



TPO Board Meeting

Marion County Commission Auditorium
601 SE 25th Avenue, Ocala, FL 34471
March 22, 2022
4:00 PM

MINUTES

Members Present:

Councilman Ire Bethea
Commissioner Kathy Bryant (*arrived at 4:16pm*)
Councilmember Kristen Dryer
Councilman James Hilty
Commissioner Michelle Stone (*arrived at 4:06pm*)
Mayor Bill White

Members Not Present:

Commissioner Craig Curry
Commissioner Jeff Gold
Mayor Kent Guinn
Commissioner Ronald Livsey
Councilmember Barry Mansfield
Commissioner Carl Zalak

Others Present:

Rob Balmes, TPO
Shakayla Irby, TPO
Liz Mitchell, TPO
Chris Keller, Benesch
Rakinya Hinson, FDOT
Sean Lanier, City of Ocala
Other members of the public not signed in.

Item 1. Call to Order and Pledge of Allegiance

Chairman Ire Bethea called the meeting to order at 4:02pm and led the board in the Pledge of Allegiance.

Item 2. Roll Call

Shakayla Irby, Administrative Assistant called the roll and a quorum was not present. After presentations had been made at 4:52pm Ms. Bryant made a motion to move forward with at least five voting members present to constitute a quorum. Ms. Stone seconded, and the motion passed unanimously.

Item 3. Proof of Publication

Shakayla Irby, Administrative Assistant stated the meeting was published online at the TPO website and the City of Ocala, Belleview and Dunnellon and Marion County meeting calendars on March 15, 2022. The meeting was also published to the TPO's Facebook and Twitter pages.

Due to the lack of quorum at the start of the meeting, Chairman Bethea commenced with presentations first.

Item 6A. Commitment to Zero Crash Tech Memo

On January 12, 2022, the TPO kicked-off Commitment to Zero: An Action Plan for Safer Streets in Ocala Marion. The TPO's consultant team, Benesch, had been undertaking task work to develop a Crash Tech Memo to summarize their analysis of recent crash statistics in Marion County.

At the meeting, Chris Keller of Benesch provided a presentation that highlighted the draft Crash Tech Memo and share further information regarding the progress of the Commitment to Zero planning process.

The Crash Assessment DRAFT is attached to pages 10-35 of this set of minutes for reference.

The board had some discussion on the Safety Action Plan presentation.

Councilmember Dryer asked if any demographics had been studied.

Mr. Keller said that age, gender, location, and environmental justice had been reviewed.

Chairman Bethea said that a lot of research and data that had been collected would help to better move forward with the Commitment to Zero Safety Action Plan.

Mayor White said that it was "information overload" and would like to have access to the data that was collected to review because it was fascinating data. He also inquired about "serious injuries" and how those type injuries were defined.

Mr. Keller said that there was a specific definition of serious injuries also referred to as an “incapacitated injury”. If a person was unable to leave the scene of a crash on their own usually that would be considered a serious injury.

Mayor White said a clear definition of serious injury and also who determined a serious injury should be a part of the information in the safety plan.

Mr. Keller said a serious injury was determined at the scene by law enforcement.

Mayor White said it was interesting that the number of crashes were increasing and the percentage of crashes per passenger mile was increasing at an even higher rate.

Mr. Keller said looking over the past decade was an echo of the recession and at about the same pace as twenty to twenty-five years ago.

Ms. Stone asked if the report in a more detailed fashion indicated the make and models of vehicles were included and wondered if new technology in vehicles made a difference.

Mr. Keller said that he would have to look into if there was access to that information.

Item 6B. Fiscal Years (FY) 2022/23 to 2023/24 Draft Unified Planning Work Program (UPWP)

Mr. Balmes presented a high level presentation of the FY 2022/26 to 2023/24 Draft UPWP.

The Unified Planning Work Program (UPWP) was a federally required two-year document that served as the TPO’s working budget. The federal definition of the UPWP was “a statement of work identifying the planning priorities and activities to be carried out within a metropolitan planning area. At a minimum, a UPWP included a description of the planning work and resulting products, who would perform the work, time frames for completing the work, the cost of the work, and the source(s) of funds” (23 CFR450.104).

Every two years, the TPO developed a UPWP. The Draft Fiscal Years 2022/23 to 2023/24 UPWP covered the next two-year period from July 1, 2022 to June 30, 2024. The UPWP was required as a basis and condition for receiving federal funding assistance by the joint planning regulations of the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA).

TPO staff would provide a presentation of the Draft version of the FY 2022/23 to 2023/24 UPWP at the March 22 Board meeting. As part of the development of the UPWP, a 30-day public review process was also underway from March 15 to April 15, 2022. Some of the notable highlights of the Draft UPWP were as follows:

- The TPO and Florida Department of Transportation (FDOT) participation in a new Consolidated Grant Program (CPG), which combined FHWA PL and FTA 5305d funding into one program.

- The Infrastructure Investment and Jobs Act (IIJA) had resulted in authorized funding increased to date of \$128,283 in year one (FY 22 and 23 combined) and \$74,014 in year two (FY 24).
- The state, through FDOT, had committed to provide the local cash match requirement to TPO federal grants by applying toll revenue credits (soft-match). Which included the new CPG and existing 5305d grants. The soft-match relieved local governments in Marion County from a hard cash match requirement of 18.07% for the CPG and 10% for the 5305d grants.
- The FHWA and FTA, through the U.S. Department of Transportation, had issued eight federal planning emphasis areas (PEAs) to be integrated into TPO tasks and planning activities.
- The state, through FDOT, had issued four statewide emphasis areas, including safety, equity, resilience and emerging mobility.

Draft UPWP Funding Summary

Funding Source	Fiscal Year 2022/2023	Fiscal Year 2023/2024
Consolidated Planning Grant (CPG)	\$707,763	\$653,494
*FHWA PL-112	\$622,150	\$567,881
FTA 5305(d)	\$85,613	\$85,613
FTA 5305(d) Carryover (prior grants)	\$146,840	\$0
CTD (Transportation Disadvantaged)	\$27,523	\$27,523
Local Funding	\$2,000	\$2,000
Total:	\$884,126	\$683,017

*Does not include the de-obligation amount of \$175,000

Item 5A. Annual 2021 FDOT/TPO Joint Certification

Rakinya Hinson with FDOT addressed the board with a summary of highlights from the annual 2021 FDOT/TPO Joint Certification.

On an annual basis and pursuant to federal requirements, 23 USC 134(k)(5) and CFR 450.334(a), the Florida Department of Transportation (FDOT) and Ocala/Marion Transportation Planning Organization (TPO) perform a joint review of the certification status for the transportation planning process. The joint certification process for 2021 took place from January to February 2022, including a meeting at the FDOT District office on February 2, 2022.

Ms. Hinson said after a very thorough review of the Ocala Marion TPO invoices the district noted great financial practices and the Ocala Marion TPO had been deemed as low risk scoring 100%. There were no findings that would require follow ups or recommendations of corrective actions.

Ms. Hinson also highlighted the great opportunity to work with staff in collaboration with strengthened partnership and communication internal enhancements were made to better serve the organization and board members.

Ms. Stone said there were some questions asked in the certification that might have indicated specific language was not matching accurately.

Ms. Hinson replied that there was some language that federal organizations had asked the state to incorporate and the district had just been informed earlier in the year. It was a statewide effort and not specific to anyone one MPO.

Ms. Stone said that the TPO had made great improvements under the leadership of Mr. Balmes and commended Mr. Balmes and staff for their work.

Chairman Bethea said the review was phenomenal and complemented both Mr. Balmes and staff.

Mr. Balmes thanked FDOT for their partnership and Ms. Mitchell for her work at the TPO.

Ms. Stone made a motion to approve the Annual 2021FDOT/TPO Joint Certification. Mr. Hilty seconded, and the motion passed unanimously.

Item 5B. FY 20/21 to 21/22 UPWP De-obligation Amendment

Mr. Balmes presented and said the Unified Planning Work Program (UPWP) was a federally required two-year document that served as the TPO's working budget. The current Fiscal Year (FY) 2020/21 to 2021/22 UPWP was authorized to June 30, 2022. As outlined in the Florida Department of Transportation (FDOT) MPO Program Management Handbook, Federal Highway Administration (FHWA) Planning Funds (PL-112) currently programmed, but not expended by June 30, 2020 in the current UPWP, require de-obligation for future re-obligation into the next two-year UPWP (FY 2022/23 to 2023/24).

Based on the analysis of the current UPWP, the TPO submitted a formal letter to FDOT on March 2, 2022 requesting the de-obligation of \$175,000 in FHWA PL-112 funding. The funding change was reflected in the documents provided to the TPO board corresponding task and funding tables for FY 2020/21 (year one).

The TPO proposed to re-obligate the full \$175,000 in funding from FY 2020/21 of the current UPWP to the first year of the new FY 2022/23 to 2023/24 UPWP for Consultant Planning services – Consultants. These funds would be used for conducting future transportation studies and planning activities over the next two-year period based on identified priorities.

The change would be reflected in the final draft version of the FY 2022/23 to 2023/24 UPWP presented to the TPO Board on April 26, 2022.

Ms. Stone made a motion to approve the FY 20/21 to 21/22 UPWP De-obligation Amendment. Ms. Bryant seconded, and the motion passed unanimously.

Item 5C. FY 2021/22 to 2025/26 TIP Amendment

Per the request of the Florida Department of Transportation (FDOT), two projects were proposed to be amended to the Fiscal Years (FY) 2021/2022 to 2025/2026 Transportation Improvement Program (TIP).

FM# 436474-4: Saddlewood Elementary Sidewalk Improvements

- Total: \$12,000
- Funds to be added to FY 2021/22
- Addition of Construction Engineering and Inspection (CEI) to project

FM# 436474-5: Legacy Elementary School Sidewalks

- Total: \$36,000
- Funds to be added to FY 2021/22
- Addition of Construction Engineering and Inspection (CEI) to project

Ms. Bryant made a motion to approve the FY 2021/22 to 2025/26 TIP Amendment. Ms. Stone seconded, a roll-call vote was called and the motion passed unanimously.

Item 5D. Citizens Advisory Committee (CAC) Application

Per the Bylaws of the Citizens Advisory Committee (CAC), all membership nominations required TPO Board review and approval. TPO staff received an application for membership to the CAC by Chris Arroyo. Mr. Arroyo was a resident of Marion County and attended the College of Central Florida. He expressed an interest in transportation mobility in the Ocala/Marion County community, and serving on the CAC.

Mr. Hilty made a motion to approve the CAC application for Chris Arroyo. Ms. Dryer seconded, and the motion passed unanimously.

Item 5E. Approval of Community Transportation Coordinator (CTC) Annual Evaluation

Ms. Liz Mitchell gave a presentation on the CTC Evaluation and shared with the board that the Florida Commission for the Transportation Disadvantaged designated a Community Transportation Coordinator (CTC) for each county/service area. The CTC was responsible for coordinating and/or providing transportation services to individuals who are transportation disadvantaged.

You are considered "transportation disadvantaged" due to age, income, or a disability, you cannot drive, and do not have access to other transportation options. Access would be provided to medical appointments, employment, educational and other life sustaining services, including, groceries, shopping, meals, and social events, to those who were eligible and have no other means of transportation.

In accordance with Florida Statutes, Chapter 427, and the Florida Commission for the Transportation Disadvantaged the Marion County Community Transportation Coordinator (CTC) evaluation was conducted annually by members of the Transportation Disadvantaged Local Coordinating Board (TDLCB) with assistance from the Ocala Marion Transportation Planning Organization (TPO) staff. The TDLCB evaluates the CTC in order to ensure quality of service was being provided in the most cost effective and efficient manner. This was accomplished through an audit, a series of interviews, quality checks, rider surveys, and ride-along for observation.

The evaluation encompasses management, operations, service, safety, vehicle maintenance, drivers and training, performance standards, grievance/complaint procedures, and quality

assurance, utilizing the Commission for the Transportation Disadvantaged CTC Evaluation Workbook.

In summary, the TPO found that all of the required policies and procedures, contracts and contract management, grievance/complaint procedures, performance, quality and safety standards were in place and being adhered to. All vehicles were on a maintenance schedule and in good working order. The drivers are trained with continual training updates. There was a zero tolerance substance abuse policy enforced complete with pre-employment drug and alcohol background check, and random testing. The riders spoke highly of the overall system and feel that they are being provided a quality service.

The TPO had provided a few recommendations as well as commendations as a result of our evaluation.

Recommendations

1. Provide readily available comment cards on each bus for input from the riders with a sealed drop box. This will allow for input from the riders on an ongoing basis.
2. While there has been improvement on the waiting period for returning riders home from their appointments we are still receiving comments on the pickup window being too long 2 to 3 hours wait prior to pick up.
3. Standardize the location of the pertinent phone numbers on each bus. Due to the fact that service is geared for the disadvantaged, many are unable to get up close to view the Ombudsman and complaint phone numbers. These numbers need to be in various locations i.e. on the upper side isles for easier viewing from the riders sitting on the sides with an emphasis on the size of the numbers (larger for distance viewing from the back of the bus).

Commendations

1. Riders are pleased and speak highly of the overall system and the staff.
2. Marion Transit monitors and continues to make the changes required to provide the coverage necessary to maintain happy riders.
3. Marion Transit was several months without a Community Transportation Coordinator however the system overall did not diminish in quality due to well outlined policies and procedures, well trained staff and teamwork.

Chairman Bethea asked if the two hour pick up window went past two hours.

Ms. Mitchell responded that riders complained about having the two hour pick up window which required them to be ready two hours before their appointment time. Marion Transit had not exceeded the two hour pick up time.

Ms. Stone commented that the riders love their drivers and the service. Marion Transit had faced staffing challenges and were doing all they could with the pickup window.

Ms. Stone also gave comments about how pleased the riders were with Marion Transit and the service provided. Serving as the chair on the Transportation Disadvantaged Local Coordinating Board (TDLCB) she had heard very positive comments about Marion Transit.

Mayor White inquired if Marion Transit serviced the Dunnellon area.

Ms. Mitchell responded that there was a deviated route specifically for Dunnellon.

Mayor White said he would spread the word of Marion Transit in Dunnellon.

Ms. Stone mentioned to Ms. Mitchell that it would be a good idea to have Marion Transit present at one of the TPO board meetings to provide information on their services.

Ms. Bryant said Marion Transit was very vocal about the deviated route when it launched and was very good about getting the word out in Dunnellon.

Mayor White said he would be interested in inviting a representative to the City of Dunnellon Council meeting to refresh the idea of Marion Transit with the city.

Ms. Stone made a motion to approve the CTC Annual Evaluation. Ms. Bryant seconded, and the motion passed unanimously.

Item 7. Comments by FDOT

Ms. Hinson provided an updated construction report and commented the following:

- Dallas Pond Redesign on U.S. 301 Drainage Construction (FDOT Financial Information Number 411256-5) - project had been delayed with weather and new estimated completion date was the end of March 2022.
- 441136-1 Mill and resurface U.S. 441 from County Road 25A in Ocala north 8.8 miles to the U.S. 441/301 split – resumed paving and median work at CSX bridge was to be completed soon and lane closures were to be lifted by end of March 2022.
- March Florida Bicycle Month information at www.floridabicycle.org

Item 8. Comments by TPO Staff

Mr. Balmes told the board a Community wide workshop for the Commitment to Zero Safety Action Plan was planned for April 14, 2022 at the College of Central Florida – Klein Center from 5:30pm – 8pm.

Marion County Board of County Commissioners (BOCC) approved \$1 an hour increase for staff and that included the TPO staff as well. The Marion County BOCC was conducting an extensive compensation study and Human Resources may present to the TPO board once the study was completed.

Ms. Stone asked if the \$1 increase required a TPO budget adjustment.

Mr. Balmes said there was no impact due to extra funding with staff vacancies.

Item 9. CAC Chair Report

Mr. Richard McGinley was unable to attend the meeting due to a conflict.

Item 10. Comments by TPO Board Members

Ms. Stone gave thoughts of putting a message out through social media for bicycle month.

Mayor White said on March 24, 2022 at 10am the tunnel that connected Blue Run Parks Trail to the entire Withlacoochee Trail system was having its official ribbon cutting and invited everyone to attend.

Item 11. Public Comment

There was no public comment.

Item 11. Adjournment

The meeting was adjourned by Chairman Bethea at 5:27pm.

Respectfully Submitted By:

Shakayla Irby, Administrative Assistant



An Action Plan >>> for Safer Streets in Ocala Marion

Crash Assessment

DRAFT

February 2022

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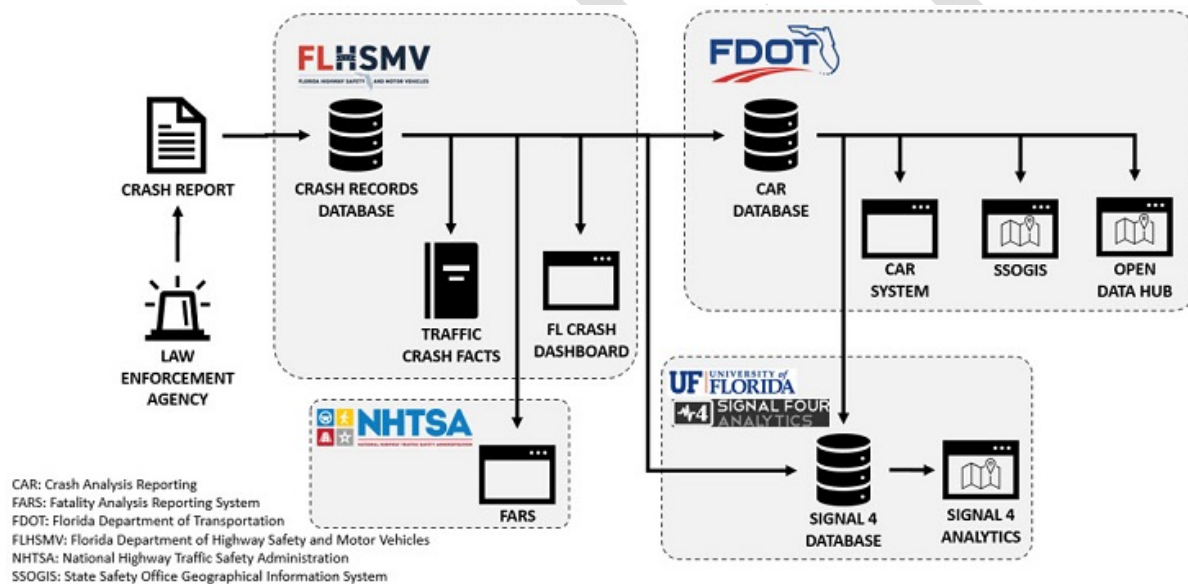
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Introduction

Commitment to Zero is built around a Safe Systems framework. In Safe Systems, a “safety culture” is adopted, whereby the goal of any roadway initiative, whether education, engineering, or any other intervention, is to eliminate the possibility of death. Under Safe Systems, the entirety of the transportation network is designed and studied in a way that inevitable mistakes by roadway users – motorists, walkers, bicyclists, and motorcyclists – do not result in death.

Data Source

Crash data were retrieved from Signal Four Analytics, a collaborative statewide crash analytical tool developed by the University of Florida Geoplan Center, for the period between 2015 and 2020. Signal Four receives its crash data via the Florida Department of Highway Safety and Motor Vehicles (FLHSMV) and enhances this data using citation data retrieved from the Florida Court Clerks & Comptrollers (FCCC). After retrieving these data, Signal Four then performs quality control as needed.





Crash Trends

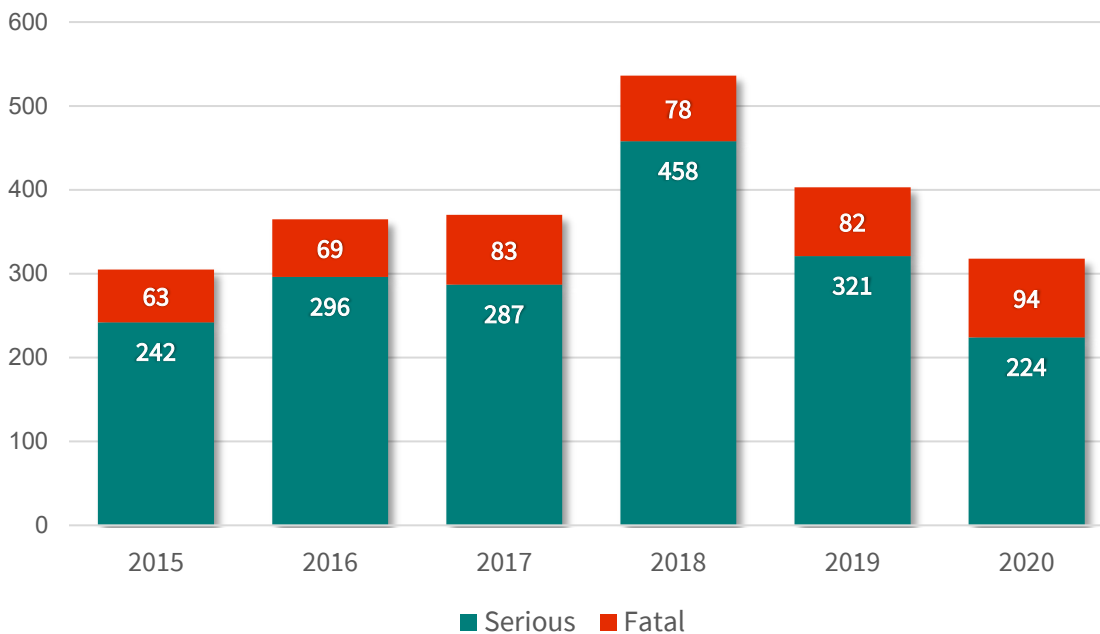
To better understand which interventions will have the highest safety benefit, an analysis of five-year crash data was undertaken to identify crash trends within Ocala / Marion County. An additional sixth year, 2015, was included to account for the unusual circumstances in 2020 stemming from the initial onset of the Covid-19 pandemic. Because Commitment to Zero focuses on eliminating deaths and serious injuries, only crashes where someone was killed or severely injured (KSI) were reviewed. Certain trends were further identified for KSI crashes involving people riding bikes or walking, who make up a disproportionate share of total KSI crashes.

Seasonality

Crashes were reviewed by year, month, day of the week, and hour of the day.

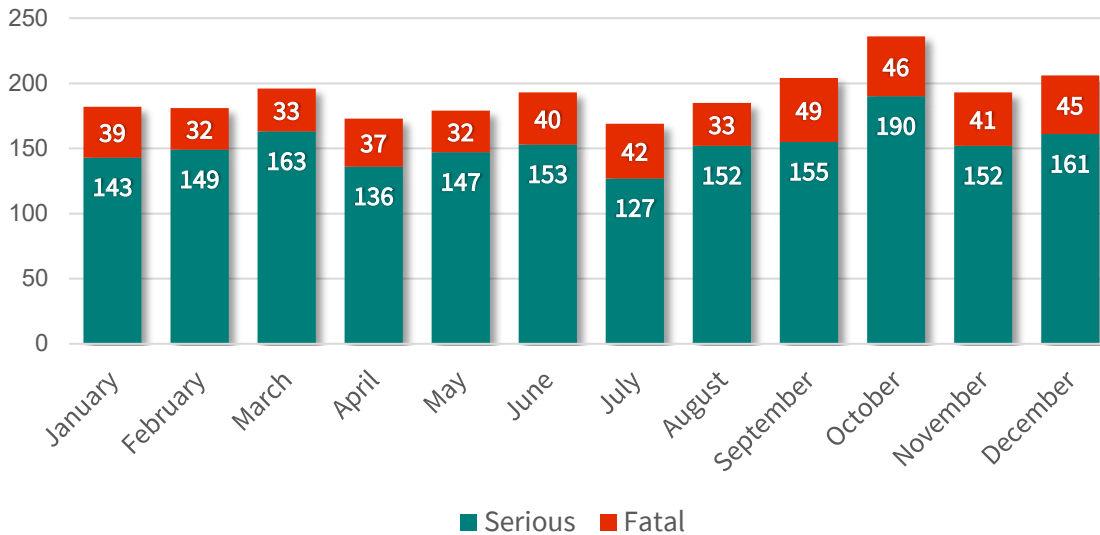
Annual Crashes

On an annual basis, KSI crashes have been progressively increasing. In 2018 there was a noted spike in serious injury crashes. Although total KSI crashes were lower in 2020, the proportion of fatal crashes to serious injury crashes was higher than in any other reviewed year.



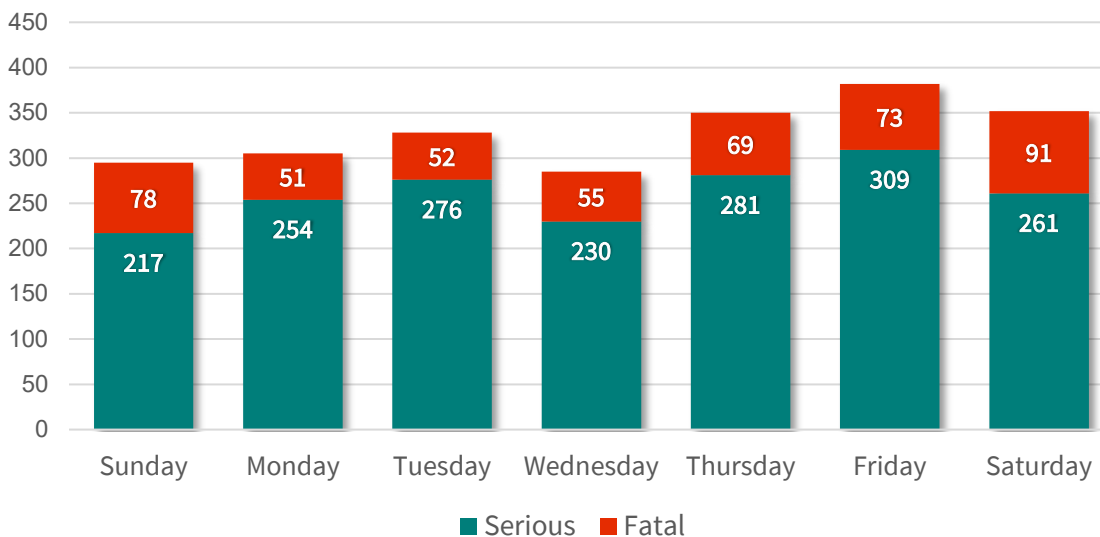
Monthly Crashes

On a monthly basis, total KSI crashes are generally stable month over month. The highest period is between September and December, with September having the highest number of deadly crashes and October having the highest number of crashes resulting in serious injuries.



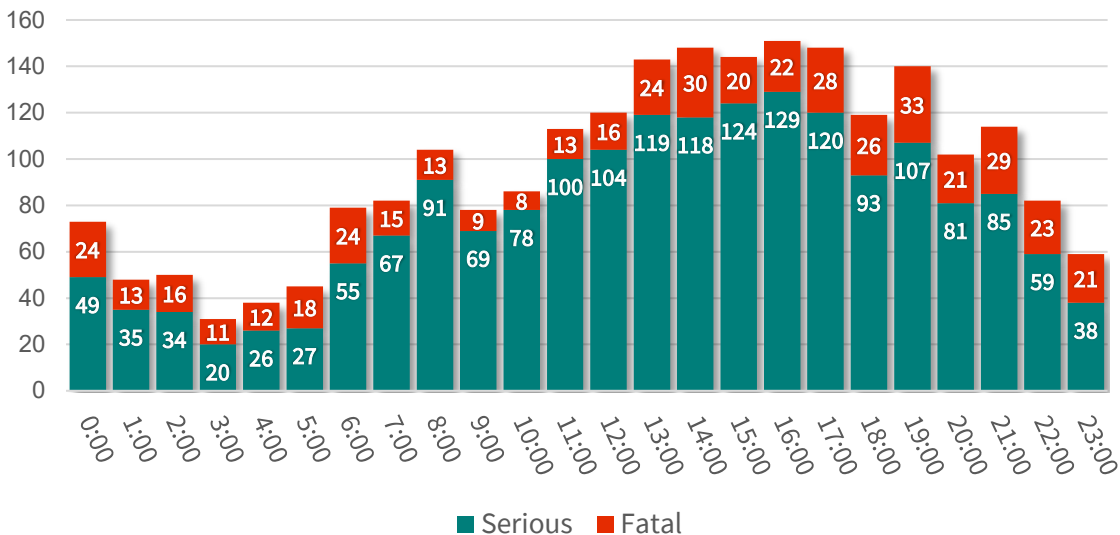
Daily Crashes

By day of the week, Thursday through Saturday are the most dangerous days of the week. Friday has the highest number of total KSI crashes and crashes resulting in serious injury, while Saturday has the highest number of crashes resulting in death.



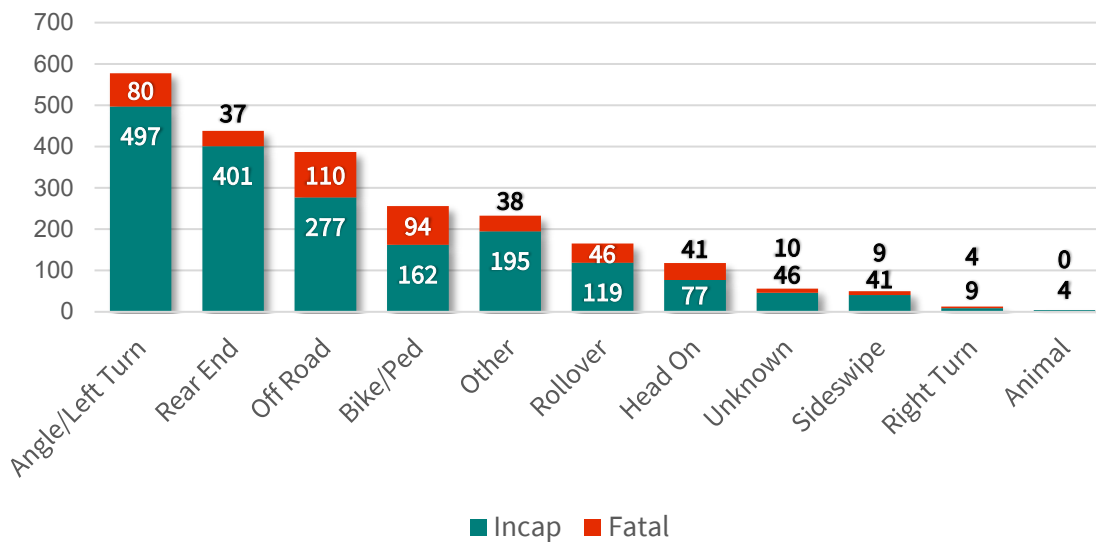
Hourly

Crashes by time of day see a distinct peak in crash frequency between the lunch hour and the end of the evening rush hour. The highest number of crashes resulting in serious injuries occurred during the 4:00 PM hour, while the highest number of crashes resulting in death occurred during the 7:00 PM hour.



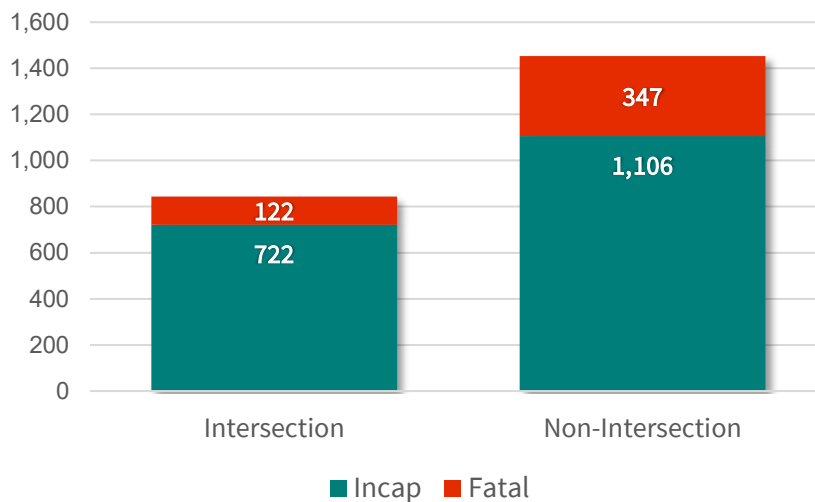
Crash Types

Crashes were placed into 11 categories, shown as the figure below. Angle and Left Turn crashes made up the largest share of total KSI crashes (25%) and serious injury crashes (27%). Run Off Road accounted for the largest share (23%) of crashes that resulted in a death.



Relation to Intersection

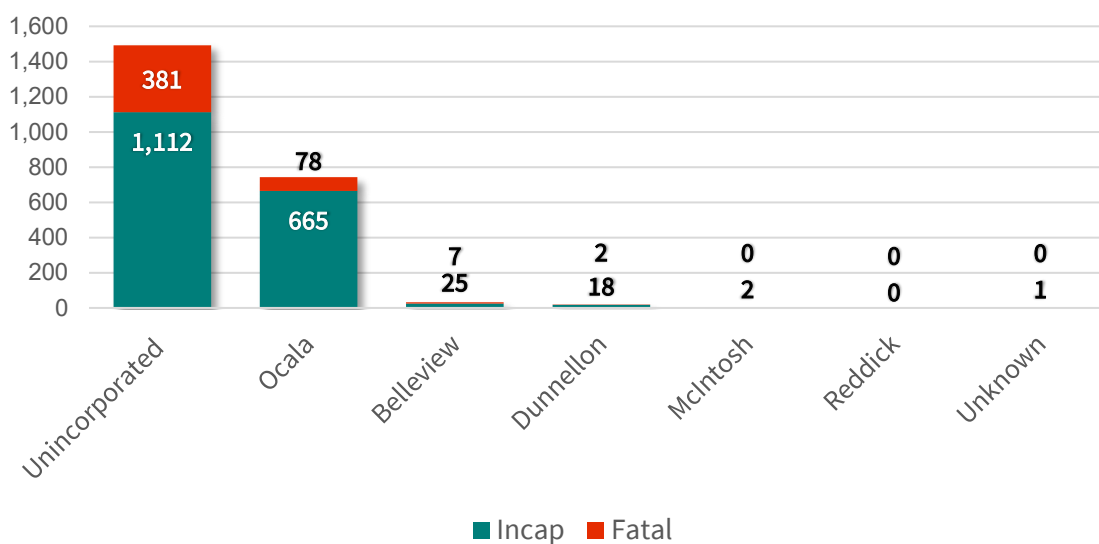
Crashes were categorized based on their relationship to the nearest intersection. Most KSI crashes occurred outside of an intersection. Crashes that occurred away from an intersection were more likely to result in death.



Roadway and Locational Trends

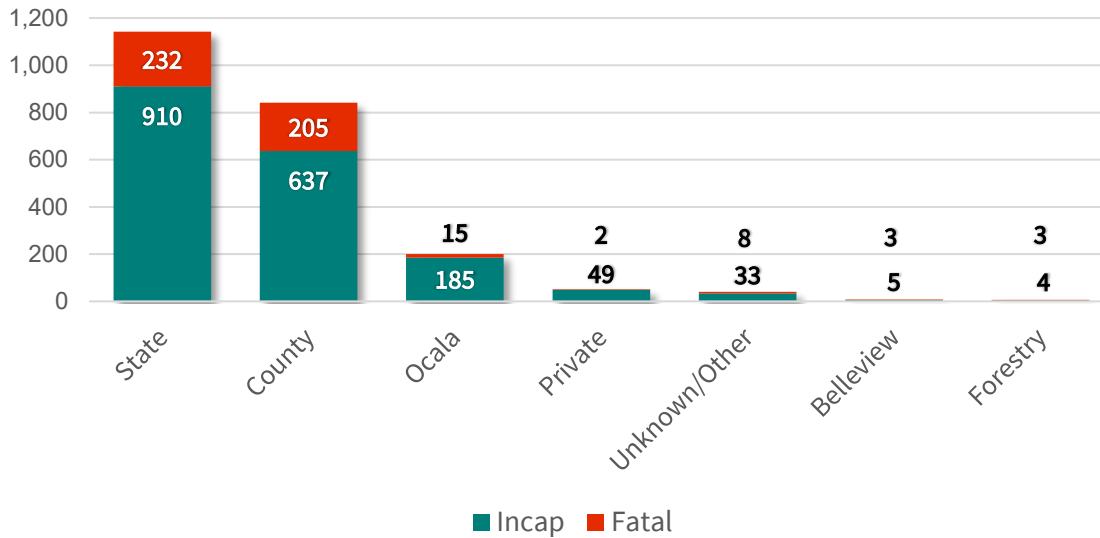
A review of roadway data was completed to better understand the types of roads where KSI crashes are occurring with the highest frequency.

Most crashes are documented as occurring within Unincorporated Marion County or the City of Ocala. Together, the lane miles of roads within these areas make up for about 98% of total miles, matching their total share of about 98% of KSI crashes.

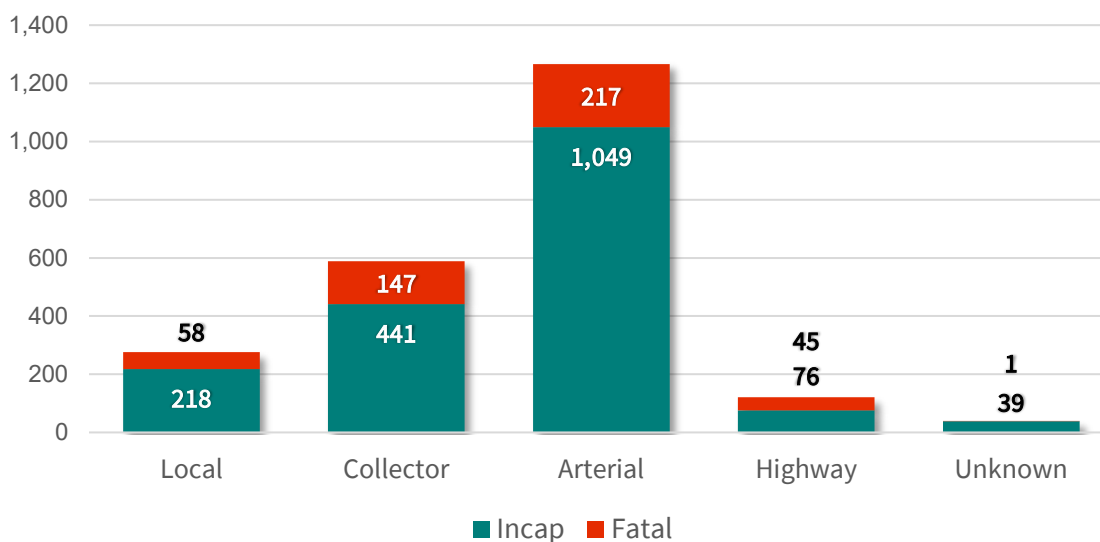




The majority of crashes occur on State and County jurisdiction roads. These roads carry the highest volume of traffic at the highest speeds, two factors that contribute significantly to the probability and severity of a crash.

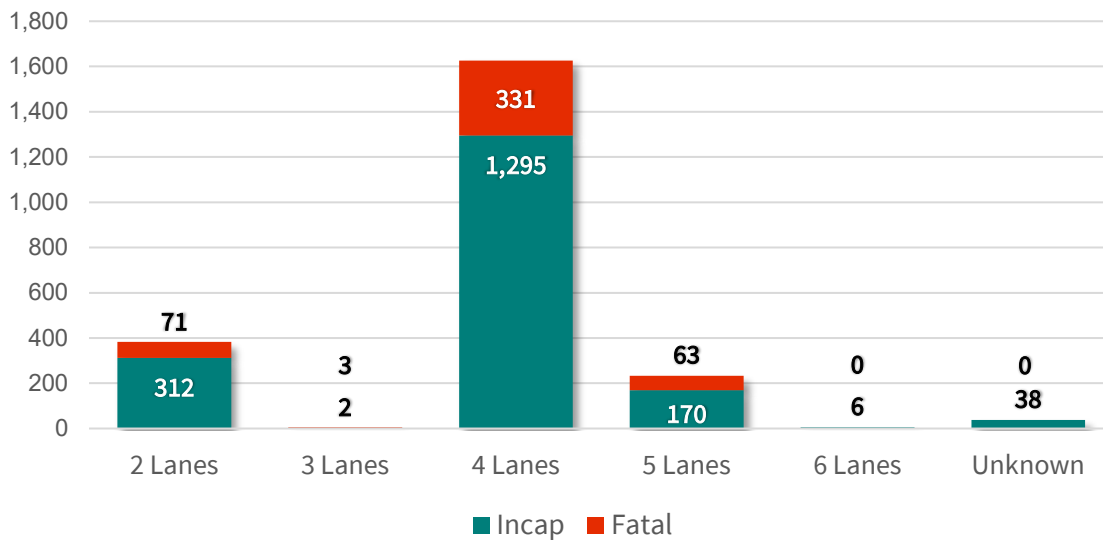


Excluding local streets, arterial roadways make up about a third of total lane miles in Marion County yet carry 55% of total KSI crashes and 46% of total fatal crashes. Collector streets, which make up about two-thirds of total lane miles (excluding local streets), carry about a quarter of total KSI crashes. Conversely, local streets, which make up 77% of total lane miles, carry disproportionately lower crashes, carrying only 12% of total KSI crashes – including 12% of serious injury crashes and 12% of fatal crashes. This is due in part to the much lower volume and speed encountered on local roads compared to their arterial and collector counterparts.

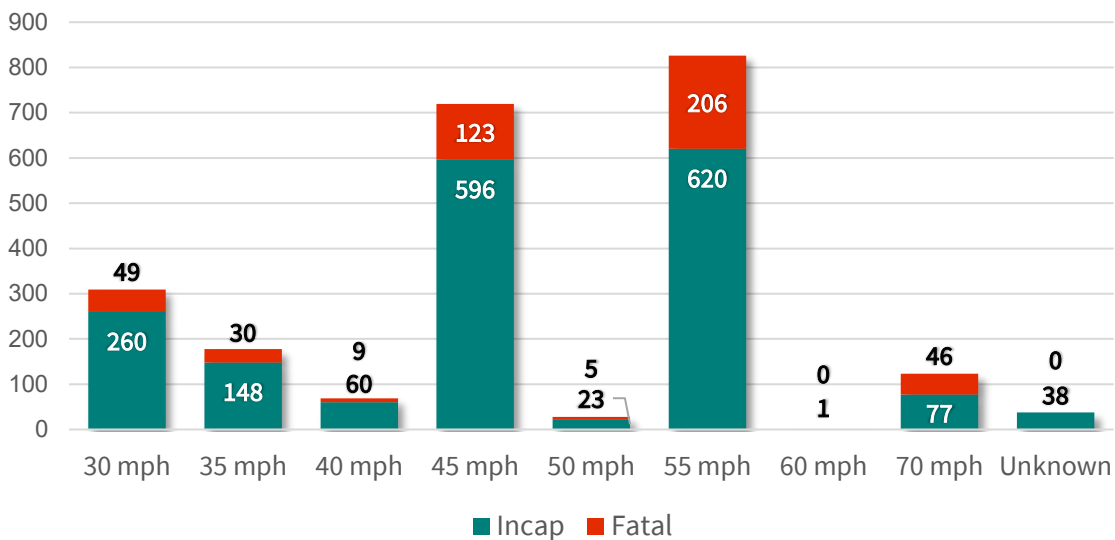




Most crashes occurred on 4-lane roadways, with 5-lane roadways having a slightly higher share of fatal crashes than total KSI crashes.



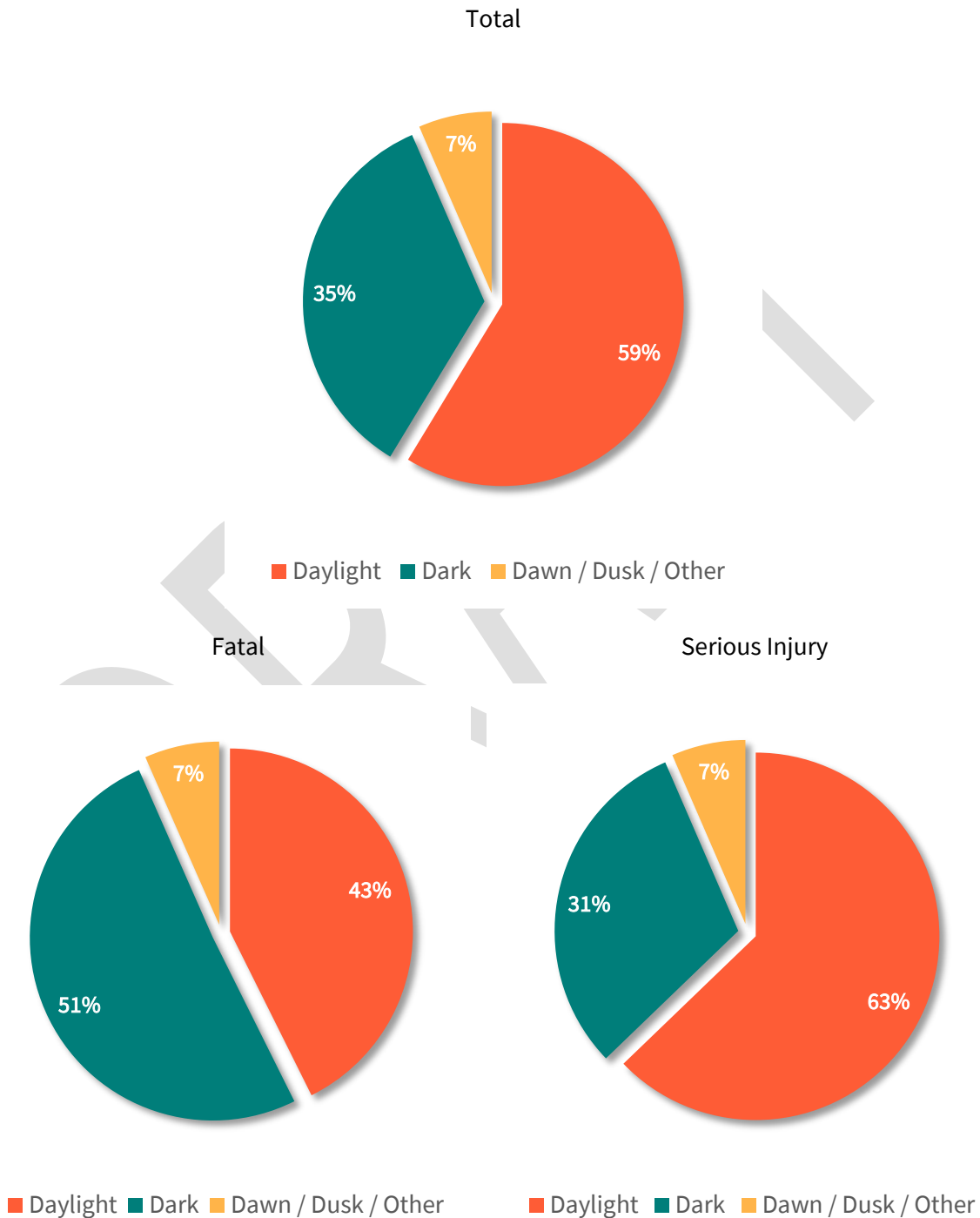
Roads with a posted speed limit of 45 MPH or 55 MPH made up about two-thirds of total KSI crashes. Additionally, roads with a posted speed limit of 55 MPH made up 44% of fatal crashes, despite only making up 36% of total KSI crashes.



Environmental Trends

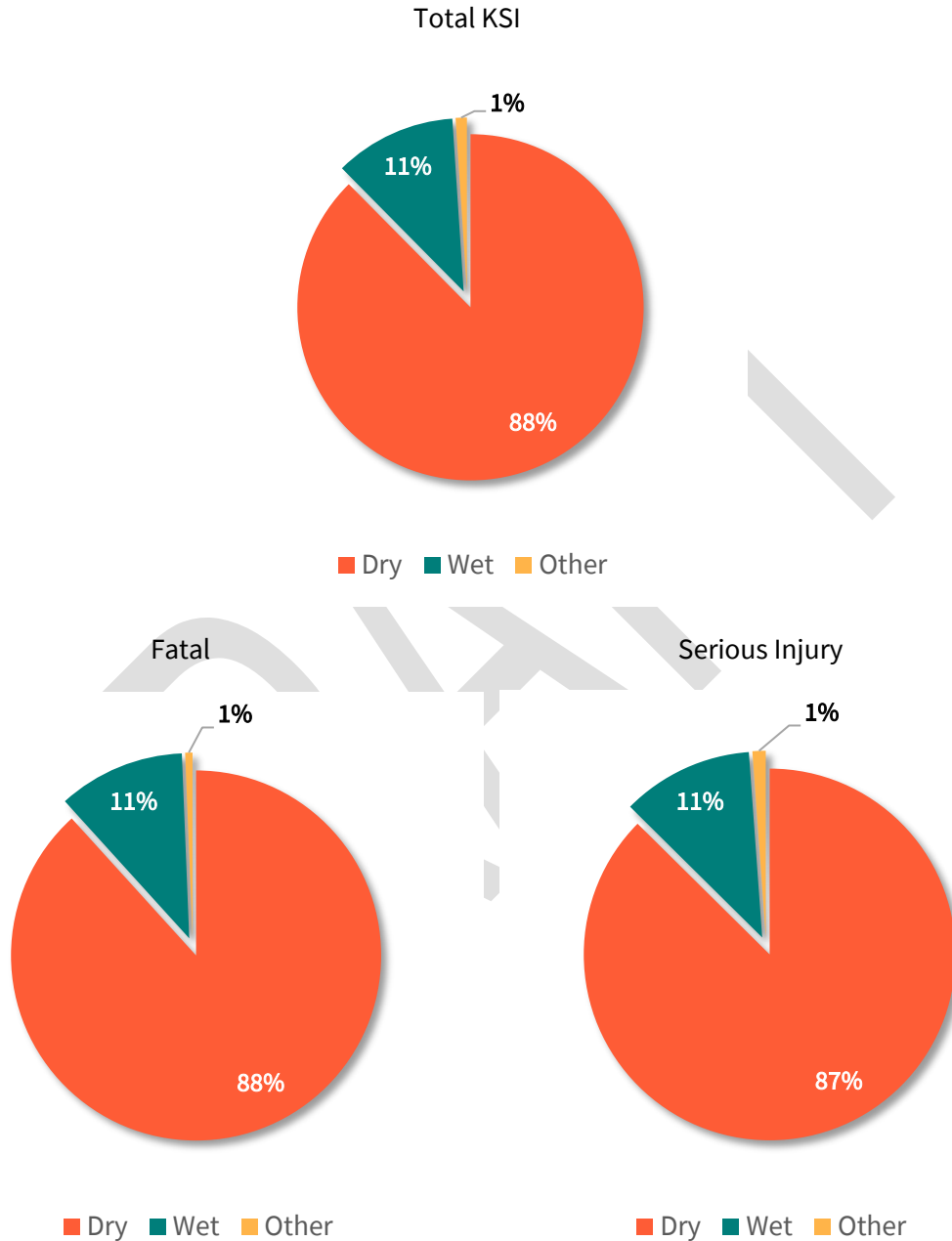
Lighting

Dark lighting conditions were a significant indicator that a crash would result in death when compared to total KSI and serious injury crashes.



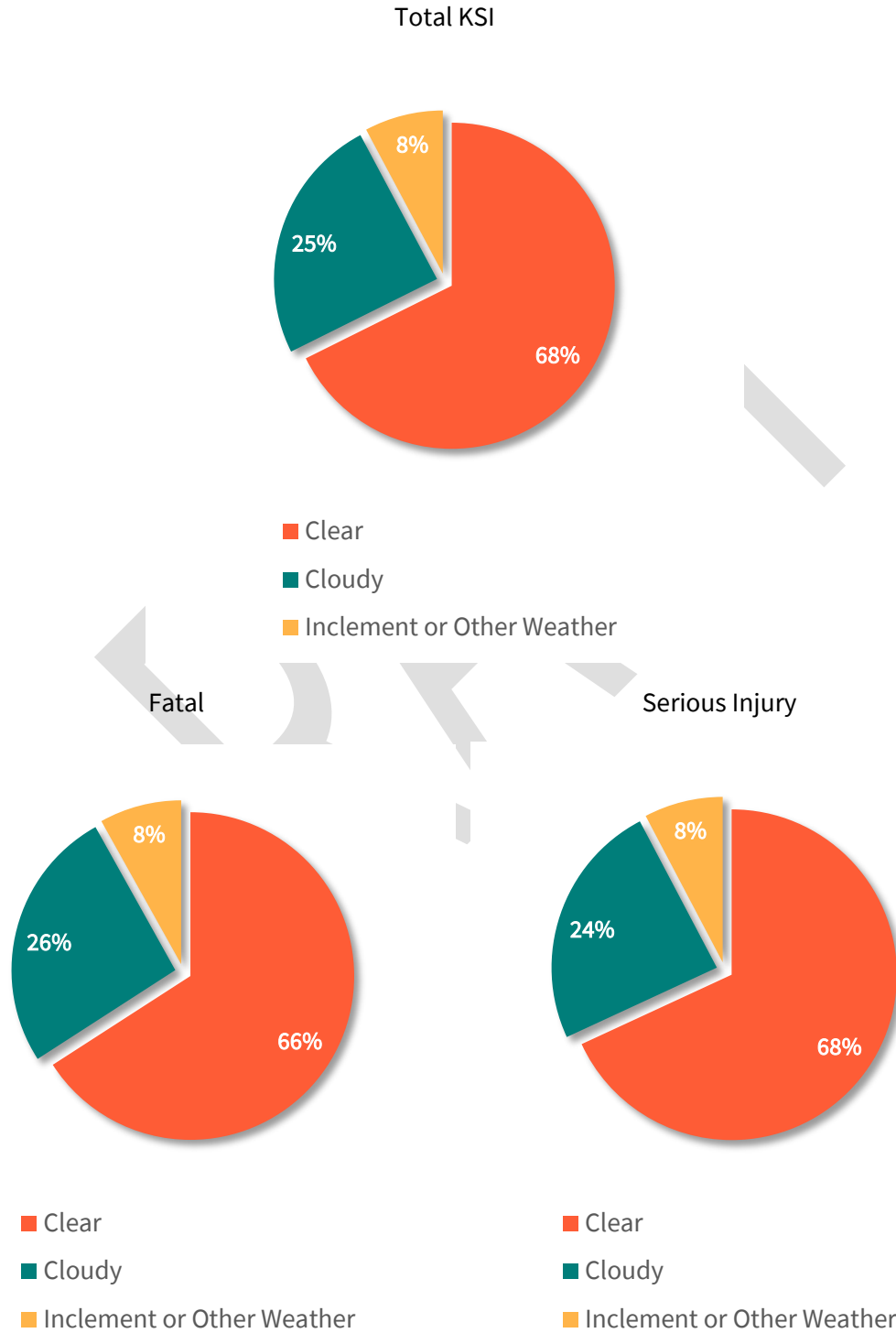
Road Surface Condition

Most KSI crashes occurred during dry road surface conditions. There was no distinct trend to indicate that road surface conditions are a contributing factor between crash severities.



Weather Condition

Most KSI crashes occurred during clear weather conditions. There was no distinct trend to indicate that weather conditions are a contributing factor between crash severities.



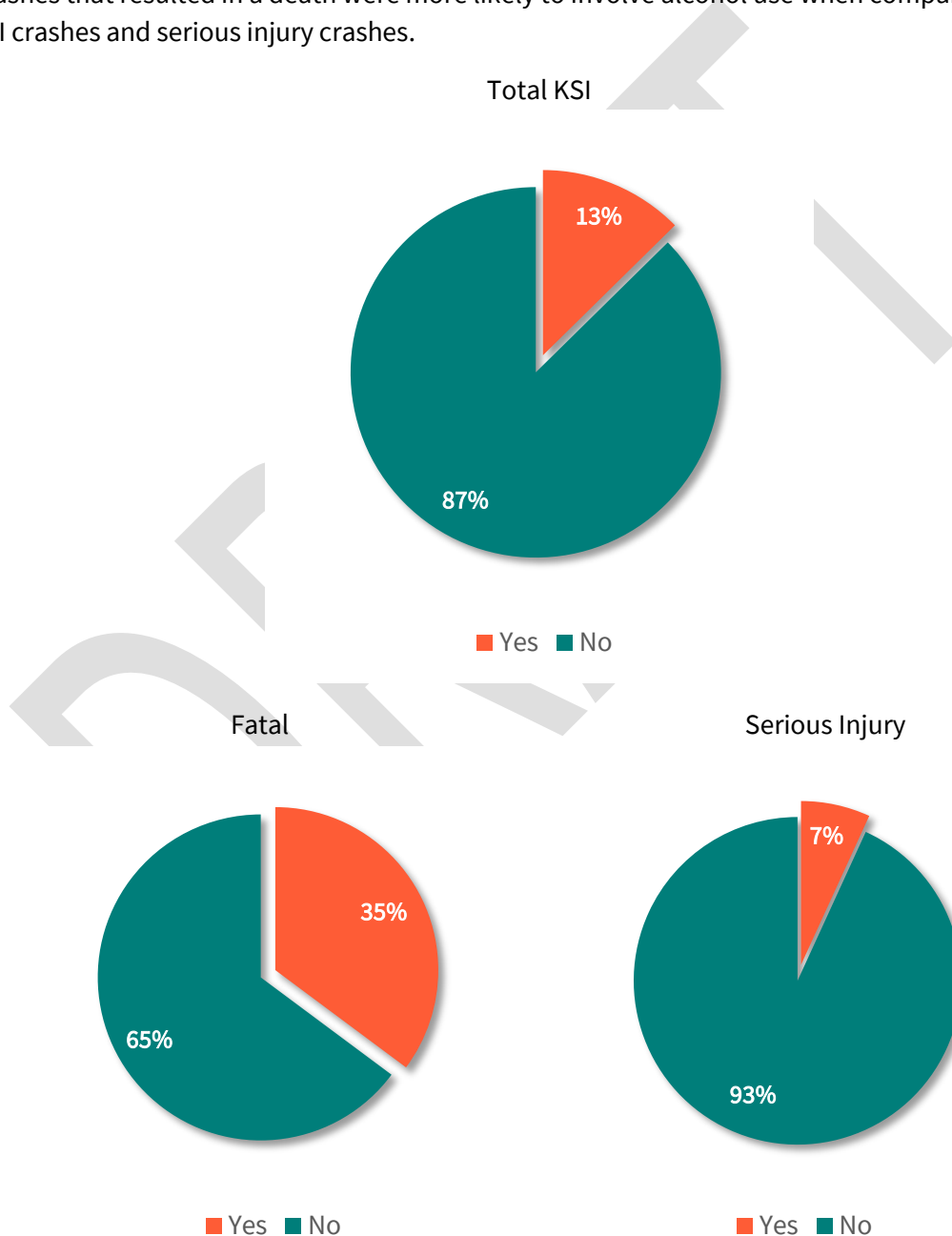


Behavioral Trends

Studying contributing behavior is another way to better understand how crashes occurred, and thus how they can be prevented from reoccurring. The reliability of behavioral trend data is limited to cases where the behavior could be confirmed by a reporting officer. Actual occurrences of these behavioral attributes may be higher, but unable to be confirmed at the time of the crash.

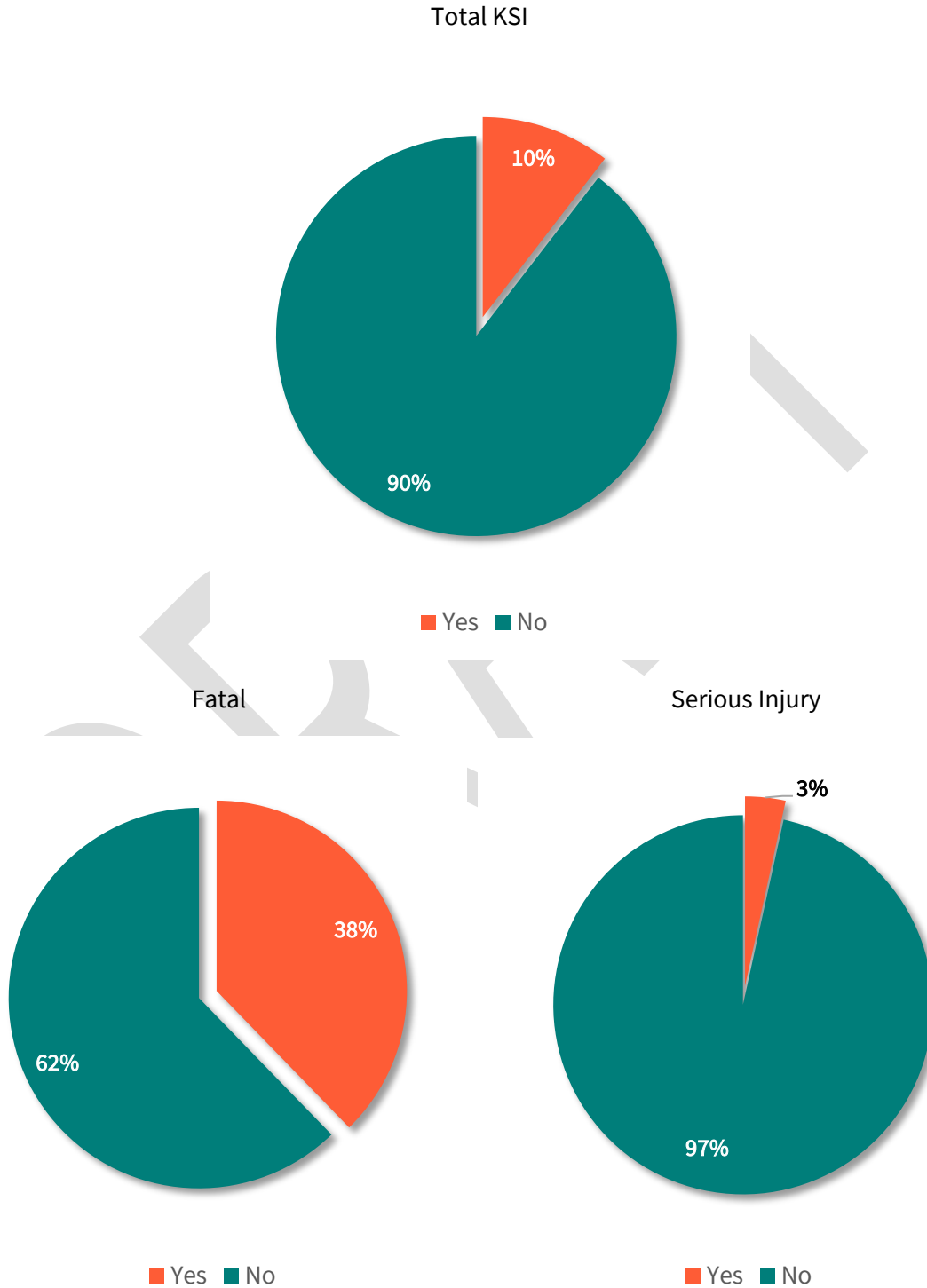
Confirmed Alcohol Use

Crashes that resulted in a death were more likely to involve alcohol use when compared to total KSI crashes and serious injury crashes.



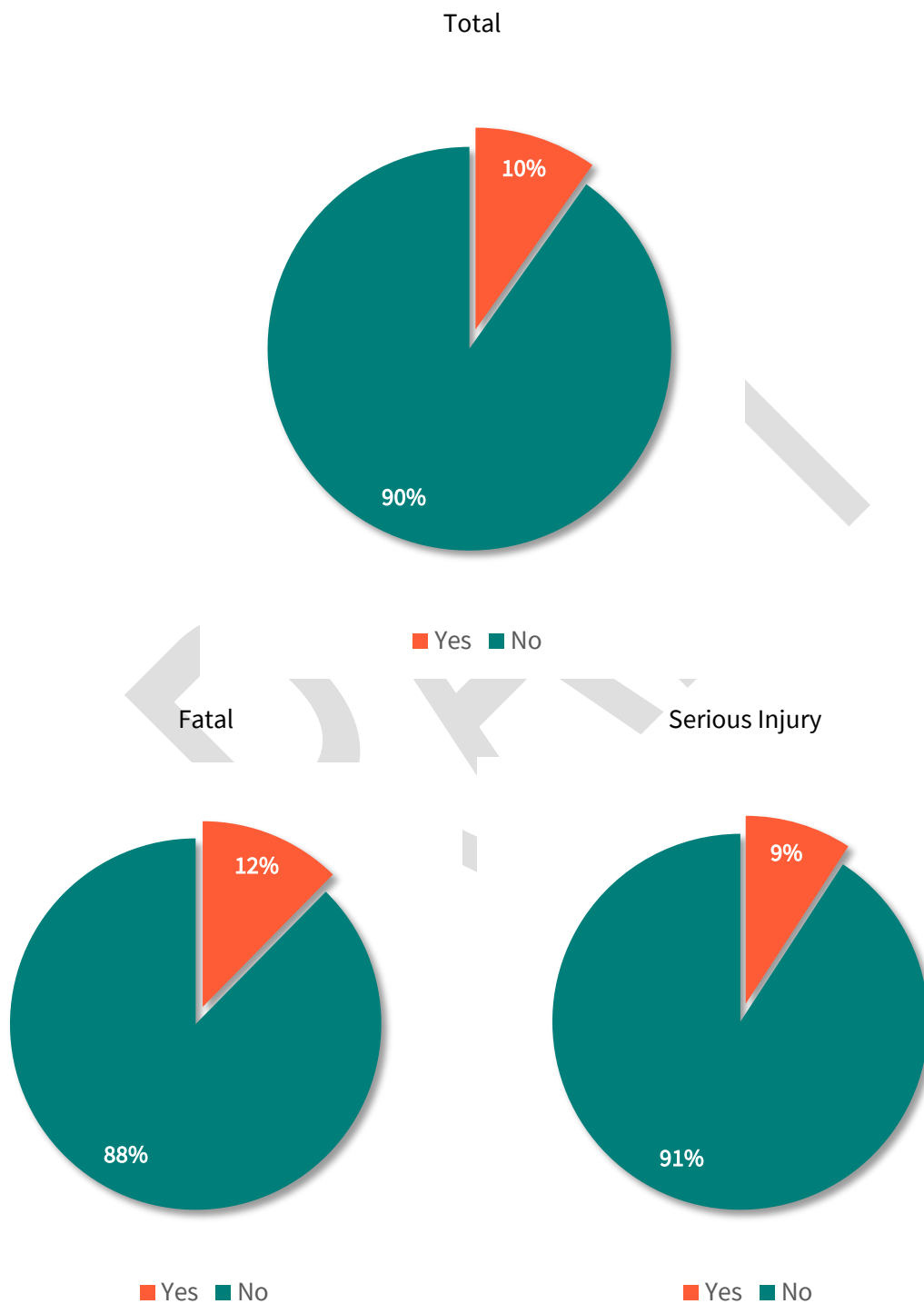
Confirmed Drug Use

Crashes that resulted in a death were more likely, and serious injury crashes were less likely, to involve drug use when compared to total KSI crashes.



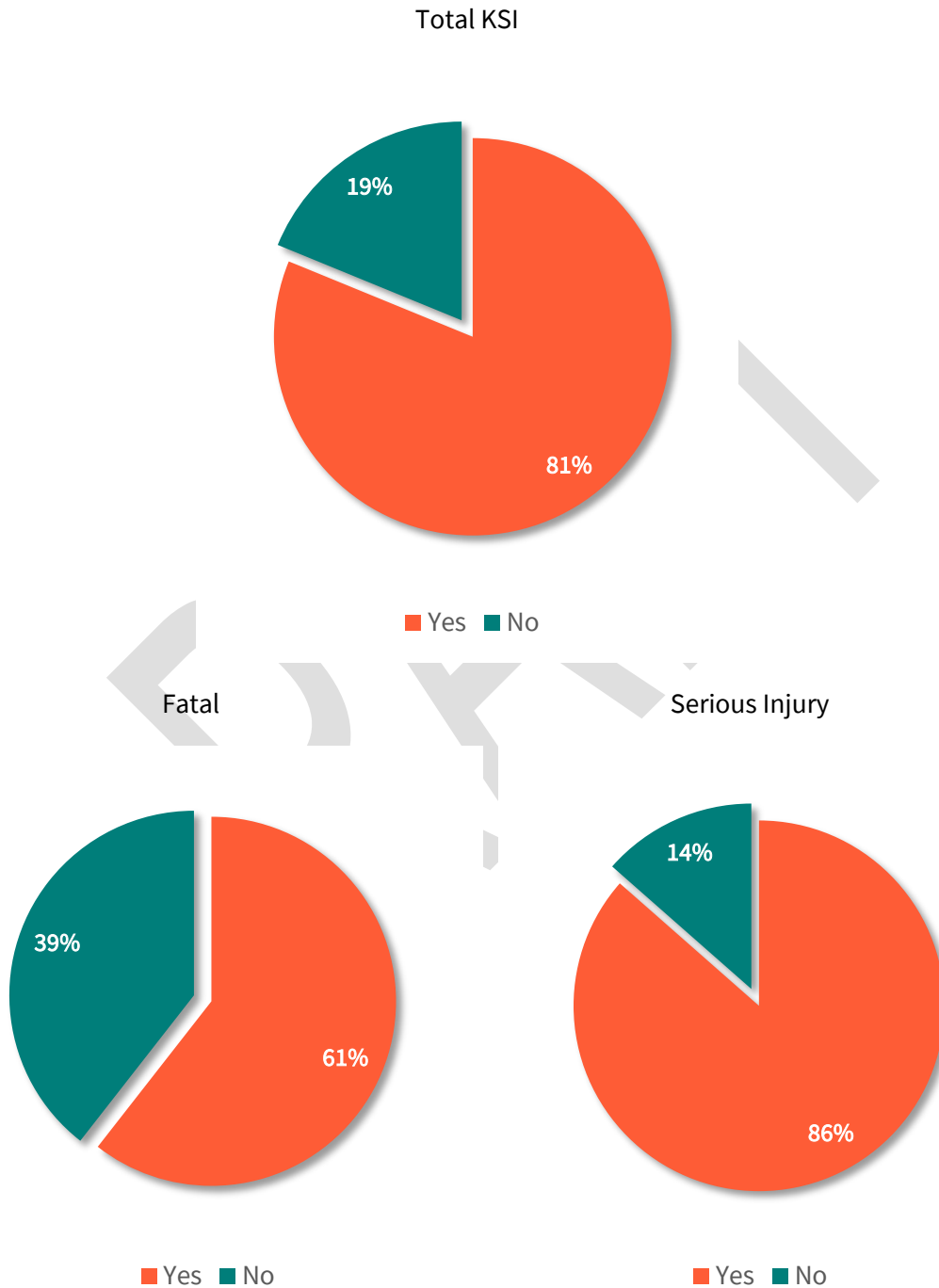
Confirmed Distraction

Distraction isn't a significant indicator in the severity of a KSI crash.



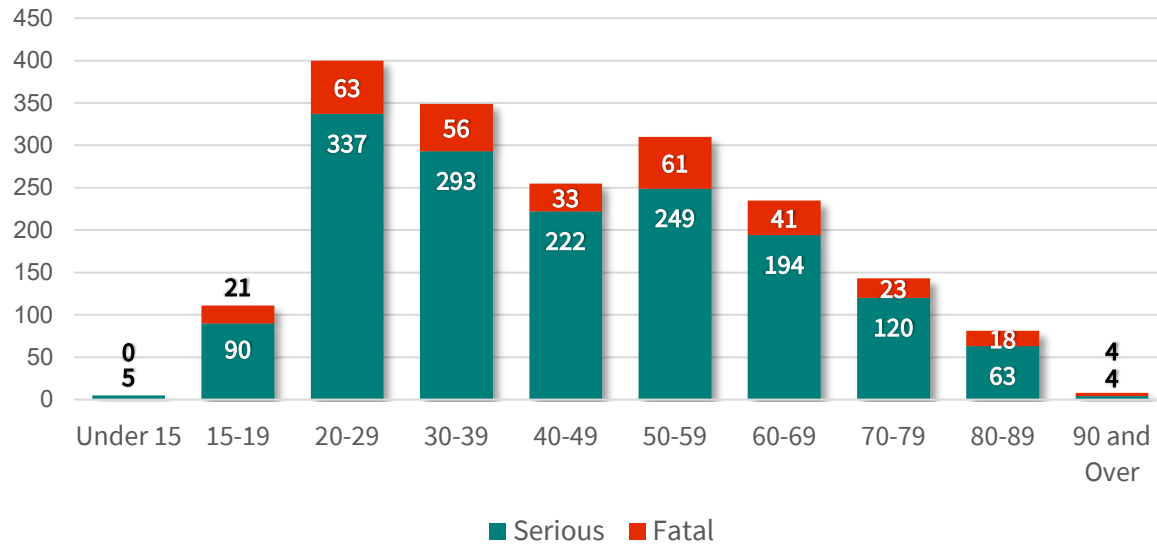
Passenger Restraints

The lack of a passenger restraint, or seatbelt, is a significant indicator that a crash results in a death.

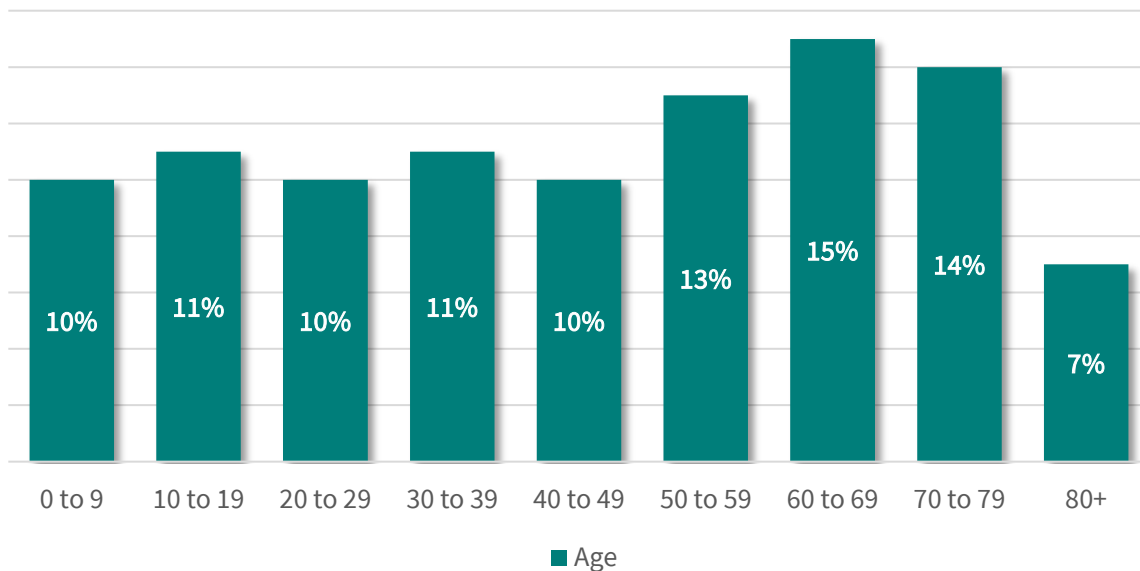


Age of Involved Parties

A review of the age of involved parties was completed, showing that people between the age of 20 and 39 are more likely than others to be involved in a KSI crash. Two cases were excluded where the age of the involved party was unknown.



Upon a review of ACS 2019 data, seen in figure below, the disproportionate share of total crashes compared to total population for the 20 to 29 and 30 to 39 age groups becomes more apparent.



Source: ACS 2019

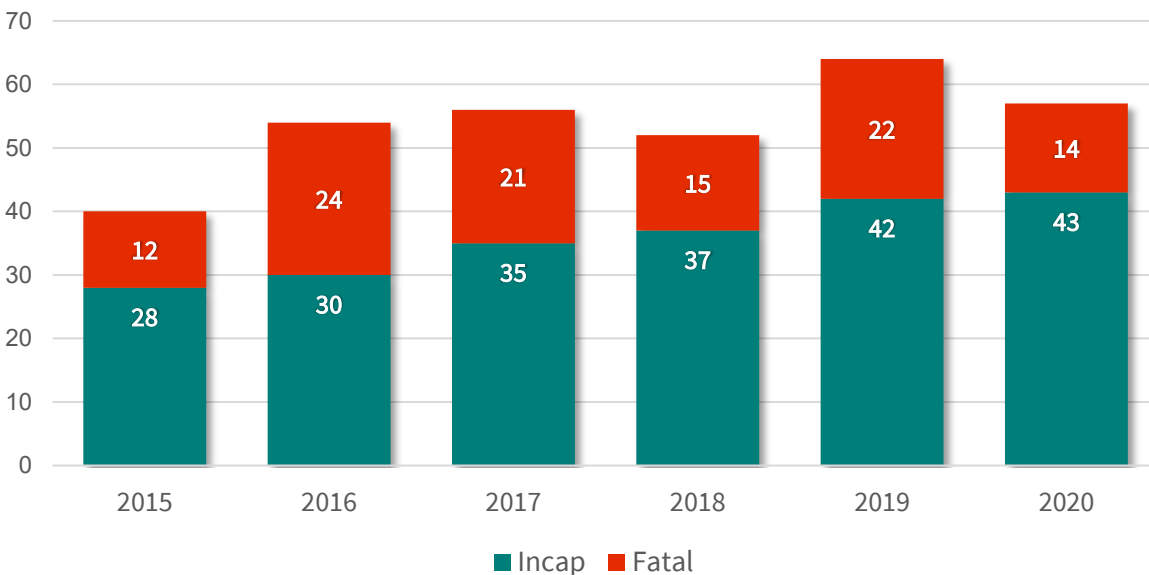
Vulnerable Road Users

People walking or riding a bike, collectively referred to as vulnerable road users, are at unique risk for death or serious injury when compared to people driving. In Marion County, vulnerable road users made up a disproportionate 11% of total KSI crashes, 20% of total crashes resulting in death, and 9% of serious injury crashes, despite making up a comparatively small number of total road users. For this reason, KSI crashes involving vulnerable users are further broken down to identify trends that may be unique from overall KSI crashes.

Seasonality

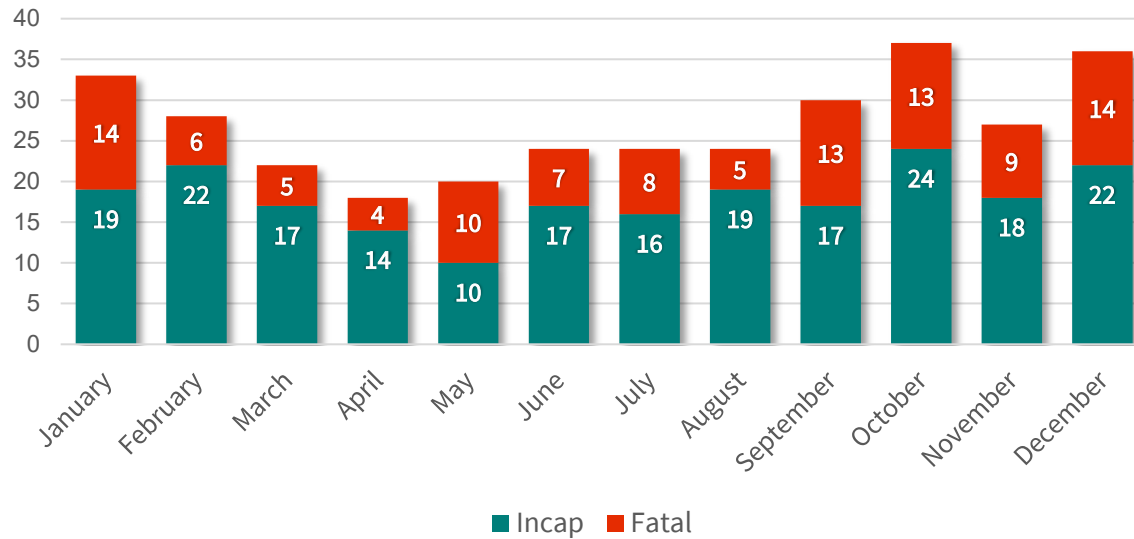
Annual Crashes

KSI crashes have been steadily increasing since 2015, with 2016 serving as the year with the highest number of crashes causing death and 2020 as the year with the highest number of serious injury crashes.



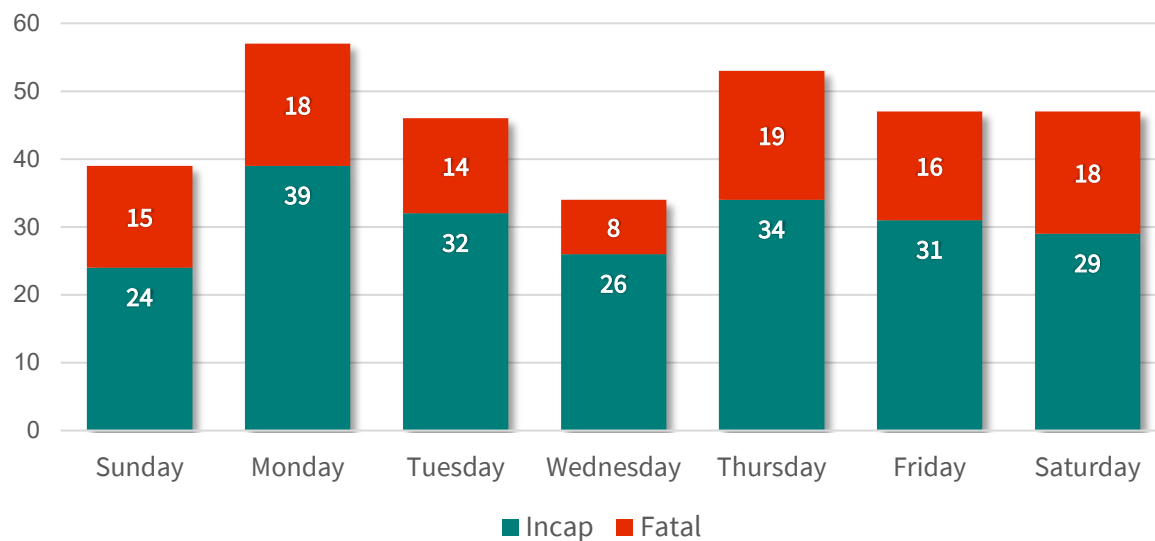
Monthly Crashes

Crashes involving vulnerable road users tend to peak in the Fall and Winter months, with October having the highest number of serious injury crashes and December and January having the highest number of fatal crashes.



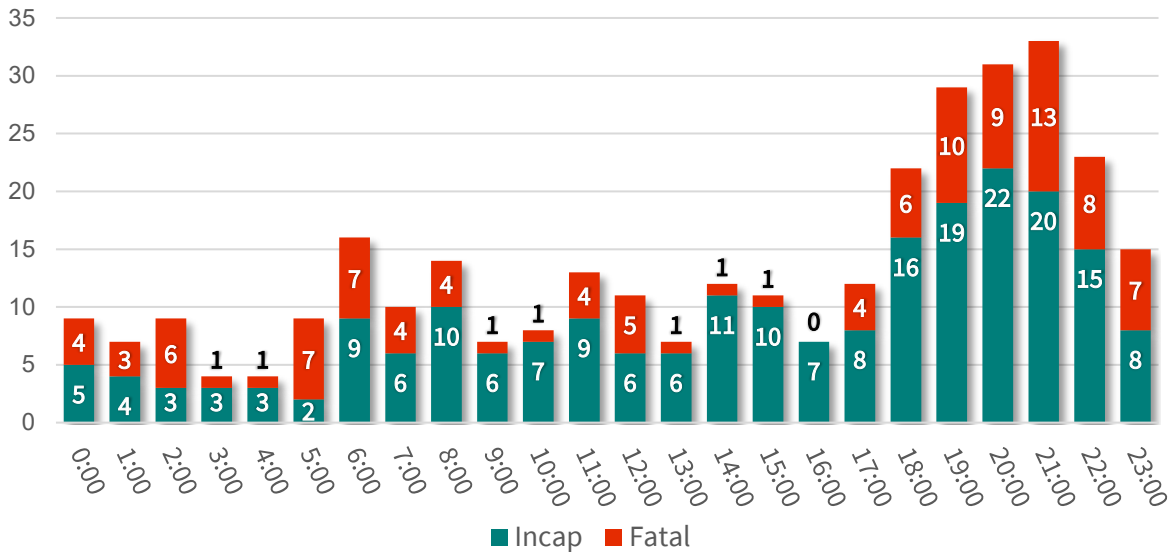
Daily Crashes

KSI crashes involving vulnerable road users are, on average, highest on Monday and Thursday. Monday was the day with the highest average number of serious injury crashes, and Thursday with the highest number of fatal crashes.



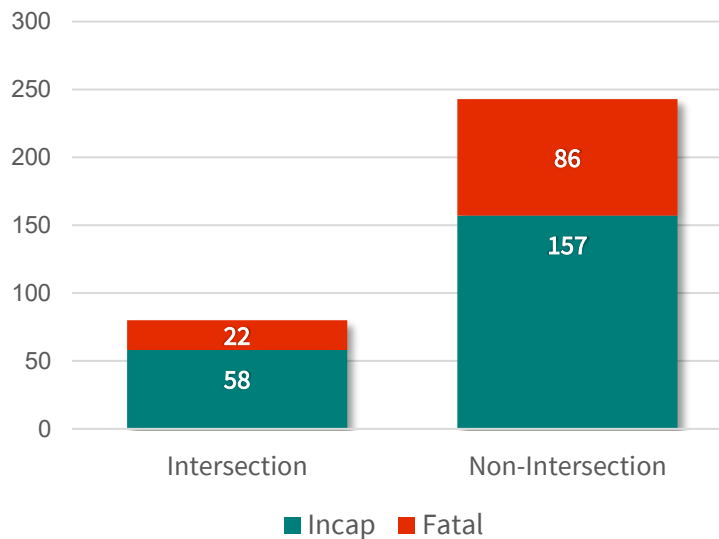
Crashes By Hour

Crashes involving vulnerable road users are low all morning and most of the afternoon, sharply peaking between 4:00 p.m. and beginning to drop off around 10:00 p.m., closely correlating with lighting conditions. This pattern is distinct from total KSI crashes involving all road users, which do not peak as sharply or as late in the day.



Relation to Intersection

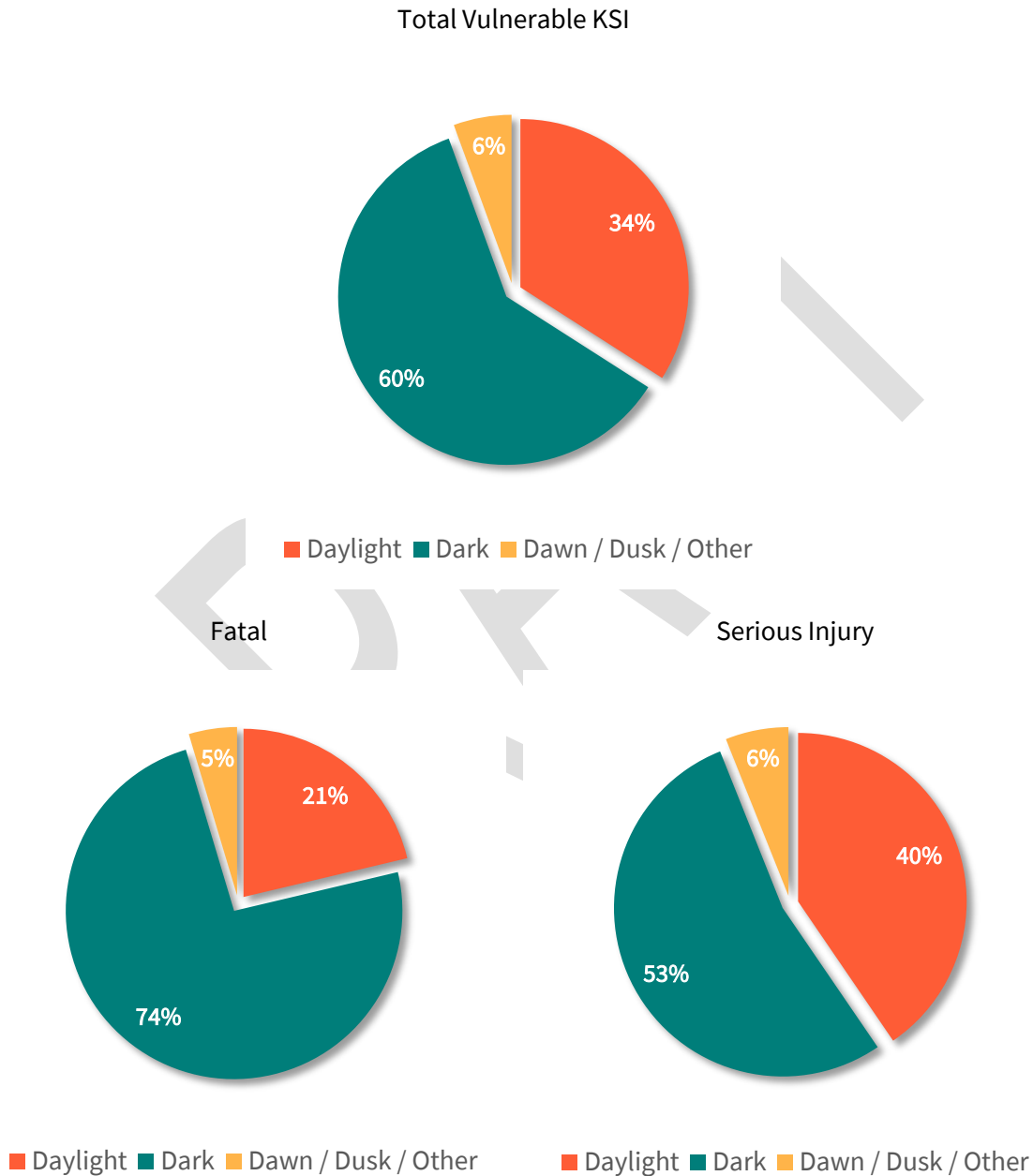
Similar to total KSI crashes involving all road users, most crashes involving vulnerable road users occur outside of intersections. However, vulnerable user crashes were more likely to result in death in non-intersection crashes than total KSI non-intersection crashes.



Environmental Trends

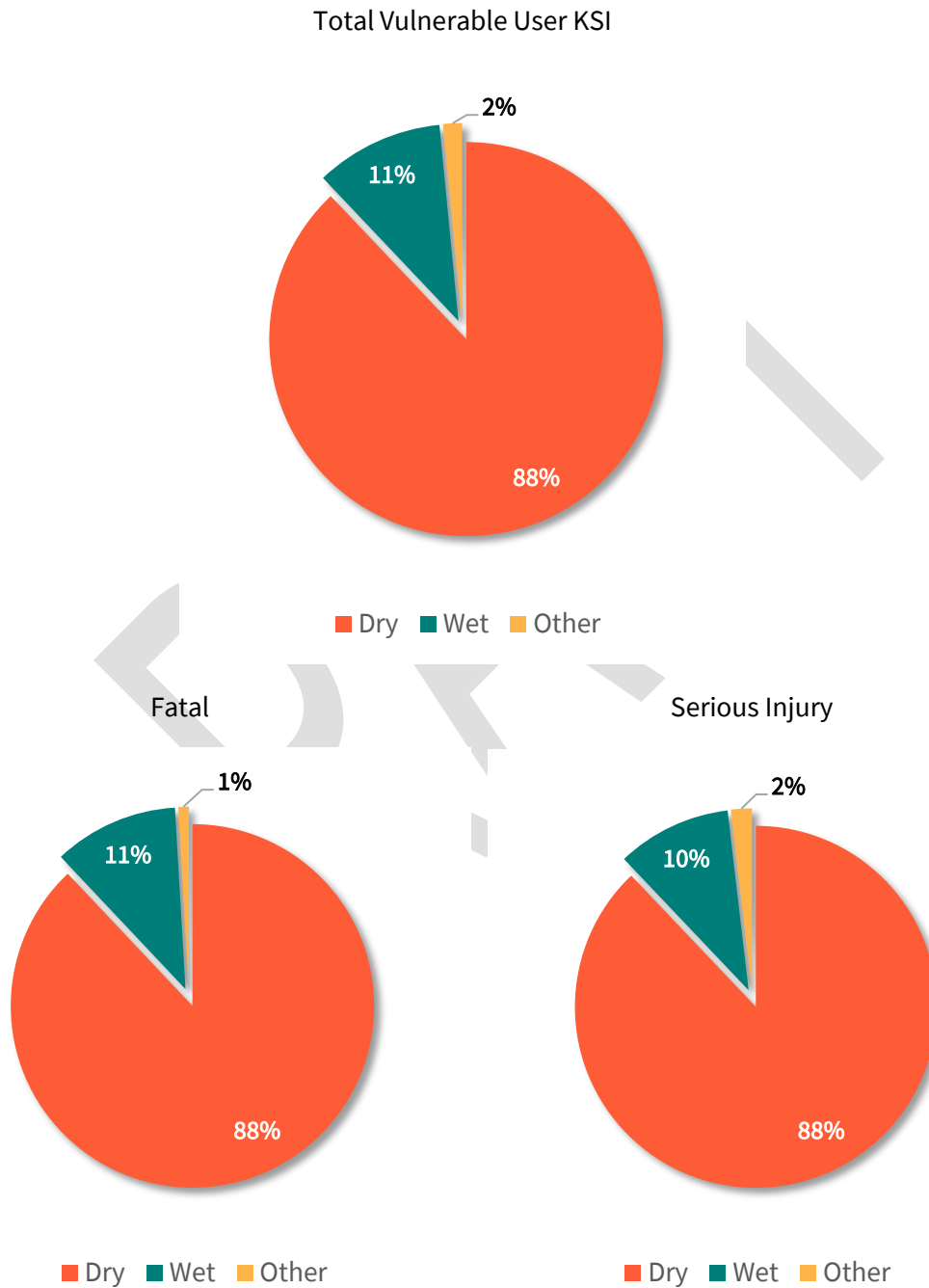
Lighting

Compared to total KSI crashes involving vulnerable road users, crashes occurring during dark lighting conditions were more likely to result in a death. Serious injury crashes followed a similar trend to total KSI crashes.



Road Surface Condition

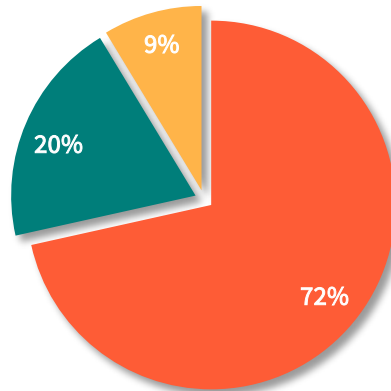
Most KSI crashes involving vulnerable road users occurred under dry road surface conditions. There was no distinct trend to indicate that road surface condition is a contributing factor between crash severities.



Weather Condition

Most KSI crashes involving vulnerable road users occurred during clear weather conditions. There was no distinct trend to indicate that weather conditions are a contributing factor between crash severities.

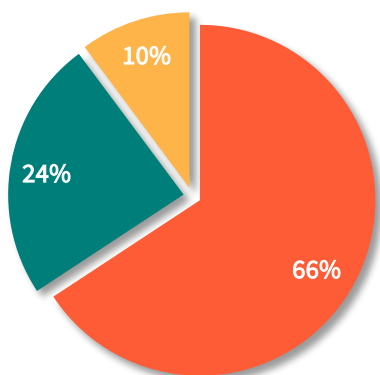
Total Vulnerable User KSI



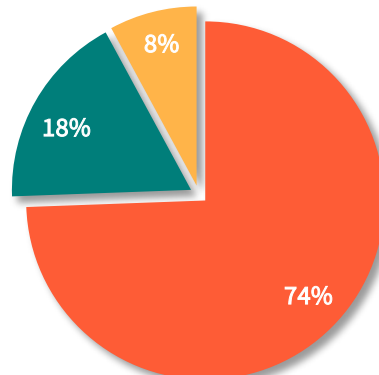
■ Clear ■ Cloudy ■ Inclement or Other Weather

Fatal

Serious Injury



■ Clear
■ Cloudy
■ Inclement or Other Weather

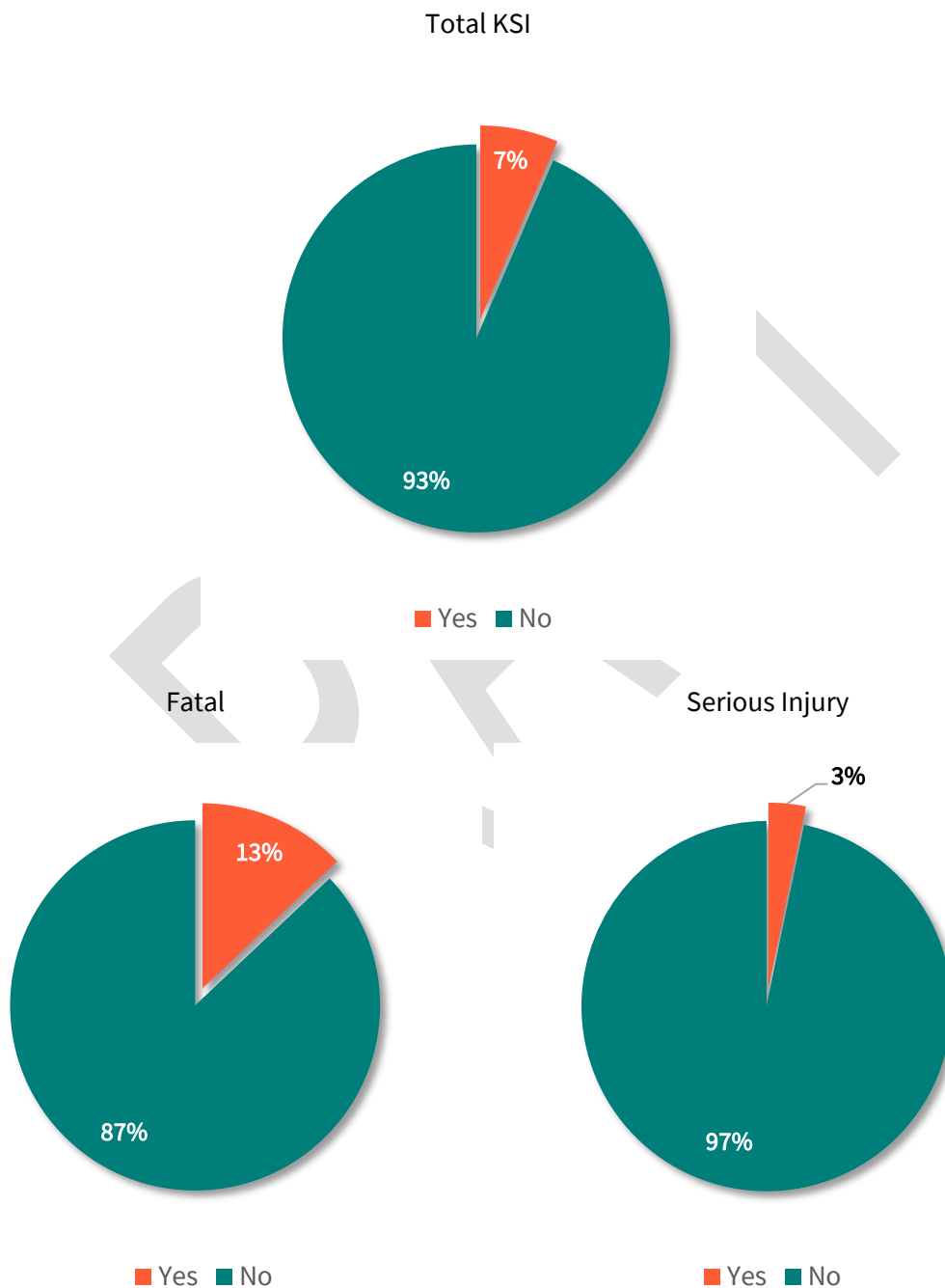


■ Clear
■ Cloudy
■ Inclement or Other Weather

Behavior

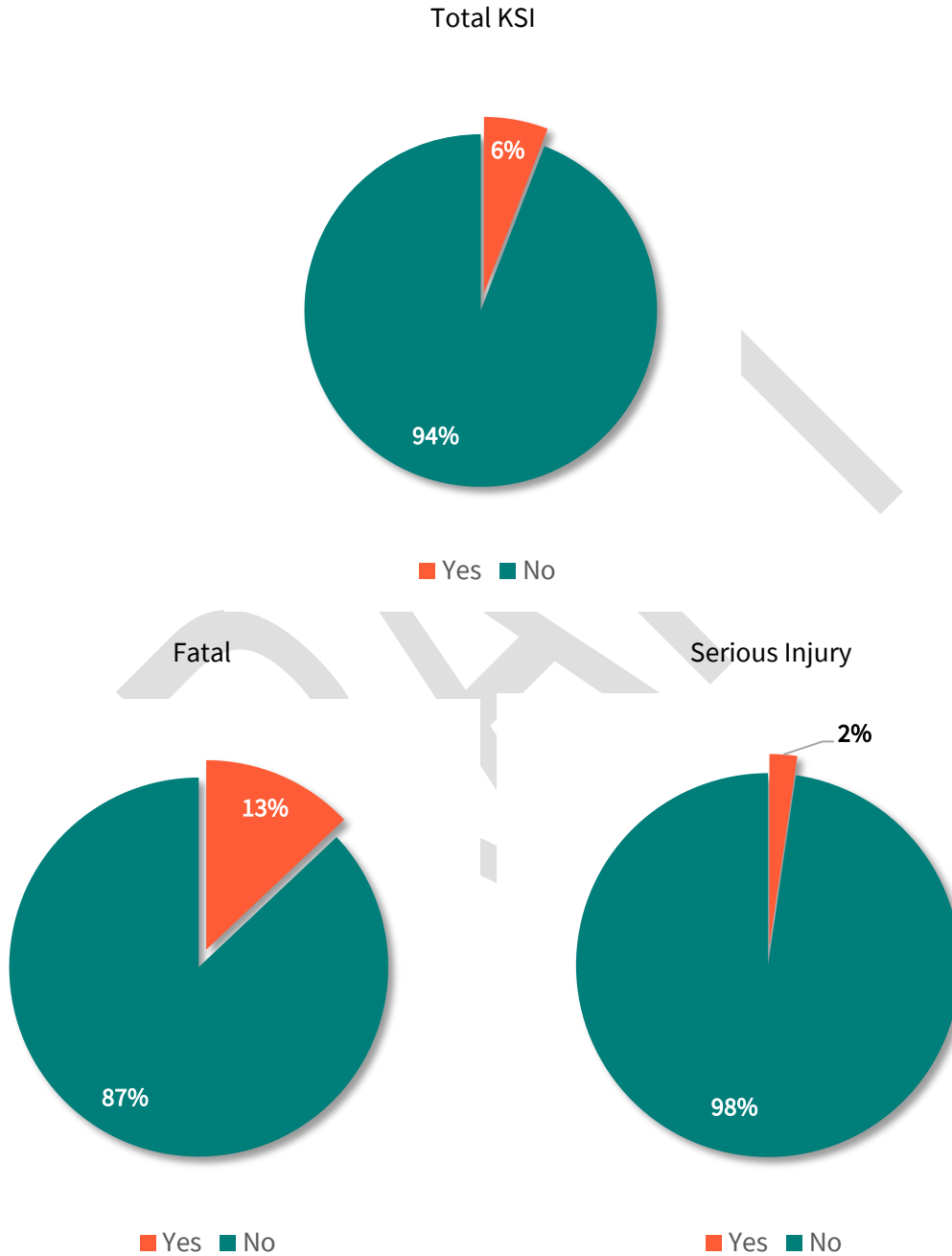
Confirmed Alcohol Use

Similar to total KSI crashes involving all road users, confirmed alcohol use was a definitive indicator that a crash would result in a death.



Confirmed Drug Use

Similar to total KSI crashes involving all road users, confirmed drug use was a definitive indicator that a crash would result in a death.





Age of Involved Parties

A review of the age of involved parties was undertaken, showing that people between the age of 30 and 59 are more likely to be involved in a nonmotorized KSI crash, which is comparatively older than those involved in total KSI crashes of any mode. Two cases were excluded where the age of the involved party was unknown.

