Results of Thanksgiving Analytics Study Using 2012-2017 Data September 21, 2018 2 URLs need update – to 2016 study and to weather

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Introduction

This document contains the results of several CARE IMPACT comparisons and cross-tabulations that were performed using data from CY 2012-2017, with a concentration on a comparison of the 2017 Thanksgiving week crashes against all crashes in CY2017. The goal of this study was to update a five-year study that was dated September 21, 2017 that was based on CY 2012-2016 data. Both of these studies had the goal of surfacing information that would be useful in developing countermeasures for the reduced fatalities primarily in future Thanksgiving weeks.

The CY 2012-2016 study has been retained and is available on the following Safe Home Alabama web page at <u>http://www.safehomealabama.gov/tag/caps-special-study/</u> and do a page search for the subject of interest. The 2012-2016 study is more detailed and covers more attributes. An effort was made not to unnecessarily duplicate the findings of that study in this one. In some cases where a comparison was beneficial, some of the results of that study have been brought into this one.

This report is organized in the following parts:

- 1. Recommendations;
- 2. General high-level analyses for general introductory and time-of-day purposes;
- 3. Comparisons of Thanksgiving week with non-Thanksgiving week for all five years and within 2017.

In all cases IMPACT analyses were performed where the IMPACT tool's capability to surface those attributes with the highest significance (sum Maximum Gain for each attribute) was exploited. Also, in some cases a cross-tabulation was performed to provide supplementary information. The conclusion for each of these analyses is presented immediately below each of the outputs.

Data for these studies have been provided by crash reports that are maintained by the Alabama Law Enforcement Agency (ALEA).

Recommendations

The following recommendations are made that specifically apply to the reduction of crashes during the Thanksgiving holiday week, with special emphasis on fatality reduction.

- Avoid crashes altogether by traveling at the safer times. See Section 1.6 for the recommended times of travel during Thanksgiving week. Notice that while fewer crashes are recorded to occur very late night and early morning, these times are not recommended for two reasons. Impaired driving (ID) is at its highest during these times, especially on holiday times, and it is very difficult for those who typically do not drive at these times to fight off drowsy driving, which can be as deadly as ID.
- **Reduce speed to the speed limit.** Even a 5 MPH reduction can make a big difference since generally the cruising speed is the greatest determinant of impact speed. Do not wait for an emergency to slow down. Constantly look ahead for brake lights going on. Most GPS systems clearly confirm that an extra 5 mph in speed generates only a very few minutes reduction in trip time, but in a crash it could result in the difference between a fatality and a severe injury.
- Always use safety restraints, and make sure everyone in the car uses theirs, even on the shortest of trips. This is the number one defense against becoming a fatality victim in crashes caused by other drivers. Very few passengers who are properly restrained suffer life-threatening injuries when driving at reasonable speeds.
- Avoid all electronic distractions by delegating all cell phone use to passengers. This has clearly become one of the major causes of crashes over the past five years. The problem is not just one of not having two hands on the wheel. It is caused by the same parts of the brain that are used in phone conversations being essential to safe driving. Texting worsens the problem even further with the travel of a half of a football field for every average five seconds of time that the driver's eyes are off the road.
- **Be particularly watchful for deer.** This is the number one over-represented First Harmful Event for the Thanksgiving week period. In addition, the highest odds ratio of statistical significance was "Swerved to Avoid Animal." While there were 71 deer strikes reported during Thanksgiving week in 2017, these are only reported when law enforcement are called to the scene, and traffic safety professionals have estimated that less than half of all deer strikes are reported. There are several potential reasons for this finding:
 - The time change has put more vehicles on the road at the time when deer are actively looking for food.
 - The worst time for deer activity is right after dark.
 - Hunting season is in and deer are not moving as much during the day as right after darkness falls.
 - Areas in or adjacent to where hunting is not allowed often generate an over-abundance of deer that tend to not fear humans, and are thus particularly vulnerable.

- Area where rye grass has been planted to stabilize the roadside after construction attract deer very close to the roadside, and it is wise to note, slow down and use high beams (when there is no oncoming traffic) to take precautions to avoid deer.
- Have no tolerance at all for impaired driving (ID). Impairment here is from alcohol (which is a drug) or other drugs (even some prescription drugs). Do not drive impaired, and do not ride with anyone who has had any alcohol or drug use at all, including many prescription drugs. Avoid the late-night and early morning hours since this is when impaired driving is at a peak, and you are most likely to be involved by an ID driver.
- Anticipate and avoid bad weather, especially when coupled with darkness. If caught in a heavy storm, take a break from driving until the shower passes. In general, CAPS research has found crashes can increase by as much as 40 percent in wet weather. The dry weather in the 2017 Thanksgiving week was an anomaly. This is a time of year when at least two wet days might be expected.
- **Try to travel in the daylight.** Leave early enough, and allow for the time change, so that you accomplish most of your driving in the daylight. This is especially beneficial on long trips into unfamiliar areas.
- **Travel on the holiday itself.** Thanksgiving, Christmas and New Year's Days *during the daylight hours* are the best times to avoid potential crashes. Nighttime hours on these days is discouraged in that there is a higher probability at these times of encountering impaired drivers who may have been drinking or using recreational drugs for most of the day.
- **Drive defensively** to reduce risk, including: (1) special efforts to put distance between you and other vehicles, e.g., avoid tailgating, (2) learn where they are, and stay out of the blind spots of large trucks, and (3) let aggressive drivers pass by tapering off your speed until they do.

1.0 General High Level Analyses

The purpose of this section is to introduce the analyses by presenting some high level statistics to show the overall impact of crashes on Thanksgiving week.



1.1 C003 Overall Frequency by Year '12-17

The overall Thanksgiving week crash frequency trend was generally increasing, leveling off in 2015-2016. The overall increase in Thanksgiving week crashes from 2012 to 2016 is 556 additional crashes or a 26.2% increase. The overall increase in ALL crashes from 2012 to 2016 is 27,339 crashes, which is 21.3%. This indicates that the Thanksgiving week per cent increase is almost 5% above the overall increase for the same time period.



In order to compare the yearly increase and decreases in both total crashes and fatal crashes over the past six Thanksgiving weeks, the above chart was assembled. It reflects the total crashes given in the IMPACT table above, showing stability over the past three years for total crashes. Fatal crashes have been multiplied by 100 so that their variation could be compared to the total crashes. Multiplying by 100 essentially enables a visualization of the percent of fatalities for any given year. For example, in 2017, the red bar is about half of the orange bar, and the percentage of fatal crashes to all crashes was about half or 0.50% (one in every 200 crashes). Notice how this goes up and down compared to the total crashes, with 2016 having a particularly high ratio (21/2680=0.78%, or one in every 128 crashes). The general average of fatal crashes to all crashes to all crashes.

Translating fatal crashes into fatalities, Thanksgiving week in 2017 had 18 fatalities, since 6 of the 13 fatal crashes had two fatalities, and 3 of them had three fatalities. This compares about even with the rest of the year, where the average fatalities per week over the other 51 weeks was 18.24 fatalities per week.

| <u>F</u> ile <u>D</u> ashb | ooard <u>F</u> ilters | <u>A</u> nalysis <u>C</u> rossta | b <u>L</u> ocations <u>T</u> | ools <u>W</u> indow | <u>H</u> elp | | | - 4 | | | | |
|---|-----------------------|----------------------------------|------------------------------|---------------------|-------------------------|---------|---------|-----|--|--|--|--|
| 2012-2016 Alabama Integrated Crash Data v Thanksgiving Wk 12 Or 13 Or 14 Or 15 Or 16 v 🖓 😨 1/ 1/2012 v 12/31/2016 v 1 | | | | | | | | | | | | |
| uppress Zero Values: None 🗸 Select Cells: 💽 V 🧭 🌱 Column: Crash Severity : Row: Year 🔥 | | | | | | | | | | | | |
| | Fatal Injury | Incapacitating Injury | Non- Incapacitating Inju | Possible Injury | Property Damage Only | Unknown | TOTAL | | | | | |
| 2012 | 10 | 99 | 174 | 161 | 1631 | 49 | 2124 | | | | | |
| 2012 | 12.82% | 18.75% | 18.45% | 15.22% | 17.29% | 15.03% | 17.18% | | | | | |
| 2013 | 17 | 124 | 181 | 211 | 1914 | 53 | 2500 | | | | | |
| 2013 | 21.79% | 23.48% | 19.19% | 19.94% | 20.29% | 16.26% | 20.22% | | | | | |
| 2014 | 18 | 101 | 174 | 201 | 1835 | 63 | 2392 | | | | | |
| 2014 | 23.08% | 19.13% | 18.45% | 19.00% | 19.46% | 19.33% | 19.34% | | | | | |
| 2015 | 12 | 104 | 202 | 242 | 2023 | 86 | 2669 | | | | | |
| 2015 | 15.38% | 19.70% | 21.42% | 22.87% | 21.45% | 26.38% | 21.59% | | | | | |
| 2016 | 21 | 100 | 212 | 243 | 2029 | 75 | 2680 | | | | | |
| 2016 | 26.92% | 18.94% | 22.48% | 22.97% | 21.51% | 23.01% | 21.67% | | | | | |
| TOTAL | 78 | 528 | 943 | 1058 | 9432 | 326 | 12365 | | | | | |
| TOTAL | 0.63% | 4.27% | 7.63% | 8.56% | 76.28% | 2.64% | 100.00% | | | | | |

1.2 C025 Severity by Year for Thanksgiving Weeks 2012-2016

Severity increased in 2013 and 2014, regressed to the mean in 2015, but then dramatically increased by close to 100% in 2016, reflecting the dramatic increase in fatalities in 2016. Two of the fatal crashes in 2016 had two fatalities, so the number of Thanksgiving week fatalities in 2016 was 23.

The number of fatal crashes regressed to its mean in 2017, back down to just 13 fatalities, which is below its average over the past five years of 15.2 fatal crashes per year. The cause of fatalities during Thanksgiving week are essentially the same as those for the rest of the year. See special study for speed:

http://www.safehomealabama.gov/wp-content/uploads/2018/12/Speed-Study-PPT-CY2012-2016-v08.pdf

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|--|-------------------------------|-----------------------------------|------------------------------|---------------------|-----------------------|--------------------|------------------------------|--|--|--|--|--|
| 2012-2016 A | labama Integrated C | irash Data | ~ | Thanksgiving Wk 12 | 2 Or 13 Or 14 Or 15 C |)r 16 ∀ | ¶ ¶ 1/ 1/2012 ∨ 12/31/2016 ∨ | | | | | |
| Suppress Zero Values: None 🗸 Select Cells: 🔳 V 💯 🌱 Column: Year ; Row: Weather | | | | | | | | | | | | |
| | 2012 | 2013 | 2014 | 2015 | 2016 | TOTAL | | | | | | |
| Clear | 1959 92.28% | 1440 57.62% | 1925 80.54% | 2247 84.19% | 2369 88.40% | 9940 80.41% | - | | | | | |
| Cloudy | 160 7.54% | 366 14.65% | 396 16.57% | 272 10.19% | 271 10.11% | 1465 11.85% | - | | | | | |
| Fog | 0 0.00% | 0 0.00% | 6 0.25% | 5 0.19% | 13 0.49% | 24 0.19% | | | | | | |
| E Mist | 0 0.00% | 107 4.28% | 11 0.46% | 27 1.01% | 9 0.34% | 154 1.25% | - | | | | | |
| Rain | 0 0.00% | 568 22.73% | 40 1.67% | 109 4.08% | 13 0.49% | 730 5.91% | | | | | | |
| eet/Hail/Freezin g Rain | 0 0.00% | 9 0.36% | 0 0.00% | 0 | 0 | 9 0.07% | - | | | | | |
| Snow | 0 0.00% | 2 | 0 0.00% | 0 | 0 | 2 | - | | | | | |
| Blowing Snow | 0 | 0 | 0 | 0 | 0 | 0.00% | - | | | | | |
| Severe Winds | 0 0.00% | 1 0.04% | 0 0.00% | 0 | 0 | 1 0.01% | - | | | | | |
| E Blowing Sand/Soil/Dirt | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| Other | 1 0.05% | 3 0.12% | 0 0.00% | 1 0.04% | 0 | 5 0.04% | | | | | | |
| Unknown | 3 0.14% | 3 0.12% | 12 0.50% | 8 0.30% | 5 0.19% | 31 0.25% | | | | | | |
| TOTAL | 2123 17.17% | 2499 20.22% | 2390 19.34% | 2669 21.59% | 2680 21.68% | 12361 100.00% | | | | | | |

1.3 C030 Weather by Year for T Week 2012-2016

CY2013 had 568 = 22.73% of its crashes in rain as opposed to the other years, which had 0%, 1.67%, 4.08% and 0.49%. The decision was made to compare 2016 with combined 2014 and 2015 to obtain a fairer comparison since the rain-caused crashes in these 3 years was comparable. Had 2013 been left in, many attributes would be over-shadowed by the dramatic high level of rain in 2013.

Interesting 2013 had 17 fatalities of which only two (2/17 = 12%) occurred in the rain – about half of the 22.73% that would be expected. Also, 14 fatalities occurred in clear weather, and one in mist. This shows the significant effect of rain in reducing the proportion of crashes that are fatal during rain days.



1.4 Weather for Thanksgiving Week 2017

The weather results for 2017 show that the entire week had dry pavement and an absence of rain. This is the first time that these results have been obtained, and this is particularly relevant for determining the best and worst days of the week to drive, because the presence of rain on any given day can totally skew the results. This will be taken up further in the next section.

1.5 Day of the Week for 2017



Thanksgiving week in 2017 gave us virtual laboratory conditions to study the crash distributions by day and hour. This was because no crashes for thanksgiving week in 2017 were recorded to have occurred in wet weather, and thus weather did not impact the results. CAPS weather research has found that largely wet weather days can increase the number of crashes from weather alone by up to 40%, which would destroy any hope of accurately estimating general time patterns of travel. The cross-tabulation below of time of day by day of the week shows when the most crashes can be expected based solely on time. Please note that the "Sunday" is the Sunday *after* Thanksgiving, not the one before it. The table below the cross-tabulation gives the best and worst hours to be on the road for each day.

| LARE 10.1. | 0.19 - [Cros | sstab Results | - 2013-2017 | Alabama In | tegrated Cras | h Data - Filte | er = 2017 Tha | anks 🗕 🗖 |
|---------------------|----------------------|----------------------------------|---------------------|------------------------------|---------------|----------------|--------------------|-----------------------|
| <u>File D</u> ashbo | oard <u>F</u> ilters | <u>A</u> nalysis <u>C</u> rossta | b <u>L</u> ocations | <u>T</u> ools <u>W</u> indow | <u>H</u> elp | | | |
| 2013-2017 A | abama Integrated (| Crash Data | ~ | 2017 Thanksgiving | | * | See 1/ 1 | /2013 v 12/31/2017 |
| ppress Zero Valu | ues: None | ✓ Select | Cells: 🔳 🗸 🚿 | 9 | | | Column: Day of the | Week ; Row: Time of [|
| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | TOTAL |
| 00 Midnight to | 8 | 3 | 4 | 6 | 6 | 4 | 9 | 40 |
| 12:59 AM | 2.25% | 0.65% | 0.87% | 1.25% | 2.59% | 1.20% | 2.97% | 1.52% |
| 00 AM to 1:59 AM | 6 1.69% | 3 | 4 | 0.21% | 8 3.45% | 1 0.30% | 4 1.32% | 27 |
| 0 AM to 2:59 | 5 | 2 | 3 | 1 | 3 | 6 | 8 | 28 |
| AM | 1.41% | 0.44% | 0.65% | 0.21% | 1.29% | 1.80% | 2.64% | 1.07% |
| 00 AM to 3:59 | 5 | 4 | 3 | 1 | 2 | 4 | 6 | 25 |
| AM | 1.41% | 0.87% | 0.65% | 0.21% | 0.86% | 1.20% | 1.98% | 0.95% |
| 00 AM to 4:59 | 7 | 2 | 2 | 1 | 2 | 3 | 4 | 21 |
| AM | 1.97% | 0.44% | 0.43% | 0.21% | 0.86% | 0.90% | 1.32% | 0.80% |
| 00 AM to 5:59 | 6 | 6 | 7 | 4 | 3 | 1 | 4 | 31 |
| AM | 1.69% | 1.31% | 1.52% | 0.84% | 1.29% | 0.30% | 1.32% | 1.18% |
| 00 AM to 6:59 | 2 | 18 | 5 | 8 | 3 | 8 | 5 | 49 |
| AM | 0.56% | 3.92% | 1.08% | 1.67% | 1.29% | 2.40% | 1.65% | 1.87% |
| 00 AM to 7:59 | 7 | 26 | 15 | 15 | 2 | 7 | 6 | 78 |
| | 1.97% | 5.66% | 3.25% | 3.13% | 0.86% | 2.10% | 1.98% | 2.97% |
| 00 AM to 8:59 AM | 13 3.66% | 21 4.58% | 14 3.03% | 14 2.92% | 5 2.16% | 7 2.10% | 6 | 80 3.05% |
| 00 AM to 9:59 | 3.00% | 4.56% | 17 | 18 | 2.10% | 12 | 1.98% | 90 |
| AM AM to 5:55 | 2.25% | 4.36% | 3.68% | 3.76% | 2.16% | 3.60% | 3.30% | 3.43% |
| 00 AM to 10:59 | 15 | 4.30% | 21 | 21 | 2.10% | 12 | 14 | 110 |
| AM 10 10.55 | 4.23% | 4.14% | 4.55% | 4.38% | 3.45% | 3.60% | 4.62% | 4.19% |
| 00 AM to 11:59 | 32 | 30 | 19 | 30 | 13 | 20 | 24 | 168 |
| AM | 9.01% | 6.54% | 4.11% | 6.26% | 5.60% | 6.01% | 7.92% | 6.40% |
| 2:00 Noon to | 19 | 34 | 32 | 38 | 11 | 18 | 21 | 173 |
| 12:59 PM | 5.35% | 7.41% | 6.93% | 7.93% | 4.74% | 5.41% | 6.93% | 6.60% |
| 00 PM to 1:59 | 34 | 40 | 29 | 42 | 7 | 31 | 18 | 201 |
| PM | 9.58% | 8.71% | 6.28% | 8.77% | 3.02% | 9.31% | 5.94% | 7.66% |
| 0 PM to 2:59 | 33 | 29 | 36 | 40 | 14 | 30 | 14 | 196 |
| PM | 9.30% | 6.32% | 7.79% | 8.35% | 6.03% | 9.01% | 4.62% | 7.47% |
| 00 PM to 3:59 | 38 | 40 | 46 | 55 | 18 | 25 | 6 | 228 |
| PM | 10.70% | 8.71% | 9.96% | 11.48% | 7.76% | 7.51% | 1.98% | 8.69% |
| 00 PM to 4:59 PM | 25 | 34 | 30 | 41 | 17 | 21 | 9 | 177 |
| | 7.04% | 7.41% | 6.49% | 8.56% | 7.33% | 6.31% | 2.97% | 6.75% |
| 00 PM to 5:59 PM | 30 | 49 | 68 | 45 | 30 | 38 | 18 | 278 |
| | 8.45% | 10.68% | 14.72% | 9.39% | 12.93% | 11.41% | 5.94% | 10.60% |
| 00 PM to 6:59 PM | 16 4.51% | 36 7.84% | 41 8.87% | 35 7.31% | 15 6.47% | 31 9.31% | 38 12.54% | 212 8.08% |
| 00 PM to 7:59 | 4.51% | 20 | 22 | 7.31% | 6.47% | 9.31% | 12.54% | 8.08% |
| PM to 7:59 | 2.54% | 4.36% | 4.76% | 3.13% | 7.76% | 5.11% | 6.93% | 4.65% |
| 00 PM to 8:59 | 15 | 4.30% | 4.76% | 13 | 14 | 11 | 18 | 91 |
| PM 10 8.55 | 4.23% | 1.31% | 3.03% | 2.71% | 6.03% | 3.30% | 5.94% | 3.47% |
| 00 PM to 9:59 | 12 | 6 | 15 | 14 | 18 | 10 | 8 | 83 |
| PM PM | 3.38% | 1.31% | 3.25% | 2.92% | 7.76% | 3.00% | 2.64% | 3.16% |
| 00 PM to 10:59 | 7 | 6 | 6 | 10 | 7 | 9 | 21 | 66 |
| PM PM | 1.97% | 1.31% | 1.30% | 2.09% | 3.02% | 2.70% | 6.93% | 2.52% |
| 00 PM to 11:59 | 2 | 4 | 9 | 10 | 2 | 7 | 11 | 45 |
| PM | 0.56% | 0.87% | 1.95% | 2.09% | 0.86% | 2.10% | 3.63% | 1.72% |
| 11-1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 4 |
| Unknown | 0.28% | 0.22% | 0.00% | 0.21% | 0.43% | 0.00% | 0.00% | 0.15% |
| TOTAL | 355 | 459 | 462 | 479 | 232 | 333 | 303 | 2623 |
| TOTAL | 13.53% | 17.50% | 17.61% | 18.26% | 8.84% | 12.70% | 11.55% | 100.00% |

1.6 Time of Day by Day of the Week Crashes in 2017 Thanksgiving Week

The Sunday here is the Sunday AFTER the Thanksgiving holiday (considerable traffic from those returning). See the table below for best and worst times to be on the highways. The Sunday before Thanksgiving had only 261 crashes, which made it an excellent choice for travel, comparable to Thanksgiving Day itself.

| Day | Best Times* to Travel | Worst Times* to Travel** |
|---------------|----------------------------|--------------------------|
| Monday | Before 6AM or After 8PM** | 6AM until 8PM |
| Tuesday | Before 7AM or After 10PM** | 7AM until 10PM |
| Wednesday | Before 7AM or After 8PM** | 7AM until 8PM |
| Thanksgiving | Before 3PM or After 10PM | 3PM until 10PM |
| Friday | Before 11AM or After 8PM | 11AM until 8PM |
| Saturday | Before 11AM or After 9 PM | 11AM until 9PM |
| Sunday Return | Before 10AM or After 7PM | 10AM until 7PM |

| Best and Worst | t Times to | Travel | during | Thanksgiving Week |
|----------------|------------|--------|--------|-------------------|
| | | | | |

This information is presented graphically below.

*Times given are exact points in time (would include the hour after the time point).

**Late night (after11PM) and very early morning (before 5AM) hours should always be avoided because of increased Impaired and Drowsy Driving risks, especially in holiday periods.



1.7 C008 Time of Day

| CA | RE 10.1.0.19 - [IMI | PACT Resu | ults - 201 | 3-2017 A | labama Ir | ntegrated | Crash Da | ıta - 2017 Than 🗕 🗖 🗙 |
|----------|-------------------------------------|---------------------------|-------------------|---------------------|------------------|---------------|-------------|--|
| 🔋 Ei | e <u>D</u> ashboard <u>F</u> ilters | <u>A</u> nalysis <u>I</u> | mpact <u>L</u> oc | ations <u>T</u> ool | s <u>W</u> indow | <u>H</u> elp | | _ & × |
| 6 | 2013-2017 Alabama Integrated | l Crash Data | | × 2 | 017 Thanksgivi | ing | | ✓ ♥ 1/ 1/2013 ∨ 12/3* |
| Order: | Natural Order 🗸 De | escending | 🗸 🗸 Si | uppress Zero-V | alued Rows | Signifi | cance: Over | Representation v Threshold: 2.0 文 |
| C008: | Time of Day | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C001: County A C002: City |
| • | 12:00 Midnight to 12:59 AM | 40 | 1.52 | 1851 | 1.18 | 1.293 | 9.076 | C003: Year |
| | 1:00 AM to 1:59 AM | 27 | 1.03 | 1544 | 0.98 | 1.047 | 1.205 | C004: Month |
| | 2:00 AM to 2:59 AM | 28 | 1.07 | 1462 | 0.93 | 1.146 | 3.575 | C005: Day of Month C006: Day of the Week |
| | 3:00 AM to 3:59 AM | 25 | 0.95 | 1316 | 0.84 | 1.137 | 3.014 | C007: Week of the Year |
| | 4:00 AM to 4:59 AM | 21 | 0.80 | 1457 | 0.93 | 0.863 | -3.342 | C008: Time of Day |
| | 5:00 AM to 5:59 AM | 31 | 1.18 | 2471 | 1.57 | 0.751 | -10.283 | C009: Data Source |
| | 6:00 AM to 6:59 AM | 49 | 1.87 | 4144 | 2.64 | 0.708* | -20.233 | C010: Rural or Urban C011: Highway Classifications |
| | 7:00 AM to 7:59 AM | 78 | 2.97 | 9865 | 6.28 | 0.473* | -86.814 | C012: Controlled Access |
| | 8:00 AM to 8:59 AM | 80 | 3.05 | 6962 | 4.43 | 0.688* | -36.313 | C013: E Highway Side |
| | 9:00 AM to 9:59 AM | 90 | 3.43 | 6155 | 3.92 | 0.875 | -12.831 | C015: Primary Contributing Circumstance |
| | 10:00 AM to 10:59 AM | 110 | 4.19 | 6979 | 4.45 | 0.943 | -6.597 | C016: Primary Contributing Unit Numbe C017: First Harmful Event |
| | 11:00 AM to 11:59 AM | 168 | 6.40 | 8462 | 5.39 | 1.188 | 26.626 | C018: Location First Harmful Event Rel t |
| | 12:00 Noon to 12:59 PM | 173 | 6.60 | 10266 | 6.54 | 1.009 | 1.487 | C019: E Most Harmful Event |
| | 1:00 PM to 1:59 PM | 201 | 7.66 | 10238 | 6.52 | 1.175* | 29.955 | C020: E Distracted Driving Opinion |
| | 2:00 PM to 2:59 PM | 196 | 7.47 | 11005 | 7.01 | 1.066 | 12.141 | C021: Distance to Fixed Object C022: E Type of Roadway Junction/Featu |
| | 3:00 PM to 3:59 PM | 228 | 8.69 | 13928 | 8.87 | 0.980 | -4.694 | C023: E Manner of Crash |
| | 4:00 PM to 4:59 PM | 177 | 6.75 | 13285 | 8.46 | 0.797* | -44.951 | C024: School Bus Related |
| | 5:00 PM to 5:59 PM | 278 | 10.60 | 14327 | 9.13 | 1.161* | 38.640 | C025: Crash Severity |
| | 6:00 PM to 6:59 PM | 212 | 8.08 | 9205 | 5.86 | 1.379* | 58.213 | C026: Intersection Related C027: At Intersection |
| | 7:00 PM to 7:59 PM | 122 | 4.65 | 6300 | 4.01 | 1.159 | 16.747 | C028: Mileposted Route |
| | 8:00 PM to 8:59 PM | 91 | 3.47 | 5246 | 3.34 | 1.038 | 3.356 | C029: Lighting Conditions |
| | 9:00 PM to 9:59 PM | 83 | 3.16 | 4473 | 2.85 | 1.111 | 8.270 | C030: Weather |
| | 10:00 PM to 10:59 PM | 66 | 2.52 | 3380 | 2.15 | 1.169 | 9.531 | C031: Locale C032: E Police Present at Time of Crast |
| | 11:00 PM to 11:59 PM | 45 | 1.72 | 2389 | 1.52 | 1.127 | 5.087 | C033: Police Notification Delay |
| | Unknown | 4 | 0.15 | 291 | 0.19 | 0.823 | -0.862 | Sort by Sum of Max Gain |
| | i 😪 🔎 | | | | | | | 🗌 Display |
| | | | | 2013-2017 Alab | - | | | |
| | | | | CO | 08: Time of Day | У | | |
| | 15 | | | | | | | |
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| i i | 3 10 | | | | | _ | | |
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| | | | | 110 | | | | 1 Concernent of the second sec |
| | - | | | | | | | |
| | 0 | | | | | | | |
| | | 4:00 AM to 4 | :59 AM 9 | :00 AM to 9:5 | | 00 PM to 2:59 | PM 7:00 | PM to 7:59 PM Unknown |
| | | | | | C008: Time | of Day | | |

Rush hours are not nearly as pronounced, especially the morning rush hours, which are actually significantly under-represented. The afternoon rush hours are shifted back somewhat to 5 PM until 7 PM. Late nights are not as over-represented as mid-day, but 1-2 PM is the only hour that has a significant over-representation. The major thing to recognize, however, is that although crashes are not high in frequency at night, neither are they under-represented, and darkness comes much earlier in the Thanksgiving week than many drivers might be anticipating because of the time change.

| Ē | RE 10.1.0.19 - [IN le <u>D</u> ashboard <u>F</u> ilters | | | ations <u>T</u> oo | | <u>H</u> elp | | | | - 8 |
|----------------|--|--|---------------------------|--|------------------|---------------|-----------------------------|----------------|--------------|-----------|
| <u> </u> | 2013-2017 Alabama Integrate | ed Crash Data | | × 2 | 2017 Thanksgivi | ing | | ¥ 🦉 | 7 1/ 1/2 | 2013 v 12 |
| Order: | Max Gain 🗸 🗸 | escending) | ✓ ✓ Si | uppress Zero-\ | /alued Rows | Signifi | cance: Over F | Representation | ✓ Threshold: | 2.0 韋 |
| : 029 : | Lighting Conditions | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain 👻 | C029: Lightin | g Conditions | |
| | Dark - Roadway Not Light | 382 | 14.62 | 14226 | 9.12 | 1.604* | 143.902 | | | |
| | E Dark - Spot Illumination | 275 | 10.53 | 9477 | 6.07 | 1.734* | 116.385 | | | |
| | E Dark - Continuous Lighti | 145 | 5.55 | 5029 | 3.22 | 1.723* | 60.830 | | | |
| | E Dark - Spot Illumination | 123 | 4.71 | 5135 | 3.29 | 1.431* | 37.056 | | | |
| | Dusk | 103 | 3.94 | 4637 | 2.97 | 1.327* | 25.391 | | | |
| | Dark - Roadway Lighted | 20 | 0.77 | 507 | 0.32 | 2.357* | 11.514 | | | |
| | E Dark - Continuous Lighti | 21 | 0.80 | 775 | 0.50 | 1.619 | 8.029 | | | |
| | E Dark - Unknown Road | 15 | 0.57 | 540 | 0.35 | 1.660 | 5.962 | | | |
| | Dawn | 32 | 1.23 | 2095 | 1.34 | 0.913 | -3.064 | | | |
| | Daylight | 1496 | 57.27 | 113642 | 72.82 | 0.787* | -406.007 | Sort by Sum | of Max Gain | |
|] () |) 😪 🖉 | | | | | | | | | Disp |
| | | | | 2013-2017 Ala | bama Integrated | d Crash Data | | | | |
| | | | | C029: | Lighting Condit | tions | | | | |
| | | | | | | | | | | _ |
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| | | | | | | | | | | |
| | 0 | | | | | | | | | |
| | 0 | E Dark - Spot Illum Both Sides of Roa | ination E Dar dway One | k - Spot Illuminati Side of Roadway | on Dark - Ro | adway Lighted | E Dark - Unk Roadway Lig | | Daylight | |
| | | | | C | 029: Lighting Co | nditions | | | | |

1.8 C029 Lighting Conditions

This should make it clear that travel is much safer in the day light. Adding to this, the fact that this is when more cars are on the road, further reinforces this finding.

2.0 Comparison of T Week with Non-T Week (2012-2016 updated with 2017)

The purpose of these comparisons was to determine what in Thanksgiving week was "different." What about the crashes during Thanksgiving week over the past five years had attributes so out of line as to make their odds ratios statistically significant (either greater than or less than 1.0, which would be the odds ratio if Thanksgiving week proportion were identical to the non-Thanksgiving week proportion.

2.1 C003 Year



The Thanksgiving week proportions were only significantly different in 2012 and 2013, indication that Thanksgiving week total crashes followed the same trend as non-Thanksgiving week overall crash frequencies. Other comparisons by year (including 2017) are given in Section 1.2.

| CA | ARE 10.1.0.19 - [IMPA | CT Results | - 2012-20 | 16 Alaban | na Integrat | ed Crash I | Data - Thai | nksgiving Wk 🗕 🗖 | x |
|----------|--|--------------------------|-------------------|---|--------------------|-------------------|---|--------------------------------------|-------|
| <u>E</u> | ile <u>D</u> ashboard <mark>Filters A</mark> | nalysis <u>I</u> mpact | <u>L</u> ocations | <u>T</u> ools <u>W</u> ir | ndow <u>H</u> elp | | | - | 8 |
| 6 | 2012-2016 Alabama Integrated Cr | ash Data | ~ | Thanksgiv | ring Wk 12 Or 13 | Or 14 Or 15 Or 1 | 6 🗸 | ✓ ♥ 1/ 1/2012 ∨ 12/31/2010 | l6 ∨ |
| Order | r: Odds Ratio V Desce | ending v | Suppress | s Zero-Valued Ro | ows | Sign | ificance: Over | Representation V Threshold: 2.0 | ÷ |
| C015 | Primary Contributing Circumst | ance Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C015: Primary Contributing Circumsta | iance |
| • | E Swerved to Avoid Animal | 198 | 1.95 | 7849 | 1.39 | 1.398* | 56.340 | | |
| | E Crossed Centerline | 165 | 1.62 | 7393 | 1.31 | 1.237* | 31.570 | | |
| | DUI | 500 | 4.92 | 22542 | 4.01 | 1.229* | 93.157 | | |
| | Unseen Object/Person/Vehicle | 966 | 9.51 | 45942 | 8.16 | 1.165* | 136.829 | | |
| | E Aggressive Operation | 192 | 1.89 | 9326 | 1.66 | 1.141 | 23.682 | | |
| | E Fatigued/Asleep | 225 | 2.22 | 11136 | 1.98 | 1.119 | 24.015 | | |
| | E Other Failed to Yield | 129 | 1.27 | 6502 | 1.16 | 1.099 | 11.651 | | |
| | E Ran off Road | 303 | 2.98 | 15439 | 2.74 | 1.087 | 24.354 | | |
| | Improper Lane Change/Use | 594 | 5.85 | 30559 | 5.43 | 1.077 | 42.465 | | |
| | E Failed to Yield Right-of-Way | 197 | 1.94 | 10219 | 1.82 | 1.068 | 12.565 | | |
| | E Swerved to Avoid Vehicle | 309 | 3.04 | 16719 | 2.97 | 1.024 | 7.252 | | |
| | Improper Backing | 330 | 3.25 | 17875 | 3.18 | 1.023 | 7.388 | | |
| | Followed too Close | 1734 | 17.07 | 95155 | 16.91 | 1.010 | 16.622 | | |
| | Over Speed Limit | 202 | 1.99 | 11100 | 1.97 | 1.008 | 1.665 | | |
| | E Other - No Improper Driving | 145 | 1.43 | 7969 | 1.42 | 1.008 | 1.174 | | |
| | E Ran Traffic Signal | 320 | 3.15 | 17786 | 3.16 | 0.997 | -1.006 | | |
| | E Ran Stop Sign | 102 | 1.00 | 5704 | 1.01 | 0.991 | -0.947 | | |
| | E Failed to Yield Right-of-Way | 472 | 4.65 | 26548 | 4.72 | 0.985 | -7.144 | | |
| | Defective Equipment | 200 | 1.97 | 11514 | 2.05 | 0.962 | -7.807 | | |
| | E Failed to Yield Right-of-Way | 522 | 5.14 | 30415 | 5.41 | 0.951 | -26.936 | | |
| | Misjudge Stopping Distance | 1103 | 10.86 | 64669 | 11.49 | 0.945 | -64.160 | | |
| | Made Improper Turn | 202 | 1.99 | 11984 | 2.13 | 0.934 | -14.290 | | |
| | E Other Distraction Inside the | 265 | 2.61 | 15985 | 2.84 | 0.919 | -23.501 | | |
| | E Failed to Yield Right-of-Way | 218 | 2.15 | 13880 | 2.47 | 0.870 | -32.509 | | |
| | E Other Distraction Outside th | 180 | 1.77 | 11929 | 2.12 | 0.836* | -35.297 | | |
| | E Other Improper Action | 139 | 1.37 | 11120 | 1.98 | 0.693* | -61.696 | | |
| | Driving too Fast for Conditions | 244 | 2.40 | 25456 | 4.52 | 0.531* | -215.435 | Sort by Sum of Max Gain | |
|] [| 🗟 🗠 🖉 | | | | | | | Display Filter | r Nan |
| | | | 2 | 2012-2016 Alaba | ma Integrated Cr | ash Data | | | |
| | | | | C015: Primary C | ontributing Circu | mstance | | | |
| | 20 | | | | | | | | |
| | > 15 | | | | | | | | |
| | 10 Leadnew CA | _ | | | | | | | |
| | E 10 | | _ | | | | | | |
| | 0 | E Aggressive Operation | on Ef | Failed to Yield light-of-Way n Traffic Signal | E Othe Improper | r - No Driving | E Failed to Yiel Right-of-Way from Stop Sig | Outside the Vehicle | |
| | | | non | - | nary Contributing | Circumstance | nom stop sig | | |

2.2 C015 Primary Contributing Circumstance (2012-2016)

Pruning from the analysis was to all attributes with at least 100 crashes. Note the influence of deer, speed, ID and darkness. These will be seen in many of the results below.

| 8 | 2013-2017 Alabama Integrated | Crash Data | | 20 | 17 Thanksgiving |) | | ✓ ♥ 1/ 1/2013 ∨ 12/3 |
|--------|-------------------------------|--|-------------------|--------------------|------------------|---------------|----------------|---|
| Order: | Max Gain 🗸 Des | scending | Y Sup | press Zero-Va | lued Rows | Signif | icance: Over F | Representation V Threshold: 2.0 |
| :015: | Primary Contributing Circum | istance _{Subset} Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C015: Primary Contributing Circumstance |
| | Followed too Close | 424 | 19.06 | 22649 | 17.11 | 1.114* | 43.477 | |
| | E Swerved to Avoid Animal | 45 | 2.02 | 1577 | 1.19 | 1.698* | 18.505 | |
| | DUI | 85 | 3.82 | 4025 | 3.04 | 1.257 | 17.376 | |
| | Improper Lane Change/Use | 154 | 6.92 | 8218 | 6.21 | 1.115 | 15.930 | |
| | E Ran off Road | 79 | 3.55 | 3777 | 2.85 | 1.245 | 15.543 | |
| | Over Speed Limit | 49 | 2.20 | 2213 | 1.67 | 1.318 | 11.820 | |
| | Unseen Object/Person/Ve | 176 | 7.91 | 9794 | 7.40 | 1.070 | 11.452 | |
| | E Failed to Yield Right-of-W | 51 | 2.29 | 2381 | 1.80 | 1.275 | 10.997 | |
| | E Ran Traffic Signal | 78 | 3.51 | 4295 | 3.24 | 1.081 | 5.840 | |
| | E Ran Stop Sign | 28 | 1.26 | 1397 | 1.06 | 1.193 | 4.529 | |
| | E Aggressive Operation | 46 | 2.07 | 2479 | 1.87 | 1.104 | 4.351 | |
| | E Failed to Yield Right-of-W | 55 | 2.47 | 3048 | 2.30 | 1.074 | 3.791 | |
| | Improper Passing | 26 | 1.17 | 1353 | 1.02 | 1.144 | 3.268 | |
| | E Other Distraction Outside | 46 | 2.07 | 2632 | 1.99 | 1.040 | 1.780 | |
| | E Other Failed to Yield | 26 | 1.17 | 1542 | 1.16 | 1.004 | 0.093 | |
| | E Failed to Yield Right-of-W | 106 | 4.77 | 6382 | 4.82 | 0.989 | -1.223 | |
| | E Crossed Centerline | 31 | 1.39 | 1986 | 1.50 | 0.929 | -2.367 | |
| | E Other - No Improper Driving | 24 | 1.08 | 1620 | 1.22 | 0.882 | -3.217 | |
| | E Other Distraction Inside t | 55 | 2.47 | 3468 | 2.62 | 0.944 | -3.265 | |
| | E Swerved to Avoid Vehicle | 59 | 2.65 | 3788 | 2.86 | 0.927 | -4.642 | |
| | Made Improper Turn | 45 | 2.02 | 3005 | 2.27 | 0.891 | -5.487 | |
| | E Over Correcting/Over St | 21 | 0.94 | 1625 | 1.23 | 0.769 | -6.301 | |
| | Defective Equipment | 34 | 1.53 | 2410 | 1.82 | 0.840 | -6.490 | |
| | Misjudge Stopping Distance | 229 | 10.30 | 14101 | 10.65 | 0.967 | -7.909 | |
| | E Fatigued/Asleep | 36 | 1.62 | 2632 | 1.99 | 0.814 | -8.220 | |
| | Improper Backing | 58 | 2.61 | 3982 | 3.01 | 0.867 | -8.901 | |
| | E Failed to Yield Right-of-W | 110 | 4.95 | 7184 | 5.43 | 0.911 | -10.698 | |
| | E Other Improper Action | 26 | 1.17 | 2569 | 1.94 | 0.602* | -17.161 | |
| | Driving too Fast for Conditio | 22 | 0.99 | 6242 | 4.72 | 0.210* | -82.871 | Sort by Sum of Max Gain |
|] () |) 🞯 🖉 | | | | | | | Displa |
| | | | | | ama Integrated | | | |
| | | | | CUIS: Primary | Contributing Cir | rcumstance | | |
| | 20 | | | | | | | |

2.2a C015 Primary Contributing Circumstance (2017 update)



Pruned: all items with less than 20 crashes. The only major difference in a significantly overrepresented item was: Following Too Close.

2.3 C017 First Harmful Event

| Ei | le <u>D</u> ashboard <u>F</u> ilters | <u>A</u> nalysis <u>I</u> mp | act <u>L</u> ocatio | ns <u>T</u> ools | <u>W</u> indow <u>H</u> | elp | | | | _ 8 | |
|--|--------------------------------------|------------------------------|---------------------------------|--------------------|-------------------------|----------------|---------------------------------|---------|----------------------------------|--|--|
| • | 2012-2016 Alabama Integrated | Crash Data | ~ | Thar | nksgiving Wk 12 | Or 13 Or 14 Or | 15 Or 16 | | v 💡 🦉 | 1/ 1/2012 v 12/31/201 | |
| rder: | Subset Frequency 🗸 Des | cending | V Suppr | ess Zero-Valu | ed Rows | : | Significance: | Over Re | presentation | ✓ Threshold: 2.0 | |
| 017: | First Harmful Event | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | | C008: Time o C009: Data S | | |
| | Collision with Vehicle in Traffic | 8286 | 67.02 | 468497 | 68.68 | 0.976* | -204.432 | | C010: Rural o | r Urban | |
| | Collision with Parked Motor | 606 | 4.90 | 28835 | 4.23 | 1.160* | 83.432 | | - | ay Classifications | |
| | E Ran Off Road Right | 396 | 3.20 | 20910 | 3.07 | 1.045 | 17.054 | | C012: Contro | | |
| | E Collision with Animal: Deer | 342 | 2.77 | 9840 | 1.44 | 1.918* | 163.673 | | C013: E High C015: Primar | way Side y Contributing Circumstan | |
| | Collision with Ditch | 334 | 2.70 | 19698 | 2.89 | 0.936 | -22.981 | | | y Contributing Unit Numbe | |
| | E Collision with Vehicle in (or | 259 | 2.09 | 14458 | 2.12 | 0.988 | -3.018 | | C017: First H | armful Event | |
| | Collision with Tree | 231 | 1.87 | 15289 | 2.24 | 0.834* | -46.078 | | | n First Harmful Event Rel | |
| | E Ran Off Road Left | 200 | 1.62 | 11200 | 1.64 | 0.985 | -2.974 | | | Harmful Event acted Driving Opinion | |
| | Overtum/Rollover | 173 | 1.40 | 8494 | 1.25 | 1.124 | 19.066 | | | ce to Fixed Object | |
| | Collision with Utility Pole | 122 | 0.99 | 5952 | 0.87 | 1.131 | 14.134 | | | of Roadway Junction/Feat | |
| | Collision with Other Fixed Ob | 102 | 0.83 | 4704 | 0.69 | 1.196 | 16.751 | - 11 | C023: E Mann | ner of Crash | |
| | E Evasive Action (Swerve/ | 96 | 0.78 | 5127 | 0.75 | 1.033 | 3.085 | | C024: School | | |
| | E Collision with Other Non-Fi | 84 | 0.68 | 4519 | 0.66 | 1.026 | 2.104 | | C025: Crash C026: Interse | * | |
| | E Crossed Centerline | 83 | 0.67 | 4177 | 0.61 | 1.096 | 7.301 | _ | C020: Interse C027: At Inters | | |
| | E Collision with Embankment | 76 | 0.61 | 3780 | 0.55 | 1.109 | 7,496 | - 11 | C028: Milepo | | |
| | Collision with Mailbox | 76 | 0.61 | 3930 | 0.58 | 1.067 | 4,778 | - | C029: Lightin | g Conditions | |
| | Collision with Sign Post | 69 | 0.56 | 4263 | 0.62 | 0.893 | -8.257 | , 11 | C030: Weath | | |
| | E Collision with Concrete Ba | 65 | 0.53 | 4048 | 0.59 | 0.886 | -8.361 | | C031: Locale | e Present at Time of Crasl | |
| | E Collision with Guardrail Face | 60 | 0.49 | 4236 | 0.62 | 0.782 | -16.768 | - 11 | | Notification Delay | |
| | E Collision with Curb/Island/ | 59 | 0.48 | 3700 | 0.54 | 0.880 | -8.054 | | C034: Police | Arrival Delay | |
| | E Ran Off Road Straight | 58 | 0.47 | 1859 | 0.27 | 1.722* | 24.310 | | C035: EMS Ar | | |
| | Collision with Fence | 56 | 0.45 | 3204 | 0.47 | 0.964 | -2.065 | - 11 | - | d EMS Arrival Delay | |
| | E Collision with Non-Motorist | 54 | 0.44 | 2743 | 0.40 | 1.086 | 4,289 | - 11 | Sort by Sum | hicular Property Damage | |
| 1.05 | | | | | | | 1 | | | Display Filte | |
| 9 | | | | 2012-2016 01 | abama Integrated | Crash Data | | | | | |
| | | | | | : First Harmful E | | | | | | |
| | 00 | | | 0011 | . Thot Harmar L | | | | | | |
| | 80 | | | | | | | | | | |
| | 60 | | | | | | | | | | |
| | | | | | | | | | | | |
| 1000000 | 40 | | | | | | | | | | |
| - | | | | | | | | | | | |
| - | 20 | | | | | | | | | | |
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| | | | | | | | | | | | |
| | | | llision with d/Raised Median | E Collisio | on with Falling/Shifti | ng Cargo | E Collision v Zone/Maintenan | | | P Collision with Railroad Sign | |
| Curovisiand/Haised Median Zone/Maintenance Equipment | | | | | | | | | | | |

This output was pruned to only attributes with 50 or more crashes over the 5 Thanksgiving weeks. Attributes are ordered above by highest frequency first. Some of the highest frequencies are not over-represented (i.e., they occur in this proportion effectively all the time). Deer strikes are the most over-represented category. No significant changes in the 2017 data.



2.4 C006 Day of the Week 2012-2016

Results for 2017 are discussed in Section 1.5 and 1.6 above.

Relevant results from 2012-2016. This shows that travelers are leaving earlier in the week, which is a very good trend. It spreads out the traffic and results in fewer overall crashes. Tuesday is the high day, indicating that many get Wednesday off and leave after work on Tuesday. Thanksgiving Day is the best day to drive, although many services are not available during the holiday itself, so take what you need either for the vehicle or your family. The Sunday in the above chart is the Sunday AFTER Thanksgiving despite it being shown before. It is the only over-represented day after T day, which indicates a spreading of the traffic coming back both by time and day, with a slight concentration on the last day of the holiday week.

2.5 C010 Rural or Urban

| C/ | ARE 10.1. | 0.19 - [II | МРАСТ | Results | - 2012-20 |)16 Alabar | na Integra | ted Crash | Data - Tha | nksgiving Wk | . — 🗆 | × |
|-------|--|--------------------|-----------------|---------------------|---------------------|--------------------------|-------------------|------------------|------------|---|-----------|---------------|
| B E | ile <u>D</u> ashbo | ard <u>F</u> ilter | s <u>A</u> naly | rsis <u>I</u> mpact | t <u>L</u> ocations | <u>T</u> ools <u>W</u> i | ndow <u>H</u> elp | | | | | _ 8 × |
| ¢° | 2012-2016 Al | abama Integra | ated Crash I | Data | ~ | Thanksgi | ving Wk 12 Or 1 | 3 Or 14 Or 15 Or | 16 ' | ✓ ♥ 1/ 1/2 | 012 v 12/ | 31/2016 🗸 🕽 |
| Order | Order: Subset Frequency V Ascending V Suppress Zero-Valued Rows Significance: Over Representation V Threshold: 2.0 | | | | | | | | | | | |
| C010 | : Rural or Urb | an | | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C225: CU Citation I C104: CU Left Scen | | ^ |
| • | Rural | | | 3032 | 24.52 | 158382 | 23.21 | 1.056* | 162.004 | C010: Rural or Urba | | ~ |
| | Urban | | | 9333 | 75.48 | 523986 | 76.79 | 0.983* | -162.004 | Sort by Sum of Max | | * |
| | 🖉 🗫 ا 🕯 | | | | | | | | | | 🗌 Displa | y Filter Name |
| | | | | | : | 2012-2016 Alaba | ama Integrated C | rash Data | | | | |
| | | | | | | C010: | Rural or Urban | | | | | |
| | | | | | | | | | | | | |
| | ~ | 100 | | | | | | | | | | |
| | Frequency | 50 | | | | | | | | | | |
| | Freq | | | | | | | | | | | |
| | | 0 | | | Rura | 1 | | Urban | | | | |
| | | | | | | | ural or Urban | | | | | |

A slight increase is expected in Rural areas with more use of Interstate. The increase is only about 5.6%

No significant changes were found in the 2017 data.



2.6 C011 Highway Classification (2012-2016 and 2017)

A major over-representation (of 31.4%) is found in the Interstate system. The other differences, while statistically significant, are not large. The large Interstate over-representation became insignificant in 2017 (see below), and most items were about as expected.

| Ei | le <u>D</u> ashboard <u>F</u> ilters | <u>A</u> nalysis <u>I</u> n | npact <u>L</u> ocat | ions <u>T</u> ools | <u>W</u> indow | <u>H</u> elp | | - 8 | | | | |
|---|--------------------------------------|-----------------------------|---------------------|--------------------|------------------|---------------|-------------|--|--|--|--|--|
| 2013-2017 Alabama Integrated Crash Data v 2017 Thanksgiving v 💡 😨 1/ 1/2013 v 12/31/2 | | | | | | | | | | | | |
| Order: Max Gain v Descending v Suppress Zero-Valued Rows Significance: Over Representation v Threshold: 2.0 🜩 | | | | | | | | | | | | |
| :011 : | Highway Classifications | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C009: Data Source , C010: Rural or Urban | | | | |
| | Interstate | 320 | 12.20 | 17760 | 11.31 | 1.078 | 23.285 | C011: Highway Classifications | | | | |
| | State | 481 | 18.34 | 27762 | 17.68 | 1.037 | 17.183 | C012: Controlled Access | | | | |
| | County | 365 | 13.92 | 21157 | 13.48 | 1.033 | 11.532 | C013: E Highway Side C015: Primary Contributing Circumstanc | | | | |
| | Federal | 359 | 13.69 | 21068 | 13.42 | 1.020 | 7.019 | C016: Primary Contributing Unit Number | | | | |
| | P Other* | 0 | 0.00 | 0 | 0.00 | 0.000 | 0.000 | C017: First Harmful Event | | | | |
| | Private Property | 71 | 2.71 | 5752 | 3.66 | 0.739* | -25.098 | C018: Location First Harmful Event Rel t | | | | |
| | Municipal | 1027 | 39.15 | 63502 | 40.45 | 0.968 | -33.922 | Sort by Sum of Max Gain | | | | |

| CA | RE 10.1.0.19 - [IMPA | CT Results | - 2012-20 | 16 Alaban | na Integrat | ed Crash | Data - Thai | nksgiving V | Wk — 🗆 🗙 |
|------------|--|-----------------------|---------------------|---------------------------|-------------------|------------------|-------------------------------|----------------|--------------------------|
| <u>E</u> i | ile <u>D</u> ashboard <mark>Eilters A</mark> i | nalysis <u>I</u> mpac | t <u>L</u> ocations | <u>T</u> ools <u>W</u> ir | ndow <u>H</u> elp | | | | - 8 |
| 6 | 2012-2016 Alabama Integrated Cra | ash Data | ~ | Thanksgiv | ving Wk 12 Or 13 | Or 14 Or 15 Or 1 | 16 🗸 | · 💡 🈨 | 1/ 1/2012 v 12/31/2016 v |
| | Max Gain V Desce | nding v | Suppress | s Zero-Valued Ro | ows | Sigr | nificance: Over l | Representation | ✓ Threshold: 2.0 |
| C017: | First Harmful Event | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain 📼 | C017: First Ha | armful Event |
| • | E Collision with Animal: Deer | 342 | 9.50 | 9840 | 5.32 | 1.785* | 150.431 | | |
| | Collision with Parked Motor Ve | 606 | 16.83 | 28835 | 15.59 | 1.079 | 44.627 | | |
| | E Ran Off Road Straight | 58 | 1.61 | 1859 | 1.01 | 1.603* | 21.808 | | |
| | Collision with Other Fixed Object | 102 | 2.83 | 4704 | 2.54 | 1.114 | 10.420 | | |
| | Overtum/Rollover | 173 | 4.80 | 8494 | 4.59 | 1.046 | 7.635 | | |
| | Collision with Utility Pole | 122 | 3.39 | 5952 | 3.22 | 1.053 | 6.124 | | |
| | E Collision with Embankment | 76 | 2.11 | 3780 | 2.04 | 1.033 | 2.409 | | |
| | E Crossed Centerline | 83 | 2.30 | 4177 | 2.26 | 1.021 | 1.680 | | |
| | E Collision with Non-Motorist: | 54 | 1.50 | 2743 | 1.48 | 1.011 | 0.598 | | |
| | Collision with Mailbox | 76 | 2.11 | 3930 | 2.12 | 0.993 | -0.511 | | |
| | E Evasive Action (Swerve/Br | 96 | 2.67 | 5127 | 2.77 | 0.962 | -3.815 | | |
| | E Collision with Other Non-Fix | 84 | 2.33 | 4519 | 2.44 | 0.955 | -3.978 | | |
| | Collision with Fence | 56 | 1.56 | 3204 | 1.73 | 0.898 | -6.377 | | |
| | E Ran Off Road Right | 396 | 11.00 | 20910 | 11.30 | 0.973 | -11.085 | | |
| | E Collision with Curb/Island/R | 59 | 1.64 | 3700 | 2.00 | 0.819 | -13.033 | | |
| | E Collision with Concrete Barrier | 65 | 1.81 | 4048 | 2.19 | 0.825 | -13.808 | | |
| | Collision with Sign Post | 69 | 1.92 | 4263 | 2.30 | 0.831 | -13.994 | | |
| | E Ran Off Road Left | 200 | 5.55 | 11200 | 6.06 | 0.917 | -18.047 | | |
| | E Collision with Guardrail Face | 60 | 1.67 | 4236 | 2.29 | 0.728* | -22.468 | | |
| | E Collision with Vehicle in (or fr | 259 | 7.19 | 14458 | 7.82 | 0.920 | -22.475 | | |
| | Collision with Ditch | 334 | 9.28 | 19698 | 10.65 | 0.871* | -49.489 | | |
| | Collision with Tree | 231 | 6.41 | 15289 | 8.27 | 0.776* | -66.653 | Sort by Sum | of Max Gain |
| 0 |) 🗞 🖉 | | | | | | | | Display Filter Nan |
| | | | 2 | 2012-2016 Alaba | ma Integrated Cra | ash Data | | | |
| | | | | C017: Fi | rst Harmful Event | t | | | |
| | 20 | | | | | | | | |
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| | 6 | | | | | | | | |
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| | 5 | - | | | | | | | |
| | | | | | | | | | |
| | 0 | Overturn/R | ollover | Collision w | ith Mailbox | E Col | lision with /Raised Median | E Collision | n with Vehicle |
| | | | | C0 | 17: First Harmful | | rnalsed Median | in (or from) (| Other Roadway |

2.7 C017 First Harmful Event for Single Vehicle

The largest occurrence of First Harmful Event was Collision with Vehicle in Traffic, which accounted for 8,286 T day crashes over the five years. This was about 67% of the crashes, and it was almost exactly the same for the non-T day crashes. For that reason, this was pruned from the above output, and therefore what remains above are the attributes for single-vehicle crashes. The ordering above is by Max Gain, showing the attributes with the highest potential for crash reduction at the top of the list. Other than deer, most of the attributes that follow can be related to some combination of speed, impaired driving or distracted driving. Generally, these same results were found to hold for the 2017 data.

| CA | RE 10.1.0.19 | - [IMP/ | ACT Result | s - 2012-2 | 016 Alaba | ama Integr | ated Cras | sh Data - 1 | hanksg | giving | Wk – 🗆 | × |
|------------|--|-----------------|------------------------------|----------------------|--------------------------|-----------------------------|----------------|-------------------|--------------|------------|-----------------------|-------|
| 💀 Ei | i le <u>D</u>ashboard | <u>F</u> ilters | <u>A</u> nalysis <u>I</u> mp | act <u>L</u> ocation | s <u>T</u> ools <u>\</u> | <u>N</u> indow <u>H</u> elp | 0 | | | | - | ₽× |
| 6 ° | 2012-2016 Alabama I | ntegrated (| Crash Data | ~ | Thanks | sgiving Wk 12 Or | 13 Or 14 Or 15 | Or 16 | - v 9 | 12 | 1/ 1/2012 v 12/31/201 | 6 🗸 🌖 |
| Order | Subset Frequency | ✓ Desc | cending | V V Suppre | ss Zero-Valued | Rows | [| Significance: | Over Repres | entation | ✓ Threshold: 2.0 | - |
| C107 | CU Driver Raw Age | 2 | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | ^ <u>C10</u> | 07: CU D | river Raw Age | |
| • | 18 | | 425 | 3.90 | 23452 | 3.86 | 1.011 | 4.681 | | | | |
| | 19 | | 424 | 3.89 | 24049 | 3.96 | 0.984 | -7.019 | | | | |
| | 20 | | 418 | 3.84 | 22389 | 3.68 | 1.042 | 16.733 | | | | |
| | 21 | | 389 | 3.57 | 21536 | 3.54 | 1.008 | 3.021 | | | | |
| | 22 | | 369 | 3.39 | 20363 | 3.35 | 1.011 | 4.044 | | | | |
| <u> </u> | 23 | | 359 | 3.30 | 19091 | 3.14 | 1.049 | 16.841 | | | | |
| | 24 | | 340 | 3.12 | 17312 | 2.85 | 1.096 | 29.725 | · - | | | |
| | 17 | | 287 | 2.63 | 20619 | 3.39 | 0.777* | -82.544 | · | | | |
| | 16 25 | | 274 | 2.52 | 18314 16360 | 3.01 | 0.835* | -54.233 | | | | |
| | 25 | | 269 | 2.47 | 13272 | 2.69 | 1.110 | -24.212 26.132 | · . | | | |
| | 27 | | 204 | 2.42 | 13272 | 2.10 | 0.994 | -1.446 | · - | | | |
| | 26 | | 240 | 2.20 | 15079 | 2.48 | 0.855* | -39.254 | · - | | | |
| | 29 | | 231 | 2.12 | 12727 | 2.09 | 1.013 | 2.900 | · - | | | |
| | 31 | | 216 | 1.98 | 12061 | 1.98 | 0.999 | -0.163 | · - | | | |
| | 32 | | 207 | 1.90 | 11615 | 1.91 | 0.994 | -1.170 | · - | | | |
| | 33 | | 197 | 1.81 | 11414 | 1.88 | 0.963 | -7.568 | · - | | | |
| | 35 | | 196 | 1.80 | 10331 | 1.70 | 1.059 | 10.842 | | | | |
| | 30 | | 193 | 1.77 | 12385 | 2.04 | 0.869 | -28.970 | | | | |
| | 36 | | 179 | 1.64 | 9866 | 1.62 | 1.012 | 2.176 | . v 🗆 s | ort by Sun | n of Max Gain | |
| 00 | | | <u> </u> | ! | I | I | | 1 | | | Display Filter | Name |
| | | | | | 2012-2016 Ala | ibama Integrated | Crash Data | | | | | |
| | | | | | | CU Driver Raw | | | | | | |
| | | | | | C107. | CO Driver Naw | Age | | | | | |
| | 4 | | | | | | | | | | | |
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| | Active Ac | | l libbas | | | | | | | | | |
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| | 0-1-0 | | | 36 | | | 61 | | | 74 | | |
| | | | | | | C107: CU Driver | Raw Age | | | | | |
| | | | | | | 2.01.00 01/0 | | | | | | |

2.8 C107 CU Driver Raw Age – Max First

Arranged higher frequency first, younger drivers produce the greatest problem, which in comparison to the blue bars, is not unique to the Thanksgiving week. We expect the 16-17 age is down on the list only because they have less exposure (drive fewer miles) during Thanksgiving week.

| CA | ARE 10.1.0.1 | 19 - [IMP | ACT Results | 5 - 2012-2 | 016 Alaba | ama Integr | ated Cras | h Data - T | hanksgiv | ving Wk | – [| × |
|------------|-----------------------|-----------------|-------------------------------|----------------------|--------------------------|-----------------------------|----------------|-----------------|---------------|-----------------|--------------|---------------|
| 💀 E | ile <u>D</u> ashboard | <u>F</u> ilters | <u>A</u> nalysis <u>I</u> mpa | ict <u>L</u> ocation | s <u>T</u> ools <u>\</u> | <u>W</u> indow <u>H</u> elj | þ | | | | | _ 8 × |
| 6 2 | 2012-2016 Alabar | ma Integrated | Crash Data | ~ | Thanks | sgiving Wk 12 Or | 13 Or 14 Or 15 | Or 16 | ▼ | 1/ 1 | 1/2012 v 12/ | 31/2016 🗸 🌖 |
| Order | r: Natural Order | ✓ Asc | ending | Suppre | ss Zero-Valued | Rows | | Significance: 0 | ver Represent | tation | ✓ Threshold: | 2.0 🜩 |
| C107 | CU Driver Raw | Age | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | ^ C107: | CU Driver | Raw Age | |
| ۱. | 16 | | 274 | 2.52 | 18314 | 3.01 | 0.835* | -54.233 | | | | |
| | 17 | | 287 | 2.63 | 20619 | 3.39 | 0.777* | -82.544 | | | | |
| | 18 | | 425 | 3.90 | 23452 | 3.86 | 1.011 | 4.681 | | | | |
| | 19 | | 424 | 3.89 | 24049 | 3.96 | 0.984 | -7.019 | | | | |
| <u> </u> | 20 | | 418 | 3.84 | 22389 | 3.68 | 1.042 | 16.733 | | | | |
| | 21 | | 389 | 3.57 | 21536 20363 | 3.54 3.35 | 1.008 | 3.021 | | | | |
| | 22 | | 369 | 3.39 | 19091 | 3.30 | 1.011 | 16.841 | | | | |
| | 23 | | 355 | 3.12 | 17312 | 2.85 | 1.045 | 29.725 | | | | |
| | 25 | | 269 | 2.47 | 16360 | 2.69 | 0.917 | -24.212 | | | | |
| | 26 | | 231 | 2.12 | 15079 | 2.48 | 0.855* | -39.254 | | | | |
| | 27 | | 248 | 2.28 | 13918 | 2.29 | 0.994 | -1.446 | | | | |
| | 28 | | 264 | 2.42 | 13272 | 2.18 | 1.110 | 26.132 | | | | |
| | 29 | | 231 | 2.12 | 12727 | 2.09 | 1.013 | 2.900 | | | | |
| | 30 | | 193 | 1.77 | 12385 | 2.04 | 0.869 | -28.970 | | | | |
| | 31 | | 216 | 1.98 | 12061 | 1.98 | 0.999 | -0.163 | | | | |
| l | 32 | | 207 | 1.90 | 11615 | 1.91 | 0.994 | -1.170 | | | | |
| I | 33 | | 197 | 1.81 | 11414 | 1.88 | 0.963 | -7.568 | | | | |
| | 34 | | 169 | 1.55 | 10767 | 1.77 | 0.876 | -23.972 | | | | |
| | 35 | | 196 | 1.80 | 10331 | 1.70 | 1.059 | 10.842 | V Sort | by Sum of M | lax Gain | |
| | D 🗞 🖉 | | | | | | | | | | 🗌 Displa | y Filter Name |
| | | | | | 2012-2016 Ala | abama Integrated | Crash Data | | | | | |
| | | | | | C107: | : CU Driver Raw | Age | | | | | |
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| | Ledneucy | | | | | | | | | | | |
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| | " – II | | | | hunde | and the set | | | | | | |
| | | | | | | | in nu | have a | | | | |
| | | | | | | | | | Mar. | - | | |
| | | | | | | | | | | Children | (IIII) | - |
| | 0 | | | 35 | | | 55 | | | 75 | | |
| | | | | 35 | | 0107 011 0 : | | | | /5 | | |
| | | | | | | C107: CU Driver | Raw Age | | | | | |

2.9 C107 CU Driver Raw Age – Natural Order

Putting the results in natural order shows no definitive patterns in the over-representations than those that are expected at other times. Generally, these same results for both age comparisons were found to hold for the 2017 data.

2.10 C121 CU Driver Condition

| | | | | | | | | ted Crash | Data - Tha | nksgiving V | |
|---------------|---------------|---------------------|-----------|--|---------------------------|---|--|------------------|----------------|----------------|-------------------------------------|
| 1 <u>F</u> il | | ard <u>F</u> ilters | | | t <u>L</u> ocations | | ndow <u>H</u> elp ving Wk 12 Or 13 | 0r 14 Or 15 Or 1 | 16 | v 💡 🌃 | _ ₽ × 1/ 1/2012 ∨ 12/31/2016 ∨) |
| Order: | Max Gain | ¥ | Descendir | ng v | Suppres | s Zero-Valued R | | | ificance: Over | Representation | ✓ Threshold: 2.0 ÷ |
| C121: | CU Driver (| Condition | | Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain 👻 | C121: CU Driv | ver Condition |
| • | E Under the | Influence of A | co | 558 | 5.23 | 25116 | 4.22 | 1.240* | 107.963 | | |
| | E Asleep/Fa | inted/Fatigued | | 222 | 2.08 | 10654 | 1.79 | 1.163 | 31.098 | | |
| | E Emotional | (Depressed/Ar | ngr | 36 | 0.34 | 1886 | 0.32 | 1.065 | 2.206 | | |
| | E Physical In | npairment | | 32 | 0.30 | 1720 | 0.29 | 1.038 | 1.180 | | |
| | P Apparently | Asleep* | | 3 | 0.03 | 126 | 0.02 | 1.329 | 0.742 | | |
| | P Fatigued* | | | 2 | 0.02 | 105 | 0.02 | 1.063 | 0.119 | | |
| | Illness | | | 48 | 0.45 | 2738 | 0.46 | 0.978 | -1.060 | | |
| | Apparently N | lomal | | 9768 | 91.55 | 553078 | 92.89 | 0.986* | -142.247 | Sort by Sum | of Max Gain |
| 10 | i 😽 🖉 | | | | | | | | | , | Display Filter Nam |
| | Frequency | 100 | | | | ama Integrated Ci | | | | | |
| | | 0 | | E. Under the Influence of AlcohoVD rugs- | E Aslengt'ainsaff aigued— | E Emotional (Depressed/Angryf) Isinitian) — | E Physicial Impairment— P Auntomity Ashevit | P Fuitport | Illuess | -натели Малени | |
| | | | | | | C12 | 1: CU Driver Con | dition | | | |

The reason that extended holiday periods tend to be over-represented in impaired driving is twofold: (1) the tendency or excuse to use drugs (this includes alcohol) for purposes of celebration, and (2) the increased number of days that their use is tolerated. For many people who do not have to go to work over extended holiday multiple-day periods, every day behaves like a Saturday, in which ID is over-represented both in the morning and the night-time hours. ID was the only significantly over-represented item for this attribute, producing 24% more crashes during Thanksgiving week than what normally occurs. For the 2017 data, impaired driving was also over-represented by an odds ratio of 1.212, or about 21% higher than expected.

2.11 C122 CU Officer Opinion Alcohol

| ¢? | 2012-2016 Alabama Integrated C | rash Data | ~ | Thanksgi | ving Wk 12 Or 13 | ✓ ♥ 1/ 1/2012 ∨ 12/31/2016 ∨ | | |
|------|---------------------------------------|--------------------------|-----------------------------------|-----------------------------------|--|------------------------------|-------------------|---|
| Orde | er: Max Gain 🗸 Desc | ending v | Suppres | s Zero-Valued R | ows | Sigr | nificance: Over | Representation V Threshold: 2.0 |
| C12 | 22: CU Driver Officer Opinion Alc | ohol Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C122: CU Driver Officer Opinion Alcohol |
| • | Yes - Driver Was Under Influe | 576 | 5.43 | 24904 | 4.22 | 1.287* | 128.552 | |
| | No - Driver Was Not Under Inf | 10031 | 94.55 | 565522 | 95.77 | 0.987* | -129.689 | |
| | P Both Alcohol and Drugs | 2 | 0.02 | 48 | 0.01 | 2.319 | 1.138 | Sort by Sum of Max Gain |
| 7 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | 2012-2016 Alaba C122: CU Drive | ama Integrated C er Officer Opinion | | | Display Filter Nam |
| | 100 50 100 | | | | | | | |
| | | | river Was Under nce of Alcohol | | ver Was Not Under ence of Alcohol | P Both | Alcohol and Drugs | |
| | | | | C122: CU Drive | r Officer Opinion | Alcohol | | |

The alcohol over-representation in 2017 increased to 1.350 (from 1.287).

2.12 C123 CU Officer Opinion Drugs



Unlike alcohol use, officers have no easy way to determine drug use, so C123 is only useful in a relative sense (e.g., over time or comparing specific times). No significant over-representation was found, and that found above for alcohol (C122) confirms the results of C121 (Section 2.10). The results for the 2017 data found an Odds Ratio of 1.102, which indicates a small relative increase in reported drug use associated with the Thanksgiving-week crashes.

| CARE | 10.1.0.1 | 9 - [IMP | ACT Results | - 2012-20 |)16 Alabar | ma Integra | ted Crash | Data - Tha | nksgiving | Wk — 🗆 🗙 |
|----------------|----------------------------------|-----------------|--------------------------------|---------------------|--------------------------|-------------------|------------------|---------------------------|---------------------|---------------------------------|
| 📙 <u>F</u> ile | <u>D</u> ashboard | <u>F</u> ilters | <u>A</u> nalysis <u>I</u> mpac | t <u>L</u> ocations | <u>T</u> ools <u>W</u> i | ndow <u>H</u> elp | | | | _ 8 |
| 2012 | 2-2016 Alaban | na Integrated (| Crash Data | ~ | Thanksgi | iving Wk 12 Or 13 | 3 Or 14 Or 15 Or | 16 💉 | 9 😨 | 1/ 1/2012 v 12/31/2016 v |
| Order: Ma | ax Gain | ✓ Des | cending v | Suppress | s Zero-Valued R | lows | Sigr | nificance: Over | Representation | ✓ Threshold: 2.0 |
| C202: CU | Contributing | g Circumstand | e Subset Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain 🔻 | C202: CU 0 | Contributing Circumstance |
| DU | Л | | 376 | 4.66 | 16444 | 3.71 | 1.255* | 76.392 | | |
| Imp | proper Lane Ch | nange/Use | 447 | 5.54 | 20842 | 4.71 | 1.177 * | 67.261 | | |
| | seen Object/F | | | 10.29 | 42969 | 9.70 | 1.060 | 47.110 | | |
| | Swerved to Av | | 146 | 1.81 | 5726 | 1.29 | 1.399* | 41.673 | | |
| | atigued/Aslee | | 185 | 2.29 | 8641 | 1.95 | 1.175 | 27.562 | | |
| | Crossed Center | | 137 | 1.70 | 6167 | 1.39 | 1.219 | 24.638 | | |
| | Aggressive Ope ion Obstructed | | 164 | 2.03 | 7759 | 1.75 | 1.160 | 22.632 | | |
| | Failed to Yield I | | | 2.02 | 8119 | 1.00 | 1.102 | 15.073 | | |
| | Swerved to Ave | | 249 | 3.09 | 13063 | 2.95 | 1.02 | 10.994 | | |
| | ide Improper T | | 172 | 2.13 | 8994 | 2.03 | 1.040 | 8.130 | | |
| | er Speed Limit | | 236 | 2.92 | 12567 | 2.84 | 1.031 | 7.031 | | |
| | proper Backing | | 242 | 3.00 | 12931 | 2.92 | 1.027 | 6.399 | | |
| | Ran off Road | | 307 | 3.80 | 16610 | 3.75 | 1.014 | 4.368 | | |
| ER | Ran Traffic Sig | nal | 238 | 2.95 | 12848 | 2.90 | 1.017 | 3.911 | | |
| EO | Over Correcting | g/Over Steeri | . 149 | 1.85 | 8320 | 1.88 | 0.983 | -2.589 | | |
| Def | fective Equipm | nent | 177 | 2.19 | 9889 | 2.23 | 0.982 | -3.176 | | |
| Misj | sjudge Stoppin | g Distance | 940 | 11.65 | 52978 | 11.96 | 0.974 | -25.253 | | |
| Foll | lowed too Clos | se | 1335 | 16.54 | 74706 | 16.87 | 0.981 | -26.134 | | |
| EO | Other Distractio | on Inside the | . 212 | 2.63 | 13075 | 2.95 | 0.890 | -26.225 | | |
| EF | ailed to Yield | Right-of-Way | . 163 | 2.02 | 10467 | 2.36 | 0.855 | -27.707 | | |
| EF | ailed to Yield I | Right-of-Way | . 365 | 4.52 | 21559 | 4.87 | 0.929 | -27.802 | | |
| EO | Other Distractio | on Outside th | 149 | 1.85 | 9995 | 2.26 | 0.818* | -33.108 | | |
| | ailed to Yield | | . 390 | 4.83 | 23957 | 5.41 | 0.893 | -46.494 | | |
| Driv | ving too Fast f | or Conditions | 197 | 2.44 | 19815 | 4.47 | 0.546* | -164.027 | Sort by Su | m of Max Gain |
| | sy 🖉 | | | | | | | | | Display Filter Na |
| | | | | : | 2012-2016 Alaba | ama Integrated C | rash Data | | | |
| | | | | | C202: CU Cor | ntributing Circum | stance | | | |
| | 20 | | | | | | | | | |
| | | | | | | | | | | |
| > | 15 | | | | | | | | | |
| requency | 10 | | - | | | | | | | |
| Freq | | | | | | | | | | |
| | 5 | r-fi | | | | | | | | |
| | 0 | | | | | | | | | |
| | 5 | | E Fatigued/Asleep | E Swe | rved to Avoid Vehic | le E Ran | Traffic Signal | E Other Dis Inside the | traction Vehicle | Driving too Fast for Conditions |
| | | | | | C202: CU (| Contributing Circ | umstance | | | |

2.13 C202 CU Contributing Circumstances

The results above are for all CU-CC items that had at least 100 crashes. It further confirms the ID findings of the previous three sections. It is interesting to observe that ID and speed could have played a part in most of the items that followed, but in most cases officers will (understandably) select the CC that is the most obvious and easiest to prove. Generally, these same results were found to hold for the 2017 data.

2.14 C323 CU Driver Seatbelts



Generally seatbelt use was as would be expected throughout the year. The Shoulder Belt Only was somewhat alarming in that it was suspected with more family travel this might involve young children. However, drill-down revealed that the ages involved of these 41 persons was only eight 13 or less, and the rest were 16 and above (driving age). If anything the concentration seemed to be in the 18-23, 28-33 and 48-54. Further, none of these persons suffered fatal injuries. So we recommend that this particular behavior (Shoulder Belt Only) be studied as a separate topic. The table below for 2017 shows several changes, with the None Used category rising to an over-representation of 30% more than expected, and a corresponding significant under-representation of both lap and shoulder use.

| s. | 2013-2017 Alabama Integrated | l Crash Data | | ✓ | 2017 Thanksgiv | ing | | ✓ ♥ 〒 1/ 1/2013 ∨ 12/3 |
|-------|------------------------------|-----------------------------|-------------------|-----------------------|------------------|---------------|-----------------|---|
| Order | : Max Gain 🗸 De | scending | ✓ ✓ St | uppress Zero-∖ | /alued Rows | Sig | nificance: Over | r Representation V Threshold: 2.0 |
| C323 | CU Driver/Non-Motorist Sa | fety Equipment Frequency | Subset Percent | Other Frequency | Other Percent | Odds Ratio | Max Gain | C323: CU Driver/Non-Motorist Safety Equip |
| • | None Used - Motor Vehicl | 99 | 4.54 | 4555 | 3.49 | 1.300 | * 22.837 | |
| | Shoulder Belt Only Used | 21 | 0.96 | 692 | 0.53 | 1.815 | 9.429 | |
| | Lap Belt Only Used | 3 | 0.14 | 396 | 0.30 | 0.45 | 3 -3.621 | |
| | Shoulder and Lap Belt Used | 2060 | 94.37 | 124771 | 95.57 | 0.987 | -26.270 | Sort by Sum of Max Gain |