APPENDIX C
CALIFORNIA CROP LOSSES IN 1969

This appendix is a copy of a letter from the Environmental Protection Agency concerning crop losses due to air pollutants. The letter was sent to Northrop in reply to a request for crop damage assessment incurred by pollutants in the air.

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ENVIRONMENTAL PROTECTION AGENCY

December 2, 1970

National Air Pollution
Control Administration
1033 Wade Avenue
Raleigh, North Carolina 27605

Mr. Paul M. Kaplow
Advanced Technology
Department 7038/Y20
Northrop Corporation
500 East Orangelthorpe Avenue
Anaheim, California 92801

Dear Mr. Kaplow:

Please forgive the delay with which I am answering your letter as forwarded to Dr. Paul Kenline from Mr. Larry Barrett on October 23, 1970. I regret that I can offer you only little assistance with respect to your request for quantitative information on the cost of smog damage.

Obviously, for one to attempt an economic analysis of air pollution abatement strategies, one needs information relating costs and benefits to smog level. Unfortunately, no economic damage functions have been developed to date. Scanty data does exist which would permit the construction of simple-minded physical damage functions, but the translation of these to dollars would be all but impossible.

Although the development of economic damage functions is the focus of research in the Effects Assessment Branch in the Division of Economic Effects Research, progress towards this goal has been quite difficult. This can be attributed primarily to the quality of existing air pollution data and the lack of scientific evidence on cause-effect relationships of air pollution.

Please find attached some scanty information on the cost of pollution. Smog is not identified as the pollutant causing the damage, but in reality at least 95% of these losses could be attributed to the smog component. As you may know smog is severely damaging the pine forests in the San Bernardino and Angeles National Forests in southern California. Work by the U. S. Forest Service indicates that over 1.3 million pine trees have been affected by smog to some degree. Yet, as indicated earlier, no dollar loss has been estimated.

I suggest that you contact Mr. Arthur Millecan of the California State Department of Agriculture in Sacramento for current information on crop losses attributed to air pollution.

Some other cost information on smog damage to materials is being put together in-house. When such receives proper clearance, I will send you a copy. If I can be of further assistance, please feel free to contact me.

Sincerely yours,

Thomas E. Waddell

Thomas E. Waddell
Effects Assessment Branch
Division of Economic Effects Research

Attachment

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Terry Clark
Information Officer

May 11, 1970

Sacramento

- Gordon F. Snow
Bureau of Plant Pathology

1969 Air Pollution Crop Losses

A conservative estimate of air pollution damage to California crops is reported by Arthur Millecan to be $44,500,000. This estimate is based on actually observed, reported, and in some few cases, estimates of crop damage. The bulk of the losses ($39,500,000) is in southern California, while approximately $5,000,000 damage occurred in the nine counties surrounding the San Francisco Bay. Loss by crop are as follows:

Tree & Fruit		
Apple	7,450	
Avocado	111,300	
Citrus	33,565,400	
Fig	6,400	
Grape	935,000	
Pear	4,000	
Miscellaneous	1,000	
Total		34,630,550
Field		
Alfalfa	554,000	
Barley	170,000	
Bean, green	402,400	
Bean, dry	424,200	
Hay, grain	28,000	
Total		1,578,600
Vegetable		
Beet	111,100	
Celery	387,700	
Corn, sweet	163,000	
Endive	29,000	
Greens	50,100	
Lettuce	58,100	
Radish	31,700	
Rhubarb	4,000	
Spinach	45,500	
Tomato	270,000	
Turnip	10,500	
Miscellaneous	90,450	
Total		1,651,750

Nursery stock		
Bedding plants	184,000	
Ground cover	45,000	
Lawn & Sod	25,000	
Ornamentals	1,045,700	
Vegetable plants	60,400	
Indoor plants	104,700	
Total		1,464,900
Cut flowers		
Carnations	38,000	
Chrysanthemums	63,000	
Christmas trees	33,200	
Orchids	20,000	
Miscellaneous	20,000	
Total		174,200
		39,500,000
Losses in the San Francisco Bay Area		5,000,000
1969 Total Losses		$44,500,000

Estimated Annual Cost of Plant Damage by Photo Chemical Smog
To Commercial Crops in L.A. County 1967

	Acres	Value Crop	Loss %	Value Loss
Tree Crops				
Avocados	1,244	854,000	5%	$ 40,000
Citrus	4,266	5,326,000	30%	1,600,000
Figs	23	33,000	10%	3,000
				$1,643,000
Field Crops				
Alfalfa	1,510	648,000	30% S.Mtns.	194,000
	34,000	7,920,000	2% A.V.	158,000
Barley	12,600	683,000	5%	34,000
Beans, Lima	1,525	113,000	5%	6,000
Hay, Grain	8,000	540,000	5%	27,000
				$ 419,000
Vegetables				
Beans, snap	115	197,000	10%	20,000
Beets, table	100	87,500	10%	9,000
Celery	125	525,000	10%	52,000
Corn, sweet	2,850	2,100,000	2%	42,000
Lettuce, leaf	150	143,000	10%	14,000
Greens, mustard, collard, etc.	800	900,000	5%	45,000
Radishes	1,100	880,000	5%	44,000
Rhubarb	70	130,000	10%	13,000
Spinach	80	142,000	10%	14,000
Tomatoes	450	699,000	2%	14,000
Turnips	400	420,000	5%	21,000
Other minor veg. Swiss chard, Chinese veg., Cucurbits, Parsley, Oyster plant, Kohlrabi, S.squash	500	800,000	5%	40,000
				$ 328,000
Nursery Stock				
Bedding plants	72	2,171,000	5%	110,000
Ground covers	100	1,500,000	2%	30,000
Lawn & sod	110	396,000	5%	20,000
Gen.ornamentals	1,545	18,084,000	5%	904,000
Vegetable plants	10	952,000	10%	95,000
Indoor potted, flowering	12	1,785,000	5%	90,000
Indoor potted, foliage	12	2,040,000	5%	100,000
				$1,349,000
Cut Flowers, Greens				
Carnations	50	1,435,000	5%	70,000
Christmas trees	80	150,000	10%	15,000
Chrysanthemums	171	1,519,000	10%	152,000
Orchids	25	1,029,000	5%	52,000
Misc. - Ranunculus, Greens, Agapanthus, Daisy, Glads., etc.	237	1,022,000	2%	20,000
				$ 309,000
GRAND TOTAL				$4,048,000

APPENDIX D

VEHICLE ASSIGNMENT ALGORITHM

Listed below are the steps pursued to assure random and representative assignment of vehicles during the testing phase conducted as part of the experiment design, part B of the total study.

a. Divide vehicle sample into controlled and uncontrolled vehicles (Note that controlled vehicles refers to those having emission control systems incorporated)

b. Separate controlled and uncontrolled vehicles by physical size resulting in six size groupings for each control type

c. Within each of the size groupings, order vehicles by model-year

d. Cars of same size and age are then randomly distributed by make within the twelve groupings of b above

e. Each of the twelve blocks are then divided to obtain 25 subgroups of 48 vehicles each

f. The resulting 48 vehicles are now randomly assigned to each of the four test regimes leaving four groups of twelve.

g. The 12 vehicles are then randomly assigned to each of the four testing quarters resulting in four groups of three

h. The three vehicles are now randomly assigned to one of three types of service centers.

APPENDIX E

TEST SCHEDULING ALGORITHM

Considering four variables under evaluation, the possible combinations of Latin Squares are shown below:

	Q1	Q2	Q3	Q4
R1	ABCD	ABCD	ABCD	ABCD
R2	BADC	BCDA	BDAC	BADC
R3	CDBA	CDAB	CADB	CDAB
R4	DCAB	DABC	DCBA	DCBA

The algorithm proceeds as follows:

a. Randomly assign each of the columns (Q1, Q2, Q3, Q4) to a testing period quarter.

b. For a given quarter, randomly assign column heading to each of the four test regimes, (e.g. let c1, c2, c3, c4 represent Certificate of Compliance, Idle, Key Mode, and Diagnostic test respectively).

c. Randomly reorder the rows R1, R2, R3, and R4

d. Now randomly reorder the columns of the particular quarter chosen. For example, if Q2 was initially chosen, then the column comprised of BCDA (c2) could be replaced with column c3, CDBA. Realize, of course, that the order of column elements as mentioned would have been changed previously when the rows were reordered.

e. Establish the daily test pattern to coincide with the column size:

1st sequence	M(A)	Tu(B)	W (C)	Th (D)
2nd sequence	F (B)	M (C)	Tu (D)	W (A)
3rd sequence	Th (C)	F (D)	M (A)	Tu (B)
4th sequence	W (D)	Th (A)	F (B)	M (C)
1st sequence	Tu (A)	W (B)	Th (C)	F (D)

where: M, Tu, W, Th, F correspond to week days

( ) entries of the Latin Squares, example used Q2

f. Randomly assign the letter elements A, B, and C to independent garages, service stations, and dealers. Wherever D appears, randomly assign and distribute among the three maintenance center types (i.e. suppose the first D is assigned to dealers, then the second would be either independent garages or service stations, and the third D would then be the one not selected in the first two selections. After all three are represented, the next D that appears in sequence will again be randomly assigned as the first D).

g. The sequence is extended to include all test vehicles. Assuming there are 300 vehicles to be tested in a quarter, and the daily test rate is 10 which results in 40 vehicles per test sequence, then 7.5 sequences must be scheduled. The example shown extends through five sequences.

APPENDIX F
VEHICLE EMISSION INSPECTION FACILITY

The vehicle emission inspection and analysis facility, operated by Olson Laboratories, Inc. (OLI), and located at Northrop Corporation, is described below. Equipment calibration and checkout are described along with correlation with ARB equipment.

F.1 EQUIPMENT SELECTION AND INSTALLATION

The OLI Vehicle Emission Test Center is equipped with the following:

- Clayton variable inertia dynamometer (dyno) with 250-pound increment inertia loading weights. The dyno has been specially prepared by the Clayton Manufacturing Company to allow wide open throttle (WOT) runs at 60 mph.

- Olson-Horiba exhaust emission analysis system equipped with model AIA NDIR analyzers. The analyzers have the following full scale ranges:

Carbon monoxide	0 - 10%
Carbon dioxide	0 - 15%
Low hydrocarbon	0 - 0.1% (n-hexane)
High hydrocarbon	0 - 1% (n-hexane)
Nitric oxide	0 - 0.1/0.4%

  The system includes three dual-pen Honeywell recorders for continuous dynamic measurement and a computer interface bench operator's console including a digital voltmeter to measure voltage outputs of the NDIR analyzers.

- OLI/PCS (Hewlett-Packard) data acquisition and control system with data readouts on volumetric, mass equivalent and on a mode-by-mode basis

- OLI/PCS computer-controlled drivers aid for seven-mode and Key-Mode testing

- OLI calibration gases analyzed to ±2%

- Autoscan model 4000 diagnostic analyzer

- Hartzell portable fan providing 5300 cfm

- Exhaust blower installation for removing tailpipe exhaust.

A permanent fixed-base facility has been constructed, with the dynamometer recessed to provide a flush mount installation. Separate electrical circuits have been installed for the various pieces of equipment to eliminate voltage fluctuations due

to the different load demands. A blower with the necessary ducting has been installed to exhaust the tailpipe gases. In addition, an overhead exhaust system is used to keep the general operational area free from exhaust or evaporative emissions. This ambient condition has been monitored and found to be at a safe level.

F.2 EQUIPMENT CALIBRATION AND CHECKOUT

To provide quality assurance on all equipment, data processing hardware, software, calibration gases, and test procedures, the OLI analytical system and computer underwent extensive correlation tests prior to installation in the present facility. It was cross-checked against a system having Beckman Model 315-A analyzers plus its own OLI/PCS data processor. Three simultaneous cold-start emission tests were conducted under the direction of the HEW project officer from the Department of Motor Vehicle Pollution Control. Further confidence level was acquired by additional correlation between the ARB and OLI analytical systems. This procedure was separated into four parts, each of which is explained below:

a. Instrument Curve Generation - Analyzer curves were generated for each system independently. The infrared analyzers of the OLI system were calibrated with OLI calibration gases, and the ARB performed calibration with their own gases. This will provide a cross-check between standard gases during Part B.

b. Calibration Gas Norming - The ARB Mobile Laboratory was driven to the Northrop/Olson Test Facility. Using OLI calibration gases (black standards), each system was used to rename the gases for a static correlation. This also gave a good cross-check between the daily working gases. A minimum of three bases were used on each of the LHC, HHC, CO, CO_2 and NO infrared analyzers of both the ARB and OLI analytical systems.

c. Steady-State Tests - Simultaneous steady-state emission tests were conducted by the ARB and OLI systems. This was accomplished by inserting the sample probes of both analytical systems into the same tailpipe of a vehicle. Two vehicles were used: a 1964 Chevrolet supplied by the ARB, and a 1970 Ford supplied by OLI. The steady-state modes consisted of cruises at 50, 30 and 15 mph, plus an idle mode.

d. Hot-Start Tests - To investigate modal values on a dynamic basis, four seven-mode tests were conducted on each of three different vehicles. These simultaneous tests provided final correlation between the two systems.

F.3 INSPECTION EQUIPMENT MAINTENANCE

Maintenance and calibration inspection is continually required to perform precise exhaust emission measurements. To assure and maintain this quality, OLI has instituted several daily and weekly procedures which are outlined below.

F.3.1 Daily Procedure

a. Check chart paper, recorder ink supply and event markers.

b. Check sample line connection location at sample/tailpipe purge selector valve for leaks. Leak-check entire system.

c. Check recorder and computer zeros.

d. Flow zero and span gases through the system and check specified gain with the digital voltmeter (DVM).

e. Check 100 percent CO_2 response on the LHC instrument.

F.3.2 Weekly Procedure

a. Inspect the probe and sample line for contaminants and replace if necessary.

b. Inspect the system for clean plumbing and replace contaminated lines.

c. Periodically flush the condensation coils and traps with trichlorethylene followed by soapy, then clean water.

d. Check all sampling legs for maximum flow.

e. Sampled handling components in the dia-pumps should be cleaned periodically and the diaphragms replaced.

f. Check maximum instrument tune and reset.

g. Service all strip-chart recorders per the manufacturer's instructions.

h. Service the dynamometer per the manufacturer's instructions.

i. Hand read strip-charts and compare raw values and computer printout. Apparent problem areas are investigated immediately.

APPENDIX G
CERTIFICATE OF COMPLIANCE PROCEDURES FOR PARTICIPATING GARAGES

A. PROCEDURES

1. Perform the existing "Certificate of Compliance" inspection and repair per HPH 82.1, "Handbook for Installation and Inspection Stations."

2. When vehicle is ready for certification, complete necessary certificate and/or forms and return one copy to Northrop Corporation. Name and address will be Northrop Corporation.

3. If no certification can be achieved, describe reasons why.

B. EXCEPTIONS

1. If an emission control device is physically missing from the vehicle, do not install a new one; however, perform as much of the Certificate of Compliance as possible, as indicated in Item A above.

MODIFIED CERTIFICATE OF COMPLIANCE PROCEDURE FOR PREEXHAUST CONTROLLED VEHICLES

Scope: These instructions apply to all passenger cars which do not have emission exhaust controls. This includes those with and without PCV valves.

Station License: Stations performing this work will be licensed Class A stations per CHP Handbook HPH 82.1.

Certificates: No Certificate of Compliance will be issued for cars tested to this procedure.

a. Identify the device by trademark or name, model, valve part number, etc. Check to see that it is on the list of certified devices. (Annex B or C, as appropriate, for used vehicles or for factory installation.)

b. To check control valve operation, disconnect the tube to the air cleaner.

c. With engine warm, run at idle and visually inspect for improper operation which may be indicated by the outflow of blowby gases from the tube or any engine opening. With thumb or finger, momentarily close off the inlet to the valve or orifice connected to the intake manifold; you should be able to feel suction. If you don't, the valve is clogged.

d. With the transmission in neutral and parking brake applied, open the throttle momentarily and again visually inspect for outflow of blowby gases.

e. In case the device does not pass the tests of items (c) and (d), inspect the valve or orifice for cleanliness. Clean or replace as required.

f. Follow the device manufacturer's instructions for checking and for cleaning or replacing parts. Dust, dirt, and deposits may accumulate within the device. After substantial use, parts of the device may require cleaning or replacing, including the valve, crankcase breather elements, flame arresters, carburetor air cleaner elements, air/oil separators, etc.

g. Follow the manufacturer's instructions in servicing these parts to assure their proper functioning. Make sure that the valve is not installed backwards and that the flame arrester (if used) is installed. Check to see that the proper closed or restricted breather cap is installed if specified by the manufacturer.

h. Disconnect distributor vacuum line(s) and plug at carburetor or manifold. With engine at idle speed, or speed recommended by manufacturer, observe ignition timing with timing light. Reset if variation is greater than plus or minus three degrees from manufacturer's specification.

   Check the mechanical advance by watching the timing marks advance as you increase the engine speed to approximately 2,000 rpm. With the engine still running at approximately 2,000 rpm, reconnect vacuum line(s) and observe additional advance of the timing marks indicating proper operation of the vacuum advance mechanism. Operate the engine at idle speed. If the distributor has a vacuum retard diaphragm, the timing should now be retarded 6 degrees or more from the basic setting.

i. Use an exhaust analyzer to read idle air-fuel ratio. If it is richer than 12.5 or leaner than 13.5, adjust carburetor idle mixture screw(s) slowly until air-fuel ratio is between these limits. Allow time for analyzer to respond to carburetor adjustment. Don't idle for more than three minutes because high underhood temperature will enrichen the mixture and the thermostatic valve may advance the spark.

j. Check the idle speed with a tachometer. With automatic transmission, select drive range or park position as specified by manufacturer. Adjust idle speed to a speed no slower than manufacturer's recommendation.

APPENDIX H

IDLE TEST PROCEDURES FOR PARTICIPATING GARAGES

IDLE EMISSION TEST, ADJUSTMENT, AND REPAIR PROCEDURE

FOR

PARTICIPATING GARAGES

The following test, adjustment, and repair procedure is recommended to bring the vehicle within prescribed emission levels. Only those adjustments or repair actions required to correct Idle emissions are to be accomplished. Use attached data sheet to record emission measurements.

A. PRE-TEST

Prepare vehicle and equipment for test.

1. Test Equipment - Service, warm-up, and calibrate Sun HC/CO test equipment per manufacturer's specifications.

2. Test Vehicle - Verify engine is at normal operating temperature (warm-up as required).

3. Hook-Up - Insert probe in exhaust pipe (driver side if dual exhaust), hook-up tachometer per manufacturer's instructions.

B. TEST

Perform HC/CO and RPM measurements and compare to Idle Test Standards.

1. 2500 RPM - Operate engine in neutral at 2500 RPM, record HC/CO.

2. Idle RPM - Operate engine at Idle RPM (in drive if automatic transmission), record measurements.

3. Compare - Idle RPM emissions to test standards and record manufacturer's specified RPM; if HC or CO is high, adjust per Step C. If HC and CO are within limits return vehicle to Northrop.

C. ADJUST

Perform engine adjustments for HC/CO.

Note: When any adjustment step brings emissions within limits STOP procedure at that point and re-test per Step B.

Adjustment Procedure

1. RPM - Adjust (if required) to manufacturer's specifications; recheck HC and CO and record.

2. HC - Check timing per manufacturer's procedure and record. If timing is not at manufacturer's specification, adjust as required; re-adjust RPM, if required; re-check HC/CO and record.

3. CO

   (a) Adjust Idle mixture to manufacturer's specification. Where no specifications are available use: 2.0 to 5.0% CO for uncontrolled vehicles and 1.0 to 4.0% CO for controlled vehicles. Re-adjust RPM, if required.

   Note: When adjusting Idle CO, attempt to reduce CO to lowest possible value, consistent with good Idle quality. Avoid a rough Idle condition, side to side unbalance or increase in HC (HC increase indicates a lean idle misfire).

   If CO/HC emissions cannot be reduced to within limits, while maintaining acceptable Idle quality; diagnose and repair (Step D) vehicle as required. ONLY those repairs necessary to bring Idle HC/CO within limits are to be accomplished.

   (b) After adjustment, enrichen mixture slightly to avoid too lean a condition. Recheck HC/CO and record.

D. REPAIR

Diagnose and repair engine; when repair is complete re-test per Step B.

1. Diagnose Engine.

2. Repair malfunction per manufacturer's specifications.

3. Retest per Step B, record measurements.

4. If emission limits cannot be achieved within the reapir constraints imposed by Northrop, contact Northrop immediately for disposition.

HELPFUL HINTS

High HC - Indications are caused by ignition misfires, advanced ignition timing, exhaust valve leakage, and over-lean mixtures. Ignition misfires can be diagnosed by use of the oscilloscope. Timing problems by use of timing light. Valve failure is indicated by cylinder balance testing with compression test verification. Lean misfire is caused by too lean Idle mixture setting or manifold vacuum leaks.

High CO - Can be caused by abnormally restricted air cleaner, stuck or partially closed choke or carburetor Idle circuit failure. Rough or erratic Idle can be caused by PCV valve malfunction. Idle HC/CO failure/malfunction Truth Table can be used as a guide to identifying failures.

MALFUNCTION TRUTH TABLE

Malfunction	HC		CO		Rough Idle
	High	Very High	High	Very High	
PCV Valve Dirty/ Restricted			X		X
Air Cleaner Dirty/ Restricted			X	X	
Choke Stuck Partially Closed				X	
Carburetor Idle Circuit Malfunction	X		X		X
Intake Manifold Leak	X	X			X
Ignition Timing Advanced	X				
Leaky Exhaust Valves	X	X			X
Ignition System Misfire	X	X			X

IDLE INSPECTION DATA SHEET

Car Number: 1297 License Number: KAE 058 Test Date: 12/22/70

TEST

1. RPM 2500; HC 1800 ppm; CO 2.5 %
2. RPM 900 ; HC 1300 ppm; CO 7.5 %
3. RPM 550 Mfg. Spec.; HC 700ppm max.; CO 5.0%max. (Uncontrolled Standard)

~~HC 250ppm max.; CO 4.0%max. (Controlled Standard)~~

ADJUST

1. (Idle Speed) RPM 550 0 to + 50; HC 1200 ppm; CO 5.7 %
2. (Timing) Mfg. Spec. 8 °TDC; Engine Timing 12 °TDC
   RPM 550 ; HC 975 ppm; CO 7.5 %
3. (CO) RPM 2500 ; HC 900 ppm; CO 6 %

REPAIR

3. RPM: 550 ; HC 650 ppm; CO 4.5 %

REMARKS: This car is suffering from very poor maintenance. After major tune-up, car went into specs, however after prolonged idle period hydrocarbon and CO increase. Suggest customer drive car period of time and recheck later to see if carbon that is holding rings to pistons dissipates

Cone Chevrolet

APPENDIX I
KEY-MODE REPORT CARDS AND REPAIR PROCEDURES

1. An emission test report card will accompany each vehicle which requires adjustment and/or repair. A sample report card is attached.

2. This report card will be used in conjunction with the Key-Mode Truth Charts instruction book published by Clayton.

3. The corresponding truth chart (found in the instruction book) will be used to assist in diagnosing the problem. Only those repairs suggested should be performed.

4. After repair, the suggested adjustments (timing, speed, and carburetor) will be made before returning vehicle to Northrop. Record results on attached data sheet.

KEY MODE REPORT CARD

CAR NUMBER_____ YEAR_____ CONTROLLED ☐

	IDLE	LOW CRUISE	HIGH CRUISE
- CO - CARBON MONOXIDE	3.0%	2.5%	2.0%
- HC - UNBURNED HYDROCARBON	290ppm	240ppm	220ppm

✓ = REJECT

After final repair or adjustment, insure that the following adjustments are within manufacturer's specification.

Idle Speed_____ RPM; Timing_____° TDC; Carburetion_____A/RF

Remarks:_____

_____

_____

_____

_____

KEY MODE REPORT CARD

CAR NUMBER_____ YEAR_____ UNCONTROLLED ☐

	IDLE	LOW CRUISE	HIGH CRUISE
- CO - CARBON MONOXIDE	5.5%	3.5%	3.0%
- HC - UNBURNED HYDROCARBON	700ppm	450ppm	450ppm

✓ = REJECT

After final repair or adjustment, insure that the following adjustments are within manufacturer's specification.

Idle Speed_____ RPM; Timing_____ ° TDC; Carburetion_____ A/FR

REMARKS: _____

_____

_____

_____

_____

Clayton

MANUFACTURING COMPANY

EL MONTE, CALIF.

KEY MODE TRUTH CHARTS

IE CLAYTON MFG. CO.
MONTE, CALIFORNIA, U. S. A.

NTED IN U.S.A.

TRUTH CHARTS

(For Use In Conjunction With The Inspection Report Card Of The Key Mode Emission Evaluation And Repair System)

IMPORTANT: Read the Introduction and Chart Usage before attempting to use the Truth Charts.

INTRODUCTION

The Key Mode System operates the engine in carefully selected modes that have been found to most reliably cause emission related engine malfunctions to occur. Abnormal gas content indicates the presence of a malfunction. The mode or modes in which they occur are indications of the type of malfunctions or maladjustments.

The Truth Charts are designed as an aid to mechanics in determining the type of malfunction that is causing unnecessarily high exhaust emission. They will direct the mechanic's attention to the mode of engine operation in which the fault exists, and indicate the malfunctioning system that needs repair or adjustment.

The mechanic must understand the fundamental causes of unnecessarily high Carbon Monoxide (CO) and Hydrocarbons (HC) if he is to be effective in repairing engines to reduce exhaust emissions. Engine exhaust emission is a new parameter to practically all mechanics.

The fundamental difference between causes of high CO and high HC is as follows:

CARBON MONOXIDE (CO)

CO is a result of incomplete combustion. That is, the gas must be subjected to combustion in order to form CO. If the mixture is too rich, there is insufficient Oxygen (O_2) to complete the combustion, thus large amounts of CO result instead of the optimum condition of Carbon Dioxide (CO_2) formation. There will always be at least a small amount of CO in the exhaust because perfect combustion is not to be expected. Abnormally high CO can only be due to excessively rich Air/Fuel mixture.

HYDROCARBON (Gasoline is essentially 100% Hydrocarbon)

A modest amount of HC will always be present in the exhaust gas. This is a result of both incomplete combustion and fuel at the flame boundries that has not been fully subjected to combustion. When CO is normal and grossly high HC is present, an abnormal amount of raw fuel is escaping from the combustion chamber without being subjected to combustion. This is generally due to ignition misfire or leaking exhaust valves. Moderate rise in HC can result from early ignition timing, preignition causing abnormal flame propagation, or Air/Fuel mixture being too lean to consistently support combustion.

High HC and CO may exist in any one mode of engine operation, any combination of two modes or in all modes. A basic knowledge of these patterns and their meaning is important.

TRUTH CHART USAGE

The master Truth Charts, pages 8 to 14, show reject patterns resulting from various types of malfunction or maladjustment. When a test report is received on a vehicle, its reject boxes (✓) act as a repair guideline for the servicing agency by comparing it to a similar master Truth Chart. The mechanic will quickly learn to diagnose without the example cards if he remembers the fundamental difference between causes of high CO and HC, and understands the engine operating conditions represented by the Idle, Low Cruise, and High Cruise boxes of the Report Card.

The Idle Mode, as its name implies, is with normally closed throttle, thus the engine is operating at or near the conditions where basic engine adjustments are made. The high intake manifold vacuum at idle or at higher free-running engine speeds result in a relatively low compression pressure in which the spark plug fires.

TRUTH CHART USAGE (Cont'd)

The High Cruise Mode tests the engine at a point where the intake manifold vacuum is down, thus compression pressure is up. The air flow through the carburetor has increased so that the main jet system of the carburetor is in full operation. Speed and vacuum signals have changed the ignition advance. In other words, it provides dynamic test data to expose malfunctioning engine systems that are not responding properly to the signals from increase in speed and air flow.

The Low Cruise Mode is in the transition range of speed and power between Idle and High Cruise. As a general statement, the carburetor is blending the idle and main jet fuel supply. Also, with only a modest ignition advance due to speed, the vacuum advance is at or approaching maximum. Compression pressures have increased moderately from idle conditions. Engines that "stumble" or otherwise malfunction as they come off idle, are most likely to be exposed at this "mid-power, mid-speed" point.

NOTE: The Key Mode Truth Chart can be used with all internal combustion gasoline engines. For simplicity, the numbers have been left out of the Truth Charts. Make repair based on those boxes which have been checked (✓).

EXAMPLE REPORT CARDS

(Pages 5 and 6)

The two following example Report Cards are similar to the Report Card that will be received from the inspecting agency.

The upper numbers in each box of the Report Card indicate the "Sensible Maximum" values for that type of vehicle when it is in good repair and adjustment. These values are intended as guidelines for the repairing agency.

The lower numbers are the actual values derived from dynamic test of the vehicle.

The actual values used for reject of the vehicle are not printed on the Report Card, but are usually considerably higher than the "Sensible Maximum." Repair must be made based only on the rejects (✓).

Example Report Card - Page 5

Note the "Sensible Maximum" in the upper half of each box, and the larger actual values at the bottom.

For repair of this vehicle, the mechanic would find that the second example on Truth Chart #2 matches his Report Card, and would repair accordingly.

Example Report Card - Page 6

Note the "Sensible Maximum" in the upper half of each box. These values are lower than in the previous Report Card because this is an emission control vehicle and is capable of lower emissions when in proper operating order.

Also, note that the Idle CO is higher than the "Sensible Maximum," but is not rejected. This is because it was not high enough to be rejected by the actual reject values of the inspecting agency.

For repair of this vehicle, the mechanic would find that the second example on Truth Chart #6 matches his Report Card, and would repair accordingly.

TYPICAL REPORT CARD

NON-EXHAUST EMISSION CONTROLLED

NAME: _____ VEHICLE: _____

VEHICLE & OWNER STATISTICS

	IDLE	LOW CRUISE	HIGH CRUISE
-CO- CARBON MONOXIDE	MAX 5.5% 2.5	MAX 3.5% 3.4	MAX 3% 7.6 ✓
-HC- UNBURNED HYDROCARBON	MAX 700 PPM 492	MAX 450 PPM 368	MAX 450 PPM 465

✓ = REJECT

TYPICAL REPORT CARD

EXHAUST EMISSION CONTROLLED

NAME: _____ VEHICLE: _____

VEHICLE & OWNER STATISTICS

	IDLE	LOW CRUISE	HIGH CRUISE
-CO- CARBON MONOXIDE	MAX 3% 3.8	MAX 2.5% .6	MAX 2% .4
-HC- UNBURNED HYDROCARBON	MAX 290 PPM 1482 ✓	MAX 240 PPM 1350 ✓	MAX 220 PPM 1252 ✓

✓ = REJECT

CARBON MONOXIDE

Basic problems involved ONLY with carburetor misadjustments or malfunctions.

Refer to these Charts for assistance in diagnosing problems where one or more of the top three boxes has been checked with a reject (✓).

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CHART #1

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓		
HC			

ABNORMALLY HIGH IDLE CO

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓	✓	
HC			

ABNORMALLY HIGH IDLE CO CARRYING OVER TO LOW CRUISE

USUAL CAUSE

1. Gross error in carburetor idle air fuel mixture adjustment.
2. Rarely high idle CO carries over into Low Cruise, as shown in the second example.

SERVICE STEPS

1. Inspect the PCV system to insure it is clean and operating correctly. A PCV system malfunction can cause erratic idle operation.
2. Make basic engine idle adjustments of ignition dwell and timing, idle speed and air fuel ratio.

   CAUTION: After making the basic idle adjustment, accelerate the engine at least three times and let it return to idle. Observe the stability and repeatability of idle condition.

3. In rare cases that idle adjustments cannot be made correctly, due to excessive amounts of varnish or foreign deposits in the carburetor idle passages, it may be necessary to replace or repair the carburetor.

CHART #2

	IDLE	LOW CRUISE	HIGH CRUISE
CO		✓	
HC			

ABNORMALLY HIGH CO AT LOW CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO			✓
HC			

ABNORMALLY HIGH CO AT HIGH CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO		✓	✓
HC			

ABNORMALLY HIGH CO AT LOW AND HIGH CRUISE

USUAL CAUSE

The most common cause is a main system carburetor malfunction. This problem cannot be corrected by an Idle adjustment only.

SERVICE STEPS

1. Check carburetor air cleaner for abnormal restriction.
2. Check to see that choke is not stuck partially closed.
3. If the air cleaner and choke are satisfactory, remove the carburetor and replace or repair according to factory specifications.

   NOTE: If carburetor rebuild is undertaken, refer to the carburetor check sheet, page 17 of this manual.

ALWAYS MAKE THE BASIC IDLE ADJUSTMENTS OF IGNITION DWELL AND TIMING, IDLE SPEED AND AIR FUEL RATIO, TO COMPLETE THE REPAIR.

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CHART #3

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓		✓
HC			

ABNORMALLY HIGH CO AT IDLE AND HIGH CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓	✓	✓
HC			

ABNORMALLY HIGH CO IN ALL MODES OF OPERATION

USUAL CAUSE

A combination of a malfunctioning carburetor main system and a maladjusted idle air fuel ratio.

SERVICE STEPS

1. Check carburetor air cleaner for abnormal restriction.
2. Check to see that choke is not stuck partially closed.
3. If the air cleaner and choke are satisfactory, remove the carburetor and replace or repair according to factory specifications.

   NOTE: If carburetor rebuild is undertaken, refer to the carburetor check sheet, page 17 of this manual.
4. Idle CO will be corrected when basic adjustments are made.

ALWAYS MAKE THE BASIC IDLE ADJUSTMENTS OF IGNITION DWELL AND TIMING, IDLE SPEED AND AIR FUEL RATIO, TO COMPLETE THE REPAIR.

UNBURNED HYDROCARBON

Basic problems involved ONLY with ignition misfires, vacuum leaks, valve leaks, ignition timing, or any condition which will permit raw fuel to escape into the exhaust pipe without being subjected to combustion.

Refer to these charts for assistance in diagnosing problems where one or more of the bottom three boxes has been checked with a reject (✓).

CHART #4

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓		

ABNORMALLY HIGH HC AT IDLE

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓	✓	

ABNORMALLY HIGH HC AT IDLE CARRYING OVER TO LOW CRUISE

USUAL CAUSES

1. Vacuum leaks into the intake manifold causing a lean mixture and subsequent misfire in some cylinders.
2. Idle circuits on 2 and 4 barrel carburetors highly imbalanced or adjusted too lean.
3. Intermittent ignition misfire is possible but not probable.
4. Grossly advanced basic ignition timing.
5. Modest compression leak through one or more exhaust valves.
6. Excessively high CO at idle can cause moderately high HC at idle (adjust idle CO first, then determine whether further repair is necessary).

SERVICE STEPS

1. Note idle CO on Report Card and determine that idle is not adjusted too lean (less than 1.0% CO).
2. Ignition misfire at idle and not in the power modes is uncommon; however, simplicity of oscilloscope check-out suggests this be observed next.
3. Determine that basic ignition timing is not grossly advanced.
4. Check for balanced idle adjustments if 2 or 4 barrel carburetor.
5. Check for vacuum leaks into the intake manifold.
6. If above steps do not locate the source of trouble, make a cylinder compression check. Burned exhaust valves can cause up to four times normal HC at idle, with little increase in the Cruise modes.

ALWAYS MAKE THE BASIC IDLE ADJUSTMENTS OF IGNITION DWELL AND TIMING, IDLE SPEED AND AIR FUEL RATIO, TO COMPLETE THE REPAIR.

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC		✓	

ABNORMALLY HIGH HC AT LOW CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC			✓

ABNORMALLY HIGH HC AT HIGH CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC		✓	✓

ABNORMALLY HIGH HC AT LOW AND HIGH CRUISE

USUAL CAUSES

Ignition misfire under higher compression pressures of power operation, due to a failure of an ignition system component.

SERVICES STEPS

1. Probably the most common problem is a faulty spark plug; however, this should not be a conclusion without proper examination.
2. Check out the ignition system with a scope and associated instruments. If the scope does not clearly show a faulty spark plug, observe for the following:
    a. Faulty ignition cables.
    b. Point arcing.
    c. Cross fire, due to cracked or carbon tracked cap or rotor.
    d. If above steps do not locate the source of trouble, refer to "Ignition Check Sheet," page 18, for added assistance.

ALWAYS MAKE THE BASIC ADJUSTMENTS OF IGNITION DWELL AND TIMING, IDLE SPEED AND AIR FUEL RATIO, TO COMPLETE THE REPAIR.

CHART #6

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓		✓

ABNORMALLY HIGH HC AT IDLE AND HIGH CRUISE

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓	✓	✓

ABNORMALLY HIGH HC IN ALL MODES OF OPERATION

USUAL CAUSES

The most probable cause is ignition misfire, as described on Chart #5.

SERVICE STEPS

1. Probably the most common problem is a faulty spark plug; however this should not be a conclusion without proper examination.
2. Check out the ignition system with a scope and associated instruments. If the scope does not clearly show a faulty spark plug, observe for the following:
   a. Faulty ignition cables.
   b. Point arcing.
   c. Cross fire, due to cracked or carbon tracked cap or rotor.
   d. If above steps do not locate the source of trouble, refer to "Ignition Check Sheet," page 18, for added assistance.
3. In RARE cases, it may be necessary to refer to Chart #4 when repair, as prescribed by Chart #5, does not bring Idle Hydrocarbons within a reasonable limit.

ALWAYS MAKE THE BASIC IDLE ADJUSTMENTS OF IGNITION DWELL AND TIMING, IDLE SPEED AND AIR FUEL RATIO, TO COMPLETE THE REPAIR.

CARBON MONOXIDE AND HYDROCARBON

Combinations of CO and HC Problems

Rejects in upper and lower boxes are simply combinations of problems causing abnormally high CO and those causing abnormally high HC. They are to be treated as separate and independent problems.

Repairs will be based on a combination of a CO chart which matches the checks in the upper row of boxes, and a HC chart which matches the checks in the lower row of boxes.

NOTE: As a quick reference, a master wall chart has been included on the following page. This will be an aid in quickly finding the proper Truth Chart(s) and page number(s) for given reject situations.

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QUICK REFERENCES

MASTER WALL CHART

CARBON MONOXIDE

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓		
HC			

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓	✓	
HC			

CHART NO. 1 (PAGE 8)

	IDLE	LOW CRUISE	HIGH CRUISE
CO		✓	
HC			

	IDLE	LOW CRUISE	HIGH CRUISE
CO			✓
HC			

CHART NO. 2 (PAGE 9)

	IDLE	LOW CRUISE	HIGH CRUISE
CO		✓	✓
HC			

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓		✓
HC			

CHART NO. 3 (PAGE 10)

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓	✓	✓
HC			

UNBURNED HYDROCARBON

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓		

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓	✓	

CHART NO. 4 (PAGE 12)

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC		✓	

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC			✓

CHART NO. 5 (PAGE 13)

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC		✓	✓

	IDLE	LOW CRUISE	HIGH CRUISE
CO	✓		
HC	✓		✓

CHART NO. 6 (PAGE 14)

	IDLE	LOW CRUISE	HIGH CRUISE
CO			
HC	✓	✓	✓

CARBURETOR CHECK SHEET

NOTE: In rebuilding a carburetor, the following defects must be looked for. If one or more of these defects is not observed or cannot be corrected, it is suggested that the carburetor be discarded and replaced according to manufacturers recommendations.

1. Check for faulty power enrichening valve.
2. Check to be sure that all vacuum passages controlling the power enrichening valve are open and unobstructed.
3. Observe for loose main jet(s) and/or power enrichening valve.
4. Check for pitted or cracked main jet seat of seat gasket.
5. Check for worn jets and/or metering rods. A slight amount of wear can cause a grossly higher CO reading.
6. Examine the float for abnormal damage or leaks.
7. Check for a damaged or loose float valve.
8. Check the venturi cluster and cluster gasket for damage or cracks.
9. Thoroughly inspect the entire body of the carburetor for cracks and to see that all lead plugs are securely in place.

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IGNITION CHECK SHEET

NOTE: Below are guidelines as to problems to look for that can cause ignition misfires and high hydrocarbons. In most cases, the problem can be traced to one of these areas and should be done so by proper diagnosis, not by repairing and replacing until the problem has been corrected.

This list is prepared in order with the most commonly occurring problems listed at the top, and the least common toward the bottom.

1. Spark plugs.
2. Spark plug cables and coil cable resistance.
3. Excessive point resistance or arcing.
4. Distributor cap and rotor cracks and carbon tracks.
5. Moisture inside the distributor cap or on the cables.
6. Extremely incorrect dwell angle or point gap.
7. Low coil output voltage.
8. Low primary voltage supplied to the coil.
9. Loose wire connections such as distributor plate ground or coil to point wire connections.

APPENDIX J
DIAGNOSTIC TEST AND PROCEDURES

1. A diagnostic analysis report will accompany each vehicle which requires adjustment and/or repair. A sample diagnostic analysis report is attached.

2. Only those adjustments and repairs indicated under REPAIR INSTRUCTIONS are to be performed.

3. The diagnostic analysis report is included for information purposes only with checks for satisfactory and unsatisfactory on those functions performed.

4. If repairs other than those requested are apparent, please indicate your recommendations under REMARKS. Keep in mind that only those repairs will be performed that are needed to bring exhaust emissions within an acceptable range.

5. If failure occurs on retest, the cars will be given additional diagnosis and returned for further repair work.

DIAGNOSTIC ANALYSIS REPORT

Car Number _____
License Number _____
Date _____
Test Start Time _____

S	U	Function
		Air Cleaner
		Heat Riser
		Carb. Choke Action
		Rhythm Test
		PCV Valve Action
		Air Injection Pump
		Air Injection Check Valves
		Gulp Valve
		Emission System Hose Cond.
		Polarity
		Cap
		Rotor
		Condenser
		Coil
		Idle Speed Spec _____ Actual _____
		Dwell Spec _____ Actual _____
		Timing (Vac Hose Off) Spec _____ Actual _____
		Mechanical Advance (Vac Hose Off) Spec _____ Actual _____
		Total Advance (Vac Hose On) Spec _____ Actual _____
		Vacuum Advance (Total-Mech Advance) Spec _____ Actual _____
		Firing Order _ _ _ _ _ _ _ _
		Power Drop Test (5 Sec per Cycle) _ _ _ _ _ _ _ _
		Plug Condition-Idle
		Carb - Idle AFR _____ CO _____
		Plug Condition - Loaded
		Carb - Power AFR _____ CO _____
		Plug Wires
		Points
		Detonation
		Carb - Cruise AFR _____ CO _____
		Carb Surges
		Blow - By
		Valve Action
		Knocks
		Head Gasket (On decel - use Bloc Chek) NOTE: Remove & replace radiator cap above 2000 RPM

S	U	Visual Check
		Battery Appearance
		Cables
		Belts
		Hoses
		Radiator
		Oil Leaks
		Fuel Leaks

REPAIR INSTRUCTIONS - Use normal operating procedure, itemize repair actions on invoice, return all parts that are replaced.

Test Completion Time _____

REMARKS -

APPENDIX K

PUBLIC OPINION SURVEY RESULTS

INTRODUCTION

PURPOSE

The purpose of this OPINION RESEARCH OF CALIFORNIA Study was to measure opinions of vehicle owners concerning a motor vehicle emissions inspection program. The following subject areas were included in the investigation of owner's attitudes:

1) The advantages/disadvantages of a vehicle emissions inspections and maintenance program;

2) The convenience/inconvenience factors, including location of inspection centers, frequency of inspection, time allocation for inspection;

3) The desirable/undesirable aspects of corrective maintenance as it relates to personal convenience, reduction of vehicle emissions, vehicle safety and operations;

4) The acceptance/rejection of cost factors relating to both inspection and corrective maintenance;

5) The approval/disapproval of public and/or private operation of the inspection program;

6) The acceptance/rejection of punitive measures for nonconformity to the program.

The Section of Tables includes statistical analysis of the data by several sub groups, including:

1) All respondents;

2) Number of vehicles owned by respondent;

3) Respondent's stated annual income;

4) Sex of respondent;

5) Respondent's stated attitude concerning enforcement provision.

METHODOLOGY

A multi-staged, modified probability sample design was utilized to select 1,000 owners of private passenger automobiles registered in the State of California. The sample design called for stratification of the state into major population areas, with a systematic selection of 100 primary sample clusters which were each factored into ten sub-clusters. Ultimate sampling units consisted of eight vehicle owners, one of whom was randomly selected as the original interviewee. The remaining names were randomly substituted if the original interview could not

be completed. Final respondents conformed to pre-determined male/female ratios.

The interviewing was conducted by telephone, and two call backs were made, for a total of three calls, before substitutions were introduced. In those sampling units where no interview could be completed by telephone, the selected respondent was interviewed in person at his place of residence.

A total of 2,506 calls were made to complete the 1,000 sample. Sixty-two in-home interviews were necessary to meet sample design requirements. Sixty-six percent of the completed sample were original interviewees, while thirty-four percent were substitutes.

The interviewing was conducted from March 13, 1971 through March 22, 1971.

Additionally, an investigation of attitudes among a selected group of fifty (50) leaders in California concerning a vehicle emission inspection program was conducted by OPINION RESEARCH OF CALIFORNIA. These fifty select individuals were associated with various business, industrial, legal, governmental, news media, employee and public organizations.

These individuals were interviewed in person during the period from April 26, 1961 to April 30, 1971.

DEMOGRAPHY

The mean age for the automobile owners interviewed in the Study was approximately thirty-seven years. One-third of the owners were in the 35-49 age bracket, with slightly more than one-third in the older brackets and slightly less than a third in the lower age brackets.

The average education for all automobile owners interviewed is a high school diploma plus some college. Just under one-third of the owners stated they had graduated from high school; fifteen percent had less than a high school education; and about half of those interviewed indicated they had some college experience or were college graduates.

Mean income for the respondents was approximately $8,700 annually. Approximately one-fifth of the owners said they had an annual income of less than $8,000, and almost half indicated an income of over $10,000 annually.

FINDINGS

CAUSES OF AIR POLLUTION

More than three-fourths of the owners of private passenger vehicles, and four out of five of the leaders interviewed in the public opinion study, named the automobile as the major contributor to air pollution in California today.

The second most frequently named cause of air pollution was industry and/or factories. Thirty-five percent of the automobile owners and one-seventh of the leaders mentioned these as a major cause of pollution.

Other less frequently mentioned causes of air pollution include: aircraft (8%), trucks (6%), busses (4%), oil industry (4%), over population (3%), combustion engines (3%), and miscellaneous other causes (8%). Only four percent of the vehicle owners indicated they did not know what they consider to be the major cause of air pollution.

One of the community leaders, while naming both the automobile and industry as causing pollution, also stated that the climatic and geographical conditions of certain sections of California are conducive to air contamination,

and some historians claim that the early California Indians made reference to conditions we now call air pollution.

The reader is referred to Table 1, Question 1, in the section of Tables for more detailed statistical analysis. It should be noted at this time that the percentages on this question and on other questions in the Study add up to more than one hundred percent since multiple answers from the respondent were acceptable.

VEHICLE OWNERSHIP

Approximately four out of ten (43.6%) of the owners said they have one car, and an almost equal number (44%) had two cars in the family. The remainder had more than two cars. As would be expected, there was a significant correlation between the income of the family and the number of vehicles owned--the lower the income the fewer number of cars, the higher the income the greater the number of cars in the family.

Almost all makes and models of automobiles (Chevrolet and Ford were the front runners) were represented in the vehicle owner sample. See Question 3 in the Section of Tables for the complete listing of automobiles owned by

the respondents.

Two-thirds of the vehicle owners said they use normal lead-content gasoline and one-fourth maintained they use low-lead gasoline in their vehicles.

According to the Survey, automobile owners had little knowledge about the type of emission tests made on their vehicle, although more than three-fourths of them maintained they have had the pollution control device in their automobile inspected at some time or another. A majority of the respondents maintained they had the control device checked in the last six months. (See Question 6 in Section of Tables for further details.)

AUTOMOBILE SAFETY INSPECTIONS

Approximately half of the vehicle owners maintained they have had their vehicle inspected, at one time or another, by the California Highway Patrol at one of the side-of-the-road safety inspection points. There exists a correlation between the number of automobiles owned and the likelihood of having participated in the safety check program--the more automobiles owned the higher the frequency of having had a safety check.

Overall, the safety inspection program was viewed positively by the majority of those interviewed, with less

than one-fourth of the respondents offering negative comments about the inconvenience or ineffectiveness of the program. (Questions 7 and 8 in the Section of Tables show detailed results.)

More than half of the leaders also viewed the program favorably. However, one out of five of these individuals maintained the program should be expanded to detect more defective automobiles, and one-sixth maintained the program is not as effective as it should be primarily because it is "hit and miss."

MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

The Survey results indicate that three-fourths (76.6%) of the car owners believe a mandatory vehicle emissions inspection program for all vehicles in the State is necessary, while just over half (27) of the leaders agreed with such a mandatory program.

Primary advantages of a mandatory vehicle emission inspection program in the car owner's opinion were that it will reduce air pollution (30%), force people to repair their cars (20%), detect defective cars (17%), and eliminate old cars (12%).

The leaders viewed the advantages of the program as

reducing emissions into the air (11), detecting defective automobiles (8) and making people repair their cars (5). Additionally, the leaders believed the program would check the effectiveness of the emission control devices and encourage more technological advances in this area (9).

One-seventh of the leaders said there were no advantages to the program, contrasted to only eight percent of the car owners who replied comparably.

Major disadvantages of such a program according to the vehicle owners were the expense and inconvenience. Approximately one-third of the owners mentioned the expense factors in one way or another, and about one-fifth were concerned with the inconvenience factors. Approximately one-fourth of the owners said there were no disadvantages that they could think of.

The leaders mentioned the same disadvantages as did the vehicle owners (Cost factors, approximately 50%; Inconvenience factors, approximately 20%). However, they were also concerned about the problems and cost of administering a statewide program (20%).

The reader is directed to Questions 9, 10 and 11 in the Section of Tables for more details on the vehicle owners' opinions about the above series of questions.

More than half (57%) of the automobile owners believed the inspection program should be conducted by the State of California rather than by private garages or service stations licensed by the State; whereas, the reverse is true of the leaders -- more than half (27) of these individuals believed the inspections should be conducted by private facilities.

Among the vehicle owners who believed the inspection should be made by the State of California, the main reasons given related to a lack of trust in the private garages and service stations (39%). The principal reasons for selecting the private garage were the convenience factor (24%), less cost to the State (12%), and support of private enterprise (12%).

The leaders who believed the inspections should be conducted by the State were likewise concerned about potential abuses and dishonesty of the private garages, but the main reason for selection of the private garage or station was because of the cost to the State to develop and run the inspection centers.

More than three-fourths of the automobile owners stated that motor vehicles should be checked for emissions at least once a year, or even more often, and three-fifths of the leaders concurred.

(See Questions 12, 12a and 13 for further details on the above.)

Consistent with other results in the Survey, the vast majority of vehicle owners (82%) favored a mandatory vehicle emission inspection program in California. Three out of five of the leaders stated they would favor such a program.

Consistent with previous Survey results, the principal reason for favoring the program was that it would reduce air pollution (48%). One-eighth of the vehicle owners voiced support of the program because it was mandatory, while one-seventh related their favorable response to the fact that automobiles would have to be fixed to meet standards.

The leaders also voiced their support of the program because it would help reduce the amount of pollutants in the air, but a few of these cautioned it may not be necessary once the manufacturers design automobiles that are emission free.

Primary reasons for opposing the program among the leaders and owners were the cost factors (21%) and the possible ineffectiveness of the program (19%). Almost one-fifth of the owners who opposed the program were

concerned about the infringement upon privacy.

(See Questions 14 and 14a in the Section of Tables for further details.)

A lengthy series of questions were asked to determine the cost constraints and time allotments that car owners would accept and still favor a mandatory vehicle emissions inspection program.

The majority of the automobile owners interviewed would continue to favor the program if the inspection took thirty minutes or less, if the inspection fee were $1.00 or less, if they had to drive ten miles or less to an inspection center, and if the average repair costs were $10.00 or less.

When the time limit, driving distance and costs exceed those described above, a majority of the respondents indicated they would oppose the mandatory vehicle emission inspection program.

(Questions 15 through 22 in the Section of Tables show the detailed analysis for this series of questions.)

The leaders were questioned about these same four areas: (distance to inspection centers, fees for inspection, time for inspection, and cost of repairs) in order to help establish some guidelines for the program.

Generally, leaders believed the inspection centers should be as convenient as possible for the motorists; i.e., around five to ten miles in urban areas and centrally located in rural areas; the fees should be minimal, but cover the cost of the inspection; the time limit should be as short a period of time possible, but they were concerned about the inspection being thorough and also questioned the present technology in testing equipment; the repair costs were unpredictable because of not knowing the defective equipment which would be detected, but the consumer should have some uniform costs for work performed.

Just over half (53%) of the owners interviewed, and just less than half (23) of the leaders said that fifteen days is a sufficient length of time to repair a car if it does not pass the vehicle emission inspection. Among those who believe fifteen days is insufficient time, the majority maintained thirty days is the minimum number necessary to have a deficient car repaired.

(See Questions 23 and 24 in the Section of Tables for further details.)

A significant division of opinion existed among both vehicle owners and leaders on the question of enforcement provisions in the inspection program. Forty-seven percent

of the owners approved and an equal number disapproved of an enforcement provision which would require the owner to repair his vehicle within a specified time limit or surrender his license plates and registration papers. Nineteen of the leaders approved and twenty-three disapproved of the same proposal. The remainder were undecided on the issue.

Among those who disapproved of the suggested enforcement provision, approximately half believed there should be some fine imposed, but there is no concensus as to the amount of the fine.

A final question aksed of the vehicle owners was, "Now that you know more about the mandatory vehicle emissions inspection program, in general, do you approve or disapprove of spending the necessary time and money to reduce vehicle emissions and lessen air pollution in California?"

Eighty-six percent of all respondents maintained they would approve of such expenditures of time and money.

A final question asked of the leaders was, "Now, regardless of whether you favor or oppose a vehicle emissions inspection program, what, in your opinion, would

be the chances of such a program being passed by the State Legislature this year, and why?"

Three-fifths of the leaders believed the measure would have either no chance, or a poor chance, of being passed by the Legislature, about one-fourth of the leaders believed the measure could pass or would have an even chance of passing.

Among those leaders who believe it might pass, the main reason given was because of the current interest in ecology. Although opinion was fragmented among those leaders who believed it would not pass, the most prevalent comments were: (1) the amount of lead time necessary to educate and organize support, (2) the cost factors, (3) the unavailability or lack of confidence in related technology, and (4) pressure groups who would oppose any such measure.

A question asked early in the interview with the fifty leaders somewhat summarizes the problems of air pollution in California today.

"What, if anything, do you believe the State of California should do to reduce the problem of air pollution?"

Approximately one-tenth of the leaders believed that

the State should continue what it is currently doing. However, several specific suggestions did emerge. Included among them were: development of some form of mass transit, banning the combustion engine, encouraging the Federal government to take action, finding more effective smog control devices for automobiles, placing stricter controls on air polluting equipment and industries, doing more to reduce lead content in gasoline, establishing regional programs to attack the problems.

As one leader so aptly stated, "There is no one solution. It must be attacked on several fronts. With the automobile, we must continue to take the lead out of gas and improve smog control devices. We must clamp down on agricultural burning and we must place greater controls on industry, particularly in new plant construction, to take advantage of improved technology. Ultimately, we may ask the homeowners to stop burning in their fireplaces, but the public won't stand still for this until all other controls have been implemented."

TABLE 1
Q.1--WHAT IS MAJOR CAUSE OF AIR POLLUTION IN CALIFORNIA

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
AUTOMOBILE	76.4	76.6	76.8	74.2	72.1	74.6	79.0	76.6	78.0	75.4
INDUSTRY/FACTORIES	34.9	33.7	36.8	32.3	29.7	35.6	40.8	31.3	35.2	38.1
AIRCRAFT	8.3	9.6	7.3	7.3	10.8	12.7	10.8	7.1	3.4	10.3
TRUCKS	5.9	5.5	6.8	4.0	6.3	10.2	5.7	6.0	3.8	5.6
BUSSES	4.0	4.8	3.4	3.2	3.6	6.8	3.2	3.2	3.4	5.6
OIL INDUSTRY/ REFINERIES	3.9	3.2	4.5	4.0	2.7	1.7	3.8	3.2	5.9	4.8
OVER POPULATION	2.7	3.0	2.5	2.4	1.8	3.4	1.3	2.8	3.8	2.4
COMBUSTION ENGINES	2.7	1.8	3.2	4.0	.9		3.2	4.8	3.8	
PUBLICS LACK OF CONCERN	.5	.5	.7			.8		.8	.4	.8
STEEL INDUSTRY	.3	.2		1.6	.9		.6	.4		

CONTINUED

TABLE 1 - 1
Q.1--WHAT IS MAJOR CAUSE OF AIR POLLUTION IN CALIFORNIA

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
MISCELLANEOUS OTHER	7.3	8.7	5.7	8.1	9.9	10.2	8.3	7.9	4.7	4.8
DONT KNOW	3.9	4.6	3.2	4.0	7.2	5.1	3.2	2.4	2.5	6.3

TABLE 72
Q.1--WHAT IS MAJOR CAUSE OF AIR POLLUTION IN CALIFORNIA

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
AUTOMOBILE	76.4	77.7	74.9	80.3	73.4	69.1
INDUSTRY/FACTORIES	34.9	33.1	36.9	29.3	40.9	30.9
AIRCRAFT	8.3	7.6	9.1	6.2	10.3	9.1
TRUCKS	5.9	6.3	5.4	5.9	5.7	7.3
BUSSES	4.0	2.6	5.6	4.0	3.6	7.3
OIL INDUSTRY/ REFINERIES	3.9	3.4	4.5	4.5	3.8	
OVER POPULATION	2.7	2.4	3.0	3.6	2.1	
COMBUSTION ENGINES	2.7	3.4	1.9	2.1	3.2	3.6
PUBLICS LACK OF CONCERN	.5	.6	.4	.6	.4	
STEEL INDUSTRY	.3	.6		.4	.2	

CONTINUED

TABLE 72 - 1
Q.1--WHAT IS MAJOR CAUSE OF AIR POLLUTION IN CALIFORNIA

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
MISCELLANEOUS OTHER	7.3	6.7	8.0	6.8	7.4	10.9
DONT KNOW	3.9	4.3	3.5	3.0	4.4	7.3

TABLE 2
Q.2--HOW MANY CARS DOES YOUR FAMILY HAVE

			NUMBER OF VEHICLES			INCOME					
		TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL		1000	436	440	124	111	118	157	252	236	126
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ONE	1	43.6	100.0			79.3	62.7	56.1	29.0	22.5	47.6
TWO	2	44.0		100.0		16.2	33.1	33.8	54.0	60.2	41.3
THREE	3	9.5			76.6	3.6	3.4	7.6	15.5	11.9	6.3
FOUR	4	2.0			16.1		.8	1.3	1.2	3.8	4.0
FIVE	5	.7			5.6	.9		1.3		1.3	.8
MORE THAN FIVE	6	.2			1.6				.4	.4	
DK/RA											
	MEAN	1.73	1.00	2.00	3.32	1.27	1.42	1.58	1.90	2.03	1.69
	BASE	1000	436	440	124	111	118	157	252	236	126
	STD DEV	.795			.657	.617	.605	.794	.741	.825	.824
	SE MEAN	.025			.059	.059	.056	.063	.047	.054	.073

TABLE 73
Q.2--HOW MANY CARS DOES YOUR FAMILY HAVE

			----SEX----		--ENFORCEMENT PROVISION--		
		TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL		1000	537	463	471	474	55
		100.0	100.0	100.0	100.0	100.0	100.0
ONE	1	43.6	39.7	48.2	41.0	45.6	49.1
TWO	2	44.0	45.3	42.5	47.3	41.6	36.4
THREE	3	9.5	11.5	7.1	8.7	9.9	12.7
FOUR	4	2.0	2.4	1.5	1.9	2.1	1.8
FIVE	5	.7	.7	.6	.6	.8	
MORE THAN FIVE	6	.2	.4		.4		
DK/RA							
	MEAN	1.73	1.80	1.64	1.75	1.71	1.67
	BASE	1000	537	463	471	474	55
	STD DEV	.795	.836	.737	.799	.796	.771
	SE MEAN	.025	.036	.034	.037	.037	.104

TABLE 3
Q.3--MAKE OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
BUICK	5.1	5.3	5.5	3.2	.9	5.9	5.7	5.2	5.5	6.3
CADILLAC	3.6	2.1	4.8	4.8	2.7	3.4	2.5	2.4	5.9	4.0
CHEVROLET-TOTAL	21.1	25.5	18.4	15.3	26.1	22.0	25.5	22.6	13.6	21.4
CHEVROLET	18.9	23.4	15.7	14.5	25.2	21.2	22.3	19.4	11.9	19.0
CORVETTE	.2	.2	.2				.6			.8
CAMARO	.7	.7	.9		.9		.6	.8	.8	.8
NOVA										
VEGA										
CHEVROLET WAGON	.3	.2	.5					.4	.8	
CORVAIR	1.0	.9	1.1	.8		.8	1.9	2.0		.8

CONTINUED

TABLE 3 - 1
Q.3--MAKE OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
CHRYSLER	2.6	2.1	2.3	5.6	4.5	.8	1.3	1.6	4.2	3.2
COMET	.3		.7		.9			.4	.4	
DODGE	4.4	5.7	3.9	1.6	5.4	4.2	7.0	2.8	3.4	5.6
FORD-TOTAL	18.9	17.4	19.3	22.6	14.4	16.9	12.7	22.6	22.0	19.0
FORD	14.3	12.8	15.7	14.5	10.8	11.9	12.7	16.3	16.1	14.3
THUNDERBIRD	1.3	1.4	.9	2.4		.8		3.2	1.7	
PINTO	.3	.2	.2	.8				.8	.4	
MUSTANG	1.8	2.1	.9	4.0	2.7	2.5		2.0	2.5	.8
MAVERICK	.2	.2	.2						.4	.8
FORD WAGON	1.0	.7	1.4	.8	.9	1.7		.4	.8	3.2
MERCURY-TOTAL	2.9	3.7	2.5	1.6	2.7	2.5	4.5	2.0	3.4	2.4

CONTINUED

TABLE 3 - 2
Q.3--MAKE OF FIRST CAR OWNED

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
MERCURY	2.3	2.8	2.0	1.6	1.8	2.5	4.5	1.2	2.1	2.4
COUGAR	.6	.9	.5		.9			.8	1.3	
OLDSMOBILE-TOTAL	4.9	4.4	4.3	8.9	.9	6.8	3.8	4.4	6.4	6.3
OLDSMOBILE	4.8	4.4	4.1	8.9	.9	6.8	3.8	4.0	6.4	6.3
OLDSMOBILE WAGON	.1		.2					.4		
PONTIAC-TOTAL	6.3	5.3	7.3	6.5	4.5	5.9	8.3	6.3	6.4	5.6
PONTIAC	6.0	4.8	7.0	6.5	2.7	5.9	7.6	6.3	6.4	5.6
TEMPEST	.3	.5	.2		1.8		.6			
PLYMOUTH	4.0	4.6	3.6	3.2	9.0	4.2	2.5	2.4	3.0	6.3
RAMBLER	4.1	4.6	4.5	.8	9.0	5.1	3.2	2.8	3.4	4.0
STUDEBAKER	.4	.5	.5		.9	1.7			.4	

CONTINUED

TABLE 3 - 3
Q.3--MAKE OF FIRST CAR OWNED

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
VALIANT	.8	1.1	.7		1.8	.8	1.3	.4	.4	.8
LINCOLN CONTINENTAL	.8	.5	.9	1.6				.4	2.5	.8
DODGE DART	.8	.7	1.1		.9	2.5		.8	.8	
MERCEDES-BENZ	.7	.2	.9	1.6			.6	1.2	.8	.8
FORD TRUCKS	1.8	.7	2.5	3.2		1.7	2.5	3.6	.8	.8
DODGE TRUCKS	.1		.2						.4	
JEEP	.2			1.6	.9				.4	
GMC	1.4	.2	1.4	5.6			1.9	2.4	.8	2.4
INTERNATIONAL	.2	.2		.8	.9			.4		
DATSUN	1.2	.9	1.6	.8		.8	1.3	2.4	.8	.8
DUNEBUGGY										

CONTINUED

TABLE 3 - 4
Q.3--MAKE OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
OPEL	.4	.7		.8	1.8			.4	.4	
MG	.2	.2		.8	.9				.4	
TOYOTA	1.2	1.4	1.1	.8		2.5	.6	1.6	1.3	.8
TRIUMPH	.1		.2					.4		
VW-TOTAL	7.4	8.3	8.2	1.6	6.3	8.5	12.7	7.1	6.4	3.2
VW	7.0	7.6	8.0	1.6	6.3	8.5	10.2	7.1	6.4	3.2
VW BUS	.4	.7	.2				2.5			
VOLVO	1.4	2.1	.7	1.6	1.8	1.7	.6	1.6	1.7	.8
PORSCHE	.2			1.6				.4		.8
MISC. FOREIGN CARS	1.5	1.4	1.4	2.4	1.8	1.7	.6	1.2	2.1	1.6
REFUSED/DK	1.0	.5	1.6	.8	.9		.6	.4	1.7	2.4

TABLE 74
Q.3---MAKE OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
BUICK	5.1	3.4	7.1	4.5	5.3	9.1
CADILLAC	3.6	4.3	2.8	4.2	2.7	5.5
CHEVROLET-TOTAL	21.1	21.4	20.7	21.9	19.4	29.1
CHEVROLET	18.9	19.6	18.1	20.0	17.5	21.8
CORVETTE	.2	.2	.2	.2		1.8
CAMARO	.7	.2	1.3	.4	.6	3.6
NOVA						
VEGA						
CHEVROLET WAGON	.3		.6	.4	.2	
CORVAIR	1.0	1.5	.4	.8	1.1	1.8

CONTINUED

TABLE 74 - 1
Q.3--MAKE OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
CHRYSLER	2.6	2.6	2.6	3.0	2.3	1.8
COMET	.3	.2	.4	.2	.4	
DODGE	4.4	4.3	4.5	3.8	5.5	
FORD-TOTAL	18.9	19.9	17.7	19.1	19.8	9.1
FORD	14.3	15.6	12.7	14.4	15.2	5.5
THUNDERBIRD	1.3	1.3	1.3	1.9	.6	1.8
PINTO	.3	.2	.4	.4	.2	
MUSTANG	1.8	1.7	1.9	1.5	2.1	1.8
MAVERICK	.2	.2	.2	.2	.2	
FORD WAGON	1.0	.9	1.1	.6	1.5	
MERCURY-TOTAL	2.9	2.8	3.0	3.8	1.9	3.6

CONTINUED

TABLE 74 - 2
Q.3--MAKE OF FIRST CAR OWNED

	TOTAL	SEX		ENFORCEMENT PROVISION		
		MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
MERCURY	2.3	2.0	2.6	2.8	1.7	3.6
COUGAR	.6	.7	.4	1.1	.2	
OLDSMOBILE-TOTAL	4.9	5.2	4.5	4.2	4.9	10.9
OLDSMOBILE	4.8	5.0	4.5	4.0	4.9	10.9
OLDSMOBILE WAGON	.1	.2		.2		
PONTIAC-TOTAL	6.3	5.4	7.3	5.1	7.4	7.3
PONTIAC	6.0	5.2	6.9	4.9	7.0	7.3
TEMPEST	.3	.2	.4	.2	.4	
PLYMOUTH	4.0	4.3	3.7	4.0	4.2	1.8
RAMBLER	4.1	4.3	3.9	3.8	4.4	3.6
STUDEBAKER	.4		.9	.2	.4	1.8

CONTINUED

TABLE 74 - 3
Q.3--MAKE OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
VALIANT	.8	.6	1.1	.2	1.5	
LINCOLN CONTINENTAL	.8	1.3	.2	.6	1.1	
DODGE DART	.8	1.3	.2	.6	.8	1.8
MERCEDES-BENZ	.7	.7	.6	1.3		1.8
FORD TRUCKS	1.8	1.7	1.9	1.7	2.1	
DODGE TRUCKS	.1	.2				1.8
JEEP	.2	.4		.2	.2	
GMC	1.4	1.3	1.5	1.3	1.7	
INTERNATIONAL	.2	.2	.2	.2	.2	
DATSUN	1.2	1.3	1.1	1.1	1.3	1.8
DUNEBUGGY						

CONTINUED

TABLE 74 - 4
Q.3---MAKE OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
OPEL	.4	.4	.4	.4	.4	
MG	.2	.4		.2	.2	
TOYOTA	1.2	.9	1.5	1.3	1.3	
TRIUMPH	.1	.2		.2		
VW-TOTAL	7.4	6.7	8.2	8.5	6.3	7.3
VW	7.0	6.7	7.3	8.3	5.7	7.3
VW BUS	.4		.9	.2	.6	
VOLVO	1.4	1.1	1.7	2.1	.6	1.8
PORSCHE	.2	.4			.4	
MISC. FOREIGN CARS	1.5	1.9	1.1	1.3	1.9	
REFUSED/DK	1.0	1.1	.9	.8	1.3	

TABLE 4
Q.3--YEAR OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
1971	3.4	2.3	4.5	3.2	1.8	1.7	5.1	4.0	4.2	1.6
1970	8.7	8.9	8.6	8.1	5.4	2.5	5.1	7.1	17.4	8.7
1969	11.3	13.1	10.9	6.5	5.4	10.2	10.8	12.3	14.8	9.5
1968	10.5	9.4	11.4	11.3	5.4	11.9	12.7	8.3	12.7	11.1
1967	10.1	10.8	9.5	9.7	8.1	8.5	11.5	14.7	8.5	5.6
1966	9.5	11.2	9.1	4.8	9.0	10.2	8.9	10.3	8.5	10.3
1965	11.1	10.6	11.1	12.9	9.0	13.6	12.7	7.5	12.7	12.7
1964	10.2	10.6	10.2	8.9	15.3	11.9	6.4	13.1	5.9	11.1
1963	5.2	5.5	4.5	6.5	7.2	5.1	5.1	4.0	3.8	8.7
1962	4.8	4.6	5.0	4.3	9.0	6.8	3.8	4.0	3.4	3.2

CONTINUED

TABLE 4 - 1
Q.3--YEAR OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
1961	2.3	2.8	2.0	1.6	4.5	2.5	1.3	3.6	.4	2.4
1960	3.2	3.0	3.6	2.4	7.2	2.5	5.7	2.0	2.1	1.6
1959	2.1	1.6	2.3	3.2	3.6	3.4	1.9	2.0	.8	2.4
1958	.5	.2	.7	.8	.9	.8	1.3	.4		
1957	2.0	2.3	1.4	3.2	3.6	.8	2.5	1.6	1.3	3.2
1956	.7	.5	1.1			.8	.6	.8	.4	1.6
1955	1.1	1.4	.7	1.6	.9	3.4	.6	1.2		1.6
1954	.6	.5	.5	1.6	1.8		1.3		.4	.8
1953	.2		.2	.8			1.3			
1952	.3		.5	.3		1.7			.4	
1951	.1	.2				.8				

CONTINUED

TABLE 4 - 2
Q.3--YEAR OF FIRST CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
1950	.3		.5	.8			.6	.8		
PRE-1950	1.0	.5	.2	5.6	1.3	.8	.6	.8	.8	1.6
REFUSED/DK	.8	.2	1.4	.8				.8	1.3	2.4

TABLE 75
Q.3--YEAR OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
1971	3.4	3.2	3.7	3.2	3.4	5.5
1970	8.7	9.3	8.0	10.2	7.6	5.5
1969	11.3	12.3	10.2	9.8	13.5	5.5
1968	10.5	10.1	11.0	10.4	10.8	9.1
1967	10.1	10.1	10.2	11.5	8.9	9.1
1966	9.5	8.4	10.8	9.1	9.3	14.5
1965	11.1	11.4	10.8	12.3	9.7	12.7
1964	10.2	8.6	12.1	10.4	10.3	7.3
1963	5.2	4.8	5.6	5.9	4.0	9.1
1962	4.8	5.6	3.9	4.9	4.6	5.5

CONTINUED

TABLE 75 - 1
Q.3--YEAR OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
1961	2.3	1.7	3.0	1.9	2.5	3.6
1960	3.2	3.0	3.5	2.8	3.2	7.3
1959	2.1	2.6	1.5	1.1	3.4	
1958	.5	.7	.2	.4	.6	
1957	2.0	2.6	1.3	1.5	2.5	1.8
1956	.7	.6	.9	.6	.8	
1955	1.1	1.1	1.1	1.1	1.1	1.8
1954	.6	.7	.4	1.1	.2	
1953	.2	.2	.2	.4		
1952	.3	.6			.6	
1951	.1		.2			1.8

CONTINUED

TABLE 75 - 2
Q.3--YEAR OF FIRST CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION---		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
1950	.3	.4	.2	.4	.2	
PRE-1950	1.0	1.5	.4	.8	1.3	
REFUSED/DK	.8	.7	.9	.2	1.5	

TABLE 5
Q.3--MAKE OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
BUICK	2.6		4.8	4.0	.9	4.2		2.0	5.1	2.4
CADILLAC	1.5		2.3	4.0	2.7	.8	.6	1.2	2.5	.8
CHEVROLET-TOTAL	11.0		18.6	22.6	1.8	7.6	8.9	15.9	13.1	11.1
CHEVROLET	9.6		16.6	18.5	.9	6.8	8.3	13.1	11.9	10.3
CORVETTE	.1		.2				.6			
CAMARO	.1		.2		.9					
NOVA	.1			.8				.4		
VEGA	.1			.8					.4	
CHEVROLET WAGON	.2		.2	.8				.8		
CORVAIR	.8		1.4	1.6		.8		1.6	.8	.8

CONTINUED

TABLE 5 - 1
Q.3--MAKE OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
CHRYSLER	1.0		1.8	1.6	.9	.8	1.3	.8	1.3	.8
COMET	.4		.9		.9		.6	.8		
DODGE	2.0		3.9	2.4	.9	.8	2.5	3.6	1.3	1.6
FORD-TOTAL	10.7		18.4	21.0	2.7	5.1	7.0	15.1	16.9	7.1
FORD	8.7		15.5	15.3	2.7	5.1	5.7	12.3	12.7	6.3
THUNDERBIRD	.3		.7				.6	.4		.8
PINTO	.1		.2					.4		
MUSTANG	.9		.9	4.0			.6	1.2	2.1	
MAVERICK										
FORD WAGON	.7		1.1	1.6				.8	2.1	
MERCURY-TOTAL	1.1		2.0	1.6		.8		1.6	2.1	.8

CONTINUED

TABLE 5 - 2
Q.3--MAKE OF SECOND CAR OWNED

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	$5,000 - 7,999	$8,000 - 9,999	$10,000 - 14,999	$15,000 & OVER	DK/RA
MERCURY	.9		1.6	1.6		.8		1.2	1.7	.8
COUGAR	.2		.5					.4	.4	
OLDSMOBILE-TOTAL	2.6		4.8	4.0	.9	.8	1.9	2.8	3.8	4.0
OLDSMOBILE	2.5		4.5	4.0	.9	.8	1.9	2.8	3.4	4.0
OLDSMOBILE WAGON	.1		.2						.4	
PONTIAC-TOTAL	3.6		7.0	4.0	2.7	2.5	2.5	3.6	5.1	4.0
PONTIAC	3.4		6.6	4.0	1.3	2.5	2.5	3.6	4.7	4.0
TEMPEST	.2		.5		.9				.4	
PLYMOUTH	2.3		4.3	3.2	.9	2.5	2.5	2.0	2.5	3.2
RAMBLER	2.4		4.8	2.4		1.7	2.5	2.0	3.0	4.8
STUDEBAKER	.1			.8				.4		

CONTINUED

TABLE 5 - 3
Q.3--MAKE OF SECOND CAR OWNED

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
VALIANT	.2		.5			.8	.6			
LINCOLN CONTINENTAL	.3		.2	1.6					.8	.8
DODGE DART										
MERCEDES-BENZ	.5		.9	.8				.4	1.3	.8
FORD TRUCKS	1.4		3.0	.8	.9	2.5		2.4	.4	2.4
DODGE TRUCKS	.3		.5	.8		.8		.4	.4	
JEEP	.3		.5	.8				1.2		
GMC	2.4		4.1	4.8	1.3	1.7	3.8	3.6	2.1	
INTERNATIONAL	.4		.7	.8				.8	.4	.8
DATSUN	1.1		1.6	3.2			.6	1.6	2.5	
DUNEBUGGY										

CONTINUED

TABLE 5 - 4
Q.3--MAKE OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
OPEL	.1		.2						.4	
MG	.4		.9				.6	.4	.4	.8
TOYOTA	1.3		2.3	2.4				1.2	3.4	1.6
TRIUMPH										
VW-TOTAL	3.6		6.4	6.5	.9	2.5	3.2	4.8	5.9	.8
VW	3.5		6.1	6.5	.9	1.7	3.2	4.8	5.9	.8
VW BUS	.1		.2			.8				
VOLVO	.3		.5	.8			.6	.8		
PORSCHE	.1		.2						.4	
MISC. FOREIGN CARS	1.1		1.4	4.0	1.8	.8	1.9	.8	.4	1.6
REFUSED/DK	1.4		2.7	1.6			1.9	1.2	1.7	3.2

TABLE 76
Q.3--MAKE OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
BUICK	2.6	2.2	3.0	2.3	3.0	1.8
CADILLAC	1.5	1.7	1.3	1.5	1.7	
CHEVROLET-TOTAL	11.0	11.9	9.9	10.8	10.8	14.5
CHEVROLET	9.6	10.4	8.6	9.3	9.5	12.7
CORVETTE	.1		.2	.2		
CAMARO	.1		.2		.2	
NOVA	.1		.2		.2	
VEGA	.1		.2	.2		
CHEVROLET WAGON	.2	.2	.2	.2	.2	
CORVAIR	.8	1.3	.2	.8	.6	1.8

CONTINUED

TABLE 76 - 1
Q.3--MAKE OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
CHRYSLER	1.0	.9	1.1	.8	1.3	
COMET	.4	.6	.2	.2	.6	
DODGE	2.0	1.5	2.6	2.3	1.9	
FORD-TOTAL	10.7	12.1	9.1	11.5	9.5	14.5
FORD	8.7	10.1	7.1	9.6	8.0	7.3
THUNDERBIRD	.3		.6		.4	1.8
PINTO	.1	.2				1.8
MUSTANG	.9	1.3	.4	1.1	.6	1.8
MAVERICK						
FORD WAGON	.7	.6	.9	.8	.4	1.8
MERCURY--TOTAL	1.1	.9	1.3	1.1	1.3	

CONTINUED

TABLE 76 - 2
Q.3--MAKE OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
MERCURY	.9	.7	1.1	1.1	.8	
COUGAR	.2	.2	.2		.4	
OLDSMOBILE-TOTAL	2.6	2.8	2.4	2.8	2.5	1.8
OLDSMOBILE	2.5	2.8	2.2	2.5	2.5	1.8
OLDSMOBILE WAGON	.1		.2	.2		
PONTIAC-TOTAL	3.6	3.5	3.7	4.0	3.4	1.8
PONTIAC	3.4	3.2	3.7	3.8	3.2	1.8
TEMPEST	.2	.4		.2	.2	
PLYMOUTH	2.3	2.0	2.6	2.8	1.5	5.5
RAMBLER	2.4	2.4	2.4	3.0	1.9	1.8
STUDEBAKER	.1	.2			.2	

CONTINUED

TABLE 76 - 3
Q.3--MAKE OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
VALIANT	.2	.4		.2	.2	
LINCOLN CONTINENTAL	.3		.6		.6	
DODGE DART						
MERCEDES-BENZ	.5	.7	.2	.4	.6	
FORD TRUCKS	1.4	1.5	1.3	1.5	1.3	1.8
DODGE TRUCKS	.3	.4	.2	.4	.2	
JEEP	.3	.4	.2	.4	.2	
GMC	2.4	2.4	2.4	2.3	2.1	1.8
INTERNATIONAL	.4	.7		.4	.4	
DATSUN	1.1	.9	1.3	1.5	.8	
DUNEBUGGY						

CONTINUED

TABLE 76 - 4
Q.3--MAKE OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
OPEL	.1	.2				1.8
MG	.4	.7		.4	.4	
TOYOTA	1.3	1.3	1.3	2.1	.6	
TRIUMPH						
VW-TOTAL	3.6	4.5	2.6	3.4	3.8	3.6
VW	3.5	4.3	2.6	3.4	3.6	3.6
VW BUS	.1	.2			.2	
VOLVO	.3	.6		.4	.2	
PORSCHE	.1	.2		.2		
MISC. FOREIGN CARS	1.1	1.5	.6	.8	1.5	
REFUSED/DK	1.4	1.1	1.7	.8	2.1	

TABLE 6
Q.3--YEAR OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
1971	2.7		5.7	1.6	.9	1.7	1.3	4.0	4.2	1.6
1970	5.6		10.5	8.1	.9	4.2	2.5	4.8	11.4	5.6
1969	6.7		12.3	10.5	1.8	3.4	1.3	7.9	12.7	7.1
1968	5.7		9.3	12.9	.9	4.2	3.2	7.5	10.6	1.6
1967	4.5		8.9	4.8	.9	3.4	1.3	5.6	8.5	3.2
1966	5.9		11.4	7.3	.9	5.1	7.0	6.7	9.3	1.6
1965	4.2		6.8	9.7	1.8	2.5	1.9	6.7	5.5	3.2
1964	3.7		5.7	9.7	2.7	3.4	3.2	4.0	4.2	4.0
1963	2.9		4.8	6.5	.9	.8	4.5	4.4	.8	5.6
1962	3.3		5.7	6.5	.9	1.7	1.9	5.2	3.8	4.0

CONTINUED

TABLE 6 - 1
Q.3--YEAR OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
1961	2.3		3.4	6.5	.9	.8	3.8	4.0	1.3	1.6
1960	1.9		3.4	3.2		.8	3.2	2.0	1.7	3.2
1959	1.6		3.0	2.4	1.8	.8	3.2	1.6	.4	2.4
1958	.3		.5	.8			.6	.4		.8
1957	.9		1.6	1.6	.9	.8	2.5	1.2		
1956	.7		1.4	.8		.8	.6	1.6	.4	
1955	.9		1.6	1.6		.8	1.3	.8	.4	2.4
1954	.3		.7				.6		.4	.8
1953	.3		.5	.8	.9	.8		.4		
1952	.1		.2					.4		
1951	.2		.2	.8	.9				.4	

CONTINUED

TABLE 6 - 2
Q.3--YEAR OF SECOND CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
1950	.2		.5					.8		
PRE-1950	.8		1.1	2.4	2.7	.8		1.2		.8
REFUSED/DK	.5		.9	.8					1.3	1.6

TABLE 77
Q.3--YEAR OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
1971	2.7	1.7	3.9	2.3	3.2	1.8
1970	5.6	7.4	3.5	6.8	3.6	12.7
1969	6.7	7.6	5.6	7.4	6.5	1.8
1968	5.7	6.0	5.4	8.3	3.6	1.8
1967	4.5	4.3	4.8	5.5	3.6	3.6
1966	5.9	5.0	6.9	5.3	6.3	7.3
1965	4.2	5.6	2.6	4.5	4.0	3.6
1964	3.7	3.9	3.5	4.2	3.0	5.5
1963	2.9	2.8	3.0	1.7	3.6	7.3
1962	3.3	3.9	2.6	2.3	4.4	1.8

CONTINUED

TABLE 77 - 1
Q.3--YEAR OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
1961	2.3	2.4	2.2	2.8	2.1	
1960	1.9	1.7	2.2	1.9	1.9	1.8
1959	1.6	2.0	1.1	1.3	2.1	
1958	.3	.4	.2	.2	.4	
1957	.9	1.1	.6	1.1	.8	
1956	.7	.9	.4	.6	.8	
1955	.9	.9	.9	1.1	.8	
1954	.3		.6	.2	.4	
1953	.3	.4	.2	.2	.4	
1952	.1	.2		.2		
1951	.2	.4			.4	

CONTINUED

TABLE 77 - 2
Q.3--YEAR OF SECOND CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
1950	.2	.4		.2	.2	
PRE-1950	.8	.6	1.1	.6	.8	1.8
REFUSED/DK	.5	.7	.2	.2	.8	

TABLE 7
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
CHEVROLET	2.6			21.0		1.7	3.8	4.0	1.7	3.2
FORD	1.7			13.7	.9		.6	.4	4.7	2.4
PONTIAC	.7			5.6	.9		.6	2.0		
OLDS	.2			1.6			.6			.8
DODGE	.4			3.2			.6	1.2		
PLYMOUTH	.7			5.6			1.3	.8	.4	1.6
VALIANT	.2			1.6		.8			.4	
CADILLAC	.2			1.6	.9				.4	
CHRYSLER	.2			1.6	.9				.4	
MERCURY	.3			2.4				1.2		

CONTINUED

TABLE 7 - 1
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

	TOTAL	NUMBER OF VEHICLES			INCOME					
		ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
RAMBLER	.3			2.4		.8		.8		
VV	1.2			9.7			.6	1.6	3.0	
TOYOTA	.3			2.4				.4	.8	
OPEL	.5			4.0				.8	1.3	
MERCEDES										
DATSUN	.4			3.2			.6	.8	.4	
JAGUAR										
GMC	.4			3.2		.8		.4	.8	
JEEP	.2			1.6				.8		
DODGE TRUCK	.4			3.2			1.3		.4	.8
INTERNATIONAL	.5			4.0				1.6		.8

CONTINUED

TABLE 7 - 2
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
FORD TRUCK	.4			3.2			.6	.4	.4	.8
MISCELLANEOUS OTHER	1.0			8.1	.9			.4	2.5	1.6

TABLE 78
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
CHEVROLET	2.6	3.5	1.5	2.5	2.5	3.6
FORD	1.7	1.5	1.9	2.1	1.3	1.8
PONTIAC	.7	1.1	.2	1.3	.2	
OLDS	.2		.4		.4	
DODGE	.4	.4	.4	.4	.4	
PLYMOUTH	.7	1.1	.2	.4	1.1	
VALIANT	.2	.4		.2	.2	
CADILLAC	.2	.2	.2		.4	
CHRYSLER	.2	.4		.4		
MERCURY	.3	.4	.2	.4		1.8

CONTINUED

TABLE 78 - 1
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
RAMBLER	.3	.2	.4	.4	.2	
VV	1.2	1.5	.9	1.5	.8	1.8
TOYOTA	.3	.2	.4	.4	.2	
OPEL	.5	.4	.6	.4	.6	
MERCEDES						
DATSUN	.4	.2	.6	.4	.4	
JAGUAR						
GMC	.4	.4	.4		.8	
JEEP	.2	.2	.2		.4	
DODGE TRUCK	.4	.7		.6		1.8
INTERNATIONAL	.5	.7	.2	.2	.8	

CONTINUED

TABLE 78 - 2
Q.3--MAKE OF THIRD OF FOURTH CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
FORD TRUCK	.4	.6	.2	.2	.6	
MISCELLANEOUS OTHER	1.0	1.3	.6	.4	1.3	3.6

TABLE 8
Q.3--YEAR OF THIRD OF FOURTH CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
1971	.5			4.0				.8	1.3	
1970	1.2			9.7			.6	2.0	1.3	2.4
1969	1.2			9.7		.8	.6	1.6	2.5	
1968	1.2			9.7	.9		.6	2.0	1.3	1.6
1967	.9			7.3			.6	.4	1.3	3.2
1966	.5			4.0		.8		1.2	.4	
1965	1.1			8.9			.6	1.6	2.1	.8
1964	.8			6.5			.6	2.0	.8	
1963	1.1			8.9			1.3	2.0	1.3	.8
1962	.5			4.0	.9		.6	.8	.4	

CONTINUED

TABLE 8 - 1
Q.3--YEAR OF THIRD OF FOURTH CAR OWNED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
1961	.5			4.0	.9	1.7			.8	
1960 & OLDER	2.7			21.8	1.8	.8	4.5	2.8	3.0	2.4

TABLE 79
Q.3--YEAR OF THIRD OF FOURTH CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
1971	.5	.6	.4	.8	.2	
1970	1.2	1.3	1.1	.8	1.5	1.8
1969	1.2	1.7	.6	1.7	.6	1.8
1968	1.2	.7	1.7	.6	1.5	3.6
1967	.9	1.1	.6	.4	1.3	1.8
1966	.5	.6	.4	.6	.4	
1965	1.1	1.3	.9	1.9	.4	
1964	.8	1.1	.4	1.3	.4	
1963	1.1	1.7	.4	.4	1.5	3.6
1962	.5	.6	.4	.6	.2	1.8

CONTINUED

TABLE 79 - 1
Q.3--YEAR OF THIRD OF FOURTH CAR OWNED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
1961	.5	.7	.2	.6	.4	
1960 & OLDER	2.7	3.4	1.9	1.5	4.2	

TABLE 9
Q.4--DO YOU USE NORMAL LEAD-CONTENT GASOLINE OR LOW-LEAD

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
NORMAL	65.4	68.6	62.0	66.1	76.6	65.3	63.7	62.7	65.7	62.7
LOW-LEAD	25.3	25.0	27.0	20.2	18.0	29.7	24.8	27.4	24.6	25.4
NO LEAD	.1		.2						.4	
BOTH	4.4	1.1	6.8	7.3	.9	3.4	5.1	4.8	6.8	2.4
DK/RA	4.8	5.3	3.9	6.5	4.5	1.7	6.4	5.2	2.5	9.5

TABLE 80
Q.4--DO YOU USE NORMAL LEAD-CONTENT GASOLINE OR LOW-LEAD

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
NORMAL	65.4	68.7	61.6	65.0	65.4	69.1
LOW-LEAD	25.3	24.2	26.6	27.2	24.1	20.0
NO LEAD	.1		.2		.2	
BOTH	4.4	5.4	3.2	4.5	4.2	5.5
DK/RA	4.8	1.7	8.4	3.4	6.1	5.5

TABLE 10
Q.5--HAVE YOU EVER HAD THE POLLUTION CONTROL DEVICE IN YOUR VEHICLE INSPECTED

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
YES, HAVE HAD POLLUTION DEVICE INSPECTED	76.1	70.4	80.0	82.3	68.5	76.3	75.2	82.9	76.3	69.8
NO, HAVE NOT	18.6	23.9	15.0	12.9	25.2	17.8	22.3	13.1	17.4	22.2
DK/RA	5.3	5.7	5.0	4.8	6.3	5.9	2.5	4.0	6.4	7.9

TABLE 81
Q.5--HAVE YOU EVER HAD THE POLLUTION CONTROL DEVICE IN YOUR VEHICLE INSPECTED

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
YES, HAVE HAD POLLUTION DEVICE INSPECTED	76.1	81.9	69.3	77.5	75.7	67.3
NO, HAVE NOT	18.6	16.4	21.2	18.5	18.1	23.6
DK/RA	5.3	1.7	9.5	4.0	6.1	9.1

TABLE 11
Q.6--TYPE OF TEST ON FIRST CAR

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
BLOW-BY, PCV, CRANKCASE DEVICE	12.5	10.4	11.6	21.6	9.2	7.8	17.8	14.8	12.2	8.0
EXHAUST EMISSION DEVICE	5.7	5.9	5.4	5.9	7.9	6.7	4.5	5.7	6.1	5.7
EVAPORATIVE CONTROL	2.2	1.3	3.1	2.0		2.2	2.5	2.4	3.3	1.1
DK/RA	79.6	82.4	79.8	70.6	82.9	83.3	77.1	77.0	78.3	85.2

TABLE 62
Q.6--TYPE OF TEST ON FIRST CAR

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
BLOW-BY, PCV, CRANKCASE DEVICE	12.5	19.8	2.5	11.2	14.8	2.7
EXHAUST EMISSION DEVICE	5.7	6.8	4.0	7.1	4.2	5.4
EVAPORATIVE CONTROL	2.2	2.7	1.6	2.5	2.2	
DK/RA	79.6	70.7	91.9	79.2	78.8	91.9

TABLE 12
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
BUICK	4.7	5.9	4.5	2.0		7.8	4.2	5.7	3.9	5.7
CADILLAC	2.8	2.0	3.4	2.9	3.9	1.1	2.5	2.4	5.0	
CHEVROLET-TOTAL	21.2	25.4	18.8	16.7	25.0	21.1	22.9	26.3	15.0	15.9
CHEVROLET	19.7	24.4	17.0	14.7	23.7	21.1	21.2	23.9	13.9	14.8
CORVETTE										
CAMARO	.4		.6	1.0	1.3		.8	.5		
NOVA	.1			1.0					.6	
VEGA										
CHEVROLET WAGON	.3		.6					.5	.6	
CORVAIR	.7	1.0	.6				.8	1.4		1.1

CONTINUED

TABLE 12 - 1
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
CHRYSLER	2.6	2.3	2.6	3.9	6.6	1.1	1.7	2.4	2.2	3.4
COMET	.1		.3						.6	
DODGE	4.5	5.2	4.5	2.0	2.6	3.3	6.8	4.3	3.9	5.7
FORD-TOTAL	21.6	19.2	23.3	22.5	18.4	18.9	11.9	26.3	23.3	25.0
FORD	17.7	14.7	21.0	15.7	15.8	16.7	10.2	20.6	17.8	23.9
THUNDERBIRD	1.4	2.0	.9	2.0		1.1		3.3	1.7	
PINTO	.3	.7					.8	.5		
MUSTANG	1.6	2.0	.6	3.9	2.6	1.1	.8	1.4	2.2	1.1
MAVERICK	.1		.3						.6	
FORD WAGON	.4		.6	1.0				.5	1.1	
MERCURY-TOTAL	3.5	4.2	2.8	3.9	2.6	3.3	5.9	3.3	3.3	2.3

CONTINUED

TABLE 12 - 2
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
MERCURY	2.8	3.6	1.7	3.9	1.3	3.3	5.9	1.9	2.2	2.3
COUGAR	.8	.7	1.1		1.3			1.4	1.1	
OLDSMOBILE-TOTAL	4.9	4.6	4.8	5.9	1.3	6.7	4.2	3.8	6.1	6.8
OLDSMOBILE	4.7	4.6	4.5	5.9	1.3	6.7	4.2	3.3	6.1	6.8
OLDSMOBILE WAGON	.1		.3					.5		
PONTIAC-TOTAL	6.3	5.5	6.5	7.8	3.9	6.7	11.0	4.8	6.7	4.5
PONTIAC	6.0	4.9	6.5	7.8	2.6	6.7	11.0	4.8	6.7	3.4
TEMPEST	.3	.7			1.3					1.1
PLYMOUTH	4.5	5.2	3.7	4.9	11.8	3.3	3.4	2.9	2.2	9.1
RAMBLER	4.5	4.6	5.4	1.0	9.2	4.4	4.2	2.4	3.9	6.8
STUDEBAKER	.4	.7	.3		1.3	1.1			.6	

CONTINUED

TABLE 12 - 3
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
VALIANT	.3	.7				1.1			.6	
LINCOLN CONTINENTAL	.9	.7	.9	2.0				.5	2.8	1.1
DODGE DART	.1		.3			1.1				
MERCEDES-BENZ	.8	.3	.9	2.0				.5	2.2	1.1
FORD TRUCKS	2.0	.7	2.8	2.9	1.3	3.3	1.7	2.9	1.1	1.1
DODGE TRUCKS	.1		.3				.8			
JEEP	.1			1.0				.5		
GMC	1.2		.6	6.9		2.2	3.4	1.0		1.1
INTERNATIONAL	.1	.3			1.3					
DATSUN	1.2	1.0	1.4	1.0		1.1		1.9	2.2	
DUNEBUGGY										

CONTINUED

TABLE 12 - 4
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
OPEL	.4	.3	.3	1.0	1.3				1.1	
MG	.1			1.0					.6	
TOYOTA	.9	1.6	.6			1.1	.8	1.4	.6	1.1
TRIUMPH										
VW-TOTAL	6.3	6.2	6.8	4.9	6.6	7.8	11.9	5.3	5.0	2.3
VW	6.2	5.9	6.8	4.9	6.6	7.8	11.0	5.3	5.0	2.3
VW BUS	.1	.3					.8			
VOLVO	.9	1.6	.3	1.0	1.3	2.2	.8		1.1	1.1
PORSCHE	.3		.3	1.0					.6	1.1
MISC. FOREIGN CARS	1.1	1.3	.9	1.0	1.3	1.1	.8	.5	1.7	1.1
REFUSED/DK	1.7	.7	2.8	1.0			.8	1.0	3.9	3.4

TABLE 83
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

	TOTAL	----SEX---- MALE	FEMALE	--ENFORCEMENT PROVISION-- APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
BUICK	4.7	3.4	6.5	4.1	5.6	2.7
CADILLAC	2.8	3.4	1.9	2.5	2.8	5.4
CHEVROLET-TOTAL	21.2	23.0	18.7	23.0	19.5	18.9
CHEVROLET	19.7	21.8	16.8	20.8	18.9	16.2
CORVETTE						
CAMARO	.4	.2	.6	.3	.6	
NOVA	.1	.2		.3		
VEGA						
CHEVROLET WAGON	.3		.6	.5		
CORVAIR	.7	.7	.6	1.1		2.7

CONTINUED

TABLE 83 - 1
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
CHRYSLER	2.6	2.3	3.1	2.5	2.8	2.7
COMET	.1	.2		.3		
DODGE	4.5	4.1	5.0	3.6	5.8	
FORD-TOTAL	21.6	21.8	21.2	21.9	21.2	21.6
FORD	17.7	19.1	15.9	17.8	17.8	16.2
THUNDERBIRD	1.4	1.1	1.9	2.2	.6	2.7
PINTO	.3	.2	.3	.3	.3	
MUSTANG	1.6	.9	2.5	1.4	1.7	2.7
MAVERICK	.1	.2			.3	
FORD WAGON	.4	.2	.6	.3	.6	
MERCURY-TOTAL	3.5	3.2	4.0	4.4	2.5	5.4

CONTINUED

TABLE 83 - 2
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
MERCURY	2.8	2.5	3.1	3.3	1.9	5.4
COUGAR	.8	.7	.9	1.1	.6	
OLDSMOBILE-TOTAL	4.9	5.7	3.7	4.7	4.2	13.5
OLDSMOBILE	4.7	5.5	3.7	4.4	4.2	13.5
OLDSMOBILE WAGON	.1	.2		.3		
PONTIAC-TOTAL	6.3	5.7	7.2	6.0	6.7	5.4
PONTIAC	6.0	5.5	6.9	5.8	6.4	5.4
TEMPEST	.3	.2	.3	.3	.3	
PLYMOUTH	4.5	4.3	4.7	4.7	4.5	2.7
RAMBLER	4.5	4.5	4.4	4.7	4.2	5.4
STUDEBAKER	.4		.9	.3	.6	

CONTINUED

TABLE 83 - 3
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
VALIANT	.3		.6		.6	
LINCOLN CONTINENTAL	.9	1.4	.3	.5	1.4	
DODGE DART	.1	.2				2.7
MERCEDES-BENZ	.8	1.1	.3	1.1	.6	
FORD TRUCKS	2.0	1.8	2.2	1.4	2.8	
DODGE TRUCKS	.1	.2			.3	
JEEP	.1		.3		.3	
GMC	1.2	.9	1.6	.8	1.4	2.7
INTERNATIONAL	.1	.2		.3		
DATSUN	1.2	.5	2.2	1.1	1.1	2.7
DUNEBUGGY						

CONTINUED

TABLE 83 - 4
Q.6--MAKE OF FIRST CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
OPEL	.4	.5	.3	.3	.3	2.7
MG	.1	.2		.3		
TOYOTA	.9	.9	.9	.8	1.1	
TRIUMPH						
VW-TOTAL	6.3	6.6	5.9	7.4	5.6	2.7
VW	6.2	6.6	5.6	7.4	5.3	2.7
VW BUS	.1		.3		.3	
VOLVO	.9	.2	1.9	1.1	.6	2.7
PORSCHE	.3	.5		.3	.3	
MISC. FOREIGN CARS	1.1	1.8		.5	1.7	
REFUSED/DK	1.7	1.4	2.2	1.6	1.9	

TABLE 13
Q.6--DATE OF TEST ON FIRST CAR

	TOTAL	NUMBER OF VEHICLES			INCOME					
		ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
WITHIN LAST MONTH	15.0	14.0	15.3	16.7	15.8	20.0	15.3	13.4	14.4	13.6
WITHIN LAST 2 MONTHS	11.2	11.7	11.4	8.8	14.5	4.4	8.5	14.8	13.3	5.7
WITHIN LAST 3 MONTHS	11.7	9.8	13.1	12.7	6.6	4.4	11.0	13.9	12.2	18.2
WITHIN LAST 4 MONTHS	10.8	10.1	11.9	8.8	11.8	7.8	7.6	11.0	10.0	18.2
WITHIN LAST 5 MONTHS	3.3	4.6	2.0	3.9	3.9	4.4	4.2	3.3	2.8	1.1
WITHIN LAST 6 MONTHS	6.8	8.5	5.4	6.9	9.2	7.8	9.3	2.9	9.4	4.5
7 TO 9 MONTHS	6.3	7.8	5.7	3.9	5.3	6.7	8.5	5.7	6.1	5.7
10 MONTHS TO 1 YEAR	6.6	8.1	6.3	2.9	7.9	10.0	7.6	6.2	4.4	5.7
MORE THAN 1 YEAR	11.4	11.7	11.1	11.8	14.5	16.7	13.6	11.5	10.0	3.4
NEVER	1.1	.3	1.4	2.0	1.3	2.2	.8	.5	1.7	

CONTINUED

TABLE 13 - 1
Q.6--DATE OF TEST ON FIRST CAR

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
DONT KNOW/REFUSED	15.9	13.4	16.5	21.6	9.2	15.6	13.6	16.7	15.6	23.9

TABLE 84
Q.6--DATE OF TEST ON FIRST CAR

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
WITHIN LAST MONTH	15.0	15.9	13.7	17.3	12.8	13.5
WITHIN LAST 2 MONTHS	11.2	13.9	7.5	11.0	12.3	2.7
WITHIN LAST 3 MONTHS	11.7	14.8	7.5	11.5	12.0	10.8
WITHIN LAST 4 MONTHS	10.8	9.8	12.1	9.0	12.0	16.2
WITHIN LAST 5 MONTHS	3.3	2.3	4.7	3.3	3.1	5.4
WITHIN LAST 6 MONTHS	6.8	6.6	7.2	7.1	6.7	5.4
7 TO 9 MONTHS	6.3	6.1	6.5	6.6	5.6	10.8
10 MONTHS TO 1 YEAR	6.6	7.3	5.6	5.8	7.5	5.4
MORE THAN 1 YEAR	11.4	10.7	12.5	13.4	9.5	10.8
NEVER	1.1	.7	1.6	1.4	.8	

CONTINUED

TABLE 84 - 1
Q.6--DATE OF TEST ON FIRST CAR

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
DONT KNOW/REFUSED	15.9	12.0	21.2	13.7	17.8	18.9

TABLE 14
Q.6--TYPE OF TEST ON SECOND CAR

	TOTAL	NUMBER OF VEHICLES			INCOME					
		ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
BLOW-BY, PCV, CRANKCASE DEVICE	5.8		7.7	16.7	1.3	5.6	5.9	8.1	5.0	5.7
EXHAUST EMISSION DEVICE	1.8		2.8	3.9			.8	2.4	3.3	2.3
EVAPORATIVE CONTROL	.9		1.4	2.0		1.1		1.4	1.7	
DK/RA	36.5	.3	61.6	58.8	7.9	23.3	31.4	46.9	46.7	36.4

TABLE 33
Q.6--TYPE OF TEST ON SECOND CAR

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
BLOW-BY, PCV, CRANKCASE DEVICE	5.8	8.9	1.6	4.9	7.0	2.7
EXHAUST EMISSION DEVICE	1.8	3.0	.3	1.9	1.7	2.7
EVAPORATIVE CONTROL	.9	1.6		1.4	.6	
DK/RA	30.5	34.3	39.6	37.0	36.8	29.7

TABLE 15
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
BUICK	1.8		4.0			1.1	.8	1.0	5.0	1.1
CADILLAC	1.6		2.6	2.9	1.3	2.2	.8	.5	3.9	
CHEVROLET-TOTAL	10.1		15.1	23.5		6.7	8.5	15.8	8.9	13.6
CHEVROLET	9.3		13.9	21.6		6.7	7.6	13.9	8.9	12.5
CORVETTE	.1		.3							1.1
CAMARO	.3		.3	1.0			.8	.5		
NOVA										
VEGA										
CHEVROLET WAGON	.1			1.0				.5		
CORVAIR	.3		.6					1.0		

CONTINUED

TABLE 15 - 1
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
CHRYSLER	.7		1.1	1.0			.8	1.0	1.1	
COMET	.4		.9				.8	1.0		
DODGE	1.8		3.4	2.0		2.2	.8	2.9	1.7	2.3
FORD-TOTAL	8.3		13.6	14.7	2.6	5.6	9.3	11.0	10.0	4.5
FORD	7.0		11.4	12.7	2.6	4.4	6.8	10.0	7.8	4.5
THUNDERBIRD	.4		.6	1.0			.8	.5	.6	
PINTO	.1		.3			1.1				
MUSTANG	.7		1.1	1.0			1.7	.5	1.1	
MAVERICK										
FORD WAGON	.1		.3						.6	
MERCURY-TOTAL	.9		1.7	1.0		1.1		1.0	1.7	1.1

CONTINUED

TABLE 15 - 2
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
MERCURY	.9		1.7	1.0		1.1		1.0	1.7	1.1
COUGAR										
OLDSMOBILE-TOTAL	1.3		2.0	2.9	1.3	1.1	.8	1.4	1.1	2.3
OLDSMOBILE	1.2		2.0	2.0	1.3	1.1	.8	1.4	.6	2.3
OLDSMOBILE WAGON	.1			1.0					.6	
PONTIAC-TOTAL	3.4		6.3	3.9	2.6	3.3	1.7	4.3	4.4	2.3
PONTIAC	3.2		5.7	3.9	1.3	3.3	1.7	4.3	3.9	2.3
TEMPEST	.3		.6		1.3				.6	
PLYMOUTH	2.1		3.4	3.9		2.2	2.5	1.9	2.8	2.3
RAMBLER	1.7		3.1	2.0		1.1	1.7		2.8	5.7
STUDEBAKER	.3			2.0				1.0		

CONTINUED

TABLE 15 - 3
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
VALIANT	.1		.3				.8			
LINCOLN CONTINENTAL	.4		.3	2.0					1.1	1.1
DODGE DART	.1		.3				.8			
MERCEDES-BENZ	.1		.3							1.1
FORD TRUCKS	.9		1.4	2.0				2.4		2.3
DODGE TRUCKS	.7		.9	2.0		1.1		1.0	1.1	
JEEP	.3		.3	1.0				1.0		
GMC	1.4		2.6	2.0			1.7	2.4	2.2	
INTERNATIONAL	.3		.6					1.0		
DATSUN	1.1		2.0	1.0			.8	1.9	1.7	
DUNEBUGGY										

CONTINUED

TABLE 15 - 4
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
OPEL										
MG	.3		.6				.8		.6	
TOYOTA	.9		1.1	2.9				1.0	2.8	
TRIUMPH	.3		.3	1.0			.8	.5		
VW-TOTAL	1.8		3.4	2.0			1.7	2.9	2.8	1.1
VW	1.8		3.4	2.0			1.7	2.9	2.8	1.1
VW BUS										
VOLVO	.3		.6					.5	.6	
PORSCHE										
MISC. FOREIGN CARS	1.2		.9	5.9	1.3	2.2	.8	1.4		2.3
REFUSED/DK	.5	.3	.9				.8	.5	.6	1.1

TABLE 86
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
BUICK	1.8	1.1	2.8	1.9	1.4	5.4
CADILLAC	1.6	1.8	1.2	1.4	1.9	
CHEVROLET-TOTAL	10.1	10.7	9.3	9.0	11.4	8.1
CHEVROLET	9.3	10.0	8.4	7.9	10.9	8.1
CORVETTE	.1		.3	.3		
CAMARO	.3	.2	.3	.5		
NOVA						
VEGA						
CHEVROLET WAGON	.1		.3		.3	
CORVAIR	.3	.5		.3	.3	

CONTINUED

TABLE 86 - 1
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
CHRYSLER	.7	.9	.3	.3	1.1	
COMET	.4	.7		.3	.6	
DODGE	1.8	2.3	1.2	2.2	1.7	
FORD-TOTAL	8.3	8.6	7.8	7.9	8.6	8.1
FORD	7.0	7.3	6.5	6.6	7.5	5.4
THUNDERBIRD	.4	.5	.3	.3	.6	
PINTO	.1		.3		.3	
MUSTANG	.7	.9	.3	.8	.3	2.7
MAVERICK						
FORD WAGON	.1		.3	.3		
MERCURY-TOTAL	.9	.7	1.2	1.1	.8	

CONTINUED

TABLE 86 - 2
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
MERCURY	.9	.7	1.2	1.1	.8	
COUGAR						
OLDSMOBILE-TOTAL	1.3	1.4	1.2	1.6	1.1	
OLDSMOBILE	1.2	1.1	1.2	1.4	1.1	
OLDSMOBILE WAGON	.1	.2		.3		
PONTIAC-TOTAL	3.4	4.1	2.5	3.6	3.3	2.7
PONTIAC	3.2	3.6	2.5	3.3	3.1	2.7
TEMPEST	.3	.5		.3	.3	
PLYMOUTH	2.1	2.3	1.9	3.3	.8	2.7
RAMBLER	1.7	1.4	2.2	1.6	1.7	2.7
STUDEBAKER	.3	.2	.3		.6	

CONTINUED

TABLE 86 - 3
Q.6---MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
VALIANT	.1	.2		.3		
LINCOLN CONTINENTAL	.4	.2	.6	.3	.6	
DODGE DART	.1	.2		.3		
MERCEDES-BENZ	.1		.3			2.7
FORD TRUCKS	.9	1.4	.3	1.4	.6	
DODGE TRUCKS	.7	.2	1.2	.8	.6	
JEEP	.3	.5		.3	.3	
GMC	1.4	1.8	.9	1.9	1.1	
INTERNATIONAL	.3	.5		.3	.3	
DATSUN	1.1	1.4	.6	1.4	.8	
DUNEBUGGY						

CONTINUED

TABLE 86 - 4
Q.6--MAKE OF SECOND CAR THAT HAD AUTO EMISSION TEST

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
OPEL						
MG	.3	.5			.6	
TOYOTA	.9	.9	.9	1.6	.3	
TRIUMPH	.3	.5		.3	.3	
VW-TOTAL	1.8	1.6	2.2	1.1	2.5	2.7
VW	1.8	1.6	2.2	1.1	2.5	2.7
VW BUS						
VOLVO	.3	.5		.3	.3	
PORSCHE						
MISC. FOREIGN CARS	1.2	1.1	1.2	.3	2.2	
REFUSED/DK	.5	.2	.9	.5	.6	

TABLE 16
Q.6--DATE OF TEST ON SECOND CAR

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	307 100.0	352 100.0	102 100.0	76 100.0	90 100.0	118 100.0	209 100.0	180 100.0	88 100.0
WITHIN LAST MONTH	5.9		8.8	13.7	2.6	2.2	4.2	7.2	6.7	10.2
WITHIN LAST 2 MONTHS	4.3	.3	7.1	6.9	2.6		2.5	6.2	7.2	2.3
WITHIN LAST 3 MONTHS	5.9		9.7	10.8		4.4	4.2	9.1	7.8	3.4
WITHIN LAST 4 MONTHS	4.3		7.7	5.9	1.3	3.3	1.7	4.8	5.6	8.0
WITHIN LAST 5 MONTHS	1.2		2.3	1.0			1.7	2.4	.6	1.1
WITHIN LAST 6 MONTHS	2.6		4.5	3.9			2.5	3.3	5.0	1.1
7 TO 9 MONTHS	1.8		3.4	2.0		1.1	.8	1.9	3.9	1.1
10 MONTHS TO 1 YEAR	3.5		7.1	2.0	1.3	4.4	4.2	4.3	2.2	4.5
MORE THAN 1 YEAR	3.8		5.7	8.8		4.4	5.9	4.3	4.4	1.1
NEVER	.5		.9	1.0			.8	.5	1.1	

CONTINUED

TABLE 16 - 1
Q.6--DATE OF TEST ON SECOND CAR

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
DONT KNOW/REFUSED	11.0		16.5	25.5	1.3	10.0	9.3	14.8	12.2	11.4

TABLE 87
Q.6--DATE OF TEST ON SECOND CAR

	TOTAL	----SEX---- MALE	FEMALE	--ENFORCEMENT PROVISION-- APPROVE	DISAP-PROVE	DK/RA
HAD POLLUTION DEVICE INSPECTED	761 100.0	440 100.0	321 100.0	365 100.0	359 100.0	37 100.0
WITHIN LAST MONTH	5.9	7.0	4.4	6.0	5.8	5.4
WITHIN LAST 2 MONTHS	4.3	5.0	3.4	3.6	5.6	
WITHIN LAST 3 MONTHS	5.9	8.0	3.1	6.6	5.3	5.4
WITHIN LAST 4 MONTHS	4.3	4.1	4.7	4.7	3.9	5.4
WITHIN LAST 5 MONTHS	1.2	1.6	.6	1.1	1.1	2.7
WITHIN LAST 6 MONTHS	2.6	2.7	2.5	2.5	3.1	
7 TO 9 MONTHS	1.8	1.4	2.5	1.9	1.7	2.7
10 MONTHS TO 1 YEAR	3.5	4.8	1.9	3.6	3.6	2.7
MORE THAN 1 YEAR	3.8	3.2	4.7	4.4	3.3	2.7
NEVER	.5	.5	.6	.5	.6	

CONTINUED

TABLE 87 - 1
Q.6--DATE OF TEST ON SECOND CAR

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
DONT KNOW/REFUSED	11.0	9.5	13.1	10.4	12.0	8.1

TABLE 17
Q.7--HAVE YOU HAD YOUR VEHICLE INSPECTED BY THE CALIFORNIA HIGHWAY PATROL AT ONE OF THEIR SIDE-OF-THE-ROAD SAFETY INSPECTION POINTS

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000	436	440	124	111	118	157	252	236	126
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
YES, VEHICLE WAS INSPECTED BY CALIF. HIGHWAY PATROL	51.6	40.4	58.0	68.5	53.2	49.2	43.9	56.3	54.2	47.6
NO, IT WASNT	47.5	58.0	41.6	31.5	45.9	49.2	56.1	42.9	45.3	50.0
DK/RA	.9	1.6	.5		.9	1.7		.8	.4	2.4

TABLE 88
Q.7--HAVE YOU HAD YOUR VEHICLE INSPECTED BY THE CALIFORNIA HIGHWAY PATROL AT ONE OF THEIR SIDE-OF-THE-ROAD SAFETY INSPECTION POINTS

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000	537	463	471	474	55
	100.0	100.0	100.0	100.0	100.0	100.0
YES, VEHICLE WAS INSPECTED BY CALIF. HIGHWAY PATROL	51.6	51.6	51.6	52.4	51.1	49.1
NO, IT WASNT	47.5	47.7	47.3	47.1	47.5	50.9
DK/RA	.9	.7	1.1	.4	1.5	

TABLE 18
Q.8--WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME				
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
GENERAL SUPPORT	58.3	59.6	57.3	57.3	68.5	61.9	57.3	54.8	56.8	57.1
DETECTS MECHANICAL DEFECTIVE CARS	18.9	18.6	20.2	15.3	26.1	22.0	18.5	16.7	19.5	13.5
HIGHLY SUPPORTIVE	16.1	14.9	18.2	12.9	14.4	15.3	19.1	15.1	16.9	15.1
SAFETY/KEEPS CARS SAFE	14.3	14.4	14.5	12.9	13.5	15.3	14.6	13.1	15.3	14.3
FORCES CARS TO BE REPAIRED	8.0	8.5	7.7	7.3	8.1	5.9	8.9	8.7	8.9	5.6
INCONVENIENT	5.3	4.6	5.5	7.3	3.6	4.2	5.1	4.8	6.8	6.3
INCOMPLETE TEST	4.6	4.4	4.8	4.8	1.8	4.2	5.1	4.4	6.8	3.2
GENERAL DISAPPROVAL	4.2	3.2	4.1	8.1	2.7	2.5	3.2	3.2	5.5	7.9
SHOULD BE MANDATORY FOR ALL CARS	4.1	2.5	4.3	8.9	3.6	3.4	3.2	3.2	8.1	.8
DETECTS POLLUTING CAR	4.0	4.1	3.4	5.6	7.2	6.8	4.5	2.4	3.0	3.2

CONTINUED

TABLE 18 - 1
Q.8--WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME				
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
MORE CHECK POINTS NEEDED	3.5	2.5	3.4	7.3		.8	5.1	5.2	5.5	
NECESSARY BECAUSE OF OLD CARS	3.3	3.4	3.2	3.2	3.6	3.4	1.9	4.0	3.8	2.4
HAPHAZARD METHODS	3.2	3.2	3.6	1.6	3.6	3.4	2.5	3.2	2.1	5.6
INCONVENIENT, BUT STILL SUPPORT	1.5	.9	1.8	2.4	1.8	1.7	1.3	2.0	1.7	
PROVEN SUCCESSFUL ELSEWHERE	1.1	.7	1.6	.8		2.5	1.9	1.2	.8	
PRAISE CALIFORNIA HIGHWAY PATROL	1.0	.5	1.1	2.4	.9			.8	1.7	2.4
SMOG CHECK INADEQUATE/DEVICES INADEQUATE	.8	.7	1.1			.8		.8	1.3	1.6
THOROUGH, COMPLETE TEST	.7	.5	.7	1.6			.6	.8	1.3	.8
PURPOSELY AVOID	.7	.7	.2	2.4		.8	1.3	1.2		.8
WASTE OF MONEY	.5	.2	.9			.8		.4	1.3	

CONTINUED

TABLE 18 - 2
Q.8--WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

	TOTAL	NUMBER OF VEHICLES			INCOME					
		ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
CALIFORNIA HIGHWAY PATROL NOT QUALIFIED	.4	.2	.2	1.6				.4	.8	.8
MAKES PEOPLE UNEASY	.4	.5		1.6			1.3	.4	.4	
MISCELLANEOUS OTHER	1.9	2.1	1.6	2.4	1.8		.6	1.6	2.5	4.8
DONT KNOW	6.3	9.4	4.5	1.6	7.2	9.3	4.5	8.3	2.5	7.9

TABLE 89
Q.8--WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
GENERAL SUPPORT	58.3	57.9	58.7	58.2	59.3	50.9
DETECTS MECHANICAL DEFECTIVE CARS	18.9	20.3	17.3	17.4	20.7	16.4
HIGHLY SUPPORTIVE	16.1	15.3	17.1	20.0	11.6	21.8
SAFETY/KEEPS CARS SAFE	14.3	16.2	12.1	14.2	14.6	12.7
FORCES CARS TO BE REPAIRED	8.0	7.8	8.2	9.3	7.0	5.5
INCONVENIENT	5.3	4.8	5.8	4.5	6.1	5.5
INCOMPLETE TEST	4.6	5.6	3.5	4.9	4.2	5.5
GENERAL DISAPPROVAL	4.2	4.5	3.9	3.2	4.9	7.3
SHOULD BE MANDATORY FOR ALL CARS	4.1	4.7	3.5	5.3	3.2	1.8
DETECTS POLLUTING CAR	4.0	4.1	3.9	5.3	3.0	1.8

CONTINUED

TABLE 89 - 1
Q.8—WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

	TOTAL	----SEX---- MALE	FEMALE	--ENFORCEMENT PROVISION-- APPROVE	DISAP-PROVE	DK/RA
MORE CHECK POINTS NEEDED	3.5	4.5	2.4	5.7	1.7	
NECESSARY BECAUSE OF OLD CARS	3.3	3.2	3.5	3.4	3.4	1.8
HAPHAZARD METHODS	3.2	3.2	3.2	2.5	3.8	3.6
INCONVENIENT, BUT STILL SUPPORT	1.5	.9	2.2	.8	2.3	
PROVEN SUCCESSFUL ELSEWHERE	1.1	1.5	.6	.8	1.3	1.8
PRAISE CALIFORNIA HIGHWAY PATROL	1.0	1.1	.9	.4	1.5	1.8
SMOG CHEGK INADE-QUATE/DEVICES INADEQUATE	.8	.6	1.1	.8	.6	1.8
THOROUGH, COMPLETE TEST	.7	.9	.4	.6	.6	1.8
PURPOSELY AVOID	.7	.4	1.1	.4	1.1	
WASTE OF MONEY	.5	.7	.2	.4	.6	

CONTINUED

TABLE 89 - 2
Q.8--WHAT IS YOUR REACTION TO THIS SAFETY INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
CALIFORNIA HIGHWAY PATROL NOT QUALIFIED	.4	.4	.4		.8	
MAKES PEOPLE UNEASY	.4	.4	.4		.6	1.8
MISCELLANEOUS OTHER	1.9	2.6	1.1	1.3	2.1	5.5
DONT KNOW	6.3	5.8	6.9	5.1	7.4	7.3

TABLE 19
Q.9--IS A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM FOR ALL VEHICLES IN THE STATE NECESSARY OR UNNECESSARY

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000	436	440	124	111	118	157	252	236	126
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NECESSARY	76.6	77.1	76.1	76.6	77.5	83.1	79.0	78.6	76.7	62.7
UNNECESSARY	16.1	14.9	16.6	18.5	11.7	12.7	14.6	15.9	16.5	24.6
DK/RA	7.3	8.0	7.3	4.8	10.8	4.2	6.4	5.6	6.8	12.7

TABLE 90
Q.9--IS A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM FOR ALL VEHICLES IN THE STATE NECESSARY OR UNNECESSARY

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
NECESSARY	76.6	73.9	79.7	86.4	67.9	67.3
UNNECESSARY	16.1	18.8	13.0	8.9	22.4	23.6
DK/RA	7.3	7.3	7.3	4.7	9.7	9.1

TABLE 20
Q.10--MAJOR ADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
REDUCE POLLUTION	30.2	31.9	29.1	28.2	36.0	31.4	32.5	28.6	29.7	25.4
FORCE PEOPLE TO FIX CARS	19.7	19.0	19.5	22.6	18.9	16.1	21.0	23.0	19.9	15.1
DETECTS DEFECTIVE CARS	16.8	18.3	16.8	11.3	14.4	23.7	12.7	15.5	18.6	16.7
ELIMINATE OLD CARS	11.8	12.8	10.5	12.9	9.9	13.6	15.9	8.3	14.0	9.5
ALL VEHICLES INSPECTED/MANDATORY	8.9	8.0	9.8	8.9	9.0	8.5	8.9	11.5	7.2	7.1
MAKE SMOG DEVICES MANDATORY	5.1	5.3	4.5	6.5	2.7	5.9	5.1	6.0	7.2	.8
SAFETY OF VEHICLE	5.0	4.8	5.0	5.6	7.2	2.5	4.5	4.0	5.1	7.9
GENERALLY NEEDED	4.0	3.2	4.8	4.0	1.8	7.6	3.2	2.0	4.2	7.1
FORCE MANUFACTURES TO BE RESPONSIBLE	2.3	2.1	2.3	3.2	1.8	4.2	1.9	2.4	2.5	.8

CONTINUED

TABLE 20 - 1
Q.10--MAJOR ADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
PERSONAL HEALTH & WELFARE	1.7	2.3	1.4	.8	2.7	2.5	3.2	.4	.4	3.2
FORCE OIL INDUSTRIES TO COMPLY	.8	1.4	.5		.9	1.7	.6	.8	.8	
ECOLOGY	.8	.9	.9		1.8	.8	.6	1.6		
GOOD IF COMPLETE INSPECTION	.8	.2	1.6				1.3	1.2	.4	1.6
EMPHASISES IMPORT-ANCE OF PROBLEM	.7	.7	.7	.8			.6	.8	1.7	
REGULATED & ENFORCED	.7	.2	.9	1.6			.6	1.2	1.3	
KNOWLEDGE OF SUCCESS ELSEWHERE	.6	.9	.5		.9		1.3	.4	.4	.8
MISCELLANEOUS OTHER	.8	.7	.7	1.6	.9	.8	.6	.8	1.3	
NONE	8.3	7.1	8.4	12.1	7.2	5.9	10.2	8.3	6.8	11.9
DK	7.1	8.3	6.8	4.0	9.9	4.2	3.2	6.7	6.8	13.5

TABLE 91
Q.10--MAJOR ADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
REDUCE POLLUTION	30.2	28.5	32.2	32.3	28.7	25.5
FORCE PEOPLE TO FIX CARS	19.7	20.1	19.2	24.6	15.6	12.7
DETECTS DEFECTIVE CARS	16.8	16.4	17.3	15.3	18.6	14.5
ELIMINATE OLD CARS	11.8	12.5	11.0	16.1	7.4	12.7
ALL VEHICLES INSPECTED/MANDATORY	8.9	9.3	8.4	9.1	9.1	5.5
MAKE SMOG DEVICES MANDATORY	5.1	5.2	5.0	5.5	4.6	5.5
SAFETY OF VEHICLE	5.0	5.2	4.8	4.2	5.3	9.1
GENERALLY NEEDED	4.0	3.0	5.2	4.0	3.8	5.5
FORCE MANUFACTURES TO BE RESPONSIBLE	2.3	2.8	1.7	1.9	2.7	1.8
PERSONAL HEALTH & WELFARE	1.7	1.7	1.7	.8	2.5	1.8

CONTINUED

TABLE 91 - 1
Q.10--MAJOR ADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
FORCE OIL INDUSTRIES TO COMPLY	.8	.6	1.1	.6	.8	1.8
ECOLOGY	.8	.9	.6	.6	1.1	
GOOD IF COMPLETE INSPECTION	.8	1.1	.4	.8	.8	
EMPHASISES IMPORT-ANCE OF PROBLEM	.7	.6	.9	.8	.6	
REGULATED & ENFORCED	.7	.9	.4	.8	.6	
KNOWLEDGE OF SUCCESS ELSEWHERE	.6	.9	.2	.8	.4	
MISCELLANEOUS OTHER	.8	1.1	.4	.8	.8	
NONE	8.3	8.9	7.6	3.8	12.7	9.1
DK	7.1	6.3	8.0	4.7	8.6	14.5

TABLE 21
Q.11--MAJOR DISADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000 100.0	436 100.0	440 100.0	124 100.0	111 100.0	118 100.0	157 100.0	252 100.0	236 100.0	126 100.0
TOO EXPENSIVE/ AMOUNT OF TAXES	23.1	22.0	24.8	21.0	17.1	21.2	25.5	24.6	27.5	15.9
INCONVENIENCE/ TIME FACTOR	9.8	9.6	8.9	13.7	11.7	8.5	8.9	9.9	10.6	8.7
PLACES FINANCIAL BURDEN ON POOR	8.1	8.0	7.3	11.3	9.9	12.7	6.4	9.5	7.6	2.4
INCONVENIENCE, GENERALLY	7.9	8.0	8.9	4.0	4.5	5.9	7.6	7.1	11.4	7.9
PLACES FINANCIAL BURDEN ON OWNERS	5.7	5.7	5.5	6.5	5.4	3.4	5.7	6.3	6.4	5.6
DEVICE WILL NOT SOLVE PROBLEM	5.0	3.2	5.2	10.5	2.7	5.1	5.7	4.0	5.9	6.3
INFRINGEMENT ON PRIVACY	4.1	5.3	3.0	4.0	2.7	2.5	5.1	4.8	4.2	4.0
GRAFT/CORRUPTION	3.8	3.0	4.1	5.6	1.8	3.4	5.7	3.6	5.1	1.6
HOW TO ENFORCE	3.7	3.4	3.6	4.8	2.7	3.4	3.2	5.6	2.5	4.0

CONTINUED

TABLE 21 - 1
Q.11--MAJOR DISADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
UNFAIR PRACTICES	1.9	1.8	2.3	.8	.9	2.5	.6	3.2	2.1	.8
GENERALLY UNNECESSARY	1.9	1.1	2.0	4.0	2.7	1.7	1.3	1.6	2.1	2.4
PUBLIC ADVERSE ATTITUDE	1.4	1.1	1.6	1.6		2.5	2.5	.4	1.3	2.4
MANUFACTURERS RESPONSIBILITY	1.3	1.4	1.1	1.6			2.5	1.2	2.1	.8
TAKES AWAY NEEDED TRANSPORTATION	1.1	1.1	.9	1.6	1.8	1.7	1.3	1.2	.4	.8
OIL COMPANIES RESPONSIBILITY	.5	.2	.7	.8			.6	.8	.4	.8
TRUCKS/BUSES WOULDNT NEED TO COMPLY	.3	.5	.2				1.3			.8
PROFIT MOTIVE FOR GARAGES	.3			2.4				.4	.8	
MISCELLANEOUS OTHER	1.0	1.1	1.1		1.8		.6	1.6	1.3	
NONE	24.7	28.0	23.4	17.7	32.4	28.0	26.8	20.6	20.8	27.8

CONTINUED

TABLE 21 - 2
Q.11--MAJOR DISADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
DK	9.8	9.4	10.2	9.7	14.4	10.2	5.7	7.1	7.6	19.8

TABLE 92
Q.11--MAJOR DISADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
TOO EXPENSIVE/ AMOUNT OF TAXES	23.1	24.6	21.4	19.7	26.2	25.5
INCONVENIENCE/ TIME FACTOR	9.8	10.2	9.3	8.9	10.8	9.1
PLACES FINANCIAL BURDEN ON POOR	8.1	8.4	7.8	7.2	8.9	9.1
INCONVENIENCE, GENERALLY	7.9	8.4	7.3	9.3	7.0	3.6
PLACES FINANCIAL BURDEN ON OWNERS	5.7	7.1	4.1	4.9	6.5	5.5
DEVICE WILL NOT SOLVE PROBLEM	5.0	6.0	3.9	2.1	7.8	5.5
INFRINGEMENT ON PRIVACY	4.1	3.7	4.5	4.2	4.2	1.8
GRAFT/CORRUPTION	3.8	5.6	1.7	4.0	3.8	1.8
HOW TO ENFORCE	3.7	4.1	3.2	4.5	2.7	5.5
UNFAIR PRACTICES	1.9	2.6	1.1	1.1	3.0	

CONTINUED

TABLE 92 - 1
Q.11--MAJOR DISADVANTAGES OF A MANDATORY VEHICLE EMISSION INSPECTION PROGRAM

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
GENERALLY UNNECESSARY	1.9	1.7	2.2	.6	3.0	3.6
PUBLIC ADVERSE ATTITUDE	1.4	1.5	1.3	1.7	1.3	
MANUFACTURERS RESPONSIBILITY	1.3	1.7	.9	.4	2.3	
TAKES AWAY NEEDED TRANSPORTATION	1.1	.7	1.5	.4	1.3	5.5
OIL COMPANIES RESPONSIBILITY	.5	.6	.4	.2	.6	1.8
TRUCKS/BUSES WOULDNT NEED TO COMPLY	.3	.2	.4	.2	.4	
PROFIT MOTIVE FOR GARAGES	.3	.6			.6	
MISCELLANEOUS OTHER	1.0	1.7	.2	1.1	1.1	
NONE	24.7	23.1	26.6	31.2	18.4	23.6
DK	9.8	6.1	14.0	8.9	9.7	18.2

TABLE 22
Q.12--INSPECTION SHOULD BE CONDUCTED BY THE STATE OF CALIFORNIA OR BY PRIVATE GARAGES & SERVICE STATIONS

	TOTAL	NUMBER OF VEHICLES: ONE	TWO	3 OR MORE	INCOME: LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
TOTAL	1000	436	440	124	111	118	157	252	236	126
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
STATE OF CALIFORNIA	56.9	58.3	55.0	58.9	54.1	58.5	60.5	63.9	46.2	59.5
PRIVATE GARAGES/ SERVICE STATIONS	25.0	22.0	26.8	29.0	16.2	26.3	22.9	23.8	32.2	23.0
DK/RA	18.1	19.7	18.2	12.1	29.7	15.3	16.6	12.3	21.6	17.5

TABLE 93
Q.12--INSPECTION SHOULD BE CONDUCTED BY THE STATE OF CALIFORNIA OR BY PRIVATE GARAGES & SERVICE STATIONS

		----SEX----		--ENFORCEMENT PROVISION--		
	TOTAL	MALE	FEMALE	APPROVE	DISAP-PROVE	DK/RA
TOTAL	1000 100.0	537 100.0	463 100.0	471 100.0	474 100.0	55 100.0
STATE OF CALIFORNIA	56.9	58.3	55.3	59.7	54.9	50.9
PRIVATE GARAGES/ SERVICE STATIONS	25.0	24.4	25.7	24.2	27.4	10.9
DK/RA	18.1	17.3	19.0	16.1	17.7	38.2

TABLE 23
Q.12A—WHY DO YOU BELIEVE THAT INSPECTIONS SHOULD BE CONDUCTED BY THE STATE OF CALIFORNIA

		NUMBER OF VEHICLES			INCOME					
	TOTAL	ONE	TWO	3 OR MORE	LESS THAN $5,000	5,000 - 7,999	8,000 - 9,999	10,000 - 14,999	15,000 & OVER	DK/RA
INSPECTIONS SHOULD BE CONDUCTED BY STATE	569 100.0	254 100.0	242 100.0	73 100.0	60 100.0	69 100.0	95 100.0	161 100.0	109 100.0	75 100.0
HAVE TRUST IN/HONEST	13.2	12.2	14.0	13.7	15.0	11.6	5.3	13.7	21.1	10.7
ELIMINATE (CUT DOWN) /GRAFT/BRIBE	13.2	13.4	14.0	9.6	15.0	14.5	13.7	18.0	8.3	6.7
DO NOT TRUST PRIVATE GARAGE	13.0	13.0	13.2	12.3	11.7	10.1	14.7	11.2	22.0	5.3
BETTER ENFORCEMENT	10.9	10.6	11.2	11.0	10.0	7.2	13.7	13.0	10.1	8.0
PRIVATE GARAGES CHARGE TOO MUCH	8.4	9.1	7.0	11.0	6.7	4.3	10.5	8.1	9.2	10.7
DO BETTER JOB, GENL.	8.3	9.1	7.4	8.2	11.7	7.2	9.5	8.7	4.6	9.3
LESS EXPENSIVE/ CHEAPER	7.6	7.1	7.0	11.0	5.0	14.5	8.4	5.6	5.5	9.3
ELIMINATE PROFIT MOTIVE	7.6	7.9	7.0	8.2	8.3	13.0	5.3	7.5	6.4	6.7
MORE OFFICIAL/VALID/ OBJECTIVE	7.2	7.1	7.4	6.8	8.3	5.8	8.4	5.6	9.2	6.7

CONTINUED