Final Results of the "One Week Follow-Up" With Participants During the FY79 and FY80 Emission Factor Testing Programs

by

Thomas C. Bejma

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Test and Evaluation Branch
Emission Control Technology Division
Office of Mobile Source Air Pollution Control
Office of Air and Waste Management
U.S. Environmental Protection Agency
Abstract

This paper describes the results of a follow-up survey with participants during the FY79 and FY80 Emission Factor Testing Programs. The surveys were conducted in the form of a questionnaire which program participants were asked to complete and return, about one week after their vehicle was tested and returned to them. The questions pertained to the efficiency of the lab personnel and the performance of their vehicle after it had been tested.

Over 70% of the 2500 questionnaires were completed and returned. The results of both surveys show that practically all participants felt they were treated efficiently by the lab personnel and that the vast majority felt that their vehicle displayed either no change or an improvement in its performance. Of those respondents whose vehicles received maintenance, the percentage that felt that there was an improvement in performance was greater than that of the owners of vehicles which did not receive maintenance. Of the respondents who were not satisfied with the present performance of their vehicles after maintenance, both programs indicate that most felt the same before the maintenance and testing had been performed.
Introduction

For the past eleven years, the EPA has been conducting surveillance studies of emissions from in-use vehicles. These studies are known as Emission Factor (EF) Programs and are identified by the fiscal year in which they were funded. The test vehicles are solicited randomly from the general public and are tested in as-received condition. In some cases, the vehicles are retested after various maintenance actions ranging from a simple adjustment to a complete tune-up. The data resulting from these studies are used for calculations and projections of air quality as well as in the development of strategies for control of air pollution from mobile sources.

Beginning midway through the FY79 version, a mechanism was established to obtain the owner's perception of his vehicle's performance after it had been tested in the laboratory. This procedure was known as the "One-Week Follow-Up". Prior to this time, there was no formal means of feedback from the participants on their feelings about the testing and maintenance actions performed on their vehicles. The purpose of this system was to gather information which could be used to assess the level of driver satisfaction and to determine possible reasons for underhood tampering.

This report summarizes the results of studies conducted during the past two Emission Factor Programs (FY79 and FY80). The FY79 program included 2042 in-use passenger cars. The testing was performed in six cities from February, 1979 to September, 1980. The FY80 program included 900 in-use vehicles (810 passenger cars and 90 light duty trucks). This testing was performed in three cities from November 1980 to August 1981.

In four of the six cities during the FY79 program and in all three cities during the FY80 program, each participant was asked to complete a "one week follow-up" questionnaire. A copy is attached as Appendix A. This single sheet and a pre-addressed franked envelope were given to the participant as he picked up his vehicle from the laboratory. He was asked to complete the form once he had again become familiar with his vehicle. The questions pertained to efficiency of the lab personnel and the performance of his vehicle after it had been tested. The participants were not informed (unless they asked) if their vehicles had received maintenance. Because of this fact, the responses of the owners of vehicles which did not receive maintenance were used as a "control" group. Even though nothing was done to their vehicles, many owners felt that its performance improved or deteriorated.

A more detailed report on these results from the FY79 program are contained in an EPA report entitled "Results of the One-Week Follow-Up with Participants in the FY79 Emission Factors Testing Program". This report has been assigned Report No. EPA-AA-TEB-81-14. It was written by Gary T. Jones and is dated March 1981.
Design of the Questionnaire

The questionnaire consisted of three questions and a space for comments. The same questionnaire was used for both programs. The first question was used as a lead-in to give the appearance of a "check-up" on the performance of the contractor. The second question dealt directly with the difference in performance of the participant's vehicle after it was tested. The question allowed for "no change" as well as two degrees of each improvement or deterioration. The third question asked if the participant was satisfied with the present performance of the vehicle. A space was also provided for additional comments. Although the questionnaire could be submitted anonymously, a space was provided for the participant to fill in his name and address to request the emission results of his vehicle.

Conduct of the Survey

During the FY79 program, 1620 questionnaires were distributed. Of these, 1203 were completed and returned. This high return rate (74%) can be attributed to the simplicity of the questionnaire and the fact that the participants could use the questionnaire to request the results of the emission test on their vehicle. Table 1 displays the results from the FY79 sites. Also shown is the percentage of the returned questionnaires from owners of vehicles which received maintenance. Results from Los Angeles (included in the previous report) were excluded from this report as it was not truly an Emission Factor effort.

<table>
<thead>
<tr>
<th>Site</th>
<th>St. Louis</th>
<th>Wash. D.C.</th>
<th>Denver</th>
<th>Houston</th>
<th>Overall</th>
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</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td></td>
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<tr>
<td>issued (est.)</td>
<td>325</td>
<td>325</td>
<td>325</td>
<td>645</td>
<td>1620</td>
</tr>
<tr>
<td>Number Returned</td>
<td>175</td>
<td>286</td>
<td>233</td>
<td>509</td>
<td>1203</td>
</tr>
<tr>
<td>Return Rate:</td>
<td>54%</td>
<td>88%</td>
<td>72%</td>
<td>79%</td>
<td>74%</td>
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</table>

Percentage of the total returned that received maintenance: 39% 18% 27% 62% 41%

During the FY80 program 879 questionnaires were distributed. Of these, 578 were completed and returned for a return rate of 66%. Table 2 displays the results of the FY80 sites.
Table 2
Response Rates From The FY80 Program

<table>
<thead>
<tr>
<th>Site</th>
<th>Denver</th>
<th>San Antonio</th>
<th>Los Angeles</th>
<th>Overall</th>
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<tbody>
<tr>
<td>Questionnaires</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>issued (est.)</td>
<td>300</td>
<td>300</td>
<td>229</td>
<td>879</td>
</tr>
<tr>
<td>Number Returned</td>
<td>214</td>
<td>176</td>
<td>188</td>
<td>578</td>
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<tr>
<td>Return Rate</td>
<td>71%</td>
<td>59%</td>
<td>82%</td>
<td>66%</td>
</tr>
</tbody>
</table>

Percentage of the
total returned that
received maintenance: 19% 22% 14% 18%

Results of the Survey

Following is the breakdown of the responses to the individual questions:

Question 1) "Were you treated courteously and efficiently by the personnel at our contractor's laboratory?" Since this question was designed as merely a "lead in" for the questionnaire its results are not displayed graphically. However, during the FY79 and FY80 programs, over 99% of the respondents answered affirmatively to this question.

Question 2) "Do you feel that the performance of your vehicle is now different than when it was submitted for testing? This question was developed to determine whether the owner perceived any difference in the performance of his vehicle, and what was the degree of this difference. The question was divided into three categories: no change, better or worse. The latter two categories were also divided into two levels; slightly better, much better, slightly worse, and much worse. In both programs, the responses to this question were similar. The difference in the response rate of the maintenance group between the programs was primarily due to the large number of vehicles receiving maintenance in Houston during the FY79 program. The maintenance usually performed in Emission Factor programs consists of the correction of various maladjustments and disablements and a tune-up to manufacturer's specifications. In accordance with the test plan for Houston during the FY79 program, however, the majority of vehicles received only a simple idle adjustment. These results are displayed graphically in Figure 1.

Question 3) "Are you satisfied with the present performance of your vehicle? Of the total sample (both maintenance and non-maintenance) in FY79 and in FY80, the majority of respondents indicated that they were satisfied with the present performance."
Of the vehicles that received maintenance, most were satisfied with their vehicle's performance. Although about 25% were dissatisfied, it does not necessarily indicate that it was a result of the maintenance actions that their vehicles received. Of the unsatisfied group, the majority believed that there was either no change or that their car ran better after the maintenance actions were performed. This indicates that most owners of vehicles that did receive maintenance and were not satisfied with their vehicles' performance felt the same before their vehicle underwent maintenance.

Of the vehicles which did not receive maintenance, most were satisfied with the present performance of their vehicle. The summary of responses to Question #3 are shown in Figure 2.

Comments Made by the Participants

Attached as Appendix B, C, D, and E are a collection of the comments made by the participants in the FY80 survey. Comments from the FY79 survey are listed in the earlier report. They have not been abridged or edited although spelling errors have been corrected. Each comment is labelled with the test site, vehicle number, and basic information on the vehicle. The comments were first divided into two basic categories; those respondents whose vehicles received maintenance, and those which did not. They were further subdivided by their response to Question #3 (whether or not they were satisfied with the present performance of their vehicle). As may be expected, respondents who were not satisfied with their vehicle's present performance were the most prolific in their comments. Occasionally, the comments would branch out into viewpoints on the government, EPA, or other political areas. The most prevalent comments from both FY79 and FY80 were those which dealt with fuel economy.

Conclusions

The results of both surveys show that practically all participants felt they were treated efficiently by the lab personnel. Both surveys also indicate that the vast majority of respondents felt (whether or not their vehicles received maintenance) that their vehicle displayed either no change or an improvement in its performance after undergoing testing. Both programs also show that owners of vehicles which received maintenance were more likely to perceive an improvement in performance than the owners of vehicles which did not receive maintenance. Of the respondents who were not satisfied with the present performance of their vehicles after maintenance, both programs indicate that over half felt the same before the maintenance and testing had been performed. Not shown in the figures, but an observation made during the tabulation of the data, is the fact that the age of the vehicle did not make a difference in the responses dealing with owner satisfaction.
Figure 1.
Response Breakdown of Question 92: "Do you feel that the performance of your vehicle is now different than when it was submitted for testing?"
FY79 Program

175 Vehicles tested in St. Louis

286 Vehicles tested in Washington D.C.

□ = Vehicles that did not receive maintenance.
■ = Vehicles that did receive maintenance.
Figure 1. - (continued)

FY79 Program

233 Vehicles tested in Denver

509 Vehicles tested in Houston

1203 Vehicles - All Sites

- Vehicles that did not receive maintenance.

- Vehicles that did receive maintenance.
Figure 1. - (continued)

FY80 Program

188 Vehicles in Los Angeles

578 Vehicles - All Sites

Boxes = Vehicles that did not receive maintenance.

Boxes = Vehicles that did receive maintenance.
Figure 2.
Response Breakdown of Question 2 by Participants that were not satisfied with the present performance of their vehicle that had undergone maintenance.

FY79 Program

22 St. Louis Vehicles

8 Washington D.C. Vehicles

14 Denver Vehicles

80 Houston Vehicles

124 Vehicles - All Sites
Figure 2 - (continued)

FY80 Program

5 Denver Vehicles

<table>
<thead>
<tr>
<th>Percent Response</th>
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<tr>
<td>100</td>
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<td>50</td>
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Better | Same | Worse

6 San Antonio Vehicles

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<th>Percent Response</th>
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<tr>
<td>100</td>
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<td>50</td>
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<td>0</td>
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</table>

Better | Same | Worse

5 Los Angeles Vehicles

<table>
<thead>
<tr>
<th>Percent Response</th>
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</thead>
<tbody>
<tr>
<td>100</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Better | Same | Worse

23 Vehicles - All Sites

<table>
<thead>
<tr>
<th>Percent Response</th>
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</thead>
<tbody>
<tr>
<td>100</td>
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<tr>
<td>50</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Better | Same | Worse
Figure 3.
Response Breakdown of Question #3: "Are you satisfied with the present performance of your vehicle?"

FY79 Program

- 175 St. Louis Vehicles
- 286 Washington D.C. Vehicles
- 233 Denver Vehicles
- 509 Houston Vehicles
- 1203 Vehicles - All Sites

- Vehicles that did not receive maintenance.
Figure 3 – (continued)

FY80 Program

- = Vehicles that did not receive maintenance.
• = Vehicles that did receive maintenance.
Dear Participant:

Thank you very much for your participation in our vehicle emission testing program. We are conducting a follow-up on this effort and would like your response to a few questions on the program. These may be answered after you have had a few days to become reacquainted with your vehicle. You may use this self-addressed franked envelope to submit your responses.

1. "Were you treated courteously and efficiently by the personnel at our contractor's laboratory?"

   Yes [ ]        No [ ]

2. "Do you feel that the performance of your vehicle is now different than when it was submitted for testing?"

   No noticeable change [ ]
   Slightly better [ ]        Slightly worse [ ]
   Much better [ ]        Much worse [ ]

3. "Are you satisfied with the present performance of your vehicle?"

   Yes [ ]        No [ ]

We appreciate the time you have spent in completing this questionnaire. If you would like to receive a summary of the emission results on your vehicle, please fill in the name and address for mailing in the space below:

Name ________________________________________________________________

Street ______________________________________________________________

City, State ____________________________ Zip ____________________________

(Please Print)

Any Other Comments?

Contractor Use:
Test Location _________ Test Date _________ Run No. _________ Veh. No. _________
Appendix B

"Comments From Participants Satisfied With the Present Performance of Their Vehicle After it Received Maintenance"
Section 1
Comments Related to Vehicle Performance

San Antonio 030 1981 Oldsmobile 231 CID

"First tank of gas after EG&G Auto Engr. worked on car was 20.1 mpg - outstanding. As you can tell from record this increased mileage from 16.5 mpg - or a 20% increase. My many thanks to all involved."

San Antonio 178 1980 Oldsmobile - 350 CID

"This was a very efficiently run program & I'm glad that I was chosen as a participant. The office personnel were super! I had taken my car to the dealer to find a "miss etc." in it & each time it came back worse. Your personnel found it & corrected it. They even washed & vacuumed my car. It looks terrific. Thank you & your employees."

San Antonio 203 1980 Mercury - 200 CID

"I was treated beautifully. I did fill out the card & mail it after 5 or 6 fill ups. I had been getting 16+, just made a trip to Corpus & all 5 added to 13+.

San Antonio 254 1979 Chevrolet - 250 CID

"There is a difference in the performance of my car, thus when I get it started it idles very low and tends to die until warmed up a bit, also at a stop sign or light it has to be put in neutral to keep from dying out."

San Antonio 264 1979 Dodge - 105 CID

"My car idled rough when it was new. I took it to several dealers in town to correct it but none of the Chrysler Dealers ever could fix it to my satisfaction. Now my car is finally idling smoothly and I can't believe the difference. I had a noise & vibration at 40 MPH also, and now the engine runs so smooth, there's no noise and almost no vibration. It's better than a new car now thanks to EG&G. Thank you for your help."

Los Angeles 009 1981 Chevrolet - 151 CID

"I am very appreciative of what you people are doing. A valve leak was found & my car runs much better now."

Los Angeles 153 1980 Chevrolet - 98 CID

"The automatic shut off for the choke doesn't work now. It still makes the 'click', but the engine speed doesn't drop down. I have to kick off the choke using the gas pedal."

Los Angeles 185 1980 Buick - 231 CID

"I sure am happy with the performance of my car! It now is much better."
Los Angeles  
283  
1978 Buick - 305 CID

"Car starts much better from cold in a.m."

Los Angeles  
288  
1978 Ford - 302 CID

"Would like to know your recommendations to keep my vehicle in best running condition. Thank you."

Los Angeles  
604  
1980 Buick - 231 CID

"My car has never run as good as it does since it was returned to me. Too bad that Bauer Buick in Costa, Cal. doesn't have men that can tune this well. Mrs. Christine Thompson at A.E.S.I. was very efficient & yet very friendly."
Section 2
Comments Unrelated to Vehicle Performance

Denver 001 1981 Chevrolet - 98 CID
"The only thing I was upset about was that they said they would put only 50 miles on my car = they put 110 on it. I should charge them 50.00 more for it. They shouldn't lie about how many miles they would use my car for."

Denver 002 1981 Chevrolet - 98 CID
"It makes me feel good to know my car is not polluting the air."

Denver 177 1980 Oldsmobile - 350 CID
"The loaner car drove like a truck, the shocks may need to be changed."

Denver 212 1980 Volkswagen - 97 CID
"The replacement of the loaner car was very fast and efficient."

San Antonio 063 1981 Cadillac - 368 CID
"The folks at EG&G Auto Research were very nice and most helpful."

San Antonio 104 1981 Toyota - 108 CID
"Personnel at contractor's laboratory were very courteous and explained every paper & procedure to me. I felt very comfortable leaving my car there to be tested."

San Antonio 152 1980 Chevrolet - 98 CID
"Appreciated the opportunity to help. All relations with Co. were very good."

San Antonio 229 1980 Honda - 107 CID
"They washed the car which was unexpected. They set the clock to DST which had not been done (little things but pleasing)."

San Antonio 253 1979 Chevrolet - 267 CID
"My question is 'Would I have received this good service at any Chevrolet Dealers?"

San Antonio 289 1978 Ford - 250 CID
"A typical Federal "Boondoggle" at taxpayers expense. I've written my Congressman & the Office of the President in an effort to stop such waste."
Los Angeles 177 1980 Oldsmobile - 350 CID

"It was a pleasure to participate. I am not only happy to aid in any way I can but do appreciate the use of a "rental car", full tank of gas & savings bond as well. We also have a 1973 Olds "98" should you wish to test it as well."

Los Angeles 260 1979 Ford - 171 CID

"Contractor extremely courteous & pleasant. Original letter should be reworded to stress that request is a valid, U.S. Gov't Agency request."

Los Angeles 267 1979 Datsun - 119 CID

"Seems like a very good program."

Los Angeles 276 1978 Chevrolet - 98 CID

"The vehicle was at the testing facility a long time, but finally passed. We are interested in knowing why it would not pass."

Los Angeles 294 1978 Datsun - 119 CID

"Outstanding public relations."
Appendix C

"Participants Not Satisfied With Present Performance of Their Vehicles After it had Received Maintenance"
Section 1
Comments Related to Performance of the Vehicle

<table>
<thead>
<tr>
<th>City</th>
<th>Code</th>
<th>Year Make</th>
<th>Engine Size</th>
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<tbody>
<tr>
<td>Denver</td>
<td>056</td>
<td>1981 Pontiac</td>
<td>231 CID</td>
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<tr>
<td>Denver</td>
<td>071</td>
<td>1981 Ford</td>
<td>200 CID</td>
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<tr>
<td>Denver</td>
<td>289</td>
<td>1978 Ford</td>
<td>250 CID</td>
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<tr>
<td>San Antonio</td>
<td>048</td>
<td>1981 Buick</td>
<td>265 CID</td>
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<tr>
<td>San Antonio</td>
<td>209</td>
<td>1980 Chrysler</td>
<td>318 CID</td>
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<td></td>
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<td></td>
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<tr>
<td>San Antonio</td>
<td>211</td>
<td>1980 Dodge</td>
<td>225 CID</td>
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<td></td>
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<tr>
<td>Los Angeles</td>
<td>024</td>
<td>1981 Chevrolet</td>
<td>231 CID</td>
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<tr>
<td></td>
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<td>Los Angeles</td>
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<td>1980 AMC</td>
<td>258 CID</td>
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</table>

"After car was returned car was cutting out."

"My mileage is down to around 13 mpg."

"I would like to know if anything was done to my car (such as oil change, tune-up, etc)."

"Now my automatic choke is too fast but hesitation is gone."

"Yes—my car had less than 2,000 miles of driving after oil & filter change & inspection—change to pass test—oil & filter was change again—no reason why???

"The mileage of this car is awful."

"I would like the EPA fuel economy results before and after AESI repaired the emissions control system."

"Engine seems to cut out when slowing for a turn & then stepping on accelerator. Also does it on straightaway. In both cases it happens only periodically. Can this condition be remedied? This developed after testing."
Section 2
Comments Unrelated to Performance of the Vehicle

Denver
032
1981 Oldsmobile - 260 CID

"Was promised the vehicle on Tuesday - did not get it until Friday. The car given to us to use was so dirty that I had to wash it before I would drive it."

Denver
160
1980 Chevrolet - 173 CID

"Testing lab did not clean car after testing of finger prints, grease and dirt. Loan car had a headlight out. Didn't even bother to remove signs on windshield after testing."

Denver
265
1979 Plymouth - 105 CID

"Great program."

San Antonio
263
1979 Mercury - 250 CID

"People @ the agency were extremely nice and courteous."

Los Angeles
230
1980 Mazda - 86 CID

"Wasn't particularly satisfied before taking it in."
Appendix D

"Participants Satisfied With Present Performance of Vehicles Which Did Not Receive Maintenance."
Section 1
Comments Related to Vehicle Performance

Denver 005 1981 Chevrolet - 98 CID
"Smell from catalytic converter much improved. When will I know results of test?"

Denver 125 1981 Mazda - 91 CID
"Just one thing: wouldn't start once (for the 1st time), may have been vapor lock or flooding. Nothing else. Started up a little later. Thank you for the bond."

Denver 180 1980 Buick - 151 CID
"The first 9 months I owned this car I traveled 6064.1 miles and used 841.6 liter (222.33 gal) of gas. That comes to 27.27 mpg. It was all city, residential driving. The present gas mileage appears to be less. I do not know to what I should attribute the loss of gas mileage. If you do know please inform me."

Denver 211 1980 Dodge - 225 CID
"They forgot to put a hose on & clamp it. Other than that, everything was great!"

Denver 226 1980 Honda - 91 CID
"The mechanics did a very poor job. They left one of the intake hoses off. And the car has a strong smell of gas at times."

Denver 260 1979 Ford - 200 CID
"Don't know if there were any adjustments on our car but we seem to be getting better gas mileage."

Denver 270 1979 VW - 89 CID
"Except throttle sticking open. The throttle problem is chronic and related to the E.P.A. "warmup idle"."

San Antonio 004 1981 Chevrolet - 98 CID
"It does not appear mileage is any different. Motor stumbles occasionally on straight-away almost like a miss."

San Antonio 028 1981 Oldsmobile - 231 CID
"The car loses a lot of power when going uphill or when factory - A/C is in full use."
"Car seems to get much better gas mileage now."

"Have recently discovered 2.3 gal. of gas will not suck. Once tank is empty it will not hold more than 13.5 gal. capacity is 16 gal./will return to Dealer."

"I am not satisfied with the MPG sometimes its 28; 30; 32; 25 and 32 MPG."

"I have driven the car 606 miles since the test and my mileage is 32.9, down from 33.4 for 9100 miles. Don't know if testers adjusted anything or not. I am now down 0.5 mpg."

"The Plymouth Volare I drove while my Honda was being examined, although it was in good shape, was a PIE. Poor workmanship throughout the car, terrible gas mileage. Radio was a poor resemblance of stereo, and 2nd gear was terribly sluggish.

The car ran fine, but when driving 55-60 mph, it would sometimes falter & ping although I had put super unleaded (Gulf) gas in it.

It is no wonder to me that the American auto manufacturers are having so much trouble selling their cars. Driving a fuel efficient, quality built Honda has really spoiled me. I can forsee no instance in the future when I would buy an American car. GADS!

The people at test location #11 were very professional and a pleasure to work with. My comments about the Volare in no way should be interpreted as a complaint against them & their car and maintenance of the Volare. The car was well maintained, clean, etc. If this car (Volare) is typical of Detroit's quality engineering, perhaps it's time to contract our auto building completely to the Japanese!!"

"I feel the gas mileage they advertise is false."

"The odor seems to be gone & performance & mileage appear better."
Los Angeles 070 1981 Ford - 225 CID

"Early records indicate slightly reduced MPG but it is early. I'll delay mailing until I've re-fueled two more times. Mileage is the same or better."

Los Angeles 158 1980 Chevrolet - 151 CID

"Sure like my Chevrolet better than the Datsun for 3 days I had however it was real nice car and OK. Was glad to try one out."

Los Angeles 165 1980 Chevrolet - 231 CID

"Less knock on acceleration."

Los Angeles 186 1980 Pontiac - 151 CID

"Before the car was tested it had problems in getting started whenever I started it up. Like it would stall at least twice before you got it moving and then it was dragging. I always said if someone was chasing me the car would not be the place to run to and get away in cause it took too long to get it to move.

The car runs a lot better and whatever changes were done I sure would like to know so if the car should ever act up again I would know what to have done to it. Thank you very much."

Los Angeles 192 1980 Ford - 140 CID

"Car runs better, runs smoother, automatic shift moves better."

Los Angeles 218 1980 Toyota - 89 CID

"#2 your tank of gas didn't get good performance at all. Recommend you use a different brand of gas. #3 after 1st tank of gas. Avg. 30 mpg's 1st tank."

Los Angeles 229 1980 Honda - 107 CID

"Very courteous treatment. Vehicle seems to respond to acceleration better."

Los Angeles 238 1980 Volvo - 130 CID

"I was very dissatisfied with the performance of the 1981 Datsun 210 Rental car. It was much poorer than the 1975 Datsun B210 that I once owned."

Los Angeles 262 1979 Ford - 351 CID

"The loan car was a Toyota - our car is a Thunderbird Heritage. The fact that the car is a more luxurious one could be the reason that it seems smoother, but I feel that it is smoother. I haven't yet noticed any dieseling."
Los Angeles 282 1978 Oldsmobile - 350 CID

"No detectable difference in actual performance of engine, etc. But experiencing lower overall mileage on tank of gas furnished by AESI."
Section 2
Comments Unrelated to Vehicle Performance

Denver 031 1981 Oldsmobile - 231 CID

"Reducing lead emissions has been desirable and effective however, the dangers of hydrogen sulfide (which I smell) are equally undesirable."

Denver 100 1981 AMC - 258 CID

"The personnel at the lab were very courteous, but I had to make a trip back there because they left a part out of my car and forgot to check a few things, very inconvenient for me."

Denver 111 1981 Denver - 91 CID

"The personnel took the time to totally explain the complete test that was to be done to our car. We appreciated knowing exactly what the test would be."

Denver 128 1981 Subaru - 109 CID

"Appreciate the opportunity."

Denver 163 1980 Chevrolet - 267 CID

"I appreciate the opportunity to have my car checked out. Thank you."

Denver 214 1980 AMC - 258 CID

"Thank you for testing my car."

Denver 231 1980 Mazda - 120 CID

"I was glad to participate in this program. Thank you."

Denver 235 1980 VW - 97 CID

"My windshield wiper motor was burned out - but my warranty covered replacement."

Denver 241 1980 Chevrolet - 350 CID

"The SO$_2$ smell is worse than air pollution prior to cat. converter use in my opinion. If you stand on a corner during rush hour the rotten egg smell burns your nose."

Denver 254 1979 Chevrolet - 350 CID

"I appreciate getting a nice loaner car. I was under the impression the loaner car would be a late model. I received a 1981 model. I also appreciated the advise from the mechanic."
Denver 295 1978 Toyota - 97 CID

"Everyone I dealt with was extremely courteous."

Denver 298 1978 Honda - 98 CID

"I think you have a great program! Count on my support!"

San Antonio 010 1981 Chevrolet - 151 CID

"We enjoyed participating - everyone was so nice - especially Gwen Brown!"

San Antonio 011 1981 Chevrolet - 151 CID

"I feel the people at EG&G were very professional. You are to be congratulated for choosing them as contractors. Ms. Brown who dealt with (me) was a super person. Thank you."

San Antonio 035 1981 Oldsmobile - 307 CID

"The personnel at the laboratory are 'tops'."

San Antonio 037 1981 Oldsmobile - 307 CID

"My husband and I were both impressed with the courteous treatment and efficient manner in which this survey was conducted."

San Antonio 038 1981 Oldsmobile - 131 CID

"I was very impressed by the courteous personnel I dealt with during my participation."

San Antonio 039 1981 Oldsmobile - 151 CID

"Very excellent program."

San Antonio 049 1981 Buick - 265 CID

"Very smooth operation, glad I participated."

San Antonio 066 1981 Ford - 98 CID

"Car that was lent to me broke down and had to be towed in. I had to sit on side of road till another one was brought to me."

San Antonio 070 1981 Ford - 200 CID

"I would like to especially thank Gwen Brown for her exceptional job of helping us and keeping us informed of all that was being done from start to finish of the test on our car."
San Antonio 084 1981 Mercury - 200 CID
"Orientation of emission testing program by contractor was well presented."

San Antonio 105 1981 Toyota - 89 CID
"Could not have been more satisfied with courtesy of EG&G people."

San Antonio 107 1981 Toyota - 89 CID
"Thank you for the bond and the opportunity to participate in your research project."

San Antonio 119 1981 Honda - 81 CID
"I appreciate the chance to have my car tested."

San Antonio 123 1981 Honda - 107 CID
"Receptionist extraordinarily efficient and pleasant. (Name was Gwen Brown)."

San Antonio 159 1981 Chevrolet - 151 CID
"The treatment I received at the laboratory was superb. It couldn't have been better."

San Antonio 174 1980 Oldsmobile - 231 CID
"They were very courteous."

San Antonio 180 1980 Buick - 173 CID
"I was elated to find my car cleaner than when I loaned it to your contractor. Contractor personnel more than courteous. Your choice of contractors is a wise one, in my view."

San Antonio 184 1980 Buick - 301 CID
"The people at E.G.G. should be complimented on their courtesy & efficiency."

San Antonio 192 1980 Ford - 140 CID
"Your personnel (particularly Ms. Gwen Brown) is an asset to your organization. Extremely helpful."

San Antonio 256 1979 Oldsmobile - 350 CID
"I was treated very nicely and everyone was extremely helpful & courteous."
San Antonio 266 1979 Datsun - 85 CID

"Car was taken in on a rainy day very dirty & was returned very clean. Was furnished practically new loaner car. I was treated very courteous & my car is still in perfect shape. I was very satisfied."

San Antonio 258 1979 Toyota - 97 CID

"It's good to know that there are those concerned with the welfare of our country. Gracias."

San Antonio 272 1979 Mazda - 70 CID

"This appears to be an excellent program. Keep up the good work!"

San Antonio 296 1978 Toyota - 134 CID

"I am very glad to be able to participate in this testing program. All the personnel at EG&G Automotive Research whom I had talked with were very courteous and helpful."

Los Angeles 013 1981 Chevrolet - 173 CID

"I was pleased to cooperate with you for the good of us all."

Los Angeles 019 1981 Chevrolet - 213 CID

"We are pleased to have had the privilege to take part in this test and hope it will be of some value to all of us. Thank you."

Los Angeles 038 1981 Oldsmobile - 151 CID

"'Good Work' will send the fuel economy survey at a later date."

Los Angeles 071 1981 Ford - 200 CID

"We were pleased to participate in your program. Thank you for the savings bond."

Los Angeles 076 1981 Ford 200 CID

"The personal treatment was outstanding."

Los Angeles 154 1980 Chevrolet - 98 CID

"I will recommend for anyone to have their car tested by your Agency. Every part of the operation was perfect."

Los Angeles 166 1980 Chevrolet - 231 CID

"I felt everyone I spoke with was extremely courteous and congratulate you on the staff in this area. Thanks for the bond. Chris is a delightful person."
Los Angeles 169 1980 Chevrolet - 231 CID

"1. Felt it took too long to complete the check.
2. Did not call me as soon as test completed so I could pick up my car. I had to call them twice (long dist.)."

Los Angeles 174 1980 Oldsmobile - 231 CID

"I was surprised that it took 16 days to evaluate my car."

Los Angeles 175 1980 Oldsmobile - 231 CID

"Your personnel that I dealt with were very efficient, extremely courteous and a pleasure to work with. A very pleasant experience and I thank you."

Los Angeles 183 1980 Buick - 305 CID

"This was a very pleasant, informative experience for me. I am very pleased to have been selected and that I accepted the invitation. I will send in the fuel economy card in when full, it might be a few months."

Los Angeles 189 1980 Pontiac - 231 CID

"A friend of mine was annoyed at the fact the loan car I was given was foreign-made (Datsun)."

Los Angeles 200 1980 Ford - 302 CID

"Just some nicks & chipped paint was found after the test."

Los Angeles 221 1980 Datsun - 85 CID

"The carpeting and floor mats, in my car were left filthy dirty, from this experiment."

Los Angeles 256 1979 Oldsmobile - 403 CID

"Definitely impressed with personnel at your contractor."

Los Angeles 263 1979 Mercury - 250 CID

"The hood of my car was damaged (estimated repairs $235.00) through negligence. Any mechanic should know how to close the hood of any type of car. The bar that holds up the hood was placed in the wrong position before closing and subsequently damaged the hood when it was closed.

Now I will be without a car for 2 or 3 days which doesn't make me very happy. One hubcap was also badly damaged (est. $45.00)."
Los Angeles 280 1978 Chevrolet - 305 CID

"I understand that there is an E.P.A. bulletin available which describes what recourse is available to auto owners in the event of failure of the emissions system. I would appreciate receiving this bulletin. Thank you."

Los Angeles 295 1978 Toyota - 134 CID

"Very pleased with the way I was treated. If you need any information, please ask."

Los Angeles 502 1981 Chrysler - 318 CID

"Obnoxious, sickening cigarette smell in car and impregnated into air conditioning."

Los Angeles 603 1980 Mazda - 86 CID

"Thanks for the savings bond."
Appendix E

"Participants That Were Not Satisfied With The Present Performance of Their Vehicle Which Did Not Receive Maintenance"
Section 1
Comments Related to Vehicle Performance

Denver 102 1981 Toyota - 108 CID
"Do not feel the gas mileage comes anywhere near the anticipated. Cum.
avg. over 4,000 miles is 21.07 and has been basically that since I bought
it. The Toyota people say it should show a quantum leap after 5,000
miles. We are both anxiously awaiting same."

Denver 113 1981 Datsun - 91 CID
"Automatic choke sticks, transmission jumps at about 50 mph."

Denver 175 1980 Oldsmobile - 260 CID
"I think a tune-up is warranted after this kind of test."

Denver 202 1980 Mercury - 140 CID
"Unhappy only with the excessive fuel consumption."

Denver 272 1979 Mazda - 70 CID
"Car seemed to have more pickup before the testing, no noticeable fuel
economy change."

Denver 296 1978 Toyota - 134 CID
"There now seems to be a very noticeable fall-off in highway fuel-
economy. A recent trip to Kansas City (approx. 1260 miles) yielded an
average of only 23 mpg. The trip was about 95% highway driving in 5th
gear. Previous trips of this nature yielded about 30-31 mpg. I would
like to know what kind of adjustments were made by EPA that would have
such deleterious affect on highway fuel consumption."

San Antonio 009 1981 Chevrolet - 173 CID
"My steering column or wheel shakes if I go over 40 MPH!!"

San Antonio 059 1981 Pontiac - 231 CID
"I have never liked the way it performs since the day I bought it."

San Antonio 086 1981 Mercury - 302 CID
"It's never tested or run properly."

San Antonio 126 1981 Dodge - 98 CID
"Would have liked to have some maintenance performed on carburetor, etc,
but was told everything checked out O.K."
San Antonio 128 1981 Subaru - 109 CID
"Speedometer needle now wavers."

San Antonio 146 1980 Dodge - 225 CID
"Before testing I was getting 19 MPG. After testing I am getting 17.8 MPG."

San Antonio 158 1980 Chevrolet - 173 CID
"I think the gas mileage should be better."

San Antonio 195 1980 Ford - 140 CID
"I feel like I could spend less gas/mile then I do since the car is small. I was treated very well by all your personnel."

San Antonio 202 1980 Mercury - 200 CID
"With respect to gas mileage; otherwise it's ok."

San Antonio 206 1980 Plymouth - 105 CID
"The 'no' answer to #3 has nothing to do with anything that may have happened to the vehicle while your agent had it."

San Antonio 252 1979 Chevrolet - 196 CID
"My car would not idle at all when I got it back. I had to get a complete tune-up - But this was happening some before I took it in. I really do not blame the testing."

Los Angeles 017 1981 Chevrolet - 231 CID
"The motor idles too fast. The car lurches when shifting. I have to keep foot on brake when shifting to drive or to reverse to keep car from lurching."

Los Angeles 050 1981 Buick - 252 CID
"My gas mileage isn't as good."

Los Angeles 167 1980 Chevrolet - 231 CID
"On trip to Oregon last week check engine light came on in mountains at 3,000 ft. and would go off when foot taken off gas. Also on trip to Oregon air conditioner froze up both comming and going. It will go in for repairs under waranty 4-27-81."
Los Angeles 252 1979 Chevrolet – 231 CID

"I had a faulty EGR valve replaced two days prior to taking my car in for testing. I had been very unhappy with the car until that time. Performance is better since the EGR valve was replaced but I am disappointed in gas mileage."

Los Angeles 261 1979 Ford – 302 CID

"My car doesn't seem to sound as noisy as it use to. I'm not satisfied with the mileage according to EPA."

Los Angeles 289 1978 Ford – 302 CID

"The car now idles very rough & has extremely slow acceleration. These conditions were not present before the test. We had asked that the carburetion not be tampered with but it appears this request was disregarded."

Los Angeles 403 1981 Datsun – 133 CID

"Runaway engine when starting, will not idle traveling 20 miles per hour in first gear at idle."
Section 2
Comments Unrelated to Vehicle Performance

Denver 046 1981 Buick - 231 CID
"Lab could use more training on contacting customer if car is not ready."

Denver 117 1981 Datsun - 119 CID
"The man in charge of quality control at the testing facility was super!! Very courteous and informative. Could not have been better."

Denver 250 1980 Datsun - 119 CID
"I would like the name of a Dealer or someone in our area around Arvada that is a dependable mechanic. If you have any idea on who to contact. I would appreciate your help."

Denver 273 1979 Chevrolet - 250 CID
"A very nice experience."

Denver 280 1978 Chevrolet - 200 CID
"Thank-you for this opportunity, I am all for clean air, if ... that is what we're getting!"

San Antonio 064 1981 Cadillac - 368 CID
"Why can't we have this done on Govt vehicles and save the expense of outside contracts and the extra expense of the program? Another waste of taxpayers' money program the way it is conducted."

Los Angeles 297 1978 VW - 89 CID
"We are glad we could help. Also we would be willing to participate in a similar program in the future!"