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**ESTIMATION OF THE COVERAGE  
OF NEW PROGRAMS  
BASED ON  
DRIVER INCIDENT DATA**

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16. Abstract  <p>The purpose of the program was to develop a computerized system for determining the number of registered drivers in the State of Michigan that might be affected each year by all major proposals that are concerned with the assignment of drivers to post-licensing control activities. Two tasks were completed: First, a data structure was designed to generate information necessary for system operation from the State's Master Driver Record file. Second, a frequency analysis program was written to count occurrences in this data structure for situations of interest.</p> <p>Pilot tests of the system have indicated that it can be a valuable, time-saving tool in program evaluation.</p>			
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Section 1  
INTRODUCTION

In the past, efforts of Michigan Department of State personnel to identify efficient traffic safety countermeasures in the driver improvement area have been hampered by inadequate information concerning the number of people who would be affected by proposed programs, policies, and laws. The problem has been especially acute in the application of compound criteria for driver re-examination, such as proposals that rely on two or more different time periods over which violations or demerit points are counted. While it is possible to specially program licensing agency computers to apply a specific set of laws and policies to driver records, it has been impractical to expend similar resources to simply estimate the coverage of a variety of proposed laws and policies.

With this background, the objective of the current program was to develop a computerized system for determining the number of drivers that might be affected each year by all major proposals that are concerned with the assignment of drivers to post-licensing control activities. This determination was to be made using the available historical data. It was also desired that the computer system provide for the conversational input of proposal parameters and the rapid generation of results so as to permit the interactive refinement of the proposals under evaluation.

To accomplish this program objective, two primary program tasks were performed.

- 1) To provide an input data base for the system, a data structure was completed and a computer program was written to produce the data base from the available Master Driver Record (or MDR) file maintained by the Department of State. This resulting data base is referred to as the "DRIVER INCIDENT" file.
- 2) A frequency analysis program was designed and written to count occurrences in the Driver Incident file for a complex set of conditions that are specified by the user.

The system has been evaluated in practical situations by Department of State personnel and found to be a valuable, time-saving tool. During program development, a prototype version of the system was used to derive statistics from the Driver Incident file that were of direct use in preparing the Department of State's position with regard to legislation pending before the legislature.

In the remainder of the report, the Driver Incident file is discussed in Section 2 and the frequency analysis program in Section 3. Section 4 presents recommendations for future improvements.

Section 2  
THE DRIVER INCIDENT FILE

The Master Driver Record file maintained by the Michigan Department of State is a hierarchically structured, variable-format data set containing information on every driver registered in the state. At a minimum, each registered driver is documented by a HEADER record that contains general descriptive data (i.e., license type, sex, etc.). In addition, all other events in the driver's history that involve interaction with the Department of State are recorded by special records added to the master file. For instance, involvement in a traffic accident results in the addition of an ACCIDENT record, while certain license restrictions are recorded by a SPECIAL RESTRICTION record. A tape layout documenting the information elements contained in each record type is presented in Appendix A.

Much of the data contained in the Master Driver file is unnecessary for the frequency analysis needed to satisfy the objectives of this program. In addition, security reasons alone mitigate against the use of the master file in routine analysis. Consequently, a new file structure was defined for the purposes of this program. For maximum operating efficiency and minimum cost, a short length, fixed-format record layout was chosen with each record representing one "incident". An incident is a special event in the history of a driver: for instance, an accident or conviction. Each type of incident present in a driver's driving history that is of importance for the evaluation requirements of the program is assigned a distinct incident code value. If a driver has no reportable incidents, the incident code is assigned the value zero. A total of 523 distinct incident codes have been defined by the Department of State.

In addition to the incident code information, a minimum number of other control and descriptive information items are contained in the Driver Incident file record. In all, twelve data elements are included. They are:

- 1) Driver number (a sequential counter)
- 2) Incident number (a sequential counter)
- 3) License code
- 4) Original license issue date
- 5) Birth Date
- 6) Age on incident date
- 7) County of residence
- 8) Sex
- 9) Incident code
- 10) Points for the incident
- 11) Incident Date
- 12) Vehicle type (not implemented at the present)

A FORTRAN reformatting program was written to read the MDR file and produce the Driver Incident file. Two versions of the incident file are constructed simultaneously by the program, a binary file for use by the frequency analysis program and a character file for other uses. The program was executed on a one-percent sample of the MDR file taken in June 1979 to produce an incident file with 170,228 incidents.

Complete documentation of the rules for producing the Driver Incident file from the MDR file is presented in Appendix B. A codebook documenting the final Driver Incident file is shown in Appendix C.

Section 3  
THE FREQUENCY ANALYSIS PROGRAM

The frequency analysis program is an interactive system designed to give information on the frequency of occurrence of any combination of certain types of conviction, accident, and driver improvement action records. Input to the program is the Driver Incident file discussed in Section 2.

Program output is a frequency count of the number of drivers whose records satisfy a specified combination of condition sets once, twice, or more times. A condition set is a group of requirements that determines the occurrence of one or more specified types of accident, conviction, or driver improvement actions within given time constraints. For instance, a condition set could be defined as:

- (1) Two accidents within one year of each other, or
- (2) Three convictions within two years of each other, or
- (3) An accident and two six-point convictions within three years of each other.

For each driver, the program counts the number of times (1), (2), or (3) was satisfied. That is, the results would indicate the number of drivers who satisfied this condition set once, the number of drivers who satisfied this condition set twice, the number who satisfied the condition set three times, etc.

Briefly described, a condition set is a set of requirements on an incident record. That is, an incident record is said to satisfy a condition set if it meets the requirements defined in that condition set.

There are two type of condition sets. The first, called a simple condition set, is defined by a set of possible code values for the variables in the Driver Incident file, by a number of occurrences, and by a range of times during which the specified number of incidents may be permitted to occur. For instance, the statement



C1 V3=30-35,40 V10=6 NUMBER=2 RANGE=3

defines a condition set for the frequency analysis program that will permit the counting of two incidents (NUMBER=2) that occurred within three months of each other (RANGE=3), and for which Variable number 3 (LICENSE CODE) has the values 30, 31, 32, 33, 34, 35, or 40 and Variable number 10 (POINTS FOR THE INCIDENT) has the value 6.

The second type, called a compound condition set, is defined as any and/or combination of simple condition sets. For instance, in the example

C10 COMPOUND=(C1,C4),(C6),(C9,C20)

C10 is defined as any incident record which satisfies the simple condition sets C3 and C4, or C6, or C9 and C20.

The program will sequentially check each incident record of every driver. Every time an incident record is encountered which satisfies one of the record types, the program will check that driver's previous incident records to determine if any of the compound requirements have been met. For each compound requirement, the number of previous incident records checked is determined by the relative range of that compound requirement. If none of the compound requirements are satisfied, the program simply goes on to the next incident record. If at least one of the compound requirements are satisfied, then the condition set is counted as having been satisfied and the program goes on to the next incident record.

Once all the incident records in a driver's file have been examined, the number of times each condition set was satisfied is recorded and the next driver is examined.

#### Section 4 RECOMMENDATIONS

As currently implemented, the Driver Incident file and associated frequency analysis has proved to be of value to employees of the Michigan Department of State as a tool for evaluating the impact of proposed programs. Early use of the program, however, has indicated the need for future improvements to the system.

In order for the system to be useful to a large number of people in the Department of State, the system should be made as simple to use and as fool-proof as possible. In particular, people who are not familiar with computers should be able to use the system to derive data for their requirements directly, without going through an intermediate computer operator. This will require considerably more attention to documentation and to lucid error messages than was possible within the framework of the present developmental system.

In order to provide the maximum utility at the minimum cost, the frequency analysis program should be optimized for operational efficiency.

The concepts developed in this program could be more effectively packaged by embedding the frequency analysis package in a programming system that would provide the user with facilities for handling input and output files, and with the capability to easily handle other computer operations not usually understood by personnel not closely associated with computers.

Appendix A  
Master Driver Record  
File Layout

DEPARTMENT OF STATE DATA PROCESSING CENTER

B-6700 TAPE FILE LAYOUT

LAYOUT NUMBER: DR046T PAGE 1 of 11  
 FILE NAME: MDR Master Tape DATE: 5/1/79  
 PREPARED BY: J. Pixley  
 FILE ID: MDRMAST MULTI-FILE ID: \_\_\_\_\_  
 CHAR/REC: 48-198 FIXED - REC/BLOCK: \_\_\_\_\_ VARIABLE - CHAR/BLOCK: 8000

9 TRACK  
 7 TRACK

MODE		DENSITY - BPI		PARITY	
<input checked="" type="checkbox"/> EBCDIC	<input type="checkbox"/> BCL	1600		ODD	
<input type="checkbox"/> EBCDIC	<input type="checkbox"/> BCL	<input type="checkbox"/> 556	<input type="checkbox"/> 800	<input type="checkbox"/> ODD	<input type="checkbox"/> EVEN

RECORD NAME: Header Record SIZE: 198

FIELD NAME	START POS	LENGTH	CLASS			CODED FIELD	FORMAT	CON VALUE
			AN	N	A			
Record Count	1	3		X				198
Identification	4	1			X			B
Indicator	5	1	X			X		
Driver License Number	6	13	X					
License Type	19	1		X		X		
License Endorsement	20	1		X		X		
License Issued	21	1			X	X		
License Restriction	22	1	X			X		
Issue Date	23	6		X			MMDDYY	
Exam Station	29	4	X			X		
Expiration Year	33	2		X			YY	
Probationary	35	1			X	X		
Original License Date	36	6		X			MMDDYY	
Sex	42	1			X	X		
Birthdate	43	6		X			MMDDYY	
Name (First, Middle, Last)	49	36	X					
Name Char Count	85	2		X				
Street	87	36	X					
Street Char Count	123	2		X				
City	125	19	X					
City Code (If present)	144	3	X					
City Char Count (If no City Code)	147	2		X				
(Continued)								

EBCDIC: 8 BIT CHAR, 6 CHAR/WORD  
 BCL: 6 BIT CHAR, 8 CHAR/WORD  
 CODED FIELD: X = STANDARD CODE  
 DP-41 Y = SPECIAL CODE (attached)



















DEPARTMENT OF STATE DATA PROCESSING CENTER

B-6700 TAPE FILE LAYOUT (continued)

LAYOUT NUMBER DR046T PAGE 10 of 11  
 FILE NAME: MDR Master Tape DATE: 5/1/79  
 PREPARED BY: J. Pixley  
 RECORD NAME: Action SIZE: 72

FIELD NAME	START POS	LENGTH	CLASS			CODED FIELD	FORMAT	CON VALUE
			AN	N	A			
Record Count	1	3		X				072
Identification	4	1			X			V
Error Indicator (Purge)	5	1	X					
Occurance Date (A-date)	6	6		X			MMDDYY	
Action-Type Code	12	4		X		X		
Microfilm Number	16	5	X					
From Date (B-date)	21	6		X			MMDDYY	
Thru Date (C-date)	27	6		X			MMDDYY	
Reason Codes	33	8	X			X		
FR Case #, App #, Court Cd, or Misc Data*	41	12	X			X		
Lifted Date (D-date)	53	6		X			MMDDYY	
Original Action Date (F-date)	59	6		X			MMDDYY	
Posting Date	65	5		X			YYDDD	
Filler	70	3			X			BLANK
* On referrals - positions 1-3 contain class codes if referral level 12 points or more.								
On warning letters and referrals - positions 11 & 12 contain points at time of action.								
On re-exams, positions 1-2 contain county code, 3-6 contain analyst #, 7-8 contain alcohol referral, 9 contains passed or failed road test, 10 contains points considered code.								

CODED FIELD: X = STANDARD CODE  
 Y = SPECIAL CODE (attached)  
 DP-41A - 9/71



Appendix B

Rules for Producing the Driver Incident File

from

the Michigan Driver Record File

## INCIDENT FILE BUILD DOCUMENTATION

The Driver Incident data set is produced by an HSRI build program from the Michigan Master Driver Record (MDR) data tape provided by the Department of State. The MDR tape includes records that document, among other things, license type, address, conviction, accident, and action information for every Michigan driver. To generate each of the variables in the incident file, the program looks at the appropriate positions in these MDR records and, depending on the variable, manipulates or recombines the values occurring there to produce the code values that appear in the file. The following is a variable-by-variable description of the process.

### Variable 1: DRIVER NUMBER

-----

The DRIVER NUMBER is assigned sequentially for each driver Header Record on the MDR Master Tape by the HSRI file build program.

### Variable 2: INCIDENT NUMBER

-----

The INCIDENT NUMBER is assigned sequentially by the build program for each incident (conviction, accident, or action) for a particular driver as the incident is encountered on the MDR Master Tape (not necessarily chronologically).

### Variable 3: LICENSE CODE

-----

In deriving the LICENSE CODE, the build program first assigns the value of "99" to a variable called LICODE. On the MDR Master Tape's Header Record, the program then looks at "License Type" (starting position 19) and, depending on its value, assigns to LICODE the value of:

"10"	for	0	(No License)
"20"	for	3	(Minor Restricted)
"21"	for	4	(Special Restricted)
"30"	for	1	(Operator)
"35"	for	5	(Operator with Cycle Endorsement)
"40"	for	2	(Chauffeur)
"45"	for	6	(Chauffeur with Cycle Endorsement)

For LICODE values between "30" and "45," the program then checks "Probationary" (starting position 21) and, depending on its value, assigns to a variable LICADD the



value of:

"1" for "P" (Probationary License)

It then checks "License Issued" (starting position 20) and, depending on its value, assigns to LICADD the value of:

"2" for "O" (Original)  
 "3" for "R" (Renewal)  
 "4" for "D" (Duplicate)  
 "5" for "C" (Corrected)

Finally, the program adds LICADD to LICODE. The resulting value of LICODE is the LICENSE CODE value in the incident file.

Variable 4: ORIG LICENSE ISSUE DATE  
 -----

The build program derives the ORIG LICENSE ISSUE DATE from the "Original License Date" (starting position 179) on the Header Record by converting the existing MMDDYY format into a Julian date. Missing dates on the Header Record are assigned a value of "00000."

Variable 5: BIRTH DATE  
 -----

The build program takes the BIRTH DATE from the MDR Header Record's "Birthdate" (starting position 32) where it has a format of MMDDYY. The program modifies it, though, by assigning the year (starting position 36) to a variable called BYEAR, the month (starting position 32) to BMONTH, and the day (starting position 34) to BDAY and, after multiplying BYEAR by 10000 and BMONTH by 100, adding them together. The resulting format of BIRTH DATE is YYMMDD. Missing dates are assigned a value of "000000."

Variable 6: AGE ON INCIDENT DATE  
 -----

The AGE ON INCIDENT DATE is calculated for each incident encountered, whether conviction, accident, or action. Depending on the incident, then, the program takes the "Arrest Date" (starting position 12) on the Conviction Record, the "Accident Date" (starting position 6) on the Accident Record, or the "Occurrence Date" (starting position 6) on the Action Record and, from the MMDDYY format that occurs in each instance, assigns values to an IMONTH, IDAY, and IYEAR variable. Then, using the variables generated in the derivation of BIRTH DATE (BMONTH, BDAY, and BYEAR), the

program performs the following calculations:

```

AGE=IYEAR-BYEAR
IF (AGE .LT. 1)           AGE=100+IYEAR-BYEAR
IF ((IMONTH*100+IDAY) .LT. (BMONTH*100+BDAY)) AGE=AGE-1
IF (BMONTH .EQ. IMONTH)  GOTO 203
IF (BMONTH .LT. IMONTH)  AGE=AGE*100+(IMONTH-BMONTH)
IF (BMONTH .GT. IMONTH)  AGE=AGE*100+12-BMONTH+IMONTH
IF (BDAY .GT. IDAY)      AGE=AGE-1
GOTO 204

203 IF (BDAY .GT. IDAY)    AGE=AGE*100+11
    IF (BDAY .LE. IDAY)   AGE=AGE*100

204 IF (AGE .GE. 9999)    AGE=9998

```

The resulting value of AGE (with a format of YYMM) is the AGE ON INCIDENT DATE in the incident file.

#### Variable 7: COUNTY OF RESIDENCE

-----

The build program determines the COUNTY OF RESIDENCE by taking the "Zip Code" (starting position 130) on the MDR Header Record and, using an array of the 1175 Michigan ZIP Codes, translates it into a two-digit value that represents one of Michigan's 83 counties. If the Zip Code is missing on the Header Record or does not subsequently correspond to a Michigan county, the value in the incident file will be "99."

#### Variable 8: SEX

-----

The build program takes SEX directly from the MDR Header Record's "Sex" (starting position 135), assigning it a value of:

```

"1" for "M" (Male)
"2" for "F" (Female)

```

#### Variable 9: INCIDENT CODE

-----

The INCIDENT CODE is arrived at in one of three ways, depending on whether the incident is a conviction on a traffic offense, an accident involvement, or a driver improvement action. Each driver incident encountered becomes, of course, a distinct record in the incident file. The codes for the three different types of incidents are derived as follows:

\* Conviction INCIDENT CODE

When a conviction occurrence is encountered on the MDR Conviction Record, the program first determines if it occurred before a cut-off date specified beforehand by the programmer and then computes its incident number. The program then calculates the age of the driver at the time of the conviction (see Variable 6) and the date (see Variable 11).

While deriving the conviction INCIDENT CODE itself, the program also determines the number of points associated with the conviction (Variable 10). Initially, the program assigns a value of "09969" to the incident file positions that correspond to the INCIDENT CODE and POINTS FROM INCIDENT (in this case, if not subsequently replaced, representing "other conviction record" and "unknown points").

The program then looks at the "Offense Code" (starting position 43) on the Conviction Record and determines whether or not it is a speeding conviction (Offense Codes "18" or "19"). If the Offense Code is "18," then the subsequent value is referred to as a "regular" speed offense. If the Code is "19," then the value is referred to as an "energy" speed offense.

The program then checks "Speed" (starting position 45) on the Conviction Record (it has a length of five) and, for regular speed convictions, depending on what is found in these five positions, performs the following operations:

- a) If all five positions of Speed are blank, the last four positions of INCIDENT CODE and POINTS FROM INCIDENT are replaced with "2012."
- b) If the first three positions indicate a speed, and the last two positions are blank, the first three then indicate mph over the speed limit. Depending on its value, the last four positions of INCIDENT CODE and POINTS FROM INCIDENT become:

"2012" if the speed is 000 to 010 mph.

"3013" if the speed is 011 to 015 mph.

"4014" if the speed is over 015 mph.

- c) If all five positions are filled, the first three indicate the speed of travel and the last two represent the speed limit. The program then calculates the difference between these two numbers and, depending on the value, replaces the last four positions of Variables 9 and 10 with:

"2012" if the difference is 00 to 10 mph.

"3013" if the difference is 11 to 15 mph.

"4014" if the difference is over 15 mph.

For energy speed convictions (Offense Code "19"), all five positions of Speed should be filled. The first three positions are the traveling speed, while the last two are the old speed limit. Calculating the difference, the program replaces the last four positions of INCIDENT CODE and POINTS FROM INCIDENT with:

"0010" if the difference is  $\leq$  00 mph.

"2162" if the difference is 01 to 10 mph.

"3053" if the difference is 11 to 15 mph.

"4044" if the difference is over 15 mph.

For Offense Codes other than "18" or "19," the program performs the translations mapped in TABLE 1 (OFFENSE/ INCIDENT CODES) and, depending on the original Offense Code, replaces the last four positions of INCIDENT CODE and POINTS FROM INCIDENT with the resulting translation.

The resulting values in the incident file represent the conviction INCIDENT CODE and the POINTS FROM INCIDENT.

Finally, if the SAME INCIDENT/LATE RECD/BOND FORFEITURE flag in position 55 of the Conviction Record is anything but "Blank" or "2," POINTS FROM INCIDENT is set equal to zero.

#### \* Accident INCIDENT CODE

When an accident case is encountered on the MDR Accident Record, the program first determines if it occurred before the specified cut-off date and then computes its incident number. The program then calculates, as it did with convictions, the age of the driver at the time of the accident (see Variable 6) and the date (see Variable 11).

With accidents, in deriving the INCIDENT CODE and POINTS FROM INCIDENT, the program first assigns a value of "19979" to the five incident file positions that represent these two variables. It should be noted that, with all accident occurrences, the POINTS FROM INCIDENT will be "9."

The program then examines the six positions of "Counts (Vehicles, Injured, Killed)" (starting position 12) on the Accident Record. First, by looking at the first two positions that indicate vehicle count, the program assigns a value of "1" to a variable SEVER if the count is "01," or assigns it a value of "4" if the count is greater than "01." Then, by looking at the next two positions that indicate injury count, the program assigns a value of "1" to a variable DAMTYP if the count is greater than "00." And thirdly, by looking at the last two positions that indicate

TABLE 1 - OFFENSE/INCIDENT CODES

OFFENSE CODE	INCIDENT CODE	POINTS	NOTES
01	463	6	
02	463	6	
03	463	6	
04	463	6	
06	463	6	
07	461	6	
08	462	6	
09	463	6	
10	463	6	
11	464	6	
14	213	2	
15	213	2	
16	203	2	
17	203	2	
18	201	2	(Speed 00-10)
18	301	3	(Speed 11-15)
18	401	4	(Speed >16)
19	001	0	(Speed ≤0)
19	216	2	(Speed 01-10)
19	305	3	(Speed 11-15)
19	404	4	(Speed >16)
20	214	2	
21	101	2	
22	402	4	(Before 8/1/79)
22	402	3	(After 8/1/79)
23	403	4	
25	209	2	
26	209	2	
27	209	2	
28	214	2	
29	215	2	
30	204	2	
31	215	2	
32	215	2	
34	209	2	
36	209	2	
37	206	2	
39	215	2	
40	215	2	
44	202	2	
45	205	2	
46	211	2	
47	208	2	
48	219	2	
49	209	2	
51	215	2	
52	463	6	

TABLE 1 - OFFENSE/INCIDENT CODES (continued)

OFFENSE CODE	INCIDENT CODE	POINTS	NOTES
53	463	6	
54	463	6	
55	215	2	
56	215	2	
57	215	2	
58	215	2	
59	215	2	
60	215	2	
61	215	2	
65	217	2	
66	215	2	
68	213	2	
69	213	2	
70	207	2	
71	207	2	
72	215	2	
73	215	2	
74	212	2	
75	215	2	
76	206	2	
77	206	2	
78	206	2	
80	215	2	
81	206	2	
84	302	3	
87	302	3	
88	303	3	
89	304	3	

fatal count, the program assigns a value of "2" to DAMTYP. Finally, the program adds DAMTYP to SEVER to arrive at a new value for SEVER. If none of the above conditions have been met, however, SEVER is assigned a value of "9." As a result, the values for SEVER represent as follows:

- "1" - a single vehicle, property damage accident
- "2" - a single vehicle, injury accident
- "3" - a single vehicle, fatal accident
- "4" - a multiple vehicle, property damage accident
- "5" - a multiple vehicle, injury accident
- "6" - a multiple vehicle, fatal accident
- "9" - an unknown vehicle-count or type of accident

After this, the program takes "Coded Items" (starting position 48) on the Accident Record and scans through its ten positions for any occurrence of "X3," "X4," or "X5." These items describe the role that drinking had in the

accident. Depending on its value, then, the program assigns to a variable HBD the value:

"8" for "X3" (Had Been Drinking)  
"7" for "X4" (Had Not Been Drinking)  
"6" for "X5" (Not Stated)

The program then scans "Coded Items" once more for violation (or "V") codes that indicate, for the accident, any suspected driver-fault that contributed to the accident, whether or not an actual conviction was obtained. (It should be noted that the following violation codes are only valid for accidents that occurred before 1978, at which time a new set of code values was implemented.) Depending on its value, then, the program assigns to a variable VIOL the value:

"1" for "V1" (Speed Too Fast)  
"2" for "V2" (Failed to Yield Right of Way)  
"3" for "V3" (Drove Left of Center)  
"4" for "V4" (Improper Overtaking)  
"5" for "V5" (Passed Stop Sign)  
"6" for "V6" (Disregarded Traffic Signal)  
"7" for "V7" (Followed Too Closely)  
"8" for "V8" (Make Improper Turn)  
"9" for "V9" (Improper or No Signal)  
"0" for "V11" (Other Improper Driving)

For accidents in which a driver violation was found, the program inserts the value of HBD into the second position of the INCIDENT CODE in the incident file, the value of SEVER into the third position, and the value of VIOL into the fourth. For accidents in which no driver violation was found, the program inserts the value of VIOL into the INCIDENT CODE's second position (after it has been set to "5"), the value of HBD into the third position, and the value of SEVER into the fourth.

By means of a subroutine, the first position of the INCIDENT CODE is then assigned the value of "2" if it is determined that at least one conviction occurred on the same day as the accident. If no convictions are associated with the accident, the value of the first position remains "1" (with which it was originally assigned).

The resulting values in the incident file represent the final accident INCIDENT CODE, as well as POINTS FROM INCIDENT (with a value of "9").

#### \* Action INCIDENT CODE

When a driver improvement action is encountered on the MDR Action Record, the program first determines, as it did

with convictions and accidents, if it occurred before the specified cut-off date and, if so, computes the incident number. Here, too, the program also calculates the age of the driver at the time of the action (see Variable 6) and the date (see Variable 11).

Initially, the program sets the first position of the INCIDENT CODE in the incident file to "3" and the position representing POINTS FROM INCIDENT to "9." The program then assigns to a variable ACTINC the value "998." ACTINC will correspond to the last three positions of the INCIDENT CODE. In this case, if not subsequently replaced, INCIDENT CODE "3998" will represent "Other Action Record."

The program then examines the four-position "Action-Type Code" (starting position 12) on the Action Record. It first takes the value in the first two positions (indicating the action) and assigns it to a variable called ACTCD. It then takes the value in the last two positions (indicating the type) and assigns it to a variable TYPE. Finally, the program performs a series of logical checks of ACTCD and TYPE in combination with the presence of certain values of "Reason Codes" (starting position 33), "Occurrence Date" (starting position 6), "From Date" (starting position 21), and "Thru Date" (starting position 27) on the Action Record. Depending on the results of these checks, ACTINC is assigned a value of:

```

"901"  if ACTCD = 01;  TYPE = 11;
"902"  if ACTCD = 11;  TYPE = 11;
        Reason Code = "D."
"903"  if ACTCD = 11;  TYPE = 11;
        Reason Code = "E" or is blank.
"904"  if ACTCD = 11;  TYPE = 11;
        Reason Code = "H."
"905"  if ACTCD = 30, 31 or 36;  TYPE = 11;
        Reason Code ≠ "X," "Y," "B," "C," 16,
            46-59, 78, 95 or 97;
        Occurrence Date > 000000.
"906"  if ACTCD = 30;  TYPE = 11;
        Reason Code = "X."
"907"  if ACTCD = 30;  TYPE = 11;
        Reason Code ≠ "X";
        Occurrence Date = 000000;
        From Date > 000000.
"908"  if ACTCD = 30;  TYPE = 21.
"909"  if ACTCD = 40;  TYPE = 11;
        Reason Code ≠ "X," "Y," "B," "C," 16,
            46-59, 78, 95 or 97;
        Occurrence Date > 000000.
"910"  if ACTCD = 40;  TYPE = 11;
        Reason Code = "X" or "Y."
"911"  if ACTCD = 40;  TYPE = 11;
        Reason Code = "O," "P" or is blank;

```



```

Occurrence Date = 000000;
From Date > 000000.
"912"  if ACTCD = 60;  TYPE = 11;
Reason Code ≠ 13;
Occurrence Date > 000000;
From Date > 000000;
Thru Date > 000000.
"913"  if ACTCD = 60;  TYPE = 11;
Reason Code ≠ 13;
Occurrence Date = 000000;
From Date > 000000.
"914"  if ACTCD = 03;  TYPE = 11;
Reason Code ≠ "X" (unless it is "X20"),
40-42 or 44.
"915"  if ACTCD = 03;  TYPE = 11;
Reason Code = "X."
"916"  if ACTCD = 07;  TYPE = 51.
"917"  if ACTCD = 40;  TYPE = 51;
Occurrence Date > 000000.
or ACTCD = 60;  TYPE = 11;
Reason Code = 13.

```

The resulting values in the incident file represent the final action INCIDENT CODE, as well as POINTS FROM INCIDENT (with a value of "9").

#### Variable 10: POINTS FROM INCIDENT

-----

The build program determines the POINTS FROM INCIDENT while deriving the value for the conviction INCIDENT CODE (Variable 9).

#### Variable 11: INCIDENT DATE

-----

The INCIDENT DATE is calculated for each incident encountered, whether conviction, accident, or action. Depending on the incident, then, the program takes the "Arrest Date" (starting position 12) on the Conviction Record, the "Accident Date" (starting position 6) on the Accident Record, or the "Occurrence Date" (starting position 6) on the Action Record and converts the existing MMDDYY format into a Julian date. Missing dates are assigned a value of "00000."

Appendix C

Driver Incident File Codebook

MICHIGAN DRIVER INCIDENT RECORDS  
Driver Incident Codebook

Variable Number -----	Variable Name -----	Field Width -----	Char Type -----	Number Of Responses -----	Page Number -----
1	DRIVER NUMBER	6	Num.		1
2	INCIDENT NUMBER	2	Num.		1
3	LICENSE CODE	2	Num.		1
4	ORIG LICENSE ISSUE DATE	5	Num.		2
5	BIRTH DATE	6	Num.		2
6	AGE ON INCIDENT DATE	4	Num.		2
7	COUNTY OF RESIDENCE	2	Num.		2
8	SEX	1	Num.		4
9	INCIDENT CODE	4	Num.		4
10	POINTS FROM INCIDENT	1	Num.		16
11	INCIDENT DATE	5	Num.		16
12	VEHICLE TYPE	2	Num.		17

MICHIGAN DRIVER INCIDENT RECORDS  
Driver Incident Codebook

Page 1

This codebook documents driver incident information  
maintained by the Michigan Department of State.

-----  
Variable 1 DRIVER NUMBER M.D.Codes: None, None  
----- Field Width: 6, Numeric

FREQ. ASSIGNED SEQUENTIALLY BY HSRI

-----  
Variable 2 INCIDENT NUMBER M.D.Codes: None, None  
----- Field Width: 2, Numeric

FREQ. INCIDENT NUMBER

00. No incidents for driver  
01.  
- . Incident number (based on input)  
58.

-----  
Variable 3 LICENSE CODE M.D.Codes: 99, None  
----- Field Width: 2, Numeric

FREQ. LICENSE CODE

10. None on record  
20. Minor restricted  
21. Special restricted  
31. Operator probationary  
32. Operator original, not probationary  
33. Operator renewal  
34. Operator duplicate  
35. Operator corrected  
36. Operator/cycle probationary  
37. Operator/cycle original, not probationary  
38. Operator/cycle renewal  
39. Operator/cycle duplicate  
40. Operator/cycle corrected  
41. Chauffeur probationary  
42. Chauffeur original, not probationary  
43. Chauffeur renewal  
44. Chauffeur duplicate  
45. Chauffeur corrected  
46. Chauffeur/cycle probationary  
47. Chauffeur/cycle original, not probationary  
48. Chauffeur/cycle renewal  
49. Chauffeur/cycle duplicate  
50. Chauffeur/cycle corrected  
99. Other or missing data

MICHIGAN DRIVER INCIDENT RECORDS  
Driver Incident Codebook

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-----  
Variable 4 ORIG LICENSE ISSUE DATE M.D.Codes: 0, None  
-----  
Field Width: 5, Numeric

FREQ. ORIGINAL LICENSE ISSUE DATE (JULIAN FORMAT)

00000. Unknown  
23214.  
- . Julian date  
28971.

-----  
Variable 5 BIRTH DATE M.D.Codes: 0, None  
-----  
Field Width: 6, Numeric

FREQ. BIRTH DATE (YYMMDD FORMAT)

000000. Unknown  
000102.  
- . Birth date (YYMMDD)  
991228.

-----  
Variable 6 AGE ON INCIDENT DATE M.D.Codes: 9999, None  
-----  
Field Width: 4, Numeric

FREQ. AGE ON INCIDENT DATE (YYMM FORMAT)

0911.  
- . Age (YYMM)  
9901.  
9998. Greater than 9911  
9999. Not applicable (no incident) or missing data

-----  
Variable 7 COUNTY OF RESIDENCE M.D.Codes: 99, None  
-----  
Field Width: 2, Numeric

FREQ. COUNTY OF RESIDENCE

01. Alcona  
02. Alger  
03. Allegan  
04. Alpena  
05. Antrim  
06. Arenac  
07. Baraga  
08. Barry  
09. Bay  
10. Benzie  
11. Berrien

MICHIGAN DRIVER INCIDENT RECORDS  
Driver Incident Codebook

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FREQ. COUNTY OF RESIDENCE

12. Branch
13. Calhoun
14. Cass
15. Charlevoix
16. Cheboygan
17. Chippewa
18. Clare
19. Clinton
20. Crawford
21. Delta
22. Dickinson
23. Eaton
24. Emmet
25. Genesee
26. Gladwin
27. Gogebic
28. Grand Traverse
29. Gratiot
30. Hillsdale
31. Houghton
32. Huron
33. Ingham
34. Ionia
35. Iosco
36. Iron
37. Isabella
38. Jackson
39. Kalamazoo
40. Kalkaska
41. Kent
42. Keweenaw
43. Lake
44. Lapeer
45. Leelanau
46. Lenawee
47. Livingston
48. Luce
49. Mackinac
50. Macomb
51. Manistee
52. Marquette
53. Mason
54. Mecosta
55. Menominee
56. Midland
57. Missaukee
58. Monroe
59. Montcalm
60. Montmorency
61. Muskegon

MICHIGAN DRIVER INCIDENT RECORDS  
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FREQ. COUNTY OF RESIDENCE

- 62. Newaygo
- 63. Oakland
- 64. Oceana
- 65. Ogemaw
- 66. Ontonagon
- 67. Osceola
- 68. Oscoda
- 69. Otsego
- 70. Ottawa
- 71. Presque
- 72. Roscommon
- 73. Saginaw
- 74. St. Clair
- 75. St. Joseph
- 76. Sanilac
- 77. Schoolcraft
- 78. Shiawassee
- 79. Tuscola
- 80. Van Buren
- 81. Washtenaw
- 82. Wayne
- 83. Wexford
- 99. Missing data

-----  
Variable 8 SEX M.D.Codes: 9, None  
----- Field Width: 1, Numeric

FREQ. SEX

- 1. Male
- 2. Female
- 9. Missing data

-----  
Variable 9 INCIDENT CODE M.D.Codes: None, None  
----- Field Width: 4, Numeric

FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

- 0000. No incidents (conviction, accident, or action)  
on file for driver

CONVICTION RECORD INCIDENTS

- 0001. 0 energy speed
- 0101. Failed to report accident or answer citation
- 0102. Bad check suspension
- 0103. Violation of no-fault insurance law

MICHIGAN DRIVER INCIDENT RECORDS  
Driver Incident Codebook

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

0201. 1-10 speed  
0202. Prohibited turn  
0203. Basic speed violation  
0204. Failed to yield  
0205. Improper turn  
0206. License requirement violated  
0207. Not possessing license or license expired  
0208. Improper lane use  
0209. Traffic control device disobeyed  
0211. Wrong way on one-way street  
0212. Driving with license suspended  
0213. Motorcycle offenses  
0214. Drag racing or fleeing from officer  
0215. Miscellaneous inconsiderate driving  
0216. 1-10 energy speed  
0217. Improper side, load, or towing  
0218. Unlawful driving away auto w/o intent to steal  
0301. 11-15 speed  
0302. Disobeyed traffic signal or school bus signal  
0303. Disobeyed stop sign  
0304. Left-of-center or improper passing  
0305. 11-15 energy speed  
0401. >15 speed  
0402. Careless driving  
0403. Driving while impaired  
0404. >15 energy speed  
0461. Driving under influence of liquor  
0462. Driving under influence of drugs  
0463. Other six-point conviction  
0464. Reckless driving  
0465. Felony - auto used  
0466. Felonious driving  
0467. Unlawful driving away auto  
0468. Failure to stop or identify after PI accident  
0469. Failure to stop or identify after PD accident  
0996. Other conviction record

ACCIDENT RECORD INCIDENTS

1561. No conv, HBD unk, single veh, prop damage, no V  
1562. No conv, HBD unk, single veh, injury, no V  
1563. No conv, HBD unk, single veh, fatal, no V  
1564. No conv, HBD unk, multiple veh, prop damage, no V  
1565. No conv, HBD unk, multiple veh, injury, no V  
1566. No conv, HBD unk, multiple veh, fatal, no V  
1569. No conv, HBD unk, veh count and/or type unk, no V  
  
1571. No conv, non HBD, single veh, prop damage, no V  
1572. No conv, non HBD, single veh, injury, no V



MICHIGAN DRIVER INCIDENT RECORDS  
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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

1573. No conv, non HBD, single veh, fatal, no V  
1574. No conv, non HBD, multiple veh, prop damage, no V  
1575. No conv, non HBD, multiple veh, injury, no V  
1576. No conv, non HBD, multiple veh, fatal, no V  
1579. No conv, non HBD, veh count and/or type unk, no V  
  
1581. No conv, HBD, single veh, prop damage, no V  
1582. No conv, HBD, single veh, injury, no V  
1583. No conv, HBD, single veh, fatal, no V  
1584. No conv, HBD, multiple veh, prop damage, no V  
1585. No conv, HBD, multiple veh, injury, no V  
1586. No conv, HBD, multiple veh, fatal, no V  
1589. No conv, HBD, veh count and/or type unk, no V  
  
1610. No conv, HBD unk, single veh, prop damage, V11  
1611. No conv, HBD unk, single veh, prop damage, V1  
1612. No conv, HBD unk, single veh, prop damage, V2  
1613. No conv, HBD unk, single veh, prop damage, V3  
1614. No conv, HBD unk, single veh, prop damage, V4  
1615. No conv, HBD unk, single veh, prop damage, V5  
1616. No conv, HBD unk, single veh, prop damage, V6  
1617. No conv, HBD unk, single veh, prop damage, V7  
1618. No conv, HBD unk, single veh, prop damage, V8  
1619. No conv, HBD unk, single veh, prop damage, V9  
  
1620. No conv, HBD unk, single veh, injury, V11  
1621. No conv, HBD unk, single veh, injury, V1  
1622. No conv, HBD unk, single veh, injury, V2  
1623. No conv, HBD unk, single veh, injury, V3  
1624. No conv, HBD unk, single veh, injury, V4  
1625. No conv, HBD unk, single veh, injury, V5  
1626. No conv, HBD unk, single veh, injury, V6  
1627. No conv, HBD unk, single veh, injury, V7  
1628. No conv, HBD unk, single veh, injury, V8  
1629. No conv, HBD unk, single veh, injury, V9  
  
1630. No conv, HBD unk, single veh, fatal, V11  
1631. No conv, HBD unk, single veh, fatal, V1  
1632. No conv, HBD unk, single veh, fatal, V2  
1633. No conv, HBD unk, single veh, fatal, V3  
1634. No conv, HBD unk, single veh, fatal, V4  
1635. No conv, HBD unk, single veh, fatal, V5  
1636. No conv, HBD unk, single veh, fatal, V6  
1637. No conv, HBD unk, single veh, fatal, V7  
1638. No conv, HBD unk, single veh, fatal, V8  
1639. No conv, HBD unk, single veh, fatal, V9  
  
1640. No conv, HBD unk, multiple veh, prop damage, V11  
1641. No conv, HBD unk, multiple veh, prop damage, V1  
1642. No conv, HBD unk, multiple veh, prop damage, V2

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

1643. No conv, HBD unk, multiple veh, prop damage, V3  
1644. No conv, HBD unk, multiple veh, prop damage, V4  
1645. No conv, HBD unk, multiple veh, prop damage, V5  
1646. No conv, HBD unk, multiple veh, prop damage, V6  
1647. No conv, HBD unk, multiple veh, prop damage, V7  
1648. No conv, HBD unk, multiple veh, prop damage, V8  
1649. No conv, HBD unk, multiple veh, prop damage, V9

1650. No conv, HBD unk, multiple veh, injury, V11  
1651. No conv, HBD unk, multiple veh, injury, V1  
1652. No conv, HBD unk, multiple veh, injury, V2  
1653. No conv, HBD unk, multiple veh, injury, V3  
1654. No conv, HBD unk, multiple veh, injury, V4  
1655. No conv, HBD unk, multiple veh, injury, V5  
1656. No conv, HBD unk, multiple veh, injury, V6  
1657. No conv, HBD unk, multiple veh, injury, V7  
1658. No conv, HBD unk, multiple veh, injury, V8  
1659. No conv, HBD unk, multiple veh, injury, V9

1660. No conv, HBD unk, multiple veh, fatal, V11  
1661. No conv, HBD unk, multiple veh, fatal, V1  
1662. No conv, HBD unk, multiple veh, fatal, V2  
1663. No conv, HBD unk, multiple veh, fatal, V3  
1664. No conv, HBD unk, multiple veh, fatal, V4  
1665. No conv, HBD unk, multiple veh, fatal, V5  
1666. No conv, HBD unk, multiple veh, fatal, V6  
1667. No conv, HBD unk, multiple veh, fatal, V7  
1668. No conv, HBD unk, multiple veh, fatal, V8  
1669. No conv, HBD unk, multiple veh, fatal, V9

1690. No conv, HBD unk, veh count and/or type unk, V11  
1691. No conv, HBD unk, veh count and/or type unk, V1  
1692. No conv, HBD unk, veh count and/or type unk, V2  
1693. No conv, HBD unk, veh count and/or type unk, V3  
1694. No conv, HBD unk, veh count and/or type unk, V4  
1695. No conv, HBD unk, veh count and/or type unk, V5  
1696. No conv, HBD unk, veh count and/or type unk, V6  
1697. No conv, HBD unk, veh count and/or type unk, V7  
1698. No conv, HBD unk, veh count and/or type unk, V8  
1699. No conv, HBD unk, veh count and/or type unk, V9

1710. No conv, non HBD, single veh, prop damage, V11  
1711. No conv, non HBD, single veh, prop damage, V1  
1712. No conv, non HBD, single veh, prop damage, V2  
1713. No conv, non HBD, single veh, prop damage, V3  
1714. No conv, non HBD, single veh, prop damage, V4  
1715. No conv, non HBD, single veh, prop damage, V5  
1716. No conv, non HBD, single veh, prop damage, V6  
1717. No conv, non HBD, single veh, prop damage, V7  
1718. No conv, non HBD, single veh, prop damage, V8

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

1719. No conv, non HBD, single veh, prop damage, V9

1720. No conv, non HBD, single veh, injury, V11  
1721. No conv, non HBD, single veh, injury, V1  
1722. No conv, non HBD, single veh, injury, V2  
1723. No conv, non HBD, single veh, injury, V3  
1724. No conv, non HBD, single veh, injury, V4  
1725. No conv, non HBD, single veh, injury, V5  
1726. No conv, non HBD, single veh, injury, V6  
1727. No conv, non HBD, single veh, injury, V7  
1728. No conv, non HBD, single veh, injury, V8  
1729. No conv, non HBD, single veh, injury, V9

1730. No conv, non HBD, single veh, fatal, V11  
1731. No conv, non HBD, single veh, fatal, V1  
1732. No conv, non HBD, single veh, fatal, V2  
1733. No conv, non HBD, single veh, fatal, V3  
1734. No conv, non HBD, single veh, fatal, V4  
1735. No conv, non HBD, single veh, fatal, V5  
1736. No conv, non HBD, single veh, fatal, V6  
1737. No conv, non HBD, single veh, fatal, V7  
1738. No conv, non HBD, single veh, fatal, V8  
1739. No conv, non HBD, single veh, fatal, V9

1740. No conv, non HBD, multiple veh, prop damage, V11  
1741. No conv, non HBD, multiple veh, prop damage, V1  
1742. No conv, non HBD, multiple veh, prop damage, V2  
1743. No conv, non HBD, multiple veh, prop damage, V3  
1744. No conv, non HBD, multiple veh, prop damage, V4  
1745. No conv, non HBD, multiple veh, prop damage, V5  
1746. No conv, non HBD, multiple veh, prop damage, V6  
1747. No conv, non HBD, multiple veh, prop damage, V7  
1748. No conv, non HBD, multiple veh, prop damage, V8  
1749. No conv, non HBD, multiple veh, prop damage, V9

1750. No conv, non HBD, multiple veh, injury, V11  
1751. No conv, non HBD, multiple veh, injury, V1  
1752. No conv, non HBD, multiple veh, injury, V2  
1753. No conv, non HBD, multiple veh, injury, V3  
1754. No conv, non HBD, multiple veh, injury, V4  
1755. No conv, non HBD, multiple veh, injury, V5  
1756. No conv, non HBD, multiple veh, injury, V6  
1757. No conv, non HBD, multiple veh, injury, V7  
1758. No conv, non HBD, multiple veh, injury, V8  
1759. No conv, non HBD, multiple veh, injury, V9

1760. No conv, non HBD, multiple veh, fatal, V11  
1761. No conv, non HBD, multiple veh, fatal, V1  
1762. No conv, non HBD, multiple veh, fatal, V2  
1763. No conv, non HBD, multiple veh, fatal, V3

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

1764. No conv, non HBD, multiple veh, fatal, V4  
1765. No conv, non HBD, multiple veh, fatal, V5  
1766. No conv, non HBD, multiple veh, fatal, V6  
1767. No conv, non HBD, multiple veh, fatal, V7  
1768. No conv, non HBD, multiple veh, fatal, V8  
1769. No conv, non HBD, multiple veh, fatal, V9

1790. No conv, non HBD, veh count and/or type unk, V11  
1791. No conv, non HBD, veh count and/or type unk, V1  
1792. No conv, non HBD, veh count and/or type unk, V2  
1793. No conv, non HBD, veh count and/or type unk, V3  
1794. No conv, non HBD, veh count and/or type unk, V4  
1795. No conv, non HBD, veh count and/or type unk, V5  
1796. No conv, non HBD, veh count and/or type unk, V6  
1797. No conv, non HBD, veh count and/or type unk, V7  
1798. No conv, non HBD, veh count and/or type unk, V8  
1799. No conv, non HBD, veh count and/or type unk, V9

1810. No conv, HBD, single veh, prop damage, V11  
1811. No conv, HBD, single veh, prop damage, V1  
1812. No conv, HBD, single veh, prop damage, V2  
1813. No conv, HBD, single veh, prop damage, V3  
1814. No conv, HBD, single veh, prop damage, V4  
1815. No conv, HBD, single veh, prop damage, V5  
1816. No conv, HBD, single veh, prop damage, V6  
1817. No conv, HBD, single veh, prop damage, V7  
1818. No conv, HBD, single veh, prop damage, V8  
1819. No conv, HBD, single veh, prop damage, V9

1820. No conv, HBD, single veh, injury, V11  
1821. No conv, HBD, single veh, injury, V1  
1822. No conv, HBD, single veh, injury, V2  
1823. No conv, HBD, single veh, injury, V3  
1824. No conv, HBD, single veh, injury, V4  
1825. No conv, HBD, single veh, injury, V5  
1826. No conv, HBD, single veh, injury, V6  
1827. No conv, HBD, single veh, injury, V7  
1828. No conv, HBD, single veh, injury, V8  
1829. No conv, HBD, single veh, injury, V9

1830. No conv, HBD, single veh, fatal, V11  
1831. No conv, HBD, single veh, fatal, V1  
1832. No conv, HBD, single veh, fatal, V2  
1833. No conv, HBD, single veh, fatal, V3  
1834. No conv, HBD, single veh, fatal, V4  
1835. No conv, HBD, single veh, fatal, V5  
1836. No conv, HBD, single veh, fatal, V6  
1837. No conv, HBD, single veh, fatal, V7  
1838. No conv, HBD, single veh, fatal, V8  
1839. No conv, HBD, single veh, fatal, V9

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- 1840. No conv, HBD, multiple veh, prop damage, V11
- 1841. No conv, HBD, multiple veh, prop damage, V1
- 1842. No conv, HBD, multiple veh, prop damage, V2
- 1843. No conv, HBD, multiple veh, prop damage, V3
- 1844. No conv, HBD, multiple veh, prop damage, V4
- 1845. No conv, HBD, multiple veh, prop damage, V5
- 1846. No conv, HBD, multiple veh, prop damage, V6
- 1847. No conv, HBD, multiple veh, prop damage, V7
- 1848. No conv, HBD, multiple veh, prop damage, V8
- 1849. No conv, HBD, multiple veh, prop damage, V9
  
- 1850. No conv, HBD, multiple veh, injury, V11
- 1851. No conv, HBD, multiple veh, injury, V1
- 1852. No conv, HBD, multiple veh, injury, V2
- 1853. No conv, HBD, multiple veh, injury, V3
- 1854. No conv, HBD, multiple veh, injury, V4
- 1855. No conv, HBD, multiple veh, injury, V5
- 1856. No conv, HBD, multiple veh, injury, V6
- 1857. No conv, HBD, multiple veh, injury, V7
- 1858. No conv, HBD, multiple veh, injury, V8
- 1859. No conv, HBD, multiple veh, injury, V9
  
- 1860. No conv, HBD, multiple veh, fatal, V11
- 1861. No conv, HBD, multiple veh, fatal, V1
- 1862. No conv, HBD, multiple veh, fatal, V2
- 1863. No conv, HBD, multiple veh, fatal, V3
- 1864. No conv, HBD, multiple veh, fatal, V4
- 1865. No conv, HBD, multiple veh, fatal, V5
- 1866. No conv, HBD, multiple veh, fatal, V6
- 1867. No conv, HBD, multiple veh, fatal, V7
- 1868. No conv, HBD, multiple veh, fatal, V8
- 1869. No conv, HBD, multiple veh, fatal, V9
  
- 1890. No conv, HBD, veh count and/or type unk, V11
- 1891. No conv, HBD, veh count and/or type unk, V1
- 1892. No conv, HBD, veh count and/or type unk, V2
- 1893. No conv, HBD, veh count and/or type unk, V3
- 1894. No conv, HBD, veh count and/or type unk, V4
- 1895. No conv, HBD, veh count and/or type unk, V5
- 1896. No conv, HBD, veh count and/or type unk, V6
- 1897. No conv, HBD, veh count and/or type unk, V7
- 1898. No conv, HBD, veh count and/or type unk, V8
- 1899. No conv, HBD, veh count and/or type unk, V9
  
- 1997. No conviction, unknown accident record
  
- 2561. 1+ conv, HBD unk, single veh, prop damage, no V
- 2562. 1+ conv, HBD unk, single veh, injury, no V
- 2563. 1+ conv, HBD unk, single veh, fatal, no V
- 2564. 1+ conv, HBD unk, multiple veh, prop damage, no V
- 2565. 1+ conv, HBD unk, multiple veh, injury, no V

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

2566. 1+ conv, HBD unk, multiple veh, fatal, no V  
2569. 1+ conv, HBD unk, veh count and/or type unk, no V  
  
2571. 1+ conv, non HBD, single veh, prop damage, no V  
2572. 1+ conv, non HBD, single veh, injury, no V  
2573. 1+ conv, non HBD, single veh, fatal, no V  
2574. 1+ conv, non HBD, multiple veh, prop damage, no V  
2575. 1+ conv, non HBD, multiple veh, injury, no V  
2576. 1+ conv, non HBD, multiple veh, fatal, no V  
2579. 1+ conv, non HBD, veh count and/or type unk, no V  
  
2581. 1+ conv, HBD, single veh, prop damage, no V  
2582. 1+ conv, HBD, single veh, injury, no V  
2583. 1+ conv, HBD, single veh, fatal, no V  
2584. 1+ conv, HBD, multiple veh, prop damage, no V  
2585. 1+ conv, HBD, multiple veh, injury, no V  
2586. 1+ conv, HBD, multiple veh, fatal, no V  
2589. 1+ conv, HBD, veh count and/or type unk, no V  
  
2610. 1+ conv, HBD unk, single veh, prop damage, V11  
2611. 1+ conv, HBD unk, single veh, prop damage, V1  
2612. 1+ conv, HBD unk, single veh, prop damage, V2  
2613. 1+ conv, HBD unk, single veh, prop damage, V3  
2614. 1+ conv, HBD unk, single veh, prop damage, V4  
2615. 1+ conv, HBD unk, single veh, prop damage, V5  
2616. 1+ conv, HBD unk, single veh, prop damage, V6  
2617. 1+ conv, HBD unk, single veh, prop damage, V7  
2618. 1+ conv, HBD unk, single veh, prop damage, V8  
2619. 1+ conv, HBD unk, single veh, prop damage, V9  
  
2620. 1+ conv, HBD unk, single veh, injury, V11  
2621. 1+ conv, HBD unk, single veh, injury, V1  
2622. 1+ conv, HBD unk, single veh, injury, V2  
2623. 1+ conv, HBD unk, single veh, injury, V3  
2624. 1+ conv, HBD unk, single veh, injury, V4  
2625. 1+ conv, HBD unk, single veh, injury, V5  
2626. 1+ conv, HBD unk, single veh, injury, V6  
2627. 1+ conv, HBD unk, single veh, injury, V7  
2628. 1+ conv, HBD unk, single veh, injury, V8  
2629. 1+ conv, HBD unk, single veh, injury, V9  
  
2630. 1+ conv, HBD unk, single veh, fatal, V11  
2631. 1+ conv, HBD unk, single veh, fatal, V1  
2632. 1+ conv, HBD unk, single veh, fatal, V2  
2633. 1+ conv, HBD unk, single veh, fatal, V3  
2634. 1+ conv, HBD unk, single veh, fatal, V4  
2635. 1+ conv, HBD unk, single veh, fatal, V5  
2636. 1+ conv, HBD unk, single veh, fatal, V6  
2637. 1+ conv, HBD unk, single veh, fatal, V7  
2638. 1+ conv, HBD unk, single veh, fatal, V8

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

2639. 1+ conv, HBD unk, single veh, fatal, V9

2640. 1+ conv, HBD unk, multiple veh, prop damage, V11  
2641. 1+ conv, HBD unk, multiple veh, prop damage, V1  
2642. 1+ conv, HBD unk, multiple veh, prop damage, V2  
2643. 1+ conv, HBD unk, multiple veh, prop damage, V3  
2644. 1+ conv, HBD unk, multiple veh, prop damage, V4  
2645. 1+ conv, HBD unk, multiple veh, prop damage, V5  
2646. 1+ conv, HBD unk, multiple veh, prop damage, V6  
2647. 1+ conv, HBD unk, multiple veh, prop damage, V7  
2648. 1+ conv, HBD unk, multiple veh, prop damage, V8  
2649. 1+ conv, HBD unk, multiple veh, prop damage, V9

2650. 1+ conv, HBD unk, multiple veh, injury, V11  
2651. 1+ conv, HBD unk, multiple veh, injury, V1  
2652. 1+ conv, HBD unk, multiple veh, injury, V2  
2653. 1+ conv, HBD unk, multiple veh, injury, V3  
2654. 1+ conv, HBD unk, multiple veh, injury, V4  
2655. 1+ conv, HBD unk, multiple veh, injury, V5  
2656. 1+ conv, HBD unk, multiple veh, injury, V6  
2657. 1+ conv, HBD unk, multiple veh, injury, V7  
2658. 1+ conv, HBD unk, multiple veh, injury, V8  
2659. 1+ conv, HBD unk, multiple veh, injury, V9

2660. 1+ conv, HBD unk, multiple veh, fatal, V11  
2661. 1+ conv, HBD unk, multiple veh, fatal, V1  
2662. 1+ conv, HBD unk, multiple veh, fatal, V2  
2663. 1+ conv, HBD unk, multiple veh, fatal, V3  
2664. 1+ conv, HBD unk, multiple veh, fatal, V4  
2665. 1+ conv, HBD unk, multiple veh, fatal, V5  
2666. 1+ conv, HBD unk, multiple veh, fatal, V6  
2667. 1+ conv, HBD unk, multiple veh, fatal, V7  
2668. 1+ conv, HBD unk, multiple veh, fatal, V8  
2669. 1+ conv, HBD unk, multiple veh, fatal, V9

2690. 1+ conv, HBD unk, veh count and/or type unk, V11  
2691. 1+ conv, HBD unk, veh count and/or type unk, V1  
2692. 1+ conv, HBD unk, veh count and/or type unk, V2  
2693. 1+ conv, HBD unk, veh count and/or type unk, V3  
2694. 1+ conv, HBD unk, veh count and/or type unk, V4  
2695. 1+ conv, HBD unk, veh count and/or type unk, V5  
2696. 1+ conv, HBD unk, veh count and/or type unk, V6  
2697. 1+ conv, HBD unk, veh count and/or type unk, V7  
2698. 1+ conv, HBD unk, veh count and/or type unk, V8  
2699. 1+ conv, HBD unk, veh count and/or type unk, V9

2710. 1+ conv, non HBD, single veh, prop damage, V11  
2711. 1+ conv, non HBD, single veh, prop damage, V1  
2712. 1+ conv, non HBD, single veh, prop damage, V2  
2713. 1+ conv, non HBD, single veh, prop damage, V3

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2714. 1+ conv, non HBD, single veh, prop damage, V4  
2715. 1+ conv, non HBD, single veh, prop damage, V5  
2716. 1+ conv, non HBD, single veh, prop damage, V6  
2717. 1+ conv, non HBD, single veh, prop damage, V7  
2718. 1+ conv, non HBD, single veh, prop damage, V8  
2719. 1+ conv, non HBD, single veh, prop damage, V9

2720. 1+ conv, non HBD, single veh, injury, V11  
2721. 1+ conv, non HBD, single veh, injury, V1  
2722. 1+ conv, non HBD, single veh, injury, V2  
2723. 1+ conv, non HBD, single veh, injury, V3  
2724. 1+ conv, non HBD, single veh, injury, V4  
2725. 1+ conv, non HBD, single veh, injury, V5  
2726. 1+ conv, non HBD, single veh, injury, V6  
2727. 1+ conv, non HBD, single veh, injury, V7  
2728. 1+ conv, non HBD, single veh, injury, V8  
2729. 1+ conv, non HBD, single veh, injury, V9

2730. 1+ conv, non HBD, single veh, fatal, V11  
2731. 1+ conv, non HBD, single veh, fatal, V1  
2732. 1+ conv, non HBD, single veh, fatal, V2  
2733. 1+ conv, non HBD, single veh, fatal, V3  
2734. 1+ conv, non HBD, single veh, fatal, V4  
2735. 1+ conv, non HBD, single veh, fatal, V5  
2736. 1+ conv, non HBD, single veh, fatal, V6  
2737. 1+ conv, non HBD, single veh, fatal, V7  
2738. 1+ conv, non HBD, single veh, fatal, V8  
2739. 1+ conv, non HBD, single veh, fatal, V9

2740. 1+ conv, non HBD, multiple veh, prop damage, V11  
2741. 1+ conv, non HBD, multiple veh, prop damage, V1  
2742. 1+ conv, non HBD, multiple veh, prop damage, V2  
2743. 1+ conv, non HBD, multiple veh, prop damage, V3  
2744. 1+ conv, non HBD, multiple veh, prop damage, V4  
2745. 1+ conv, non HBD, multiple veh, prop damage, V5  
2746. 1+ conv, non HBD, multiple veh, prop damage, V6  
2747. 1+ conv, non HBD, multiple veh, prop damage, V7  
2748. 1+ conv, non HBD, multiple veh, prop damage, V8  
2749. 1+ conv, non HBD, multiple veh, prop damage, V9

2750. 1+ conv, non HBD, multiple veh, injury, V11  
2751. 1+ conv, non HBD, multiple veh, injury, V1  
2752. 1+ conv, non HBD, multiple veh, injury, V2  
2753. 1+ conv, non HBD, multiple veh, injury, V3  
2754. 1+ conv, non HBD, multiple veh, injury, V4  
2755. 1+ conv, non HBD, multiple veh, injury, V5  
2756. 1+ conv, non HBD, multiple veh, injury, V6  
2757. 1+ conv, non HBD, multiple veh, injury, V7  
2758. 1+ conv, non HBD, multiple veh, injury, V8  
2759. 1+ conv, non HBD, multiple veh, injury, V9



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2760. 1+ conv, non HBD, multiple veh, fatal, V11  
2761. 1+ conv, non HBD, multiple veh, fatal, V1  
2762. 1+ conv, non HBD, multiple veh, fatal, V2  
2763. 1+ conv, non HBD, multiple veh, fatal, V3  
2764. 1+ conv, non HBD, multiple veh, fatal, V4  
2765. 1+ conv, non HBD, multiple veh, fatal, V5  
2766. 1+ conv, non HBD, multiple veh, fatal, V6  
2767. 1+ conv, non HBD, multiple veh, fatal, V7  
2768. 1+ conv, non HBD, multiple veh, fatal, V8  
2769. 1+ conv, non HBD, multiple veh, fatal, V9

2790. 1+ conv, non HBD, veh count and/or type unk, V11  
2791. 1+ conv, non HBD, veh count and/or type unk, V1  
2792. 1+ conv, non HBD, veh count and/or type unk, V2  
2793. 1+ conv, non HBD, veh count and/or type unk, V3  
2794. 1+ conv, non HBD, veh count and/or type unk, V4  
2795. 1+ conv, non HBD, veh count and/or type unk, V5  
2796. 1+ conv, non HBD, veh count and/or type unk, V6  
2797. 1+ conv, non HBD, veh count and/or type unk, V7  
2798. 1+ conv, non HBD, veh count and/or type unk, V8  
2799. 1+ conv, non HBD, veh count and/or type unk, V9

2810. 1+ conv, HBD, single veh, prop damage, V11  
2811. 1+ conv, HBD, single veh, prop damage, V1  
2812. 1+ conv, HBD, single veh, prop damage, V2  
2813. 1+ conv, HBD, single veh, prop damage, V3  
2814. 1+ conv, HBD, single veh, prop damage, V4  
2815. 1+ conv, HBD, single veh, prop damage, V5  
2816. 1+ conv, HBD, single veh, prop damage, V6  
2817. 1+ conv, HBD, single veh, prop damage, V7  
2818. 1+ conv, HBD, single veh, prop damage, V8  
2819. 1+ conv, HBD, single veh, prop damage, V9

2820. 1+ conv, HBD, single veh, injury, V11  
2821. 1+ conv, HBD, single veh, injury, V1  
2822. 1+ conv, HBD, single veh, injury, V2  
2823. 1+ conv, HBD, single veh, injury, V3  
2824. 1+ conv, HBD, single veh, injury, V4  
2825. 1+ conv, HBD, single veh, injury, V5  
2826. 1+ conv, HBD, single veh, injury, V6  
2827. 1+ conv, HBD, single veh, injury, V7  
2828. 1+ conv, HBD, single veh, injury, V8  
2829. 1+ conv, HBD, single veh, injury, V9

2830. 1+ conv, HBD, single veh, fatal, V11  
2831. 1+ conv, HBD, single veh, fatal, V1  
2832. 1+ conv, HBD, single veh, fatal, V2  
2833. 1+ conv, HBD, single veh, fatal, V3  
2834. 1+ conv, HBD, single veh, fatal, V4  
2835. 1+ conv, HBD, single veh, fatal, V5  
2836. 1+ conv, HBD, single veh, fatal, V6

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FREQ. INCIDENT CODE (CONVICTION, ACCIDENT, OR ACTION)

2837. 1+ conv, HBD, single veh, fatal, V7  
2838. 1+ conv, HBD, single veh, fatal, V8  
2839. 1+ conv, HBD, single veh, fatal, V9

2840. 1+ conv, HBD, multiple veh, prop damage, V11  
2841. 1+ conv, HBD, multiple veh, prop damage, V1  
2842. 1+ conv, HBD, multiple veh, prop damage, V2  
2843. 1+ conv, HBD, multiple veh, prop damage, V3  
2844. 1+ conv, HBD, multiple veh, prop damage, V4  
2845. 1+ conv, HBD, multiple veh, prop damage, V5  
2846. 1+ conv, HBD, multiple veh, prop damage, V6  
2847. 1+ conv, HBD, multiple veh, prop damage, V7  
2848. 1+ conv, HBD, multiple veh, prop damage, V8  
2849. 1+ conv, HBD, multiple veh, prop damage, V9

2850. 1+ conv, HBD, multiple veh, injury, V11  
2851. 1+ conv, HBD, multiple veh, injury, V1  
2852. 1+ conv, HBD, multiple veh, injury, V2  
2853. 1+ conv, HBD, multiple veh, injury, V3  
2854. 1+ conv, HBD, multiple veh, injury, V4  
2855. 1+ conv, HBD, multiple veh, injury, V5  
2856. 1+ conv, HBD, multiple veh, injury, V6  
2857. 1+ conv, HBD, multiple veh, injury, V7  
2858. 1+ conv, HBD, multiple veh, injury, V8  
2859. 1+ conv, HBD, multiple veh, injury, V9

2860. 1+ conv, HBD, multiple veh, fatal, V11  
2861. 1+ conv, HBD, multiple veh, fatal, V1  
2862. 1+ conv, HBD, multiple veh, fatal, V2  
2863. 1+ conv, HBD, multiple veh, fatal, V3  
2864. 1+ conv, HBD, multiple veh, fatal, V4  
2865. 1+ conv, HBD, multiple veh, fatal, V5  
2866. 1+ conv, HBD, multiple veh, fatal, V6  
2867. 1+ conv, HBD, multiple veh, fatal, V7  
2868. 1+ conv, HBD, multiple veh, fatal, V8  
2869. 1+ conv, HBD, multiple veh, fatal, V9

2890. 1+ conv, HBD, veh count and/or type unk, V11  
2891. 1+ conv, HBD, veh count and/or type unk, V1  
2892. 1+ conv, HBD, veh count and/or type unk, V2  
2893. 1+ conv, HBD, veh count and/or type unk, V3  
2894. 1+ conv, HBD, veh count and/or type unk, V4  
2895. 1+ conv, HBD, veh count and/or type unk, V5  
2896. 1+ conv, HBD, veh count and/or type unk, V6  
2897. 1+ conv, HBD, veh count and/or type unk, V7  
2898. 1+ conv, HBD, veh count and/or type unk, V8  
2899. 1+ conv, HBD, veh count and/or type unk, V9

2997. 1+ conviction, unknown accident record

ACTION RECORD INCIDENTS

- 3901. 4-7 point warning letter
- 3902. 8-11 point warning letter
- 3903. VLR warning letter
- 3904. PROB warning letter
- 3905. RFS (reex info/susp)
- 3906. NSS (no show/int susp)
- 3907. INTS (internal susp)
- 3908. ADDS (additional susp)
- 3909. RFR (reex info/revok)
- 3910. CAR (fn coa/int rev)
- 3911. INTR (internal rev)
- 3912. RFLR (reex inf/1 res)
- 3913. INLR (internal 1 res)
- 3914. RFNA (reex inf/talk)
- 3915. MINT (misc internal)
- 3916. RFFA (reex inf/fatal)
- 3917. RFRR (reex inf/rev 1)
- 3998. Other action record

-----  
 Variable 10 POINTS FROM INCIDENT M.D.Codes: 9, None  
 ----- Field Width: 1, Numeric

FREQ. POINTS FROM INCIDENT

- 0. 0 points or No incidents for driver
- 1. 1 point
- 2. 2 points
- 3. 3 points
- 4. 4 points
- 5. 5 points
- 6. 6 points
- 9. Unknown points from conviction incident or  
 Not a conviction incident

-----  
 Variable 11 INCIDENT DATE M.D.Codes: 0, None  
 ----- Field Width: 5, Numeric

FREQ. INCIDENT DATE (JULIAN FORMAT)

- 00000. Unknown
- .
- 28795. December 31, 1978

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Variable 12 VEHICLE TYPE M.D.Codes: 99, None  
-----  
Field Width: 2, Numeric

FREQ. FOR FUTURE USE