAR AT RON TONKIN'S WAS CASH TO ME, I WOULD SCRAP IT.*
- *IT WAS MORE CONVENIENT. I DIDN'T KNOW HOW TO GO ABOUT IT, OR WHERE TO GO.*
- *IT WAS OLD.*
- *IT WAS TOO COSTLY TO REPAIR AND IF ALTERNATIVES WERE NOT TOO INCONVENIENT.*
- *IT WAS TOO EXPENSIVE TO REPAIR.*
- *IT WAS WRECKED IN AN ACCIDENT.*
- *IT WERE A BETTER FINANCIAL GAIN THROUGH CHOICES, THEN IT WOULD BE THROUGH SELLING CAR OR REPAIRS. I JUST CAN'T LOSE MONEY I DON'T NEED TO.*
- *IT WERE WORTH LESS AND DIDN'T NEED TO REPLACE IT WITH ANOTHER MOTOR VEHICLE, WHICH I CURRENTLY NEED.*
- *IT WOULD HAVE NO VALUE TO ANYONE.*
- *MORE PUB TRANS DEALS. TRI-MET IS EXPENSIVE!*
- *MY CAR IS WORTH TOO MUCH TO SCRAP AND NONE OF THE ALTERNATIVES WERE CONVENIENT TO ME.*
- *MY CAR PASSED, I JUST WANTED TO KNOW MY ALTERNATIVES.*
- *MY CAR WAS NOT OF MUCH VALUE.*
- *MY CAR WILL PASS DEQ.*
- *NO, I WOULD DONATE IT FIRST.*
- *REPAIRS WERE TOO EXPENSIVE.*
- *THE CASH OR DISCOUNT INCENTIVES TOWARD A NEW CAR WERE HIGHER.*
- *THE COST OF REPAIR WERE GREATER THAN VALUE OF CAR.*
- *THE COST OF REPAIRS WERE HIGHER THAN THE VALUE OF THE CAR IS TO ME.*
- *THE INCENTIVES WERE EQUAL TO WHAT I COULD SELL IT FOR AND WERE CONVENIENT.*
- *THE INCENTIVES WERE HIGHER.*
- *THE PUBLIC TRANSPORTATION INCENTIVES WERE GREAT ENOUGH.*
- *THE VALUE OF THE CAR WHEN ABLE TO PASS DEQ WAS LESS THAN THE COST OF THE REPAIRS.*
- *THERE WAS A MONETARY GAIN.*
- *THERE WAS NO OTHER ALTERNATIVE TO GETTING IT FIXED, AND I HAD THE MEANS TO OTHER TRANSPORTATION.*
- *THERE WERE A BETTER PUBLIC TRANSIT. I WISH PUBLIC TRANSIT WERE FREE.*
- *THERE WERE BIGGER INCENTIVES ON A USED CAR FROM A DEALER. AS IT WAS, I NEEDED A LARGER TRUCK FOR MY EMPLOYMENT, AND I IMMEDIATELY FOUND A GOOD VEHICLE VIA A FRIEND.*
- *TOO MANY SCRAPPED CAR IN THIS WORLDS. DID WANT TO SCRAPE FOR IRON.*
- *WOULDN'T SCRAP MY VEHICLE-I MAY TRY TO SELL IT FOR PARTS OR SOMETHING IF I HAD BEEN IN THIS POSITION.*

The 66 comments above were classified into four major content groups. Eighteen wrote no response to this question.

- 14 of 66 (21%) Cash incentive or larger incentive for replacement vehicle.
- 9 of 66 (14%) Improvements in alternative transportation incentives.
- 14 of 66 (21%) Incentive was greater than repair costs.
- 3 of 66 (5%) Donation interest

16. Could you use a bicycle to get to work, for shopping, or for errands?
 25 (28%) Yes, I do sometimes now.
 24 (27%) Sometimes I could, but I don't.
 34 (39%) Never.
 4 (5%) Don't know.
 1 (1%) No response marked.
17. Could you use the bus or Max to get to work, for shopping, or for errands?
 51 (58%) Yes, I do sometimes now.
 18 (20%) Sometimes I could, but I don't.
 16 (18%) Never.
 2 (2%) Don't know.
 1 (1%) No response marked.
18. From what you know about car sharing, would it work for you? (*Check one.*)
 2 (2%) Anytime.
 38 (43%) Sometimes.
 36 (41%) Never.
 10 (11%) I don't understand what car sharing is.
 2 (2%) No response marked.
19. Could you afford to buy or finance a new or late model car?
 42 (48%) Yes
 34 (39%) No
 11 (13%) Don't know
 1 (1%) No response marked.

20. Please check the box for your interest in each of the following options offered by **CHOICES**:

	Interested	Not Interested	No Response
Bicycle discount from the Bike Gallery	43 (55%)	35 (40%)	10 (11%)
Electric scooter or bike discount from Ron Tonkin	27 (31%)	47 (53%)	14 (16%)
Car sharing membership with CarSharing Portland	24 (27%)	48 (55%)	16 (18%)
Three-months of half-price transit passes from Tri-Met	44 (50%)	33 (38%)	11 (13%)
\$400 discount on new or late-model car from Ron Tonkin	26 (30%)	44 (50%)	18 (20%)

21. Did you know that it is possible to combine some of the incentives – for example, to get both a bicycle discount and membership in car sharing?
 19 (22%) Yes
 67 (76%) No
 2 (2%) No response marked.

22. Please check the box for your age range:
- 0 Under 18 years old
 - 0 18 to 20 years old
 - 5 (6%) 21 to 24 years old
 - 21 (24%) 25 to 34 years old
 - 17 (19%) 35 to 44 years old
 - 29 (33%) 45 to 64 years old
 - 16 (18%) Over 65 years old
 - 0 No response marked.
23. Please check the box for your education level:
- 0 Grade or high school, no diploma.
 - 13 (15%) High school or GED.
 - 29 (33%) Some college, no degree.
 - 46 (52%) Four-year degree or more.
 - 0 No response marked.
24. Please check the box for the yearly income of your household before taxes:
- 9 (10%) Under \$10,000 per year.
 - 5 (6%) \$10,000 to \$15,000 per year.
 - 4 (5%) \$15,000 to \$20,000 per year.
 - 6 (7%) \$20,000 to \$25,000 per year.
 - 10 (11%) \$25,000 to \$30,000 per year.
 - 15 (17%) \$30,000 to \$40,000 per year.
 - 10 (11%) \$40,000 to \$50,000 per year.
 - 24 (27%) Over \$50,000 per year.
 - 5 (6%) No response marked.
25. What shift do you work most of the time?
- 60 (68%) Day shift (*about 8 AM to 5 PM*).
 - 3 (3%) Swing shift (*about 5 PM to Midnight*).
 - 2 (2%) Third shift (*about Midnight to 8 AM*).
 - 21 (24%) Not employed outside the home.
 - 2 (2%) No response marked.
26. Please check the box for the average number of hours you work per week:
- 52 (59%) Full-time (*40 hours per week or more*).
 - 15 (17%) Part-time (*1 to 39 hours per week*).
 - 20 (23%) Not employed outside the home.
 - 1 (1%) No response marked.

27. How many people live in your household?
 13 (15%) 1 person.
 39 (44%) 2 people.
 16 (18%) 3 people.
 16 (18%) 4 people.
 4 (5%) 5 people or more.
 0 No response marked.
28. How many cars, trucks or vans are there in your household?
 24 (27%) 1 vehicle.
 47 (53%) 2 vehicles.
 14 (16%) 3 vehicles.
 3 (3%) 4 or more vehicles.
 0 No response marked.
29. How many licensed drivers are there in your household?
 25 (28%) 1 drivers.
 54 (61%) 2 drivers.
 7 (8%) 3 drivers.
 2 (2%) 4 drivers.
 0 No response marked.
30. If you have any additional comments about **CHOICES**, please write them below. We'd like to hear what you think. (Comments are verbatim. Thirty-eight of 88 or 43% provided comments. Seventeen of those 38 comments (45%) were positive and supportive of the program. The remainder of the comments were neutral, provided suggestions, or were confused.)
- *ALTHOUGH I AM NOT PLANNING TO GET RID OF MY CAR, HEARING ABOUT THE CHOICES OPTIONS HELPS ME THINK OF ALTERNATIVES AND I PLAN TO BIKE TO WORK THIS SUMMER.*
 - *AN EFFORT SHOULD BE MADE TO ASSIST LOW INCOME PEOPLE WHOSES AUTOS FAIL THE EMISSIONS PROGRAMS - PERHAPS EVEN A WAIVER OF THE FAILURE IF IT IS NOT A GREAT POLLUTER AS VEHICLES ARE EXPENSIVE TO REPAIR TO TODAYS COMPLICATED TECHNOLOGY.*
 - *FIRST TIME I SAW THE INCENTIVE PROGRAM.*
 - *GOOD IDEA. I MIGHT DO IT IF THE SECOND VEHICLE RAN BUT DIDN'T PASS. BUT IT'S MY PARTNER'S ANYWAY. SHOULD SPREAD THE WORD MORE.*
 - *I COMMUTE TO WORK ON BUS AND ONLY USE CAR FOR ERRANDS. IT WOULD BE NICE TO HAVE INCENTIVES TO USE BUSES FOR THEN - W/OUT SCRAPPING CAR*
 - *I CONSIDER MYSELF EARTH-FRIENDLY AND DON'T LIKE DRIVING A SMOGGIER OLDER CAR BUT I'M FRUGAL AND DRIVE VERY FEW MILES PER YEAR AND WANT TO "USE IT UP." THANKS FOR THIS PROGRAM. WHEN I "HAVE TO" RETIRE MY CAR, I'LL PARTAKE IF I PASS.*
 - *I HAD MY BOYFRIEND PULL THE HEADS ON THE ENGINE TO SEE WHAT WAS NEEDED. IT COST TOO MUCH TO PUT IT BACK TOGETHER, AND NOW IT ISN'T ELIGIBLE. THAT'S NOT RIGHT.*
 - *I HAVE NO IDEA WHY I WAS INTERESTED IN THE CHOICES PROGRAM AS MY '88 OLDS HAS ALWAYS PASSED DEQ.*

- I HAVE NO NEED FOR THIS PROGRAM NOW. I WAS JUST INTERESTED IN WHAT IT IS SO I CAN RECOMMEND IT TO SOMEONE WHO NEEDS IT. THANK YOU!
- I HAVE SMALL CHILD,S IN MY HOME THEY NEED CARE BY A DR AT ANY TIME, THEY ARE ALWAYS SICK
- I HOPE YOU ARE ABLE TO MAINTAIN THIS PROGRAM BY INCREASING INCENTIVES. IN MY CASE, NOT HAVING A CREDIT CARD PREVENTED CAR - SHARE OPTIOINI SO I HAVE PURCHASE AN '87 VOLVO IN BETTER SHAPE.
- I LIKE THE IDEA - BUT WOULD LIKE THE CASH TO USE ANY WAY I'D LIKE TO BUY A REPLACEMENT CAR.
- I THINK CHOICES IS A GOOD IDEA. I AM CONCERNED ABOUT THE EFFECTS MY CAR MAY HAVE ON THE ENVIRONMENT. I WISH THE BIKE GALLERY COULD OFFER A ROAD BIKE DISCOUNT. I ALLREADY HAVE A TREK 800 MT. BIKE.
- I THINK CHOICES IS A NICE PROGRAM, BUT I ALSO THINK IT SHOULD BE AN INCENTIVE FOR PEOPLE WHO PASS. FOR INSTANCE, THE TRI-MET DISCOUNT IS A GREAT WAY TO ENCOURAGE LESS DRIVERS ON THE ROAD. A LONGER DISCOUNT SHOULD BE OFFERED TO THOSE WHO DON'T PASS THE TEST.
- I THINK CHOICES SHOULD BE PUBLISIZED MORE OPENLY NOT JUST WHEN YOU GET YOUR CAR TESTED.
- I THINK IT IS A GREAT PROGRAM. I WANTED TO GET AN ELECTRIC BIKE & A CAR SHARE MEMBERSHIP BUT MY INLAWS WILL BE GIVING US A CAR THEY NO LONGER USE, AND SOMEWHAT RELUCTANTLY WE WILL BE TAKING THE CAR. I ALSO ENDED UP SELLING MY VW FOR \$360 TO SOMEONE WHO WANTS TO TRY TO RESTORE IT. [NOT ANYTHING AGAINST RON TONKIN, BUT SINCE THE PRICES OF CARS ARE NEGOTIABLE, A \$400 DISCOUNT COULD EASILY BE BASED ON A PRICE THAT IS \$400 TOO HIGH.]
- I THINK IT'S GREAT THAT DEQ IS MAKING THE EFFORT TO PROVIDE INCENTIVES TO KEEP THE AIR CLEANER! UNFORTUNATELY THE PROGRAM WILL NOT WORK FOR ME AT THIS TIME.
- I WAS EXCITED ABOUT THE PROGRAM WHEN I READ THE BROCHURE. I ENDED UP SELLING THE BEAST AND BUYING SOMETHING EASIER ON THE ENVIRONMENT AND MORE ECONOMICAL. THANKS FOR THE OPTIONS.
- I WOULD DEFINITELY BE INTERESTED IN CHOICES IF I WERE NOT GOING TO PARTAKE IN AN INTERNSHIP ABROAD.
- I WOULD NEED SOME REAL INCENTIVES TO QUIT DRIVING MY CAR. MY CAR IS ECONOMICAL AND MUCH SAFER THAN THE BUS. I WOULD CONSIDER RIDING A BIKE IF I COULD GET A GOOD DEAL ON A QUALITY BICYCLE. I WOULDN'T SCRAP MY CAR FOR A DISCOUNT, ALTHOUGH I WOULD CONSIDER RIDNIGN ON SOME DAYS, WHEN IT'S NOT RAINING.
- IF AND WHEN I SCRAP A DEQ FAILURE OF A CAR I WOULD BE INTERSTED IN THE RON TONKIN ELECTRIC BIKE INCENTIVE.
- IT IS A GREAT PLAN, BUT I CAN'T QUALIFY BECAUSE MY CAR FAILED DEQ IN MAY 2000. I STILL HAVE THE FORD ESCORT. CAN I STILL GET IN ON THE CHOICES PLAN NOW OR NOT?
- IT MAY PROVE USEFUL TO HAVE AN ARTICLE ABOUT CHOICES IN THE OREGONIAN.
- NONE
- NONE - THANK YOU.
- NOT INTERESTED IN PROGRAM. THANK YOU.
- PLEASE USE MORE RECYCLED PAPER IN YOUR MAILINGS. THE QUALITY AND COLOR OF PAPER IS TREATED LIKE BREAD USED TO BE IT DOES NOT HAVE TO BE WHITE OR BLEACHED BEYOND RECOGNIZING.
- PUT ONE TOLIT STOOL IN EACH WATING ROOM. BE MORE FASTE AND CURTIS TO YOU COSTMAS. WE PAY YOUR SALRY. CHECK THE COMPUTER MORE CLOSTE.

- *SINCE I COMPLETED THE SURVEY, I NOW HAVE ANOTHER VEHICLE (NEWER)
THANK YOU*
- *SOLD OFF CAR DID NOT PASS DEQ.*
- *SOME QUESTION SEEM TO HAVE NOT LOGICAL ANSWER.*
- *THANK YOU! I THINK THIS PROGRAM IS A GOOD INITIAL STEP TO DECREASE
RELIANCE ON AUTO - HOWEVER I BELIEVE THAT BECAUSE GOV'T SUBSIDIES
FOR HIGHWAYS, PARKING, POLLUTION CLEAN-UP ETC COME TO ABOUT
\$5000 PER CAR PER YEAR, THE CITIZEN WHO GETS OFF THE ROAD (W/ CAR)
SHOULD BE ALLOCATED MORE THAN YOUR INCENTIVE STRUCTURE
CURRENTLY OFFERS.*
- *THANKS FOR HAVING THE PROGRAM - MAYBE I'LL USE IT IN THE FUTURE.*
- *THE INCENTIVES ARE TOO LOW - IT MAKES MORE SENSE FOR ME TO CONTINUE
TO DRIVE MY CAR AS IS - UNTIL I CAN AFFORD TO FIX IT OR IT JUST DIES.
THANK YOU FOR YOUR INTEREST.*
- *THIS IS AN EXCELLENT PROGRAM. IF MY CAR DIDN'T PASS I WOULD DO IT.*
- *THOSE OF US INVOLVED IN THE CONSTRUCTION TRADE SIMPLY NEED TRUCKS
TO TRANSPORT OUR OWN TOOLS FROM JOBSITE TO JOBSITE - NEED TO
FIGURE A WAY TO INTEREST US IN A CLEANER TRUCK.*
- *WHEN I DID TAKE MY CAR TO THE NE DEQ, THE HUGE FELLOW WHO TESTED MY
CAR BROKE THE TRIM MOLDING GETTING INTO THE CAR!*
- *YOU'RE ON THE RIGHT TRACK.*

APPENDIX B

Participant Survey Instrument and Detailed Results

The participant survey was conducted by telephone in March and April 2001. As of February 2001 there were seven participants in the program that scrapped their cars for various incentives. One of the participants could not be reached by phone and was contacted by email. Although it was offered to complete the survey by email, this participant never followed through.

The survey included questions about program participation and demographics identical to the nonparticipant survey. There were 31 questions altogether, with the majority of the questions being closed-ended. Two of the questions provided opportunities for open-ended responses. There was a very short follow-up survey by telephone (and email) conducted in early May to determine if unused incentives had been redeemed, and if selected incentives were still being used.

The survey questions are included below along with the overall number of responses to each question and verbatim responses for the open-ended questions.

1. Where did you hear about CHOICES?
 - 1 At a DEQ vehicle inspection station (or Clean Air Station).
 - 3 I heard about it through television, radio, or newspaper.
From a repair shop.
 - 1 From a friend, neighbor, or co-worker.
Don't remember.
 - 1 Other: "Flyer for car sharing and CHOICES received when moving."
2. Can you confirm when you scrapped your car (provide date):
 - 6 Yes
 - 0 No
3. If you had not participated in CHOICES, what would you have done about your car?
 - 0 Have the car repaired and retested.
 - 1 Sell the car.
 - 1 Donate the car to charity.
 - 1 Drive the car with a trip permit.
Don't know.
 - 3 Other: "Junk it," and "I feel I would have been better off to keep car. Tags weren't expired yet."
4. When you first heard about CHOICES, did you know that you would need to scrap your car to get the discounts?
 - 6 Yes
 - 0 No

5. What motivated you to scrap your car through CHOICES?
- *BECAUSE I THOUGHT I WAS GOING TO GET A BETTER CAR.*
 - *I HAVE A BROTHER-IN-LAW THAT WORKS AT TONKIN. WITH HIS INSIGHT AND THE COUPON, IT SHOULD GIVE ME A GOOD VALUE. BESIDES, MY WIFE HATED THE CAR.*
 - *TO RID MYSELF OF THE HUMILIATION OF BEING A POLLUTER. I (EVEN) GOT A TICKET FOR EXCESSIVE POLLUTION (SMOKE) FROM THE PORTLAND POLICE.*
 - *I THOUGHT SOME OF THE DISCOUNT BUS PASSES AND OTHER THINGS WERE A GOOD IDEA. MY REAL NEED IS TO FIX UP THE HOUSE, AND THOUGHT THAT SOME OF THE INCENTIVES WERE FOR MONEY OR COULD BE CASHED IN.*
 - *IT WASN'T WORTH REPAIRING. I COULD GET SOME OTHER THINGS IN RETURN. THE CAR WAS LIKE A CURSE, I WOULDN'T GIVE IT TO ANYONE ELSE.*
 - *I AM ENVIRONMENTALLY CONCIIOUS. HATED THE IDEA OF SEEING MY VEHICLE REPAIRED AND STILL ON THE ROAD.*
6. Can you confirm the year, make, and model of that vehicle as...
- 6 Yes
0 No
- Oldest – 1981
Newest – 1988
Average – 1984
7. About how many miles were on that vehicle?
- Minimum – 120,000
Maximum – 195,000
Average – 164,000
1 Don't know.
8. Was that car your primary vehicle (drive more frequently) or a secondary vehicle (drive less frequently)?
- 6 Primary.
0 Secondary.
0 I had only one vehicle.
9. The vehicle that you scrapped was used for what kind of trips?
- 5 For a work commute.
1 For deliveries and errands at work.
6 For my own shopping or errands.
6 For my own pleasure or entertainment.
10. What value do you think that vehicle would have had in a private sale in its condition?
- Minimum – \$0
Maximum – \$1,000
Average – \$450
1 Don't know.

11. About how much have you spent on repairs to that vehicle in the past year?
 Minimum \$150
 Maximum \$500
 Average \$360
 1 Don't know.
12. About how much do you think repairs would have cost to make that vehicle pass the emissions test?
 Minimum – \$200
 Maximum – \$2,000
 Average – \$1,200
13. About how much do you think other repairs would have cost, not including emissions repairs?
 4 \$0
 2 Don't know

The results for Questions 14-16 are summarized in Table 26.

14. What CHOICES incentives did you choose?
 15. And of these incentives that you've chosen, which of them are you already using? Have you redeemed any coupons?
 16. And besides the incentives that you chose, what was your interest in each of the other options offered by CHOICES?

Table 26. Participant Responses to Questions 14 – 16.

Incentive	Chosen	Using & Redeemed	Also Interested
Bicycle discount from the Bike Gallery	2	2	1
Electric scooter or bike discount from Tonkin	1		
Membership with CarSharing Portland	1	1	
Three-months of half-price transit passes	2		3
\$400 discount on car from Ron Tonkin	3	1	

17. Did you understand that it is possible to combine some of the incentives – for example, to get both a bicycle discount and membership in car sharing?
 3 Yes
 3 No
18. Can you use a bicycle to get to work, for shopping, or for errands?
 3 Yes, I do sometimes now.
 1 Sometimes I could, but I don't.
 2 Never.
 0 Don't know.

19. Can you use the bus or Max to get to work, for shopping, or for errands?
- 0 Yes, I do sometimes now.
 - 6 Sometimes I could, but I don't.
 - 0 Never.
 - 0 Don't know.
20. From what you know about car sharing, would it work for you?
- 1 Anytime.
 - 0 Sometimes.
 - 1 Never.
 - 4 I don't understand what car sharing is.
21. Can you afford to buy or finance a new or late model car?
- 4 Yes
 - 2 No
 - 0 Don't know
22. Are there any other comments that you'd like to make about CHOICES, any suggestions for improvements, or other ideas for incentives, or any problems you have had?
- *...I SCRAPPED MY CAR, BUT DIDN'T WANT SOMETHING THAT WAS MORE TROUBLE...*
 - *CHOICES IS IN COMPETITION WITH THE DONATION PROCESS. CHOICES SHOULD HAVE MORE MONEY INCENTIVES (FOR A CAR), PERHAPS \$500 OR \$600 TO PUT ONE AHEAD OF A TYPICAL TAX DONATION VALUE. ALSO, IT SHOULD BE SO YOU COULD RETIRE MORE THAN ONE VEHICLE PER YEAR...*
 - *...IT WOULD HAVE BEEN NICE IF THE COUPONS WOULD HAVE BEEN GOOD FOR DISCOUNTS ON ANYTHING.*
 - *IT JUST SEEMED LIKE NO ONE KNEW ABOUT IT...IN DECEMBER ONLY ONE PERSON AT DEQ KNEW ABOUT CHOICES. I HAD TO TELL THEM ABOUT IT...*
 - *NO PROBLEMS, VERY HAPPY WITH PROGRAM. MY FRIEND IS READY TO SCRAP A CAR.*
23. Please stop me when I read your age range:
- 0 Under 18 years old
 - 0 18 to 20 years old
 - 1 21 to 24 years old
 - 1 25 to 34 years old
 - 0 35 to 44 years old
 - 4 45 to 64 years old
 - 0 Over 65 years old
24. Please stop me when I read your education level:
- 0 Grade or high school, no diploma.
 - 2 High school or GED.
 - 0 Some college, no degree.
 - 4 Four-year degree or more.

25. Please stop me when I read the yearly income of your household before taxes:
- 1 Under \$10,000 per year.
 - 0 \$10,000 to \$15,000 per year.
 - 0 \$15,000 to \$20,000 per year.
 - 1 \$20,000 to \$25,000 per year.
 - 0 \$25,000 to \$30,000 per year.
 - 1 \$30,000 to \$40,000 per year.
 - 1 \$40,000 to \$50,000 per year.
 - 2 Over \$50,000 per year.
26. What shift do you work most of the time?
- 5 Day shift (*about 8 AM to 5 PM*).
 - 1 Swing shift (*about 5 PM to Midnight*).
 - 0 Third shift (*about Midnight to 8 AM*).
 - 0 Not employed outside the home.
27. How many hours do you usually work per week:
- 5 Full-time (*40 hours per week or more*).
 - 1 Part-time (*1 to 39 hours per week*).
 - 0 Not employed outside the home.
28. How many people live in your household?
Average – 2.3 persons.
29. How many cars, trucks or vans are there in your household?
Average – 1.7 vehicles.
30. How many licensed drivers are there in your household now?
Average – 1.7 drivers.
31. I will have a very few follow-up questions to ask you in about a month. Would it be OK for me to call you again?
- 6 Yes
 - 0 No

A follow up telephone survey approximately one month after the original survey was conducted to assess persistence of measures. Respondents were asked to confirm the program incentives selected, and their use of those incentives. They were further asked if they were still using incentives that were previously used. Finally, they were asked if they had begun to use and had redeemed coupons for those incentives that they had not previously used. Results are shown in Table 27.

Table 27. Responses to Follow-up Questions

Incentive	Chosen	Were Using	Still Using	Have
Bicycle discount from the Bike Gallery	2	2	2	
Electric scooter or bike discount from Tonkin	1			
Membership with CarSharing Portland	1	1		
Three-months of half-price transit passes	2			
\$400 discount on car from Ron Tonkin	3	1	1	

APPENDIX C

Repair Shop Survey Instrument and Detailed Results

The evaluation workplan called for a telephone survey of six of the thirteen participating repair shops. The surveys went well, took little time, and the shop representatives were easy to reach. The information provided during the first six interviews seemed to provide useful insights into the program. For these reasons, a census of all thirteen shops was performed.

The short survey included questions about their shop, their impressions of CHOICES, and suggestions for the program. There was a total of 12 questions, with the majority of the questions being closed-ended.

The survey questions and responses are included below along with the overall percent response to each question and verbatim responses for the open-ended questions.

1. How many repair technicians are with your shop? (Full-time equivalents)

- | | |
|---------|-------------------|
| 1 (8%) | One technician |
| 3 (23%) | Two technicians |
| 4 (31%) | Three technicians |
| 3 (23%) | Four technicians |
| 2 (15%) | Five technicians |

2. Can you tell me the approximate number of vehicles worked on in a typical month?

- Minimum – 50
Maximum – 425
Average – 199

(There is a 67% correlation between the number of vehicles worked on and the number of repair technicians.)

3. What portion of your work is related to correcting emissions problems in vehicles?

- Minimum – 5%
Maximum – 65%
Average – 24%

4. What is a typical range of repair costs for vehicles with emissions problems?

- Minimum range – \$0-\$300
Minimum average – \$117
Maximum range – \$350-\$2000
Max average – \$640

5. How many customers do you think have taken a form to find out more about **CHOICES**?

- 4 Zero customers
- 1 One customer
- 1 Five customers
- 4 A few or several customers

Other comments:

- *MAYBE 10.*
- *SOME, NOT MANY.*

6. Now I'm going to read you a list of the incentives in the **CHOICES** program. What interest, if any, have customers expressed for each incentive or do you think customers have?

Table 28. Repair Shop Assessment of Customer Interest in Incentives

INCENTIVE	Interesting	Somewhat interesting	Not interesting	Don't know
Bicycle discount from the Bike Gallery	0	3	8	2
Electric scooter or bike discount from Ron Tonkin	0	2	8	3
Car sharing membership with CarSharing Portland	0	5	6	2
Three-months of half-price transit passes from Tri-Met	3	5	3	2
\$400 discount on new or late-model car from Ron Tonkin	4	3	4	2

7. Do you think there is a need for a vehicle scrap program in the Portland area?

- 3 (23%) No
- 10 (77%) Yes

Why?

- *MOST OF THE VEHICLES WE WORK ON WE CAN GET TO PASS DEQ. IT'S UNUSUAL TO HAVE THOSE FEW CARS THAT ARE SO OLD AND EXPENSIVE TO REPAIR THAT THE OWNER GIVES UP ON THEM.*
- *PREFER THE DONATION ALTERNATIVES.*
- *I NEED TO HAVE MORE INFORMATION BEFORE DECIDING.*
- *SOME KIND OF POLICING IS NECESSARY. THERE IS A DEMAND FOR KEEPING VEHICLES [either] MAINTAINED OR OFF THE ROAD.*
- *I TURN AWAY ABOUT 10-15% OF PEOPLE AFTER DOING A QUICK CHECK BECAUSE THEIR VEHICLE IS NOT WORTH PUTTING MONEY INTO. AN O2 SENSOR AND CATALYTIC CONVERTER COST SOMETHING LIKE \$300.*
- *IN THEORY, IT'S A GREAT IDEA. BUT OURS IS A SHOP WHOSE CLIENTELE MAINTAIN THEIR VEHICLES WELL.*
- *NEED TO DEFINITELY HAVE IT. IF THE CAR IS NO GOOD, NEED TO HAVE AN INCENTIVE TO GET THE CAR OFF THE ROAD.*
- *LOTS OF CUSTOMERS WITH CARS THAT DO NOT PASS AND CAN'T AFFORD TO MAKE THEM PASS BUT STILL NEED VEHICLES.*
- *THINK IT'S A GOOD IDEA FOR PEOPLE WHO CAN'T AFFORD REPAIRS.*

- *BECAUSE PEOPLE SOMETIMES JUST TURN THE VEHICLE TITLE OVER TO HIM IN LIEU OF PAYMENT - OR ABANDON VEHICLE ON THE STREET.*
- *DEFINITELY. IF A CAR IS REAL BAD, AT LEAST YOU CAN GET \$30/TON AT SCHNITZER STEEL.*
- *TO A DEGREE, VEHICLE SCRAPPING [for emissions] IS HAPPENING ANYWAY. BUT I DON'T THINK IT'S A PLACE FOR THE GOVERNMENT TO BE INVOLVED. IF THEY WOULD ENFORCE LICENSING REQUIREMENTS, THE PROBLEM WOULD BE FIXED [no recurring trip permits].*
- *A VERY GOOD QUESTION. THE CLIENTELE BASE FOR ME HAS NEWER CARS, NO CRUDDY CARS. [So few of scrap potential.] BUT A GOOD IDEA TO GET MORE POLUTERS OFF THE STREET.*

8. What major reasons do you think keep people from scrapping their car as part of **CHOICES**? (Read list. Allow all responses.)

- | | |
|----------|--|
| 7 (15%) | The incentives were too small. |
| 6 (13%) | Car are worth too much to scrap. |
| 13 (27%) | None of the alternatives are convenient. |
| 10 (21%) | People prefer to donate car to charity. |
| 0 | Don't know. |
| 12 (25%) | Other |

Total responses – 48

Other responses:

- *PEOPLE GO FROM DMV TO DMV GETTING TRIP PERMITS.*
- *HALF OF MY CUSTOMERS ARE OLDER PEOPLE THAT DRIVE OLDER CARS AND CAN'T BIKE OR USE THE BUS CONVENIENTLY.*
- *WHEN DONATING PEOPLE CAN CLAIM ANY VEHICLE VALUE UP TO \$5,000 (if greater, an appraisal is required). SO PEOPLE STRETCH THE VALUE.*
- *CARS ARE WORTH TOO MUCH TO THEIR OWNERS.*
- *LOTS HAVE PEOPLE HAVE NOT FIGURED OUT THAT THE GOVERNMENT IS CHANGING THINGS TO MAKE IT MORE EXPENSIVE TO DRIVE. I'VE SEEN MANY PEOPLE GIVE UP CARS THIS YEAR TO GO TO PUBLIC TRANSIT, SOME OF THE ELDERLY THAT NEED TO GET TO REGULAR DOCTOR APPOINTMENTS OR GROCERY SHOPPING AND TRANSIT IS VERY DIFFICULT FOR THEM.*
- *LOW INCOME PEOPLE CAN'T AFFORD THE MAINTENANCE OF NEWER CARS.*
- *PEOPLE ARE IN LOVE WITH THEIR CARS.*
- *PEOPLE NEED TO HAVE A CAR AND IT IS CHEAPER TO BUY A TRIP PERMIT.*
- *SOME PEOPLE SHOULDN'T BE DRIVING BECAUSE THEY CAN'T MAINTAIN THEIR VEHICLE IN OTHER WAYS, A \$900 BRAKE JOB FOR EXAMPLE.*
- *SOME WITH OLDER CARS STILL NEED TO GET AROUND BUT REPAIRS ARE NOT WORTH DOING. THEY CAN'T AFFORD TO FIX OR REPLACE THESE VEHICLES.*
- *TAX BENEFITS OF DONATION OF NO USE TO LOW INCOME PEOPLE. MOST OF THESE PEOPLE, THEIR FINANCES ARE IN VERY BAD SHAPE. THEY JUST DON'T HAVE THE MONEY, LOTS OF OLDER AND FIXED INCOME PEOPLE.*
- *WE'VE BEEN ABLE TO REPAIR MOST VEHICLES FOR EMISSIONS.*

9. Do you have any suggestions for other incentives (besides cash) that might motivate people to drive cleaner?

- 3 responses were "don't know."
- *NOT SURE.*
- *CAN'T THINK OF ANYTHING RIGHT NOW.*
- *BOOSTING PEOPLE'S EDUCATION IS MORE IMPORTANT THAN ANY PROGRAM. FURNISH PEOPLE WITH REASONS TO WORK WITH DEQ TO CLEAN OUR WORLD.*
- *DON'T KNOW. MAKE INCENTIVES BETTER OR MORE APPEALING.*
- *AN EMISSIONS WAIVER WOULD APPEAL TO MANY - IF REPAIR COSTS <\$500 THEN THEY COULD HAVE A YEAR TO BUY A NEW CAR.*
- *LOCAL CAR DEALERS WITH INCENTIVE PROGRAM TO PROVIDE TRADE-IN VALUE AS IF CAR WOULD PASS DEQ TESTS.*
- *THE GOVERNMENT CAN CONTRIBUTE TO CAR REPAIRS.*
- *IN SOME OTHER STATES, IF YOU DO REPAIRS OVER \$500 OR SO BUT STILL DON'T PASS DEQ, YOU TAKE THE VEHICLE TO A REFEREE STATION THAT CONFIRMS THE WORK AND GIVES YOU TAGS ANYWAY. NOT SURE THAT THAT'S THE BEST OPTION, AS POLLUTING VEHICLES SHOULD BE OFF THE ROAD. ALSO POLICE SHOULD TICKET CARS WITH OBVIOUS EMISSIONS.*
- *OFFER LOW OR NO INTEREST LOAN FOR CATALYTIC CONVERTER OR OTHER PARTS.*
- *PACIFIC AUTOMOTIVE TRADES ASSOCIATION HAD TRAINING MEETING IN FEBRUARY WITH DEQ SPEAKER SAYING THAT NEW POLICY WOULD BE 90 DAYS MAXIMUM ON TEMPORARY PERMIT. THIS IS THE BEST IDEA IN A LONG TIME. THE POLICE SHOULD ALSO TICKET BLUE SMOKERS.*

10. Do you have any suggestions for the amount of direct cash payment it would take to get most people to scrap their car that didn't pass the emissions test?

- *EVERY CAR IS WORTH SOMETHING DIFFERENT. PERHAPS SOME PORTION OF THE CARS BLUE BOOK VALUE IF IT WAS DRIVEABLE OR PASSED DEQ.*
- *A FORMULA WOULD BE NEEDED FOR EACH VEHICLE.*
- *THESE PEOPLE ARE GOING TO HAVE TO DO SOMETHING WITH THEIR PROBLEM CARS.*
- *MOST PEOPLE TRY TO FIND A WAY AROUND DEQ TESTING BY REGISTERING A CAR OUT OF THE AREA OR TRIP PERMITS. PEOPLE WHO CAN'T AFFORD REPAIRS CAN'T BUY A CAR. IT WOULD BE BETTER TO HELP THEM WITH REPAIRS INSTEAD.*
- *SEE CALIFORNIA EXAMPLE.*
- *\$1000-\$1500.*
- *CONTRIBUTE TO A VIABLE TRANSPORTATION ALTERNATIVE OR TO ANOTHER VEHICLE. PEOPLE ARE NOT REALISTIC ABOUT THE VALUE OF THEIR CARS.*
- *I SUPPORT THE IDEA, BUT DON'T KNOW THE AMOUNT.*
- *PREFER TO HELP THEM REPAIR CAR RATHER THAN SCRAP.*
- *NO, BUT THINK IT'S A GOOD IDEA.*
- *LOOK AT OTHER STATES, IN CALIFORNIA IT IS \$1000 NOW.*
- *OUR CLIENTELE HAVE PRETTY HIGH VALUE VEHICLES - AN 86 IS WORTH \$7000 OR MORE SO THIS WOULD BE DIFFICULT.*
- *NO. CARS VARY A LOT AND PEOPLE DON'T HAVE A GOOD SENSE OF THEIR CAR'S VALUE.*

11. Would you consider promoting programs like this in the future?

13 (100%) Yes
0 No

12. Do you have any other comments about **CHOICES**? (Two responses were “no.”)

- *DON'T WANT TO SEE CLASSICS SCRAPPED.*
- *I'D LIKE MORE INFORMATION ON CHOICES AND CARSHARING. [It was provided.] RECOMMENDS CERTIFICATION OF A HIGHER LEVEL ELITE TECHNICIANS AND SUGGESTS MORE EDUCATION FOR ALL DEQ CERTIFIED TECHNICIANS. DEQ MIGHT DO MORE TO EDUCATE PEOPLE ON WARM UP CYCLES - 25% OF CARS HE SEES ONLY NEED PROPER WARM UP CYCLES TO PASS.*
- *SUGGEST A PROGRAM ALLOWING CITIZENS TO CALL IN SMOKERS (FROM CELL PHONES). SOME OF THE STAFF AT DEQ TESTING STATIONS WILL TELL PEOPLE WITH NON-COMPLIANT VEHICLES THAT "IT NEEDS JUST A LITTLE ADJUSTMENT," OR "THIS MEANS..." THE STAFF SHOULDN'T GIVE ANY EMISSIONS ADVICE. PEOPLE DON'T OFTEN PROPERLY WARM UP VEHICLES, AND DON'T KEEP THEM WARMED UP WHILE WAITING AT THE TEST STATIONS. CHOICES HAS SEEN A POSITIVE RECEPTION AMONG THEIR CLIENTELE - IT GIVES THEM ANOTHER OPTION. BUT MOST OF THEIR CLIENTS ARE UPPER CLASS, THEY DON'T GET A LOT OF LOW END VEHICLES IN THEIR SHOP.*
- *KIND OF WONDERED WHY OREGON HAS DON'T THE CASH PROGRAM AND A HEAVIER ADVERTISING CAMPAIGN. EXCEPT FOR NEWS PROGRAMS, THERE HAS NOT BEEN ENOUGH PUBLICITY TO GET IT OUT TO THE PUBLIC. CALIFORNIA HAD A VERY INTENSE MONTH LONG CAMPAIGN TO PROMOTE THEIR INCENTIVES.*
- *IT'S A GOOD PROGRAM, JUST NEEDS TO BE REFINED. BUT IVE SHOWN THE POSTER TO 50 CUSTOMERS, AND 45 HAVE LAUGHED AT IT.*
- *I DON'T KNOW WHO PUT THIS TOGETHER, BUT I DON'T THINK IT WAS THOUGHT OUT REAL WELL.*
- *THE BIKE INCENTIVE GOT A GOOD LAUGH. CAN'T IMAGINE ANYONE WOULD DO THAT.*
- *NOT SUPPORTIVE OF FULL CHARITY, BUT OF SHARING COSTS FOR EMISSIONS REPAIRS. PAY THE SHOP DIRECTLY AND HAVE THEM INVOLVED. MAJOR WORK IS OFTEN THROTTLE BODY AND INJECTOR CLEANING, INJECTOR, CATALYTIC CONVERTER AND O2 SENSOR REPLACEMENT.*
- *WE'VE POINTED OUT THE CHOICES POSTER WHEN WE PROVIDE REPAIR ESTIMATES FOR CUSTOMERS. IT'S GOOD TO GIVE THEM AN OPTION.*
- *THIS IS A GOOD MOVE IN THE GENERAL DIRECTION OF CLEANER AIR. BUT WHILE DEQ IS CHECKING EMISSIONS, THE SHOULD ALSO CHECK VEHICLE SAFETY IN GENERAL. MOST CUSTOMERS CONSIDER CHOICES A LAUGHABLE JOKE TO SUGGEST THAT THEY SCRAP THEIR CAR FOR ALTERNATIVES.*
- *ALL OF MY CUSTOMERS DIDN'T THINK IT WAS A VERY GOOD PROGRAM. THEY CAN DONATE THEIR CAR AND GET A BETTER BENEFIT.*

APPENDIX D
Nonparticipant Survey Cover Letter

March 21, 2001

«Name»
«Address»
«City_State_Zip»

Oregon DEQ has developed a vehicle scrap program called CHOICES as an option for people whose vehicles do not pass the DEQ emissions test. You are one of the people who asked to receive additional information on the CHOICES program. We are asking a few of these people to give their opinions on what could be done to improve the program.

It is important that you complete and return the enclosed survey, so we know how to go forward with the CHOICES program. Everyone who completes a survey and includes his or her name and address will be entered into a drawing for one of six \$20 McMenamins gift certificates.

Your name will not be placed on any other list and your responses will be kept confidential. The results of this study will be used by Oregon DEQ to design programs that best meet the needs of the people that live in our state. If you have questions about this study or about CHOICES, please call Elizabeth Vowels at (503) 229-5254.

Thank you for your assistance.

Sincerely,

Andrew Ginsburg
Air Quality Division Administrator