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CAMBRIDGE, MA 02142

PHASE II

EVALUATION OF THE NATIONAL CRASH EXPERIENCE: COMPARISON OF CARDFILE NATIONAL MOTOR VEHICLE ACCIDENT PROJECTIONS WITH PROJECTIONS FROM NASS

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EXECUTIVE SUMMARY

This report details the results of an analysis that compared the Crash Avoidance Research Data Base (CARDfile) with the National Accident Sampling System (NASS). CARDfile combines, in one data base, the police accident records for three years (1983 through 1985) from Indiana, Maryland, Michigan, Pennsylvania, Texas, and Washington. It comtains in excess of 4.0 million accidents that involved 6.5 million vehicles. NHTSA's Office of Crash Avoidance (NRD-50) uses CARDfile to evaluate crash avoidance concepts and to assist in program development.

To make the best use of CARDfile, it is important to understand how well the accident experience derived from the six CARDfile states compares to other national data bases.

During the first effort in this evaluation, TSC examined the general characteristics of the population, the vehicles, the roads, and the fatal accidents in these states and compared them to the same characteristics for the whole nation. We found that the six states agreed well with the nation (Salvatore, Mengert, Walter, 1987).

Of greater importance is how these six states' accident experience agrees with the accident experience found in other accident data bases, particularly NASS. The results of these analyses are reported here. As in the Phase I effort, 1984 was used as the comparison year. Variables selected included those:

(1) relating to the accident (light and weather conditions, primary impact, relationship to the intersection and its characteristics, and the number of involved vehicles);

(2) relating to the vehicle (type, model year, and component failure) and

(3) relating to the age and sex of the driver.

In most instances, it was necessary to "remap" the NASS variables to fit with the CARDfile variables. The results of this "remapping" can be found in Appendix 1. The results of the analyses are presented in tabular form for the six aggregated

states in Appendix 2. The results for individual states are found in Appendix 3. A summary of the results are shown in the figures on pages E5 through E11. These figures are based on the ratio of the percentage in a particular category in the CARDfile states to that same category in NASS at the national level. The ideal level of agreement is 1.00. A value of 1.05, for example, would indicate an over-representation in the nation predicted by the CARDfile states of five percent. Figures E1 through E7 show that the ratios for NASS and CARDfile are in good agreement in the subcategories that contain relatively large sized samples. In some of the smaller categories, the agreement is not as good.

For light conditions (Figure E1), both data bases predict 62.5 percent of the accidents occur in the day (ratio = 1.00), and 33 percent occur during the dark or dark-lighted conditions. CARDfile predicts more accidents at dawn and less at dusk than NASS. These results are typical where NASS and CARDfile agree in categories with large proportions and diverge in categories with small proportions.

Both data bases agree (ratio = 1.00) that 80 percent of the accidents occur on clear/cloudy days (Figure E1). CARDfile has more accidents in rain and less in snow/ice. This can be caused, in part, by the weather conditions of the CARDfile states.

CARDfile and NASS show that 64.5 percent of the accidents occur with moving vehicles (Figure E2). CARDfile under-predicts accidents with fixed objects (approximately 17 percent, ratio 0.94) and over-predicts collisions with parked vehicles (approximately 8 percent, ratio = 1.14). Some of this divergence can be accounted for by the more urban roads in the CARDfile states.

CARDfile and NASS agree on those accidents that are not intersection related (Figure E3). CARDfile over-predicts intersection-related accidents (approximately 42 percent of the total accidents, ratio = 1.13). Again, this may be related to the more urban character of the six CARDfile states. Of those accidents that are intersection-related, CARDfile had over twice as many accidents at signed intersections than NASS (ratio = 2.4), again reflecting the more urban nature of the CARDfile states. However, CARDfile had less accidents at signal lights than NASS

(ratio = 0.85). Also, in keeping with the more urban nature of the six states, CARDfile has less single vehicle accidents and more multiple accidents than NASS (Figure E-4).

CARDfile predicts slightly less passenger and light truck accidents (Figure E-4) than NASS (ratios = 0.97). The first result was expected as the Phase I effort indicated that the CARDfile states under-represented the nation in passenger cars, but the result with light trucks was unexpected as the Phase I study indicated that they were over-represented in the six states. However, medium/heavy truck accidents are over-represented in both the CARDfile population and accidents (ratio = 1.32).

When we observed the accidents by vehicle model year (Figure E-5), both CARDfile and NASS were in good agreement except for 1965-1969 (ratio = 0.84). No corresponding data is available from Phase I. Both CARDfile and NASS predict that 98 percent of the accidents are defect free (ratio = 0.99). Both also predict that brakes, tires, and steering are the most common defects involved in accidents (Figure E-6).

In general, CARDfile and NASS agreed well on the age and sex of the accident-involved drivers (Figure E-7). CARDfile had more 50-54 year old and 65-69 year old female drivers as well as more 25-35 year old male drivers involved in accidents than that predicted by NASS. CARDfile also predicted less accident-involved drivers, both female and male, over 70 years of age.

From these results, we conclude that:

1) It is possible to derive projections of the national crash experience from CARDfile.

2) Corrections to these national projections may be possible based upon the variations of the CARDfile characteristics from the nation.

3) Disagreements between CARDfile and NASS were more evident in accident subcategories with small proportions of the total and are, at least in some cases, due to fluctuations in the small samples.

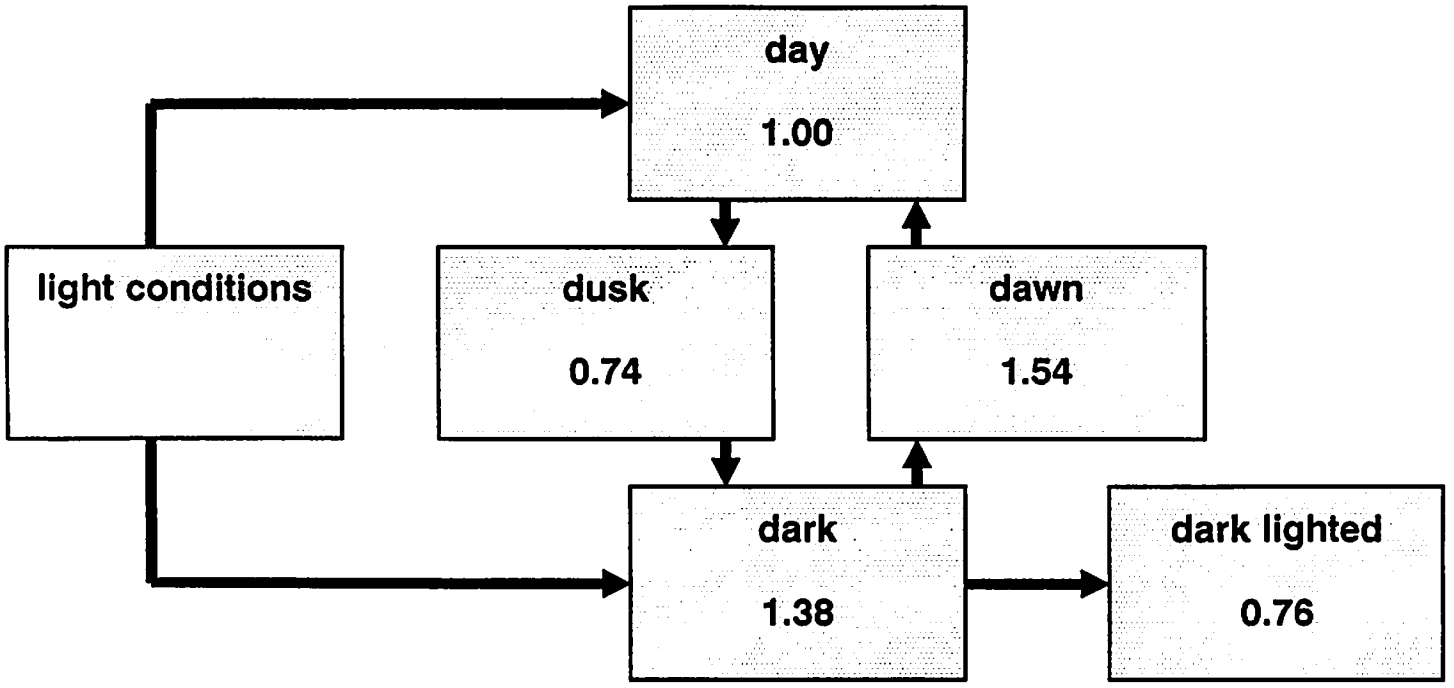
FIGURES E-1 THROUGH E-7

GRAPHIC SUMMARY OF STUDY RESULTS

Figure E-1

Lighting and Weather Conditions

Ratio of CARDfile to NASS



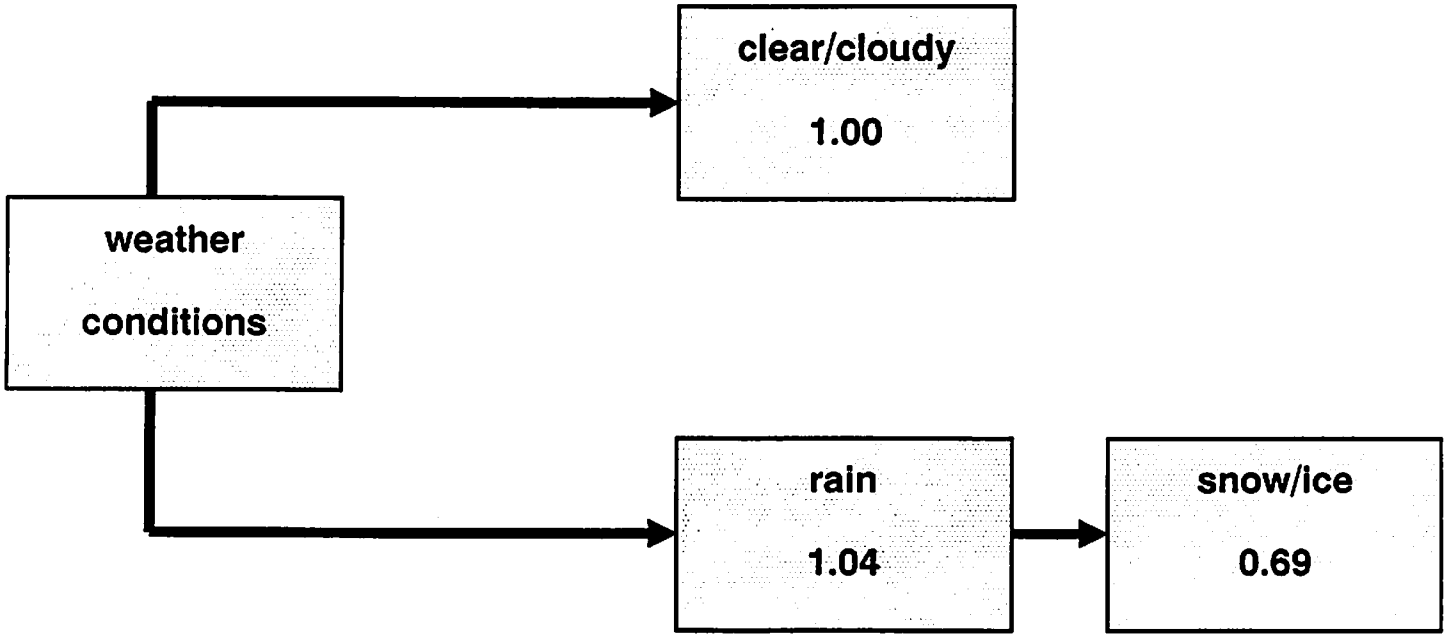


Figure E-2

Primary Impact

Ratio of CARDfile to Nass

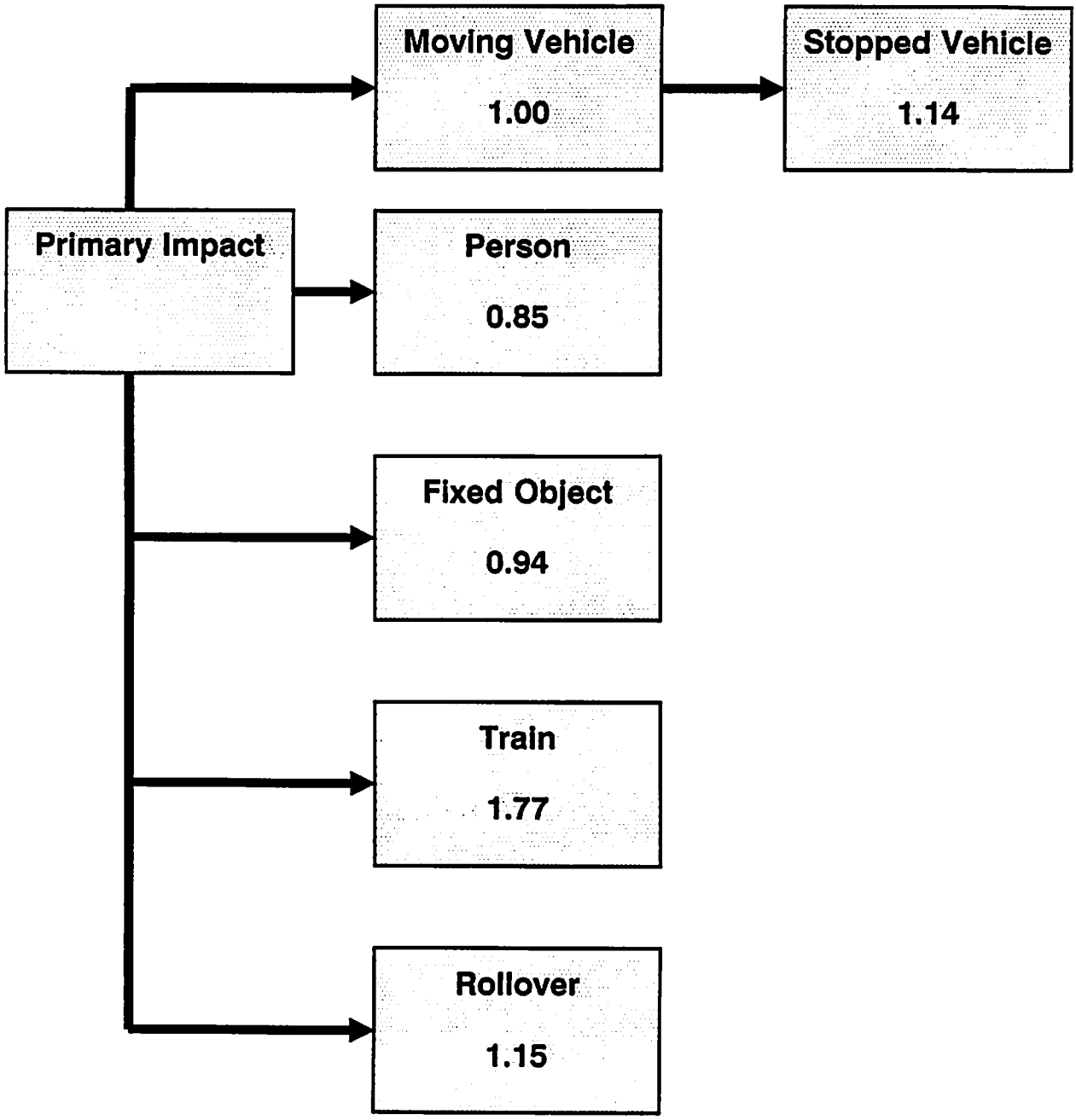


Figure E-3

Relation to Intersection

Ratio of CARDfile to NASS

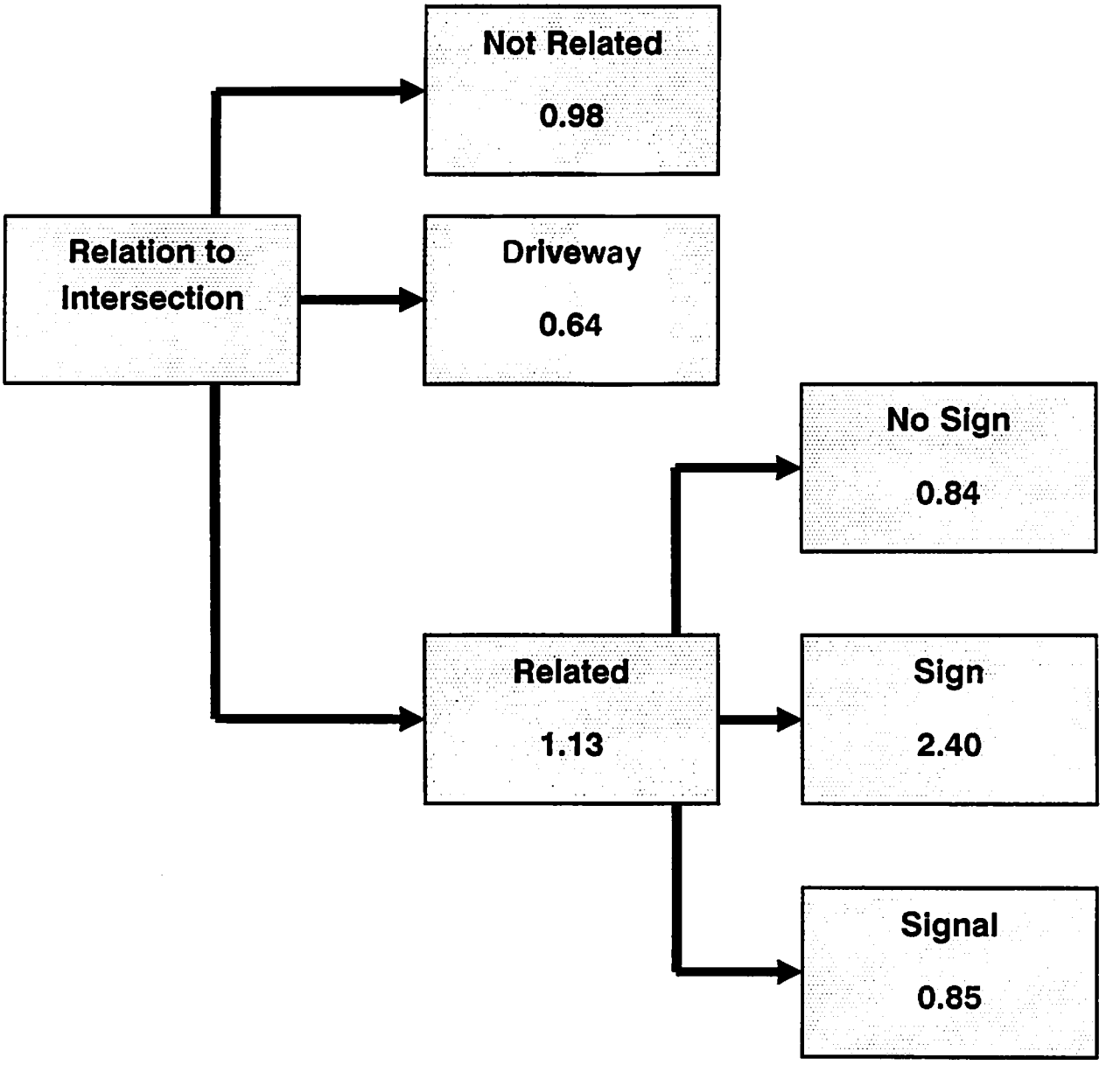


Figure E-4

Number of Vehicles and Vehicle Type

Ratio of CARDfile to NASS

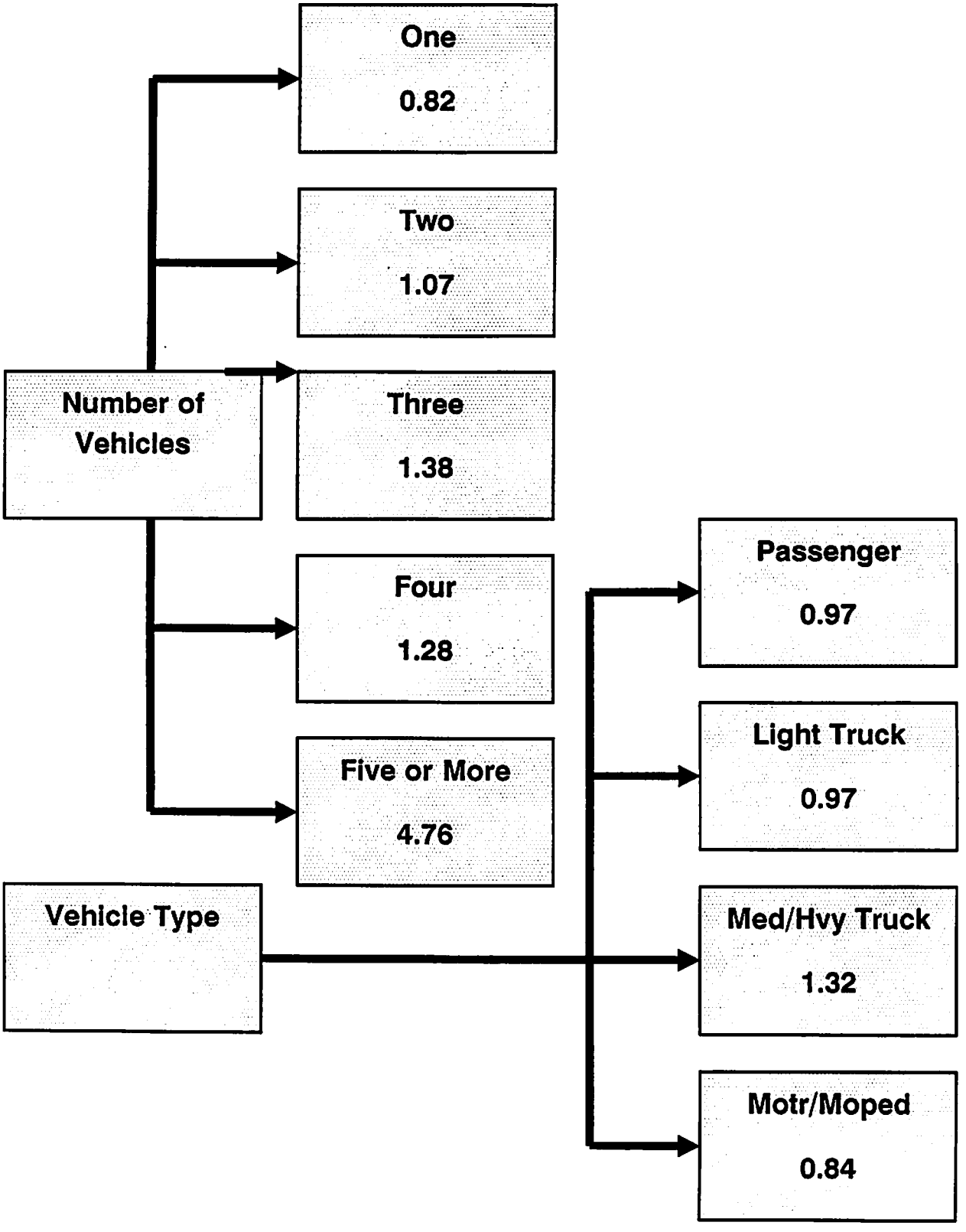


Figure E-5

Vehicle Model Year

Ratio of CARDfile to NASS

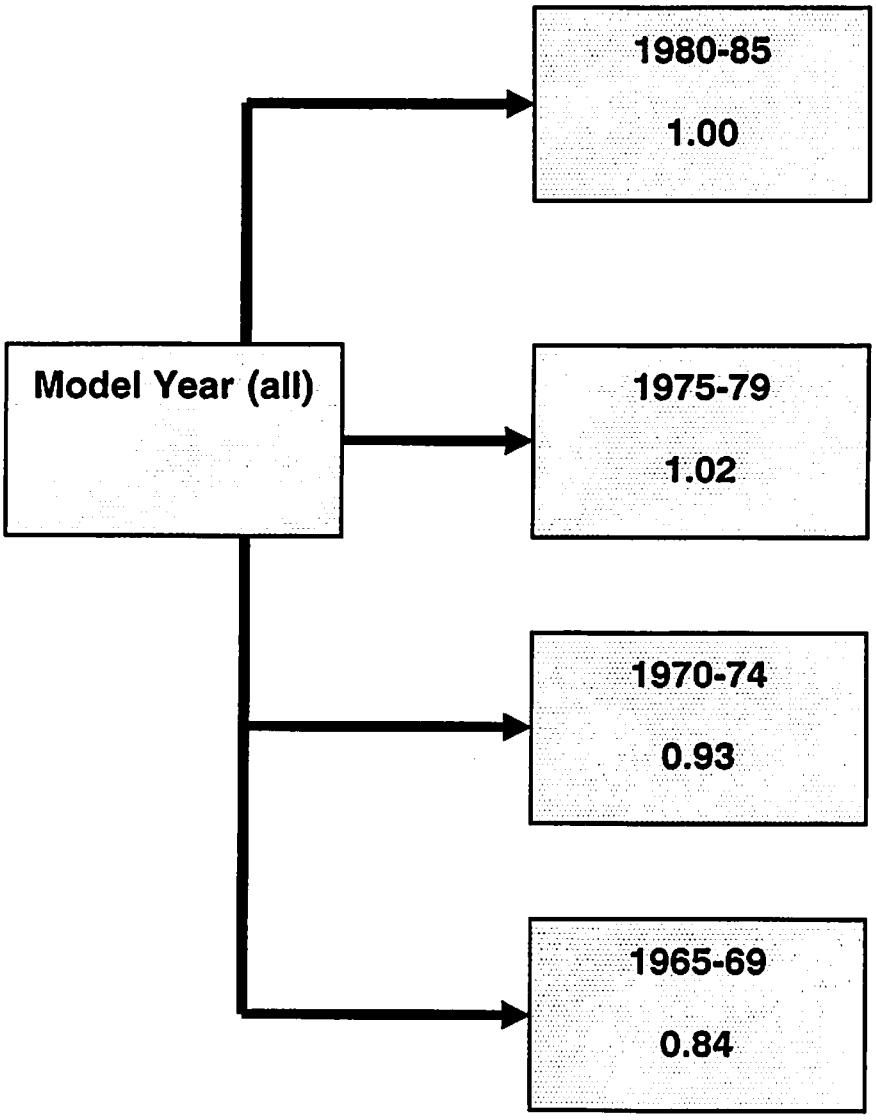


Figure E-6

Vehicle Defects

Ratio of CARDfile to NASS

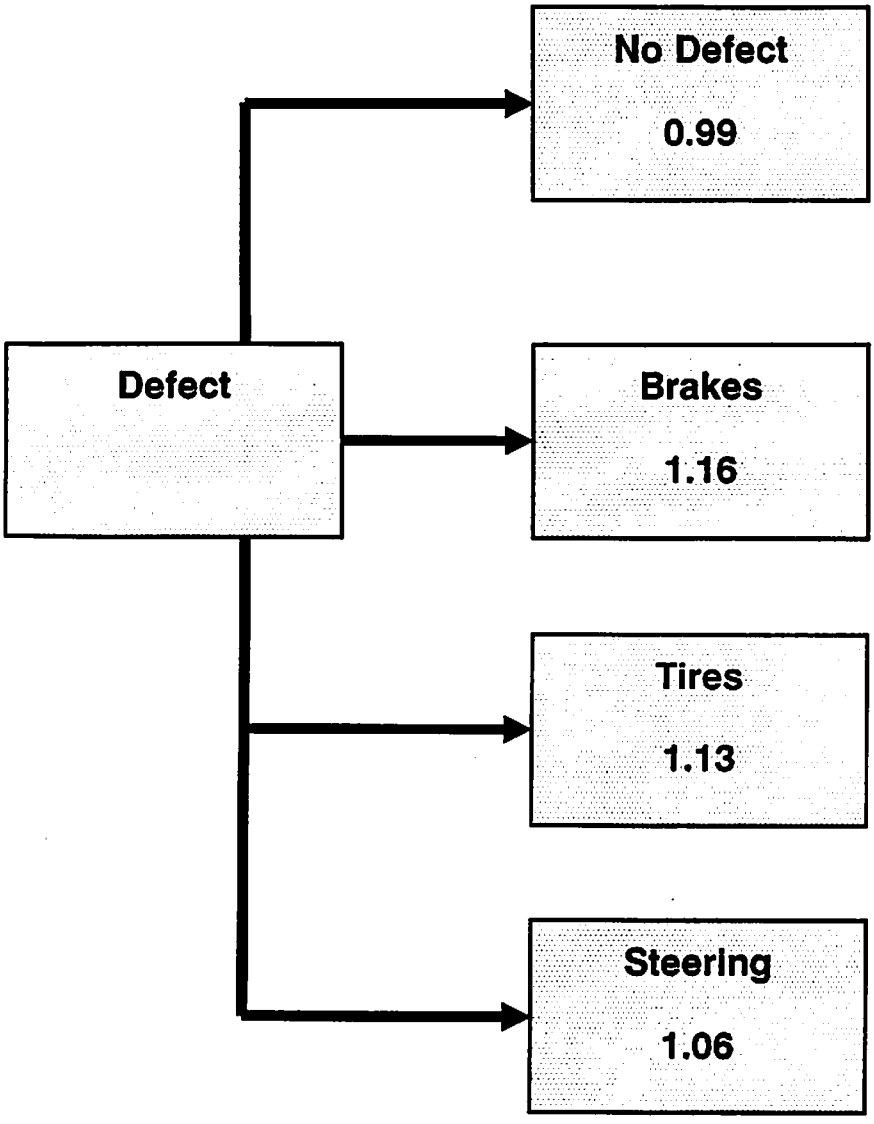
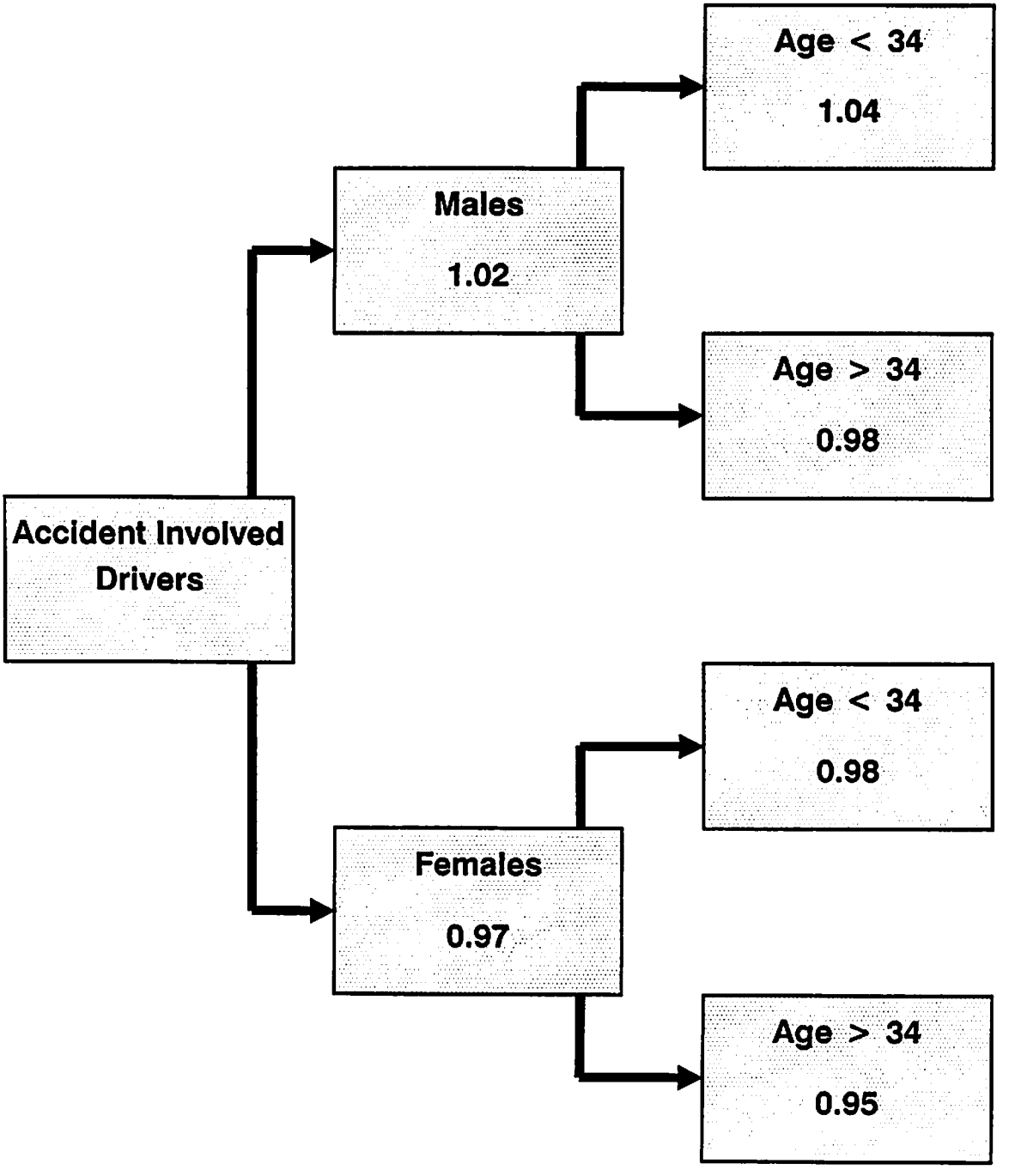


Figure E-7

Sex and Age of Accident Involved Drivers

Ratio of CARDfile to NASS



A. INTRODUCTION

1. Purpose

The purpose of this Phase II study is to compare national motor vehicle accident projections made from the Crash Avoidance Research Data base (CARDfile) with national motor vehicle accident projections made from other data bases. For the most part, the comparison will be with data derived from the computerized data bank of the National Accident Sampling System (NASS). Where appropriate, data from the National Safety Council's "Accident Facts" will also be utilized. Phase I of this project compared the distribution of people, vehicles and roads in the CARDfile states with the nation.

2. Description of CARDfile and NASS

CARDfile consists of crash data extracted from the automated police accident reports of the following six states:

* Indiana
* Maryland
* Michigan
* Pennsylvania
* Texas
* Washington

CARDfile has been designed to: (1) provide the information needed to examine the relationship between selected crash avoidance vehicle design characteristics and their crash propensity; and (2) to support problem identification activities in crash avoidance research. CARDfile now contains in excess of 4.0 million accidents involving 6.5 million vehicles covering the crash experience of the latest three years, 1983-1985, (Edwards, 1987). States were selected for inclusion in CARDfile on the basis of data availability in machine-readable form and commonality of data fields as well as population characteristics.

NASS investigates in depth a sample of police accident reports in a three stage, unequal probability selection plan. The nation is first broken down into 1279 probability sampling units (PSUs) which are categorized into 70 strata. Some PSUs are selected with certainty and others with probability proportional to their 1977 population. The second stage samples police jurisdictions within the PSUs with the

large jurisdictions being oversampled. Stage 3 selects the accidents in a fashion that oversamples the more severe and the more rare type of accident.

For the comparison year, 1984, NASS is based on 11,598 accidents. National accident estimates are computed by multiplying the number of accidents sampled in a subcategory by the ratio inflation factor. The ratio inflation factor is the inverse of the corrected probability of selecting the accident type.

B. METHODOLOGY

1. Importance of Variable Matching

An important aspect of this analysis is the detailed mapping of the variables in NASS to the variables in CARDfile. This is most important since improper matching of variable values in the two data bases will result in discrepancies which are not due to the crash experience. A general, preliminary mapping of variables in CARDfile with NASS was developed by TSC and refined by NHTSA's Crash Avoidance contractor, Mr. James MacDonough. The mapping of the NASS values onto CARDfile values for the accident file variable WEATHER is shown below. WEATHER is one of the simpler variables to be considered. Mapping of all the variables in the analysis is provided in Appendix 1.

CARDfile VALUES	CORRESPONDING NASS VALUES
1 - MISSING	9 - UNKNOWN
2 - UNKNOWN	9 - UNKNOWN
3 - CLEAR/CLOUDY	1 - NO ADVERSE WEATHER
4 - RAIN	2,6 - RAIN, RAIN + FOG
5 - SNOW/ICE	3,4,7 - SLEET, SNOW, SLEET + FOG
6 - OTHER	5,8 - FOG, SMOG, SMOKE, ETC.

2. Selection of Variables for Comparison

The variables for comparison were chosen by NHTSA on the basis of dual criteria. The variables chosen were: (1) descriptive of the crash; and (2) comparable to data available from Phase I results. The selected variables, arranged in accordance to their appearance in the CARDfile data base file, are shown below.

ACCIDENT FILE

Light Conditions

Weather Conditions

Primary Impact

Relation to Intersection

Intersection Characteristics

Number of Vehicles Involved

VEHICLE FILE

Vehicle Type

Model Year by Vehicle Type

Component Failure by Vehicle Type

DRIVER FILE

Sex by Age

3. Data Collection and Presentation

Computer programs were then developed by TSC to aggregate the NASS values in correspondance to the CARDfile classification scheme. The univariate distributions in the corresponding categories for CARDfile were obtained from NHTSA; the bivariate distributions in the vehicle and driver files were extracted from CARDfile by TSC. The data were then collated into tabular format and indices comparing the two data bases derived using personal computer software.

The method of presentation will be similar to that used in the report on Phase I of this project and as shown in the sample table below. The body of this report refers to tabular data given in tables 1 through 10 collected in Appendix 2. These tables provide summary statistics comparing the CARDfile and NASS results. Corresponding data for the six individual states are included in Appendix 3. Appendix 3 may be examined to discover which states may be driving the predictions.

Each table consists of seven columns. Column 1 lists subclasses or values of the CARDfile characteristic or variable under consideration such as age brackets, type of weather, number of vehicles in the accident.

WEATHER CONDITIONS (SAMPLE TABLE)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Weather Condition	CARDfile States Actual	CARD Predicted Nation	Percent of Accident Involved Drivers	NASS Predicted Nation	Percent of Accident Involved Drivers	Ratio CARD% NASS%
Clear/Cloudy	1506840	4808622	80.02	4638911	79.63	1.00
Rain	186663	849316	14.13	789350	13.55	1.04
Snow/Ice	53024	241259	4.01	340627	5.85	0.69
Other	17942	81636	1.36	13878	0.24	5.70
Missing/Unk	6240	28392	0.47	42802	0.73	0.64
Total	1320709	6009225	100.00	5825568	100.00	1.03

Column 2 provides the actual number of accidents found in CARDfile for that particular value or subclass. Column 3 is the number of accidents in the nation predicted from the CARDfile sample of accidents. This prediction is based on the simple multiplier of 4.55, i.e., the inverse of .22, the proportion representing, approximately, the national population, the licensed driver population, and the vehicle population in the CARDfile states. This assumes that the national crash experience is a simple multiple of these populations. (The use of this multiplier is substantiated by the fatality count obtained in Phase I. There it was found, from the Fatal Accident Reporting System (FARS), that the CARDfile states suffered 9483 of the nations 44250 fatalities. This is 21.43% of the fatalities which would provide a multiplier of 4.67.) Column 4 is the percentage of the predicted accidents falling in the subclass.

Column 5 and 6 provide similar information for the NASS derived statistics. Column 5 is the number of accidents in the nation predicted by the NASS sample and Column 6 the percentage of the predicted accidents falling in the subclass.

Column 7 is an index number which may be used for comparative purposes. For the Total this number is the ratio of the number of accidents or drivers predicted by CARDfile to the number of accidents predicted by NASS. For the individual values, such as rain, this index number is the ratio of the two data bases percentages as shown in Column 4 and Column 6. These ratios were also plotted for each variable and are graphically presented in Figures 1 through 10.

C. RESULTS

General Comment

A glance at Table 1 reveals that both CARDfile and NASS predict approximately six million accidents occurred in the nation in 1984. They differ from each other by slightly over 100,000 accidents. The ratio of CARDfile to NASS is 1.02. This index may be interpreted to say that CARDfile predicts two percent more accidents than NASS or that NASS predicts two percent less accidents than CARDfile.

It should be noted that for all the tables the total number of predicted accidents is the same; the composition of the subcategories will differ and provide predictive differences between the two data bases.

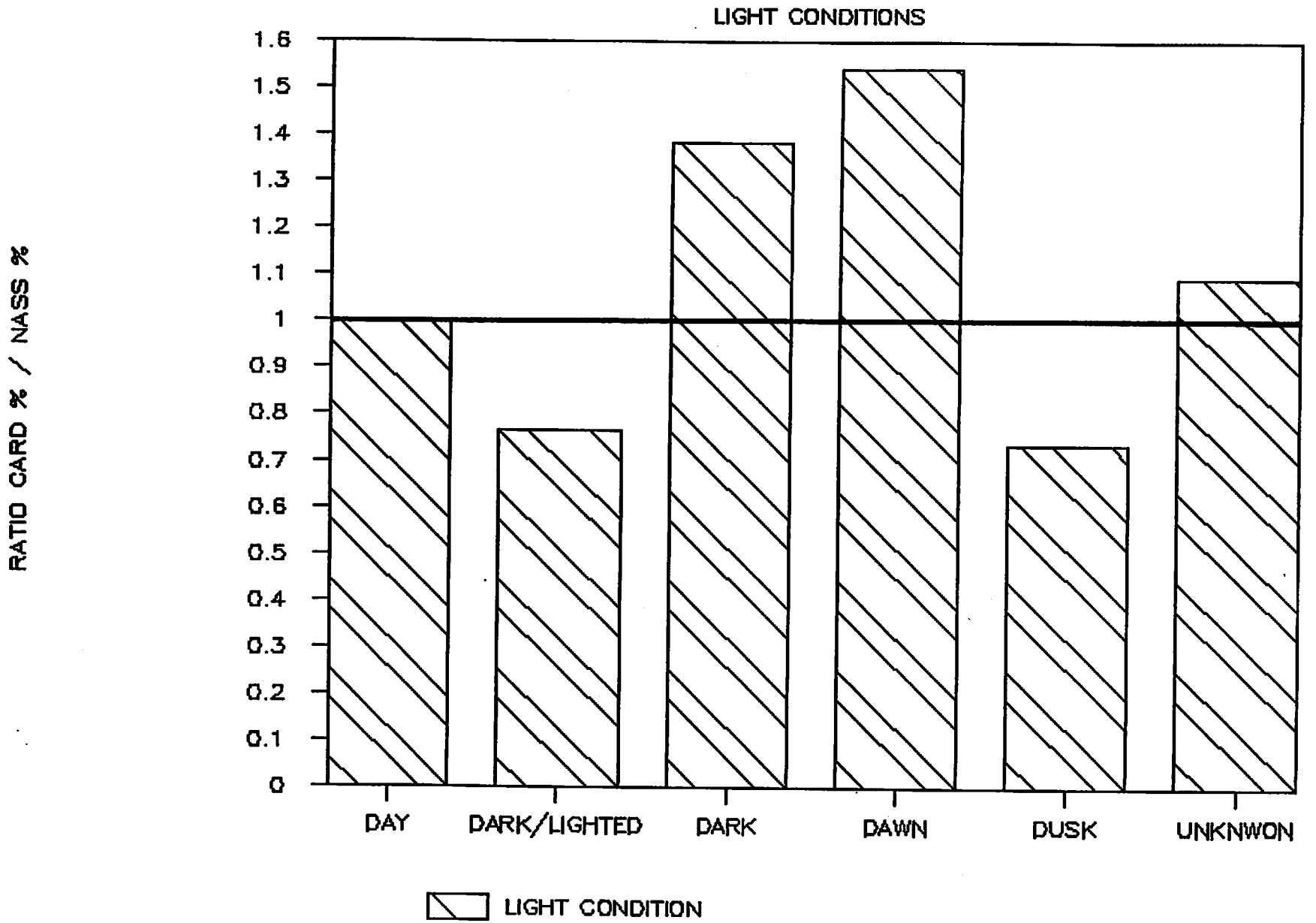
Although in most of the important subcategories of the variables there is excellent agreement between CARDfile and NASS, predicted differences in the vicinity of + or - 10% or more will be pointed out. Smaller differences will be pointed out for categories with a large number of accidents and bigger differences for categories with a small number of accidents. An attempt will be made to relate differences to Phase I results of this project. The purpose here is to document the extent to which over- and under-prediction by CARDfile in relation to NASS are correlated to over- and under-representation of CARDfile population characteristics as compared to the nation in Phase I. Such a correlation would provide validity of a type. Cursory comparisons to other sources of data will also be made to further this validation process.

The representativeness or validity of the national crash experience predicted by CARDfile will be taken up in the discussion section of this paper.

TABLE 1 AND FIGURE 1 LIGHT CONDITIONS

For the majority of the accidents, those occurring during the day (62%), there is excellent agreement between the two data bases. CARDfile predicts more accidents to occur at night on unlighted roads and at dawn than NASS while predicting fewer accidents to occur on dark-lighted roads and at dusk. While there is no obvious explanation for the result that ties it to Phase I results. It should be pointed out

FIGURE 1


LIGHT CONDITIONS
RATIO CARD % / NASS %
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
DAY
DARK/LIGHTED
DARK
DAWN
DUSK
UNKNWON
LIGHT CONDITION

that the definitions of dusk, dawn, and night-lighted are not clear and somewhat subjective. It is of interest that the sums of dark-lighted and dark accidents are approximately equal in CARDfile (33.04%) and NASS (32.53%).

TABLE 2 AND FIGURE 2 WEATHER CONDITIONS

Again, for the large majority of accidents, 80%, of which occur in clear/cloudy conditions, there is excellent agreement between the two data bases. CARDfile predicts fewer accidents on roads with ice and snow; considerably more accidents in the "other" category which includes fog, smog, and smoke, and slightly more accidents in rain. However, the "other" category is small for both CARDfile and NASS (1.36% and 0.24%, respectively).

A cursory examination of climatic conditions in the CARDfile states as compared to the nation, indicates that these over- and under-predictions of accidents nationwide may reflect the CARDfile states climate. Again, for the large majority of accidents, 80%, which occur in clear/cloudy conditions there is excellent agreement between the data bases.

TABLE 3 AND FIGURE 3 PRIMARY IMPACT

In the principal category of vehicle in transport, (64%) CARDfile and NASS are in excellent agreement with a ratio of 1.00.

CARDfile predicts more accidents with parked cars (vehicles not in transport), trains and of the rollover type than NASS. That CARDfile predicts more accidents with parked cars is congruent with the observation made in Phase I that the CARDfile states have more urban roadway and therefore more parked vehicles.

Other sources (the National Atlas of the United States of America, U.S. Department of the Interior Geological Survey, 1970, Washington, DC) indicate that there is a greater proportion of railroad mileage in the CARDfile states than the rest of the nation and, therefore, it is expected that CARDfile would overpredict motor vehicle accidents with trains. However, in both data bases train accidents are a very small portion (~0.1%) of the total accidents.

FIGURE 2

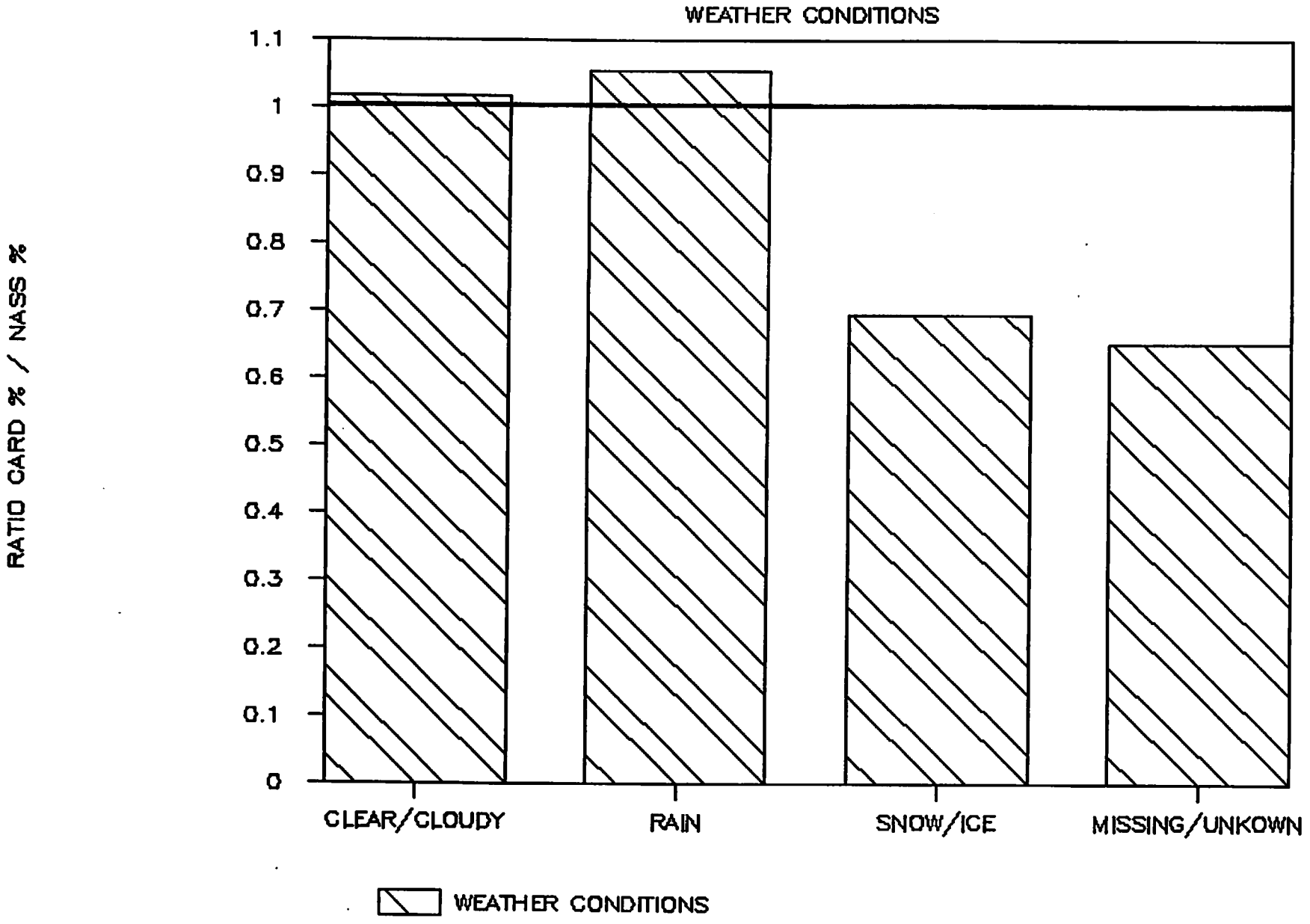
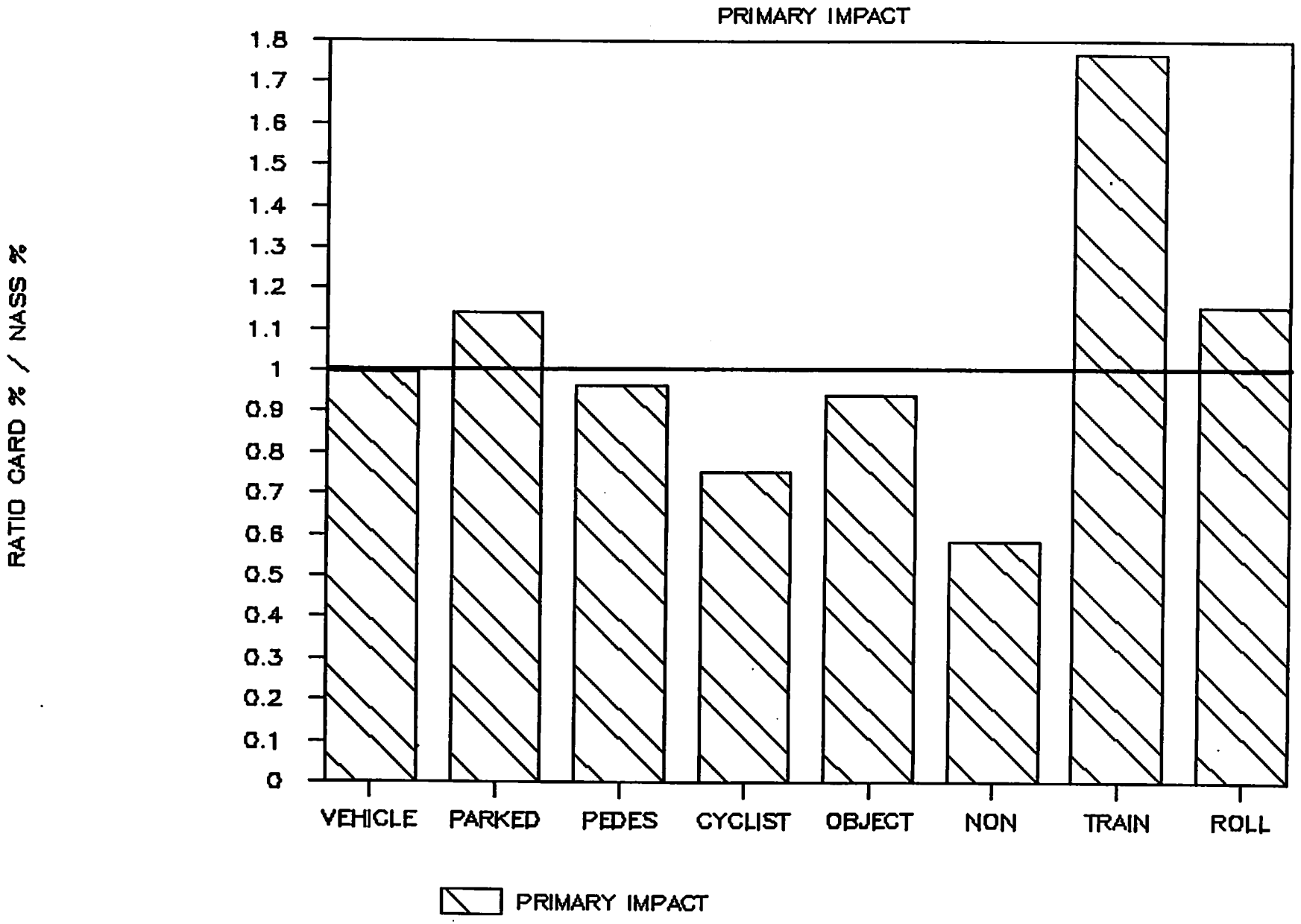

WEATHER CONDITIONS
RATIO CARD % / NASS %
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
CLEAR/CLOUDY
RAIN
SNOW/ICE
MISSING/UNKOWN
WEATHER CONDITIONS

FIGURE 3


PRIMARY IMPACT
RATIO CARD % / NASS %
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
VEHICLE
PARKED
PEDES
CYCLIST
OBJECT
NON
TRAIN
ROLL
PRIMARY IMPACT

CARDfile predicts fewer accidents with pedalists and accidents of the non-crash variety than NASS.

TABLE 4 AND FIGURE 4 RELATION TO INTERSECTION

Accidents not intersection related are projected with good agreement (CARDfile 47.11%, NASS 47.94%).

CARDfile predicts more accidents as being intersection related than does NASS and predicts fewer accidents related to driveways. This result is consistent with Phase I results. Those results indicated that the CARDfile states have more urban roadways than the nation thus possibly having more intersections and fewer driveways.

TABLE 5 AND FIGURE 5 INTERSECTION CHARACTERISTICS

Table 5 analyzes the intersection accidents. Of those accidents occurring at the intersection, CARDfile predicts considerably more to take place at intersections with stop signs or yield signs. This would again be ~~congruent~~ consistent with an urban environment: more accidents at intersections, more accidents at intersections with signs.

TABLE 6 AND FIGURE 6 NUMBER OF VEHICLES

CARDfile predicts fewer single vehicle accidents than does NASS. CARDfile also predicts considerably more accidents with 3 or more vehicles than does NASS (6.45% vs 4.58%). These results agree with Table 3 results which show fewer noncrash type of accidents and accidents with parked cars. The greater number of multiple car accidents may also be expected in an environment with more urban roads.

TABLE 7 AND FIGURE 7 VEHICLE TYPE

CARDfile predicts slightly less accidents with passenger cars which is consistent with Phase I results that show the CARDfile states to have fewer registered cars. However, the Phase I results showed that light trucks were overrepresented in the CARDfile states, but they are slightly underrepresented in the accident data shown here. CARDfile predicts a greater percentage of medium and heavy trucks to be

FIGURE 4

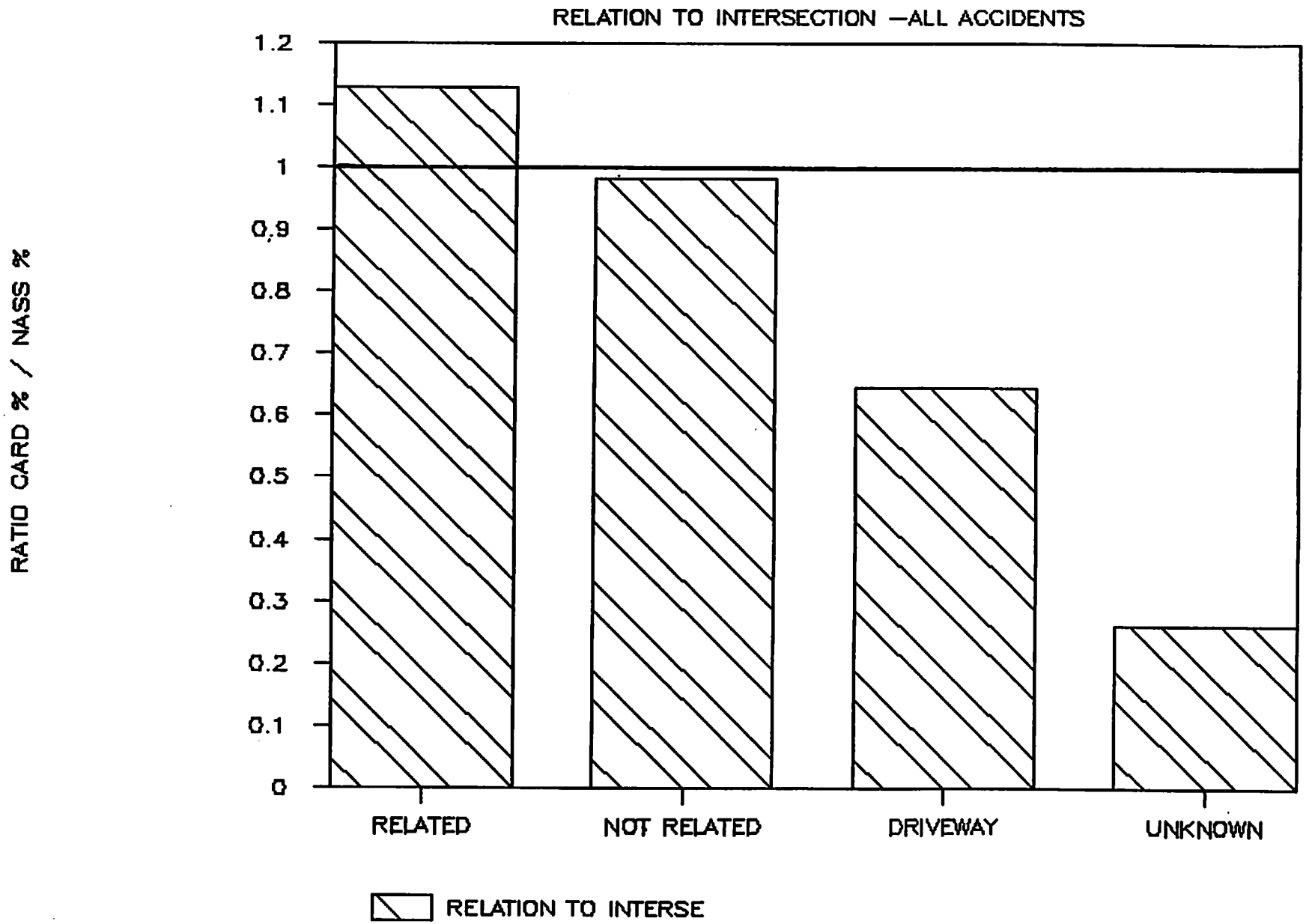

RELATION TO INTERSECTION —ALL ACCIDENTS
RATIO CARD % / NASS %
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RELATED
NOT RELATED
DRIVEWAY
UNKNOWN
RELATION TO INTERSE

FIGURE 5

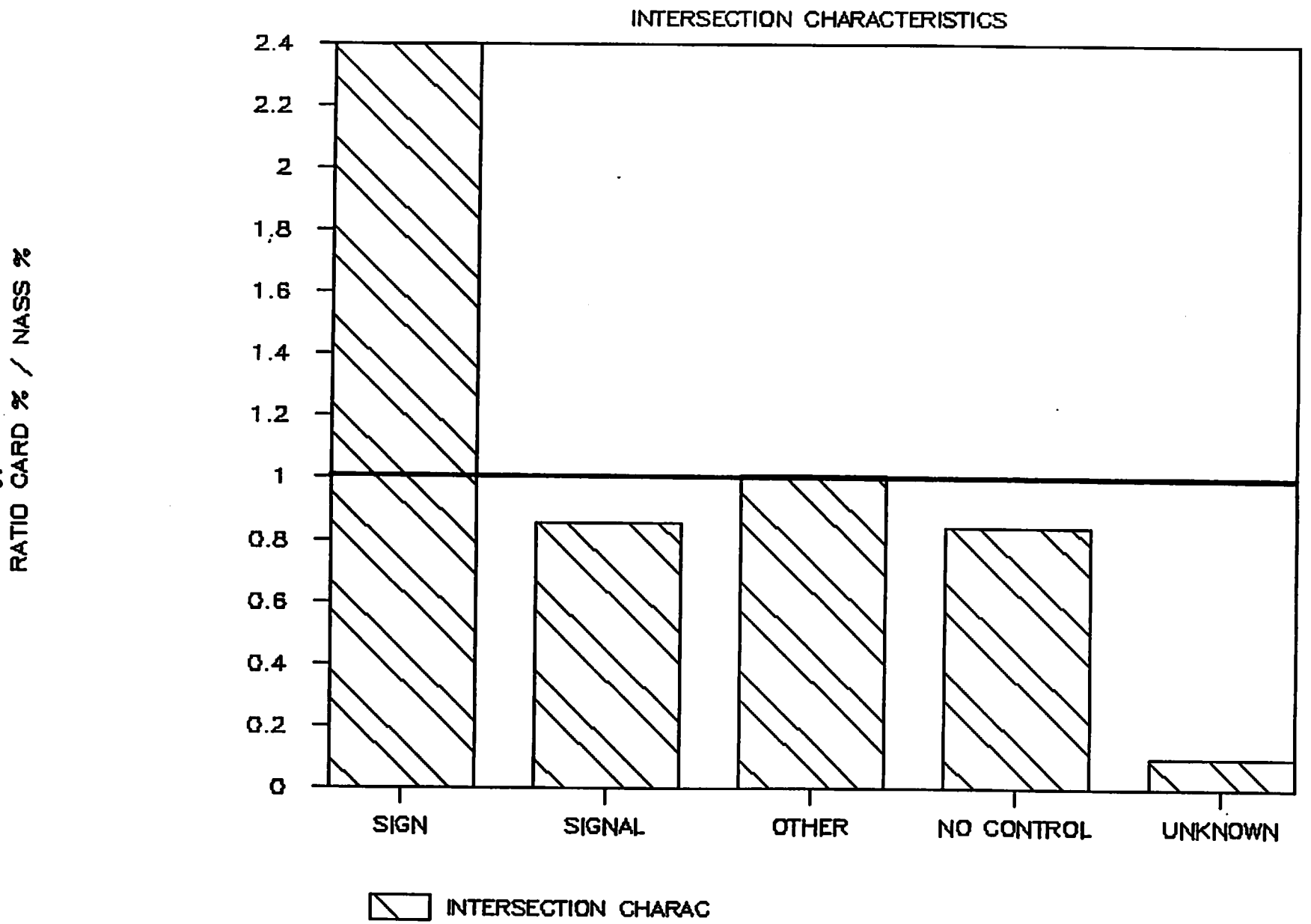

INTERSECTION CHARACTERISTICS
RATIO CARD % / NASS %
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
SIGN
SIGNAL
OTHER
NO CONTROL
UNKNOWN
INTERSECTION CHARAC

FIGURE 6

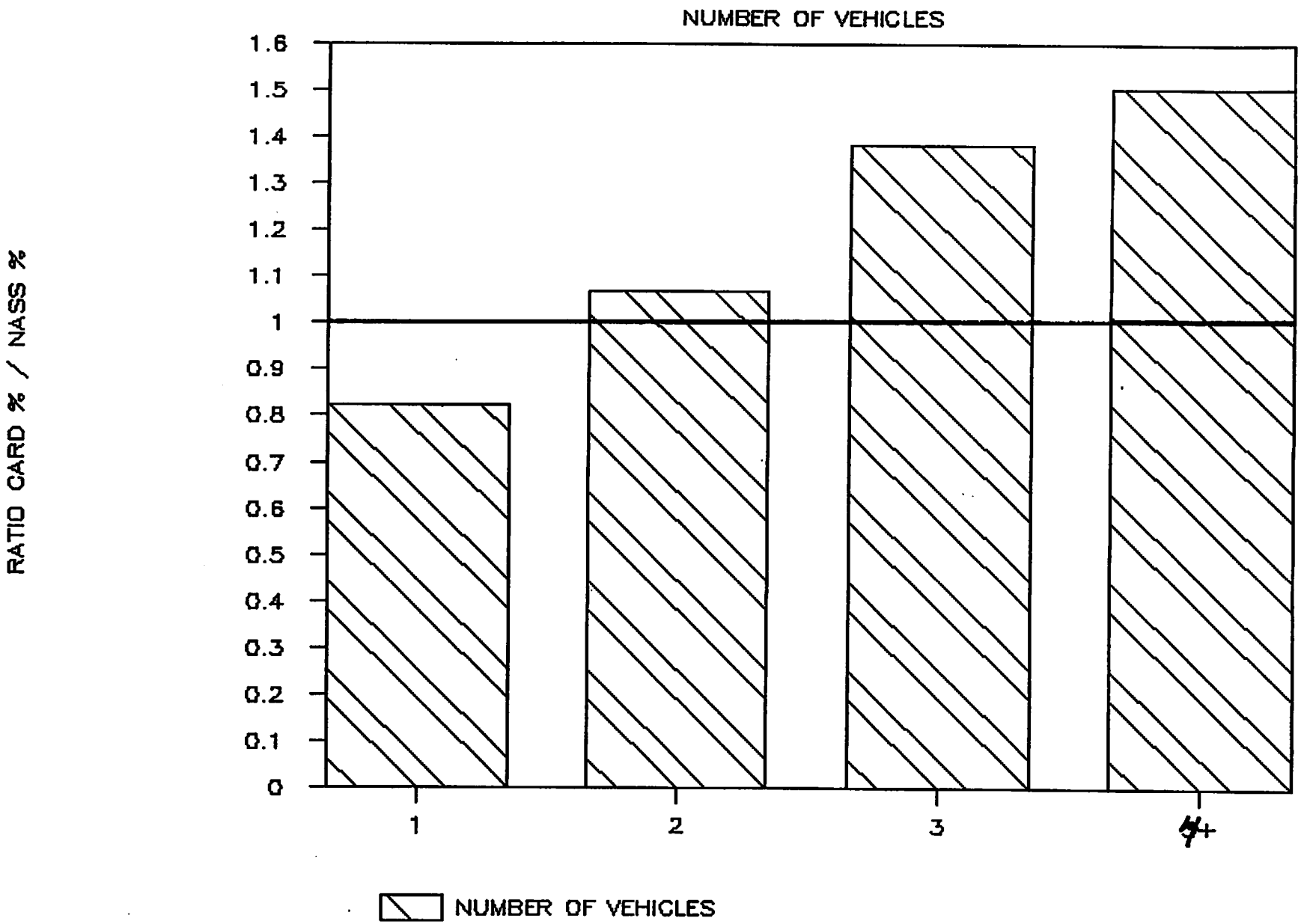
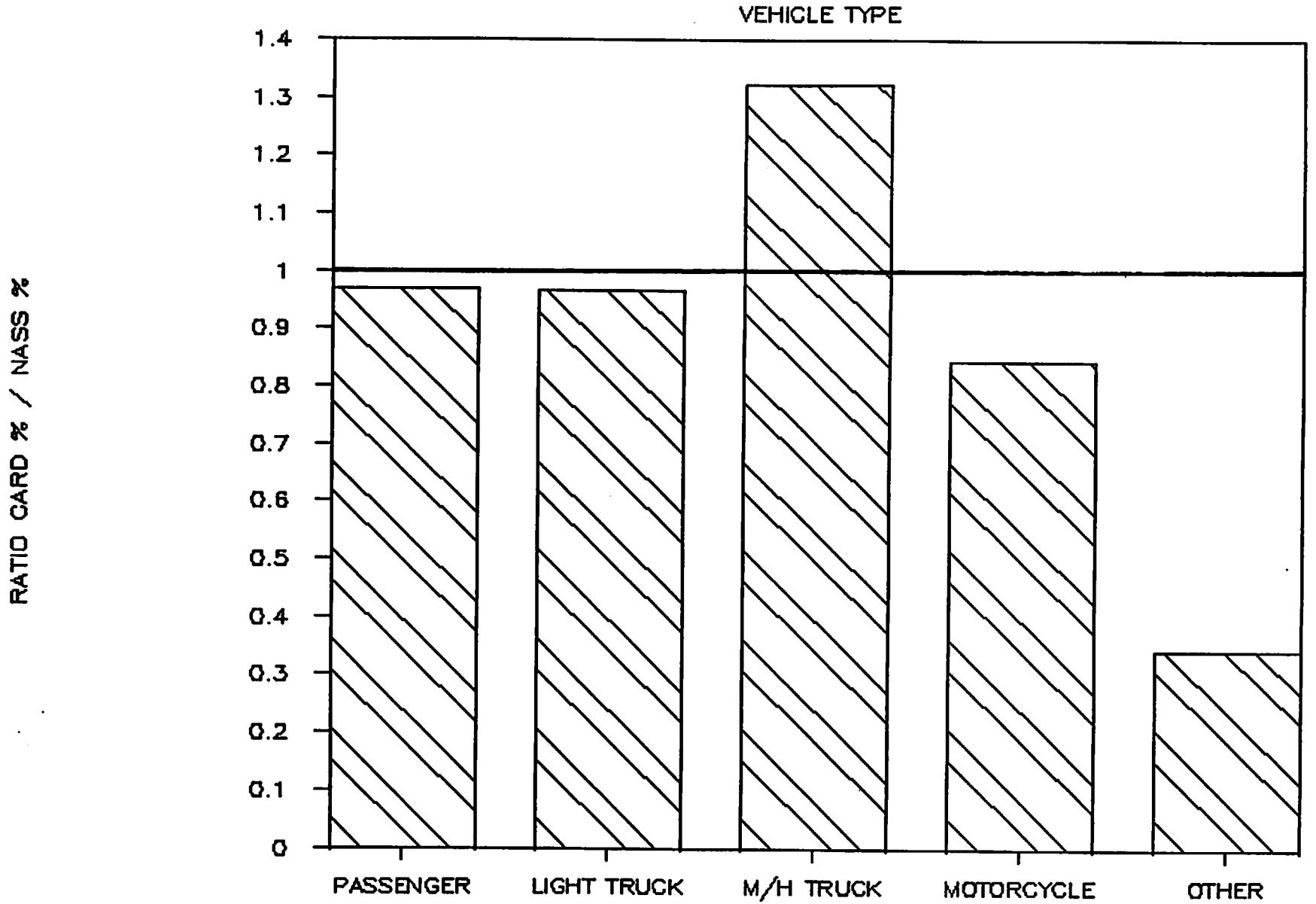

NUMBER OF VEHICLES
RATIO CARD % / NASS %
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4+
NUMBER OF VEHICLES

FIGURE 7


VEHICLE TYPE
RATIO CARD % / NASS %
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
PASSENGER
LIGHT TRUCK
M/H TRUCK
MOTORCYCLE
OTHER

involved in accidents. This is congruent with Phase I results which showed a greater percentage of registered medium and heavy trucks in the CARDfile states.

TABLE 8 AND FIGURE 8 VEHICLE TYPE BY MODEL YEAR

In general, CARDfile and NASS agree well on a model year basis. CARDfile predicts less passenger car accidents in 1982 and more passenger car accidents for 1981 models than does NASS. CARDfile also predicts more light truck accidents for 1982, 1981 and 1975-1979 models and fewer light truck accidents for 1965-1969 models. No comparable data were developed during Phase I.

TABLE 9 AND FIGURE 9 VEHICLE TYPE BY DEFECT

Over 98 percent of the vehicles are found not to have a defect or are unknown to have a defect in both CARDfile and NASS. CARDfile predicts more defects of all types for passenger cars and light trucks than NASS (1.90% vs 1.34%). However, the numbers with which we are dealing here are quite small. Still the ratios for the most part are not tremendously variable indicating a core of stability. In both data bases, brakes, tires and steering are ranked as the most common defects.

TABLE 10A AND FIGURE 10A DRIVERS IN ACCIDENTS BY SEX AND AGE

This table has redistributed drivers with unknown age/sex according to the existing distribution of age and sex. (Table 10B shows the original driver distribution as originally output from the computer file.) In most age/sex categories, CARDfile and NASS are in good agreement. In the overall age category CARDfile overpredicts the 30-34 and 50-54 age brackets and underpredicts the over 70 age bracket.

Broken down by sex CARDfile overpredicts females in accidents in the 50-54 and 65-69 age brackets and underpredicts females in accidents in the 55-59, 60-64 and over 70 age bracket.

CARDfile overpredicts males in accidents in the 25-29, 30-34, 40-44, 50-54 age brackets and underpredicts males in the 65-69 and over 70 age brackets. The relationship of these results to Phase I results is not clear. This fluctuation suggests "noise" in the sample. This "noise" is discussed further in Section D.

FIGURE 8

VEHICLE TYPE BY MODEL YEAR—TOTAL

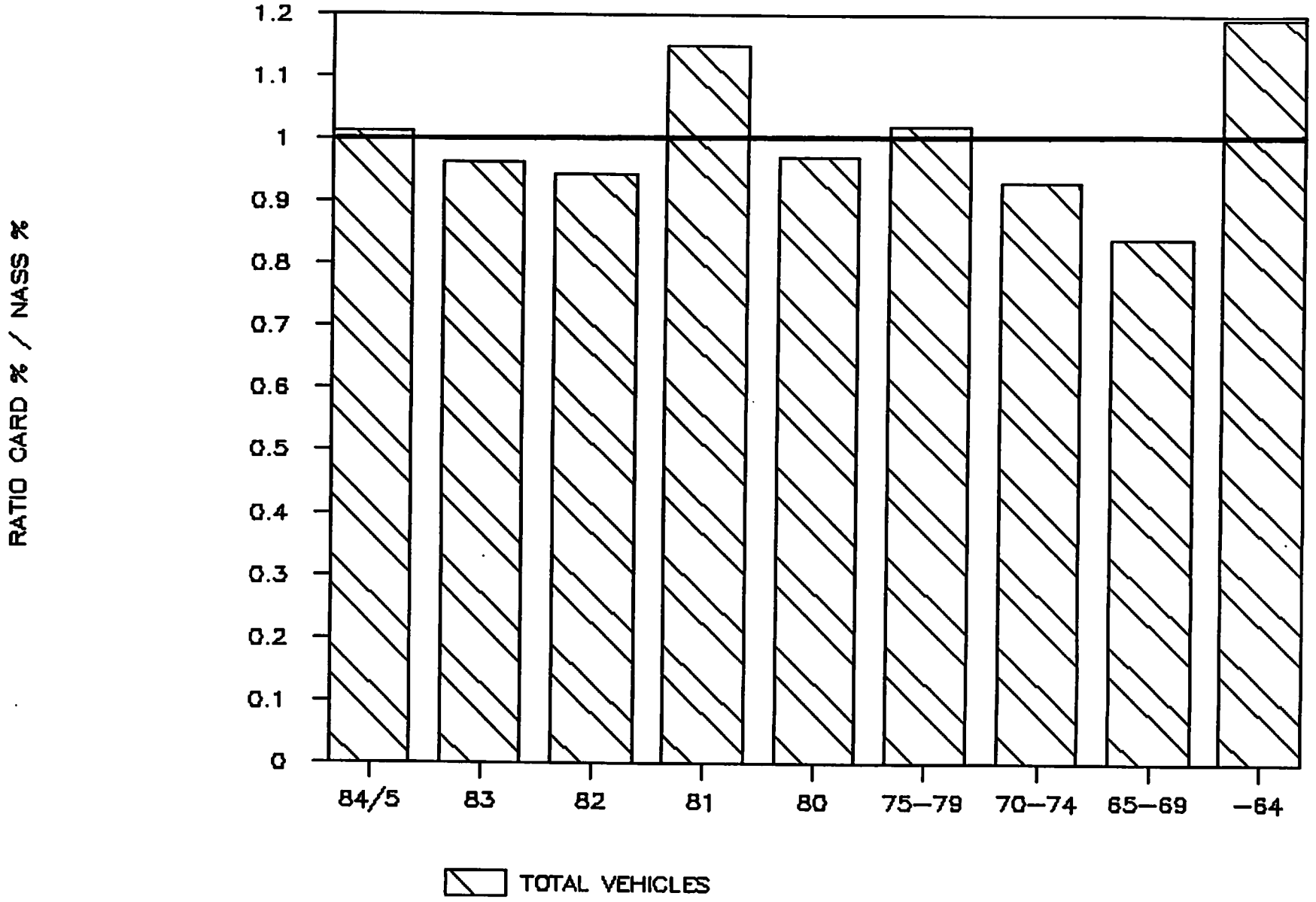


FIGURE 8

VEHICLE TYPE BY MODEL YEAR—PASSENGER

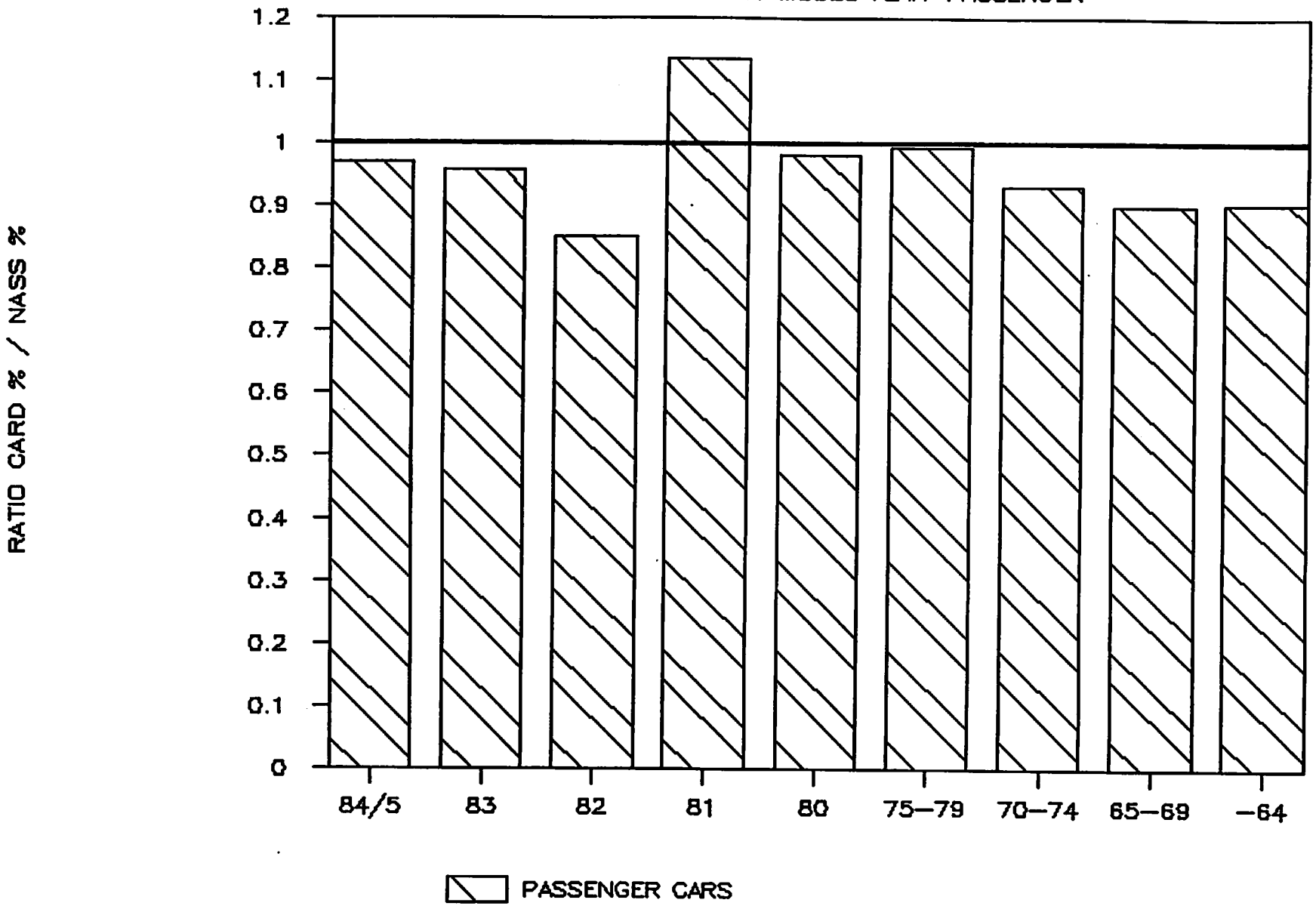


FIGURE 8

VEHICLE TYPE BY MODEL YEAR—LIGHT TRUCK

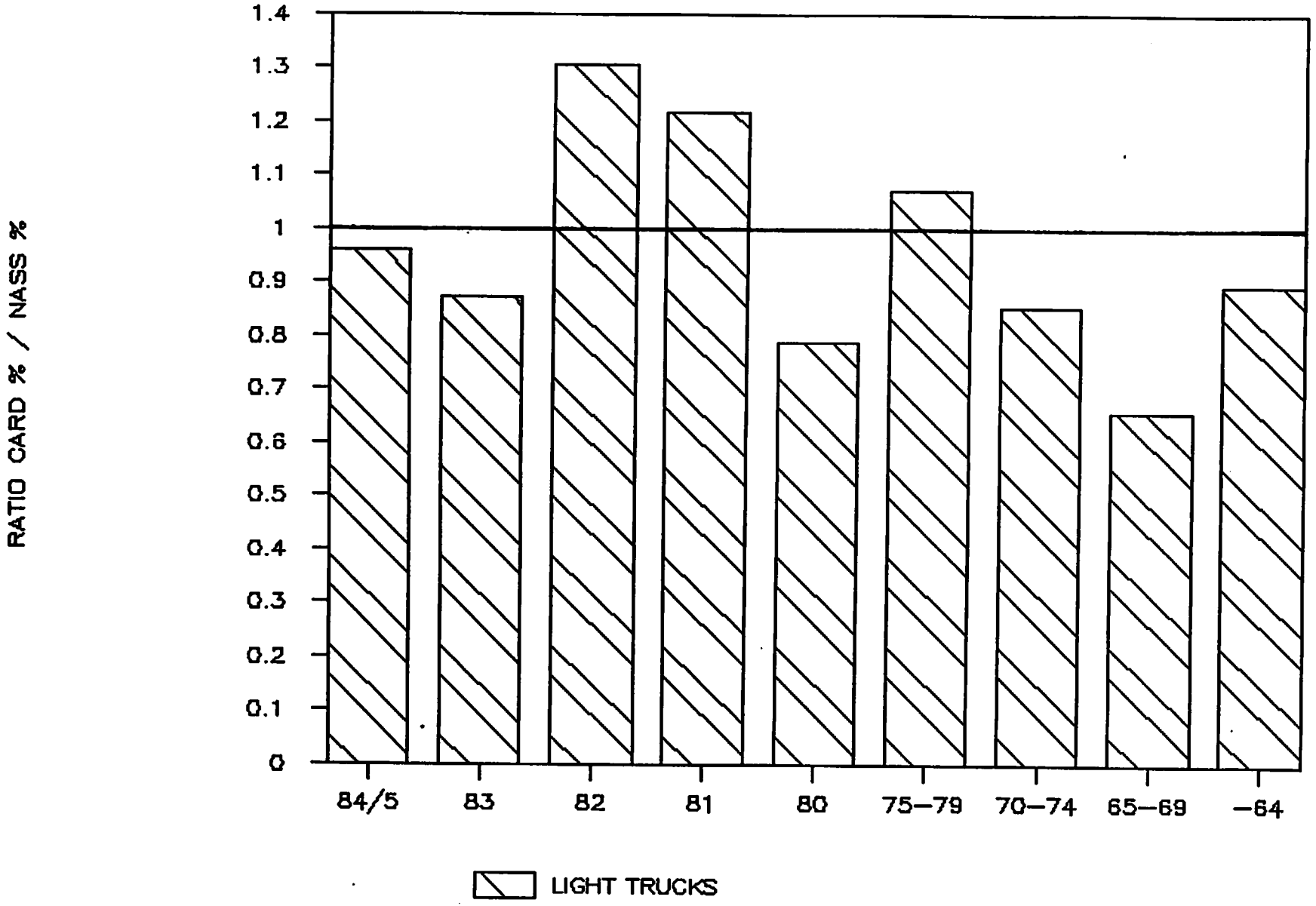


FIGURE 8

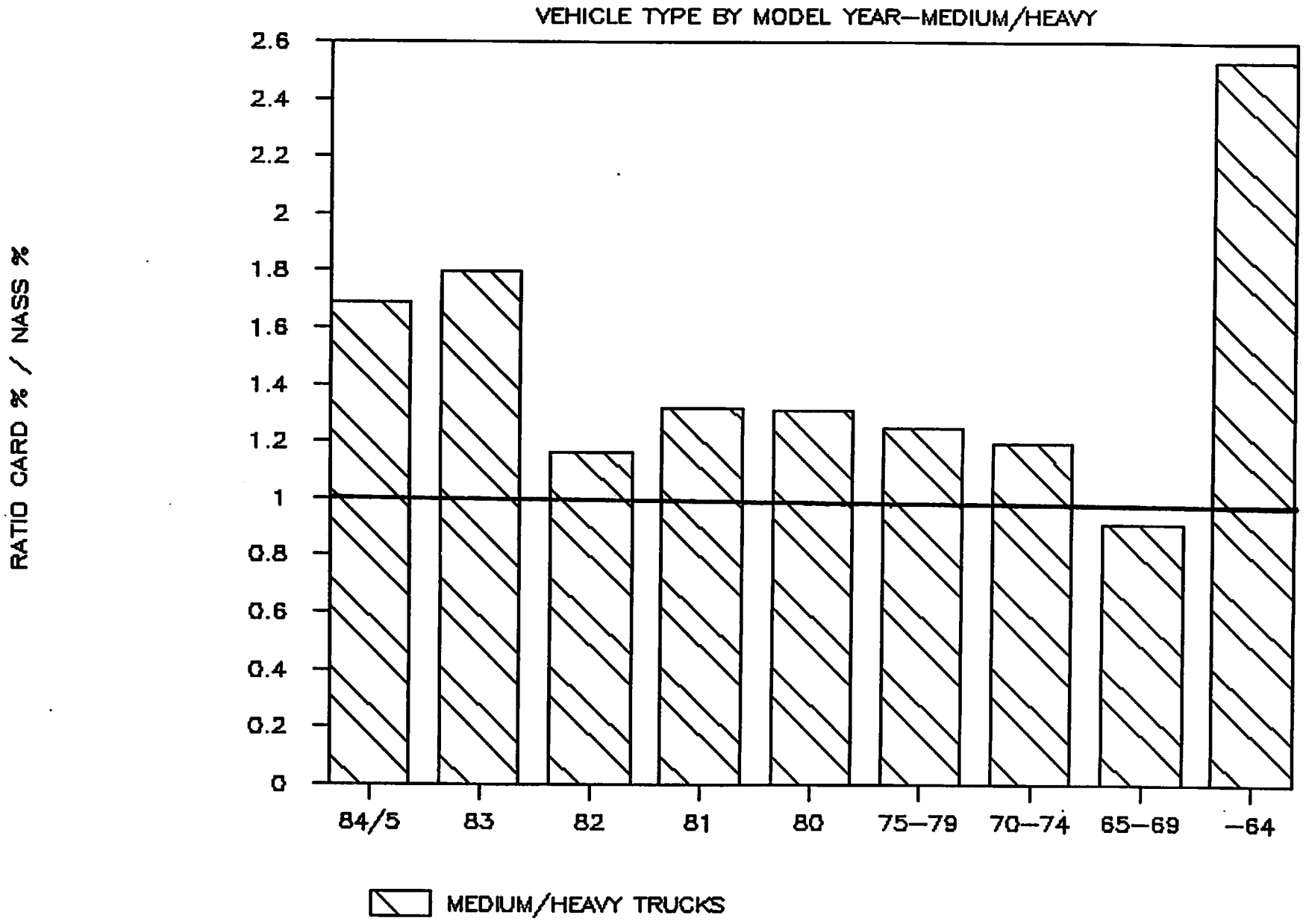

VEHICLE TYPE BY MODEL YEAR—MEDIUM/HEAVY
RATIO CARD % / NASS %
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
84/5
83
82
81
80
75—79
70—74
65—69
—64
MEDIUM/HEAVY TRUCKS

FIGURE 8

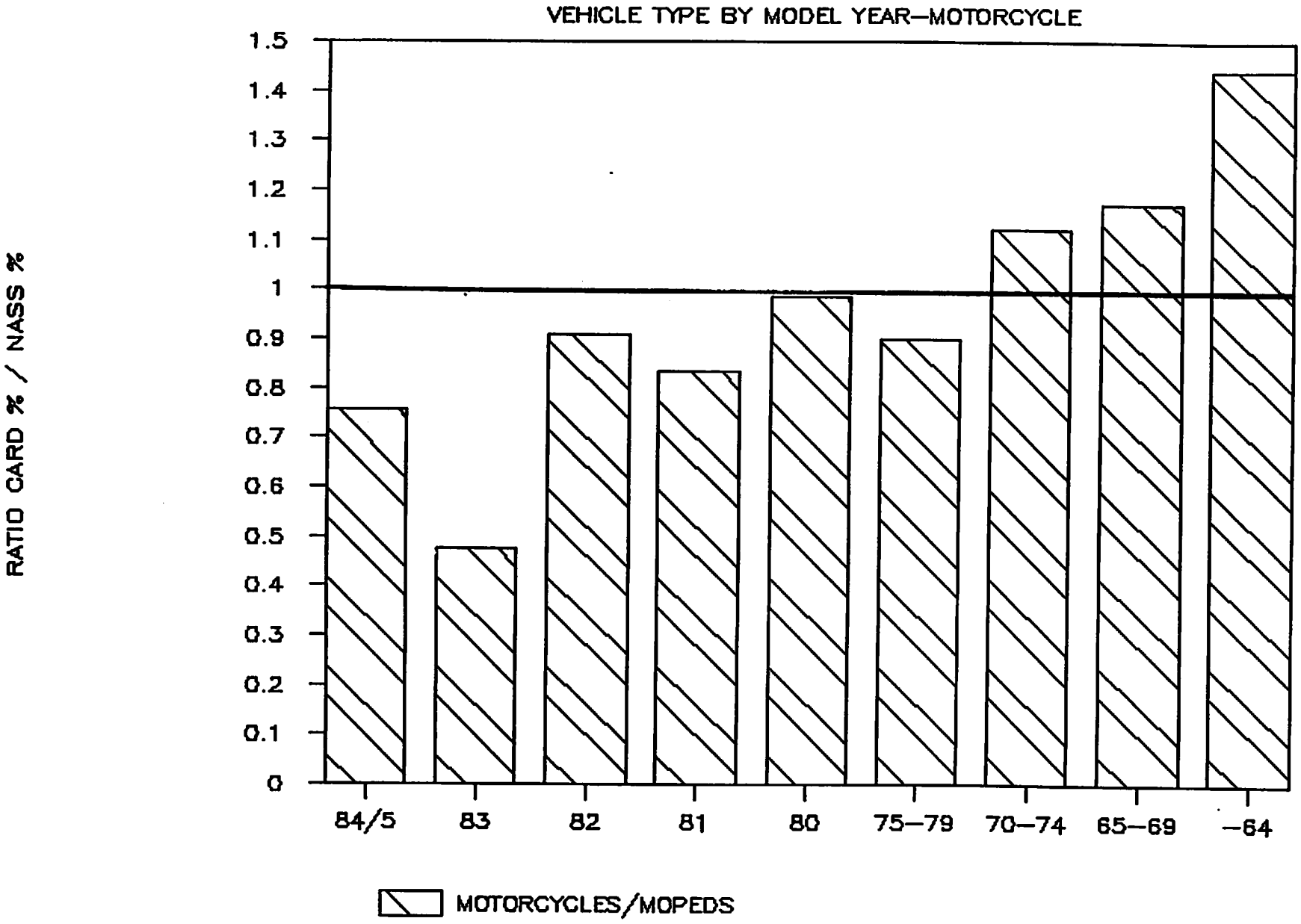

VEHICLE TYPE BY MODEL YEAR—MOTORCYCLE
RATIO CARD % / NASS %
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
84/5
83
82
81
80
75—79
70—74
65—69
—64
MOTORCYCLES/MOPEDS

FIGURE 8

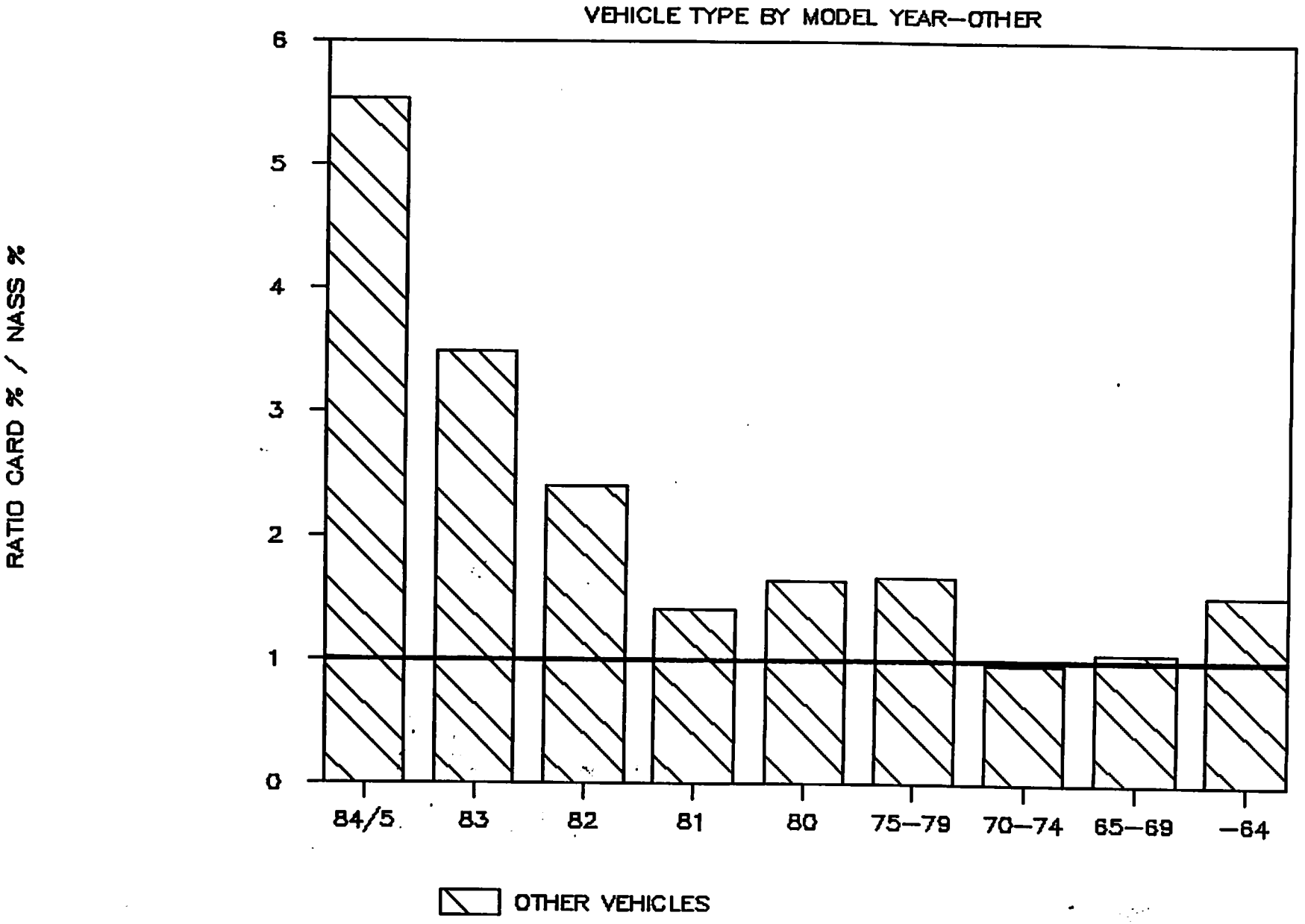

VEHICLE TYPE BY MODEL YEAR—OTHER
RATIO CARD % / NASS %
6
5
4
3
2
1
0
84/5
83
82
81
80
75—79
70—74
65—69
—64
OTHER VEHICLES

FIGURE 9

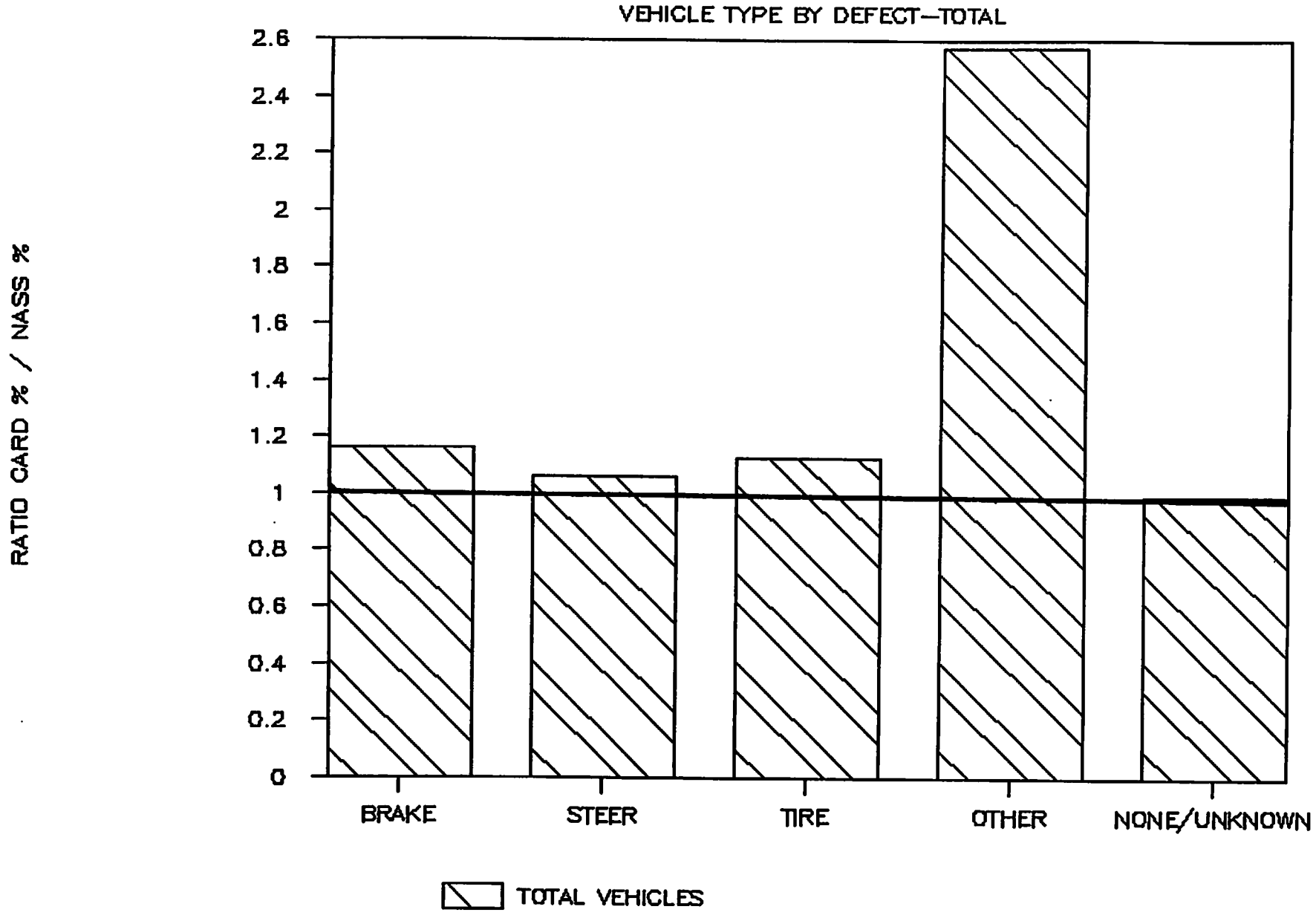

VEHICLE TYPE BY DEFECT—TOTAL
RATIO CARD % / NASS %
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
BRAKE
STEER
TIRE
OTHER
NONE/UNKNOWN
TOTAL VEHICLES

FIGURE 9

VEHICLE TYPE BY DEFECT—PASSENGER

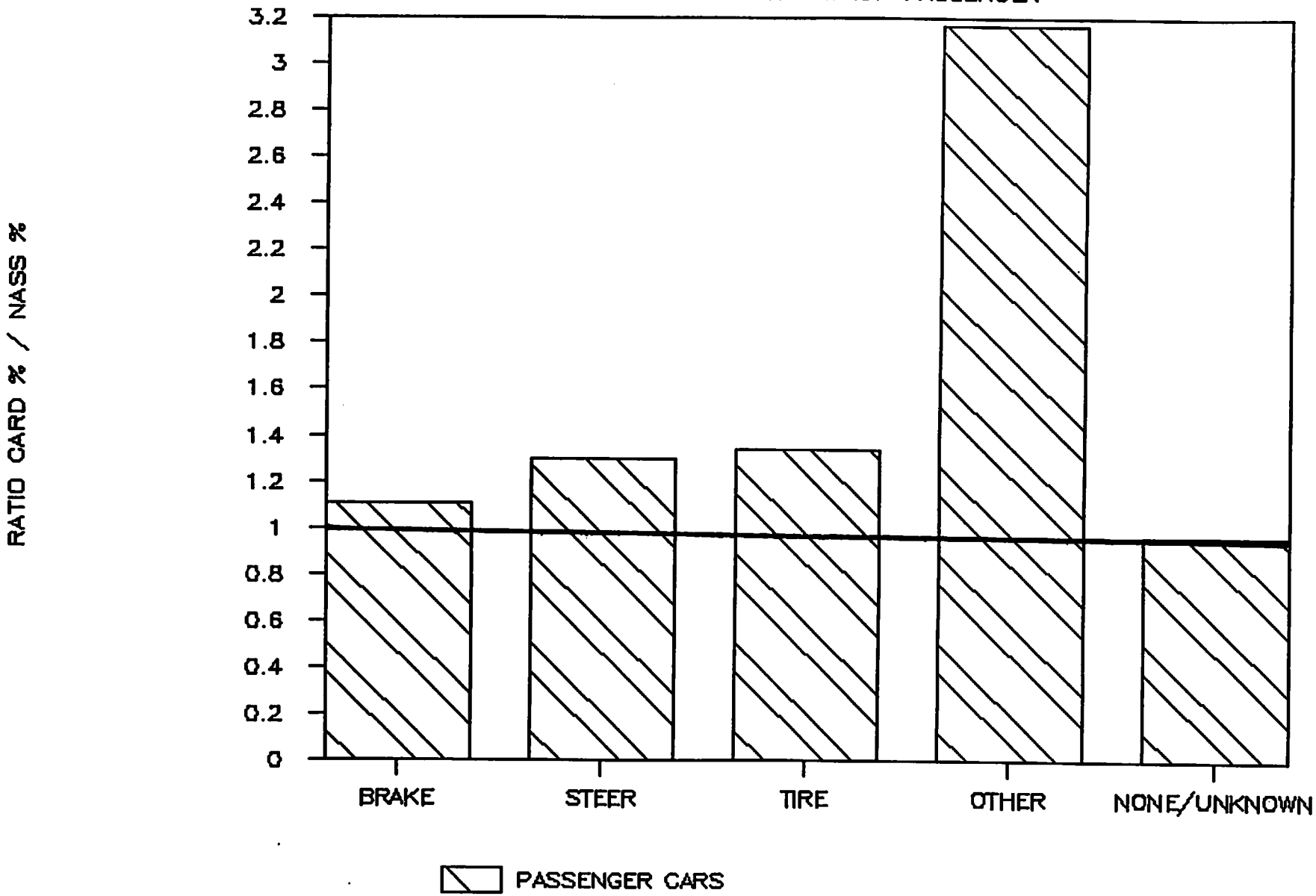


FIGURE 9

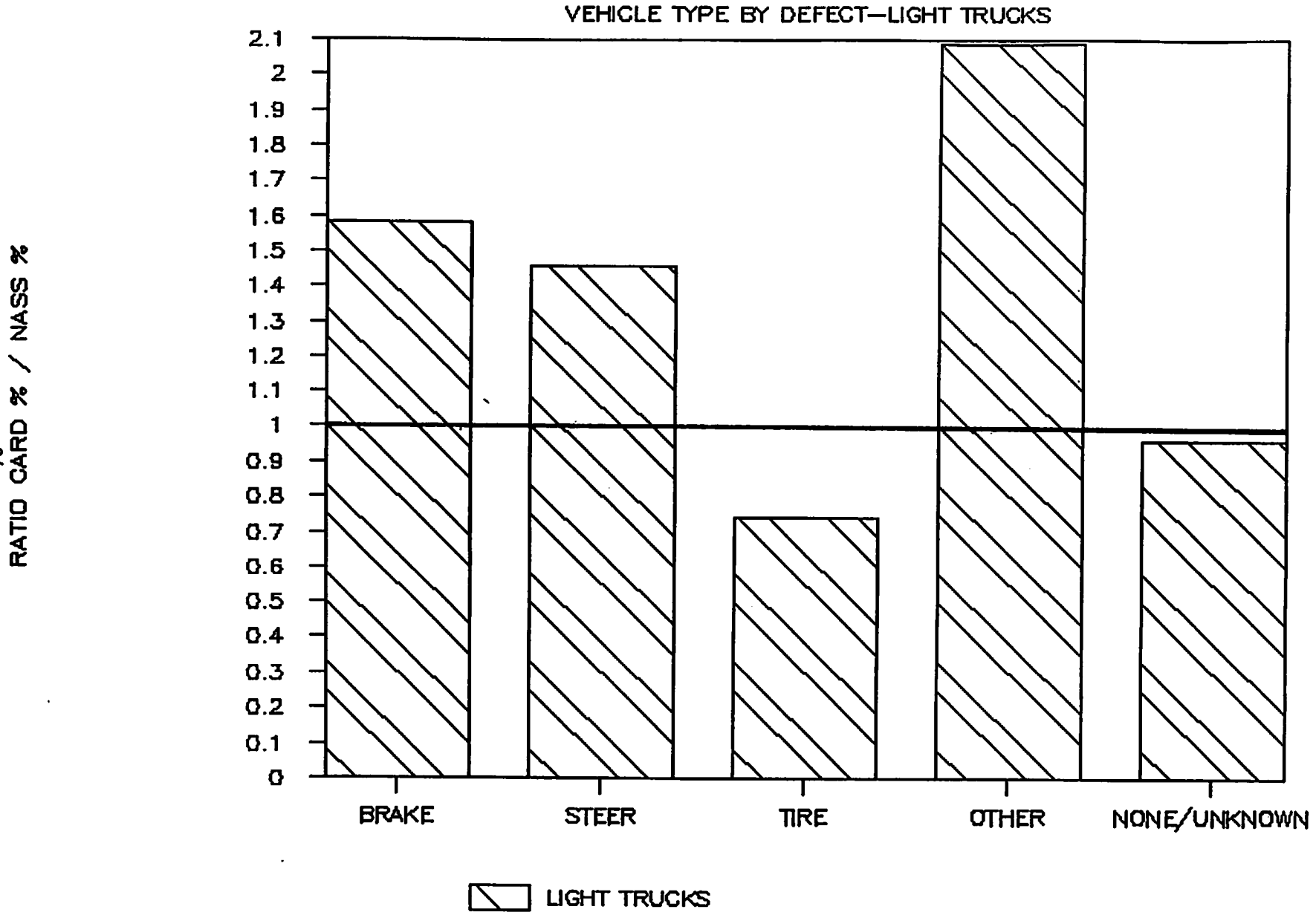

VEHICLE TYPE BY DEFECT—LIGHT TRUCKS
RATIO CARD % / NASS %
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
BRAKE
STEER
TIRE
OTHER
NONE/UNKNOWN
LIGHT TRUCKS

FIGURE 9

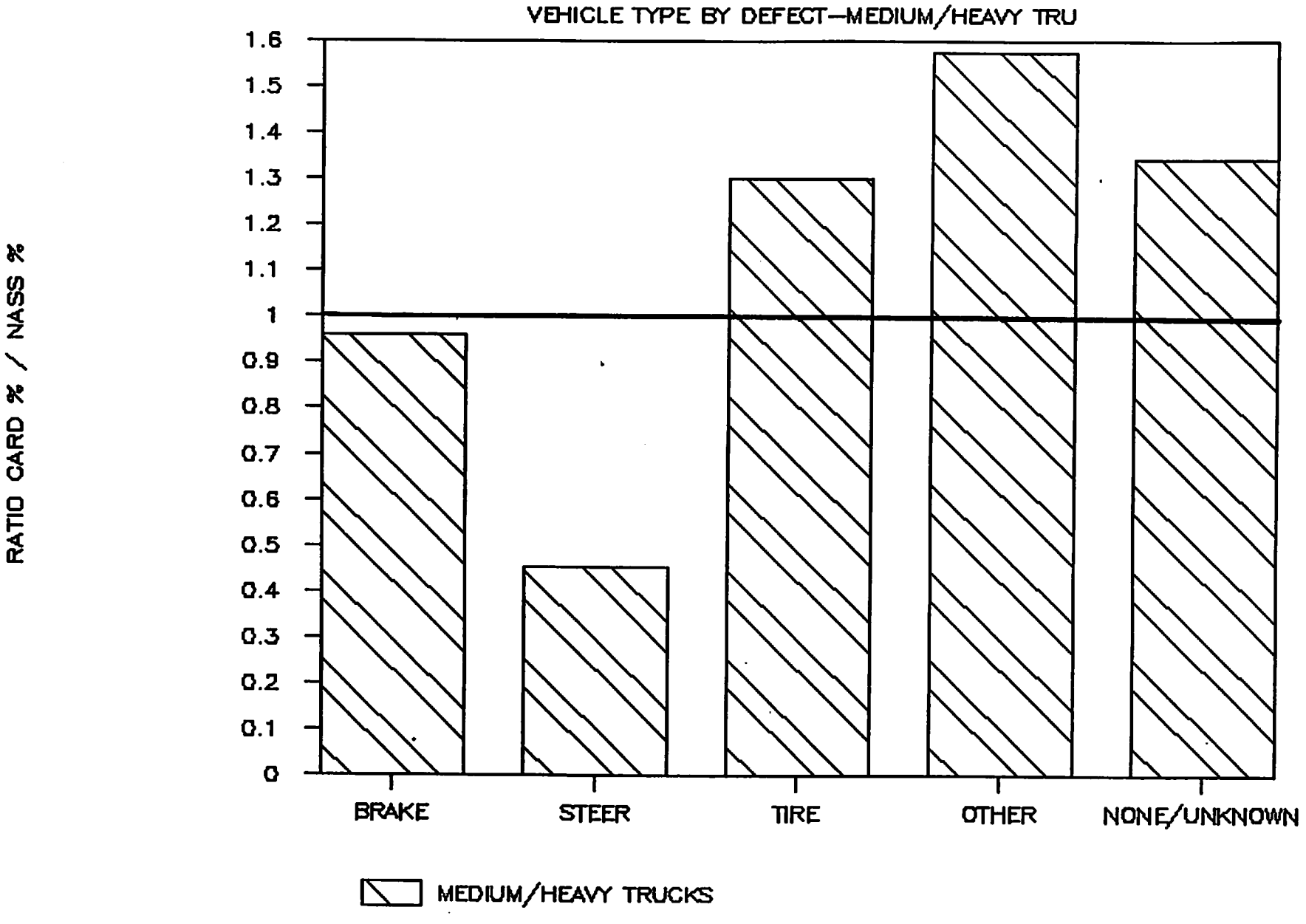

VEHICLE TYPE BY DEFECT—MEDIUM/HEAVY TRU
RATIO CARD % / NASS %
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
BRAKE
STEER
TIRE
OTHER
NONE/UNKNOWN
MEDIUM/HEAVY TRUCKS

FIGURE 9

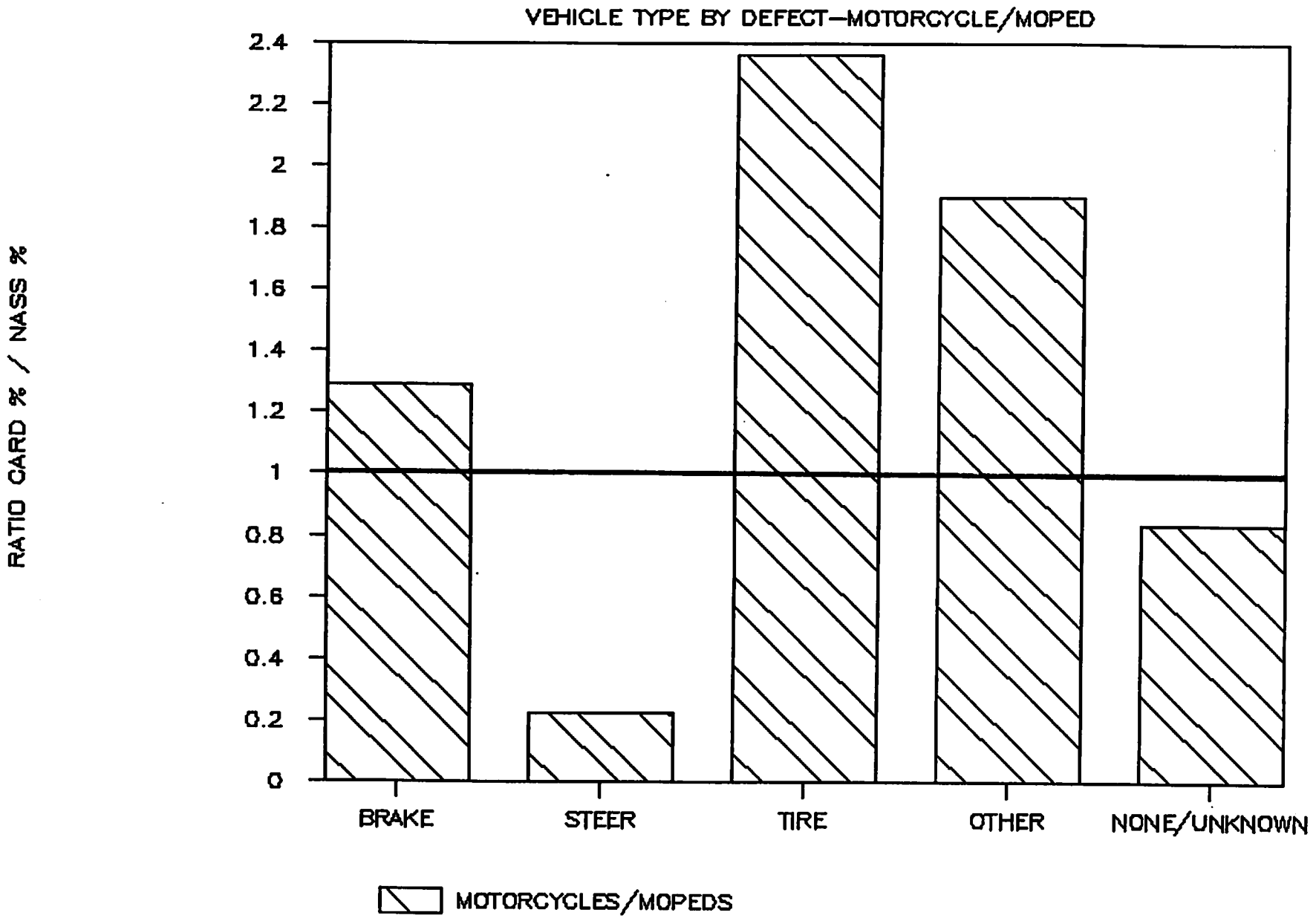

VEHICLE TYPE BY DEFECT—MOTORCYCLE/MOPED
RATIO CARD % / NASS %
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
BRAKE
STEER
TIRE
OTHER
NONE/UNKNOWN
MOTORCYCLES/MOPEDS

FIGURE 9

VEHICLE TYPE BY DEFECT—OTHER

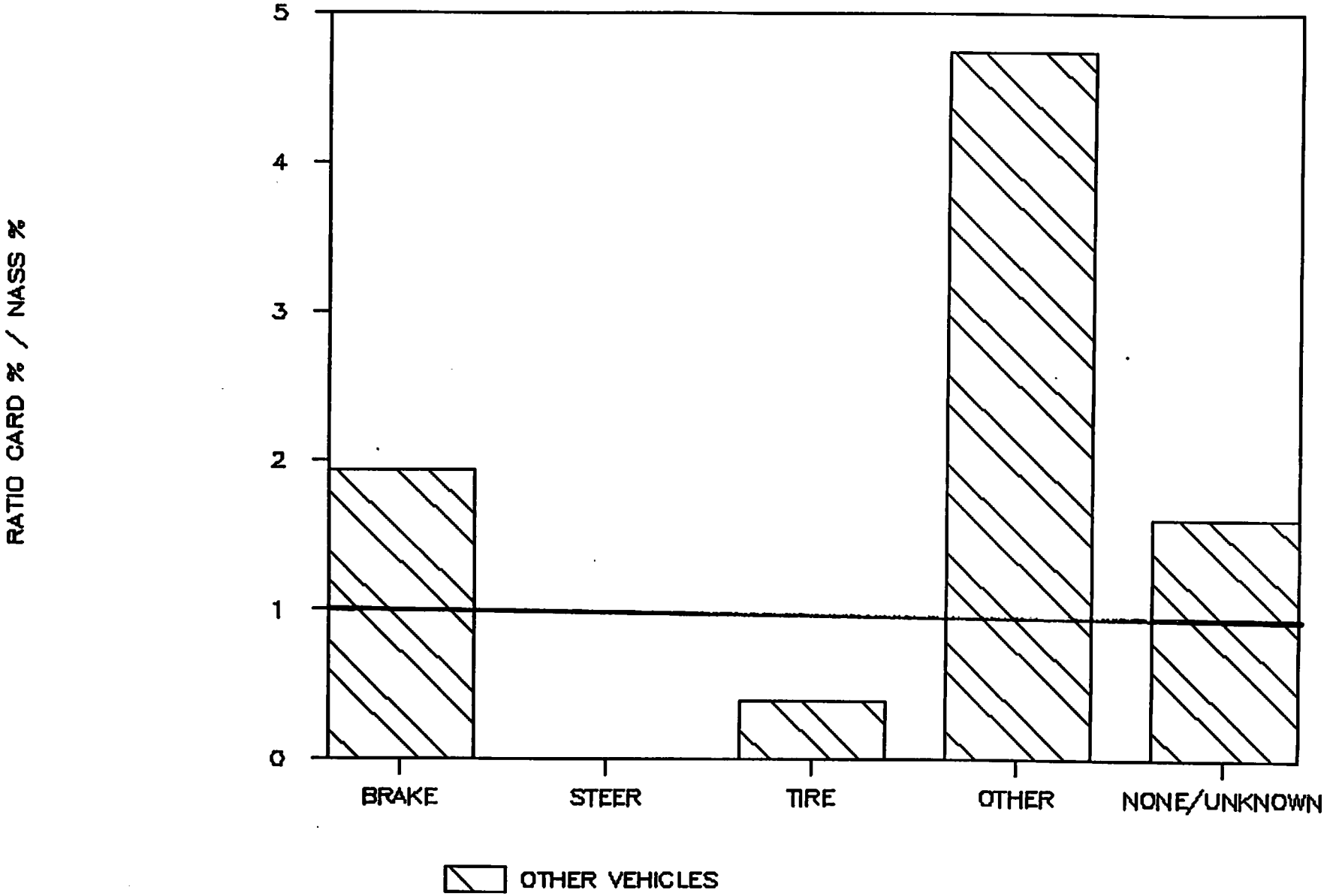


FIGURE 10A

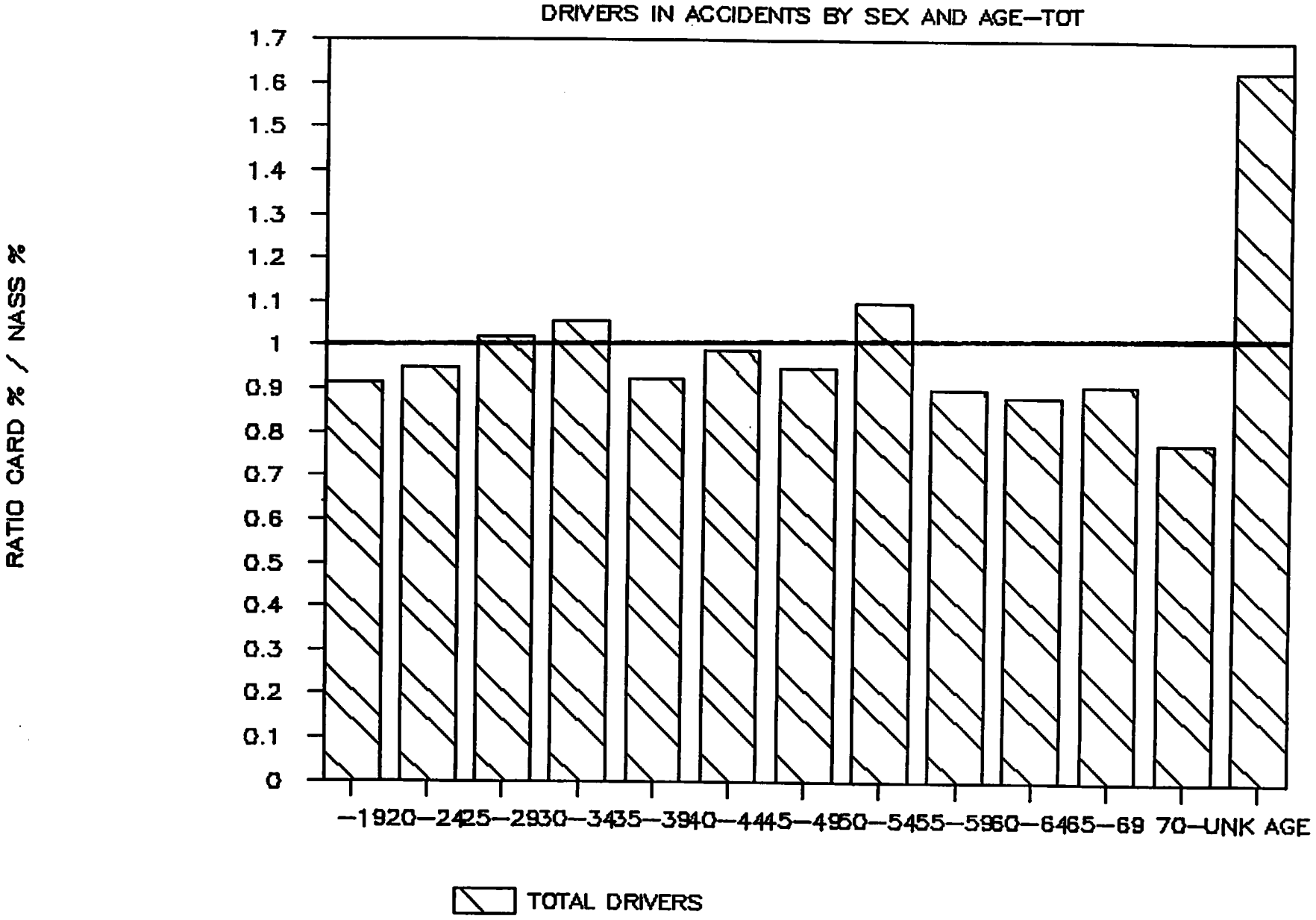

DRIVERS IN ACCIDENTS BY SEX AND AGE—TOT
RATIO CARD % / NASS %
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
—19
20—24
25—29
30—34
35—39
40—44
45—49
50—54
55—59
60—64
65—69
70—
UNK
AGE
TOTAL DRIVERS

FIGURE 10A

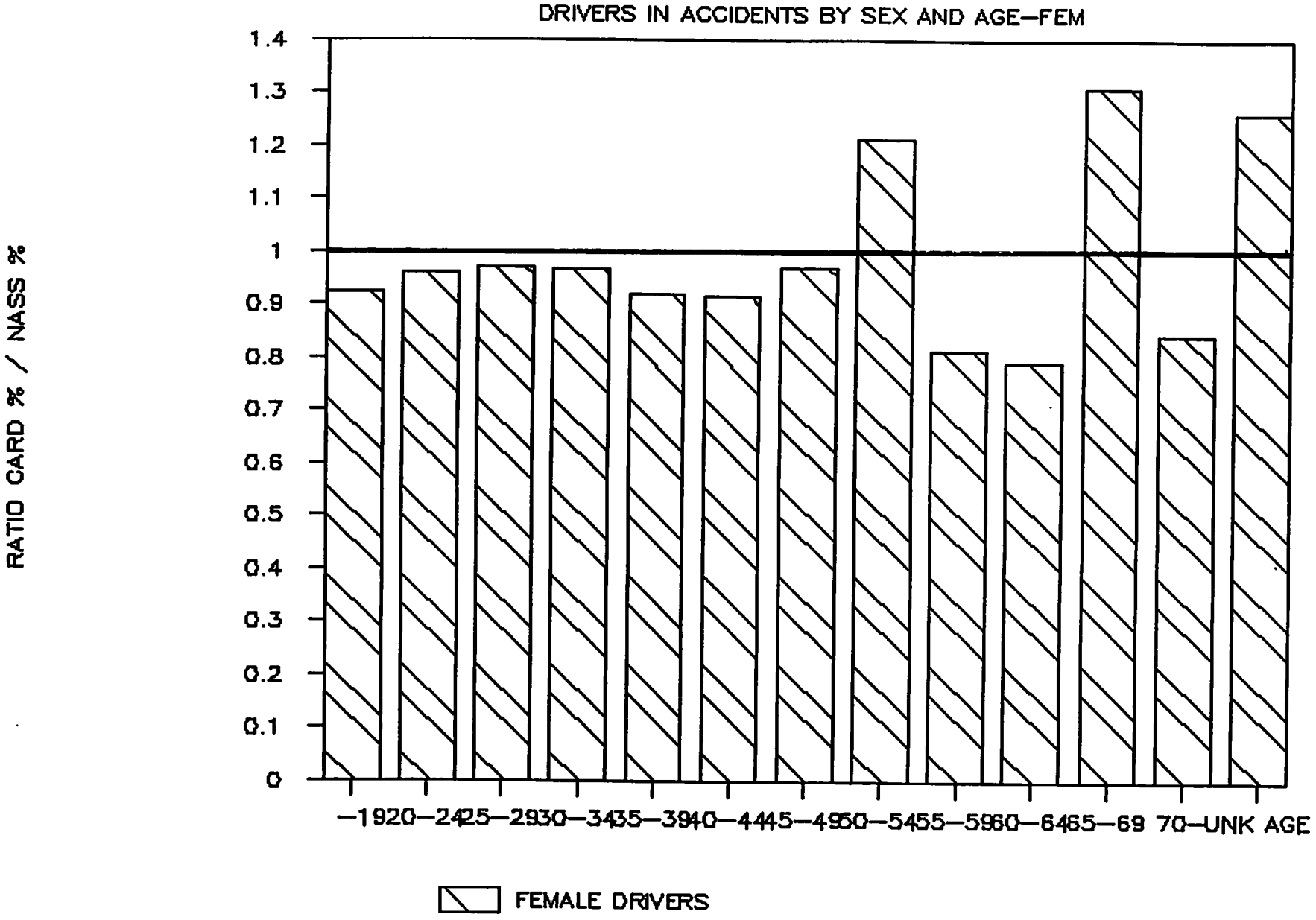
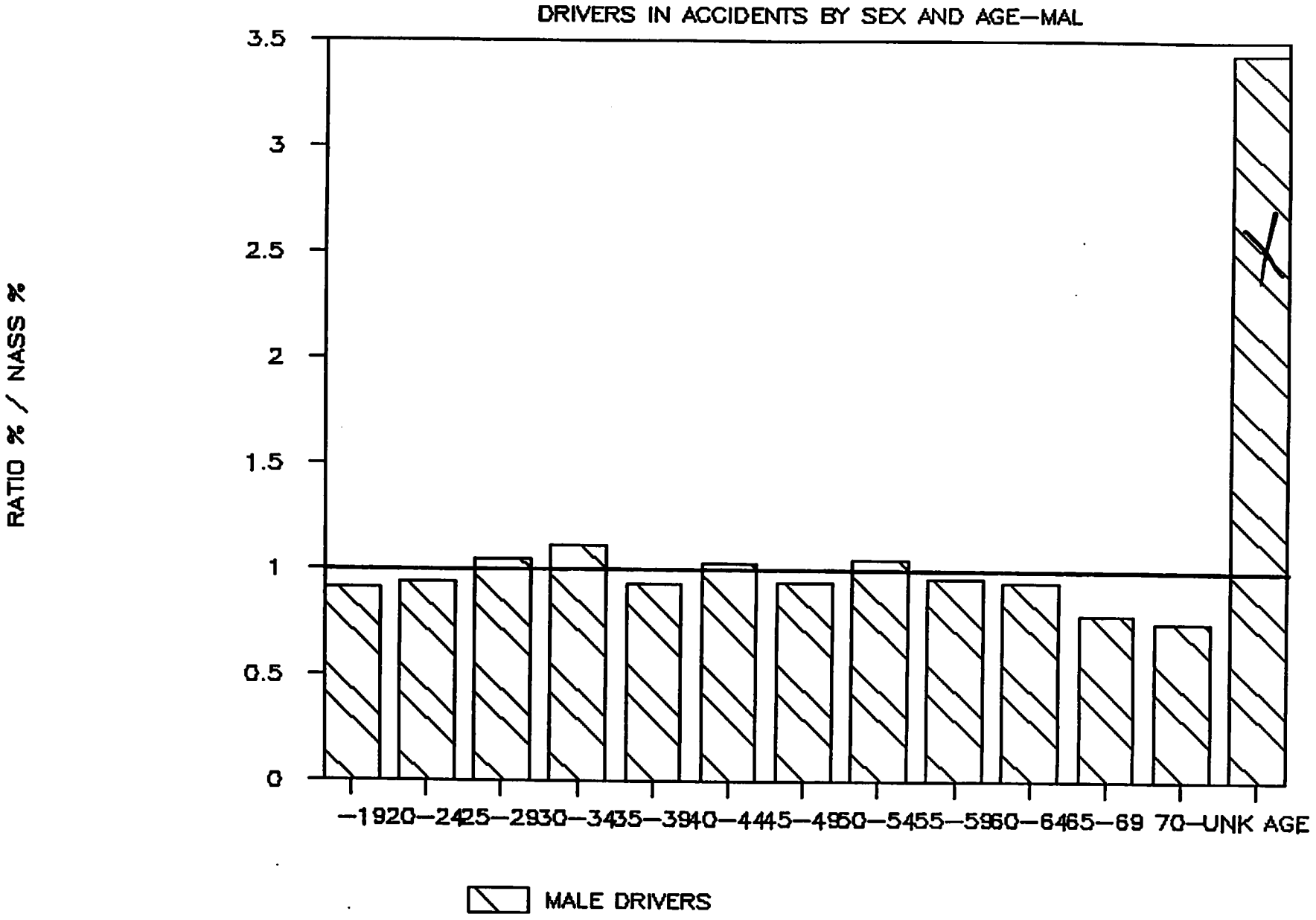

DRIVERS IN ACCIDENTS BY SEX AND AGE—FEM
RATIO CARD % / NASS %
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
—19 20—24 25—29 30—34 35—39 40—44 45—49 50—54 55—59 60—64 65—69 70—UNK AGE
FEMALE DRIVERS

FIGURE 10A


DRIVERS IN ACCIDENTS BY SEX AND AGE—MAL
RATIO % / NASS %
3.5
3
2.5
2
1.5
1
0.5
0
—19
20—24
25—29
30—34
35—39
40—44
45—49
50—54
55—59
60—64
65—69
70—
UNK AGE
MALE DRIVERS

D. DISCUSSION

1. The Problem

We have compared national projections of motor vehicle accidents based on CARDfile and NASS. The total number of accidents predicted from the two data bases, the number of accidents predicted in large categories and the number of accidents predicted in many small categories are in very good agreement. The question to be answered is "What is the significance of this agreement?" Also to be answered is the question "What is the significance of disagreement when it occurs?"

Phase I of this project compared a number of population characteristics of the CARDfile states with the nation. Variables included age and sex distribution of licensed drivers; distribution of vehicles by type, model years, make and size; distribution of road types and vehicle miles traveled. Results showed that the characteristics of the CARDfile states, with minor differences, mirror the nation closely. It was concluded that though the CARDfile states were not chosen at random their characteristics typify the nation.
Phase II is an effort to determine the degree to which crash data elements in CARDfile typify the national crash experience.

Generally, the national crash experience is known within uncertain boundaries. (An exception is fatal accidents for which a census is maintained in FARS). NASS is the most comprehensive attempt available to construct the national crash experience on the basis of a randomly selected sample of accidents. For that reason NASS was chosen for comparison. In essence, we have compared two estimates of the national crash experience for each crash data element.

2. Estimates of the Total Number of Accidents

The national crash experience may be summarized by a number representing all the accidents in the nation. CARDfile and NASS both predict close to 6 million accidents to have occurred nationwide in 1984. It might be concluded that this agreement signifies mutual corroboration of the two data bases. However an examination of "Accident Facts" shows that the National Safety Council estimated 18 million accidents to have occurred nationally in 1984. Obviously different criteria for accidents have been used.

The criteria can change the accident data bases in two ways. One, the number of total accidents will vary with the criteria. Two, the criteria will change the composition of the values within the variable.

In both CARDfile and NASS severe accidents are more likely to be included. Within CARDfile all accidents as severe as tow-aways are included. However, some of the CARDfile states have a reporting threshold as low as $200.00 property damage. In NASS, the more severe and rare accidents are oversampled relative to less severe and more common accidents.

Fair representation of the nation's crash experience in severe accidents is therefore likely. However, the more numerous, minor accidents will, as a rule, not be as likely to be included in the data base resulting in a possible distortion of the values comprising the variables. In comparing the two data bases projections this point should be kept in mind as a possible explanatory principle.

3. Agreements and Differences Between the Two Data Bases

The two data bases predict approximately equal proportions of accidents in many categories. These agreements include accidents occuring during the day (62.49% CARDfile, 62.60% NASS); accidents occurring in clear/cloudy weather conditions (80.08% CARDfile, 79.63% NASS); accidents involved vehicles in transport (64.57% CARDfile, 64.72% NASS); accidents involved vehicles without defects (98.10% CARDfile, 98.61% NASS).

CARDfile predicts a greater proportion of accidents than NASS having primary impact with parked cars, occurring at intersections having signs, and involving three or more vehicles. These accident characteristics appear to describe urban type accidents. This result is congruent with Phase I results which found the CARDfile states to have more urban road mileage than the rest of the nation. This appears to be comfirmation of CARDfile's ability to stably reflect accident parameters tied down to population characteristics. These correlations may point up possible correction factors to the projections.

Two additional elements of disagreement may be considered in developing further this rational argument for CARDfile validity. CARDfile overpredicts accidents with trains (.13% vs .07%) and under predicts accidents under conditions of ice and snow (4.01%

vs 5.85%). These latter two factors appear to be definitely tied into more railroad track mileage and less snow in the CARDfile states.

4. The Sampling Problem

Both CARDfile and NASS project the national crash experience on the basis of a sample of accidents. It is probably safe to say that all national motor vehicle crash estimates (outside of the fatal accidents in FARS) are based on a sample and not a census.

The CARDfile sample is 1,321,000 accidents for 1984. The corresponding number for NASS is 11,598. Questions of validity or fidelity of the estimates aside, the estimate based on the larger sample will be more statistically stable. See the Addendum for a discussion of the computation of the standard error for CARDfile and NASS.

However, the CARDfile states and the accidents therein were not chosen randomly but on the basis of data availability, geographic representativeness of the nation, and administrative factors. It can then be argued, on the other hand, that the predictions based on CARDfile will be biased. Phase I of this project demonstrated that the CARDfile states' population characteristics are mostly typical of the nation. Deviation of population characteristics in Phase I have been found to correlate to over- and under-prediction of accident characteristics in this current analysis. The indication is that estimates of the national crash experience derived from CARDfile may need to be corrected for CARDfile states population characteristics.

The general statistical rule states that the larger the sample size the more reliable or statistically stable is the prediction of the true population value - in this case the national crash experience. The obverse of this is that the smaller sample size will result in greater random fluctuations in the prediction of the true population value.

Obviously any projection made from CARDfile, for any comparable characteristic, will be based on a larger sample than the projection from NASS. Additionally, for both data bases, the sample size varies with the value selected in the variable. For example, the projection of the number of accidents occurring during the day will be based on a much larger sample than projections of accidents occurring at dawn. The implication is that this reduction in sample size will create a greater sampling

fluctuation in NASS projections than CARDfile projections because the original NASS sample is relatively small.

We previously mentioned the apparent "noise" in the data relating to age and sex of the driver. Figure 11A plots the ratio % of accident involved drivers to licensed drivers (data from Phase I) for each age group. The % accident involved drivers are predictions derived from CARDfile and NASS. The line function based on CARDfile appears to be smoother.

Figures 11B and 11C provide the same ratio for the female and male populations respectively. However, the demoninator here is the percent of the population in the age group since a breakdown of licensed drivers by age and sex was not available.

From the above we deduce that agreement between the two data bases is more likely in subcategories which have a considerable proportion of accidents, and disagreement is more likely in subcategories which have a small proportion of accidents. Further, the disagreement is at least sometimes due to NASS sampling fluctuations because of its smaller size (especially in very small categories).

E. CONCLUSIONS

1. It is possible to derive projections of the national crash experience from CARDfile.

2. Corrections to the national projection may be made on the basis of variation of CARDfile population characteristics from the nation.

3. Disagreement in accident subcategories with a small proportion of total accidents are more likely to be due to sampling fluctuations rather than real differences in the true value. Such departures are more likely due to sample fluctuations of the small NASS sample.

FIGURE 11A

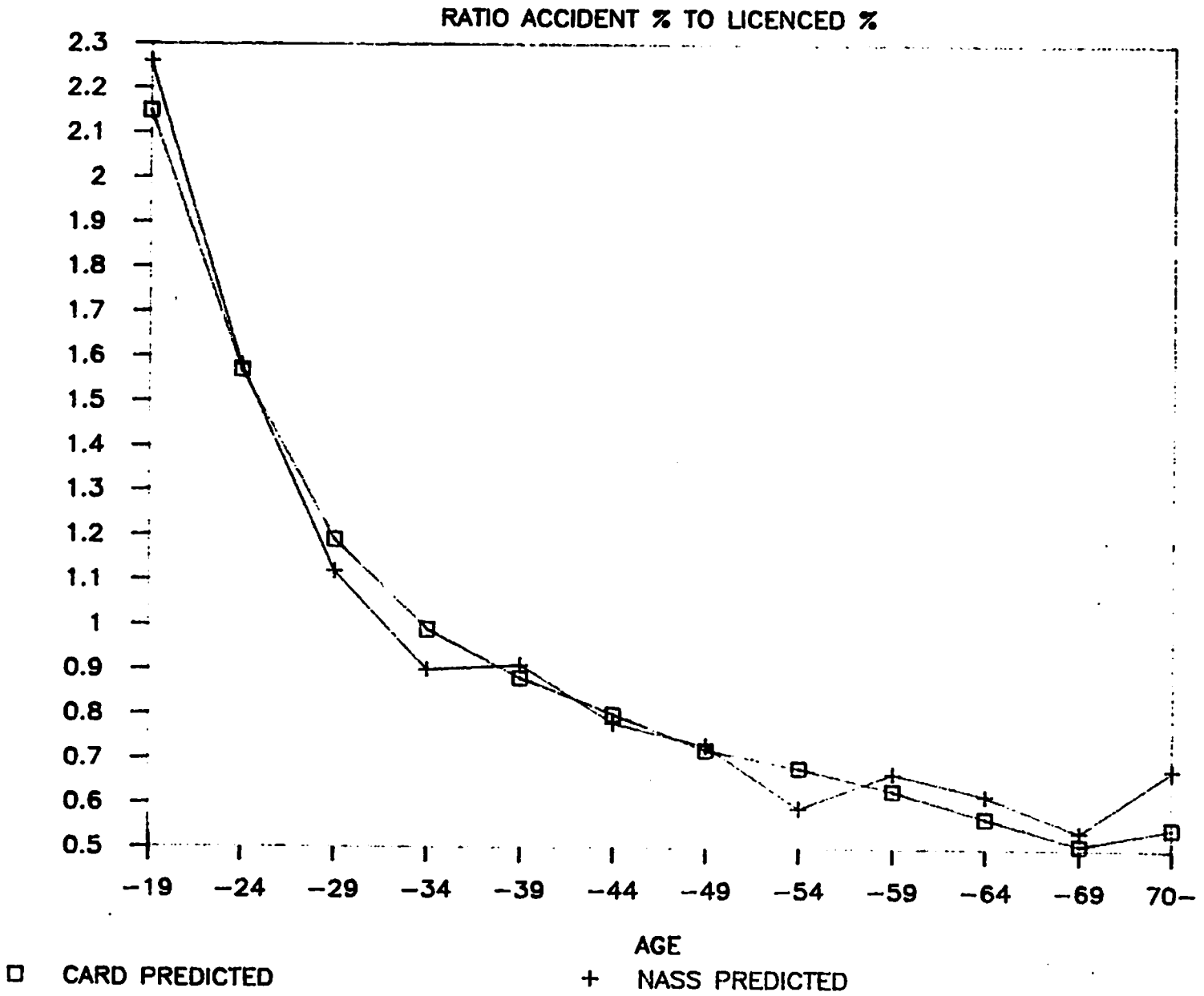

RATIO ACCIDENT % TO LICENCED %
RATIO
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
-19
-24
-29
-34
-39
-44
-49
-54
-59
-64
-69
70-
AGE
CARD PREDICTED
NASS PREDICTED

FIGURE 11B

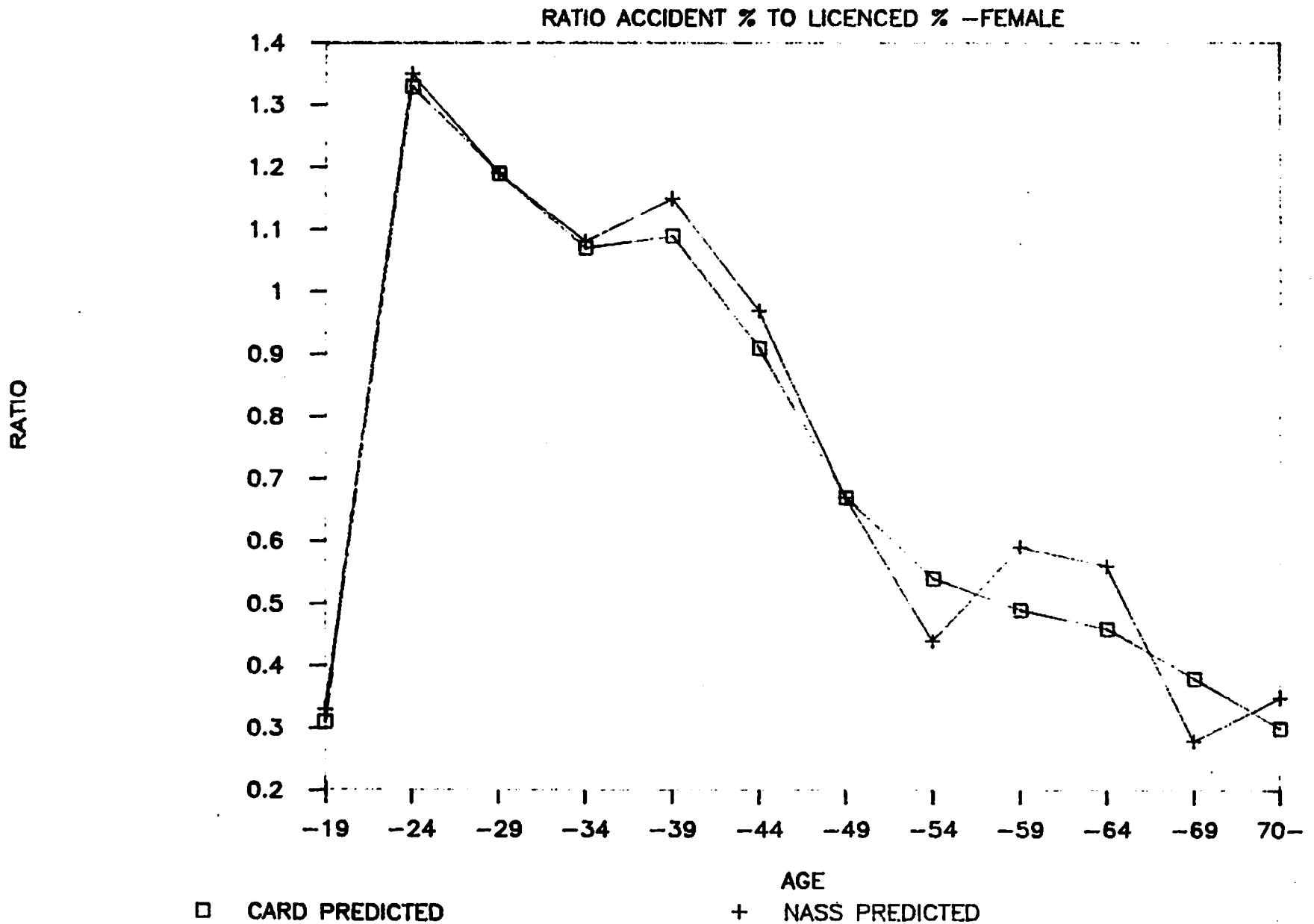
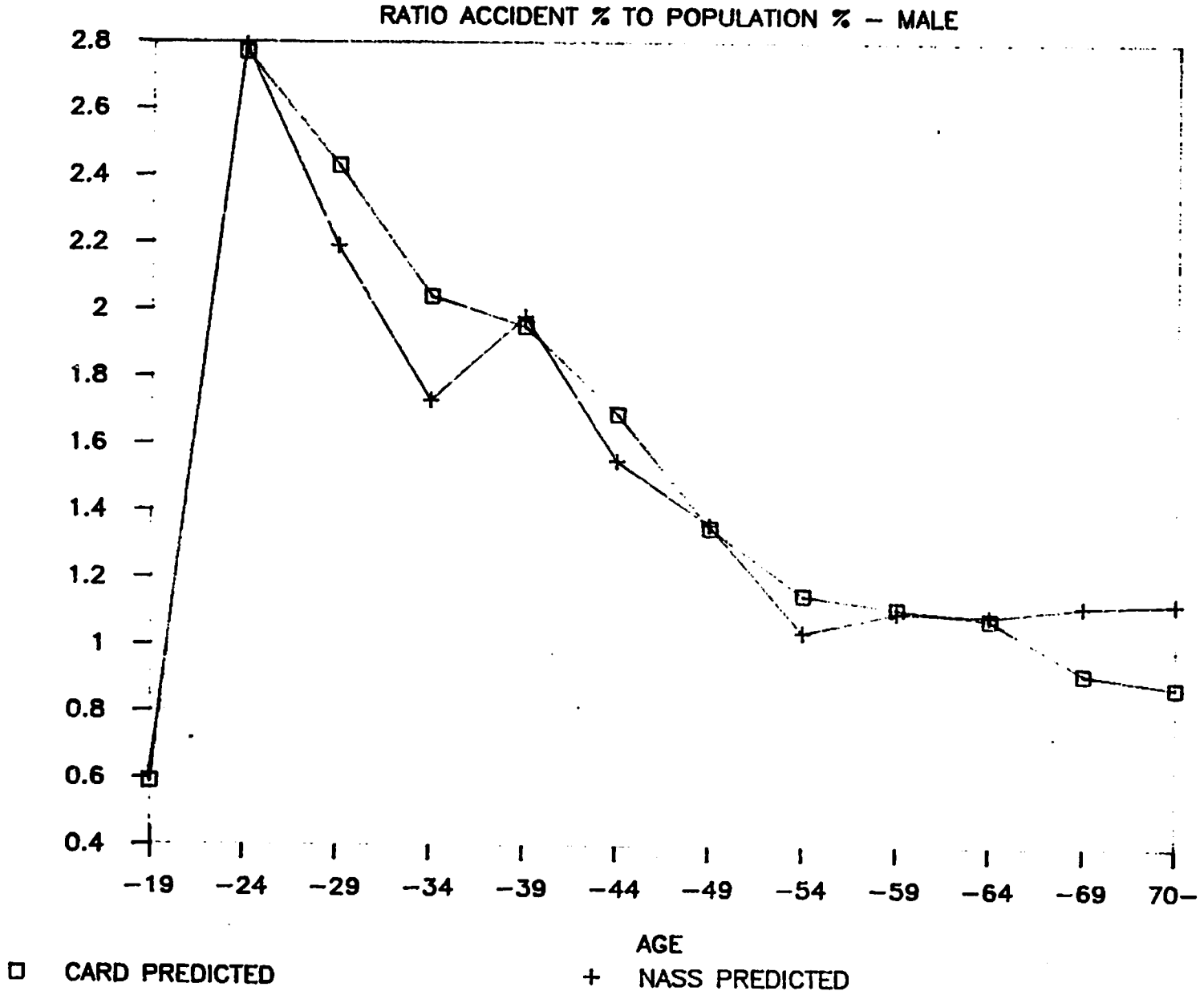

RATIO ACCIDENT % TO LICENCED % –FEMALE
RATIO
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
–19
–24
–29
–34
–39
–44
–49
–54
–59
–64
–69
70–
AGE
CARD PREDICTED
NASS PREDICTED

FIGURE 11C


RATIO ACCIDENT % TO POPULATION % – MALE
RATIO
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
–19
–24
–29
–34
–39
–44
–49
–54
–59
–64
–69
70–
AGE
CARD PREDICTED
NASS PREDICTED

REFERENCES

Edwards, M. A database for crash avoidance research. SAE, 1987

Salvatore, S.; Mengert, P. and Walter, R. CARDfile data base representativeness. Phase I: General characteristics including populations, vehicles, roads, and fatal accidents. Transportation System Center, 1987.

ADDENDUM

CARDfile Variance Estimates

There is no good way to get a standard error estimate for any CARDfile derived population estimate. The standard error derived solely on the basis of sample size consideration is grossly misleading. For example (See Table 1) 14.78% of CARDfile accidents are in the the "dark/lighted" category. Using the standard sample size based estimate $\sqrt{pq/n}$ we would get $\sqrt{.1478(.8522)/1320689}$=.00031, i.e., three one-hundredths of 1%. But the dark/lighted percent from state to state (see Appendix Table 1) varies from 8.60 (Texas) to 26.3 (Maryland).

In carefully designed experiments, standard errors are often developed on the basis of which sampling units are included with certainty and which by chance. Here we do not have a designed experiment and individual states are in the system partly by design (i.e., to be representative) and partly by chance (i.e., because they were available). If we assume that the set of states is not very biased in its selection (Phase I gave some support for this assumption) then an expected overestimate of the standard error could be derived by assuming that each state is in the sample by chance. The simplest estimate for the standard error of some average quantity would then be based on the standard deviation of the average quantity for each state. For example the percents dark/lighted for the six states are as follows:

Indiana	18.33%
Maryland	26.26%
Michigan	12.34%
Pennsylvania	21.65%
Texas	8.60%
Washington	19.45%

The estimated standard deviation, S, is 6.385 by the formula $\sqrt{\frac{1}{N-1}\left(\Sigma x_i^2 - \frac{\Sigma x_i^2}{N}\right)}$ This is converted to a standard error by dividing by $\sqrt{N}$, i.e., $\sqrt{6}$ in this case. The result is $\frac{6.385}{\sqrt{6}}$ =2.6%. This is probably an overestimate but it is certainly of more usefulness than the 3/100 of 1% error obtained by the sample size based formula $\sqrt{pq/n}$ which clearly does not apply. The CARDfile standard errors calculated by this

method were comparable to the NASS standard errors calculated using their published formulas. Again, this method probably overestimates the CARDfile standard error.

APPENDIX 1

MAPPING OF CARDFILE VARIABLES TO NASS VARIABLES

Table 1. Mapping of NASS Variable A18 (Light Conditions) Onto CARDfile Variable LIGHT (Light Conditions)

CARDfile Value	Corresponding NASS Value
1 - Missing	9 - Unknown
2 - Unknown	9 - Unknown
3 - Day	1 - Daylight
4 - Dark/Lighted	3 - Dark, But Lighted
5 - Dark/Not Lighted	2 - Dark
6 - Dawn	4 - Dawn
7 - Dusk	5 - Dusk

Table 2. Mapping of NASS Variable A19 (Atmospheric Conditions) Onto CARDfile Variable WEATHER (Weather Conditions)

CARDfile Value	Corresponding NASS Value
1 - Missing	9 - Unknown
2 - Unknown	9 - Unknown
3 - Clear/Cloudy	1 - No Adverse Atmospheric Related Driving Conditions
4 - Rain	2 - Sleet, 6 - Rain and Fog
5 - Snow/Ice	3 - Sleet, 4 - Snow, 7 - Sleet and Fog
6 - Other	5 - Fog, 8 - Other (e.g., smog, smoke, blowing sand)

Table 3. Mapping of NASS Variable A10 First Harmful Event) Onto CARDfile Variable IMPACT1 (Primary Impact)

CARDfile Value	Corresponding NASS Value
1 - Missing	99 - Unknown
2 - Unknown	99 - Unknown
3 - Another Motor Vehicle in Transport	12 - Motor Vehicle in Transport, Same Roadway 13 - Motor Vehicle in Transport, Other Roadway
4 - Another Motor Vehicle Not in Transport (Parked, Driverless, or Towed Vehicle)	14 - Parked Motor Vehicle
5 - Pedestrian	8 - Pedestrian
6 - Pedacyclist	9 - Pedacyclist
7 - Fixed or Stationary Object	17 - Boulder, 19-44
8 - Non-collision (excluding rollover)	2 - Fire or Explosion, 3 - Immersion, 4 - Gas Inhalation, 5 - Fell From Vehicle, 6 - Injured in Vehicle, 7 - Other Non-collision
9 - Collision with Train	10 - Railway Train
10 - Rollover	1 - Overturn
11 - Other (Animal, etc.)	15 - Other Type Non-motorist 16 - Thrown or Falling Object 18 - Other Object (not fixed)

Table 4. Mapping of NASS Variable A24 (Relation to Junction) Onto CARDfile Variable INT_REL (Relation to Intersection)

CARDfile Value	Corresponding NASS Value
1 - Missing	99 - Unknown
2 - Unknown	99 - Unknown
3 - Intersection Related	2 - Three Leg Intersection 3 - Four Leg Intersection 4 - More Than Four Leg Intersection 6 - Intersection Related 7 - Channel
4 - Not Intersection Related	1 - Non-Junction 5 - Rotary or Traffic Circle 8 - Area of Mergence/Divergence Related 9 - Entrance or Exit Ramp 10 - Interchange Area 12 - Railroad Grade Crossing 13 - Crossover Related
5 - Driveways (includes residential and commercial driveways)	11 - Driveway, Alley Access Related

Table 5. Mapping of NASS Variable A38 (Traffic Control Device) Onto CARDfile Variable INT_CAR (Intersection Characteristics)

CARDfile Value	Corresponding NASS Value
1 - Missing	99 - Unknown
2 - Unknown	99 - Unknown
3 - Signed (stop or yield)	20 - Stop Sign, 21 - Yield Sign
4 - Signaled (automated traffic signals only)	1-9 - Various Types of Traffic Control Signals
5 - No Traffic Controls	0 - No Controls 60-80 - Various Types of Railroad Crossing Signals
6 - Other (includes police or other personnel directing traffic)	28 - Other Regulatory Sign 29 - Unknown Type Regulatory Sign 30-39 - School Zone Sign 40 - Warning Signs 50 - Officer, Crossing Guard, Flagman, etc. 98 - Other

Table 6. Mapping of NASS Variable VEHFORMS (Number of Vehicles Involved in Accident) Onto CARDfile Variable NO-VEH (Number of Vehicles Involved)

CARDfile Value	Corresponding NASS Value
Two Digits	Two Digits

Table 7. Mapping of NASS Variable V14 (Body Type) Onto CARDfile Variable VEH-TYPE (Vehicle Type)

CARDfile Value	Corresponding NASS Value
1 - Missing	89 - Unknown Other Vehicle 99 - Unknown Body Type
2 - Unknown	89 - Unknown Other Vehicle 99 - Unknown Body Type
3 - Motorcycle/Moped	20-29 - Motorcycles and Mopeds
4 - Passenger Car	1-9 - Various Passenger Cars 11 - Auto Based Panel 13 - Large Limousine
5 - Passenger Car with Trailer	Same as Above and V15 = 1-8
6 - Light Van or Truck	10 - Auto Based Pickup 12 - Short Utility, Not Truck Based 40-69 - Various Truck Types
7 - Light Van or Truck with Trailer	Same as Above and V15 = 1-8
8-13 - Various Medium/Heavy Trucks	70-72, 74-75 - Various Medium/Heavy Trucks
14-21 - Other Vehicles	30-32, 38-39, 73, 80-88 - Other Vehicles

Table 7. Mapping of NASS Variable V14 (Body Type) Onto CARDfile Variable VEH-TYPE (Vehicle Type)

CARDfile Value	Corresponding NASS Value
1 - Missing	99 - Unknown
2 - Unknown	99 - Unknown
nn - last 2 digits of model year	nn - last 2 digits of model year

Table 9. Mapping of NASS Variable V87 (Other Vehicle Related Factors) Onto CARDfile Variable FAILCOMP (Component Failure)

CARDfile Value	Corresponding NASS Value
1 - Missing	99 - Unknown
2 - Unknown	99 - Unknown
3 - No Defects	0 - No Other Vehicle Related Factors
4 - Defective Brakes	3 - Brake System
5 - Defective Steering Mechanism	4 - Steering System
6 - Defective or Improper Lights	8 - Headlights
7 - Defective Exhaust System	7 - Exhaust System
8 - Worn or Defective Tires	1 - Tires
9 - Tire Puncture or Blowout	1 - Tires
10 - Defective Trailer Equipment	16 - Trailer Hitch
11 - Defective Stop or Turn Signal	9 - Signal Lights 10 - Other Lights (specify)
12 - Wheel Came Off Vehicle	2 - Wheels
13 - All Other Defects	5 - Suspension 6 - Power Train 11 - Horn 12 - Mirrors 13 - Wipers 14 - Body, Doors 15 - Driver Seating and Control 98 - Other (specify)

Table 10. Mapping of NASS Variables 09 (AGE) and 010 (SEX) Onto CARDfile Variables SEX (Sex) and AGE (Age)

CARDfile Value	Corresponding NASS Value
AGE	
. - Missing	99 - Unknown
0 - Unknown	99 - Unknown
nn - Age in Years	nn - Age in Years 0 - Less than 1 Year Old
SEX	
1 - Missing	9 - Unknown
2 - Unknown	9 - Unknown
3 - Female	2 - Female
4 - Male	1 - Male

APPENDIX 2

SUMMARY TABLES

COMPARISON OF CARDFILE AND NASS

NATIONAL ACCIDENT PROJECTIONS

PHASE II TABLE 1: LIGHT CONDITIONS (ALL ACCIDENTS)

LIGHT CONDITIONS	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF ALL ACCIDENTS	NASS PREDICTED NATION	% OF ALL ACCIDENTS	RATIO OF CARD/NASS PREDICTED
DAY	825261.00	2754935	62.49	3697820.00	62.60	1.00
DARK/LIGHTED	195197.00	883101	14.78	1140665.00	19.31	0.76
DARK	241180.00	1097369	18.26	780662.00	13.22	1.35
DAWN	17945.00	81650	1.36	51938.00	0.88	1.54
DUSK	33927.00	[illegible]	2.57	206247.00	3.49	0.74
UNKNOWN	7189.00	32710	0.54	29432.00	0.50	1.09
TOTAL	1320639.00	6009135	100.00	5906812.00	100.00	1.02

SOURCE: CARDFile, NASS

PHASE II TABLE 2: WEATHER CONDITIONS (ALL ACCIDENTS)

WEATHER CONDITIONS	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
CLEAR/CLOUDY	1056840.00	4308622	81.12	4638911.00	79.92	1.02
RAIN	186663.00	849317	14.33	789350.00	13.59	1.05
SNOW/ICE	53024.00	241259	4.07	340627.00	5.86	0.69
MISSING/UNKOWN	6240.00	28392	0.48	42902.00	0.74	0.65
OTHER	17942.00	81636	1.38	13878.00	0.24	5.77
TOTAL	1302767.[illegible]	[illegible]	100.00	5811650.00	100.00	1.02

SOURCE: CARDfile, NASS

PHASE II TABLE 3: PRIMARY IMPACT (ALL ACCIDENTS)

PRIMARY IMPACT	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF ALL ACCIDENTS	NASS PREDICTED NATION	% OF ALL ACCIDENTS	RATIO OF CARD/NASS PREDICTED
VEH IN TRANS	852697.00	3879750	64.57	3823918.00	64.72	1.00
VEH NOT IN TRA	108653.00	494371	8.23	426554.00	7.22	1.14
PEDESTRIAN	23712.00	107890	1.80	110121.00	1.86	0.96
PEDALIST	13131.00	59746	0.99	77830.00	1.32	0.75
FIXED OBJECT	224162.00	1019937	16.97	1068912.00	18.09	0.94
NONCRASH	7896.00	33927	0.60	60273.00	1.02	0.56
TRAIN	1702.00	[illegible]	0.13	[illegible]	0.07	1.77
ROLLOVER	38976.00	177341	2.95	151202.00	2.56	1.15
OTHER	45305.00	206139	3.43	180364.00	3.05	1.12
MISSING/UNK	4473.00	20179	0.34	4595.00	0.08	4.31
TOTAL	1320659.00	6009344	100.00	5907120.00	100.00	1.02

SOURCE: CARDfile, NASS

PHASE II TABLE 4: RELATION TO INTERSECTION (ALL ACCIDENTS)

RELATION TO INTERSECTION	CARFILE STATES ACTUAL	CARS PREDICTED NATION	% OF ALL ACCIDENTS	NASS PREDICTED NATION	% OF ALL ACCIDENTS	RATIO OF CARS/NASS PREDICTED
RELATED	599236.00	2726524	45.37	2375606.00	40.22	1.13
NOT RELATED	622144.00	2830755	47.11	2831393.00	47.94	0.99
DRIVEWAY	98271.00	447133	7.44	681203.00	11.53	0.64
UNKNOWN	1057.00	4809	0.08	18090.00	0.31	0.26
TOTAL	1320708.00	6009221	100.00	5906292.00	100.00	1.02

SOURCE: CARFile, NASS

PHASE II TABLE 5: INTERSECTION CHARACTERISTICS (ALL ACCIDENTS)

INTERSECTION CHARACTERISTIC	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF ALL ACCIDENTS	NASS PREDICTED NATION	% OF ALL ACCIDENTS	RATIO OF CARD/NASS PREDICTED
SIGN	175290.00	797569	25.20	289320.00	12.17	2.40
SIGNAL	210441.00	957507	73.06	978472.00	41.08	0.85
OTHER	4781.00	21754	0.50	18761.00	0.79	1.01
NO CONTROL	927722.00	940944	34.45	970851.00	40.85	0.84
UNKNOWN	3003.00	13664	0.50	121360.00	5.11	0.10
TOTAL	1321237.00	[illegible]	100.00	2378764.00	100.00	1.15

SOURCE: CARDfile, NASS

PHASE II TABLE 6: NUMBER OF VEHICLES (ALL ACCIDENTS)

NUMBER OF VEHICLES	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF ALL ACCIDENTS	NASS PREDICTED NATION	% OF ALL ACCIDENTS	RATIO OF CARD/NASS PREDICTED
1	375028.00	1706377	28.40	2037880.00	34.30	0.82
2	860449.00	3915043	65.15	3595963.00	60.89	1.07
3	71609.00	325821	5.42	231693.00	3.92	1.38
4	10827.00	49263	0.82	37926.00	0.64	1.28
4+	2795.00	12717	0.21	2623.00	0.04	4.76
	13622	61980	1.03	40549	0.69	1.50
TOTAL	1320708.00	6009221	100.00	5906085.00	100.00	1.02

SOURCE: CARDfile, NASS

PHASE II TABLE 7: VEHICLE TYPE (ALL ACCIDENTS)

VEHICLE TYPE	CARDFILE STATES ACTUAL	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
PASSENGER	1660350.00	7554592	72.23	7529865.00	74.63	0.97
LIGHT TRUCK	369157.00	1677664	16.06	1677853.00	16.63	0.97
MED/HVY TRUCK	104366.00	474865	4.54	345929.00	3.43	1.32
MOTRCYCL/MOPED	35188.00	160105	1.53	183058.00	1.81	0.84
OTHER	27650.00	125807	1.20	353161.00	3.50	0.34
UNKNOWN	102042.00	464291	4.44	0.00	0.00	ERR
TOTAL	2298753.00	10457326	100.00	10089866.00	100.00	1.04

SOURCE: CARDfile, NASS

PHASE II TABLE 8: VEHICLE TYPE BY MODEL YEAR (ALL ACCIDENTS)

TOTAL

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	190611.00	867280	8.29	826681.00	8.19	1.01
1983	168645.00	767335	7.34	769316.00	7.62	0.96
1982	163385.00	743402	7.11	759014.00	7.52	0.94
1981	167531.00	762266	7.29	639589.00	6.34	1.15
1980	168476.00	766566	7.33	760607.00	7.54	0.97
1975-1979	825744.00	3757135	35.92	3544796.00	35.12	1.02
1970-1974	369769.00	1682449	16.09	1743893.00	17.28	0.93
1965-1969	96887.00	440836	4.21	506644.00	5.02	0.84
-1964	147744.00	672235	6.43	543095.00	5.38	1.19
TOTAL	2298792.00	10459504	100.00	10093635.00	100.00	1.04

PASSENGER

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	135423.00	616175	5.89	613278.00	6.08	0.97
1983	119078.00	541805	5.18	547096.00	5.42	0.96
1982	115150.00	523932	5.01	594522.00	5.89	0.85
1981	124999.00	568745	5.44	483545.00	4.79	1.14
1980	130887.00	595536	5.69	584729.00	5.79	0.98
1975-1979	629597.00	2864666	27.39	2782253.00	27.56	0.99
1970-1974	289290.00	1316269	12.58	1362996.00	13.50	0.93
1965-1969	70497.00	320761	3.07	344128.00	3.41	0.90
-1964	45412.00	206625	1.98	220569.00	2.19	0.90
TOTAL	1660333.00	7554515	72.23	7533116.00	74.63	0.97

LIGHT TRUCK

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	36393.00	165588	1.58	166519.00	1.65	0.96
1983	31891.00	145104	1.39	160661.00	1.59	0.87

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.65	
1983	31891.00	145104	1.39	160661.00	1.59	0.87
1982	30004.00	136518	1.30	100990.00	1.00	1.30
1981	26602.00	121039	1.16	95853.00	0.95	1.22
1980	22124.00	100664	0.96	123134.00	1.22	0.79
1975-1979	131227.00	597083	5.71	537099.00	5.32	1.07
1970-1974	53277.00	242410	2.32	273538.00	2.71	0.85
1965-1969	20028.00	91127	0.87	133562.00	1.32	0.66
-1964	17694.00	80508	0.77	86971.00	0.86	0.89
TOTAL	369240.00	1680042	16.06	1678327.00	16.63	0.97

MEDIUM/HEAVY TRUCKS

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	9790.00	44544	0.43	25441.00	0.25	1.69
1983	7498.00	34116	0.33	18309.00	0.18	1.80
1982	7102.00	32314	0.31	26802.00	0.27	1.16
1981	7586.00	34516	0.33	25244.00	0.25	1.32
1980	7888.00	35890	0.34	26472.00	0.26	1.31
1975-1979	38536.00	175339	1.68	135674.00	1.34	1.25
1970-1974	15712.00	71490	0.68	57865.00	0.57	1.19
1965-1969	4001.00	18205	0.17	19312.00	0.19	0.91
-1964	6252.00	28447	0.27	10827.00	0.11	2.54
TOTAL	104365.00	474861	4.54	345946.00	3.43	1.32

MOTORCYCLE/MOPED

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	2845.00	12945	0.12	16560.00	0.16	0.75
1983	3799.00	17285	0.17	35225.00	0.35	0.47
1982	5448.00	24788	0.24	26317.00	0.26	0.91
1981	4132.00	18801	0.18	21820.00	0.22	0.83
1980	3343.00	15211	0.15	14918.00	0.15	0.98
1975-1979	9129.00	41537	0.40	44471.00	0.44	0.90
1970-1974	4286.00	19501	0.19	16766.00	0.17	1.12
1965-1969	407.00	1852	0.02	1522.00	0.02	1.17
-1964	1799.00	8185	0.08	5479.00	0.05	1.44
TOTAL	35188.00	160105	1.53	183078.00	1.81	0.84

OTHER

OTHER

MODEL YEAR	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
1984/5	6160.00	28028	0.27	4883.00	0.05	5.54
1983	6379.00	29024	0.28	8025.00	0.08	3.49
1982	5681.00	25849	0.25	10383.00	0.10	2.40
1981	4212.00	19165	0.18	13127.00	0.13	1.41
1980	4234.00	19265	0.18	11354.00	0.11	1.64
1975-1979	17255.00	78510	0.75	45299.00	0.45	1.67
1970-1974	7204.00	32778	0.31	32728.00	0.32	0.97
1965-1969	1954.00	8891	0.09	8120.00	0.08	1.06
-1964	76587.00	348471	3.33	219249.00	2.17	1.53
TOTAL	129666.00	589980	5.64	353168.00	3.50	1.61

SOURCE: CARDfile, NASS

PHASE II TABLE 9: VEHICLE TYPE BY DEFECT (ALL ACCIDENTS)

TOTAL

DEFECT	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
BRAKES	12046.00	54809	0.52	45613.00	0.45	1.16
STEERING	2416.00	10993	0.11	10030.00	0.10	1.06
TIRES	9749.00	44358	0.42	37882.00	0.37	1.13
OTHER	13899.00	63240	0.60	23744.00	0.24	2.57
NONE/UNKNOWN	2255016.00	10260323	98.10	9962658.00	98.68	0.99
WHEELS	895.00	4072	0.04	2891.00	0.03	1.36
HEADLIGHTS	2535.00	11534	0.11	3249.00	0.03	3.43
SIGNL/STOP LTS	892.00	4059	0.04	6342.00	0.06	0.62
HITCH	1265.00	5756	0.05	2963.00	0.03	1.87
EXHAUST	79.00	359	0.00	263.00	0.00	1.32
TOTAL	2298792.00	10459504	100.00	10095635.00	100.00	1.04

PASSENGER

DEFECT	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
BRAKES	6996.00	31832	0.30	27852.00	0.28	1.10
STEERING	1523.00	6930	0.07	5152.00	0.05	1.30
TIRES	6548.00	29793	0.28	21559.00	0.21	1.33
OTHER	8538.00	38848	0.37	11852.00	0.12	3.16
NONE/UNKNOWN	1634388.00	7436465	71.10	7463118.00	73.92	0.96
WHEELS	291.00	1324	0.01	787.00	0.01	1.62
HEADLIGHTS	1439.00	6547	0.06	1981.00	0.02	3.19
SIGNL/STOP LTS	393.00	1788	0.02	2452.00	0.02	0.70
HITCH	160.00	728	0.01	99.00	0.00	7.10
EXHAUST	57.00	259	0.00	263.00	0.00	0.95
TOTAL	1660333.00	7554515	72.23	7535115.00	74.64	0.97

LIGHT TRUCKS

DEFECT	CARDFILE STATES	CARD PREDICTED	% OF VEHICLES	NASS PREDICTED	% OF VEHICLES	RATIO OF CARD/NASS

	STATES	PREDICTED NATION	% OF VEHICLES	PREDICTED NATION	% OF VEHICLES	RATIO CARD/NASS PREDICTED
BRAKES	2131.00	9696	0.09	5912.00	0.06	1.58
STEERING	551.00	2507	0.02	1663.00	0.02	1.45
TIRES	1885.00	8577	0.08	11196.00	0.11	0.74
OTHER	2417.00	10997	0.11	5074.00	0.05	2.09
NONE/UNKNOWN	360719.00	1641271	15.69	1652501.00	16.37	0.96
WHEELS	252.00	1147	0.01	304.00	0.00	3.64
HEADLIGHTS	527.00	2398	0.02	174.00	0.00	13.30
SIGNL/STOP LTS	299.00	1360	0.01	543.00	0.01	2.42
HITCH	448.00	2038	0.02	958.00	0.01	2.05
EXHAUST	11.00	50	0.00	0.00	0.00	ERR
TOTAL	369240.00	1680042	16.06	1678325.00	16.62	0.97

MEDIUM/HEAVY TRUCKS

DEFECT	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
BRAKES	2190.00	9964	0.09	10017.00	0.10	0.96
STEERING	235.00	1069	0.01	2282.00	0.02	0.45
TIRES	829.00	3772	0.04	2800.00	0.03	1.30
OTHER	1839.00	8367	0.08	5124.00	0.05	1.58
NONE/UNKNOWN	98054.00	446146	4.27	321103.00	3.18	1.34
WHEELS	249.00	1133	0.01	1448.00	0.01	0.76
HEADLIGHTS	279.00	1269	0.01	0.00	0.00	ERR
SIGNL/STOP LTS	151.00	687	0.01	1267.00	0.01	0.52
HITCH	534.00	2430	0.02	1906.00	0.02	1.23
EXHAUST	5.00	23	0.00	0.00	0.00	ERR
TOTAL	104365.00	474861	4.54	345947.00	3.43	1.32

MOTORCYCLE/MOPED

DEFECT	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
BRAKES	156.00	710	0.01	531.00	0.00	1.29
STEERING	48.00	218	0.00	933.00	0.01	0.23
TIRES	337.00	1533	0.01	626.00	0.01	2.36
OTHER	486.00	2211	0.02	1121.00	0.01	1.90
NONE/UNKNOWN	33991.00	154659	1.48	178516.00	1.77	0.84
WHEELS	1.00	5	0.00	150.00	0.00	0.03
HEADLIGHTS	156.00	710	0.01	1094.00	0.01	0.63
SIGNL/STOP LTS	7.00	32	0.00	108.00	0.00	0.28
HITCH	4.00	18	0.00	0.00	0.00	ERR
EXHAUST	2.00	9	0.00	0.00	0.00	ERR
TOTAL	35188.00	160105	1.53	183079.00	1.91	0.84

TOTAL	35188.00	160105	1.53	183079.00	1.81	0.84

OTHER

DEFECT	CARDFILE STATES	CARD PREDICTED NATION	% OF VEHICLES	NASS PREDICTED NATION	% OF VEHICLES	RATIO OF CARD/NASS PREDICTED
BRAKES	573.00	2607	0.02	1301.00	0.01	1.93
STEERING	59.00	268	0.00	0.00	0.00	ERR
TIRES	150.00	682	0.01	1701.00	0.02	0.39
OTHER	619.00	2816	0.03	573.00	0.01	4.74
NONE/UNKNOWN	127864.00	581781	5.56	347420.00	3.44	1.62
WHEELS	102.00	464	0.00	202.00	0.00	2.22
HEADLIGHTS	134.00	610	0.01	0.00	0.00	ERR
SIGNL/STOP LTS	42.00	191	0.00	1972.00	0.02	0.09
HITCH	119.00	541	0.00	0.00	0.00	ERR
EXHAUST	4.00	18	0.00	0.00	0.00	ERR
TOTAL	129666.00	589980	5.64	353169.00	3.50	1.61

PHASE II TABLE 10A: DRIVERS IN ACCIDENTS BY SEX AND AGE (ALL ACCIDENTS, UNKNOWN SEX AND AGE DISTRIBUTED)

TOTAL

AGE	CAREFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	325237.77	1479832	14.37	1507385.65	15.03	0.95
20-24	437210.97	1989310	19.32	1958606.46	19.52	0.99
25-29	351951.13	1601376	15.55	1456112.10	14.57	1.07
30-34	271952.65	1237385	12.01	1097712.66	10.89	1.10
35-39	210651.31	958463	9.31	962719.62	9.63	0.97
40-44	150932.29	686742	6.67	646132.17	6.47	1.03
45-49	110545.55	502982	4.88	491653.95	4.92	0.99
50-54	97195.25	442193	4.29	374276.74	3.75	1.15
55-59	90737.52	412856	4.01	426030.93	4.26	0.94
60-64	75206.12	342186	3.32	359549.75	3.60	0.92
65-69	54384.97	247452	2.40	253389.77	2.54	0.95
70-	87516.37	398199	3.87	477474.17	4.78	0.81
TOTAL	2263512.00	10299980	100.00	9993038.00	100.00	1.03

FEMALE

AGE	CAREFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	108393.04	495419	4.81	511060.79	5.11	0.94
20-24	141429.47	643504	6.25	635618.00	6.37	0.98
25-29	116377.98	529529	5.14	515323.42	5.16	1.00
30-34	95232.54	433309	4.21	423929.44	4.24	0.99
35-39	77167.83	351114	3.41	360629.67	3.61	0.94
40-44	54220.37	246703	2.39	255263.65	2.55	0.94
45-49	38294.70	174195	1.69	169893.34	1.70	0.99
50-54	32868.63	149552	1.45	116811.68	1.17	1.24
55-59	29947.94	136263	1.32	159757.08	1.59	0.83
60-64	24769.70	112698	1.09	135129.76	1.35	0.81
65-69	18445.13	83939	0.81	60942.49	0.61	1.34
70-	31093.00	141473	1.37	159533.24	1.60	0.88
TOTAL	748724.33	3497696	33.96	3503892.77	35.06	0.97

MALE

MALE

AGE	CARDFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	216354.73	984414	9.56	996324.86	9.97	0.96
20-24	295781.50	1345806	13.07	1313989.45	13.15	0.99
25-29	235571.15	1071849	10.41	940788.69	9.41	1.11
30-34	175720.11	804076	7.81	663783.22	6.64	1.18
35-39	133483.48	607359	5.90	602089.95	6.02	0.98
40-44	96711.92	440039	4.27	390869.32	3.91	1.09
45-49	72260.85	328787	3.19	321760.64	3.22	0.99
50-54	64316.62	292641	2.84	257459.06	2.58	1.10
55-59	60789.65	276593	2.69	267273.85	2.67	1.00
60-64	50437.42	229490	2.23	224419.99	2.25	0.99
65-69	35936.84	163513	1.59	192447.28	1.93	0.82
70-	56423.37	256726	2.49	317940.94	3.18	0.78
TOTAL	1494787.67	6801284	66.04	6489145.23	64.94	1.02

SOURCE: CARDfile, NASS

NOTE: THE VALUES IN TABLE 108 ARE DERIVED BY DISTRIBUTING ALL THE UNKNOWN AGE AND UNKNOWN SEX VALUES INTO THE KNOWN AGE AND KNOWN SEX TABLES

PHASE II TABLE 108: DRIVERS IN ACCIDENTS BY SEX AND AGE (ALL ACCIDENTS, UNKNOWN SEX AND AGE SHOWN)

TOTAL

AGE	CARDFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	292744.00	1331935	12.93	1413037.00	14.14	0.94
20-24	392944.00	1787895	17.36	1828516.00	18.30	0.95
25-29	315763.00	1436722	13.95	1364939.00	13.66	1.02
30-34	243961.00	1110023	10.78	1015557.00	10.20	1.06
35-39	185914.00	859559	8.35	902412.00	9.03	0.92
40-44	135362.00	615897	5.98	605642.00	6.06	0.99
45-49	99086.00	450841	4.38	460871.00	4.61	0.95
50-54	87245.00	396965	3.85	350951.00	3.51	1.10
55-59	81459.00	370597	3.60	399344.00	4.00	0.90
60-64	67542.00	307316	2.98	337026.00	3.37	0.88
65-69	48897.00	222436	2.16	237554.00	2.38	0.91
70-	78259.00	356205	3.45	447585.00	4.48	0.78
UNK AGE	230755.00	1049935	10.19	625711.00	6.26	1.63
TOTAL	2263512.00	10298980	100.00	9993038.00	100.00	1.03

	STATES	PREDICTED NATION	INVOLVED DRIVERS	PREDICTED NATION	INVOLVED DRIVERS	CARD/NASS PREDICTED
-19	100037.00	455169	4.42	478596.00	4.79	0.92
20-24	129550.00	589452	5.72	596301.00	5.97	0.96
25-29	106285.00	483597	4.70	482658.00	4.83	0.97
30-34	86951.00	395627	3.84	397082.00	3.97	0.97
35-39	70457.00	320579	3.11	337791.00	3.38	0.92
40-44	49560.00	225498	2.19	239098.00	2.39	0.91
45-49	34995.00	159227	1.55	159134.00	1.59	0.97
50-54	30118.00	137037	1.33	109414.00	1.09	1.21
55-59	27428.00	124797	1.21	148703.00	1.49	0.81
60-64	22719.00	103371	1.00	126572.00	1.27	0.79
65-69	16940.00	77077	0.75	57083.00	0.57	1.31
70-	28556.00	129930	1.26	149430.00	1.50	0.84
UNK AGE	15425.00	70194	0.68	54046.00	0.54	1.26
TOTAL	719021.00	3271546	31.77	3335938.00	33.38	0.95

MALE

AGE	CARDFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	152376.00	875311	8.50	934128.00	9.35	0.91
20-24	262777.00	1195635	11.61	1232217.00	12.33	0.94
25-29	208946.00	950704	9.23	882242.00	8.83	1.05
30-34	156602.00	712539	6.92	622475.00	6.23	1.11
35-39	118181.00	537723	5.22	564621.00	5.65	0.92
40-44	85604.00	389498	3.78	366544.00	3.67	1.03
45-49	63949.00	290968	2.82	301737.00	3.02	0.94
50-54	57013.00	259409	2.52	241437.00	2.42	1.04
55-59	53916.00	245318	2.38	250641.00	2.51	0.95
60-64	44731.00	203526	1.98	210454.00	2.11	0.94
65-69	31895.00	145136	1.41	180471.00	1.81	0.78
70-	50191.00	228369	2.22	296155.00	2.96	0.74
UNK AGE	72336.00	329129	3.20	72964.00	0.73	3.44
TOTAL	1399520.00	6363256	61.79	6178085.00	61.87	1.00

UNKNOWN

AGE	CARDFILE STATES	CARD PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	NASS PREDICTED NATION	% OF ACCIDENT INVOLVED DRIVERS	RATIO OF CARD/NASS PREDICTED
-19	331.00	1506	0.05	313.00	0.01	4.91
20-24	617.00	2807	0.09	0.00	0.00	ERR
25-29	532.00	2421	0.07	0.00	0.00	ERR
30-34	408.00	1856	0.06	0.00	0.00	ERR
35-39	275.00	1256	0.04	0.00	0.00	ERR
40-44	198.00	901	0.03	0.00	0.00	ERR

FEMALE	:	[illegible]	----

TOTALS, KNOWN AGE

MALE	:	1326184	6085122
FEMALE	:	703596	3281872

THE % ACCIDENT INVOLVED ARE PREDICTIONS FROM CARD FILE AND NASS. ALL ACCIDENTS

AGE	CARD PREDICTED	NASS PREDICTED
-19	2.15	2.26
20-24	1.57	1.59
25-29	1.19	1.12
30-34	0.99	0.90
35-39	0.88	0.91
40-44	0.80	0.78
45-49	0.72	0.73
50-54	0.68	0.59
55-59	0.63	0.67
60-64	0.57	0.62
65-69	0.51	0.54
70-	0.55	0.69

PHASE II TABLE 11B: RATIO % FEMALE ACCIDENT INVOLVED DRIVERS TO % FEMALE POPULATION FOR THE NATION BY AGE GROUPS
THE % ACCIDENT INVOLVED ARE PREDICTIONS FROM CARD FILE AND NASS. ALL ACCIDENTS

AGE	CARD PREDICTED	NASS PREDICTED
-19	0.31	0.33
20-24	1.33	1.35
25-29	1.19	1.19
30-34	1.07	1.09
35-39	1.09	1.15
40-44	0.91	0.97
45-49	0.67	0.67
50-54	0.54	0.44
55-59	0.49	0.59
60-64	0.46	0.56
65-69	0.38	0.28
70-	0.30	0.33
TOTAL	0.67	0.68

PHASE II TABLE 11C: RATIO % MALE ACCIDENT INVOLVED DRIVERS TO % MALE POPULATION FOR THE NATION BY AGE GROUPS
THE % ACCIDENT INVOLVED ARE PREDICTIONS FROM CARD FILE AND NASS. ALL ACCIDENTS

PHASE II TABLE 11C: RATIO % MALE ACCIDENT INVOLVED DRIVERS TO % MALE POPULATION FOR THE NATION BY AGE GROUPS
THE % ACCIDENT INVOLVED ARE PREDICTIONS FROM CARD FILE AND NASS. ALL ACCIDENTS

AGE	CARD PREDICTED	NASS PREDICTED
-19	0.59	0.61
20-24	2.77	2.79
25-29	2.43	2.19
30-34	2.04	1.73
35-39	1.95	1.98
40-44	1.69	1.55
45-49	1.35	1.36
50-54	1.15	1.04
55-59	1.11	1.10
60-64	1.08	1.09
65-69	0.92	1.12
70-	0.88	1.13
TOTAL	1.36	1.33

APPENDIX 3

CARDFILE ACCIDENT EXPERIENCE

FOR THE SIX STATES

PHASE II APPENDIX TABLE 1: LIGHT CONDITIONS BY STATE (ALL ACCIDENTS)

STATE	DAY	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	DARK/LIGHTED	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	DARK	% OF STATE'S ACCIDENTS	% OF CARDSTATES CLASS	RATIO OF STATE % TO STATES %
INDIANA	100010.00	61.89	12.12	0.99	29626.00	18.33	15.18	1.24	22388.00	14.16	9.49	0.78
MARYLAND	74350.00	57.20	9.01	0.91	34141.00	26.26	17.49	1.79	11422.00	8.79	4.74	0.48
MICHIGAN	203627.00	60.73	24.67	0.97	41376.00	12.34	21.20	0.83	72980.00	21.77	30.26	1.19
PENNSYLVANIA	74510.00	53.26	9.03	0.85	30288.00	21.65	15.52	1.46	25943.00	18.54	10.76	1.02
TEXAS	391367.00	68.15	36.52	1.09	38034.00	6.60	19.49	0.58	94590.00	21.39	39.22	1.17
WASHINGTON	71397.00	63.95	8.65	1.02	21722.00	19.45	11.13	1.32	13357.00	11.96	5.54	0.65
TOTAL	825261.00	62.49	100.00	1.00	195187.00	14.79	100.00	1.00	241190.00	18.26	100.00	1.00

STATE	DAWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	DUSK	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	2664.00	1.65	14.85	1.21	5022.00	3.29	15.69	1.28	1120.00	0.69	15.58	1.27
MARYLAND	1653.00	1.27	9.21	0.94	3774.00	2.90	11.12	1.13	4647.00	3.57	64.64	6.57
MICHIGAN	6298.00	1.89	35.10	1.38	9488.00	2.89	29.55	1.12	1337.00	0.40	18.60	0.73
PENNSYLVANIA	3488.00	2.49	19.44	1.83	5591.00	4.00	16.48	1.54	85.00	0.06	1.18	0.11
TEXAS	2253.00	0.51	12.55	0.37	5966.00	1.35	17.58	0.53	0.00	0.00	0.00	0.00
WASHINGTON	1589.00	1.42	8.85	1.05	3588.00	3.21	10.58	1.25	0.00	0.00	0.00	0.00
TOTAL	17945.00	1.36	100.00	1.00	33927.00	2.57	100.00	1.00	7189.00	0.54	100.00	1.00

STATE	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	161631.00	100.00	12.24	1.00
MARYLAND	129997.00	100.00	9.84	1.00
MICHIGAN	335303.00	100.00	25.39	1.00
PENNSYLVANIA	139905.00	100.00	10.59	1.00
TEXAS	442210.00	100.00	33.48	1.00
WASHINGTON	111653.00	100.00	8.45	1.00
TOTAL	1320689.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 3: WEATHER CONDITIONS BY STATE (ALL ACCIDENTS)

STATE	CLEAR/CLOUDY	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	RAIN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SNOW/ICE	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	124699.00	77.15	11.80	0.96	21992.00	13.34	11.73	0.98	12192.00	7.54	22.99	1.88
MARYLAND	100294.00	77.16	9.49	0.96	21103.00	16.23	11.31	1.15	1941.00	1.49	3.66	0.37
MICHIGAN	260835.00	77.79	24.68	0.97	43131.00	12.86	23.11	0.91	25635.00	7.65	48.35	1.50
PENNSYLVANIA	103526.00	74.00	9.80	0.92	24549.00	17.55	13.15	1.24	5954.00	6.40	16.89	1.59
TEXAS	362491.00	86.49	36.19	1.08	53777.00	12.15	28.81	0.86	1515.00	0.34	2.86	0.09
WASHINGTON	84991.00	76.12	8.04	0.95	22211.00	19.89	11.90	1.41	2797.00	2.50	5.26	0.62
TOTAL	1056840.00	80.02	100.00	1.00	186663.00	14.13	100.00	1.00	53024.00	4.01	100.00	1.00

STATE	OTHER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	MISSING/ UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1566.00	1.22	10.96	0.89	881.00	0.55	14.13	1.15
MARYLAND	2787.00	2.14	15.53	1.58	3892.00	2.99	62.21	5.32
MICHIGAN	4618.00	1.38	25.74	1.01	1084.00	0.32	17.37	0.68
PENNSYLVANIA	2480.00	1.77	13.82	1.30	392.00	0.28	6.28	0.59
TEXAS	4427.00	1.00	24.67	0.74	0.00	0.00	0.00	0.00
WASHINGTON	1664.00	1.49	9.27	1.10	0.00	0.00	0.00	0.00
TOTAL	17942.00	1.35	100.00	1.00	6240.00	0.47	100.00	1.00

STATE	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	161631.00	100.00	12.24	1.00
MARYLAND	129987.00	100.00	9.84	1.00
MICHIGAN	335303.00	100.00	25.39	1.00
PENNSYLVANIA	139905.00	100.00	10.59	1.00
TEXAS	442210.00	100.00	33.48	1.00
WASHINGTON	111653.00	100.00	8.45	1.00
TOTAL	1320689.00	100.00	100.00	1.00

SOURCE: DMV File

PHASE II APPENDIX TABLE 3: PRIMARY IMPACT BY STATE (ALL ACCIDENTS)

STATE	VEHICLE IN TRANSPORT	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	VEHICLE NOT IN TRANSPORT	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	PEDESTRIAN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	107689.00	66.62	12.63	1.03	5467.00	3.29	5.03	0.41	1896.00	1.17	8.00	0.65
MARYLAND	70939.00	54.57	8.32	0.85	28364.00	21.82	26.10	2.65	3501.00	2.69	14.76	1.50
MICHIGAN	211669.00	62.96	24.75	0.97	27814.00	8.30	25.60	1.01	4402.00	1.31	18.59	0.73
PENNSYLVANIA	70671.00	50.51	8.29	0.78	8249.00	5.90	7.59	0.72	6522.00	4.66	27.51	2.60
TEXAS	318776.00	72.09	37.38	1.12	30136.00	6.81	27.74	0.83	5784.00	1.31	24.39	0.73
WASHINGTON	73564.00	65.89	8.63	1.02	8623.00	7.72	7.94	0.94	1601.00	1.43	6.75	0.80
TOTAL	852699.00	64.57	100.00	1.00	108653.00	8.22	100.00	1.00	23712.00	1.80	100.00	1.00

STATE	PEDALIST	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	FIXED OBJECT	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	NONCRASH	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1576.00	0.97	12.00	0.99	29449.00	18.22	13.14	1.07	1354.00	0.84	17.15	1.40
MARYLAND	1532.00	1.19	11.67	1.19	21095.00	16.22	9.41	0.96	1572.00	1.21	19.91	2.02
MICHIGAN	4177.00	1.25	31.81	1.25	47414.00	14.14	21.15	0.85	0.00	0.00	0.00	0.00
PENNSYLVANIA	1531.00	1.09	11.66	1.10	46463.00	33.21	20.72	1.96	2052.00	1.47	25.99	2.45
TEXAS	3141.00	0.71	23.92	0.71	59663.00	13.49	26.62	0.79	2534.00	0.57	32.09	0.96
WASHINGTON	1174.00	1.05	8.94	1.06	20098.00	17.99	8.96	1.06	384.00	0.34	4.86	0.58
TOTAL	13131.00	0.99	100.00	1.00	224162.00	16.97	100.00	1.00	7896.00	0.60	100.00	1.00

STATE	TRAIN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	ROLLOVER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	417.00	0.26	24.59	2.00	5112.00	3.16	13.12	1.07	5594.00	3.45	12.33	1.01
MARYLAND	49.00	0.04	2.88	0.29	966.00	0.76	2.52	0.26	1979.00	1.52	4.37	0.44
MICHIGAN	252.00	0.09	14.86	0.59	10469.00	3.12	26.86	1.06	29550.00	8.95	65.47	2.58
PENNSYLVANIA	158.00	0.10	9.31	0.77	2896.00	2.07	7.43	0.79	49.00	0.03	0.11	0.01
TEXAS	759.00	0.17	44.54	1.33	14694.00	3.32	37.70	1.13	6724.00	1.52	14.84	0.44
WASHINGTON	57.00	0.05	5.11	0.69	4526.00	4.32	12.77	1.46	1310.00	1.17	2.89	0.34
TOTAL	1702.00	0.13	100.00	1.00	38976.00	2.95	100.00	1.00	45305.00	3.43	100.00	1.00

STATE	MISSING/ UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3096.00	1.92	69.34	5.71	161631.00	100.00	12.24	1.00
MARYLAND	0.00	0.00	0.00	0.00	130007.00	100.00	9.84	1.00
MICHIGAN	0.00	0.00	0.00	0.00	335263.00	100.00	25.39	1.00
PENNSYLVANIA	1335.00	0.95	30.11	2.84	139905.00	100.00	10.59	1.00
TEXAS	0.00	0.00	0.00	0.00	442210.00	100.00	33.48	1.00
WASHINGTON	2.00	0.00	0.04	0.01	111653.00	100.00	8.45	1.00
TOTAL	4433.00	0.34	100.00	1.00	1320669.00	100.00	100.00	1.00

PHASE II APPENDIX TABLE 4: RELATION TO INTERSECTION BY STATE (ALL ACCIDENTS)

STATE	RELATED	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	NOT RELATED	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	DRIVEWAY	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	48835.00	30.21	8.15	0.67	104992.00	64.96	16.88	1.38	6857.00	4.24	6.98	0.57
MARYLAND	45034.00	34.64	7.52	0.76	75880.00	58.37	12.20	1.24	9093.00	6.99	9.25	0.94
MICHIGAN	195742.00	58.38	32.66	1.29	139451.00	41.59	22.41	0.88	0.00	0.00	0.00	0.00
PENNSYLVANIA	52897.00	37.81	8.83	0.83	76898.00	54.96	12.36	1.17	10110.00	7.23	10.29	0.97
TEXAS	207777.00	46.99	34.67	1.04	175802.00	39.76	28.26	0.84	58630.00	13.26	59.66	1.78
WASHINGTON	48951.00	43.84	8.17	0.97	49121.00	43.99	7.90	0.93	13581.00	12.16	13.82	1.63
TOTAL	599236.00	45.37	100.00	1.00	622144.00	47.11	100.00	1.00	98271.00	7.44	100.00	1.00

STATE	UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	947.00	0.59	89.59	7.32	161631.00	100.00	12.24	1.00
MARYLAND	0.00	0.00	0.00	0.00	130007.00	100.00	9.84	1.00
MICHIGAN	110.00	0.03	10.41	0.41	335303.00	100.00	25.39	1.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	139905.00	100.00	10.59	1.00
TEXAS	0.00	0.00	0.00	0.00	442209.00	100.00	33.48	1.00
WASHINGTON	0.00	0.00	0.00	0.00	111653.00	100.00	8.45	1.00
TOTAL	1057.00	0.08	100.00	1.00	1320708.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 5: INTERSECTION CHARACTERISTICS BY STATE (ALL ACCIDENTS)

STATE	SIGN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	11770.00	7.28	6.71	0.55	17082.00	10.57	8.12	0.66	1017.00	0.63	21.27	1.74
MARYLAND	7832.00	6.00	4.47	0.45	18610.00	14.26	8.84	0.89	510.00	0.39	10.67	1.08
MICHIGAN	64991.00	19.38	37.08	1.46	60928.00	18.17	28.95	1.14	104.00	0.03	2.17	0.09
PENNSYLVANIA	13719.00	9.81	7.83	0.74	18642.00	13.32	8.86	0.84	254.00	0.18	5.31	0.50
TEXAS	65189.00	14.74	37.19	1.11	77069.00	17.43	36.62	1.09	2180.00	0.49	45.60	1.36
WASHINGTON	11789.00	10.56	6.73	0.80	18110.00	16.22	8.61	1.02	716.00	0.64	14.98	1.77
TOTAL	175290.00	13.27	100.00	1.00	210441.00	15.93	100.00	1.00	4781.00	0.36	100.00	1.00

STATE	NONE	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	129820.00	80.32	13.99	1.14	1942.00	1.20	64.67	5.29	161631.00	100.00	12.23	1.00
MARYLAND	103583.00	79.35	11.16	1.13	0.00	0.00	0.00	0.00	130535.00	100.00	9.88	1.00
MICHIGAN	209000.00	62.33	22.53	0.89	280.00	0.08	9.32	0.37	335303.00	100.00	25.38	1.00
PENNSYLVANIA	106837.00	76.36	11.52	1.09	453.00	0.32	15.08	1.42	139905.00	100.00	10.59	1.00
TEXAS	297771.00	67.34	32.10	0.96	1.00	0.00	0.03	0.00	442210.00	100.00	33.47	1.00
WASHINGTON	80711.00	72.29	8.70	1.03	327.00	0.29	10.89	1.29	111653.00	100.00	8.45	1.00
TOTAL	927722.00	70.22	100.00	1.00	3003.00	0.23	100.00	1.00	1321237.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 6: NUMBER OF VEHICLES BY STATE (ALL ACCIDENTS)

STATE	1	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	2	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	3	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	46203.00	28.59	12.32	1.01	106753.00	66.05	12.41	1.01	7469.00	4.62	10.43	0.85
MARYLAND	30434.00	23.41	8.11	0.82	89556.00	68.89	10.41	1.06	8097.00	6.23	11.31	1.15
MICHIGAN	123315.00	36.78	32.88	1.29	197276.00	58.84	22.93	0.90	12728.00	3.80	17.77	0.70
PENNSYLVANIA	60143.00	42.99	16.04	1.51	67922.00	48.55	7.89	0.74	9477.00	6.77	13.23	1.25
TEXAS	86246.00	19.50	23.00	0.69	323677.00	73.19	37.62	1.12	27332.00	6.18	38.17	1.14
WASHINGTON	28687.00	25.69	7.65	0.90	75265.00	67.41	8.75	1.03	6506.00	5.83	9.08	1.07
TOTAL	375028.00	28.40	100.00	1.00	860449.00	65.15	100.00	1.00	71609.00	5.42	100.00	1.00

STATE	4	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	5+	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	982.00	0.61	9.07	0.74	224.00	0.14	8.01	0.65	161631.00	100.00	12.24	1.00
MARYLAND	1474.00	1.13	13.61	1.38	446.00	0.34	15.96	1.62	130007.00	100.00	9.84	1.00
MICHIGAN	1648.00	0.49	15.22	0.60	335.00	0.10	11.99	0.47	335302.00	100.00	25.39	1.00
PENNSYLVANIA	1837.00	1.31	16.97	1.60	526.00	0.38	18.82	1.78	139905.00	100.00	10.59	1.00
TEXAS	3916.00	0.89	36.17	1.08	1039.00	0.23	37.17	1.11	442210.00	100.00	33.48	1.00
WASHINGTON	970.00	0.87	8.96	1.06	225.00	0.20	8.05	0.95	111653.00	100.00	8.45	1.00
TOTAL	10827.00	0.82	100.00	1.00	2795.00	0.21	100.00	1.00	1320708.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 7: VEHICLE TYPE BY STATE (ALL ACCIDENTS)

STATE	PASSENGER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	LIGHT TRUCK	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	MEDIUM/HEAVY TRUCK	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	215403.00	74.99	12.97	1.04	37622.00	13.10	10.19	0.82	16694.00	5.81	16.00	1.28
MARYLAND	178218.00	73.60	10.73	1.02	26814.00	11.07	7.26	0.69	10101.00	4.17	9.68	0.92
MICHIGAN	424519.00	75.20	25.57	1.04	70164.00	12.43	19.01	0.77	16645.00	2.95	15.95	0.65
PENNSYLVANIA	182663.00	77.96	11.00	1.08	30527.00	13.03	8.27	0.81	11460.00	4.89	10.98	1.08
TEXAS	516614.00	67.38	31.11	0.93	163227.00	21.29	44.22	1.33	42058.00	5.49	40.30	1.21
WASHINGTON	142933.00	70.12	8.61	0.97	40803.00	20.02	11.05	1.25	7408.00	3.63	7.10	0.80
TOTAL	1660350.00	72.23	100.00	1.00	369157.00	16.06	100.00	1.00	104366.00	4.54	100.00	1.00

STATE	MOTORCYCLE/ MOPED	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	UNKNOWN	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3955.00	1.38	11.24	0.90	4630.00	1.61	16.74	1.34	8944.00	3.11	8.76	0.70
MARYLAND	3375.00	1.39	9.59	0.91	5752.00	2.37	20.80	1.97	17895.00	7.39	17.54	1.66
MICHIGAN	7091.00	1.26	20.15	0.82	6699.00	1.19	24.23	0.99	39391.00	6.98	38.60	1.57
PENNSYLVANIA	5459.00	2.33	15.51	1.52	2599.00	1.11	9.40	0.92	1597.00	0.68	1.56	0.15
TEXAS	11658.00	1.52	33.13	0.99	6437.00	0.84	23.28	0.70	26704.00	3.48	26.17	0.78
WASHINGTON	3650.00	1.79	10.37	1.17	1533.00	0.75	5.54	0.62	7511.00	3.68	7.36	0.83
TOTAL	35188.00	1.53	100.00	1.00	27650.00	1.20	100.00	1.00	102042.00	4.44	100.00	1.00

STATE	TOTAL	% OF STATE'S ACCIDENTS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	287248.00	100.00	12.50	1.00
MARYLAND	242155.00	100.00	10.53	1.00
MICHIGAN	564509.00	100.00	24.56	1.00
PENNSYLVANIA	234305.00	100.00	10.19	1.00
TEXAS	766698.00	100.00	33.35	1.00
WASHINGTON	203838.00	100.00	8.87	1.00
TOTAL	2298753.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 8: VEHICLE TYPE BY TERM, BY STATE (ALL ACCIDENTS)

PASSENGER

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	14740.00	5.13	10.88	0.87	13004.00	4.53	10.92	0.87	11983.00	4.17	10.41	0.83
MARYLAND	16350.00	6.75	12.07	1.15	14750.00	6.09	12.39	1.18	12794.00	5.28	11.11	1.05
MICHIGAN	40675.00	7.21	30.04	1.22	33365.00	5.91	28.02	1.14	29212.00	5.17	25.37	1.03
PENNSYLVANIA	14528.00	6.20	10.73	1.05	13286.00	5.67	11.16	1.09	12203.00	5.21	10.60	1.04
TEXAS	41925.00	5.47	30.96	0.93	37678.00	4.91	31.64	0.95	41921.00	5.47	36.41	1.09
WASHINGTON	7205.00	3.53	5.32	0.60	6995.00	3.43	5.87	0.66	7037.00	3.45	6.11	0.69
TOTAL	135423.00	5.89	100.00	1.00	119078.00	5.18	100.00	1.00	115150.00	5.01	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	14240.00	4.96	11.39	0.91	15313.00	5.33	11.70	0.94	88009.00	30.64	13.98	1.12
MARYLAND	13437.00	5.55	10.75	1.02	14524.00	6.00	11.10	1.05	63372.00	26.17	10.07	0.96
MICHIGAN	32172.00	5.70	25.74	1.05	34772.00	6.16	26.57	1.08	173402.00	30.72	27.54	1.12
PENNSYLVANIA	12940.00	5.52	10.35	1.02	14842.00	6.33	11.34	1.11	65633.00	28.00	10.42	1.02
TEXAS	43800.00	5.71	35.04	1.05	41966.00	5.47	32.06	0.96	192499.00	25.11	30.57	0.92
WASHINGTON	8410.00	4.13	6.73	0.76	9470.00	4.65	7.23	0.82	46682.00	22.90	7.41	0.84
TOTAL	124999.00	5.44	100.00	1.00	130887.00	5.69	100.00	1.00	629597.00	27.39	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	45311.00	15.77	15.66	1.25	9596.00	3.34	13.61	1.09	3207.00	1.12	7.06	0.56
MARYLAND	32779.00	13.54	11.33	1.08	7628.00	3.15	10.82	1.03	2584.00	1.07	5.69	0.54
MICHIGAN	64541.00	11.43	22.31	0.91	10188.00	1.80	14.45	0.59	6175.00	1.09	13.60	0.55
PENNSYLVANIA	35723.00	15.24	12.35	1.21	7665.00	3.27	10.87	1.07	5843.00	2.49	12.87	1.26
TEXAS	76859.00	10.02	26.57	0.80	19840.00	2.59	28.14	0.84	20126.00	2.62	44.32	1.33
WASHINGTON	34077.00	16.72	11.78	1.33	15580.00	7.64	22.10	2.49	7477.00	3.67	16.46	1.86
TOTAL	289290.00	12.58	100.00	1.00	70497.00	3.07	100.00	1.00	45412.00	1.98	100.00	1.00

STATE	TOTAL PASSENGER	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	215403.00	74.99	12.97	1.04
MARYLAND	178218.00	73.60	10.73	1.02
MICHIGAN	424502.00	75.21	25.57	1.04
PENNSYLVANIA	182663.00	77.93	11.00	1.08
TEXAS	516614.00	67.38	31.11	0.93
WASHINGTON	142933.00	70.12	8.61	0.97
	1660333.00	72.23	100.00	1.00

WASHINGTON				
TOTAL	1660333.00	72.23	100.00	1.00

LIGHT TRUCKS

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	2992.00	1.04	8.22	0.66	2769.00	0.96	8.68	0.69	2174.00	0.76	7.25	0.58
MARYLAND	3271.00	1.35	8.99	0.85	2810.00	1.16	8.81	0.84	2047.00	0.85	6.82	0.65
MICHIGAN	7623.00	1.35	20.95	0.85	6333.00	1.12	19.86	0.81	4493.00	0.80	14.97	0.61
PENNSYLVANIA	2694.00	1.15	7.40	0.73	2415.00	1.03	7.57	0.74	1859.00	0.79	6.20	0.61
TEXAS	16962.00	2.21	46.61	1.40	15333.00	2.00	48.08	1.44	17533.00	2.29	58.44	1.75
WASHINGTON	2851.00	1.40	7.83	0.88	2231.00	1.09	7.00	0.79	1898.00	0.93	6.33	0.71
TOTAL	36393.00	1.58	100.00	1.00	31891.00	1.39	100.00	1.00	30004.00	1.30	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1824.00	0.63	6.86	0.55	1820.00	0.63	8.23	0.66	15962.00	5.56	12.16	0.97
MARYLAND	1856.00	0.77	6.98	0.66	1765.00	0.73	7.98	0.76	9298.00	3.84	7.09	0.67
MICHIGAN	3897.00	0.69	14.65	0.60	3800.00	0.67	17.18	0.70	29687.00	5.26	22.62	0.92
PENNSYLVANIA	1701.00	0.73	6.39	0.63	1830.00	0.78	8.27	0.81	12479.00	5.32	9.51	0.93
TEXAS	15194.00	1.98	57.12	1.71	10815.00	1.41	48.88	1.47	50518.00	6.59	38.50	1.15
WASHINGTON	2130.00	1.04	8.01	0.90	2094.00	1.03	9.46	1.07	13283.00	6.52	10.12	1.14
TOTAL	26602.00	1.16	100.00	1.00	22124.00	0.96	100.00	1.00	131227.00	5.71	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	6483.00	2.26	12.17	0.97	2611.00	0.91	13.04	1.04	987.00	0.34	5.58	0.45
MARYLAND	3974.00	1.64	7.46	0.71	1156.00	0.48	5.77	0.55	637.00	0.26	3.60	0.34
MICHIGAN	9581.00	1.70	17.98	0.73	2463.00	0.44	12.30	0.50	2280.00	0.40	12.89	0.52
PENNSYLVANIA	5110.00	2.18	9.59	0.94	1333.00	0.57	6.66	0.65	1196.00	0.51	6.76	0.66
TEXAS	20181.00	2.63	37.88	1.14	8087.00	1.05	40.38	1.21	8604.00	1.12	48.63	1.46
WASHINGTON	7948.00	3.90	14.92	1.68	4378.00	2.15	21.86	2.46	3990.00	1.96	22.55	2.54
TOTAL	53277.00	2.32	100.00	1.00	20028.00	0.87	100.00	1.00	17694.00	0.77	100.00	1.00

STATE	TOTAL LIGHT TRUCK	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	37622.00	13.10	10.19	0.82
MARYLAND	26814.00	11.07	7.26	0.69
	70157.00	12.43	19.00	0.77

MARYLAND	26814.00	11.07	7.26	0.67
MICHIGAN	70157.00	12.43	19.00	0.77
PENNSYLVANIA	30617.00	13.06	8.29	0.81
TEXAS	163227.00	21.29	44.21	1.33
WASHINGTON	40803.00	20.02	11.05	1.25
TOTAL	369240.00	16.06	100.00	1.00

MEDIUM/HEAVY TRUCKS

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1280.00	0.45	13.07	1.05	1140.00	0.40	15.20	1.22	1001.00	0.35	14.09	1.13
MARYLAND	728.00	0.30	7.44	0.71	698.00	0.29	9.31	0.88	624.00	0.26	8.79	0.83
MICHIGAN	1221.00	0.22	12.47	0.51	902.00	0.16	12.03	0.49	875.00	0.15	12.32	0.50
PENNSYLVANIA	759.00	0.32	7.75	0.76	639.00	0.27	8.52	0.84	640.00	0.27	9.01	0.88
TEXAS	5447.00	0.71	55.64	1.67	3818.00	0.50	50.92	1.53	3688.00	0.48	51.93	1.56
WASHINGTON	355.00	0.17	3.63	0.41	301.00	0.15	4.01	0.45	274.00	0.13	3.86	0.43
TOTAL	9790.00	0.43	100.00	1.00	7498.00	0.33	100.00	1.00	7102.00	0.31	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1038.00	0.36	13.68	1.09	1238.00	0.43	15.69	1.26	6858.00	2.39	17.80	1.42
MARYLAND	771.00	0.32	10.16	0.96	857.00	0.35	10.86	1.03	3845.00	1.59	9.98	0.95
MICHIGAN	951.00	0.17	12.54	0.51	1204.00	0.21	15.26	0.62	6871.00	1.22	17.83	0.73
PENNSYLVANIA	700.00	0.30	9.23	0.90	911.00	0.39	11.55	1.13	4418.00	1.88	11.46	1.12
TEXAS	3793.00	0.49	50.00	1.50	3260.00	0.42	41.33	1.24	14115.00	1.84	36.63	1.10
WASHINGTON	333.00	0.16	4.39	0.49	418.00	0.20	5.30	0.60	2429.00	1.19	6.30	0.71
TOTAL	7586.00	0.33	100.00	1.00	7888.00	0.34	100.00	1.00	38536.00	1.68	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	2791.00	0.97	17.76	1.42	763.00	0.27	19.07	1.53	585.00	0.20	9.36	0.75
MARYLAND	1831.00	0.76	11.65	1.11	429.00	0.18	10.72	1.02	318.00	0.13	5.09	0.48
MICHIGAN	2835.00	0.50	18.04	0.73	724.00	0.13	18.10	0.74	1061.00	0.19	16.97	0.69
PENNSYLVANIA	2092.00	0.89	13.31	1.31	492.00	0.21	12.30	1.21	809.00	0.34	12.94	1.27
TEXAS	4608.00	0.60	29.33	0.88	920.00	0.12	22.99	0.69	2409.00	0.31	38.53	1.16
WASHINGTON	1555.00	0.76	9.90	1.12	673.00	0.33	16.82	1.90	1070.00	0.52	17.11	1.93
TOTAL	15712.00	0.68	100.00	1.00	4001.00	0.17	100.00	1.00	6252.00	0.27	100.00	1.00

STATE	TOTAL MEDIUM/HEAVY TRUCK	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %

INDIANA	16694.00	5.81	16.00	1.28
MARYLAND	10101.00	4.17	9.68	0.92
MICHIGAN	16644.00	2.95	15.95	0.65
PENNSYLVANIA	11460.00	4.89	10.98	1.08
TEXAS	42058.00	5.49	40.30	1.21
WASHINGTON	7408.00	3.63	7.10	0.80
TOTAL	104365.00	4.54	100.00	1.00

MOTORCYCLE/MOPED

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	317.00	0.11	11.14	0.89	374.00	0.13	9.84	0.79	510.00	0.18	9.36	0.75
MARYLAND	255.00	0.11	8.96	0.85	401.00	0.17	10.56	1.00	492.00	0.20	9.03	0.86
MICHIGAN	673.00	0.12	23.65	0.96	784.00	0.14	20.64	0.84	1011.00	0.18	18.56	0.76
PENNSYLVANIA	405.00	0.17	14.24	1.40	552.00	0.24	14.53	1.42	796.00	0.34	14.61	1.43
TEXAS	934.00	0.12	32.83	0.98	1351.00	0.18	35.56	1.07	2056.00	0.27	37.74	1.13
WASHINGTON	261.00	0.13	9.17	1.03	337.00	0.17	8.87	1.00	583.00	0.29	10.70	1.21
TOTAL	2845.00	0.12	100.00	1.00	3799.00	0.17	100.00	1.00	5448.00	0.24	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	436.00	0.15	10.55	0.84	336.00	0.12	10.05	0.80	1158.00	0.40	12.68	1.01
MARYLAND	403.00	0.17	9.75	0.93	327.00	0.13	9.78	0.93	940.00	0.39	10.30	0.98
MICHIGAN	705.00	0.12	17.06	0.69	426.00	0.08	12.74	0.52	1737.00	0.31	19.03	0.77
PENNSYLVANIA	611.00	0.26	14.79	1.45	468.00	0.20	14.00	1.37	1358.00	0.58	14.88	1.46
TEXAS	1570.00	0.20	38.00	1.14	1365.00	0.18	40.83	1.22	2908.00	0.38	31.85	0.96
WASHINGTON	407.00	0.20	9.85	1.11	421.00	0.21	12.59	1.42	1028.00	0.50	11.26	1.27
TOTAL	4132.00	0.18	100.00	1.00	3343.00	0.15	100.00	1.00	9129.00	0.40	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	545.00	0.19	12.72	1.02	54.00	0.02	13.27	1.06	225.00	0.08	12.51	1.00
MARYLAND	346.00	0.14	8.07	0.77	45.00	0.02	11.06	1.05	166.00	0.07	9.23	0.88
MICHIGAN	1207.00	0.21	28.16	1.15	111.00	0.02	27.27	1.11	437.00	0.08	24.29	0.99
PENNSYLVANIA	838.00	0.36	19.55	1.92	76.00	0.03	18.67	1.83	355.00	0.15	19.73	1.94
TEXAS	961.00	0.13	22.42	0.67	84.00	0.01	20.64	0.62	429.00	0.06	23.85	0.71
WASHINGTON	389.00	0.19	9.08	1.02	37.00	0.02	9.09	1.02	187.00	0.09	10.39	1.17
TOTAL	4286.00	0.19	100.00	1.00	407.00	0.02	100.00	1.00	1799.00	0.08	100.00	1.00

STATE

STATE	TOTAL MOTORCYCLE/ MOPED	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3955.00	1.38	11.24	0.90
MARYLAND	3375.00	1.39	9.59	0.91
MICHIGAN	7091.00	1.26	20.15	0.82
PENNSYLVANIA	5459.00	2.33	15.51	1.52
TEXAS	11658.00	1.52	33.13	0.99
WASHINGTON	3650.00	1.79	10.37	1.17
TOTAL	35188.00	1.53	100.00	1.00

OTHER

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	534.00	0.19	8.67	0.69	737.00	0.26	11.55	0.92	607.00	0.21	10.68	0.85
MARYLAND	484.00	0.20	7.86	0.75	961.00	0.40	15.06	1.43	672.00	0.28	11.83	1.12
MICHIGAN	2843.00	0.50	46.15	1.88	1886.00	0.33	29.57	1.20	1578.00	0.28	27.78	1.13
PENNSYLVANIA	251.00	0.11	4.07	0.40	478.00	0.20	7.49	0.73	339.00	0.14	5.97	0.58
TEXAS	1957.00	0.26	31.77	0.95	2182.00	0.28	34.21	1.03	2374.00	0.31	41.79	1.25
WASHINGTON	91.00	0.04	1.48	0.17	135.00	0.07	2.12	0.24	111.00	0.05	1.95	0.22
TOTAL	6160.00	0.27	100.00	1.00	6379.00	0.28	100.00	1.00	5681.00	0.25	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	471.00	0.16	11.18	0.89	428.00	0.15	10.11	0.81	1654.00	0.58	9.59	0.77
MARYLAND	402.00	0.17	9.54	0.91	469.00	0.19	11.08	1.05	1736.00	0.72	10.06	0.96
MICHIGAN	1199.00	0.21	28.47	1.16	1472.00	0.26	34.77	1.42	6777.00	1.20	39.28	1.60
PENNSYLVANIA	208.00	0.09	4.94	0.48	211.00	0.09	4.98	0.49	529.00	0.23	3.07	0.30
TEXAS	1844.00	0.24	43.78	1.31	1540.00	0.20	36.37	1.09	5965.00	0.78	34.57	1.04
WASHINGTON	88.00	0.04	2.09	0.24	114.00	0.06	2.69	0.30	594.00	0.29	3.44	0.39
TOTAL	4212.00	0.18	100.00	1.00	4234.00	0.18	100.00	1.00	17255.00	0.75	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	868.00	0.30	12.05	0.96	237.00	0.08	12.13	0.97	8038.00	2.80	10.49	0.84
MARYLAND	827.00	0.34	11.48	1.09	147.00	0.06	7.52	0.71	17949.00	7.41	23.44	2.22
MICHIGAN	2474.00	0.44	34.34	1.40	546.00	0.10	27.94	1.14	27289.00	4.83	35.63	1.45
PENNSYLVANIA	325.00	0.14	4.51	0.44	65.00	0.03	3.33	0.33	1790.00	0.76	2.34	0.23
TEXAS	2382.00	0.31	33.06	0.99	808.00	0.11	41.35	1.24	14089.00	1.84	18.40	1.00
WASHINGTON	328.00	0.16	4.55	0.51	151.00	0.07	7.73	0.87	7432.00	3.03	9.70	
									[illegible]587.00	3.33	100.00	1.00

WASHINGTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.87	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	7204.00	0.31	100.00	1.00	1954.00	0.09	100.00	1.00	76587.00	3.33	100.00	1.00

STATE	TOTAL OTHER	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	13574.00	4.73	10.47	0.84
MARYLAND	23647.00	9.76	18.24	1.73
MICHIGAN	46064.00	8.16	35.52	1.45
PENNSYLVANIA	4196.00	1.79	3.24	0.32
TEXAS	33141.00	4.32	25.56	0.77
WASHINGTON	9044.00	4.44	6.97	0.79
TOTAL	129666.00	5.64	100.00	1.00

TOTAL

STATE	1984/5	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1983	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1982	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	19863.00	6.91	10.42	0.83	18024.00	6.27	10.69	0.85	16275.00	5.67	9.96	0.80
MARYLAND	21088.00	8.71	11.06	1.05	19620.00	8.10	11.63	1.10	16629.00	6.87	10.18	0.97
MICHIGAN	53035.00	9.40	27.82	1.13	43270.00	7.67	25.66	1.04	37169.00	6.58	22.75	0.93
PENNSYLVANIA	18637.00	7.95	9.78	0.96	17370.00	7.41	10.30	1.01	15837.00	6.76	9.69	0.95
TEXAS	67225.00	8.77	35.27	1.06	60362.00	7.87	35.79	1.07	67572.00	8.81	41.36	1.24
WASHINGTON	10763.00	5.28	5.65	0.64	9999.00	4.91	5.93	0.67	9903.00	4.86	6.06	0.68
TOTAL	190611.00	8.29	100.00	1.00	168645.00	7.34	100.00	1.00	163385.00	7.11	100.00	1.00

STATE	1981	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1980	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1975-79	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	18009.00	6.27	10.75	0.86	19135.00	6.66	11.36	0.91	113641.00	39.56	13.76	1.10
MARYLAND	16869.00	6.97	10.07	0.96	17942.00	7.41	10.65	1.01	79191.00	32.70	9.59	0.91
MICHIGAN	38924.00	6.90	23.23	0.95	41674.00	7.38	24.74	1.01	218474.00	38.70	26.46	1.08
PENNSYLVANIA	16160.00	6.89	9.65	0.95	18262.00	7.79	10.84	1.06	84417.00	36.01	10.22	1.00
TEXAS	66201.00	8.63	39.52	1.18	58946.00	7.69	34.99	1.05	266005.00	34.69	32.21	0.97
WASHINGTON	11368.00	5.58	6.79	0.76	12517.00	6.14	7.43	0.84	64016.00	31.40	7.75	0.87
TOTAL	167531.00	7.29	100.00	1.00	168476.00	7.33	100.00	1.00	825744.00	35.92	100.00	1.00

STATE	1970-74	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	1965-69	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	BEFORE 1964	% OF STATES VEHICLES	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	55998.00	19.49	15.14	1.21	13261.00	4.62	[illegible]	1.07	[illegible]	[illegible]	[illegible]	[illegible]
MARYLAND	39757.00	16.42	10.75	1.02	9405.00	3.88	[illegible]	0.92	21654.00	8.94	[illegible]	[illegible]
MICHIGAN	80638.00	14.29	21.81	0.89	14032.00	2.49	[illegible]	0.59	37243.00	[illegible]	[illegible]	[illegible]
PENNSYLVANIA	44088.00	18.81	11.92	1.17	9631.00	4.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INDIANA	55998.00	19.49	15.14	1.21	13261.00	4.62	13.69	1.09	13042.00	4.54	8.83	0.71
MARYLAND	39757.00	16.42	10.75	1.02	9405.00	3.88	9.71	0.92	21654.00	8.94	14.66	1.39
MICHIGAN	80638.00	14.29	21.81	0.89	14032.00	2.49	14.48	0.59	37242.00	6.60	25.21	1.03
PENNSYLVANIA	44088.00	18.81	11.92	1.17	9631.00	4.11	9.94	0.97	9993.00	4.26	6.76	0.66
TEXAS	104991.00	13.69	28.39	0.85	29739.00	3.88	30.69	0.92	45657.00	5.95	30.90	0.93
WASHINGTON	44297.00	21.73	11.98	1.35	20819.00	10.21	21.49	2.42	20156.00	9.89	13.64	1.54
TOTAL	369769.00	16.09	100.00	1.00	96887.00	4.21	100.00	1.00	147744.00	6.43	100.00	1.00

STATE	TOTAL	% OF STATES VEHICLES	% OF CROSSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	287248.00	100.00	12.50	1.00
MARYLAND	242155.00	100.00	10.53	1.00
MICHIGAN	564458.00	100.00	24.55	1.00
PENNSYLVANIA	234395.00	100.00	10.20	1.00
TEXAS	766698.00	100.00	33.35	1.00
WASHINGTON	203838.00	100.00	8.87	1.00
TOTAL	2298792.00	100.00	100.00	1.00

SOURCE: CARDfile

PASSENGER

STATE	BRAKES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	STEERING	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TIRES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1569.00	0.55	22.43	1.79	461.00	0.16	30.27	2.42	584.00	0.20	8.92	0.71
MARYLAND	1025.00	0.42	14.65	1.39	205.00	0.08	13.46	1.28	1336.00	0.55	20.40	1.94
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	362.00	0.06	5.53	0.22
PENNSYLVANIA	862.00	0.37	12.32	1.21	395.00	0.17	25.94	2.54	883.00	0.38	13.48	1.32
TEXAS	2613.00	0.34	37.35	1.12	279.00	0.04	18.32	0.55	1149.00	0.15	17.55	0.53
WASHINGTON	927.00	0.45	13.25	1.49	183.00	0.09	12.02	1.35	2234.00	1.10	34.12	3.85
TOTAL	6996.00	0.30	100.00	1.00	1523.00	0.07	100.00	1.00	6548.00	0.28	100.00	1.00

STATE	WHEELS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	HEADLIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL/STOP LIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	0.00	0.00	0.00	0.00	464.00	0.16	32.24	2.58	0.00	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00	0.00	250.00	0.10	17.37	1.65	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	73.00	0.03	5.07	0.50	24.00	0.01	6.11	0.60
TEXAS	209.00	0.03	71.82	2.15	540.00	0.07	37.53	1.12	176.00	0.02	44.78	1.34
WASHINGTON	82.00	0.04	28.18	3.18	112.00	0.05	7.78	0.88	193.00	0.09	49.11	5.54
TOTAL	291.00	0.01	100.00	1.00	1439.00	0.06	100.00	1.00	393.00	0.02	100.00	1.00

STATE	HITCH	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	EXHAUST	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	93.00	0.03	58.12	4.65	0.00	0.00	0.00	0.00	745.00	0.26	8.73	0.70
MARYLAND	0.00	0.00	0.00	0.00	57.00	0.02	100.00	9.49	1561.00	0.64	18.28	1.74
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2790.00	0.49	32.68	1.33
PENNSYLVANIA	28.00	0.01	17.50	1.72	0.00	0.00	0.00	0.00	1374.00	0.59	16.09	1.58
TEXAS	39.00	0.00	24.37	0.73	0.00	0.00	0.00	0.00	1193.00	0.16	13.97	0.42
WASHINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	875.00	0.43	10.25	1.16
TOTAL	160.00	0.01	100.00	1.00	57.00	0.00	100.00	1.00	8538.00	0.37	100.00	1.00

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL PASSENGER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	211487.00	73.62	12.94	1.04	215403.00	74.99	12.97	1.04
MARYLAND	173784.00	71.77	10.63	1.01	178218.00	73.60	10.73	1.02
MICHIGAN	421350.00	74.65	25.78	1.05	424502.00	75.21	25.57	1.04
PENNSYLVANIA	179024.00	76.38	10.95	1.07	182663.00	77.93	11.00	1.08
TEXAS	510416.00	66.57	31.23	0.94	516614.00	67.38	31.11	0.93
WASHINGTON	138327.00	67.86	8.46	0.95	142933.00	70.12	8.61	0.97
TOTAL	1634398.00	71.10	100.00	1.00	1660333.00	72.23	100.00	1.00

TEXAS	510416.00	66.57	31.23	0.94	516614.00	67.38	31.11	0.93
WASHINGTON	138327.00	67.86	8.46	0.95	142933.00	70.12	8.61	0.97
TOTAL	1634388.00	71.10	100.00	1.00	1660333.00	72.23	100.00	1.00

LIGHT TRUCKS

STATE	BRAKES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	STEERING	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TIRES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	361.00	0.13	16.94	1.36	128.00	0.04	23.23	1.86	144.00	0.05	7.64	0.61
MARYLAND	200.00	0.08	9.38	0.89	52.00	0.02	9.44	0.90	276.00	0.11	14.64	1.39
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.00	0.01	3.45	0.14
PENNSYLVANIA	170.00	0.07	7.98	0.78	137.00	0.06	24.86	2.44	211.00	0.09	11.19	1.10
TEXAS	985.00	0.13	46.22	1.39	144.00	0.02	26.13	0.78	506.00	0.07	26.84	0.80
WASHINGTON	415.00	0.20	19.47	2.20	90.00	0.04	16.33	1.84	683.00	0.33	36.23	4.09
TOTAL	2131.00	0.09	100.00	1.00	551.00	0.02	100.00	1.00	1885.00	0.08	100.00	1.00

STATE	WHEELS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	HEADLIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL/STOP LIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	0.00	0.00	0.00	0.00	142.00	0.05	26.94	2.16	0.00	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00	0.00	64.00	0.03	12.14	1.15	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	23.00	0.01	4.36	0.43	12.00	0.00	4.01	0.39
TEXAS	203.00	0.03	80.56	2.41	241.00	0.03	45.73	1.37	184.00	0.02	61.54	1.84
WASHINGTON	49.00	0.02	19.44	2.19	57.00	0.03	10.82	1.22	103.00	0.05	34.45	3.88
TOTAL	252.00	0.01	100.00	1.00	527.00	0.02	100.00	1.00	299.00	0.01	100.00	1.00

STATE	HITCH	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	EXHAUST	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	148.00	0.05	33.04	2.64	0.00	0.00	0.00	0.00	115.00	0.04	4.76	0.38
MARYLAND	0.00	0.00	0.00	0.00	10.00	0.00	90.91	8.63	294.00	0.12	12.16	1.15
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	799.00	0.14	33.06	1.35
PENNSYLVANIA	48.00	0.02	10.71	1.05	0.00	0.00	0.00	0.00	328.00	0.14	13.57	1.33
TEXAS	252.00	0.03	56.25	1.69	1.00	0.00	9.09	0.27	561.00	0.07	23.21	0.70
WASHINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	320.00	0.16	13.24	1.49
TOTAL	448.00	0.02	100.00	1.00	11.00	0.00	100.00	1.00	2417.00	0.11	100.00	1.00

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL LIGHT TRUCKS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	36584.00	12.74	10.14	0.81	37622.00	13.10	10.19	0.82
MARYLAND	25918.00	10.70	[illegible]	[illegible]	26814.00	11.07	7.26	0.69

INDIANA	38389.00	12.74	10.14	0.81
MARYLAND	25918.00	10.70	7.18	0.68
MICHIGAN	69293.00	12.28	19.21	0.78
PENNSYLVANIA	29688.00	12.67	8.23	0.81
TEXAS	160150.00	20.89	44.40	1.33
WASHINGTON	39086.00	19.17	10.84	1.22
TOTAL	360719.00	15.69	100.00	1.00

37622.00	[illegible]	[illegible]	[illegible]
26814.00	11.07	7.26	0.69
70157.00	12.43	19.00	0.77
30617.00	13.06	8.29	0.81
163227.00	21.29	44.21	1.33
40803.00	20.02	11.05	1.25
369240.00	16.06	100.00	1.00

MEDIUM/HEAVY TRUCKS

STATE	BRAKES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	STEERING	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TIRES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	409.00	0.14	18.68	1.49	64.00	0.02	27.23	2.18	136.00	0.05	16.40	1.31
MARYLAND	336.00	0.14	15.34	1.46	30.00	0.01	12.77	1.21	112.00	0.05	13.51	1.28
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.00	0.01	6.15	0.25
PENNSYLVANIA	344.00	0.15	15.71	1.54	65.00	0.03	27.66	2.71	132.00	0.06	15.92	1.56
TEXAS	751.00	0.10	34.29	1.03	59.00	0.01	25.11	0.75	303.00	0.04	36.55	1.10
WASHINGTON	350.00	0.17	15.98	1.80	17.00	0.01	7.23	0.82	95.00	0.05	11.46	1.29
TOTAL	2190.00	0.09	100.00	1.00	235.00	0.01	100.00	1.00	829.00	0.04	100.00	1.00

STATE	WHEELS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	HEADLIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL/STOP LIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	0.00	0.00	0.00	0.00	89.00	0.03	31.90	2.55	0.00	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00	0.00	39.00	0.02	13.98	1.33	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	18.00	0.01	6.45	0.63	13.00	0.01	8.61	0.84
TEXAS	220.00	0.03	88.35	2.65	113.00	0.01	40.50	1.21	85.00	0.01	56.29	1.69
WASHINGTON	29.00	0.01	11.65	1.31	20.00	0.01	7.17	0.81	53.00	0.03	35.10	3.96
TOTAL	249.00	0.01	100.00	1.00	279.00	0.01	100.00	1.00	151.00	0.01	100.00	1.00

STATE	HITCH	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	EXHAUST	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	300.00	0.10	56.18	4.50	0.00	0.00	0.00	0.00	70.00	0.02	3.81	0.30
MARYLAND	0.00	0.00	0.00	0.00	4.00	0.00	80.00	7.59	222.00	0.09	12.07	1.15
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	518.00	0.09	28.17	1.15
PENNSYLVANIA	41.00	0.02	7.68	0.75	0.00	0.00	0.00	0.00	532.00	0.23	28.93	2.84
TEXAS	193.00	0.02	36.14	1.08	1.00	0.00	20.00	0.60	305.00	0.04	16.58	0.50
WASHINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	192.00	0.09	10.44	1.18
TOTAL	534.00	0.02	100.00	1.00	5.00	0.00	100.00	1.00	1839.00	0.08	100.00	1.00

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT	% OF CARDSTATES'	RATIO OF STATE % TO					TOTAL HEAVY/MEDIUM	% OF STATE ACCIDENT	% OF CARDSTATES'	RATIO OF STATE % TO

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL MOTORCYCLE/ MOPED	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3813.00	1.33	11.22	0.90	3955.00	1.38	11.24	0.90
MARYLAND	3205.00	1.32	9.43	0.89	3375.00	1.39	9.59	0.91
MICHIGAN	6942.00	1.23	20.42	0.83	7091.00	1.26	20.15	0.82
PENNSYLVANIA	5310.00	2.27	15.62	1.53	5459.00	2.33	15.51	1.52
TEXAS	11333.00	1.48	33.34	1.00	11658.00	1.52	33.13	0.99
WASHINGTON	3388.00	1.66	9.97	1.12	3650.00	1.79	10.37	1.17
TOTAL	33991.00	1.48	100.00	1.00	35188.00	1.53	100.00	1.00

OTHER

STATE	BRAKES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	STEERING	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TIRES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	86.00	0.03	15.01	1.20	18.00	0.01	30.51	2.44	21.00	0.01	14.00	1.12
MARYLAND	100.00	0.04	17.45	1.66	6.00	0.00	10.17	0.97	27.00	0.01	18.00	1.71
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.00	0.00	10.67	0.43
PENNSYLVANIA	29.00	0.01	5.06	0.50	8.00	0.00	13.56	1.33	3.00	0.00	2.00	0.20
TEXAS	338.00	0.04	58.99	1.77	22.00	0.00	37.29	1.12	69.00	0.01	46.00	1.38
WASHINGTON	20.00	0.01	3.49	0.39	5.00	0.00	8.47	0.96	14.00	0.01	9.33	1.05
TOTAL	573.00	0.02	100.00	1.00	59.00	0.00	100.00	1.00	150.00	0.01	100.00	1.00

STATE	WHEELS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	HEADLIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL/STOP LIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	0.00	0.00	0.00	0.00	28.00	0.01	20.90	1.67	0.00	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00	0.00	13.00	0.01	9.70	0.92	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	1.00	0.00	0.75	0.07	1.00	0.00	2.38	0.23
TEXAS	96.00	0.01	94.12	2.82	81.00	0.01	60.45	1.81	33.00	0.00	78.57	2.36
WASHINGTON	6.00	0.00	5.88	0.66	11.00	0.01	8.21	0.93	8.00	0.00	19.05	2.15
TOTAL	102.00	0.00	100.00	1.00	134.00	0.01	100.00	1.00	42.00	0.00	100.00	1.00

STATE	HITCH	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	EXHAUST	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	58.00	0.02	48.74	3.90	0.00	0.00	0.00	0.00	19.00	0.01	3.07	0.25
MARYLAND	0.00	0.00	0.00	0.00	4.00	0.00	100.00	9.49	110.00	0.05	17.77	1.69
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	254.00	0.04	41.03	1.67
PENNSYLVANIA	2.00	0.00	1.68	0.16	0.00	0.00	0.00	0.00	53.00	0.02	8.56	0.84

TEXAS	59.00	0.01	49.58	1.49	0.00	0.00	0.00	0.00	130.00	0.02	21.00	0.63
WASHINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.00	0.03	8.56	0.97
TOTAL	119.00	0.00	100.00	1.00	4.00	0.00	100.00	1.00	619.00	0.03	100.00	1.00

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	13344.00	4.65	10.44	0.83	13574.00	4.73	10.47	0.84
MARYLAND	23387.00	9.66	18.29	1.74	23647.00	9.76	18.24	1.73
MICHIGAN	45794.00	8.11	35.81	1.46	46064.00	8.16	35.52	1.45
PENNSYLVANIA	4099.00	1.75	3.21	0.31	4196.00	1.79	3.24	0.32
TEXAS	32313.00	4.21	25.27	0.76	33141.00	4.32	25.56	0.77
WASHINGTON	8927.00	4.38	6.98	0.79	9044.00	4.44	6.97	0.79
TOTAL	127864.00	5.56	100.00	1.00	129666.00	5.64	100.00	1.00

TOTAL

STATE	BRAKES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	STEERING	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TIRES	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	2449.00	0.85	20.33	1.63	694.00	0.24	28.72	2.30	920.00	0.32	9.44	0.76
MARYLAND	1696.00	0.70	14.08	1.34	297.00	0.12	12.29	1.17	1805.00	0.75	18.51	1.76
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	529.00	0.09	5.43	0.22
PENNSYLVANIA	1418.00	0.60	11.77	1.15	619.00	0.26	25.62	2.51	1267.00	0.54	13.00	1.27
TEXAS	4746.00	0.62	39.40	1.18	504.00	0.07	20.86	0.63	2108.00	0.27	21.62	0.65
WASHINGTON	1737.00	0.85	14.42	1.63	302.00	0.15	12.50	1.41	3120.00	1.53	32.00	3.61
TOTAL	12046.00	0.52	100.00	1.00	2416.00	0.11	100.00	1.00	9749.00	0.42	100.00	1.00

STATE	WHEELS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	HEADLIGHTS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	SIGNAL/STOP	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	0.00	0.00	0.00	0.00	750.00	0.26	29.59	2.37	0.00	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00	0.00	382.00	0.16	15.07	1.43	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	123.00	0.05	4.85	0.48	51.00	0.02	5.72	0.56
TEXAS	729.00	0.09	81.45	2.44	1055.00	0.14	41.62	1.25	480.00	0.06	53.81	1.61
WASHINGTON	166.00	0.08	18.55	2.09	225.00	0.11	8.88	1.00	361.00	0.18	40.47	4.56
TOTAL	895.00	0.04	100.00	1.00	2535.00	0.11	100.00	1.00	892.00	0.04	100.00	1.00

STATE	HITCH	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	EXHAUST	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	OTHER	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	602.00	0.21	47.59	3.81	0.00	0.00	0.00	0.00	979.00	0.34	7.04	0.56
MARYLAND	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INDIANA	602.00	0.21	47.59	3.81	0.00	0.00	0.00	0.00	[illegible]	[illegible]	[illegible]	[illegible]
MARYLAND	0.00	0.00	0.00	0.00	77.00	0.03	97.47	9.25	2246.00	0.93	16.16	1.53
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4475.00	0.79	32.20	1.31
PENNSYLVANIA	120.00	0.05	9.49	0.93	0.00	0.00	0.00	0.00	2361.00	1.01	16.99	1.67
TEXAS	543.00	0.07	42.92	1.29	2.00	0.00	2.53	0.08	2291.00	0.30	16.48	0.49
WASHINGTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1547.00	0.76	11.13	1.25
TOTAL	1265.00	0.05	100.00	1.00	79.00	0.00	100.00	1.00	13899.00	0.60	100.00	1.00

STATE	NONE/UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	280854.00	97.77	12.45	1.00	287248.00	100.00	12.50	1.00
MARYLAND	235652.00	97.31	10.45	0.99	242155.00	100.00	10.53	1.00
MICHIGAN	559454.00	99.11	24.81	1.01	564458.00	100.00	24.55	1.00
PENNSYLVANIA	228436.00	97.46	10.13	0.99	234395.00	100.00	10.20	1.00
TEXAS	754240.00	98.37	33.45	1.00	766698.00	100.00	33.35	1.00
WASHINGTON	196380.00	96.34	8.71	0.98	203838.00	100.00	8.87	1.00
TOTAL	2255016.00	98.10	100.00	1.00	2298792.00	100.00	100.00	1.00

SOURCE: CARDfile

FEMALE

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	14986.61	5.64	13.76	1.17	16510.84	6.22	11.67	0.99	12892.30	4.85	11.08	0.94
MARYLAND	9466.64	3.91	8.69	0.81	13629.95	5.63	9.64	0.90	12427.88	5.13	10.68	1.00
MICHIGAN	29492.79	5.22	27.09	1.09	34045.88	6.03	24.07	0.96	27041.29	4.79	23.23	0.93
PENNSYLVANIA	9604.50	4.35	8.82	0.90	13142.49	5.95	9.29	0.95	9774.82	4.43	8.40	0.86
TEXAS	34144.41	4.45	31.36	0.93	51470.66	6.71	36.39	1.07	43907.34	5.73	37.73	1.11
WASHINGTON	11188.08	5.49	10.27	1.14	12629.65	6.20	8.93	0.99	10336.34	5.07	8.88	0.99
TOTAL	108883.04	4.81	100.00	1.00	141429.47	6.25	100.00	1.00	116379.98	5.14	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	10966.46	4.13	11.52	0.98	8655.68	3.26	11.22	0.96	6382.06	2.40	11.77	1.00
MARYLAND	10216.32	4.22	10.73	1.00	8387.36	3.46	10.87	1.02	5987.09	2.47	11.04	1.03
MICHIGAN	22565.04	4.00	23.69	0.95	18892.46	3.35	24.48	0.98	13589.70	2.41	25.06	1.00
PENNSYLVANIA	7871.80	3.57	8.27	0.85	6548.13	2.97	8.49	0.87	4923.45	2.23	9.08	0.93
TEXAS	34491.63	4.50	36.22	1.07	26870.92	3.50	34.82	1.03	18152.35	2.37	33.48	0.99
WASHINGTON	9121.29	4.47	9.58	1.06	7813.29	3.83	10.12	1.12	5185.72	2.54	9.56	1.06
TOTAL	95232.54	4.21	100.00	1.00	77167.83	3.41	100.00	1.00	54220.37	2.39	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	4618.80	1.74	12.06	1.03	3995.41	1.50	12.16	1.04	3792.81	1.43	12.66	1.08
MARYLAND	4271.88	1.76	11.16	1.04	3444.65	1.42	10.48	0.98	3166.75	1.31	10.57	0.99
MICHIGAN	9376.14	1.66	24.49	0.98	8541.32	1.51	25.99	1.04	7617.21	1.35	25.43	1.02
PENNSYLVANIA	3544.84	1.61	9.26	0.95	3200.28	1.45	9.74	1.00	2986.59	1.35	9.97	1.02
TEXAS	12929.83	1.69	33.77	1.00	10695.82	1.39	32.54	0.96	9480.45	1.24	31.66	0.93
WASHINGTON	3543.20	1.74	9.25	1.03	2991.15	1.47	9.10	1.01	2904.14	1.42	9.70	1.08
TOTAL	38284.70	1.69	100.00	1.00	32868.63	1.45	100.00	1.00	29947.94	1.32	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3181.06	1.20	12.84	1.09	2415.60	0.91	13.09	1.12	4012.26	1.51	12.90	1.10
MARYLAND	2397.68	0.99	9.68	0.90	1607.93	0.66	8.72	0.81	2295.57	0.95	7.38	0.69
MICHIGAN	6323.44	1.12	25.53	1.02	4570.74	0.81	24.78	0.99	7285.98	1.29	23.43	0.94
PENNSYLVANIA	2514.53	1.14	10.15	1.04	1877.18	0.85	10.18	1.04	2639.26	1.20	8.49	0.87
TEXAS	7932.91	1.03	32.03	0.95	6064.40	0.79	32.87	0.97	11840.89	1.54	38.08	1.12
WASHINGTON	2419.07	1.19	9.77	1.08	1912.28	0.94	10.37	1.15	3019.04	1.48	9.71	1.08
TOTAL	[illegible]	1.09	100.00	1.00	18448.13	0.81	100.00	1.00	31093.00	1.37	100.00	1.00

TEXAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.97	[illegible]	[illegible]	[illegible]	[illegible]
WASHINGTON	2419.07	1.19	9.77	1.08	1912.28	0.94	10.37	1.15	3019.04	1.48	9.71	1.08
TOTAL	24768.70	1.09	100.00	1.00	18448.13	0.81	100.00	1.00	31093.00	1.37	100.00	1.00

STATE	TOTAL FEMALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	92409.89	34.80	12.02	1.02
MARYLAND	77299.71	31.92	10.06	0.94
MICHIGAN	189342.00	33.54	24.63	0.99
PENNSYLVANIA	68627.86	31.09	8.93	0.91
TEXAS	267981.60	34.95	34.86	1.03
WASHINGTON	73063.25	35.84	9.50	1.06
TOTAL	768724.32	33.96	100.00	1.00

MALE

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	29216.50	11.00	13.50	1.15	32603.32	12.28	11.02	0.94	25234.30	9.50	10.71	0.91
MARYLAND	20301.33	8.38	9.38	0.88	30692.42	12.67	10.38	0.97	26614.95	10.99	11.30	1.06
MICHIGAN	62101.25	11.00	28.70	1.15	71371.43	12.64	24.13	0.97	54810.33	9.71	23.27	0.93
PENNSYLVANIA	22625.48	10.25	10.46	1.07	30834.14	13.97	10.42	1.07	23105.23	10.47	9.81	1.01
TEXAS	61985.01	8.08	28.65	0.85	104991.27	13.69	35.50	1.05	86234.18	11.25	36.61	1.08
WASHINGTON	20125.15	9.87	9.30	1.03	25288.93	12.41	8.55	0.95	19572.15	9.60	8.31	0.92
TOTAL	216354.73	9.56	100.00	1.00	295781.50	13.07	100.00	1.00	235571.15	10.41	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	19307.47	7.27	10.93	0.93	14765.12	5.56	11.06	0.94	11150.79	4.20	11.53	0.98
MARYLAND	20253.11	8.36	11.46	1.07	15963.24	6.59	11.96	1.12	11930.08	4.93	12.34	1.15
MICHIGAN	42228.39	7.48	23.90	0.96	32481.17	5.75	24.33	0.98	24456.34	4.33	25.29	1.01
PENNSYLVANIA	17015.63	7.71	9.63	0.99	12977.65	5.88	9.72	1.00	9723.68	4.40	10.05	1.03
TEXAS	62358.93	8.13	35.29	1.04	45104.05	5.88	33.79	1.00	30898.32	4.03	31.95	0.94
WASHINGTON	15556.58	7.63	8.80	0.98	12192.25	5.98	9.13	1.01	8552.50	4.20	8.84	0.98
TOTAL	176720.11	7.81	100.00	1.00	133483.48	5.90	100.00	1.00	96711.92	4.27	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	8605.73	3.24	11.91	1.01	7731.33	2.91	12.02	1.02	7499.31	2.82	12.34	1.05
MARYLAND	9159.34	3.78	12.67	1.18	7749.66	3.20	12.05	[illegible]	7242.75	2.99	11.91	1.11

MICHIGAN	17985.34	3.19	24.87	1.00	18672.33	2.93	29.02	1.04	[illegible]	[illegible]	[illegible]	[illegible]
PENNSYLVANIA	7134.00	3.23	9.87	1.01	6756.47	3.06	10.50	1.08	6669.03	3.02	10.97	1.12
TEXAS	23072.33	3.01	31.93	0.94	20146.96	2.63	31.32	0.92	18270.19	2.38	30.05	0.89
WASHINGTON	6305.12	3.09	8.72	0.97	5259.87	2.58	8.18	0.91	4881.00	2.39	8.03	0.89
TOTAL	72260.85	3.19	100.00	1.00	64316.62	2.84	100.00	1.00	60789.68	2.69	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	6161.18	2.32	12.22	1.04	4398.32	1.66	12.24	1.04	6475.73	2.44	11.48	0.98
MARYLAND	5900.53	2.44	11.70	1.09	3951.06	1.63	10.99	1.03	5097.81	2.10	9.03	0.84
MICHIGAN	13326.17	2.36	26.42	1.06	9325.22	1.65	25.95	1.04	14181.63	2.51	25.13	1.01
PENNSYLVANIA	5476.43	2.48	10.86	1.11	3919.29	1.78	10.91	1.12	5887.91	2.67	10.43	1.07
TEXAS	15329.22	2.00	30.39	0.90	10956.64	1.43	30.49	0.90	19369.28	2.53	34.33	1.01
WASHINGTON	4243.90	2.08	8.41	0.93	3386.30	1.66	9.42	1.05	5411.00	2.65	9.59	1.06
TOTAL	50437.42	2.23	100.00	1.00	35936.84	1.59	100.00	1.00	56423.36	2.49	100.00	1.00

STATE	TOTAL MALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	173149.11	65.20	11.58	0.99
MARYLAND	164855.29	68.08	11.03	1.03
MICHIGAN	375167.00	66.46	25.10	1.01
PENNSYLVANIA	152125.14	68.91	10.18	1.04
TEXAS	498716.40	65.05	33.36	0.98
WASHINGTON	130774.75	64.16	8.75	0.97
TOTAL	1494787.68	66.04	100.00	1.00

TOTAL

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	44203.11	16.65	13.59	1.16	49114.16	18.49	11.23	0.96	38126.61	14.36	10.83	0.92
MARYLAND	29767.97	12.29	9.15	0.86	44322.37	18.30	10.14	0.95	39042.83	16.12	11.09	1.04
MICHIGAN	91594.04	16.22	28.16	1.13	105417.31	18.67	24.11	0.97	81851.62	14.50	23.26	0.93
PENNSYLVANIA	32229.98	14.60	9.91	1.02	43976.63	19.92	10.06	1.03	32880.05	14.89	9.34	0.96
TEXAS	96129.42	12.54	29.56	0.87	156461.93	20.41	35.79	1.06	130141.51	16.97	36.98	1.09
WASHINGTON	31313.24	15.36	9.63	1.07	37918.57	18.60	8.67	0.96	29908.50	14.67	8.50	0.94
TOTAL	325237.77	14.37	100.00	1.00	437210.98	19.32	100.00	1.00	351951.12	15.55	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %

		INVOLVED DRIVERS	CLASS	STATES %		INVOLVED DRIVERS	CLASS	STATE % TO STATES %		INVOLVED DRIVERS	CLASS	STATES %
INDIANA	30273.93	11.40	11.13	0.95	23420.80	8.82	11.12	0.95	17532.85	6.60	11.62	0.99
MARYLAND	30469.44	12.58	11.20	1.05	24350.60	10.06	11.56	1.08	17917.17	7.40	11.87	1.11
MICHIGAN	64793.43	11.48	23.83	0.96	51373.63	9.10	24.39	0.98	38046.04	6.74	25.21	1.01
PENNSYLVANIA	24887.43	11.27	9.15	0.94	19525.77	8.84	9.27	0.95	14647.33	6.63	9.70	0.99
TEXAS	96850.56	12.63	35.61	1.05	71974.97	9.39	34.17	1.01	49050.67	6.40	32.50	0.96
WASHINGTON	24677.87	12.11	9.07	1.01	20005.54	9.81	9.50	1.05	13738.22	6.74	9.10	1.01
TOTAL	271952.66	12.01	100.00	1.00	210651.32	9.31	100.00	1.00	150932.28	6.67	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	13224.53	4.98	11.96	1.02	11726.74	4.42	12.07	1.03	11292.12	4.25	12.44	1.06
MARYLAND	13430.22	5.55	12.15	1.14	11194.31	4.62	11.52	1.08	10409.50	4.30	11.47	1.07
MICHIGAN	27361.48	4.85	24.75	0.99	25213.65	4.47	25.94	1.04	23844.61	4.22	26.28	1.05
PENNSYLVANIA	10678.84	4.84	9.66	0.99	9956.75	4.51	10.25	1.05	9655.61	4.37	10.64	1.09
TEXAS	36002.15	4.70	32.57	0.96	30842.78	4.02	31.74	0.94	27750.65	3.62	30.58	0.90
WASHINGTON	9848.32	4.83	8.91	0.99	8251.02	4.05	8.49	0.94	7785.14	3.82	8.58	0.95
TOTAL	110545.55	4.88	100.00	1.00	97185.25	4.29	100.00	1.00	90737.62	4.01	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	9342.24	3.52	12.42	1.06	6813.92	2.57	12.53	1.07	10487.98	3.95	11.98	1.02
MARYLAND	8298.22	3.43	11.03	1.03	5559.00	2.30	10.22	0.96	7393.38	3.05	8.45	0.79
MICHIGAN	19649.61	3.48	26.13	1.05	13895.96	2.46	25.55	1.02	21467.61	3.80	24.53	0.98
PENNSYLVANIA	7990.95	3.62	10.63	1.09	5796.47	2.63	10.66	1.09	8527.17	3.86	9.74	1.00
TEXAS	23262.13	3.03	30.93	0.91	17021.04	2.22	31.30	0.92	31210.17	4.07	35.66	1.05
WASHINGTON	6662.97	3.27	8.86	0.93	5298.58	2.60	9.74	1.08	8430.04	4.14	9.63	1.07
TOTAL	75206.12	3.32	100.00	1.00	54384.97	2.40	100.00	1.00	87516.36	3.87	100.00	1.00

STATE	TOTAL	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	265559.00	100.00	11.73	1.00
MARYLAND	242155.00	100.00	10.70	1.00
MICHIGAN	564509.00	100.00	24.94	1.00
PENNSYLVANIA	220753.00	100.00	9.75	1.00
TEXAS	766698.00	100.00	33.87	1.00
WASHINGTON	203838.00	100.00	9.01	1.00
TOTAL	2263512.00	100.00	100.00	1.00

SEX SUMMARY

SEX SUMMARY

STATE	TOTAL MALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL FEMALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	173149.11	65.20	11.58	0.99	92409.89	34.80	12.02	1.02	265559.00	100.00	11.73	1.00
MARYLAND	164855.29	68.08	11.03	1.03	77299.71	31.92	10.06	0.94	242155.00	100.00	10.70	1.00
MICHIGAN	375167.00	66.46	25.10	1.01	189342.00	33.54	24.63	0.99	564509.00	100.00	24.94	1.00
PENNSYLVANIA	152125.14	68.91	10.18	1.04	68627.86	31.09	8.93	0.91	220753.00	100.00	9.75	1.00
TEXAS	498716.40	65.05	33.36	0.98	267981.60	34.95	34.86	1.03	766698.00	100.00	33.87	1.00
WASHINGTON	130774.75	64.16	8.75	0.97	73063.25	35.84	9.50	1.06	203838.00	100.00	9.01	1.00
TOTAL	1494787.68	66.04	100.00	1.00	768724.32	33.96	100.00	1.00	2263512.00	100.00	100.00	1.00

SOURCE: CARDfile

PHASE II APPENDIX TABLE 10B: DRIVERS IN ACCIDENTS BY SEX, BY AGE, BY STATE (ALL ACCIDENTS, UNKNOWN SEX AND AGE SHOWN)

FEMALE

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	14308.00	5.39	14.30	1.22	15762.00	5.94	12.17	1.04	12310.00	4.64	11.58	0.99
MARYLAND	7324.00	3.02	7.32	0.68	10545.00	4.35	8.14	0.76	9615.00	3.97	9.05	0.85
MICHIGAN	28404.00	5.03	28.39	1.14	32789.00	5.81	25.31	1.01	26043.00	4.61	24.50	0.98
PENNSYLVANIA	9393.00	4.25	9.39	0.96	12853.00	5.82	9.92	1.02	9559.00	4.33	8.99	0.92
TEXAS	31150.00	4.06	31.14	0.92	46926.00	6.12	36.22	1.07	40020.00	5.22	37.65	1.11
WASHINGTON	9458.00	4.64	9.45	1.05	10675.00	5.24	8.24	0.91	8738.00	4.29	8.22	0.91
TOTAL	100037.00	4.42	100.00	1.00	129550.00	5.72	100.00	1.00	106285.00	4.70	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	10471.00	3.94	12.04	1.03	8263.00	3.11	11.73	1.00	6094.00	2.29	12.30	1.05
MARYLAND	7904.00	3.26	9.09	0.85	6489.00	2.68	9.21	0.86	4632.00	1.91	9.35	0.87
MICHIGAN	21732.00	3.85	24.99	1.00	18195.00	3.22	25.82	1.04	13088.00	2.32	26.41	1.06
PENNSYLVANIA	7698.00	3.49	8.85	0.91	6404.00	2.90	9.09	0.93	4815.00	2.18	9.72	1.00
TEXAS	31434.00	4.10	36.15	1.07	24499.00	3.20	34.77	1.03	16545.00	2.16	33.38	0.99
WASHINGTON	7712.00	3.78	8.87	0.98	6607.00	3.24	9.38	1.04	4386.00	2.15	8.85	0.98
TOTAL	86951.00	3.84	100.00	1.00	70457.00	3.11	100.00	1.00	49560.00	2.19	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	4407.00	1.66	12.59	1.07	3814.00	1.44	12.66	1.08	3623.00	1.36	13.21	1.13
MARYLAND	3305.00	1.36	9.44	0.88	2665.00	1.10	8.85	0.83	2450.00	1.01	8.93	0.83
MICHIGAN	9030.00	1.60	25.80	1.03	8226.00	1.46	27.31	1.09	7336.00	1.30	26.75	1.07
PENNSYLVANIA	3467.00	1.57	9.91	1.02	3130.00	1.42	10.39	1.07	2921.00	1.32	10.65	1.09
TEXAS	11790.00	1.54	33.69	0.99	9754.00	1.27	32.39	0.96	8642.00	1.13	31.51	0.93
WASHINGTON	2996.00	1.47	8.56	0.95	2529.00	1.24	8.40	0.93	2456.00	1.20	8.95	0.99
TOTAL	34995.00	1.55	100.00	1.00	30118.00	1.33	100.00	1.00	27428.00	1.21	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	3037.00	1.14	13.37	1.14	2308.00	0.87	13.62	1.16	3831.00	1.44	13.42	1.14
MARYLAND	1855.00	0.77	8.16	0.76	1244.00	0.51	7.34	0.69	1776.00	0.73	6.22	0.58
MICHIGAN	6090.00	1.08	26.81	1.07	4402.00	0.78	25.99	1.04	7017.00	1.24	24.57	0.98
PENNSYLVANIA	2459.00	1.11	10.82	1.11	1835.00	0.83	10.83	1.11	2581.00	1.17	9.04	0.93
TEXAS	7232.00	0.94	31.83	0.94	5534.00	0.72	32.67	0.96	10799.00	1.41	37.82	1.12
WASHINGTON	2046.00	1.00	9.01	1.00	1617.00	0.79	9.55	1.06	2552.00	1.25	8.94	0.99

TEXAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WASHINGTON	2046.00	1.00	9.01	1.00	1617.00	0.79	9.55	1.06	2532.00	[illegible]	[illegible]	[illegible]
TOTAL	22719.00	1.00	100.00	1.00	16940.00	0.75	100.00	1.00	28556.00	1.26	100.00	1.00

STATE	UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	672.00	0.25	4.36	0.37
MARYLAND	197.00	0.08	1.28	0.12
MICHIGAN	6990.00	1.24	45.32	1.82
PENNSYLVANIA	330.00	0.15	2.14	0.22
TEXAS	3771.00	0.49	24.45	0.72
WASHINGTON	3465.00	1.70	22.46	2.49
TOTAL	15425.00	0.68	100.00	1.00

TOTAL FEMALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
88900.00	33.48	12.36	1.05
60001.00	24.78	8.34	0.78
189342.00	33.54	26.33	1.06
67445.00	30.55	9.38	0.96
248096.00	32.36	34.50	1.02
65237.00	32.00	9.07	1.01
719021.00	31.77	100.00	1.00

MALE

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	27798.00	10.47	14.45	1.23	31018.00	11.68	11.80	1.01	24012.00	9.04	11.49	0.98
MARYLAND	15579.00	6.43	8.10	0.76	23553.00	9.73	8.96	0.84	20424.00	8.43	9.77	0.91
MICHIGAN	54155.00	9.59	28.15	1.13	62239.00	11.03	23.68	0.95	47797.00	8.47	22.87	0.92
PENNSYLVANIA	21993.00	9.96	11.43	1.17	29972.00	13.58	11.41	1.17	22458.00	10.17	10.75	1.10
TEXAS	56072.00	7.31	29.15	0.86	94914.00	12.38	36.12	1.07	77937.00	10.16	37.30	1.10
WASHINGTON	16779.00	8.23	8.72	0.97	21081.00	10.34	8.02	0.89	16318.00	8.01	7.81	0.87
TOTAL	192376.00	8.50	100.00	1.00	262777.00	11.61	100.00	1.00	208946.00	9.23	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	18372.00	6.92	11.73	1.00	14047.00	5.29	11.89	1.01	10611.00	4.00	12.40	1.06
MARYLAND	15542.00	6.42	9.92	0.93	12250.00	5.06	10.37	0.97	9155.00	3.78	10.69	1.00
MICHIGAN	36825.00	6.52	23.51	0.94	28325.00	5.02	23.97	0.96	21327.00	3.78	24.91	1.00
PENNSYLVANIA	16539.00	7.49	10.56	1.08	12615.00	5.71	10.67	1.09	9452.00	4.28	11.04	1.13
TEXAS	56352.00	7.35	35.98	1.06	40776.00	5.32	34.50	1.02	27925.00	3.64	32.62	0.96
WASHINGTON	12972.00	6.36	8.28	0.92	10168.00	4.99	8.60	0.96	7134.00	3.50	8.33	0.93
TOTAL	156602.00	6.92	100.00	1.00	118181.00	5.22	100.00	1.00	85604.00	3.78	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	8183.00	3.08	12.80	1.09	7355.00	2.77	12.90	1.10	7139.00	2.69	13.24	1.13
MARYLAND	7078.00	2.90	10.99	1.03	5947.00	2.46	10.43	0.97	5558.00	2.30	10.31	0.96
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.51	26.25	1.05

INDIANA	8103.00	3.08	12.80	1.09	7355.00	2.77	12.90	1.10	7139.00	2.69	13.24	1.13
MARYLAND	7028.00	2.90	10.99	1.03	5947.00	2.46	10.43	0.97	5558.00	2.30	10.31	0.96
MICHIGAN	15684.00	2.78	24.53	0.98	14539.00	2.58	25.50	1.02	14151.00	2.51	26.25	1.05
PENNSYLVANIA	6935.00	3.14	10.84	1.11	6568.00	2.97	11.52	1.18	6483.00	2.94	12.02	1.23
TEXAS	20861.00	2.72	32.62	0.96	18218.00	2.38	31.95	0.94	16514.00	2.15	30.63	0.90
WASHINGTON	5258.00	2.58	8.22	0.91	4386.00	2.15	7.69	0.85	4071.00	2.00	7.55	0.84
TOTAL	63949.00	2.82	100.00	1.00	57013.00	2.52	100.00	1.00	53916.00	2.38	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	5862.00	2.21	13.10	1.12	4188.00	1.58	13.13	1.12	6162.00	2.32	12.28	1.05
MARYLAND	4528.00	1.87	10.12	0.95	3032.00	1.25	9.51	0.89	3912.00	1.62	7.79	0.73
MICHIGAN	11621.00	2.06	25.98	1.04	8132.00	1.44	25.49	1.02	12367.00	2.19	24.64	0.99
PENNSYLVANIA	5323.00	2.41	11.90	1.22	3808.00	1.72	11.94	1.22	5723.00	2.59	11.40	1.17
TEXAS	13857.00	1.81	30.98	0.91	9914.00	1.29	31.08	0.92	17516.00	2.28	34.90	1.03
WASHINGTON	3540.00	1.74	7.91	0.88	2824.00	1.38	8.85	0.98	4511.00	2.21	8.99	1.00
TOTAL	44731.00	1.98	100.00	1.00	31898.00	1.41	100.00	1.00	50191.00	2.22	100.00	1.00

STATE	UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1848.00	0.70	2.55	0.22
MARYLAND	1754.00	0.72	2.42	0.23
MICHIGAN	48005.00	8.50	66.36	2.66
PENNSYLVANIA	1650.00	0.75	2.28	0.23
TEXAS	11163.00	1.46	15.43	0.46
WASHINGTON	7916.00	3.88	10.94	1.21
TOTAL	72336.00	3.20	100.00	1.00

TOTAL MALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
166595.00	62.73	11.91	1.02
128262.00	52.97	9.17	0.86
375167.00	66.46	26.83	1.08
149519.00	67.73	10.69	1.10
462019.00	60.26	33.04	0.98
116958.00	57.38	8.36	0.93
1398520.00	61.79	100.00	1.00

UNKNOWN SEX

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	47.00	0.02	14.20	1.21	56.00	0.02	9.08	0.77	36.00	0.01	6.77	0.58
MARYLAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	2.00	0.00	0.60	0.06	3.00	0.00	0.49	0.05	4.00	0.00	0.75	0.08
TEXAS	262.00	0.03	79.15	2.34	528.00	0.07	85.57	2.53	473.00	0.06	88.91	2.62
WASHINGTON	20.00	0.01	6.04	0.67	30.00	0.01	4.86	0.54	19.00	0.01	3.57	0.40
TOTAL	331.00	0.01	100.00	1.00	617.00	0.03	100.00	1.00	532.00	0.02	100.00	1.00

STATE	30 TO 34	% OF STATE	% OF	RATIO OF	35 TO 39	% OF STATE	% OF

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	29.00	0.01	7.11	0.61	27.00	0.01	9.78	0.83	16.00	0.01	8.08	0.69
MARYLAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	3.00	0.00	0.73	0.08	1.00	0.00	0.36	0.04	1.00	0.00	0.50	0.05
TEXAS	364.00	0.05	89.22	2.63	241.00	0.03	87.32	2.58	179.00	0.02	90.40	2.67
WASHINGTON	12.00	0.01	2.94	0.33	7.00	0.00	2.54	0.28	2.00	0.00	1.01	0.11
TOTAL	408.00	0.02	100.00	1.00	276.00	0.01	100.00	1.00	198.00	0.01	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	22.00	0.01	15.49	1.32	14.00	0.00	12.28	1.05	6.00	0.00	5.66	0.48
MARYLAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TEXAS	116.00	0.02	81.69	2.41	96.00	0.01	84.21	2.49	98.00	0.01	92.45	2.73
WASHINGTON	4.00	0.00	2.82	0.31	4.00	0.00	3.51	0.39	2.00	0.00	1.89	0.21
TOTAL	142.00	0.01	100.00	1.00	114.00	0.00	100.00	1.00	106.00	0.00	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	10.00	0.00	10.87	0.93	2.00	0.00	4.08	0.35	10.00	0.00	8.93	0.76
MARYLAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	1.00	0.00	1.09	0.11	3.00	0.00	6.12	0.63	1.00	0.00	0.89	0.09
TEXAS	80.00	0.01	86.96	2.57	42.00	0.01	85.71	2.53	95.00	0.01	84.82	2.50
WASHINGTON	1.00	0.00	1.09	0.12	2.00	0.00	4.08	0.45	6.00	0.00	5.36	0.59
TOTAL	92.00	0.00	100.00	1.00	49.00	0.00	100.00	1.00	112.00	0.00	100.00	1.00

STATE	UNKNOWN	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL UNKNOWN SEX	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	9789.00	3.69	6.85	0.58	10064.00	3.79	6.89	0.59
MARYLAND	53892.00	22.25	37.69	3.52	53892.00	22.25	36.92	3.45
MICHIGAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENNSYLVANIA	3770.00	1.71	2.64	0.27	3789.00	1.72	2.60	0.27
TEXAS	54009.00	7.04	37.77	1.12	56583.00	7.38	38.76	1.14
WASHINGTON	21534.00	10.56	15.06	1.67	21643.00	10.62	14.83	1.65
TOTAL	142994.00	6.32	100.00	1.00	145971.00	6.45	100.00	1.00

STATE	19 OR LESS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	20 TO 24	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	25 TO 29	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	42106.00	15.86	14.40	1.23	46780.00	17.62	11.92	1.02	36322.00	13.68	11.52	0.98
MARYLAND	22903.00	9.46	7.83	0.73	34098.00	14.08	8.69	0.81	30039.00	12.40	9.53	0.89
MICHIGAN	82559.00	14.62	28.23	1.13	95028.00	16.83	24.22	0.97	73840.00	13.08	23.42	0.94
PENNSYLVANIA	31386.00	14.22	10.73	1.10	42825.00	19.40	10.92	1.12	32017.00	14.50	10.16	1.04
TEXAS	87222.00	11.38	29.83	0.88	141840.00	18.50	36.15	1.07	117957.00	15.38	37.42	1.10
WASHINGTON	26237.00	12.87	8.97	1.00	31756.00	15.58	8.09	0.90	25056.00	12.29	7.95	0.88
TOTAL	292413.00	12.92	100.00	1.00	392327.00	17.33	100.00	1.00	315231.00	13.93	100.00	1.00

STATE	30 TO 34	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	35 TO 39	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	40 TO 44	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	28843.00	10.86	11.84	1.01	22310.00	8.40	11.83	1.01	16705.00	6.29	12.36	1.05
MARYLAND	23446.00	9.68	9.63	0.90	18739.00	7.74	9.93	0.93	13787.00	5.69	10.20	0.95
MICHIGAN	58557.00	10.37	24.04	0.96	46520.00	8.24	24.66	0.99	34415.00	6.10	25.46	1.02
PENNSYLVANIA	24237.00	10.98	9.95	1.02	19019.00	8.62	10.08	1.03	14267.00	6.46	10.56	1.08
TEXAS	87786.00	11.45	36.04	1.06	65275.00	8.51	34.60	1.02	44470.00	5.80	32.90	0.97
WASHINGTON	20684.00	10.15	8.49	0.94	16775.00	8.23	8.89	0.99	11520.00	5.65	8.52	0.95
TOTAL	243553.00	10.76	100.00	1.00	188638.00	8.33	100.00	1.00	135164.00	5.97	100.00	1.00

STATE	45 TO 49	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	50 TO 54	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	55 TO 59	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	12590.00	4.74	12.72	1.08	11169.00	4.21	12.82	1.09	10762.00	4.05	13.23	1.13
MARYLAND	10333.00	4.27	10.44	0.98	8612.00	3.56	9.88	0.92	8008.00	3.31	9.84	0.92
MICHIGAN	24714.00	4.38	24.98	1.00	22765.00	4.03	26.13	1.05	21487.00	3.81	26.41	1.06
PENNSYLVANIA	10402.00	4.71	10.51	1.08	9698.00	4.39	11.13	1.14	9404.00	4.26	11.56	1.18
TEXAS	32651.00	4.26	33.00	0.97	27972.00	3.65	32.10	0.95	25156.00	3.28	30.93	0.91
WASHINGTON	8254.00	4.05	8.34	0.93	6915.00	3.39	7.94	0.88	6527.00	3.20	8.02	0.89
TOTAL	98944.00	4.37	100.00	1.00	87131.00	3.85	100.00	1.00	81344.00	3.59	100.00	1.00

STATE	60 TO 64	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	65 TO 69	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	70 PLUS	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	8899.00	3.35	13.19	1.12	6496.00	2.45	13.30	1.13	9993.00	3.76	12.69	1.08
MARYLAND	6383.00	2.64	9.46	0.88	4276.00	1.77	8.76	0.82	5688.00	2.35	7.22	0.67
MICHIGAN	17711.00	3.14	26.26	1.05	12534.00	2.22	25.66	1.03	19384.00	3.43	24.62	0.99
PENNSYLVANIA	7782.00	3.53	11.54	1.18	5643.00	2.56	11.55	1.18	8304.00	3.76	10.54	1.08
TEXAS	21089.00	2.75	31.27	0.92	15448.00	2.01	31.63	0.93	28315.00	3.69	35.96	1.06
WASHINGTON	5586.00	2.74	8.28	0.92	4441.00	2.18	9.09	1.01	7063.00	3.46	8.97	1.00
TOTAL	67450.00	2.98	100.00	1.00	48838.00	2.16	100.00	1.00	78747.00	3.48	100.00	1.00

STATE	UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %

STATE	UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	2520.00	0.95	2.87	0.24	265559.00	100.00	11.73	1.00
MARYLAND	1951.00	0.81	2.22	0.21	242155.00	100.00	10.70	1.00
MICHIGAN	54995.00	9.74	62.66	2.51	564509.00	100.00	24.94	1.00
PENNSYLVANIA	1980.00	0.90	2.26	0.23	220753.00	100.00	9.75	1.00
TEXAS	14934.00	1.95	17.02	0.50	766698.00	100.00	33.87	1.00
WASHINGTON	11381.00	5.58	12.97	1.44	203838.00	100.00	9.01	1.00
TOTAL	87761.00	3.88	100.00	1.00	2263512.00	100.00	100.00	1.00

SEX SUMMARY

STATE	TOTAL MALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL FEMALE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL UNKNOWN SEX	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	166595.00	62.73	11.91	1.02	88900.00	33.48	12.36	1.05	10064.00	3.79	6.89	0.59
MARYLAND	128262.00	52.97	9.17	0.86	60001.00	24.78	8.34	0.78	53892.00	22.25	36.92	3.45
MICHIGAN	375167.00	66.46	26.83	1.08	189342.00	33.54	26.33	1.06	0.00	0.00	0.00	0.00
PENNSYLVANIA	149519.00	67.73	10.69	1.10	67445.00	30.55	9.38	0.96	3789.00	1.72	2.60	0.27
TEXAS	462019.00	60.26	33.04	0.98	248096.00	32.36	34.50	1.02	56583.00	7.38	38.76	1.14
WASHINGTON	116958.00	57.38	8.36	0.93	65237.00	32.00	9.07	1.01	21643.00	10.62	14.83	1.65
TOTAL	1398520.00	61.79	100.00	1.00	719021.00	31.77	100.00	1.00	145971.00	6.45	100.00	1.00

STATE	TOTAL MALE KNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL FEMALE KNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL UNKNOWN SEX KNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	164747.00	62.04	12.42	1.06	88228.00	33.22	12.54	1.07	275.00	0.10	9.24	0.79
MARYLAND	126508.00	52.24	9.54	0.89	59804.00	24.70	8.50	0.79	0.00	0.00	0.00	0.00
MICHIGAN	327162.00	57.95	24.67	0.99	182352.00	32.30	25.92	1.04	0.00	0.00	0.00	0.00
PENNSYLVANIA	147869.00	66.98	11.15	1.14	67115.00	30.40	9.54	0.98	19.00	0.01	0.64	0.06
TEXAS	450856.00	58.80	34.00	1.00	244325.00	31.87	34.72	1.02	2574.00	0.34	86.46	2.55
WASHINGTON	109042.00	53.49	8.22	0.91	61772.00	30.30	8.78	0.97	109.00	0.05	3.66	0.41
TOTAL	1326184.00	58.59	100.00	1.00	703596.00	31.08	100.00	1.00	2977.00	0.13	100.00	1.00

STATE	TOTAL MALE UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL FEMALE UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	TOTAL UNKNOWN SEX UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	1848.00	0.70	2.55	0.22	672.00	0.25	4.36	0.37	9789.00	3.69	6.85	0.58
MARYLAND	1754.00	0.72	2.42	0.23	197.00	0.08	1.28	0.12	53892.00	22.25	37.69	3.52
MICHIGAN	48005.00	8.50	66.36	2.66	6990.00	1.24	45.32	1.82	0.00	0.00	0.00	0.00
PENNSYLVANIA	1650.00	0.75	2.28	0.23	330.00	0.15	2.14	0.22	3770.00	1.71	2.64	0.27
TEXAS	11163.00	1.46	15.43	0.46	3771.00	0.49						

PENNSYLVANIA	[illegible]	[illegible]	[illegible]	0.46	3771.00	0.49	24.45	0.72	[illegible]	[illegible]	[illegible]	[illegible]
TEXAS	11163.00	1.46	15.43	1.21	3465.00	1.70	22.46	2.49	21534.00	10.56	15.06	1.67
WASHINGTON	7916.00	3.88	10.94									
TOTAL	72336.00	3.20	100.00	1.00	15425.00	0.68	100.00	1.00	142994.00	6.32	100.00	1.00

STATE	DISTRIBUTED MALE UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %	DISTRIBUTED FEMALE UNKNOWN AGE	% OF STATE ACCIDENT INVOLVED DRIVERS	% OF CARDSTATES' CLASS	RATIO OF STATE % TO STATES %
INDIANA	8222.97	3.10	4.93	0.42	4086.03	1.54	6.38	0.54
MARYLAND	38347.29	15.84	23.01	2.15	17495.71	7.22	27.30	2.55
MICHIGAN	48005.00	8.50	28.80	1.15	6990.00	1.24	10.91	0.44
PENNSYLVANIA	4243.06	1.92	2.55	0.26	1506.94	0.68	2.35	0.24
TEXAS	46190.25	6.02	27.71	0.82	22752.75	2.97	35.50	1.05
WASHINGTON	21662.59	10.63	13.00	1.44	11252.41	5.52	17.56	1.95
TOTAL	166671.17	7.36	100.00	1.00	64083.83	2.83	100.00	1.00

SOURCE: CARDfile