Appendix C

Codebook for the Database of Induced-Exposure Crash Involvements
(Crashes from 13 State files, with national weights)

Observations: 2,255,398
Variables: 46

Alphabetic List of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Antilock brake system (4-wheel)</td>
<td>Numeric8</td>
</tr>
<tr>
<td>0</td>
<td>Not ABS-equipped</td>
<td></td>
</tr>
<tr>
<td>.01-.99</td>
<td>proportion of vehicles with ABS (optional but cannot be identified for an individual vehicle from the 1st 12 digits of its VIN)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ABS-equipped</td>
<td></td>
</tr>
<tr>
<td>AWD</td>
<td>All-wheel-drive or 4-wheel-drive</td>
<td>Numeric8</td>
</tr>
<tr>
<td>0</td>
<td>FWD or RWD – i.e., not equipped with AWD or 4-wheel-drive</td>
<td></td>
</tr>
<tr>
<td>.01-.99</td>
<td>proportion of vehicles with AWD or 4-wheel-drive (optional but cannot be identified from 1st 12 digits of VIN)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>equipped with AWD or 4-wheel-drive</td>
<td></td>
</tr>
<tr>
<td>BLOCKER</td>
<td>Voluntary vehicle-to-vehicle compatibility certification</td>
<td>Numeric8</td>
</tr>
<tr>
<td>0</td>
<td>Not certified (or not a pickup truck or SUV)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Certified, Option 1 (bumper height overlap with passenger cars)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Certified, Option 2 (“blocker beam” or other secondary energy-absorbing structure)</td>
<td></td>
</tr>
<tr>
<td>BOD2</td>
<td>Passenger car body type</td>
<td>Numeric8</td>
</tr>
<tr>
<td>0</td>
<td>Not a passenger car</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2-door convertible</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2-door coupe or sedan</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3-door hatchback</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4-door sedan</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5-door hatchback</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Station wagon</td>
<td></td>
</tr>
<tr>
<td>CG</td>
<td>Car group</td>
<td>Numeric8</td>
</tr>
<tr>
<td>1306-65001</td>
<td>Download 10Formats2011.sas, CarGroup2011.docx, or LTVGroup2011.docx for valid codes</td>
<td></td>
</tr>
<tr>
<td>CGP</td>
<td>Car group codes for merging with IHS Automotive data</td>
<td>Numeric8</td>
</tr>
<tr>
<td>1306-65001</td>
<td>Download 10Formats2011.sas, CarGroup2011.docx, or LTVGroup2011.docx for valid codes</td>
<td></td>
</tr>
</tbody>
</table>
COMBO – Side air bag with torso/head protection ("combination" bag)  Type: Numeric8
  0  Not equipped with combo bags
  .01-.99  proportion of vehicles with combo bags (optional but cannot be identified from
            1st 12 digits of VIN)
  .75  Combo bag for driver only
  1  Combo bags for driver and RF passenger (Note: a combo bag is a single bag
      that protects the head and torso; separate curtains and torso bags are coded
      CURTAIN=1, TORSO=1, COMBO=0)

CURBWT – Curb weight (pounds)  Type: Numeric8
  1787 – 7710  Curb weight in pounds

CURTAIN – Head curtain air bags for front-seat occupants  Type: Numeric8
  0  Not equipped with head curtain bags
  .01-.99  proportion of vehicles with curtain bags (optional but cannot be identified from
            1st 12 digits of VIN)
  1  Head curtains for driver and RF passenger

CY – Calendar year  Type: Numeric8
  2005 – 2011  Calendar year in which the crash occurred

DRVAGE – Driver age  Type: Numeric8
  14 – 96  Age of the driver (unknown or out-of-range excluded)

DRVMALE – Male driver  Type: Numeric8
  0  Female driver
  1  Male driver (non-reported gender excluded)

DUMMY – “Dummy” induced-exposure case  Type: Numeric8
  0  Original induced-exposure case, same MY and CY as the case vehicle
  1  No original case available, used a case of the same make-model and MY, but
      different CY
  2  No original case available, used a case of the same make-model, but different
      MY and CY

ESC – Electronic stability control  Type: Numeric8
  0  Not ESC-equipped
  .01-.99  proportion of vehicles with ESC (optional but cannot be identified for an
            individual vehicle from the 1st 12 digits of its VIN)
  1  ESC-equipped

FOOTPRNT – Footprint (square feet)  Type: Numeric8
  26.8 – 80.9  Footprint in square feet (TRAKWDTH X WB_MIN converted to square feet)

119
GE10 – GVWR ≥ 10,000 pounds Type: Numeric8
0 GVWR (gross vehicle weight rating) < 10,000 pounds
1 GVWR ≥ 10,000 pounds

HIFAT_ST – High-fatality-rate State Type: Numeric8
0 One of the 26 States with < 160 crash fatalities per million vehicle registration years in 2005-2011
1 One of the 24 States with > 160 crash fatalities per million vehicle registration years in 2005-2011

MAK2 – Vehicle Make Type: Numeric8
2 Jeep
3 Hummer
6 Chrysler
7 Dodge
11 Sprinter
12 Ford
13 Lincoln
14 Mercury
18 Buick
19 Cadillac
20 Chevrolet
21 Oldsmobile
22 Pontiac
23 GMC
24 Saturn
30 Volkswagen
32 Audi
33 Mini-Cooper
34 BMW
35 Nissan
37 Honda
38 Isuzu
39 Jaguar
41 Mazda
42 Mercedes-Benz
45 Porsche
47 Saab
48 Subaru
49 Toyota (including Scion)
51 Volvo
52 Mitsubishi
53 Suzuki
54 Acura
55 Hyundai
58 Infiniti
59  Lexus
62  Land-Rover
63  Kia
65  Smart

MM2 – Make-model  Type: Numeric8
2001-65031  Download 10Formats2011.sas, CarGroup2011.docx, or LTVGroup2011.docx for valid codes

MMP – Make-model codes for merging with IHS Automotive data  Type: Numeric8
2001-65031  Download 10Formats2011.sas, CarGroup2011.docx, or LTVGroup2011.docx for valid codes

MY – Model year  Type: Numeric8
2003 – 2010  Model year of the case vehicle

NITE – Time of day when the crash occurred  Type: Numeric8
0  6:00 a.m. to 6:59 p.m.
.01-.99  In 2002-2006 Alabama data, estimated probability that the crash occurred from 7:00 p.m. to 5:59 a.m., depending on light condition and month (as inferred from case number)
1  7:00 p.m. to 5:59 a.m.

PASSIVE – Frontal air bags  Type: Numeric8
0  Not equipped with frontal air bags
2  Dual frontal air bags
3  Dual frontal air bags with a manual on-off switch for the RF passenger
9  Unknown if equipped and/or what type

RDSUR – Road surface condition  Type: Numeric8
0  Dry
1  Wet, muddy, or oily
2  Snow, ice, or slush
9  Unknown

REGWTFA – Registration-year weight factor  Type: Numeric8
0 – 18292  Weight factor; share of the nation’s vehicle registration years allocated to this induced-exposure case

ROLLCURT – Head curtain air bags designed to deploy in rollovers  Type: Numeric8
0  Not equipped with rollover curtain bags
.01-.99  proportion of vehicles with rollover curtain bags (optional but cannot be identified from 1st 12 digits of VIN)
1  Rollover curtains for driver and RF passenger (Note: CURTAIN should also be coded 1)
RURAL – County population density Type: Numeric 8
0 Crash occurred in a county with ≥ 250 inhabitants per square mile in the 2000 census
1 Crash occurred in a county with < 250 inhabitants per square mile

SPDLIM55 – Speed limit 55+ Type: Numeric 8
0 Speed limit < 55 mph or not reported, for all roadways involved in the crash
1 Speed limit ≥ 55 mph for at least one roadway involved in the crash

SQUADCAR – Police model Type: Numeric 8
0 Not a Ford Crown Victoria or Chevrolet Impala “police” model and not a 2004-2005 Chevrolet Impala SS
1 Ford Crown Victoria or Chevrolet Impala “police” model or 2004-2005 Chevrolet Impala SS

STATE – State where the crash occurred Type: Numeric 8
1 Alabama
12 Florida
20 Kansas
21 Kentucky
24 Maryland
26 Michigan
29 Missouri
34 New Jersey
42 Pennsylvania
53 Washington State
55 Wisconsin
56 Wyoming

TORSO – Side air bag with torso protection Type: Numeric 8
0 Not equipped with torso bags
.01-.99 proportion of vehicles with torso bags (optional but cannot be identified from 1st 12 digits of VIN)
.25 Torso bag for RF passenger only
1 Torso bags for driver and RF passenger

TRAKWDTH – Track width (inches, average of front and rear wheels) Type: Numeric 8
45.2 – 72.65 Average of front and rear track width, in inches

V1 – 1st character of the VIN Type: Character 1
V2 – 2nd character of the VIN Type: Character 1
V3 – 3rd character of the VIN Type: Character 1
V4 – 4th character of the VIN Type: Character 1
V5 – 5th character of the VIN Type: Character 1
V6 – 6th character of the VIN Type: Character 1
V7 – 7th character of the VIN Type: Character 1
V8 – 8th character of the VIN  
V11 – 11th character of the VIN  
V12 – 12th character of the VIN  

VEHAGE – Vehicle age in years (CY – MY)  
  0 – 8  
  

VMTWTFA – VMT weight factor  
  103 – 265,082,805  
  Weight factor; share of the nation’s VMT allocated to this induced-exposure case.

VTYP – Case vehicle type  
  1  
  2  
  3  
  4  
  5  
  6  
  7  
  7.1  
  8  

WHEELB – Wheelbase (inches)  
  73.0 – 170.3  
  Wheelbase (and if this is a pickup truck, wheelbase for the shortest bed available for this 12-character VIN)