COVID Follow-up: 2021 to 2020 Crash Comparisons A Study of the Long-term Effects of the COVID Quarantine

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1.0 Introduction and Summary of Major Recent Findings

1.1 Introduction

This report presents the results of a research effort to establish the continued effects of the COVID pandemic that had effects on traffic safety that started approximately March 10, 2020 and lasted throughout the rest of 2020. The initial impact that the public reaction had to the pandemic in Alabama was studied in a series of reports that can be found on this page:

http://www.safehomealabama.gov/caps-special-studies/

To continue to study the longer term effects, it was determined to compare the history of each of the crash types (considered in the original 2020 study) with those of identical times in 2021. For the current report this would be for the months of January and February since complete results are not yet available for March 2021. This study will be updated once these data are available.

1.2 Findings From the 2020 to 2021 Comparisons

The following is a summary of the most significant findings for the first 9 weeks each of the years 202 and 2021, respectively. Since no COVID protection measures went into effect before March 10, 2020 the January and February crash history could be considered as "typical" or "normal." The first two months of 2021 would be normal except for the effects of the COVID pandemic of the previous year, all other things being equal.

However, there was one thing that was not equal, and that was the gas prices. According to <u>https://ycharts.com/indicators/us_gas_price</u>, the price of regular gas bottomed out in the middle of November 2020 at \$2.022 per gallon. By the end of February (March 1, 2021), the price had risen to \$2.796. Such a rise can have a major effect on those with limited incomes.

Unless otherwise stated, the comparisons discussed will be for the particular crash type in January and February of 2020 compared with the same in January and February of 2021. The following presents a summary of the crash types referenced by the sections that contain the charts for each:

- Overall summary from 2020. The final weeks studied in 2020 (Weeks 36-43) generally saw a reduction closer to pre-COVID levels for most crashes. The exceptions were: DUI and aggressive driving. The expected increase in traffic volume during the Thanksgiving holiday week did not materialize, and generally, all crash types were down over the last few weeks of the year. All crashes had an up-tick in the final week driven mainly by DUI and Aggressive Driving.
- 2.1 All Crashes and Fatal Crashes. All crashes showed a reduction in 2021 of 15.6% for the 9 weeks that were compared, which would be indicative of the new driving habits

formed during March 10, 2020 to the end of the year have continued. Fatal crashes did not diminish to the proportion that overall crashes did. In fact, fatal crashes were approximately the same in 2020 as in 2019, despite the obvious reduction in traffic volume. This indicates that the causes of the increase fatality rate of the COVID period is continuing. However, the number of fatal crashes at this point is too low to draw any firm conclusions.

- 2.2 Speeding Crashes. Crashes that were caused by speeding according the Primary Contributing Circumstance attribute decreased by 15.2%. However, this does not mean that impact speeds decreased in crashes that were caused by a wide variety of things other than just speed.
- 2.3 Impaired Driving (DUI) Crashes. The reduction in ID crashes was only about 4.5%, and that cannot be considered as statistically significant in this subset.
- 2.4 Pedestrian Crashes. Contrary to the reported National trend of increasing pedestrian crashes, Alabama had a reduction in the after-COVID period of close to 30%. This is not to say that pedestrian crashes are no problem. Increased programs for pedestrians are justified.
- 2.5 Bicycle Crashes. Bicycle crashes were extremely high during the COVID period. It is impossible to tell anything definitively about bicycle crashes from the data in the first two months of 2020 and 2021.
- 2.6 Motorcycles Involved Crashes. Motorcycle crashes were a major problem over the pandemic, and this seems to be continuing into 2021, with a reduction of a mere three crashes (2.5%) in the first 9 weeks of 2021.
- 2.7 Large Truck Caused Crashes. Large Truck proportions did not deviate significantly from the All crash proportions during the COVID period of 2020. Their charts are still quite similar with Week 7 being the only major exception.
- 2.8 Aggressive Driving Crashes. This is one of only two crash types that had an increase in the 2021 period. This attribute needs considerable work since it was found to be highly correlated with fatal crashes.
- 2.9 Interstate Crashes. Interstate Crashes are highly correlated with All Crashes during the COVID period. Interstate crashes were 20.2% fewer in 2021 than in 2020. The overall reduction in traffic seems to have a greater impact on Interstate crashes, indicating the trend away from longer trips.
- 2.10 Misjudged Stopping Distance Crashes. Large improvement of 25.6% here could be coming from lower speeds. Generally misjudging stopping distance is more of a problem with younger drivers than with those which are more experienced, and the correlation here is obvious.
- 2.11 Young (16-20) Driver Caused Crashes. Reductions in misjudged stopping distance and Young Driver Caused crashes remain highly correlated with All crashes in both the 2020 and 2021 time frames of the study.
- 2.12 Rural Crashes. There was a 7.3% reduction in the 2021 time period. However, rural travelers do not have as much latitude in their mileage as do the urban dwellers, and with the variability shown, it is hard to conclude that this reduction is significant or that it

will last a long time into 2021. More time is needed before firm conclusions can be drawn.

• 2.13 Urban Crashes. The 2020 comparison of urban and rural shows the urban crashes to be about three times those of rural. This explains the reason that the Urban chart is almost a mirror image of that given for total crashes,

2.0 Crash Temporal Displays for the First Nine Weeks of 2021

Consider first the total numbers in the first two months of 2020 and 2021 as illustrated in the chart below. In a few cases there was an increase, but in most cases there was an expected decrease. We say expected because the COVID effects had not yet gone into effect in January and February of 2020 (the nominal start time is usually considered to be around March 10, 2020). We know that generally the public health warnings caused an initial dramatic reduction close to 50% in traffic volume. While this only lasted a few weeks, the normal amount of driving was not approached until late in 2020.

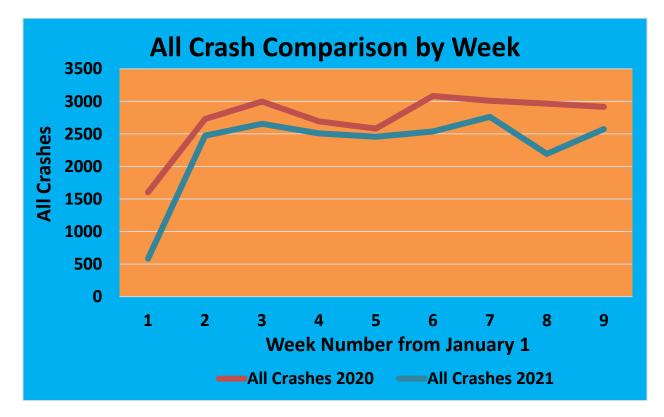
To make it easy for those who are interested in the entire 43-week comparison report, we have copied the charts and the discussion of that into the appendix of this report. It will be of interest to compare the crash types that increased and decreased in a relative way over this 43-week period, with the absolute numeric comparisons in this section. For those who want to review the entire report, it is here:

http://www.safehomealabama.gov/wp-content/uploads/2021/01/CovidUpdateWK43.pdf

along with the earlier reports.

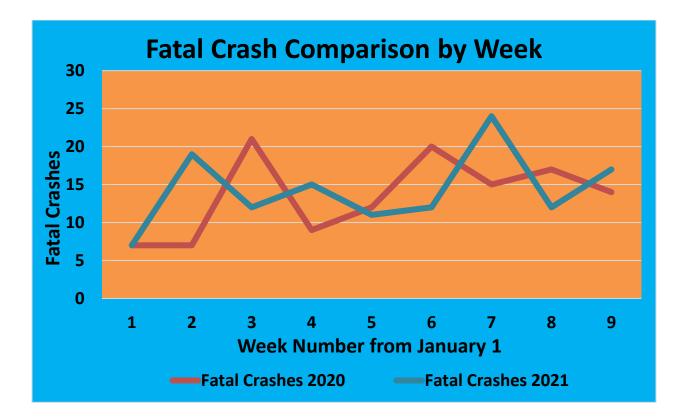
A major objective of the current study was to determine to what extent the reduction experienced in 2020 has continued into 2021. It is also to see in what crash types they may be continuing or even increasing. Please recognize that the comparisons to follow are from 2020 *two months be-fore there was any effect of the COVID pandemic*. This is being compared against the same time period in 2021 after about 9.5 months of the health precautions when the pandemic was in effect. Thus, we expect that some of the effects of the pandemic responses in 2020 would carry over into 2021.

We will now consider the overall effects as well as the effects on each of the crash types that were studied in the prior analyses.

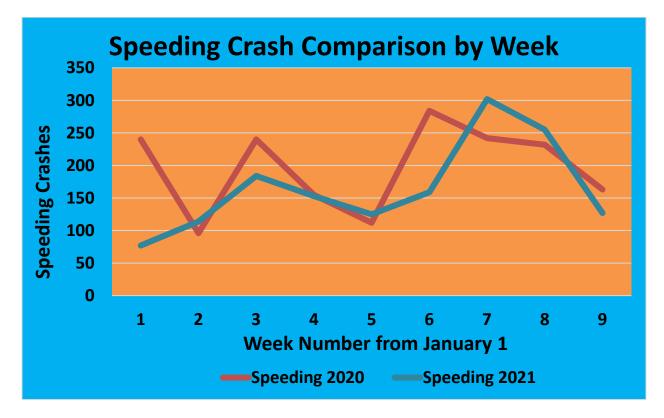


2.1 Fatal and All Crashes Comparison January and February of 2020 and 2021

The 9-week 2020 total for this item was 24,856, and in 2021 it was 20,751, a reduction of 3,835 crashes (15.6%). The lingering effect of the COVID traffic volume reductions is obviously consistent over time, with no indication of its being reversed in the near future. This is evidence of a new established habit with regard to travel. However, the fact that fuel prices have gone up significantly in the 2021time frame has had to have accounted for some of this continued reduction in traffic. We are assuming that crash frequency is a fairly accurate measure of traffic volume, a premise that was tested and proven to be the case (see the 43-Week Report for which a URL was given above).

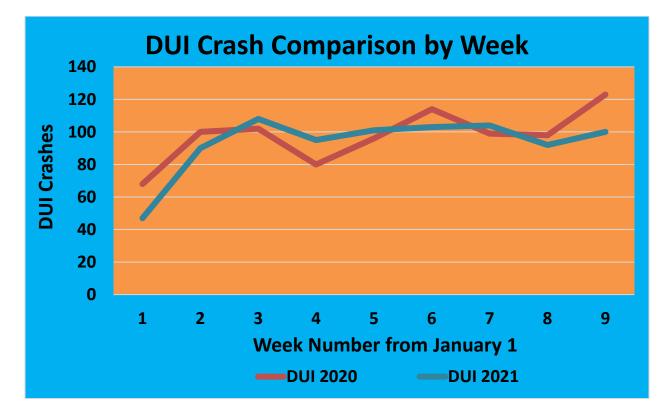


The 9-week 2020 total for this item was 123, and in 2021 it was 129, an <u>increase</u> of 7 fatal crashes (-5.7%). Fatal crashes did not diminish to the proportion that overall crashes did. In fact, fatal crashes were approximately the same in 2020 as in 2019, despite the obvious reduction in traffic volume. As of the time of this writing on March 31, 2021, the 2021 fatality figure was 220 as opposed to 2020, which had 213 fatalities. This is a 3.3% increase, which should not be considered significant in that 2021 has had fewer fatalities on a daily cumulative basis than 2020 for most of the year.



2.2 Speeding Crashes Compared First Nine Weeks 2020 and 2021

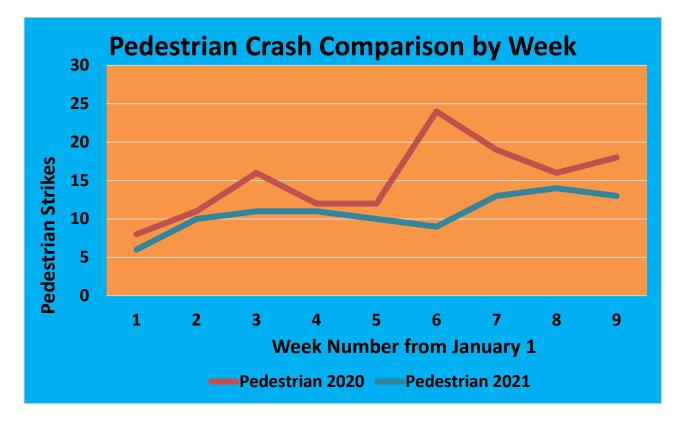
The 9-week 2020 total for this item was 1,764, and in 2021 it was 1,496, a decrease of 268 crashes (15.2%). For the most part the National traffic safety community has attributed the increase in fatalities to drivers taking advantage of there being less traffic to driver at higher than normal speeds. It cannot be questioned that speed increases the probability of a crash being fatal. Studies using Alabama data have confirmed an exponential doubling of the probability of a fatality for each increase of 10 MPH. While the results above confirm the increase in average speed of impact for 2020, they are favorable in showing a decrease in speeding crashes in 2021. Hopefully, this trend will continue and it will be demonstrated by a reduction in fatal crashes and fatalities.



2.3 Impaired Driving (DUI) Crashes Comparison

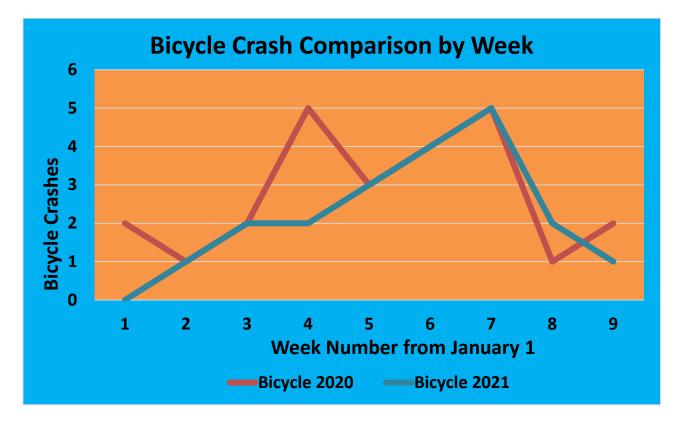
The 9-week 2020 total for this item was 880 and in 2021 it was 840, a reduction of 40 DUI crashes (4.5%). As shown by the chart, this is not a consistent or significant overall decrease. The chart does show a more consistent pattern in 2021, which along with the overall reduction could be a favorable indicator.

2.4 Pedestrian Strikes Comparison



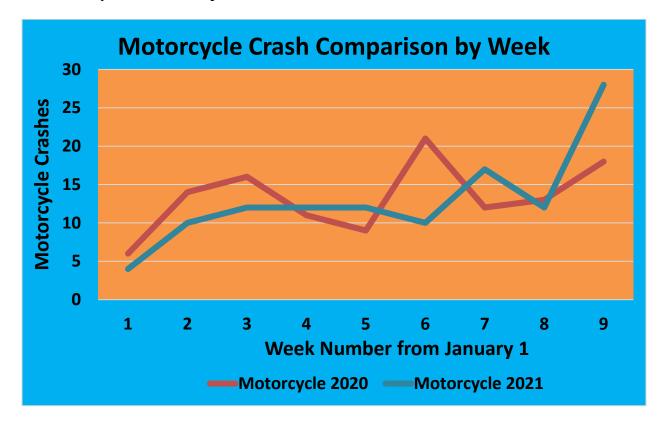
The 9-week 2020 total for this item was 136, and in 2021 it was 97, a reduction of 39 pedestrian crashes (29.7%). This is quite favorable and it goes against the national trend of pedestrian crashes, which is up significantly over the past few years. Pedestrian crashes in Alabama have not increased over the pandemic period as they were expected to. This is a favorable trend that we hope will continue.

2.5 Bicycle Crash Comparison



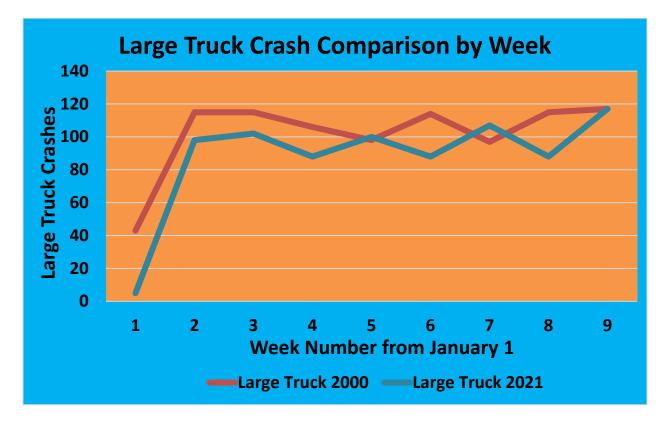
The 9-week 2020 total for this item was 25, and in 2021 it was 20, a reduction of 5 bicycle crashes (20.0%). The chart shows how choppy this is due to the low number per week. The reduction in five crashes cannot be considered significant, and it appears that the past trend is stabilizing and will probably continue.

2.6 Motorcycle Crash Comparison



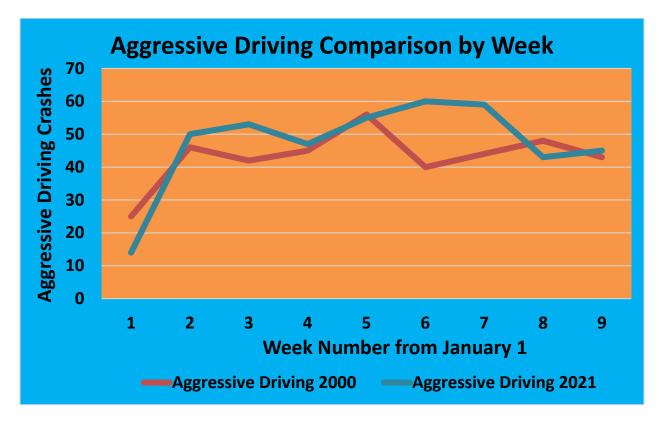
The 9-week 2020 total for this item was 120, and in 2021 it was 117, a reduction of 3 motorcycle crashes (2.5%). Motorcycle crashes were a major problem over the pandemic, and they seem to be continuing into 2021. A single large number in Week 9 prevented the other results from being favorable. A reduction of only 2.5% from its extremely high numbers during the pandemic period is not significant.

2.7 Large Truck Crash Comparison



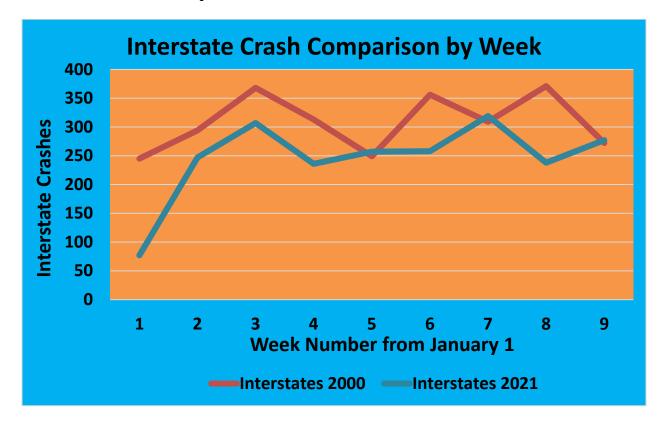
The 9-week 2020 total for this item was 920, and in 2021 it was 793, a reduction of 127 large truck crashes (13.8%). Traffic conflicts general reduce truck crashes regardless of who is generally at fault. We expect the lack of economic activity is resulting in lower truck volume.

2.8 Aggressive Driving Crash Comparison

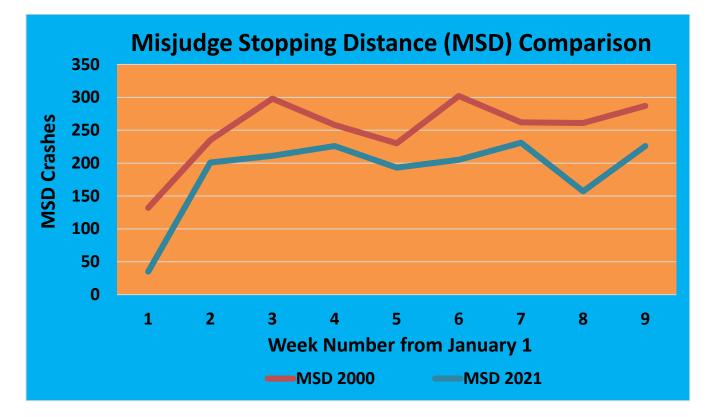


The 9-week 2020 total for this item was 389, and in 2021 it was 426, an <u>increase</u> of 37 aggressive driving crashes (-9.5%). This is one of only two crash types that increased in 2021, the other being fatal crashes. The causes of aggressive driving may have been understandable during the early duration of the pandemic, but it would be expected to return to normal once the prospect of these causes were addressed. This is certainly an area that will need more study and consideration in developing countermeasures.

2.9 Interstate Crash Comparison



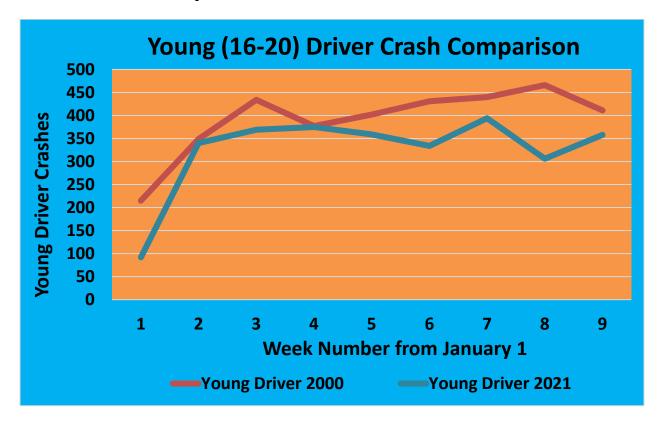
The 9-week 2020 total for this item was 2,777, and in 2021 it was 2,216 a reduction of 561 Interstate crashes (20.2%). With these large numbers, this reduction in 2021 is statistically significant. We expect fewer long trips might be planned due to the increase in fuel costs.



2.10 Misjudged Stopping Distance Crash Comparison

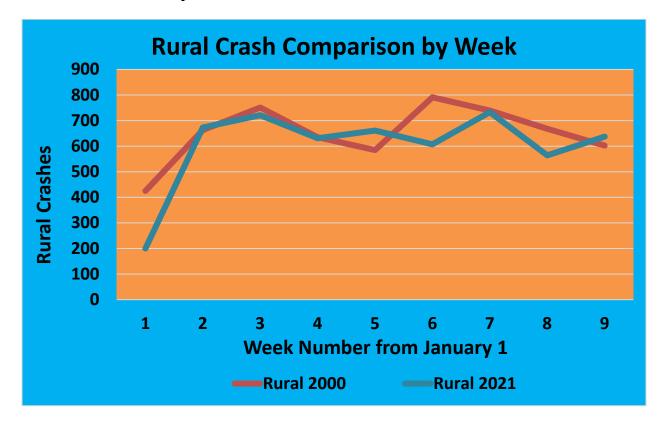
The 9-week 2020 total for this item was 2,265, and in 2021 it was 1,685, a reduction of 560 Misjudged Stopping Distance crashes (25.6%). This is also a significant reduction. It generally accompanies reductions in speed, which was observed for speeding crashes (Section 2.2).

2.11 Youth Crashes Comparison



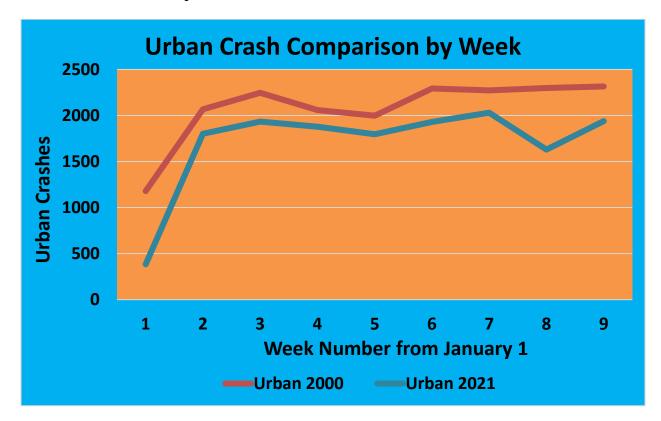
The 9-week 2020 total for this item was 3,525, and in 2021 it was 2,927, a reduction of 598 Young Driver crashes (17.0%). Misjudge Stopping Distance is often attributable to lack of experience, so to see a comparable correlation between these two items is not surprising. Younger drivers are also more sensitive to fuel cost than are older drivers who in many cases have not choice but to commute.

2.12 Rural Crash Comparison



The 9-week 2020 total for this item was 5,859, and in 2021 it was 5,477, a reduction of 432 Rural crashes (7.3%). This reduction differences came mainly from Week 6 and Week 8. It is too soon to draw any definitive conclusions from this, but we suspect the increase in fuel costs have created the lower values in the second half of 2021 in this 9-week period.

2.13 Urban Crash Comparison



The 9-week 2020 total for this item was 18,727, and in 2021 it was 15,324, a reduction of 3,403 Urban crashes (18.2%). The 2020 comparison of urban and rural shows the urban crashes to be about three times those of rural. This explains the reason that this chart is almost a mirror image of that given for total crashes in Section 2.1,

APPENDIX

A.0 Appendix Introduction and Findings

A.0.1 Appendix Introduction

This appendix is a copy of the final report in a series of reports that have been updated as the COVID period progressed. We are anticipating that this will be the last such report in that very close to steady states have been reached for most crash types, despite recent increases in COVID cases in Alabama.

In all of these reports we have referred to *Week 1* as representing the crash frequency as *the closest number that we could derive that approximated the crash levels in 2020 prior to the COVID quarantine actions (initiated March 10, 2020).* The charts answer the questions as to how the various types of crashes were reduced (or increased) with the general decline in traffic after Week 1. This is given in each of the charts by week. The numbers on the X axis in the graphs indicate the number of weeks that elapsed after Week 1. Week 1 is the name we are giving to the baseline average that represents crash frequency (of various types) under normal (pre-COVID) conditions. Generally, the week ending March 10, 2020 can be viewed as Week 1, although that level was actually determined by an average of a prior weeks in 2020.

Many documents have been written regarding traffic volume ramifications of the COVID-19 virus. If this report is not totally consistent with those findings, this should not infer that either of these sources are incorrect. They are most likely based on different state or federal data sources, which often vary considerably from state to state. While the results obtained have their most direct application within the state of Alabama, there is much commonalty between them and what has been observed in other states. The strongest evidence occurs when the results presented here validate those obtained elsewhere.

How can metrics of extremely different crash types (e.g., all crashes and bicycle crashes) be compared on the same chart? The answer is that the raw *numbers of crashes* are not being compared. What is compared are the *proportions* by which the number of crashes increased or decreased in the time periods following the initiation of COVID separation guidance. Proportions are given on the Y axis. To turn them into percentages, multiply by 100.

All of the crash charts (except the first) contain two thin lines representing *fatal* and *all crashes*. This was done to provide a common frame of reference for comparing how the various crash types changed. In addition to all crashes and fatal crashes that appear in all of the charts, the following crash types were displayed over time (each independently, two lines per chart);

- Speeding Crashes and ID/DUI Crashes
- Pedestrian Crashes and Bicycle Crashes

- Motorcycle Crashes and Large Truck Crashes
- Aggressive Driving and Interstate Travel
- Young Driver Crashes and Misjudged Stopping Distance
- Rural Crashes and Urban Crashes.

Week 1 estimates were updated, as described in the Week 15 report.

A.0.2 Major Recent Findings from the Week 43 Update

In order to match week numbers with actual dates, **Week 39** is the week ending on December 1; **Week 41** is the week ending on December 15; **Week 43** is the week ending on December 29 that was augmented by the crashes on December 30 and 31. In the discussions that follow, week numbers will be used rather than dates to make reference to the charts easier.

The following is a quick summary of the most significant findings for the first 43 weeks of the COVID protection measures (March 10, 2020 until the end of 2020), given according to the Section numbers for easy referencing to more detailed information:

- Overall summary. Weeks 36-43 generally saw a reduction closer to pre-COVID levels for most crashes. The exceptions were: DUI and aggressive driving. The expected increase in traffic volume during the Thanksgiving holiday week did not materialize, and generally, all crash types were down over the last few weeks of the year. All crashes had an up-tick in the final week driven mainly by DUI and Aggressive Driving.
- A.0.3 All Crashes and Fatal Crashes. Crashes in general (All Crashes yellow line) have dropped off after being above their pre-COVID levels (1.0). Fatal crashes have dropped off with all crashes in weeks 39-43, heavily affected by reduced holiday traffic. Fatalities during the 2020 year fell behind their comparable days in 2019.
- A.1 Speeding Crashes and Impaired Driving (DUI) Crashes. DUI and Speeding are well established to be major causes of fatal crashes. DUI causes crashes that are often at excessive speeds, and those in the causal vehicles are properly restrained less than half the time. The blue speeding line does not depart from the All Crash (yellow) line nearly as much as the red DUI line. DUIs came down to the all crash line in the most recent two weeks.
- A.2 Pedestrians and Bicycles. Pedestrian crashes remain at about the All Crash level, while Bicycle crashes have leveled out from Week 25-33, to about 38% higher than its pre-COVID level, after which it had a sharp increase before dropping to almost 60% below its pre-COVID levels in Week 41. This could be due to the weather not being conducive to bicycling. It seems to have bounced back up after that in the last two weeks of the year, but not nearly to its all-time highs.
- A.3 Motorcycles Involved Crashes and Large Truck Caused. Even though the Motorcycle crash proportion has declined significantly between Weeks 29 and 35, it was still twice its pre-COVID level. Most recently, it dropped precipitously in weeks 41 and 43, which might be due to novice motorcyclists avoiding the bad weather days in this time

period. Large Truck proportions have not deviated significantly from the All crash proportions, showing their consistency over this of need for essential goods.

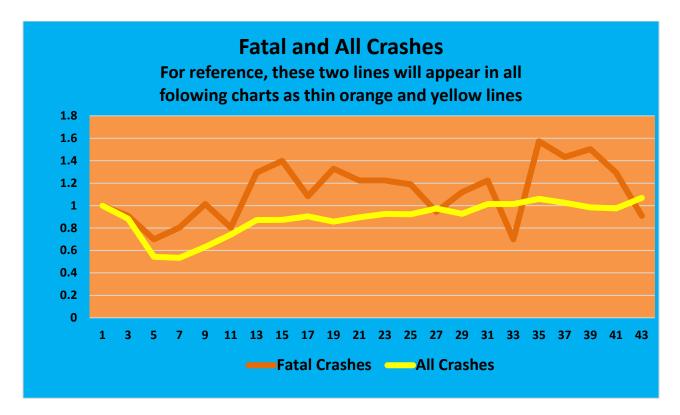
- A.4 Aggressive Driving Crashes and Interstate Crashes. Aggressive Driving proportions each week remained up with Fatal Crashes, while Interstate Crashes are highly correlated with All Crashes during the COVID period. Interstate dropped at first, but has now come back to it expectation.
- A.5 Misjudged Stopping Distance and Young (16-20) Driver Caused crashes. Misjudged stopping distance and Young Driver Caused crashes remain highly correlated with All crashes during the COVID period, with the most recent results showing Youth Caused Crashes to be slightly above the All Crash line, right up to the most recent weeks. Misjudge Stopping Distance continues to be slightly below the all crash line, with just one exception. Generally misjudging stopping distance is more of a problem with younger drivers than with those with are more experienced, and the correlation here is obvious.
- A.6 Rural and Urban. Rural Crashes remain above the All line, while Urban Crashes did not get above it until after week 33. Both remain highly correlated with All Crashes during the COVID period.

A.0.3 General Introduction: All Crashes and Fatal Crashes

This appendix was assembled to produce an easy reference to the last of the series of comparisons of a variety of crash types during the COVID pandemic time period in 2020. This covered from the weeks ending March 10, 2020 through December 31, 2020 Data (43 Weeks), which was the first 43 Weeks of government recommendations and in some cases mandates. For the original report, please see:

http://www.safehomealabama.gov/wp-content/uploads/2021/01/CovidUpdateWK43.pdf

To set the stage for the comparisons to follow in this Appendix, consider the *All Crashes* (yellow) and the *Fatal Crashes* (orange) lines in the chart displayed below. Lighter colors were chosen for these two lines so they would blend into the background of the charts that follow to prevent their being a distraction from the major two lines. Consistent with what has been observed in most states, All Crashes came down to about 50% of their pre-COVID levels in the first few weeks. The total crash number has now regressed to its former level.

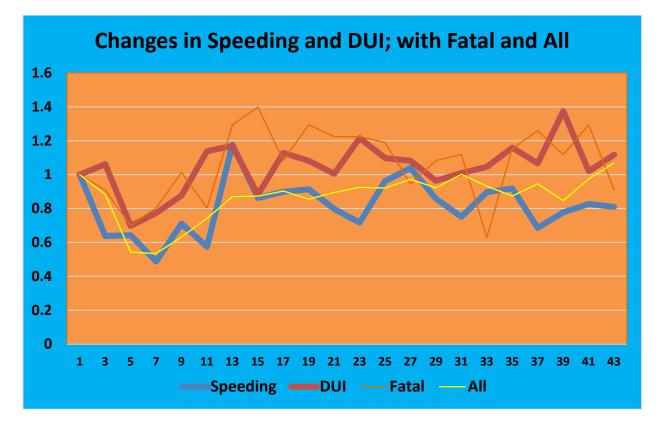


Fatal Crashes rose in Weeks 12-15 to about 40% higher than the pre-COVID level, and they did not drop until Week 27. As of December 31 (end of week 43), the number of fatalities in 2020 was effectively within 0.5% of its comparable 2019 value. Thus, the total number of crashes to this date in the two years provides an estimate of the crash rate (per MVM) increase. The totals through December 1 were 145,253 for 2019 and 120,455 for 2020, a reduction in estimated traffic volume of 17.1%. while the crash reduction for that day was only 2.2%. Adjusting for this, the fatality rate in 2020 increased by an estimated 15.2% over that of 2019.

A.0.4 Credits for Data Sources

 We appreciate the efforts of the Alabama Law Enforcement Agency (ALEA) and local law enforcement agencies in collecting crash data, and ALEA's role in maintaining the crash records.
We also appreciate CAPS for the daily annual (2020 vs 2019) comparison of fatalities.
We are updating the daily State COVID case numbers with data from Bing: Coronavirus Alabama, United States - live map tracker from Microsoft Bing

The following subsections will present the changes in the various crash types. The "All" and "Fatal" crash lines will be displayed as thin lines so as not to distract from the other lines in the charts.

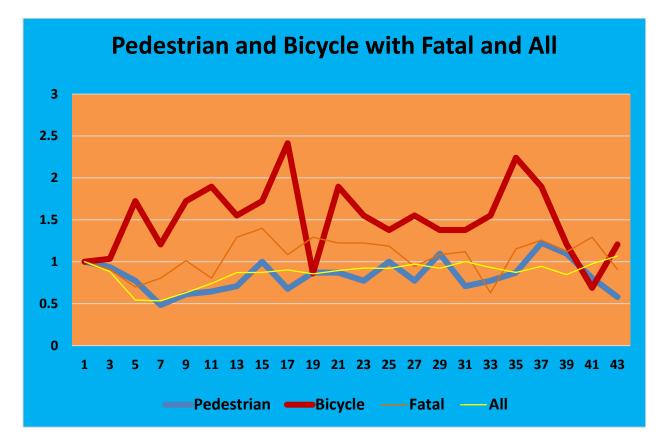


A.1 Speeding Crashes and Impaired Driving (DUI) Crashes

The dark blue speeding curve almost coincided with the red DUI in Weeks 13-15, and right after that it coincided with the All Crashes line. Generally, speeding has been fairly consistent with all crashes (thin yellow), although the fewer speeding crashes make this line much more jagged.

DUI Crashes (red) increased in the first week, and while they decreased for a few weeks after that, they became higher than its pre-COVID proportion from Weeks 11-13, Weeks 17-23, and the most recent Weeks of 33-43. It is clear that the DUI proportion has been consistently higher than the speeding values and as well as all crashes in general. It is important to realize that while speed within itself may not cause the crash (to the point it is recorded as the PCC), speed always increases crash severity. DUI, on the other hand actually causes crashes and quite often it is accompanied by excessive speed and a failure to be properly restrained.

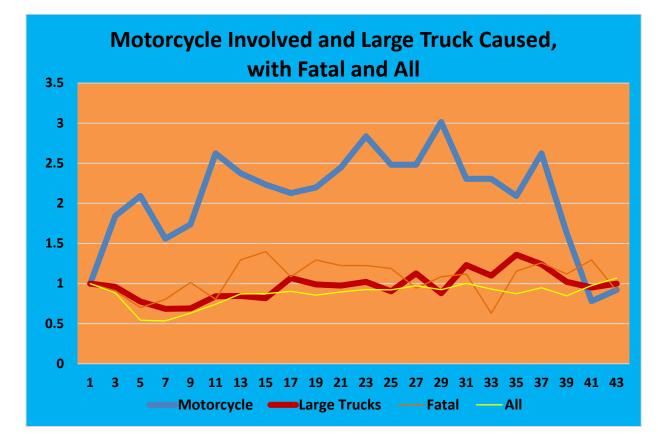
A.2 Pedestrians and Bicycles



Pedestrian Crash proportions (blue) had more variability than all crashes because of their smaller numbers, but they were quite consistent with the All Crash line, indicating that pedestrian strikes were fairly sensitive to the increases and decreases in traffic volume.

Bicycles (red line), on the other hand, had a dramatic increase in its crash proportions relative to the other crash proportions, and currently it has remained higher that either All Crashes or Fatal Crashes. This indicates that a large number of new bicyclists began engaging in bicycling without having developed the normal crash avoidance habits of more experienced bicyclists. While this came down temporarily in Week 19, this was clearly an exception, and it has shown consistently higher levels in most of the following weeks. Even with the recent decline (perhaps due to the weather and holidays), they remain above their pre-COVID levels.

Pedestrians have averaged about 12 crashes per week during the COVID period, while bicycles have averaged about 4.5 crashes per week.

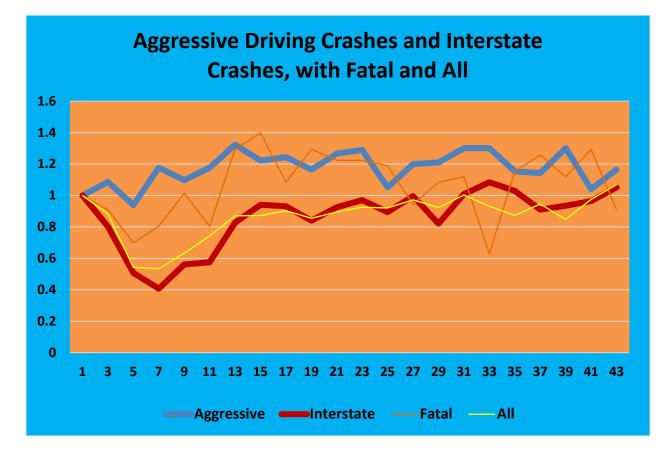


A.3 Motorcycles Involved Crashes and Large Truck Caused

It was speculated that since the number of trucks on the road had not decreased nearly as much as passenger vehicles, that truck crashes might have relatively higher comparative proportion. This has not been the case, and large trucks have been almost totally consistent with All Crashes. A large proportion of two-vehicle crashes involving a truck and a passenger car have historically been caused by passenger cars (especially at the higher severity levels); so fewer cars on the road would help to reduce large truck crashes. For a study of causative vehicle types in disparate twovehicle crashes for a large variety of vehicle types and all severity classifications, please see:

http://www.safehomealabama.gov/wp-content/uploads/2018/12/At-Fault-Analyses-Discussion-v04.pdf

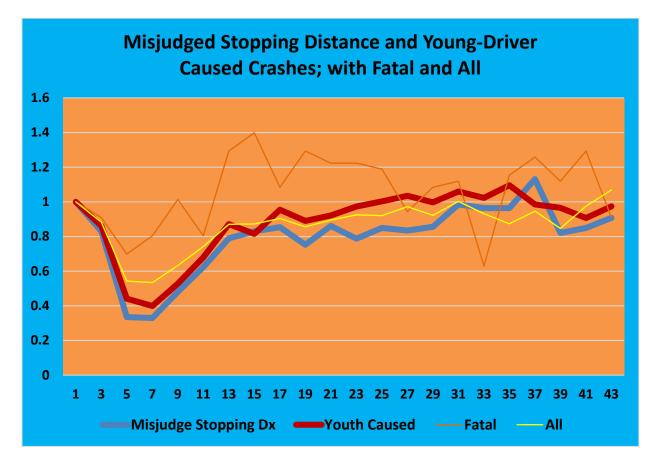
Clearly motorcycles (blue) have a much different pattern, and we suspect that the cause would be the same as that discussed for bicycles above, i.e., a larger number of inexperienced motorcyclists have been on the road during the COVID period, which also might be an effort to save fuel costs. Motorcycle crash proportions came down significantly prior to and during the end-of-year holiday period.



A.4 Aggressive Driving Crashes and Interstate Crashes

Prior to Week 13, Interstate travel (red line) crashes dropped off as much or more than either fatal crashes or total crashes, which probably indicates that fewer longer trips were being taken early in the COVID period. After week 13, Interstate crashes have been fairly consistent with the All Crashes.

On the other hand, the Aggressive Driving proportion rose after Week 5, and it has stayed well above the expected All-Crash level as well as its pre-COVID level with a few exceptions, including the most current weeks. Aggressive Driving is highly correlated with fatal crashes, while Interstate crashes have been highly correlated with All crashes during the COVID period.

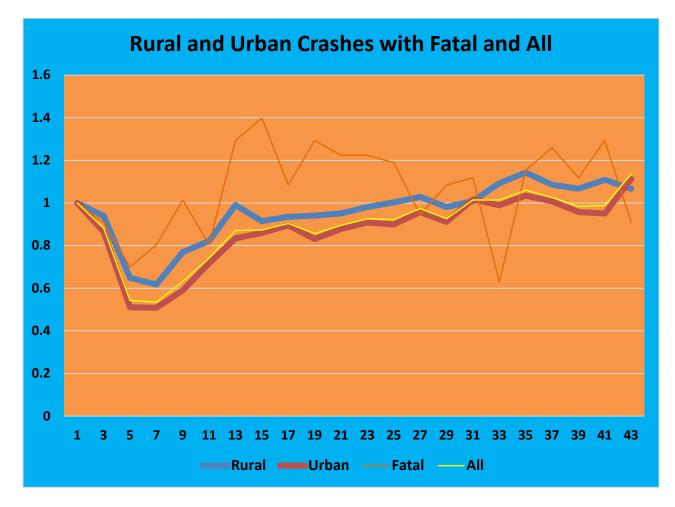


A.5 Misjudge Stopping Distance and Young (16-20) Driver Caused Crashes

Misjudging Stopping Distance and Youth Driver (aged 16-20) caused crashes were quite close to each other, both following the general All Crash trend in their reductions. Both of these generally had a greater proportionate reduction than the overall crashes in the first 15 weeks. After that Youth-Caused crashes have consistently exceeded the All Crash line, although the differences have not been nearly as great as many of the other disparities discussed above. We feel this has resulted from a greater number of younger drivers being on the road after Week 16, as opposed to (perhaps family) restrictions on them prior to that.

Misjudged stopping distance and Young Driver Caused crashes both remain highly correlated with All Crashes (and each other) during the COVID period.

A.6 Rural and Urban



Since the total of Urban and Rural crashes equals All Crashes, it is expected that one of these will be above, and the other below, the yellow (All Crash) line. Since Week 1, the Rural crashes have been above this line, and the Urban crashes have been slightly below it. This indicates that rural driving did not fall off proportionally as much as city driving, a fact that could be due to the need for rural dwellers in securing the necessities of life. In the most recent weeks, Rural Crashes have remained above the All Crash line, while Urban Crashes remain below it, both being highly correlated with the All Crash proportions during the COVID period.