

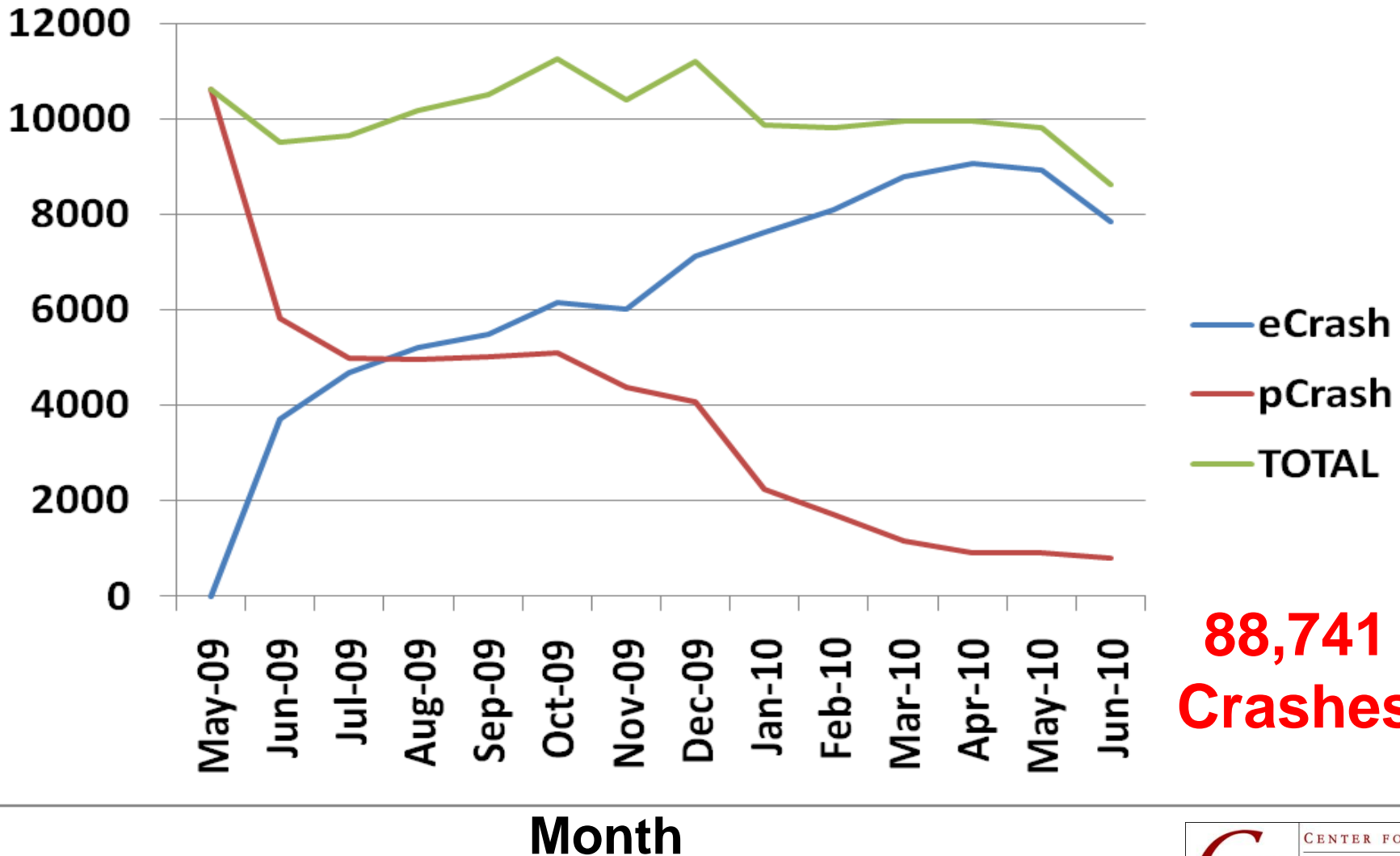
# Alabama's Recent Experience Distracted Driving Data

session of the

## 36<sup>th</sup> International Forum on Traffic Records and Highway Safety Information Systems

# Source of Data: AL eCrash (Data element was not in pCrash)

Number of Crash Reports



**88,741  
Crashes**

# Primary Contributing Circumstance

**90+ Codes are grouped into 8 categories:**

- **General Causes**
- **Specific Driver Actions**
- **Failed to Yield Right-of-Way**
- **Inattentive/Distracted by ...**
- **Other Improper Driver Action**
- **No Improper Driving Action**
- **Pedestrian Actions**
- **Other/Unknown**

# Inattentive/Distracted by ...

- **Distracted by Electronic Communication Device**
  - **Distracted by Use of Other Electronic Device**
  - **Other Distraction Inside the Vehicle**
  - **Other Distraction Outside the Vehicle**
  - **Distracted by Passenger \***
  - **Distracted by Fallen Object\***
  - **Fatigued/Asleep\***
  - **Distracted by Insect/Reptile\***
- \* Not in MMUCC (2008)

# Primary Contributing Circumstance

## Other Variables that Use PCC Codes:

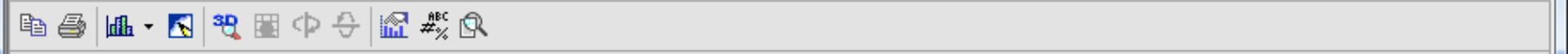
**Unit Contributing Circumstance  
for each unit**

# PCC “Distracted” Codes

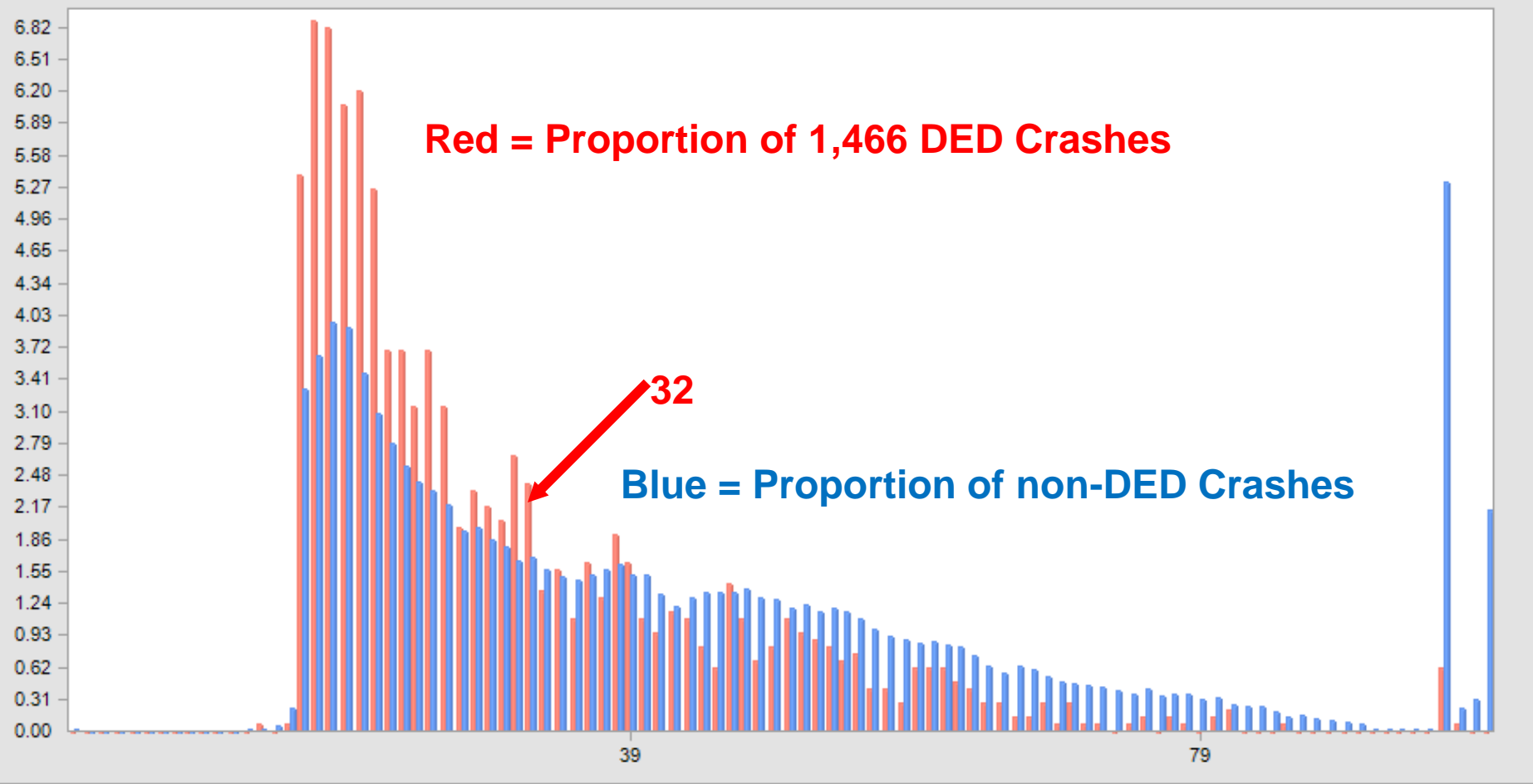
Percentage is of all 88,741 eCrash Records

C015: Primary Contributing Circumstance		For Entire Crash			
Value	Δ	Frequency	Cum. Freq	Percentage	Cum. Percent
Distracted by Fallen Object		323	4501	0.364	5.072
Distracted by Insect / Reptile		66	4567	0.074	5.146
Distracted by Passenger		459	5026	0.517	5.664
Distracted by Use of Electronic Communication		802	5828	0.904	6.567
Distracted by Use of Other Electronic Device		335	6163	0.378	6.945

C202: CU Contributing Circumstance		For the Causal Unit			
Value	Δ	Frequency	Cum. Freq	Percentage	Cum. Percent
Distracted by Fallen Object		1291	5080	1.455	5.725
Distracted by Insect / Reptile		1675	6755	1.888	7.612
Distracted by Passenger		730	7485	0.823	8.435
Distracted by Use of Electronic Communic		289	7774	0.326	8.760
Distracted by Use of Other Electronic Devi		270	8044	0.304	9.065



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
C107: CU Driver Raw Age



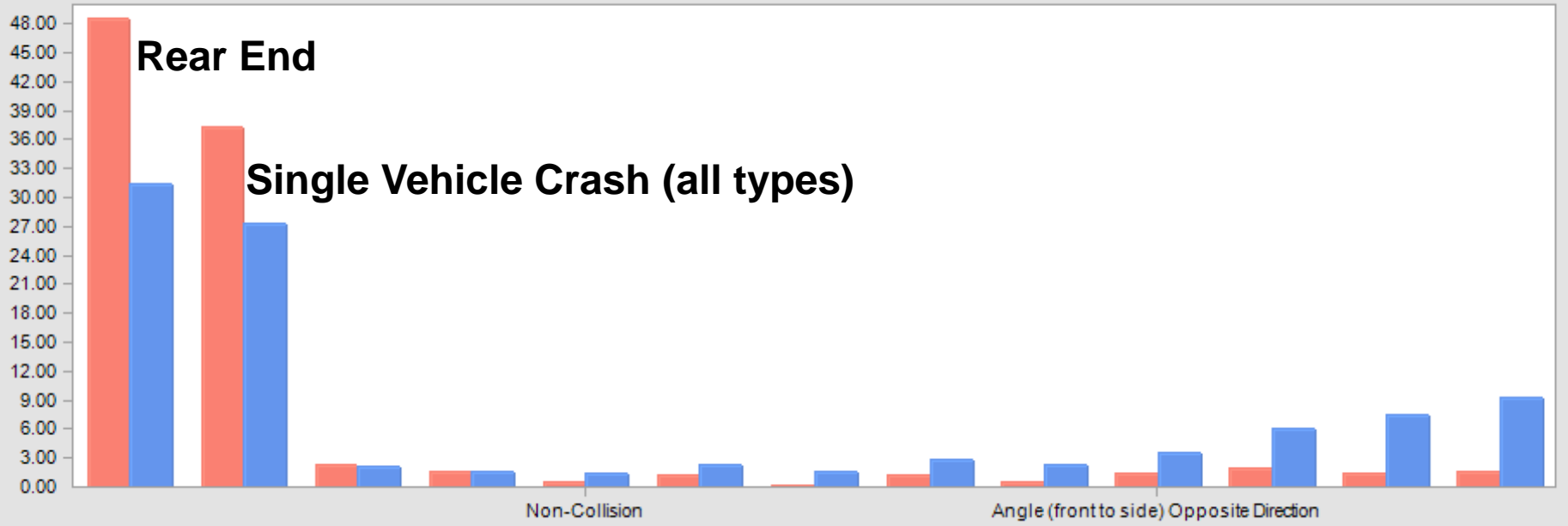
Order By: Max Gain Natural Over Representation Threshold 2.0  
 Descending Suppress Zero-Valued Rows Max Gain

C022: Manner of Crash							
	Value	Subset Freq	Subset Per	Other Freq	Other Per	Over Rep	Max
▶	Rear End (front to rear)	712	48.568	27497	31.506	1.542*	
	Single Vehicle Crash (all types)	546	37.244	23914	27.401	1.359*	
	Head-On (front to front only)	33	2.251	1807	2.070	1.087	
	Sideswipe - Opposite Direction	24	1.637	1452	1.664	0.984	
	Non-Collision	7	0.477	1207	1.383	0.345	
	Angle Oncoming (frontal)	19	1.296	2057	2.357	0.550	
	Causal Veh Backing: Rear to Side	3	0.205	1367	1.566	0.131	
	Angle (front to side) Same Directio	18	1.228	2487	2.850	0.431	

- C015: Primary Contributing Circumstance
  - C202: CU Contributing Circumstance
  - C040: Reporting Officer
  - C022: Manner of Crash
  - C129: CU Vehicle Maneuvers
  - C002: City
  - C107: CU Driver Raw Age
  - C106: CU Driver Age
  - C044: ORI Number
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C022: Manner of Crash

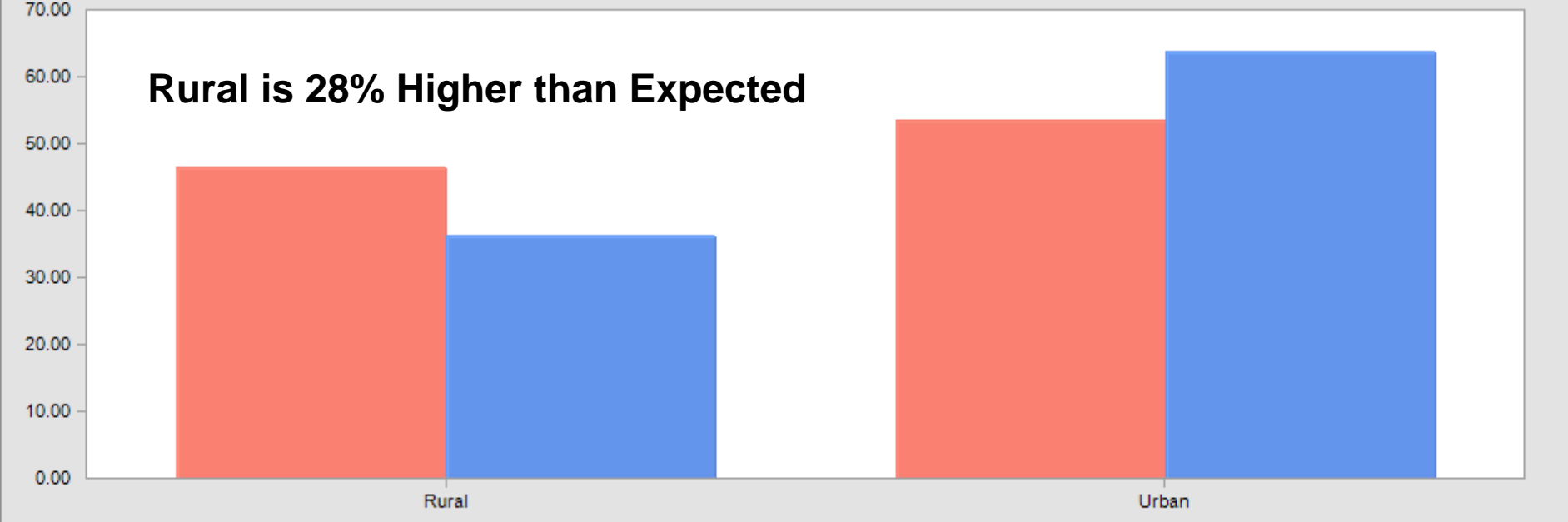


C010: Rural or Urban							
	Value	Subset Freq	Subset Per	Other Freq	Other Per	Over Rep	Max Gair
▶	Rural	680	46.385	31620	36.230	1.280*	148.864
	Urban	786	53.615	55655	63.770	0.841*	-148.864

- C005: Day of Month
  - C006: Day of the Week
  - C007: Week of the Year
  - C008: Time of Day
  - C010: Rural or Urban
  - C011: Highway Classifications
  - C012: Controlled Access
  - C013: Highway Side
  - C014: Distance from Node 1
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
C010: Rural or Urban

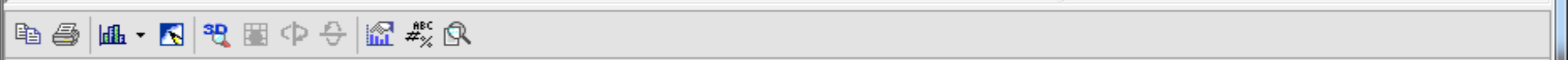


Order By: Max Gain (Natural) Descending (Suppress Zero-Valued Rows) Over Representation (Threshold: 2.0) Max Gain

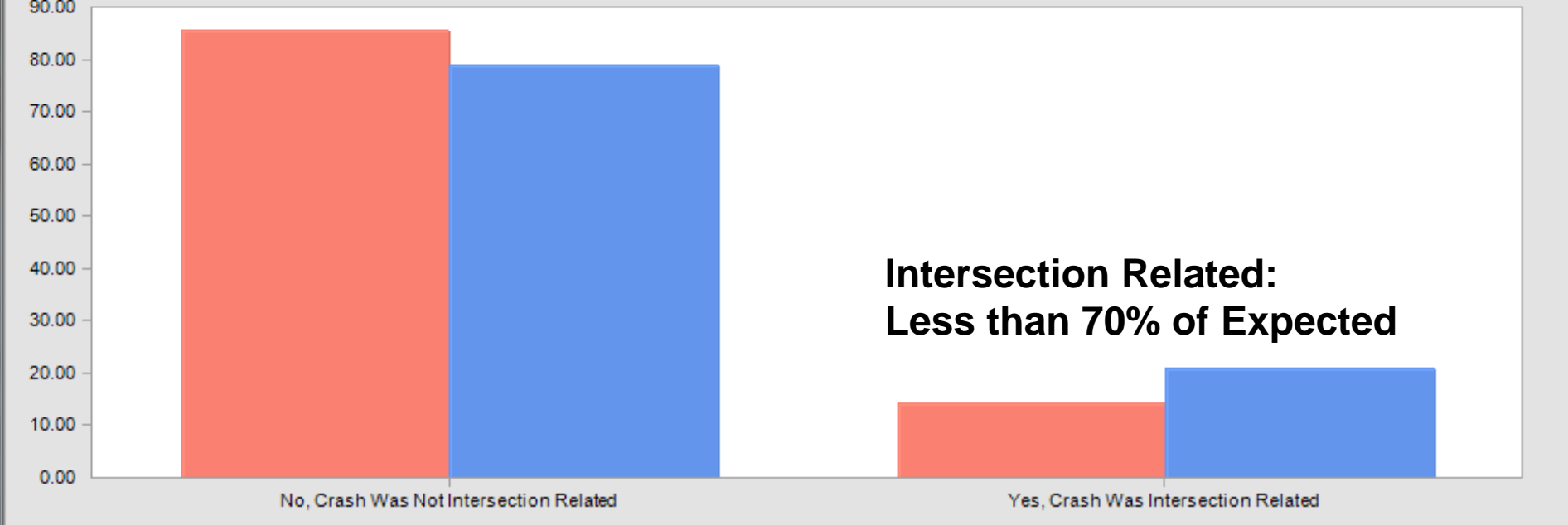
**C025: Intersection Related**

Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
No, Crash Was Not	1256	85.675	68983	79.041	1.084*	97.259
Yes, Crash Was Int	210	14.325	18292	20.959	0.683*	-97.259

- C219: CU Oversized Load Requiring Permit
  - C109: CU Driver Gender
  - C038: Non-Vehicular Property Damage
  - C025: Intersection Related
  - C005: Day of Month
  - C232: CU Areas Damaged #3
  - C326: CU Driver/Non-Motorist Gender
  - C105: CU Left Scene
  - C410: CU Traffic Control Functioning
  - C327: CU Driver Ejection Status
  - C007: ...
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
C025: Intersection Related



File Filters Analysis Locations Search Continuous Impact Tools Help

Default Data Source: Alabama eCrash Crash Data | Default Filter: Distracted by Electronic Device

Filter Logic - C015: Primary Contributing Circumstance = Distracted by Use of Electronic Communication Device OR C015: Primary Contributing Circumstance = Distracted by Use of Other Electronic Device OR C202: CU Contributing Circumstance = Distracted by Use of Electronic Communication Device OR C202: CU C

Order By: Max Gain (Natural) | Over Representation (Threshold: 2.0) | Max Gain

Descending |  Suppress Zero-Valued Rows

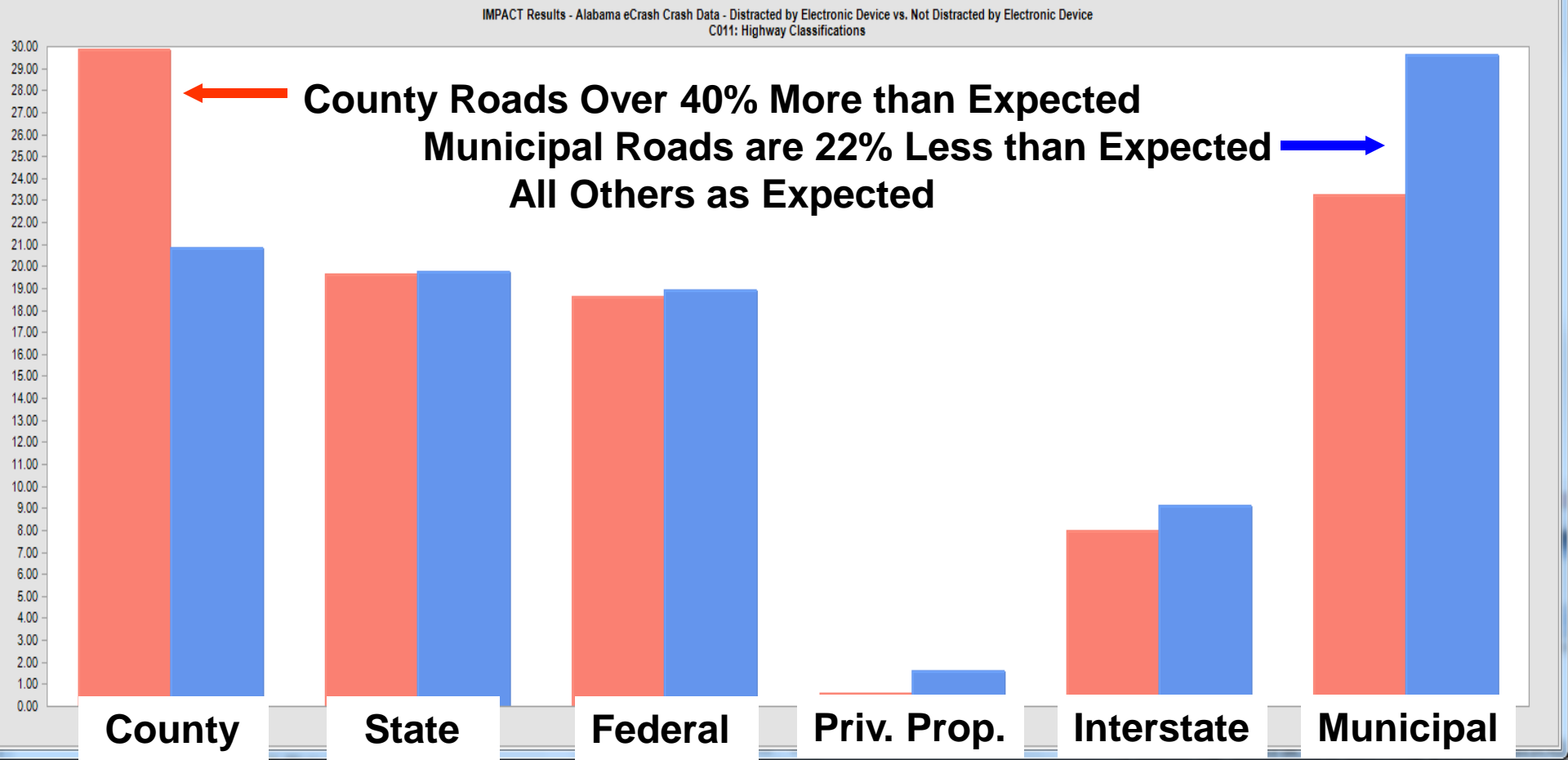
**C011: Highway Classifications**

Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
County	438	29.877	18218	20.874	1.431*	131.984
State	288	19.645	17268	19.786	0.993	-2.059
Federal	273	18.622	16517	18.925	0.984	-4.444
Private Property	9	0.614	1428	1.636	0.375	-14.987
Interstate	117	7.981	7973	9.135	0.874	-16.926
Municipal	341	23.261	25871	29.643	0.785*	-93.568

C206: CU Sequence of Events #3  
 C231: CU Areas Damaged #2  
 C412: CU Trafficway Lanes  
**C011: Highway Classifications**  
 C123: CU Driver Officer Opinion Drugs  
 C114: CU Driver License Status

Sort by Sum of Max Gain

IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C011: Highway Classifications



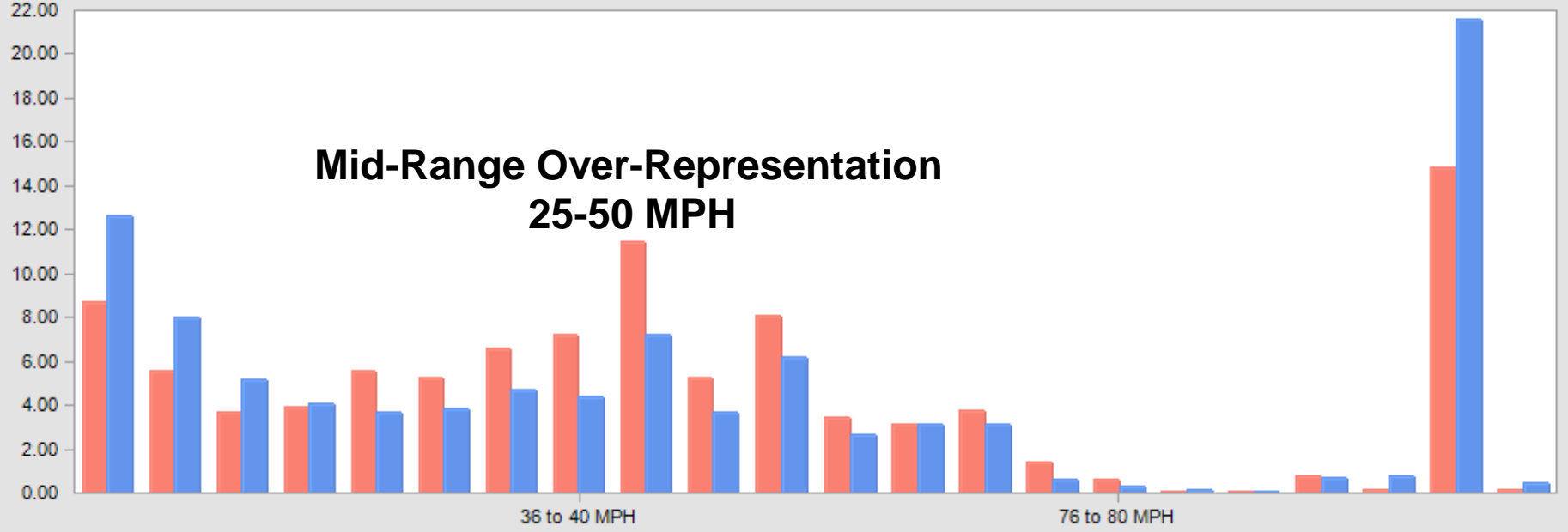
**C223: CU Estimated Speed at Impact**

	Value	Subset Freq	Subset Per	Other Freq	Other Per	Over Rep	Max Gair
▶	1 to 5 MPH	128	8.731	11023	12.630	0.691*	-57.159
	6 to 10 MPH	82	5.593	7005	8.026	0.697*	-35.666
	11 to 15 MPH	54	3.683	4556	5.220	0.706*	-22.529
	16 to 20 MPH	58	3.956	3554	4.072	0.972	-1.698
	21 to 25 MPH	82	5.593	3248	3.722	1.503*	27.442
	26 to 30 MPH	77	5.252	3337	3.824	1.374*	20.947
	31 to 35 MPH	97	6.617	4100	4.698	1.408*	28.130
	36 to 40 MPH	106	7.231	3814	4.370	1.655*	41.934
	41 to 45 MPH	168	11.460	6313	7.233	1.584*	61.958

- C106: CU Driver Age
  - C044: ORI Number
  - C043: Agency ORI
  - C046: Supervising Officer
  - C233: CU Point of Initial Impact
  - C325: CU Driver/Non-Motorist Age
  - C204: CU Sequence of Events #1
  - C223: CU Estimated Speed at Impact
  - C230: CU Areas Damaged #1
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
C223: CU Estimated Speed at Impact



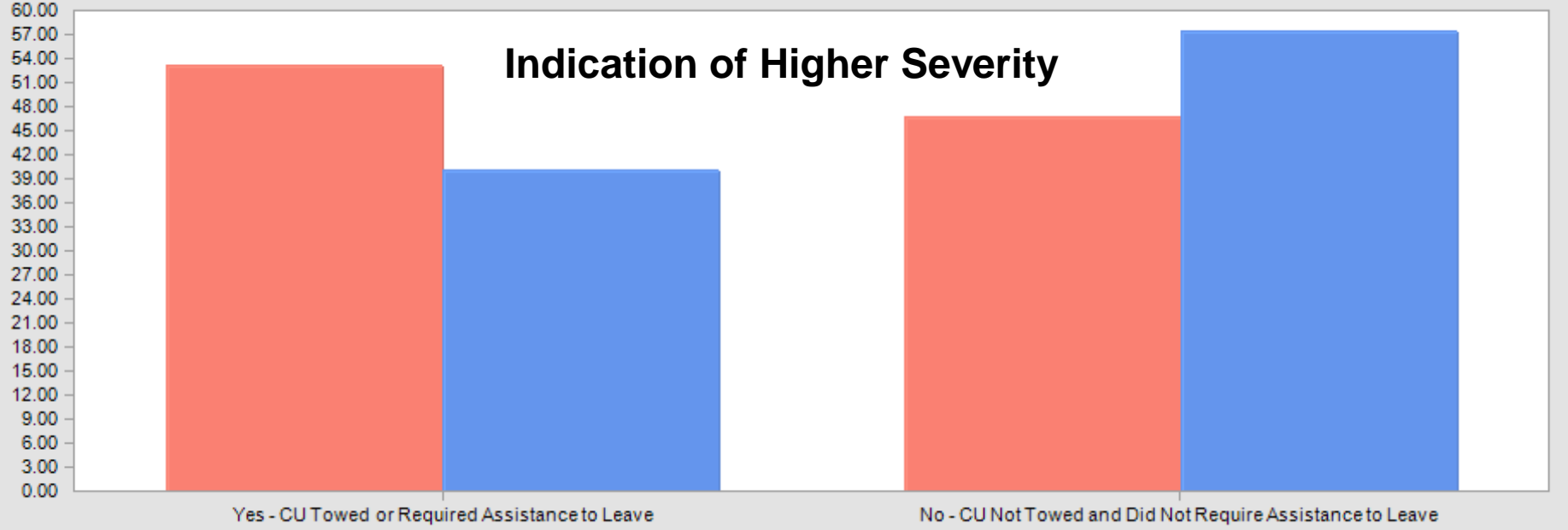
**C227: CU Towed or Assistance to Leave**

Value	Subset Freq	Subset Per	Other Freq	Other Per	Over Rep	Max Gain
Yes - CU Towed or R	780	53.206	35065	40.178	1.324*	190.996
No - CU Not Towed a	686	46.794	50084	57.386	0.815*	-155.285

- C019: Most Harmful Event
  - C120: CU Driver Employment Status
  - C205: CU Sequence of Events #2
  - C324: CU Driver Airbag Status
  - C001: County
  - C226: CU Vehicle Towed
  - C020: Distance to Fixed Object
  - C227: CU Towed or Assistance to Leave
  - C225: CU Vehicle Damage
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C227: CU Towed or Assistance to Leave



Order By: Natural Order Descending Max Gain Suppress Zero-Valued Rows Over Representation Max Gain Threshold 2.0

**C051: Number of Vehicles**

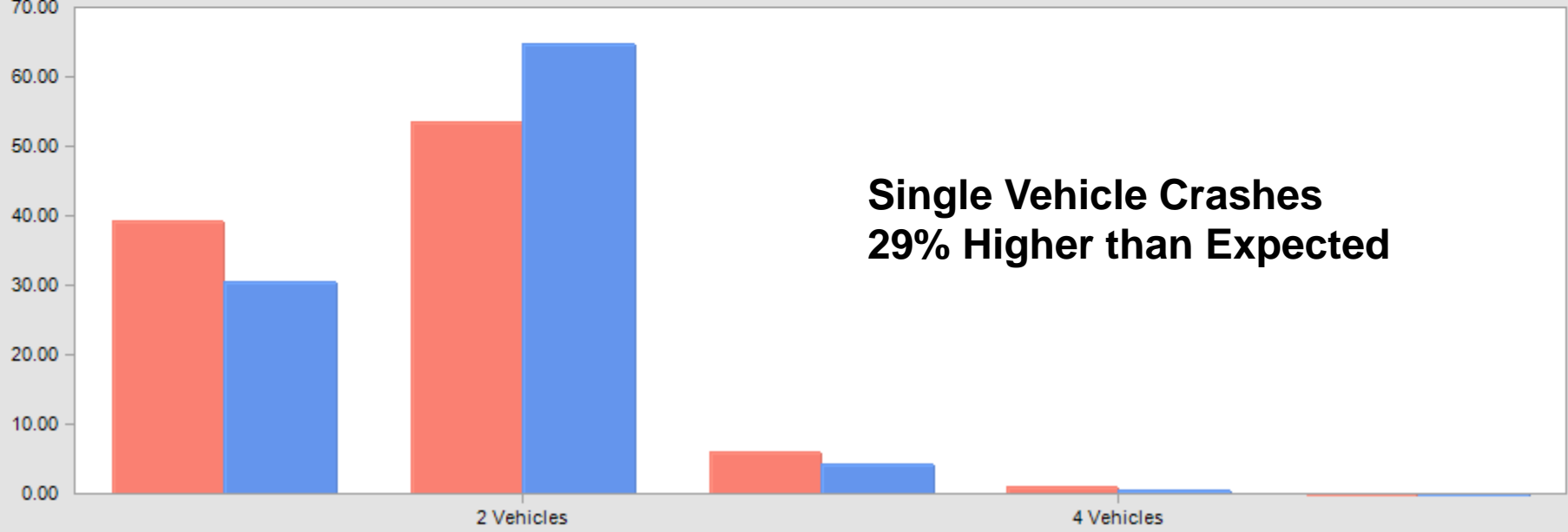
	Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
▶ 1 Vehicle		577	39.359	26622	30.504	1.290*	129.818
2 Vehicles		785	53.547	56498	64.736	0.827*	-164.024
3 Vehicles		89	6.071	3623	4.151	1.462*	28.143
4 Vehicles		14	0.955	428	0.490	1.947	6.811
5 Vehicles		1	0.068	77	0.088	0.773	-0.293

C054: Number of Motorists Recorded  
 C053: Number of Persons Recorded  
 C026: At Intersection  
 C403: CU Roadway Condition  
 C121: CU Driver Condition  
 C112: CU Driver First License Class  
 C051: Number of Vehicles  
 C111: CU Driver License State  
 C409: CU Traffic Control

Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C051: Number of Vehicles



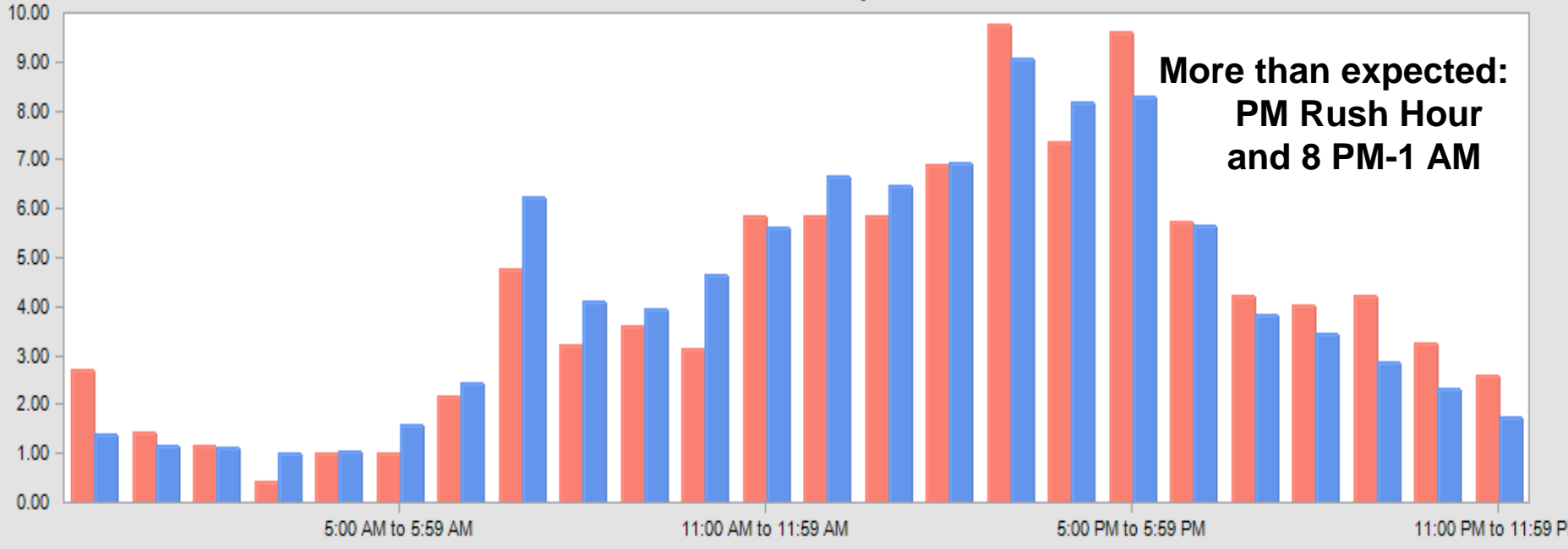
Order By: Natural Order Max Gain Over Representation Threshold 2.0  
 Descending Suppress Zero-Valued Rows Max Gain

C008: Time of Day							
	Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
▶	12:00 Midnight to 12:59 A	40	2.729	1221	1.399	1.950*	19.490
	1:00 AM to 1:59 AM	21	1.432	1006	1.153	1.243	4.102
	2:00 AM to 2:59 AM	17	1.160	990	1.134	1.022	0.370
	3:00 AM to 3:59 AM	6	0.409	880	1.008	0.406	-8.782
	4:00 AM to 4:59 AM	15	1.023	922	1.056	0.969	-0.487
	5:00 AM to 5:59 AM	15	1.023	1400	1.604	0.638	-8.516

C123: CU Driver Officer Opinion Drugs  
 C114: CU Driver License Status  
 C208: CU Model Year  
 C408: CU Vision Obscured By  
 C212: CU License Tag State  
 C008: Time of Day  
 Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C008: Time of Day



Order By: Max Gain Natural Over Representation Threshold 2.0  
 Descending Suppress Zero-Valued Rows Max Gain

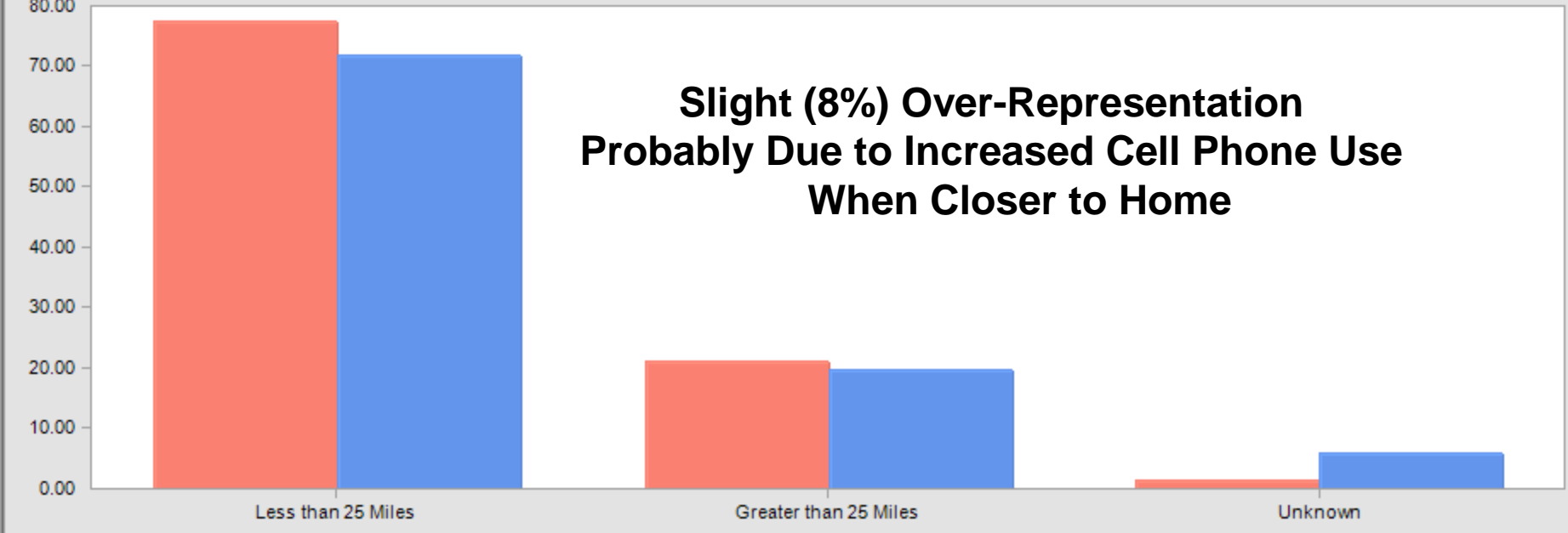
**C110: CU Driver Residence Distance**

Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
Less than 25 Miles	1137	77.558	62559	71.728	1.081*	85.468
Greater than 25 Mil	309	21.078	17274	19.806	1.064	18.647
Unknown	20	1.364	5258	6.029	0.226*	-68.380

- C036: Police Arrival Delay
  - C118: CU Endorsement Violations #1
  - C116: CU DL Restriction Violations #1
  - C101: Causal Unit (CU) Type
  - C110: CU Driver Residence Distance**
  - C113: CU Driver Second License Class
  - C219: CU Oversized Load Requiring Permit
  - C109: CU Driver Gender
  - C038: Non-Vehicular Property Damage
  - C025: Intersection Related
- Sort by Sum of Max Gain

Navigation icons: Print, Copy, Paste, Zoom, etc.

IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C110: CU Driver Residence Distance



Order By: Max Gain (dropdown), Descending (dropdown), Natural (button), Suppress Zero-Valued Rows (checkbox checked), Over Representation (radio selected), Max Gain (radio), Threshold 2.0 (input)

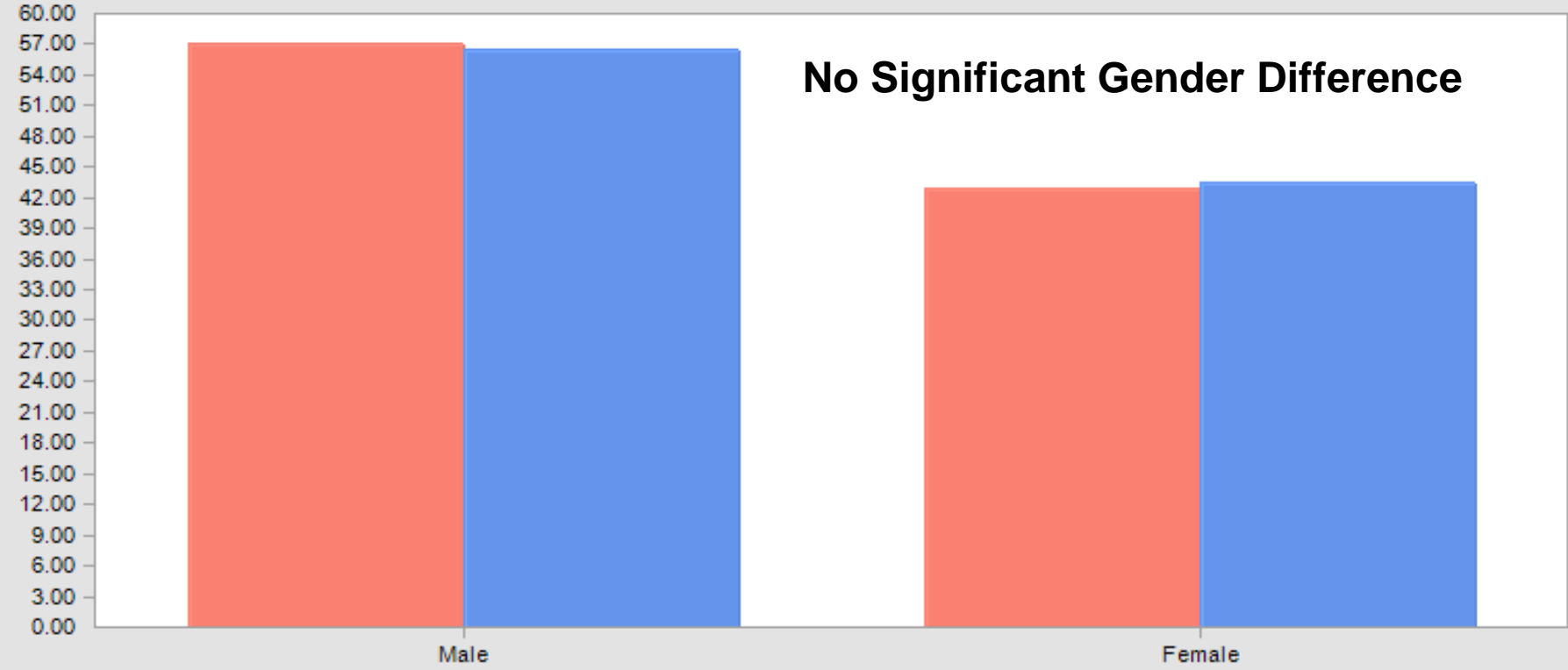
	Value	Subset Freq.	Subset Per.	Other Freq.	Other Per.	Over Rep.	Max Gain
▶	Male	833	57.016	46590	56.443	1.010	8.373
	Female	628	42.984	35954	43.557	0.987	-8.373

C109: CU Driver Gender

Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by E Device Gender vs. Gender-Male Female Only  
C109: CU Driver Gender



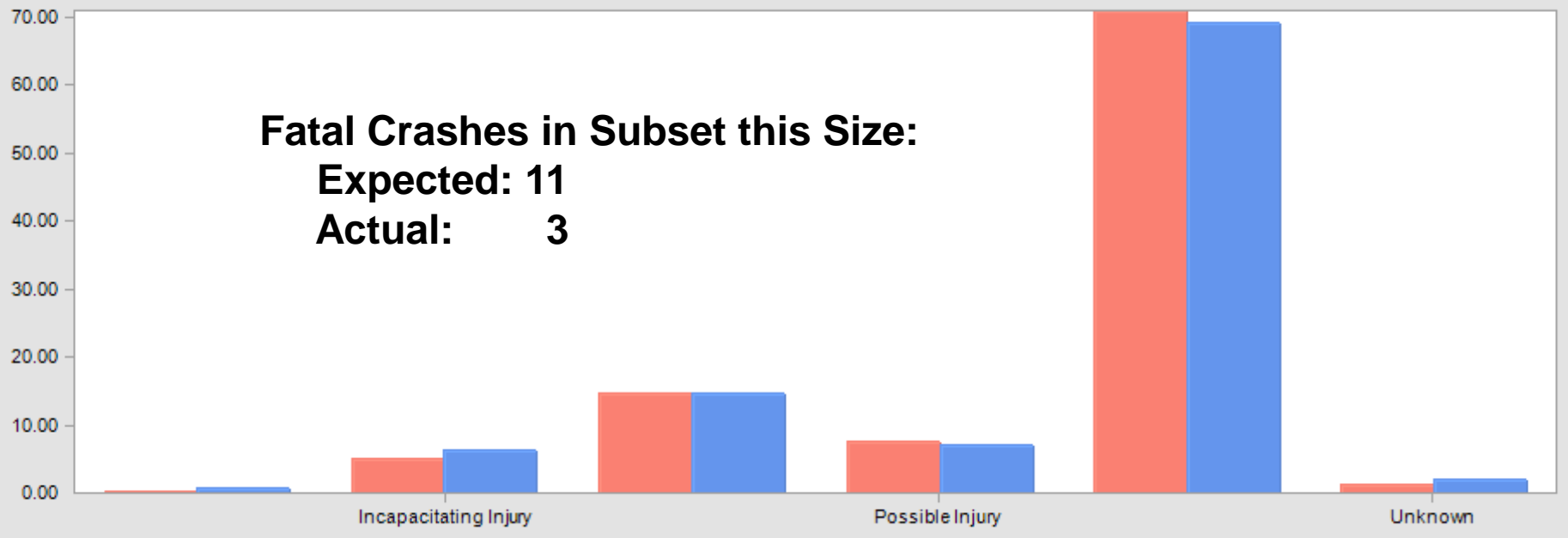
**C024: Crash Severity**

Value	Subset Freq	Subset Per	Other Freq	Other Per	Over Rep	Max Gair
Fatal Injury	3	0.205	632	0.724	0.283	-7.616
Incapacitating Injury	76	5.184	5448	6.242	0.830	-15.513
Non-Incapacitating Injur	216	14.734	12785	14.649	1.006	1.244
Possible Injury	113	7.708	6138	7.033	1.096	9.897
Property Damage Only	1040	70.941	60526	69.351	1.023	23.316
Unknown	18	1.228	1746	2.001	0.614	-11.328

- C018: Location First Harmful Eve
  - C019: Most Harmful Event
  - C020: Distance to Fixed Object
  - C021: Type of Roadway Junctior
  - C022: Manner of Crash
  - C023: School Bus Related
  - C024: Crash Severity
  - C025: Intersection Related
  - C026: At Intersection
- Sort by Sum of Max Gain



IMPACT Results - Alabama eCrash Crash Data - Distracted by Electronic Device vs. Not Distracted by Electronic Device  
 C024: Crash Severity



# Low- of No-Significance Factors

- **Gender and Injury Severity**
- **Number Injured**
- **Bad Weather**
- **Alcohol Involvement**
- **Day of the Week; Month**
- **Roadway Curvature/Grade; *Except Down and Left***
- **CMV Quite Low (30)\* < Half of the Expected**
- **Roadway Defects (7)\*; Workzones (6)\***
- **School Bus Caused (2)\***
- **Pedestrians (4)\*; Bicyclists (2)\***

\* (Of 1466 “Distracted by Electronic Device” Crashes)

# Recommendations

- **Make Distractions a Separate Variable**
- **Additional Training of Officers**
  - **Include it in UnitCC if not PCC**
  - **Clues, Other than Driver Statements**
- **Legislation to Obtain Phone Records**
  - **For all Fatal Crashes**
  - **For all Injury Crashes Above Threshold**
  - **Without Warrant**
  - **Get These Data Into Crash Records**