

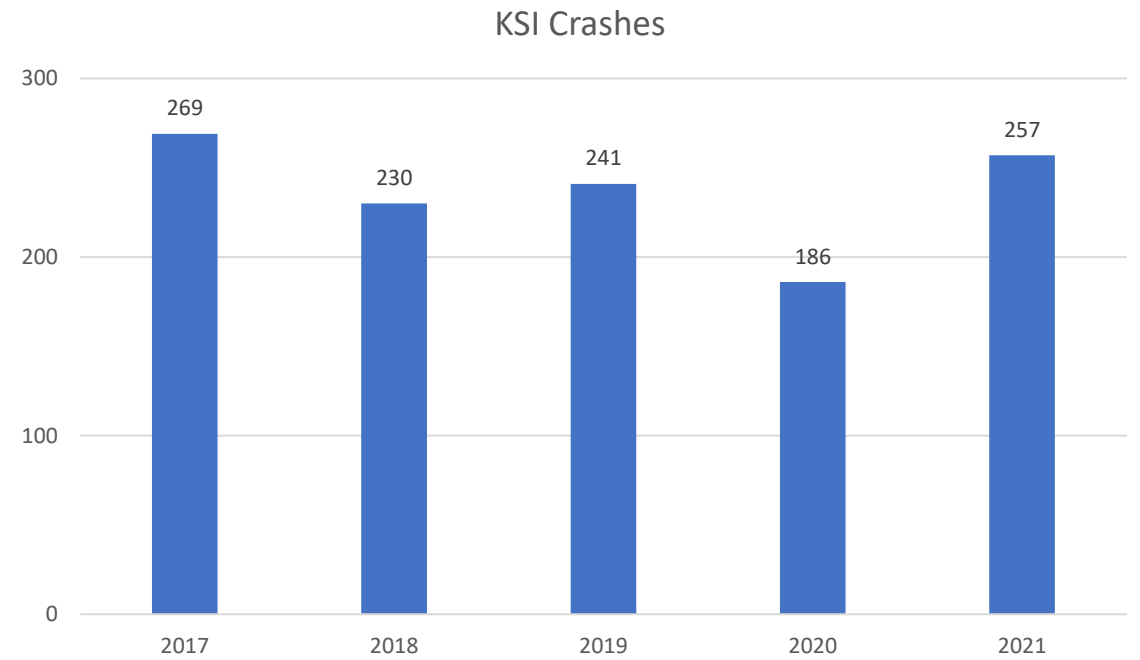
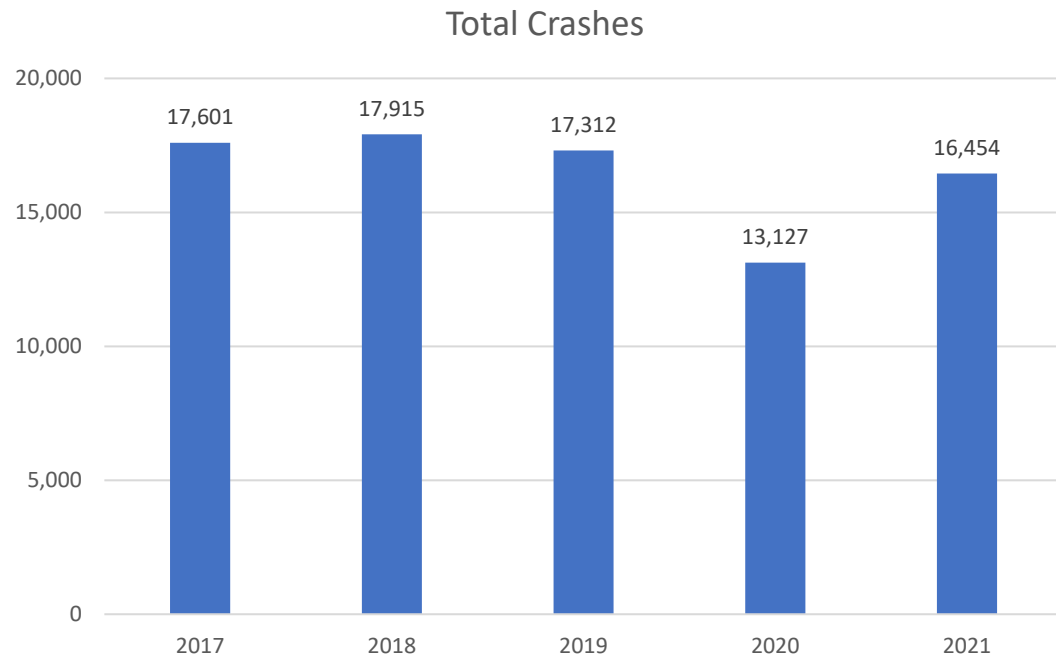


# VISION ZERO

EL PASO ★ ONE VISION FOR SAFE STREETS

Collision Landscape Summary – Initial Results  
September 2022  
Fehr & Peers

# Full Collision Dataset



# Filtered Collision Dataset Details

**Date Range:** January 1<sup>st</sup>, 2017 – December 31<sup>st</sup>, 2021

## **Filters:**

- Collisions missing Lat/Long removed (3 collisions manually geocoded) – 13,260 collisions, 62 KSI (55% are non-injury)
- State facilities not maintained by the City removed (e.g. I-10, 375, 54) – 25,192 collisions, 456 KSI
- Remaining “Not Injured” collisions removed – 39,242 collisions, 0 KSI
- Result is all *injury* collisions on *City-managed roadways that can be mapped*

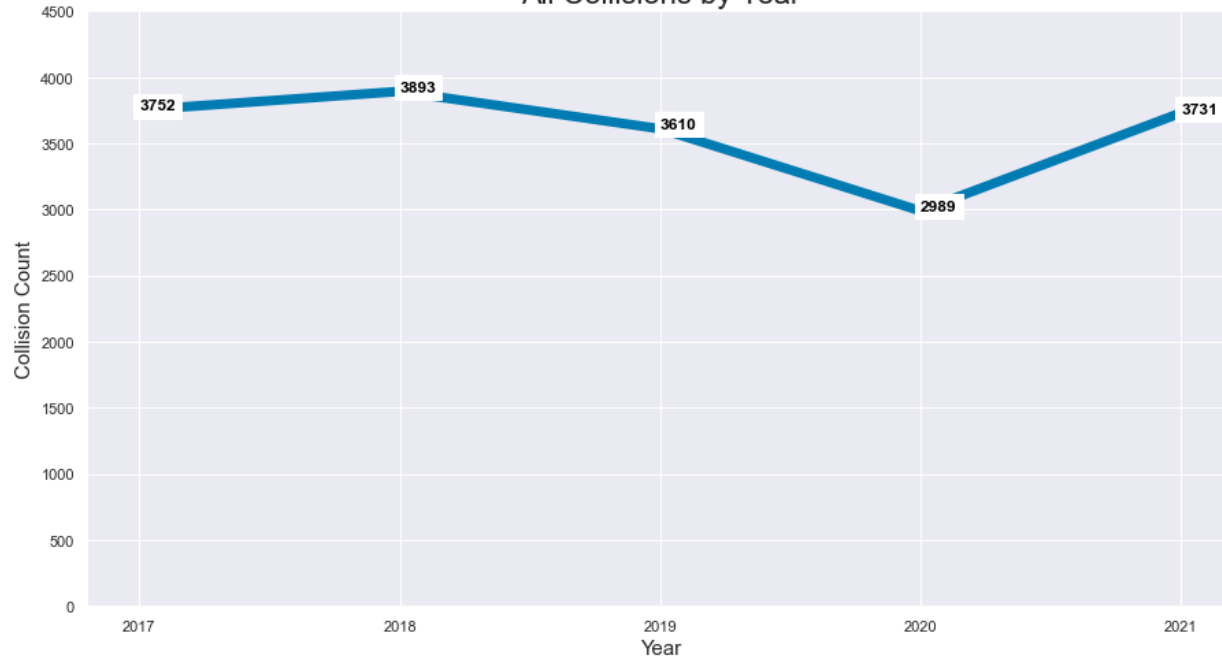
## **Summary:**

- Total Collision Count: 17,975
- KSI Collision Count: 727
- Bike Collision Count: 204
- Pedestrian Collision Count: 596
- Ped & Bike KSI Collision Count: 156

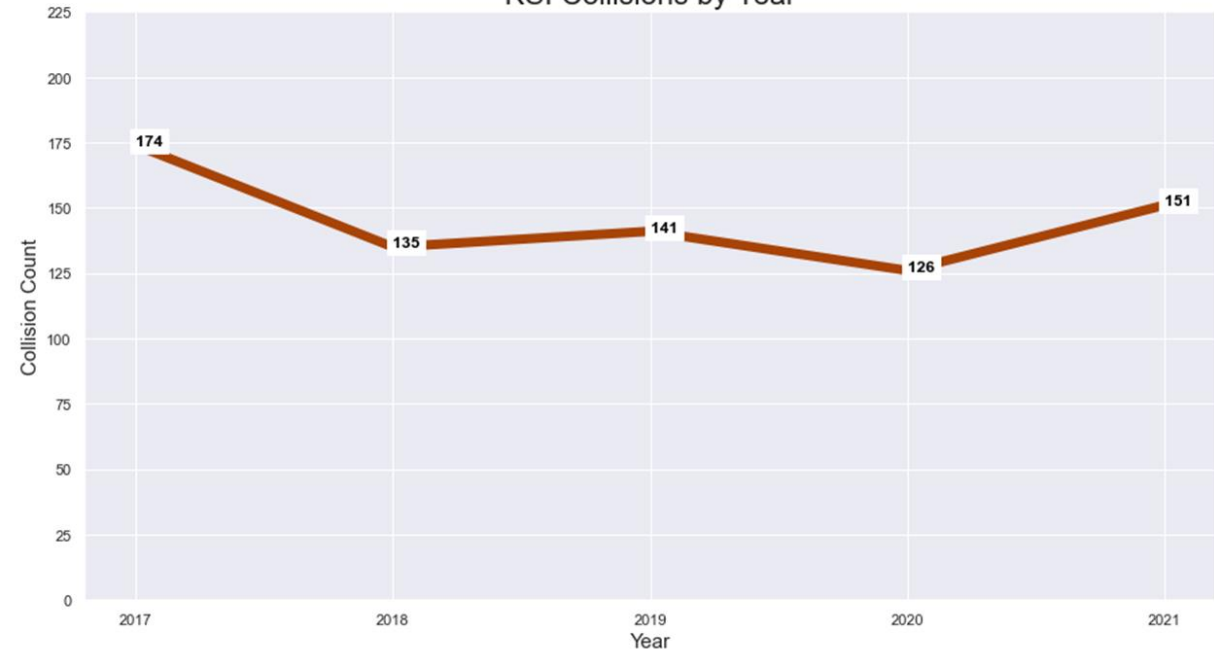
Note: KSI = “Killed or Seriously Injured”

# Year – All

All Collisions by Year

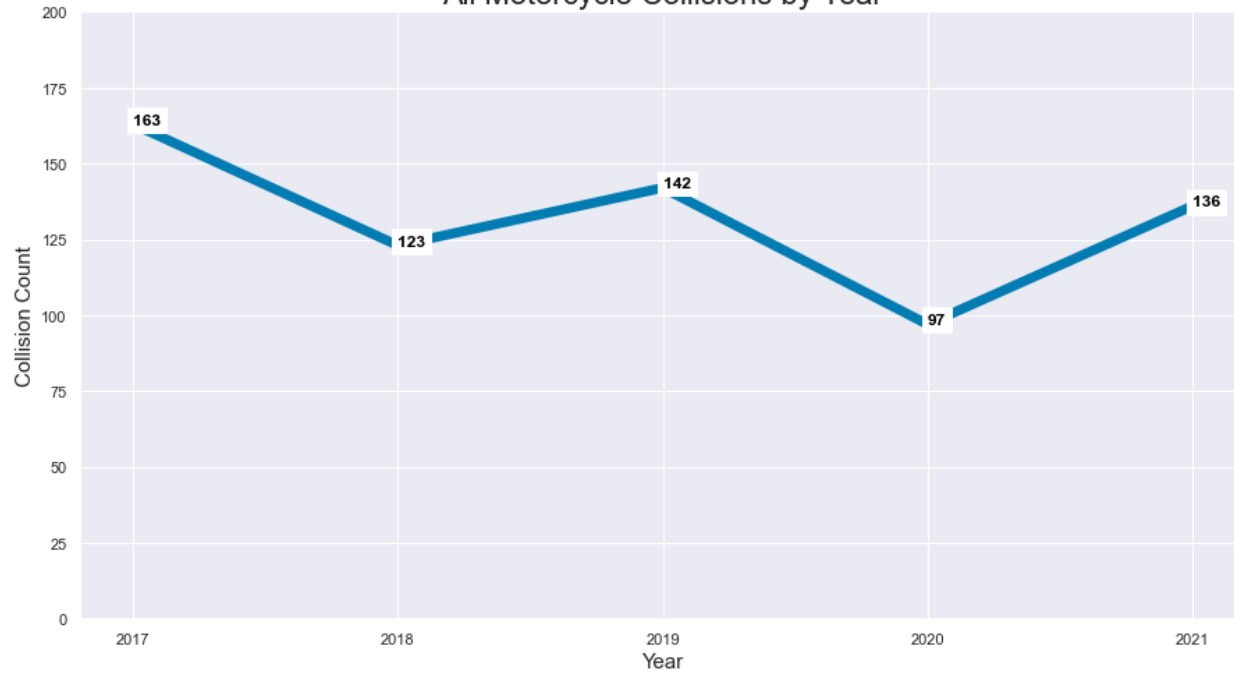


KSI Collisions by Year

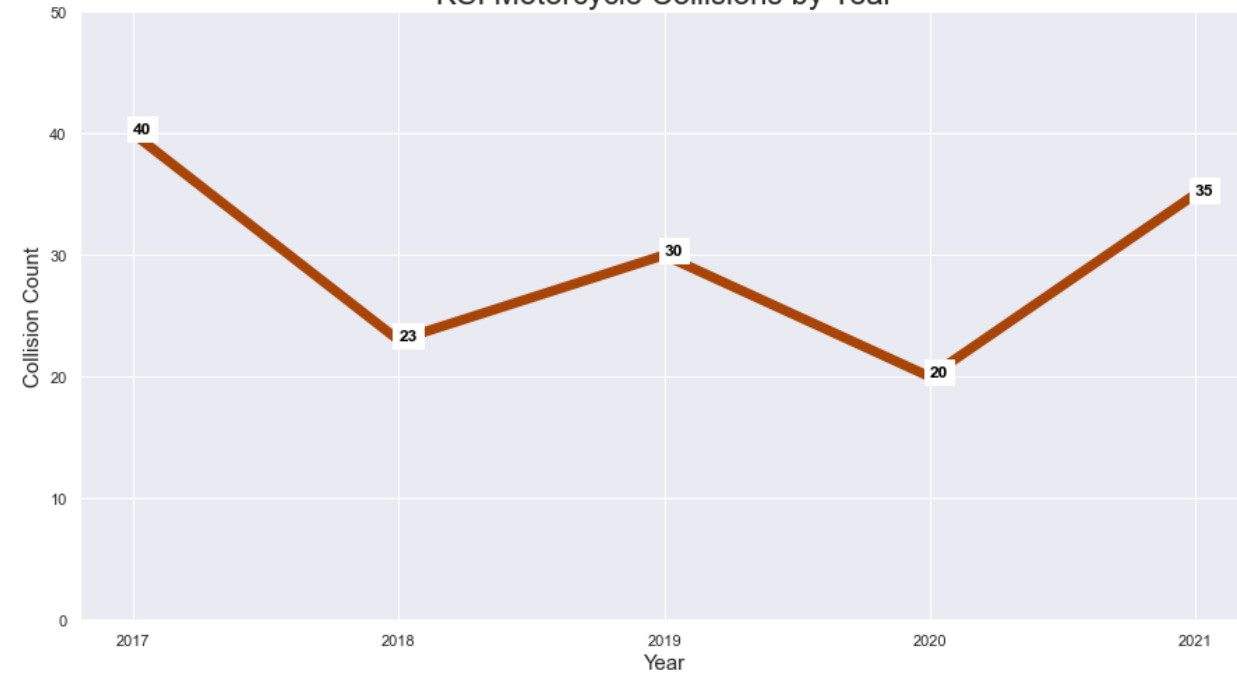


# Year – Motorcycle

All Motorcycle Collisions by Year

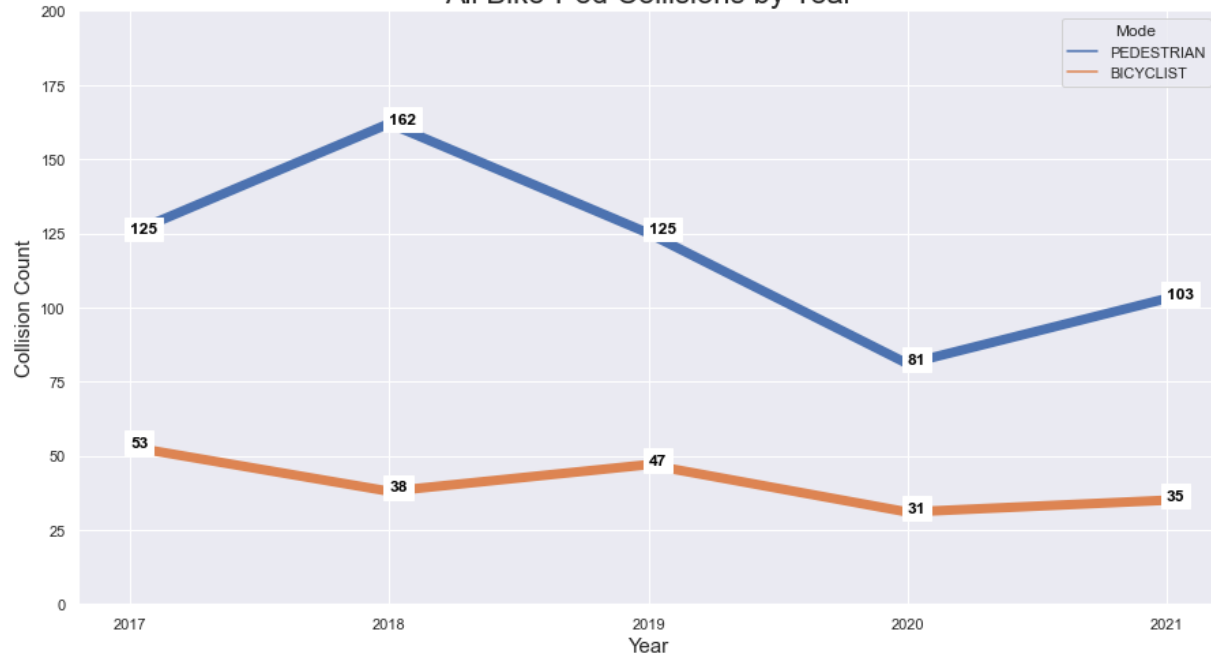


KSI Motorcycle Collisions by Year

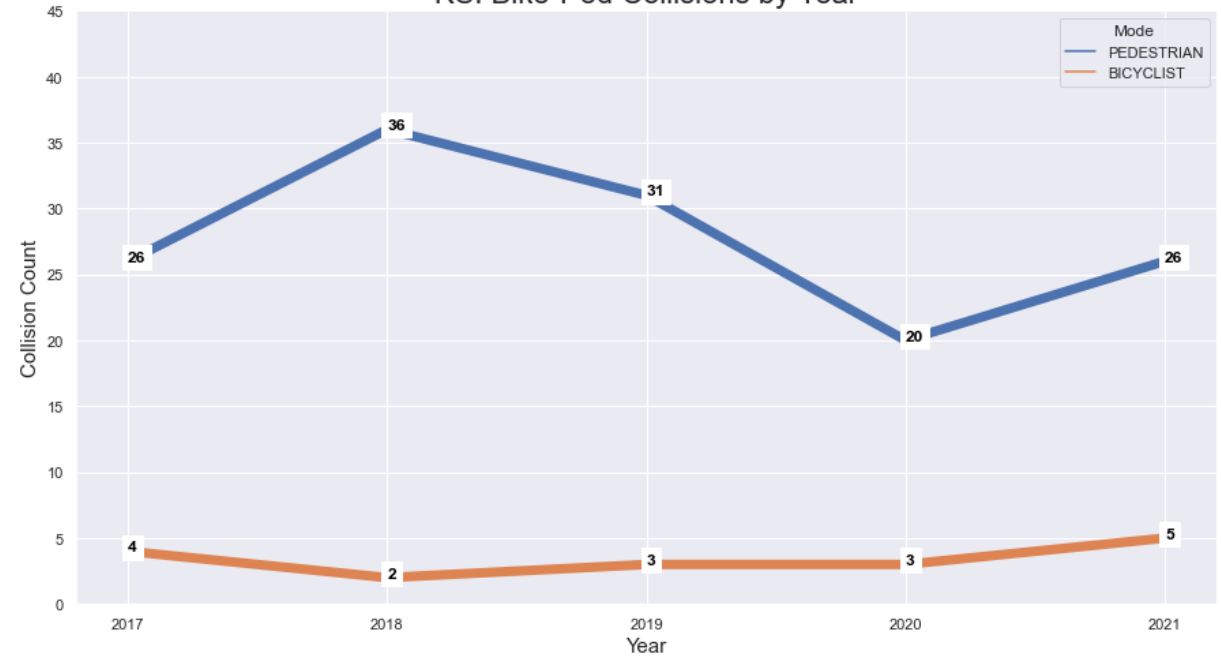


# Year – Bike & Ped

All Bike-Ped Collisions by Year

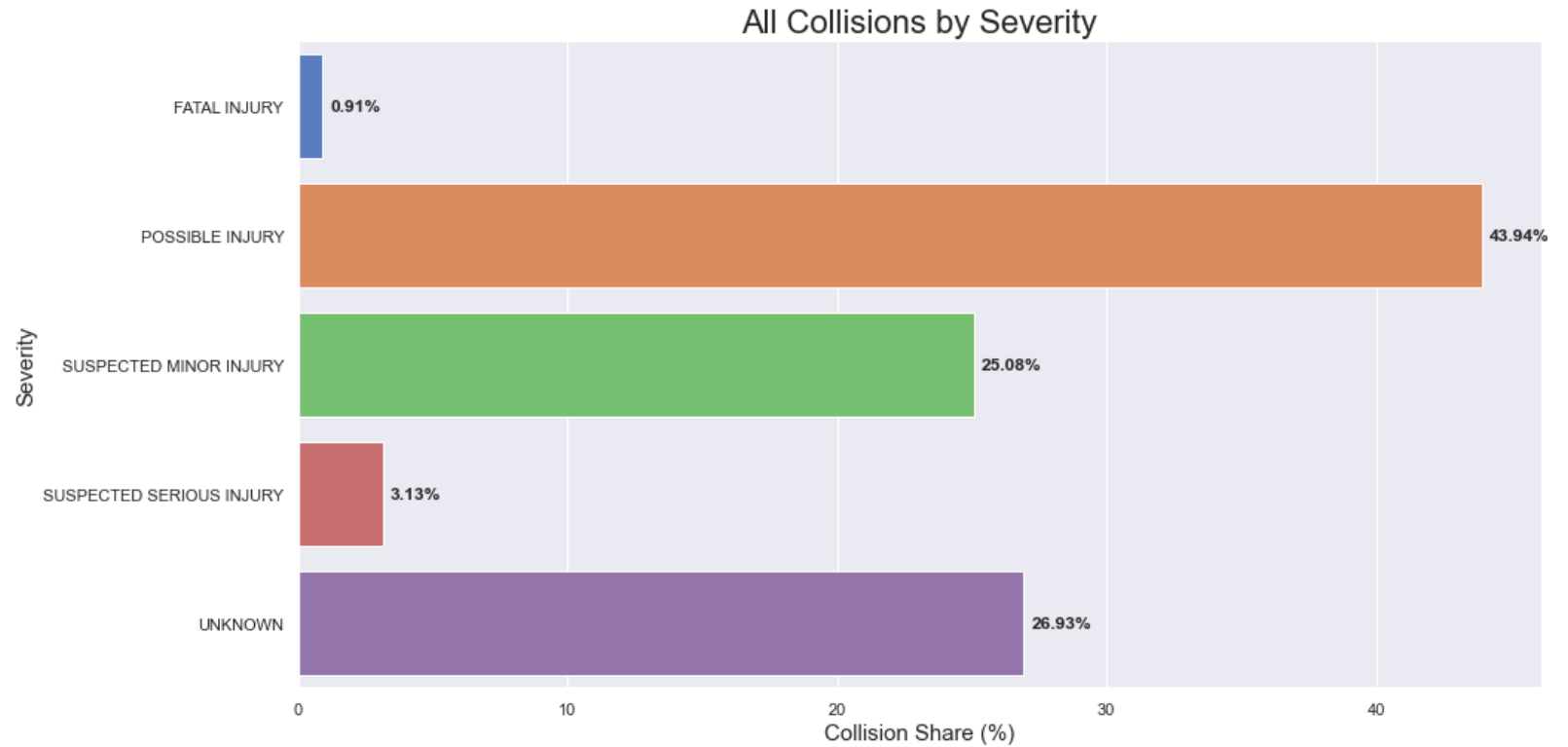


KSI Bike-Ped Collisions by Year



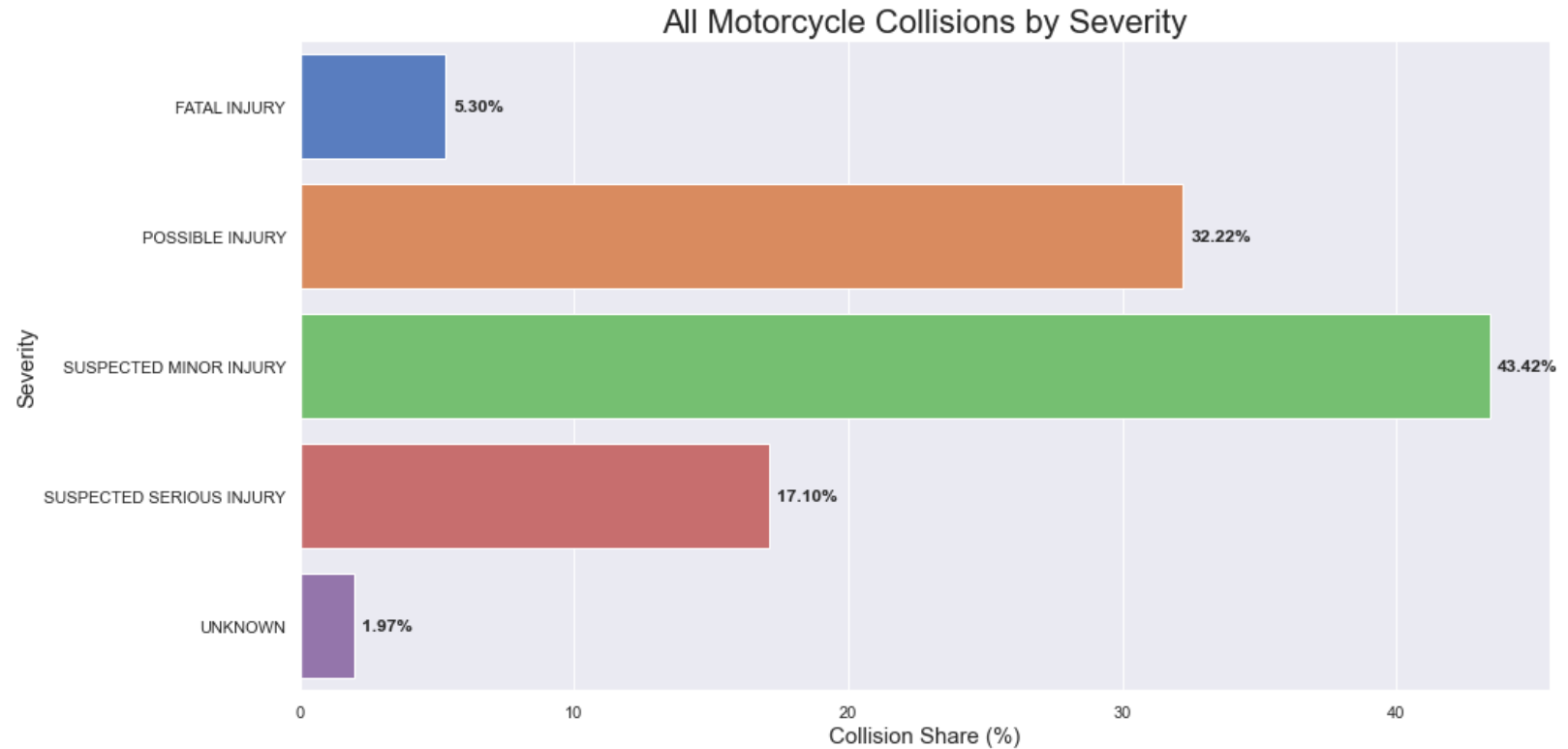
# Severity – All

CRASH_SEV_ID	COUNT	SHARE
FATAL INJURY	164	0.912378
POSSIBLE INJURY	7898	43.938804
SUSPECTED MINOR INJURY	4509	25.084840
SUSPECTED SERIOUS INJURY	563	3.132128
UNKNOWN	4841	26.931850



# Severity – Motorcycle

CRASH_SEV_ID	COUNT	SHARE
FATAL INJURY	35	5.295008
POSSIBLE INJURY	213	32.223903
SUSPECTED MINOR INJURY	287	43.419062
SUSPECTED SERIOUS INJURY	113	17.095310
UNKNOWN	13	1.966717

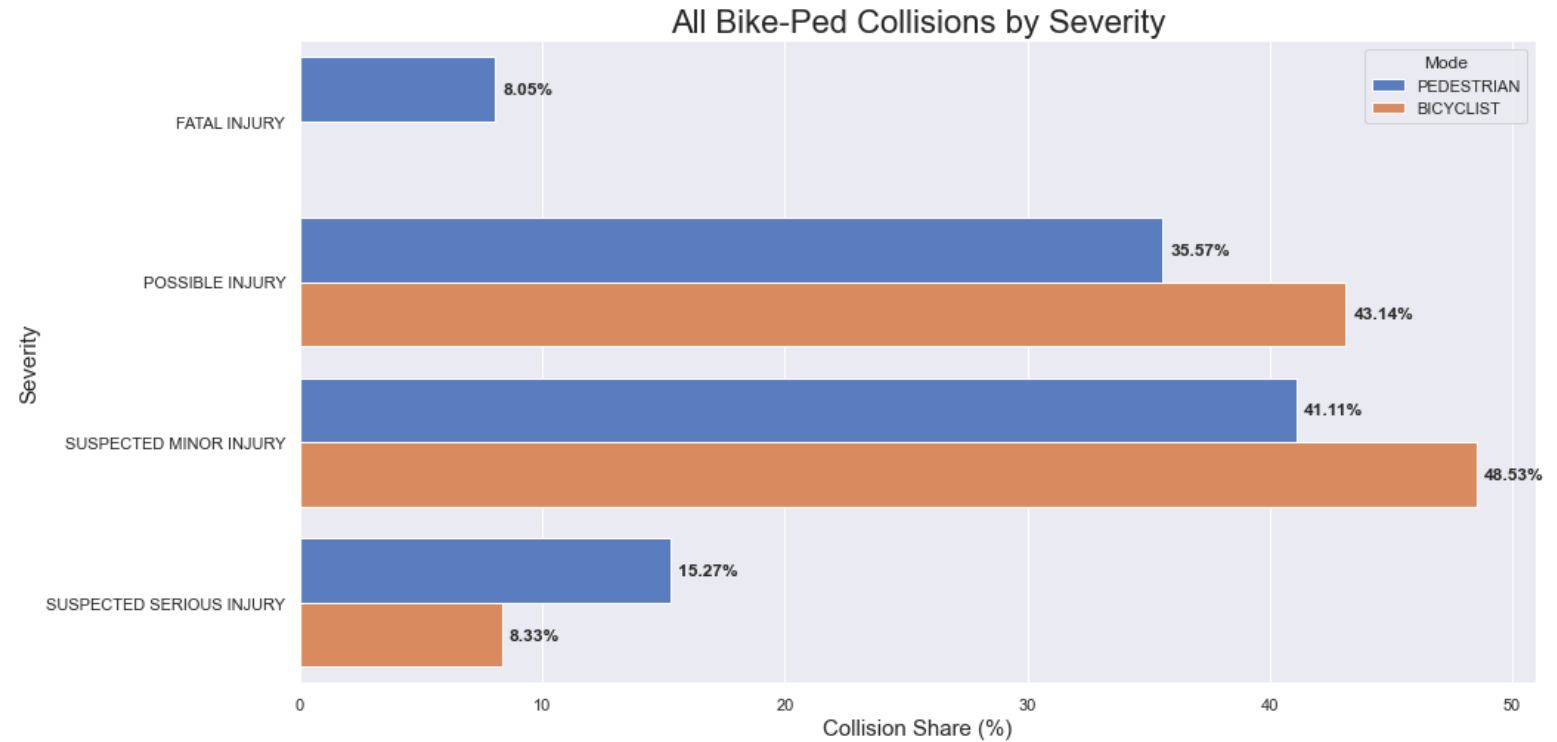


22% of motorcycle injury collisions result in a fatality or serious injury, compared with 4% of all injury collisions



# Severity – Bike & Ped

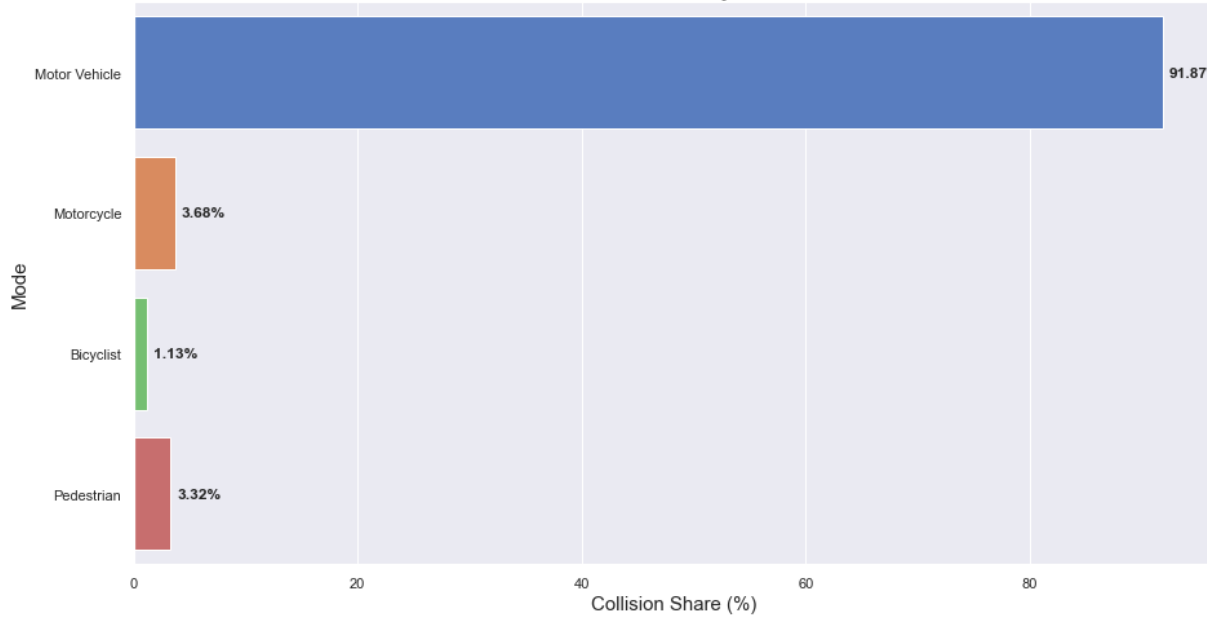
CRASH_SEV_ID	CRASH_MODE_2	COUNT	SHARE
FATAL INJURY	PEDESTRIAN	48	8.053691
POSSIBLE INJURY	BICYCLIST	88	43.137255
POSSIBLE INJURY	PEDESTRIAN	212	35.570470
SUSPECTED MINOR INJURY	BICYCLIST	99	48.529412
SUSPECTED MINOR INJURY	PEDESTRIAN	245	41.107383
SUSPECTED SERIOUS INJURY	BICYCLIST	17	8.333333
SUSPECTED SERIOUS INJURY	PEDESTRIAN	91	15.268456



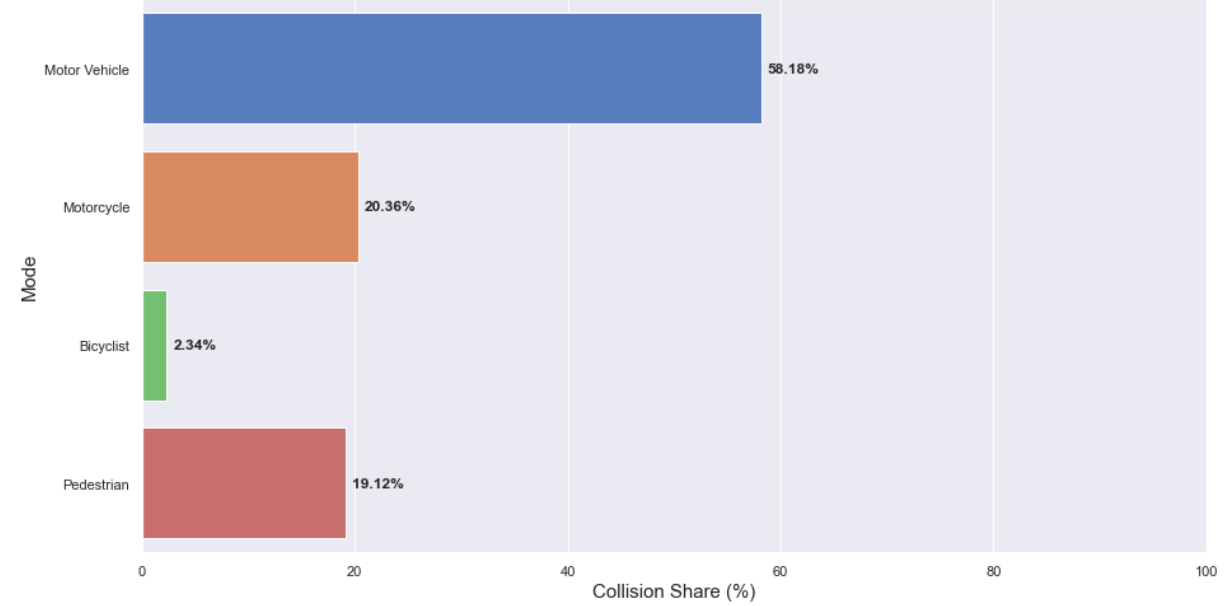
23% of pedestrian injury collisions result in a fatality or serious injury, compared with 4% of all injury collisions

# Mode – All

All Collisions by Mode

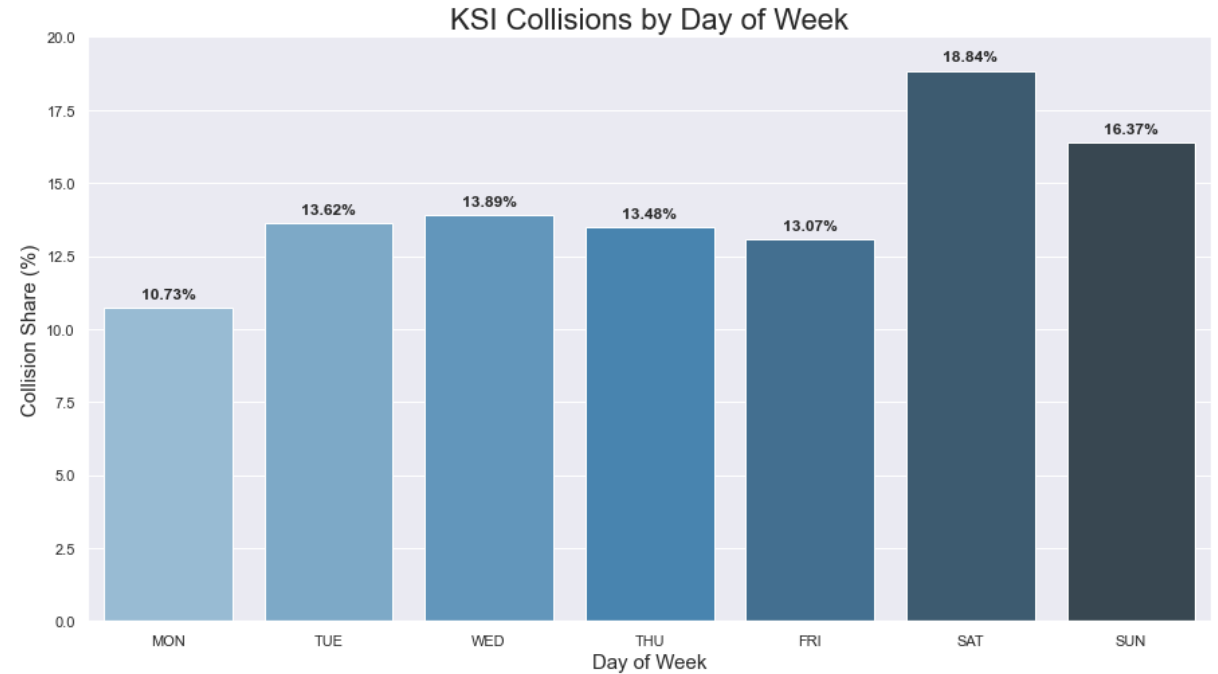
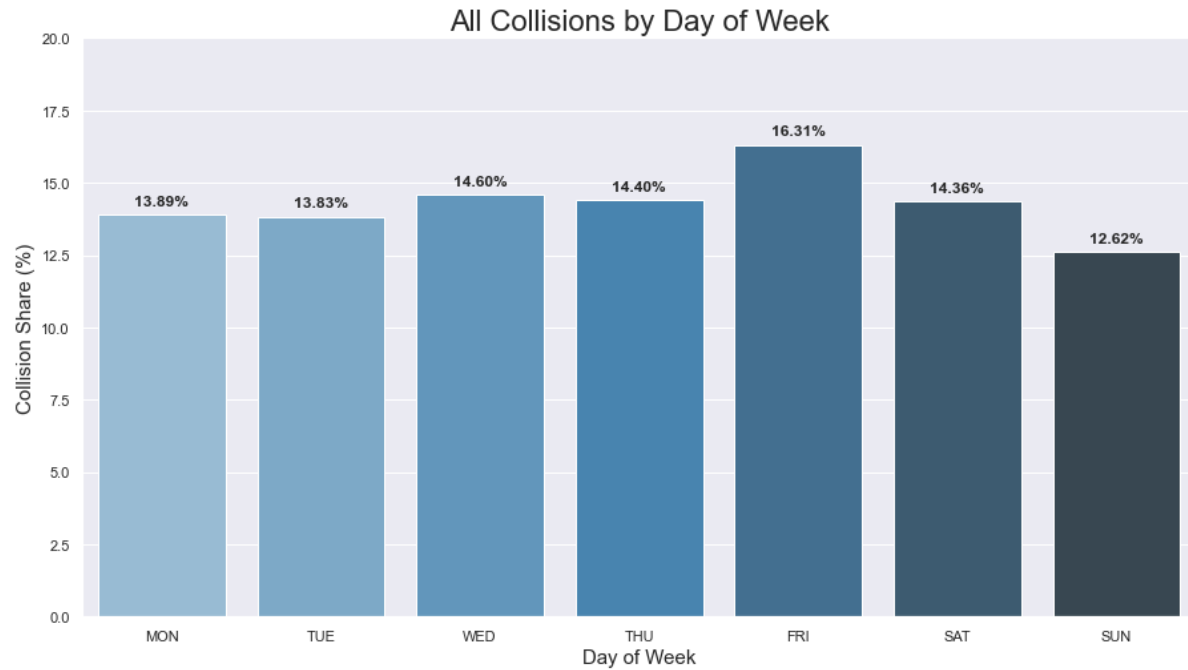


KSI Collisions by Mode



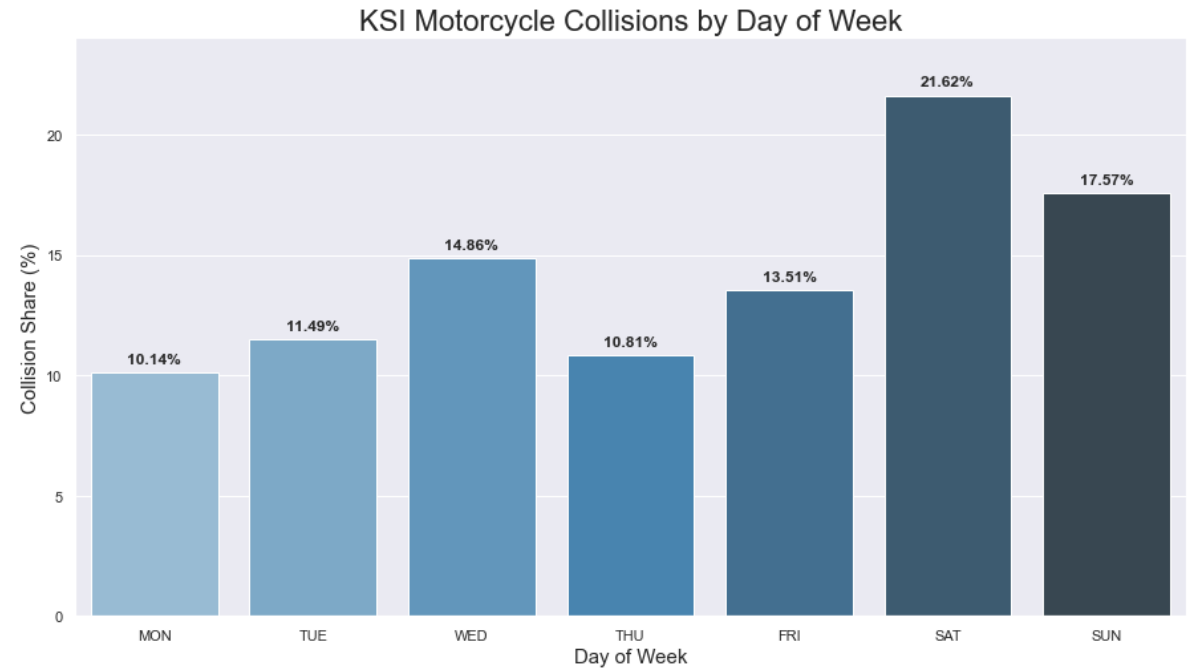
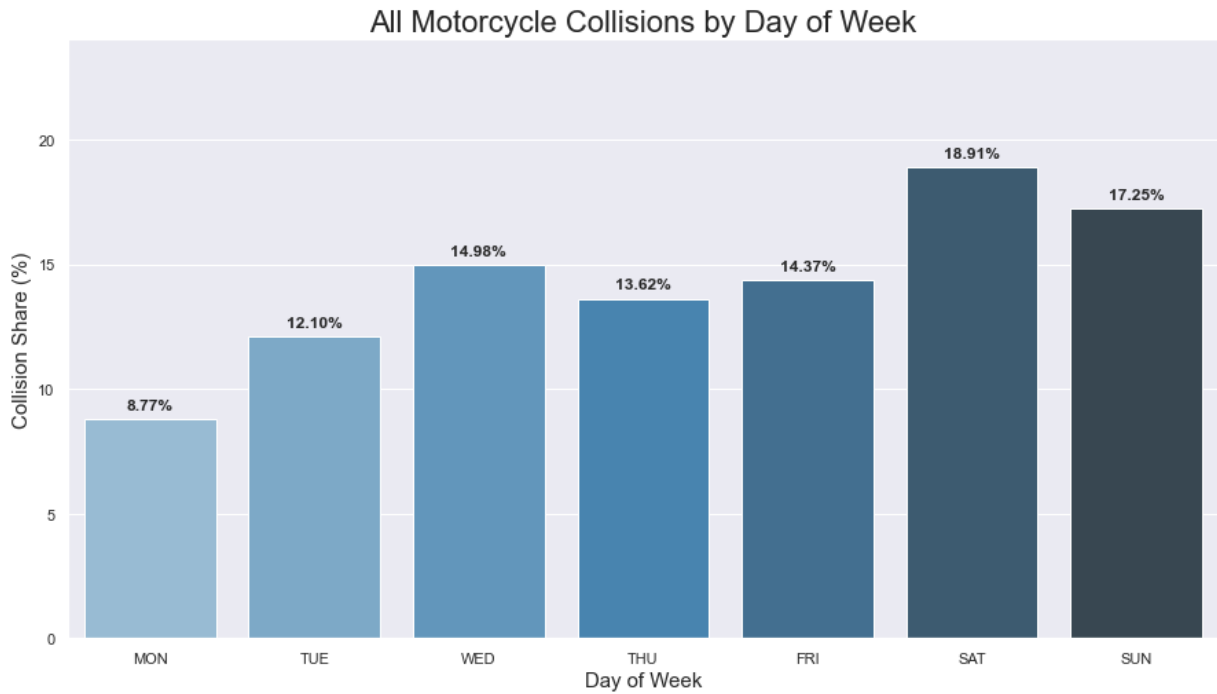
Pedestrian and motorcycle modes each account for 20% of all KSI crashes, but just 3-4% each of all injury crashes

# Day of Week – All



Total number of collisions decreases on the weekend, while number of KSI crashes peaks

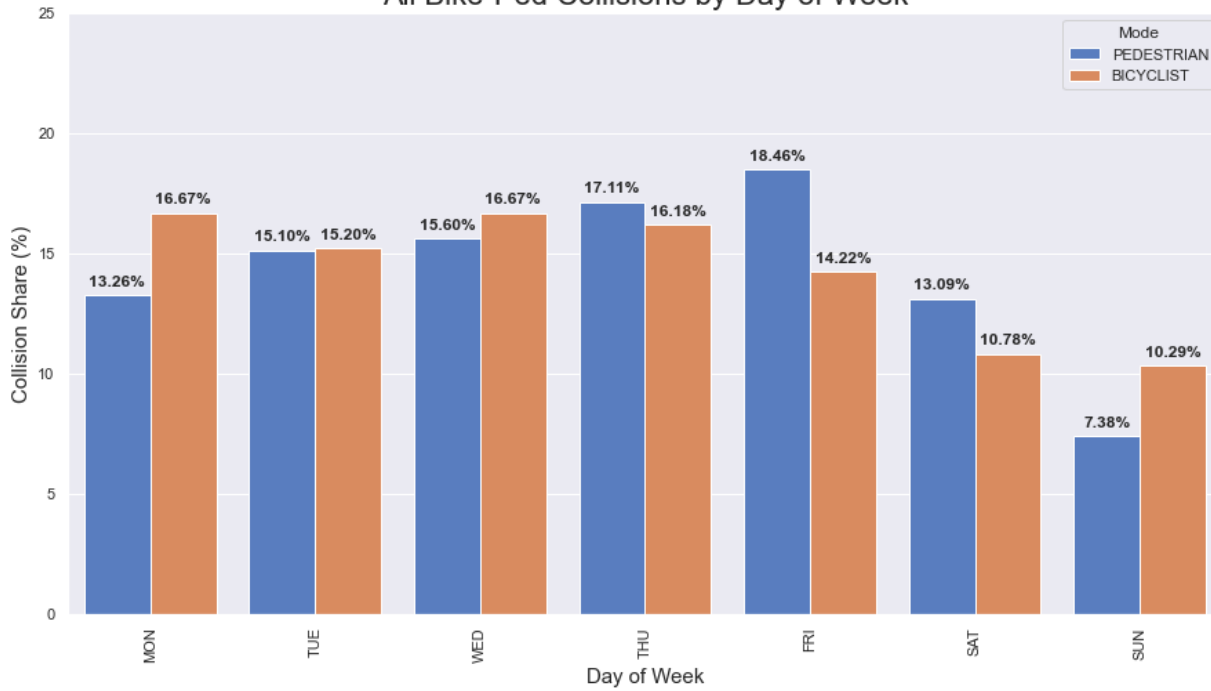
# Day of Week – Motorcycle



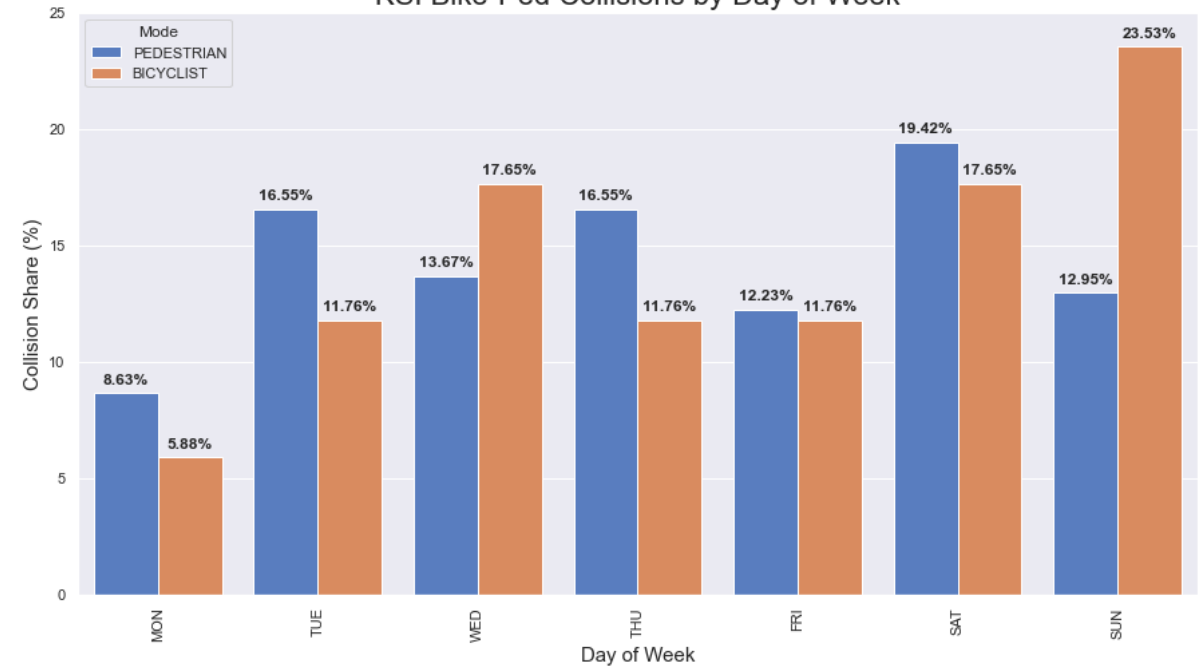
Motorcycle crashes peak on the weekend

# Day of Week – Bike & Ped

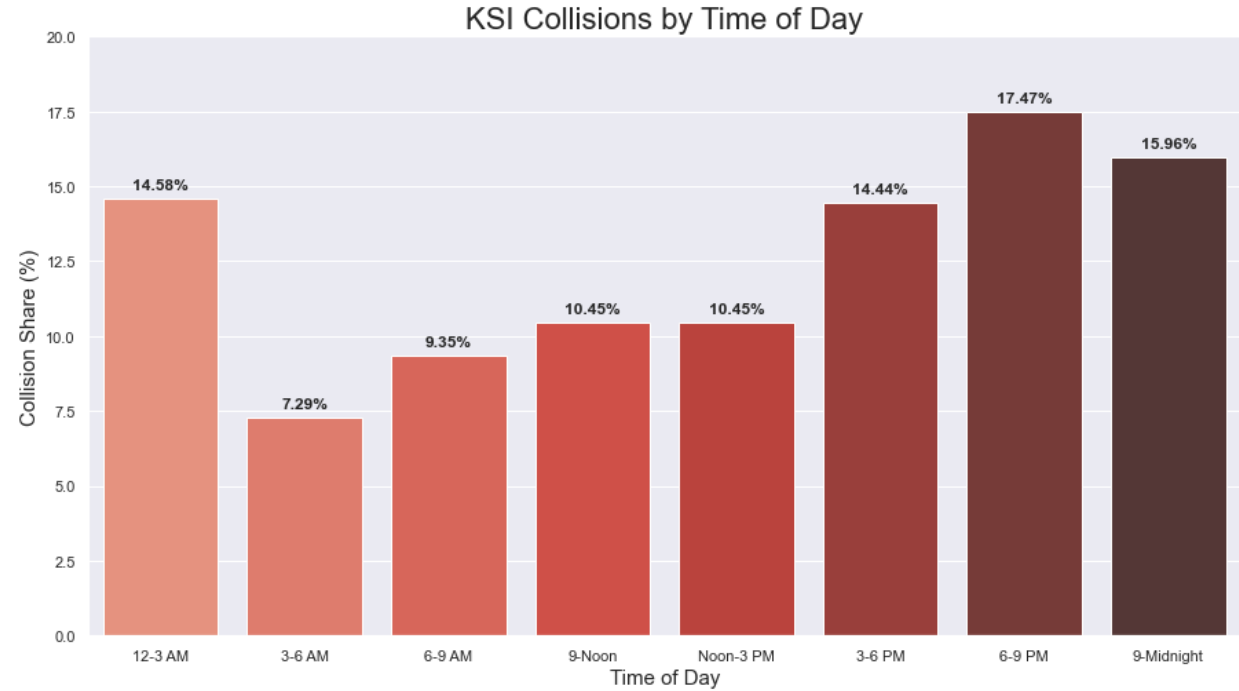
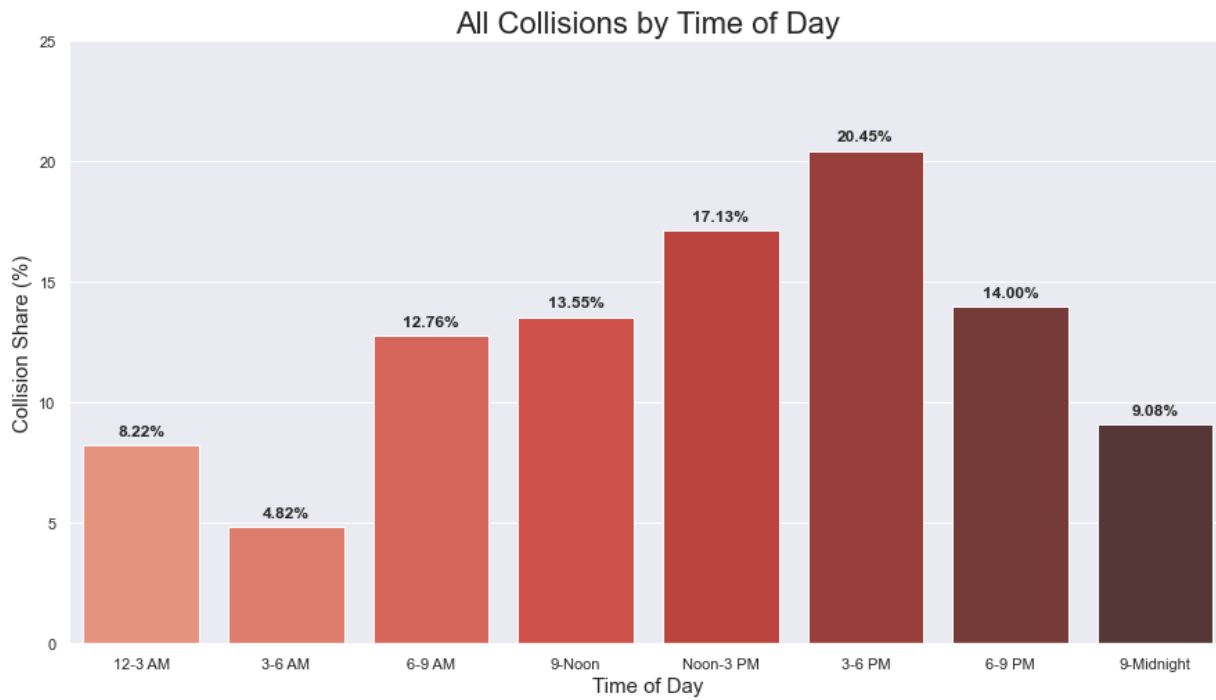
All Bike-Ped Collisions by Day of Week



KSI Bike-Ped Collisions by Day of Week

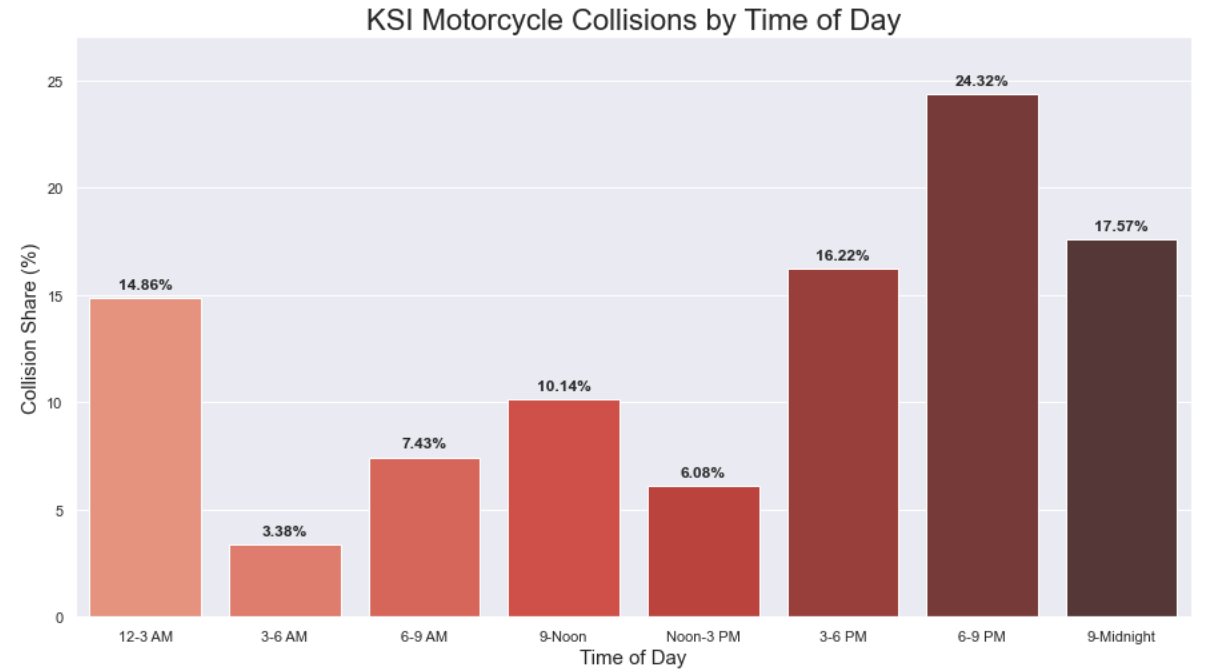
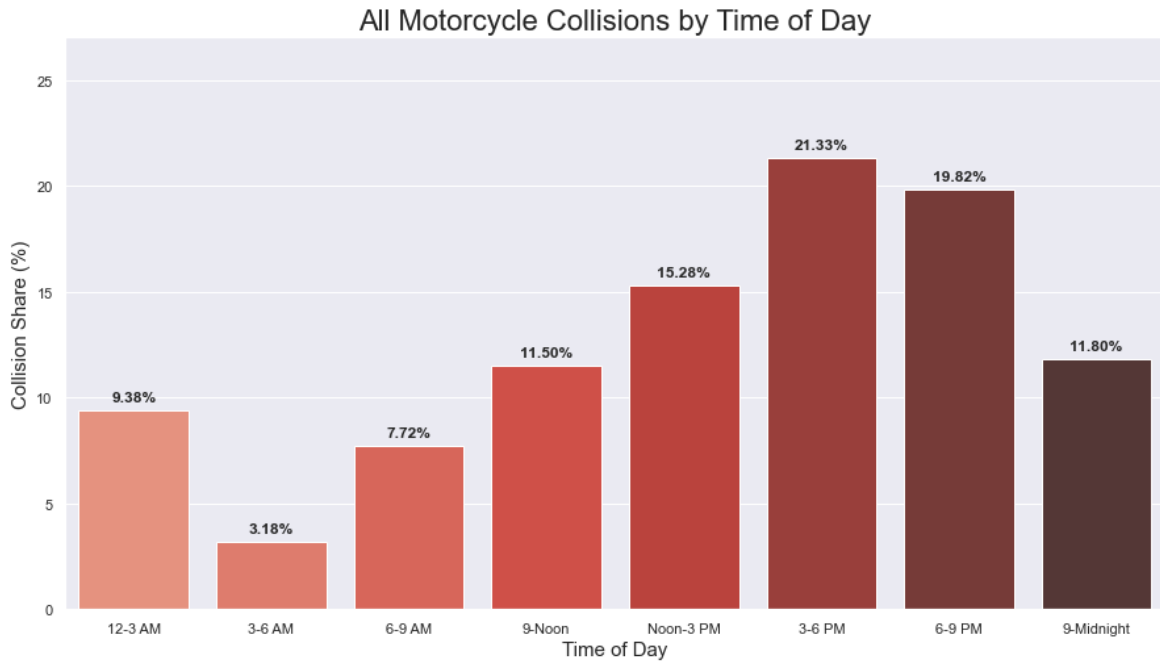


# Time of Day - All

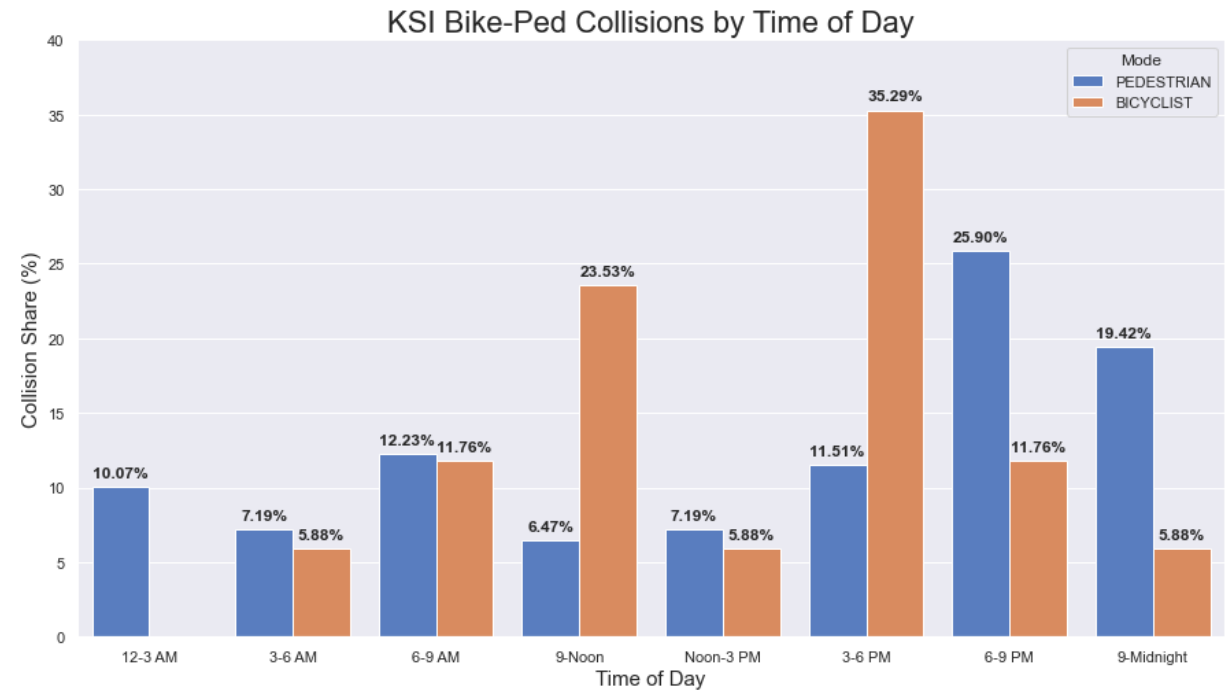
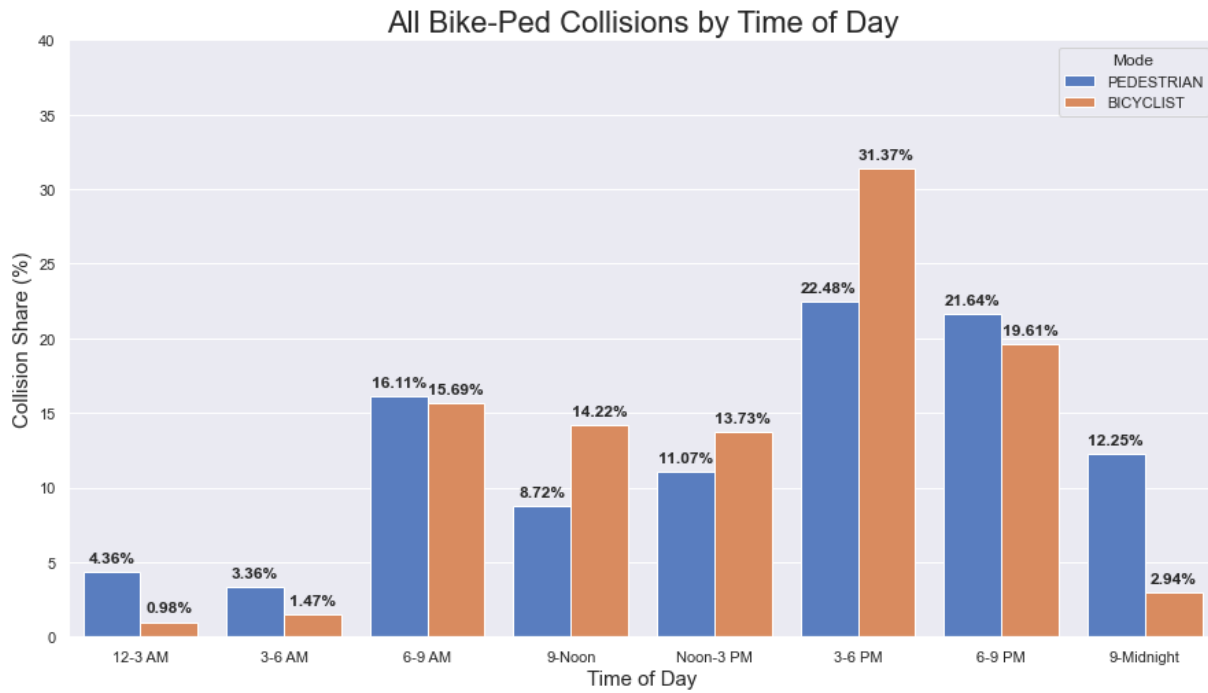


Total number of collisions highest during PM commute, while KSI crashes highest nighttime and overnight

# Time of Day - Motorcycle



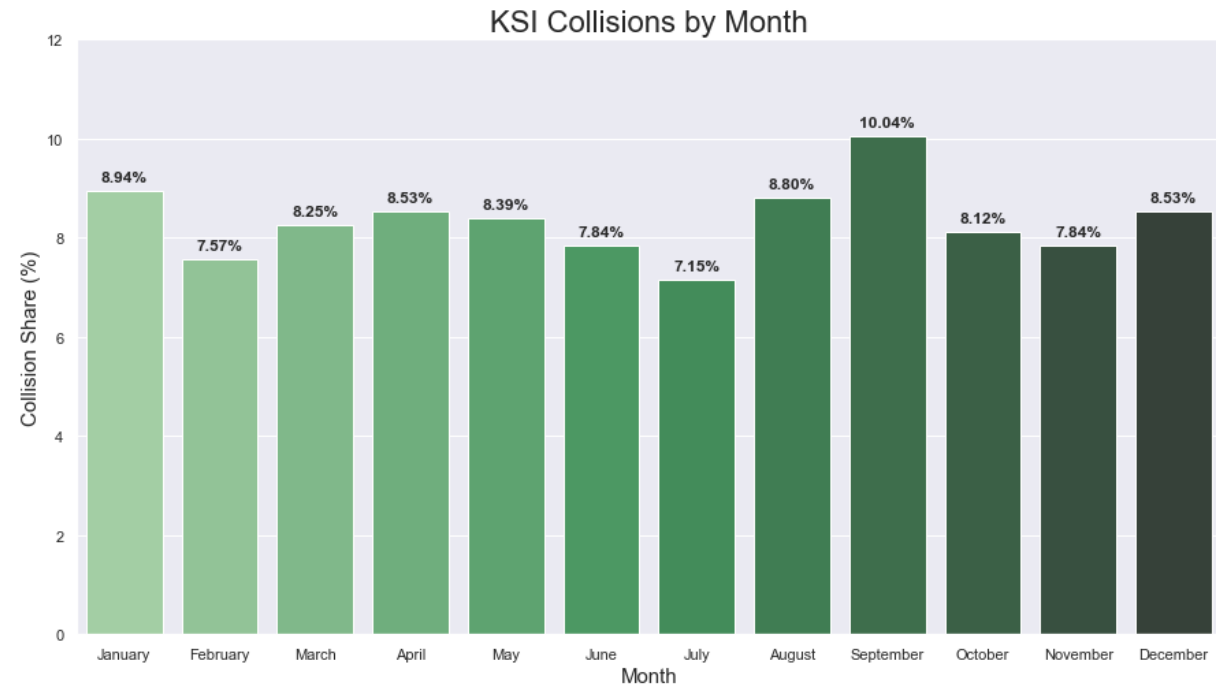
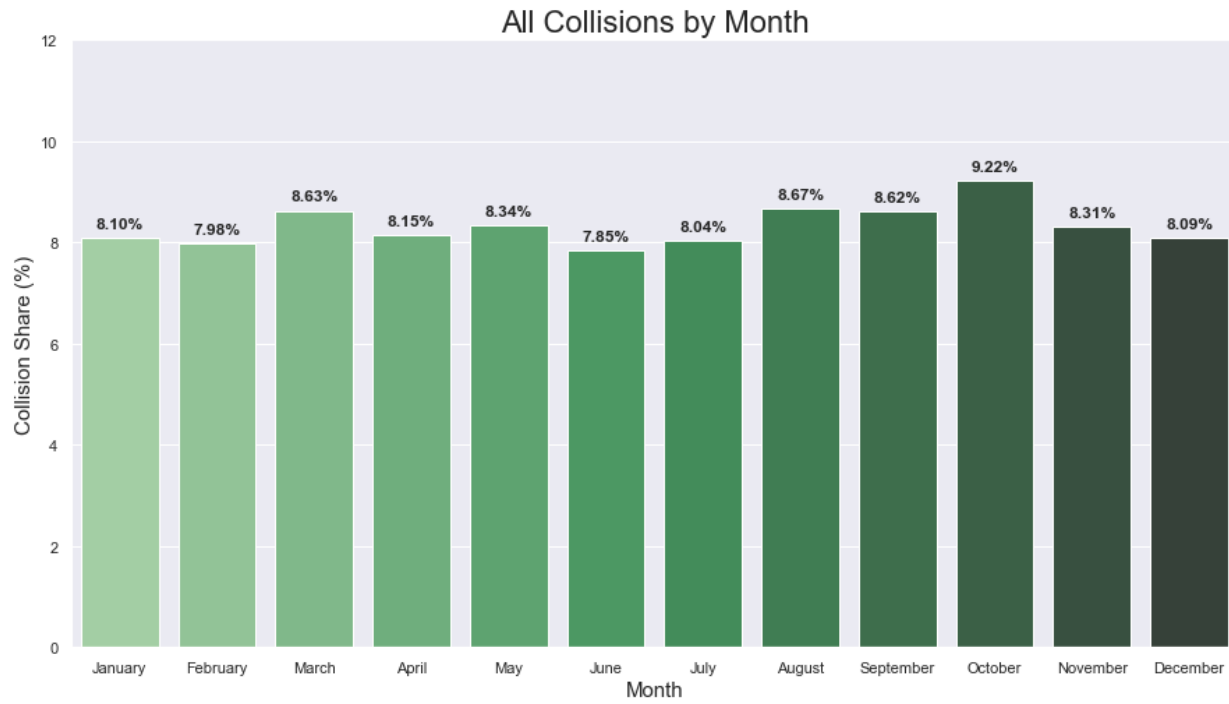
# Time of Day – Bike & Ped



Bike crashes highest during PM commute

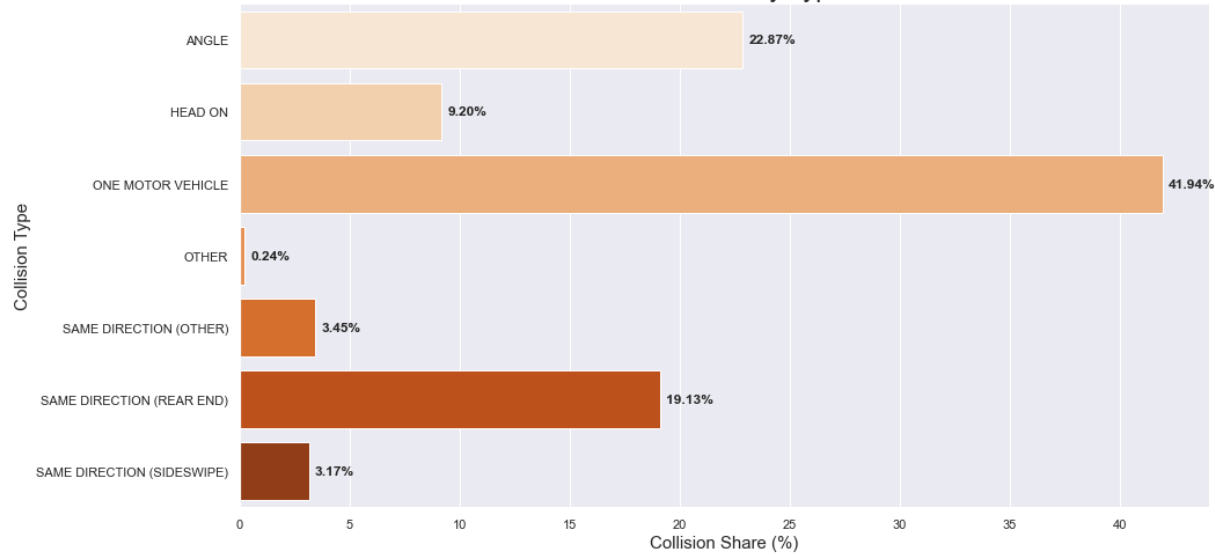


# Month- All

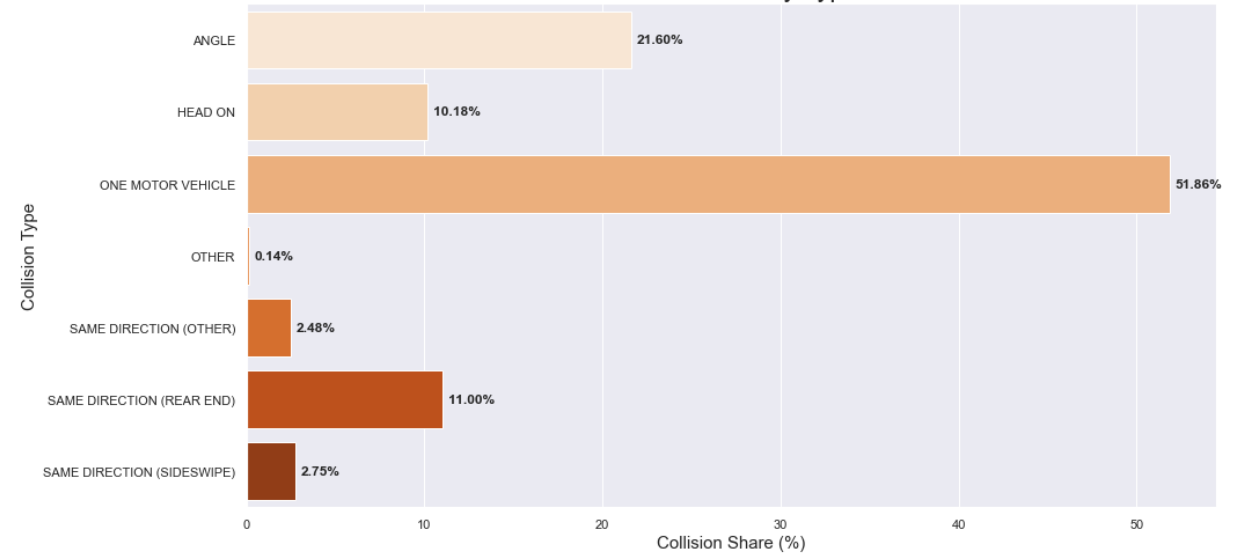


# Collisions by Type - All

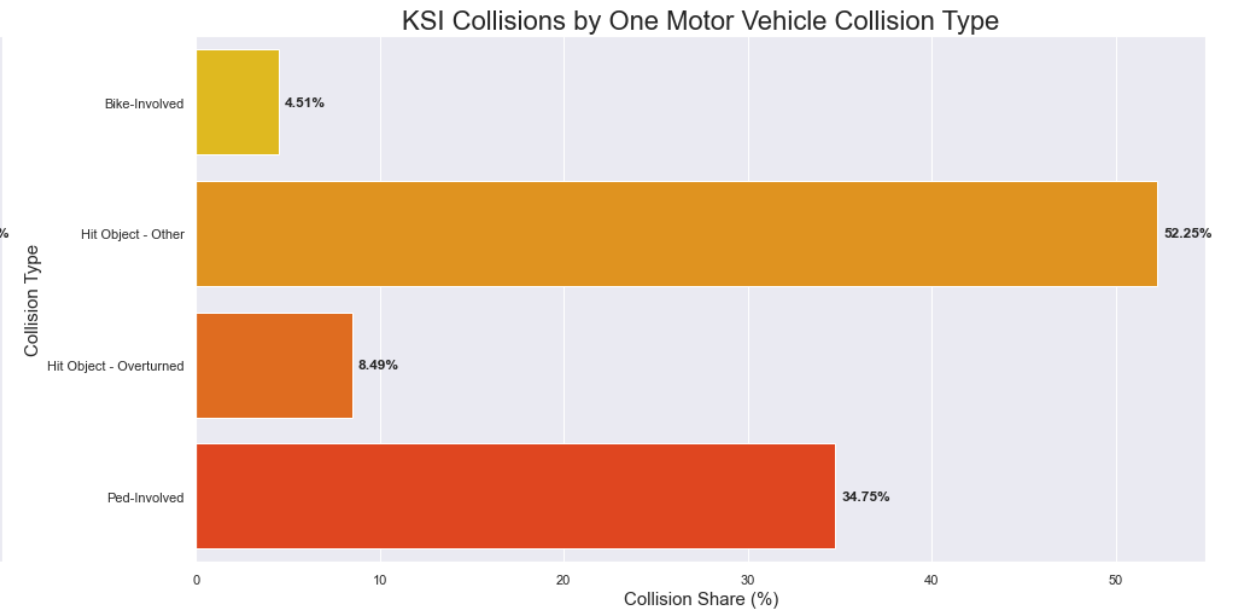
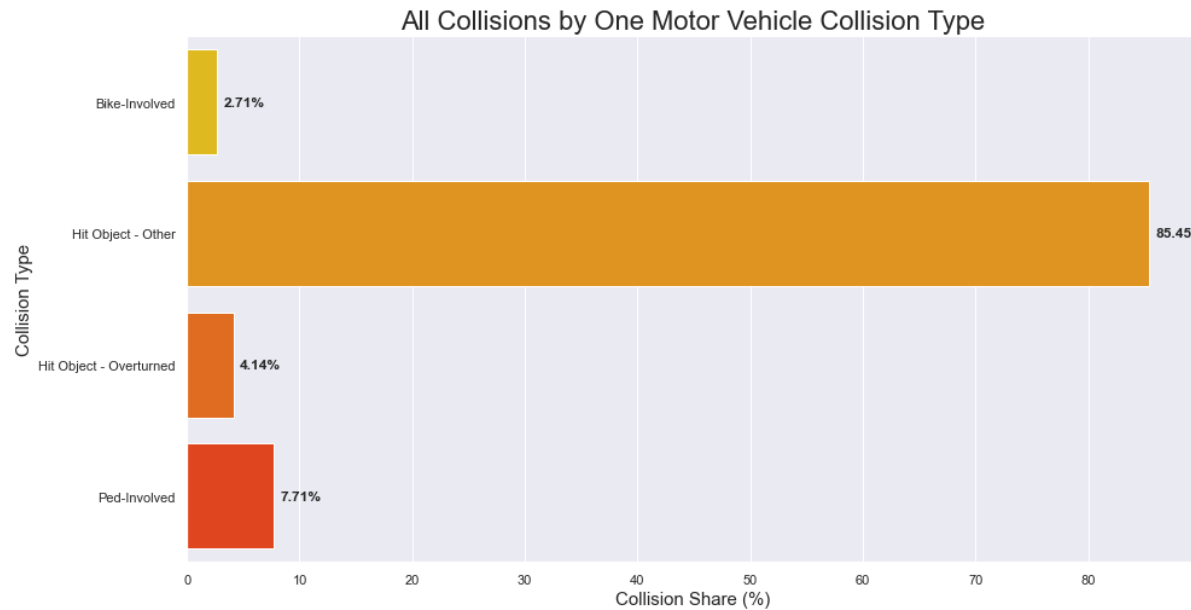
All Collisions by Type



KSI Collisions by Type



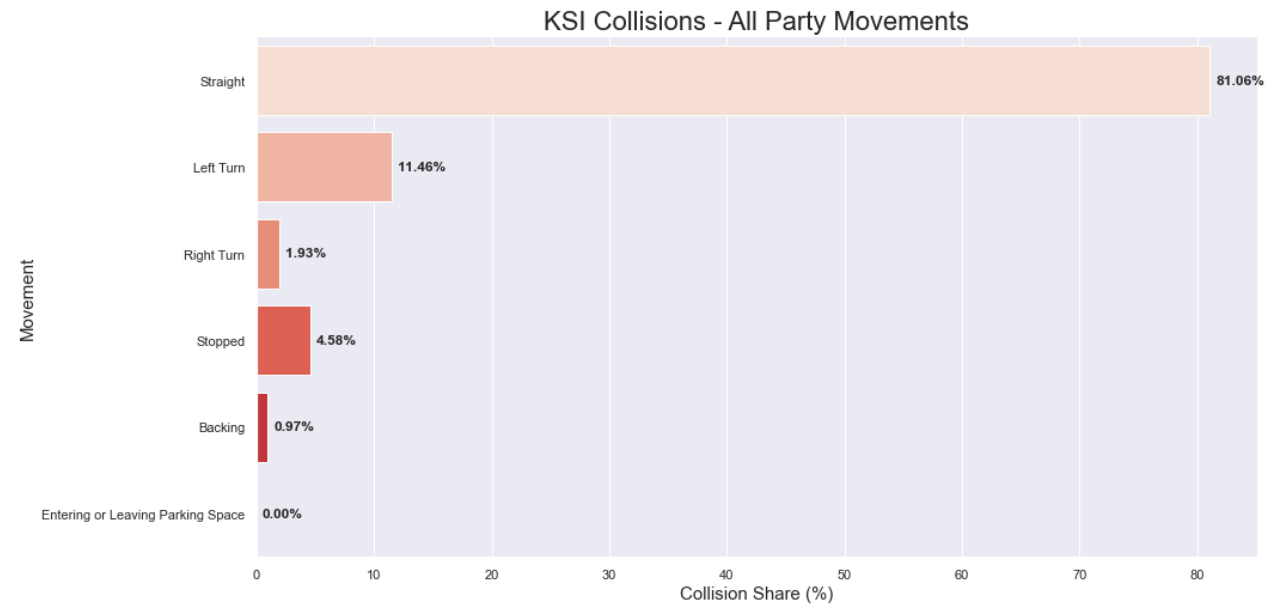
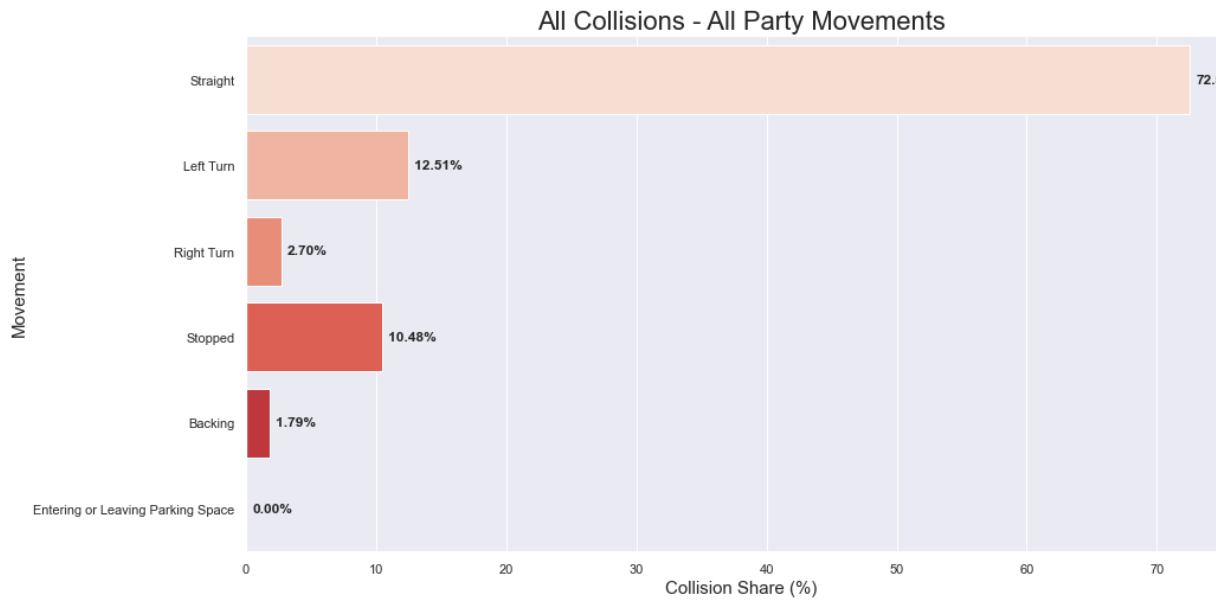
# Collisions by Type – One Vehicle Collisions



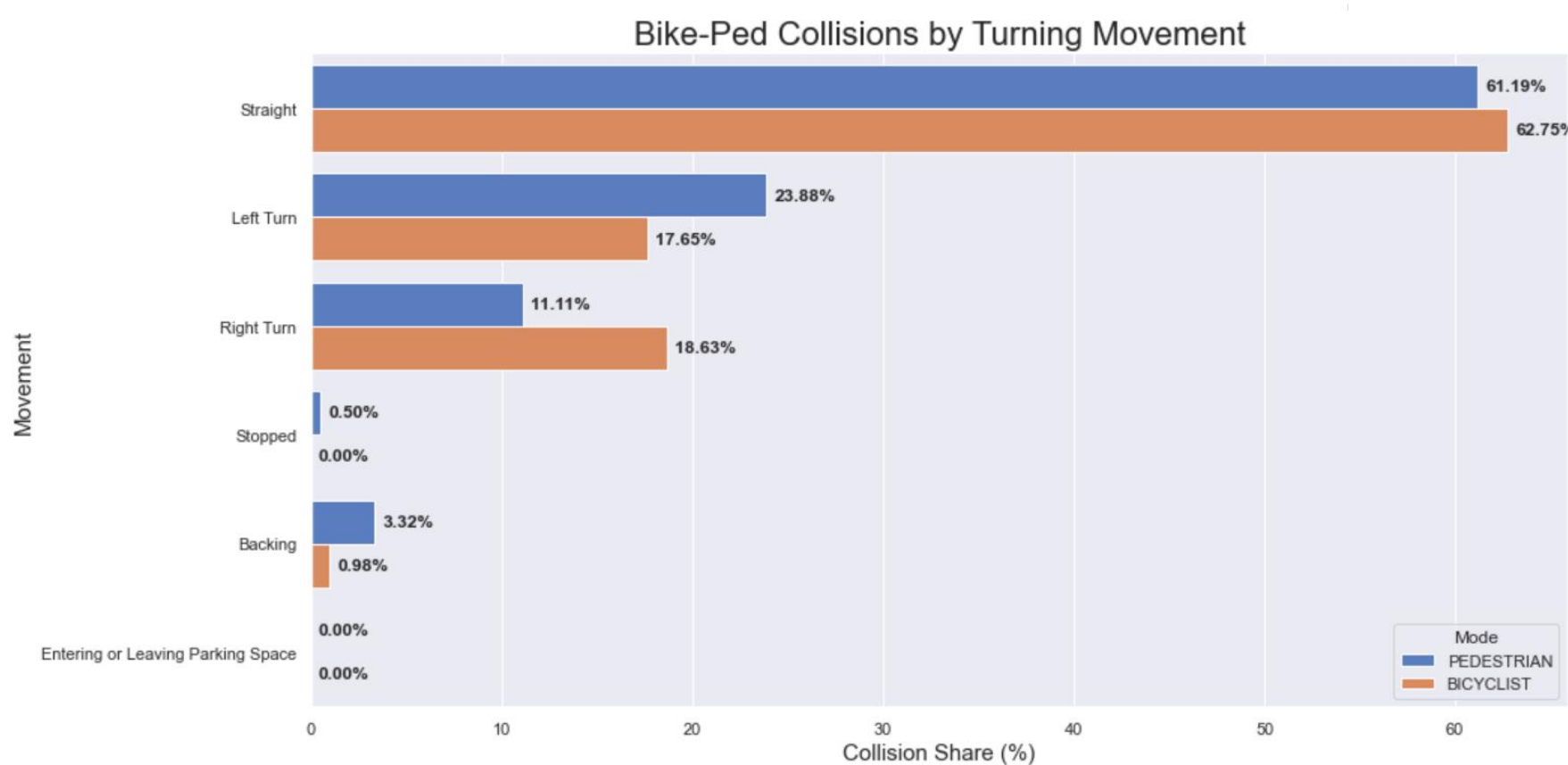
35% of KSI one vehicle collisions involved a pedestrian

Top hit objects = “other fixed object,” “tree, shrub, landscaping,” “fence,” “median barrier”

# Collisions by Driver Movement - All



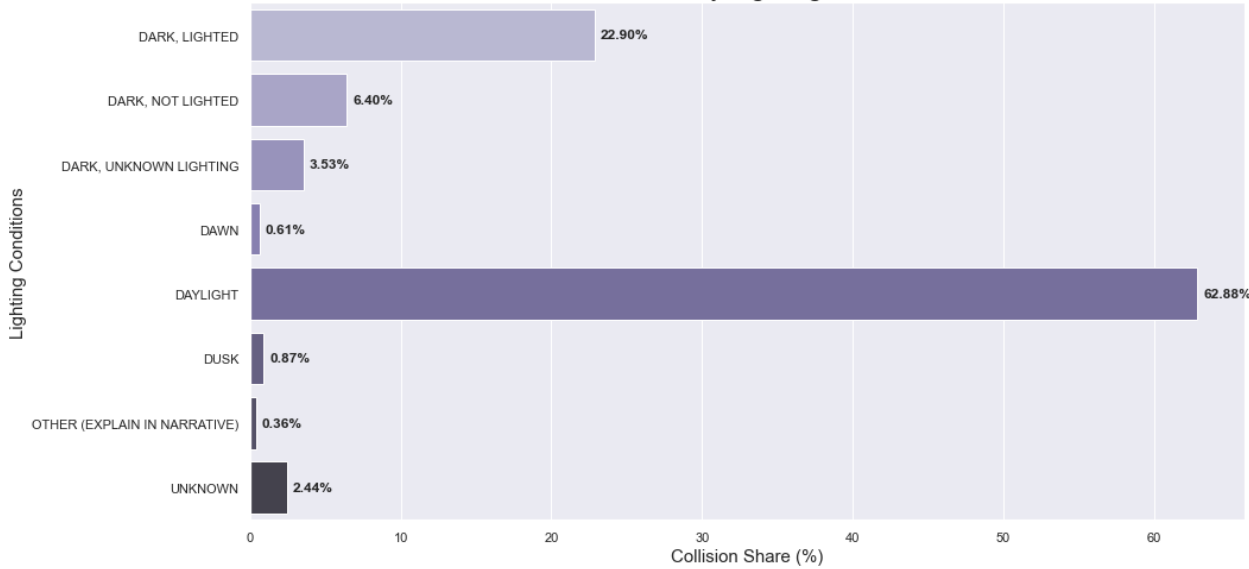
# Collisions by Driver Movement – Bike & Ped



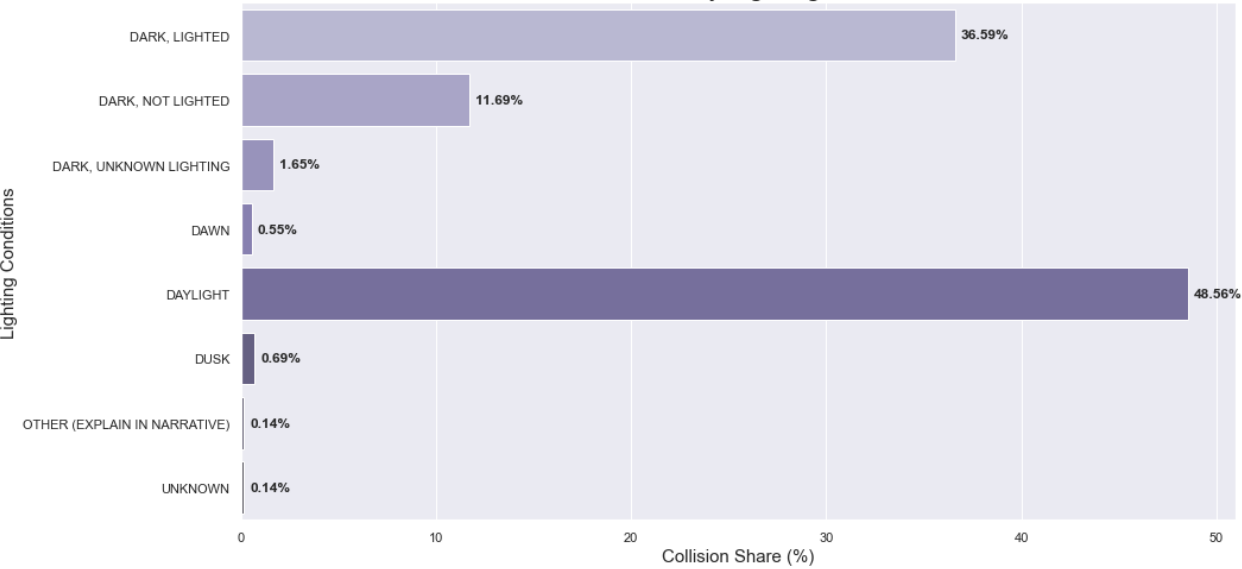
Driver left turns a factor in 24% of pedestrian collisions;  
driver left and right turns a factor in 18-19% each of bike collisions

# Lighting Conditions - All

All Collisions by Lighting Conditions



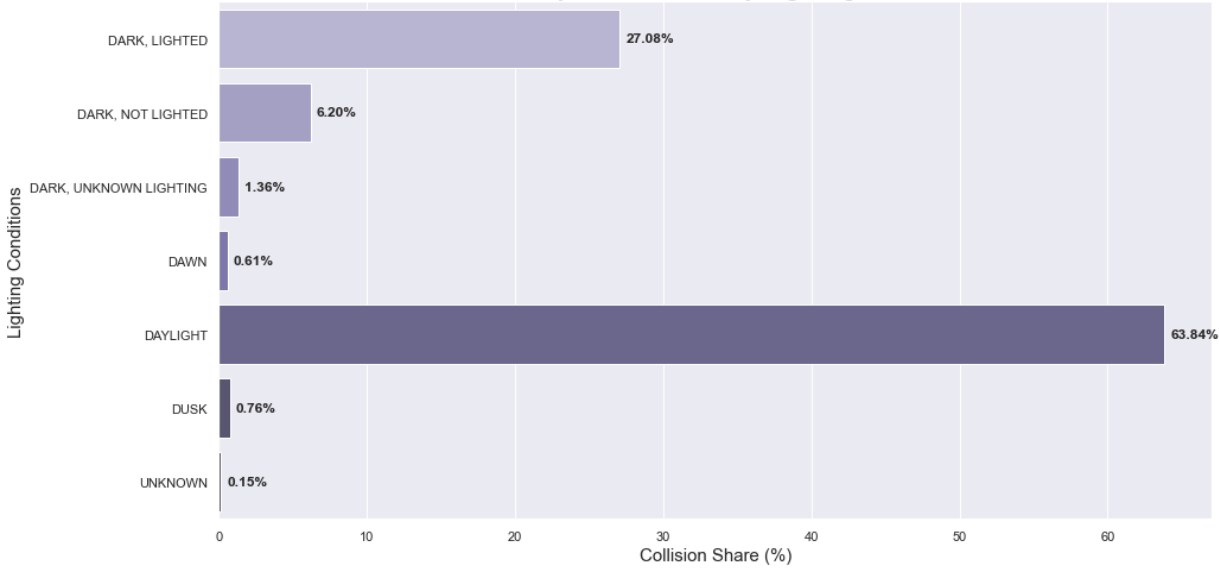
KSI Collisions by Lighting Conditions



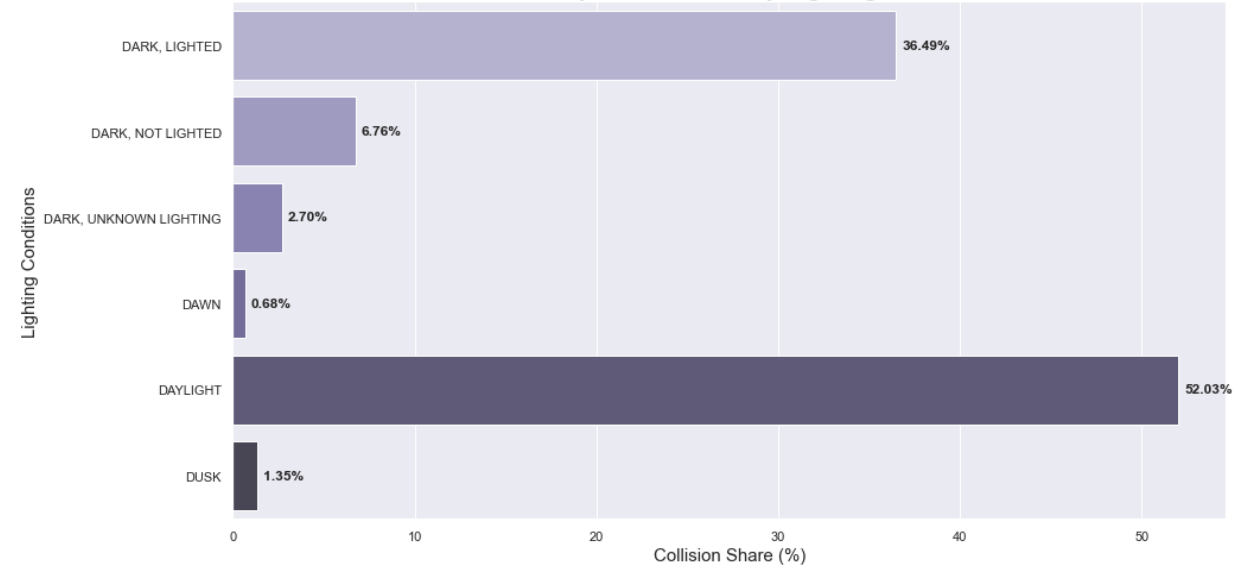
Dark conditions account for 50% of KSI crashes

# Lighting Conditions - Motorcycle

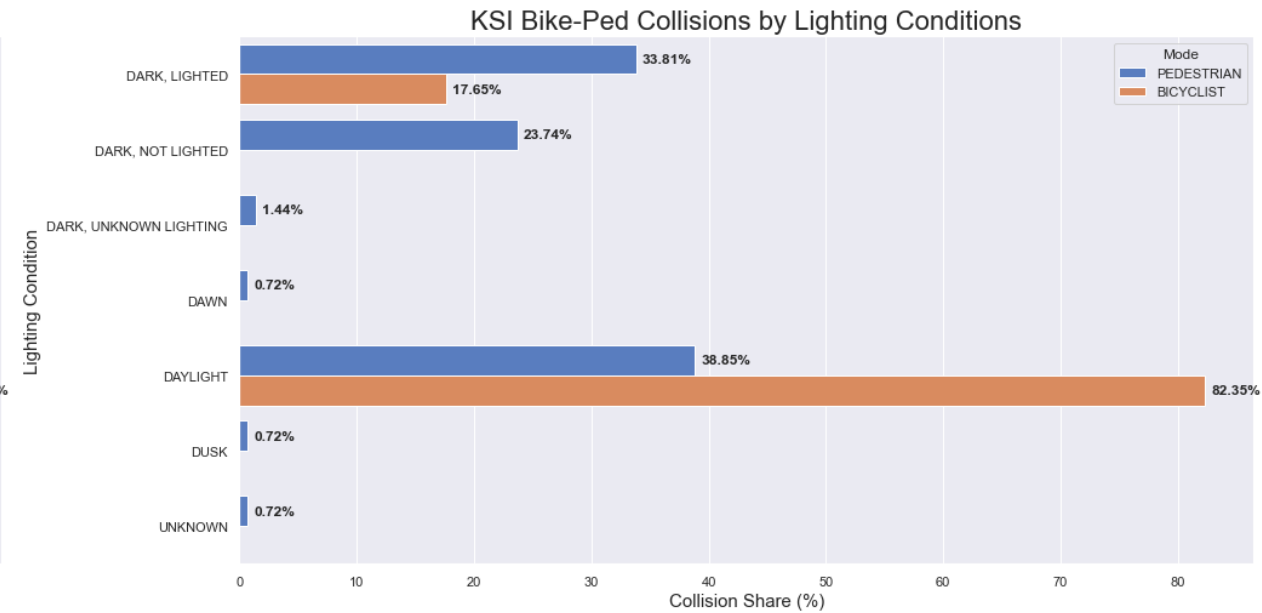
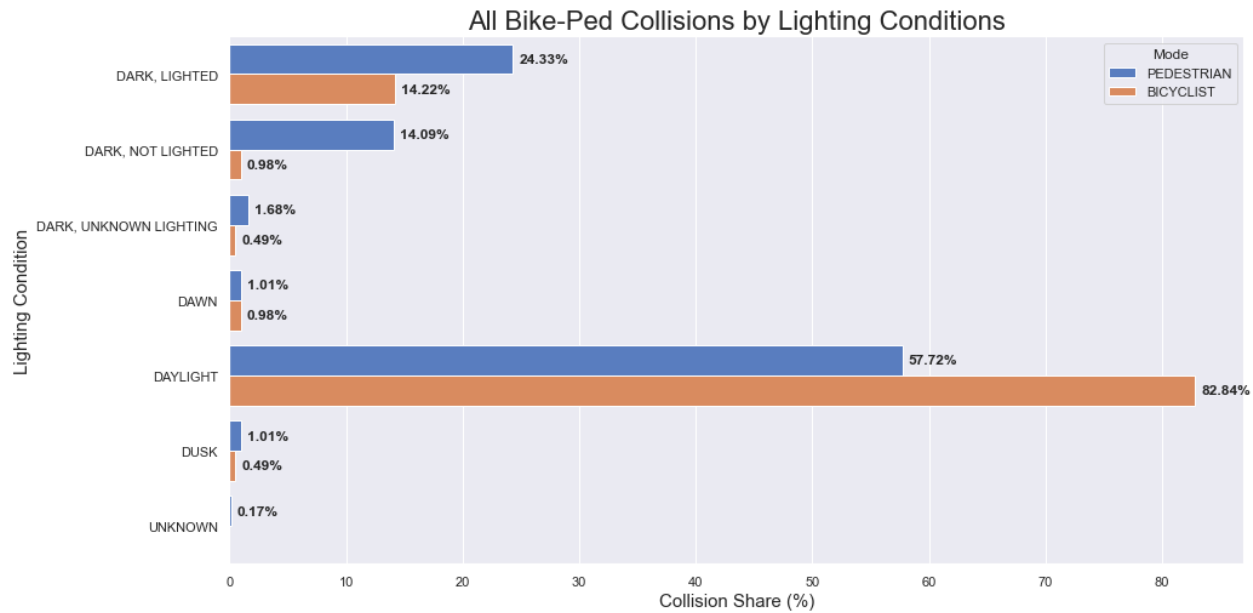
All Motorcycle Collisions by Lighting Conditions



KSI Motorcycle Collisions by Lighting Conditions



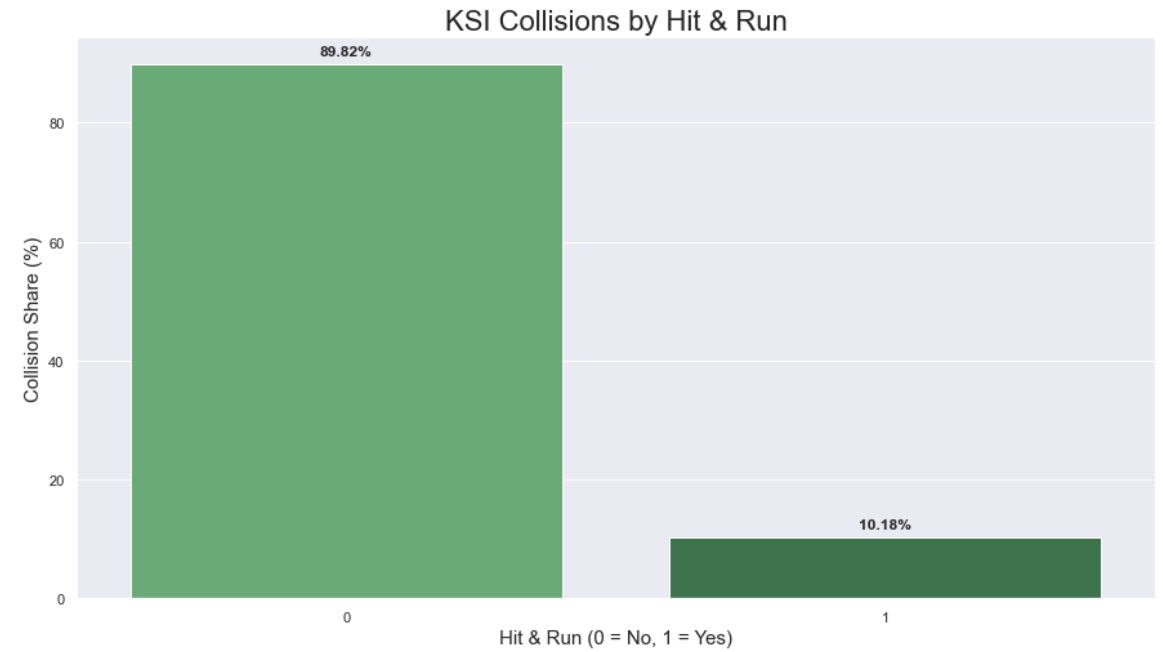
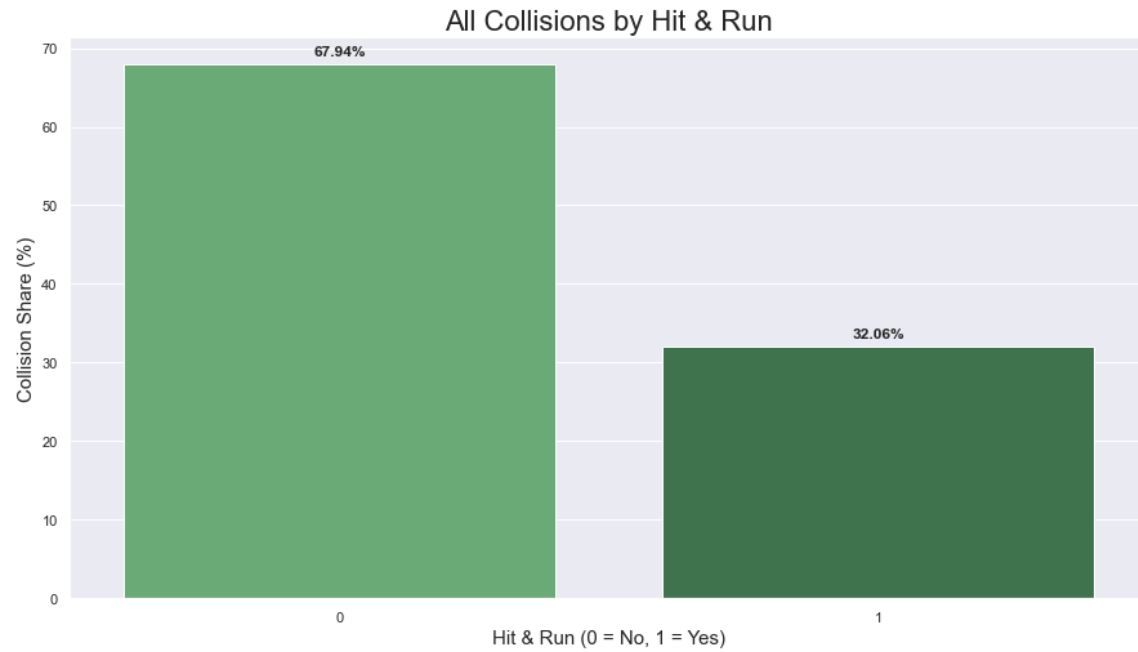
# Lighting Conditions – Bike & Ped



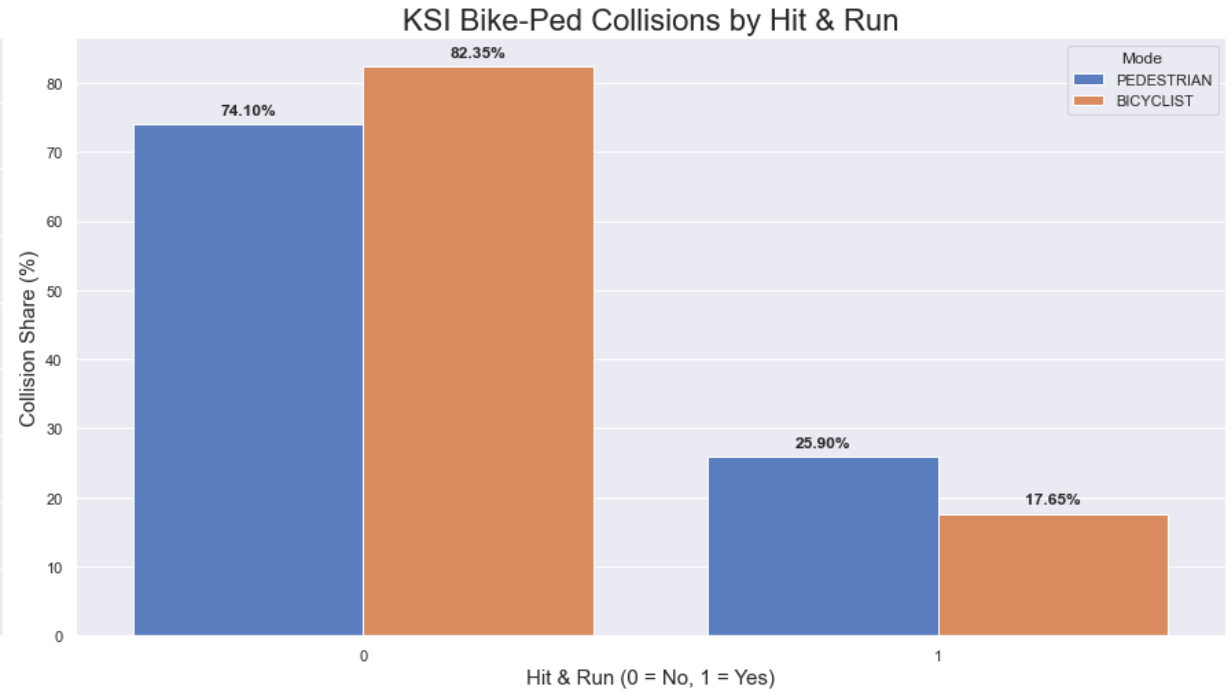
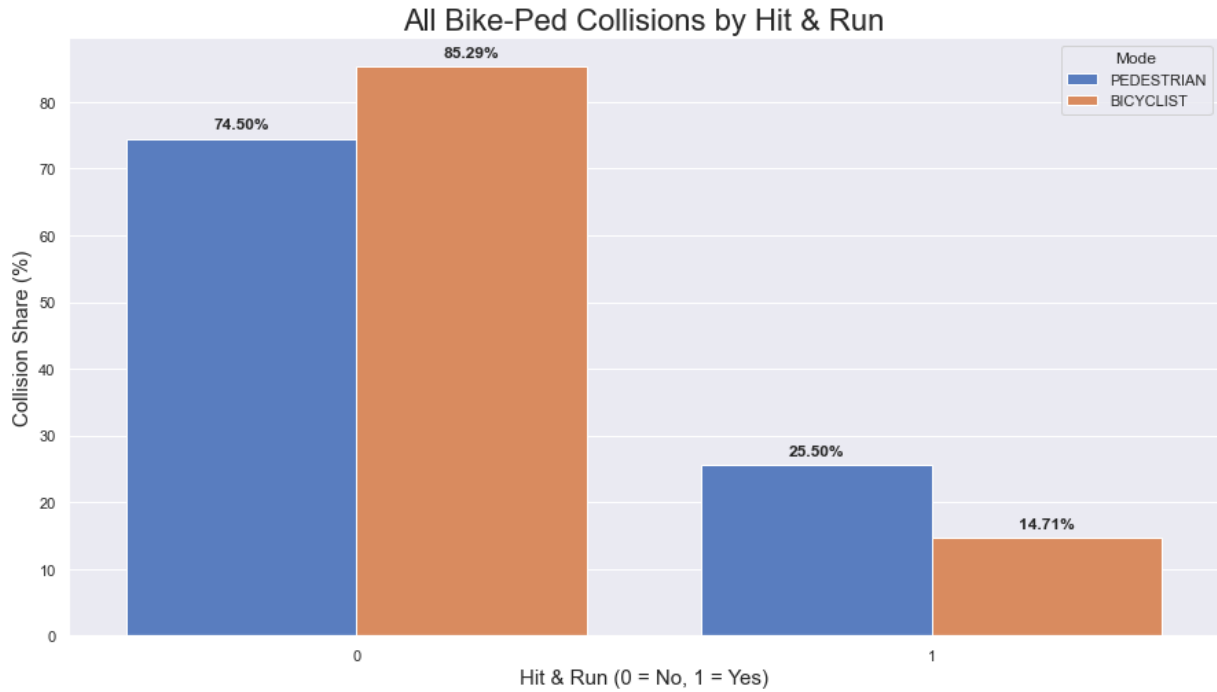
Dark conditions account for nearly 60% of KSI pedestrian crashes



# Hit & Run - All

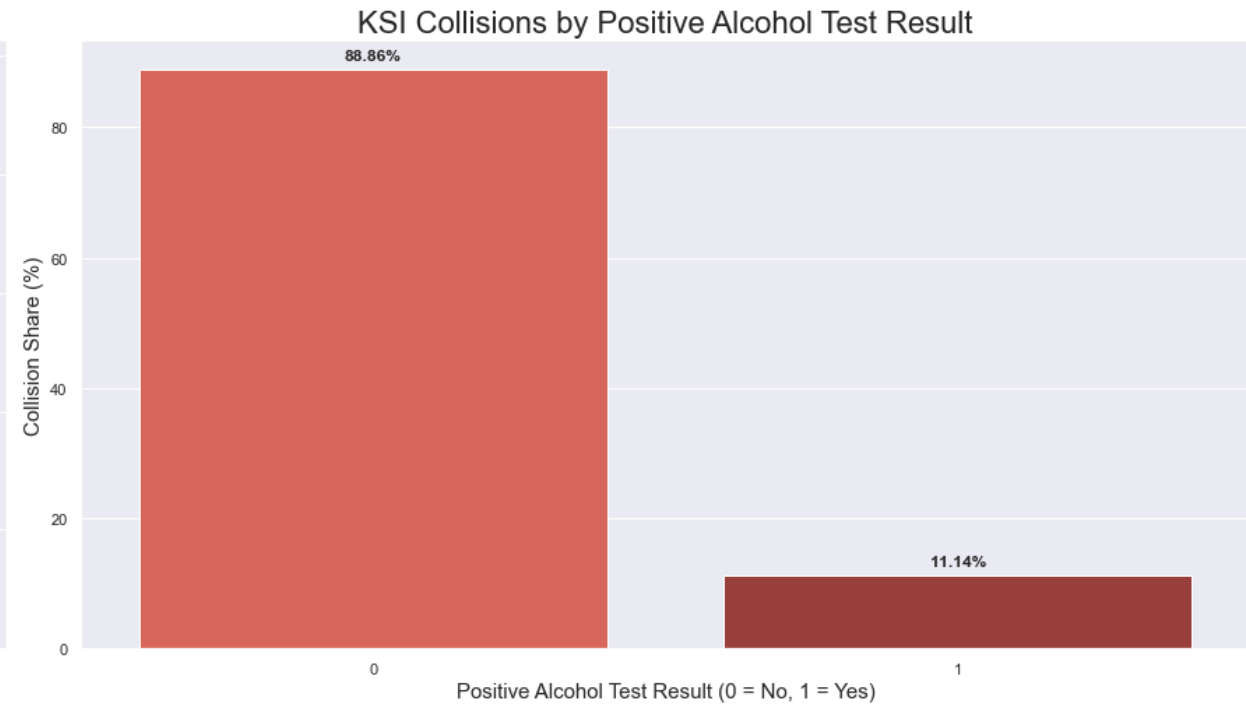
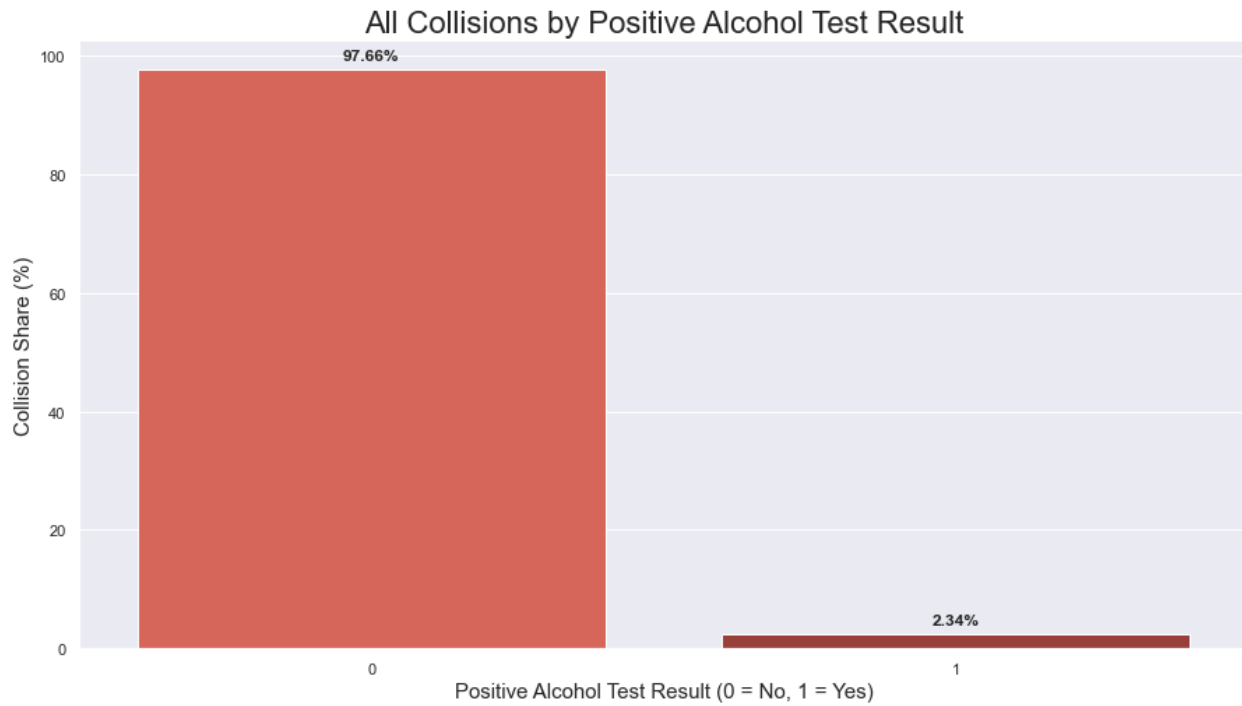


# Hit & Run – Bike & Ped



A quarter of pedestrian crashes are hit-and-run

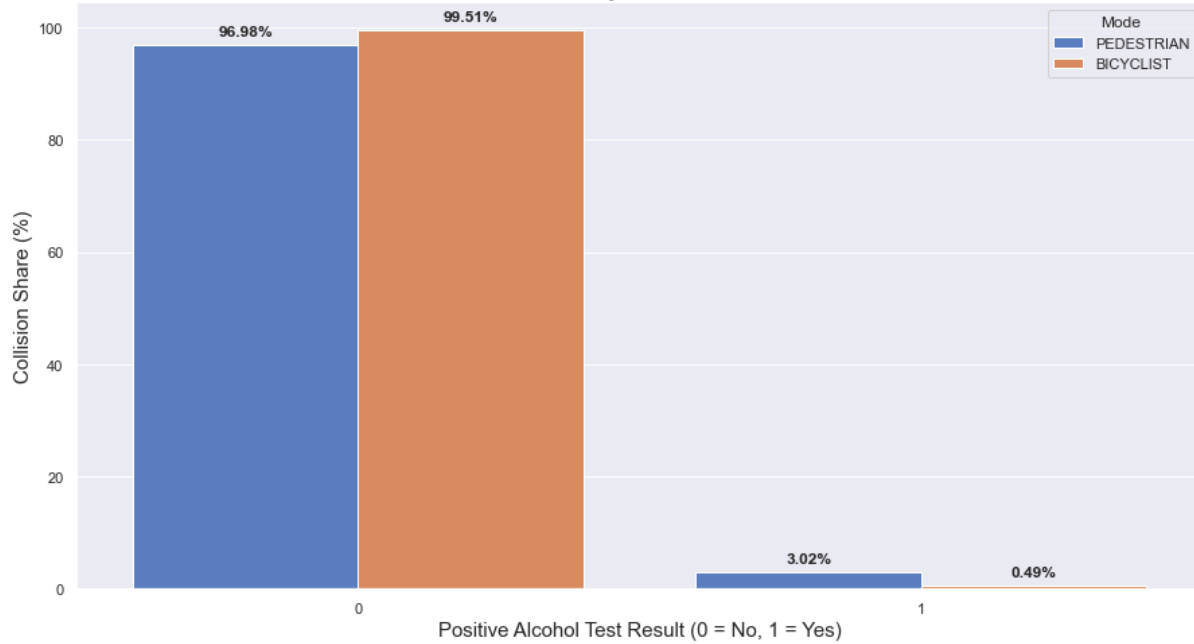
# Positive Alcohol Test Result – All



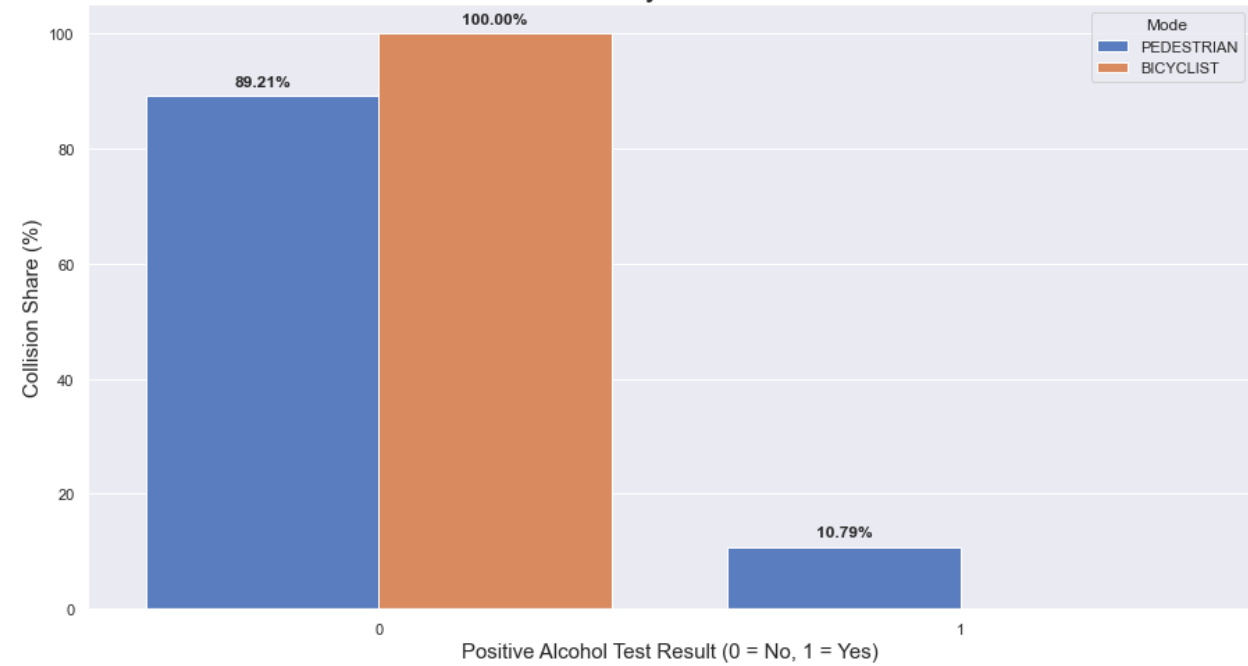
11% of KSI collisions include a positive alcohol test result, compared with 2% of injury collisions

# Positive Alcohol Test Result – Bike & Ped

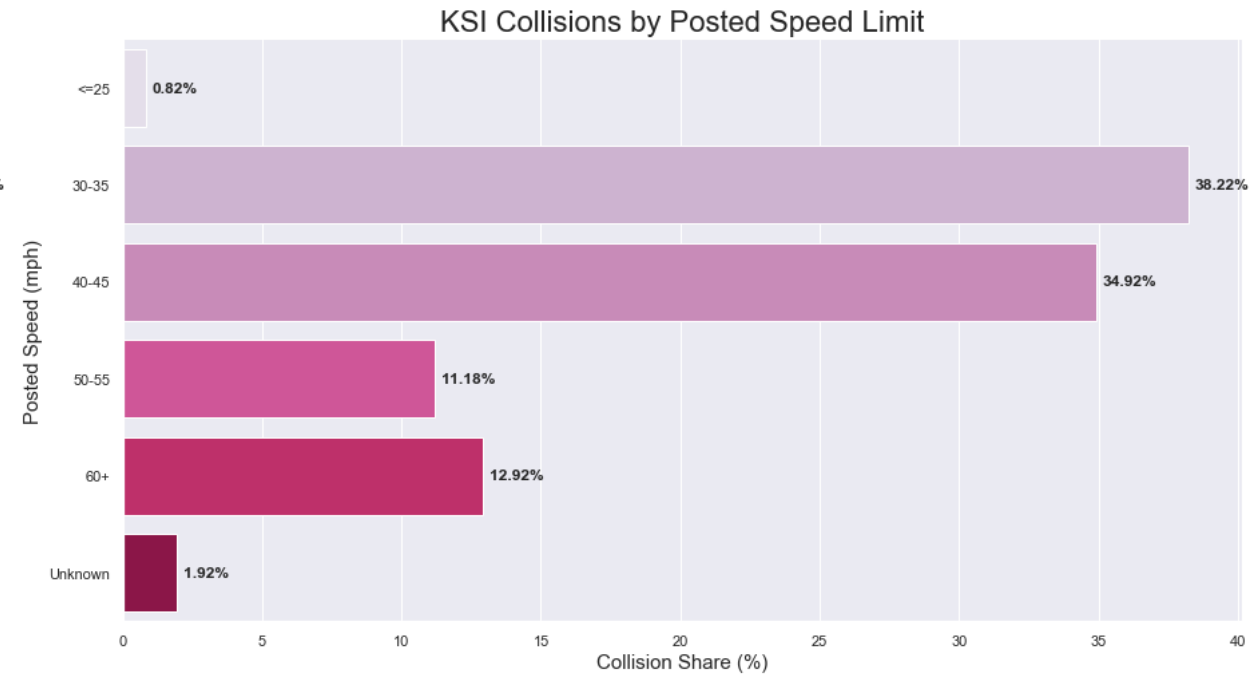
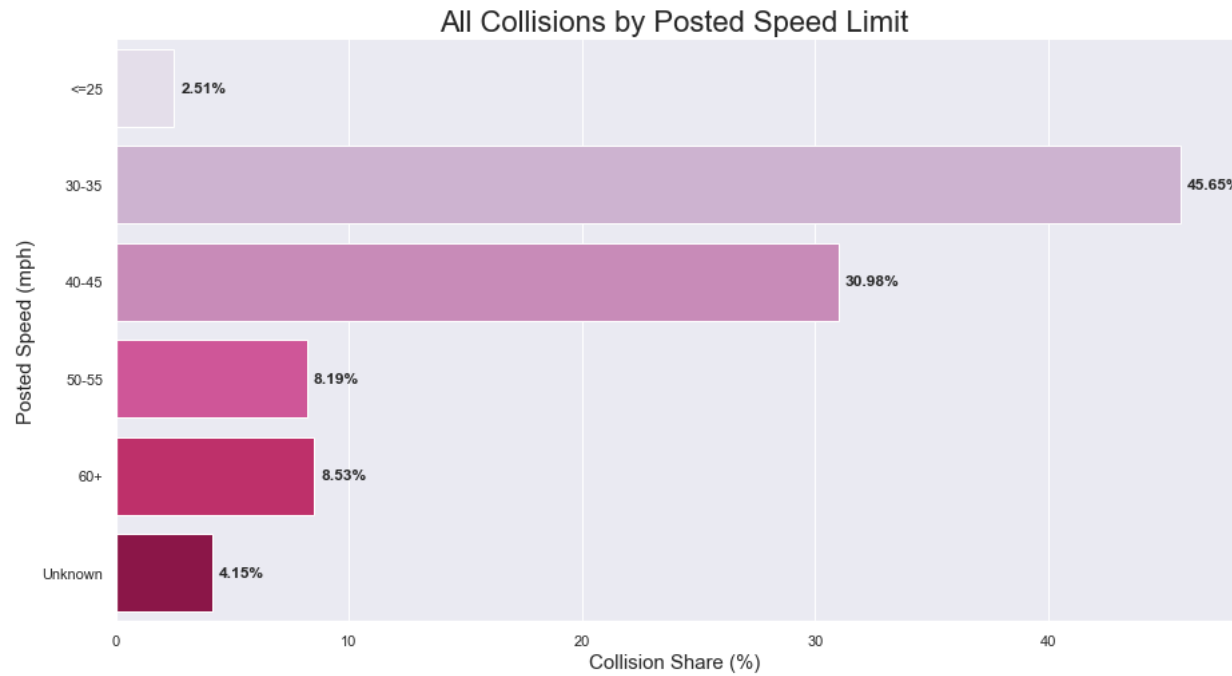
All Bike-Ped Collisions by Positive Alcohol Test Result



KSI Bike-Ped Collisions by Positive Alcohol Test Result



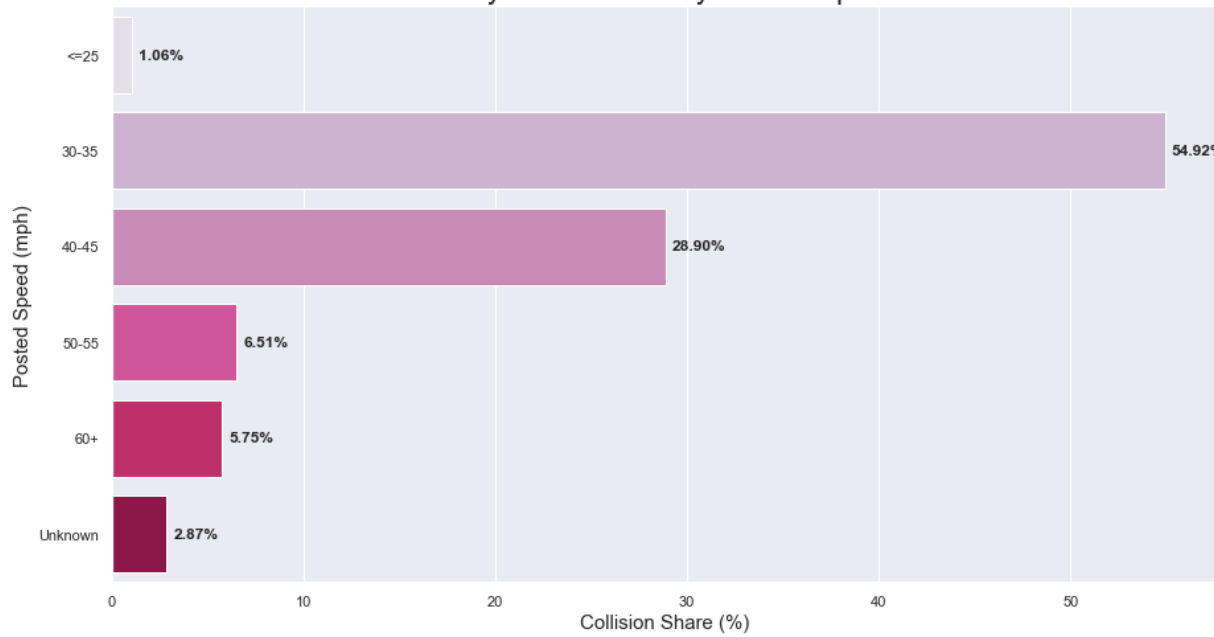
# Posted Speed Limit - All



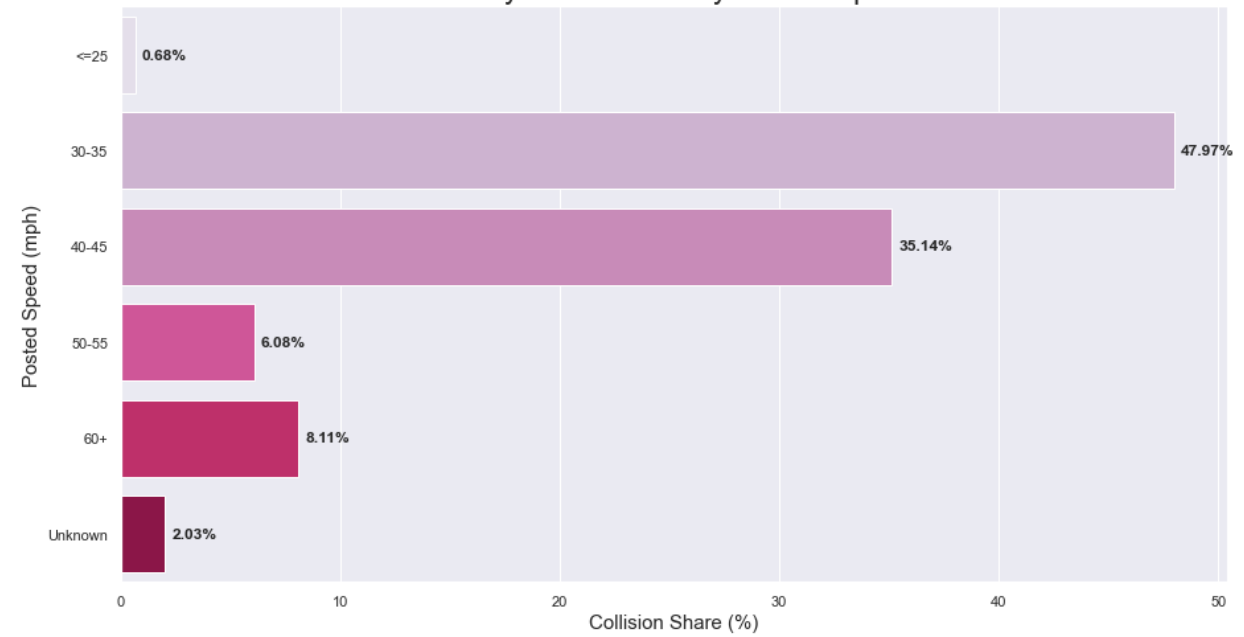
60% of KSI collisions occur on streets with posted speeds 40+ mph

# Posted Speed Limit - Motorcycle

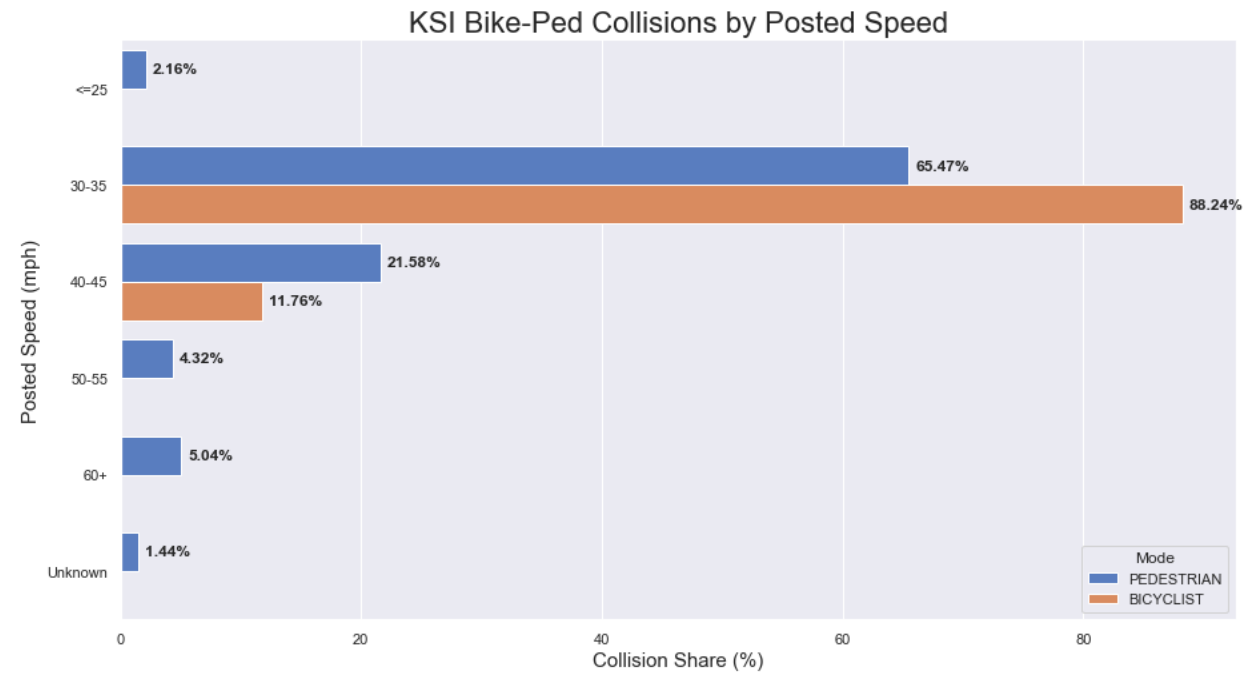
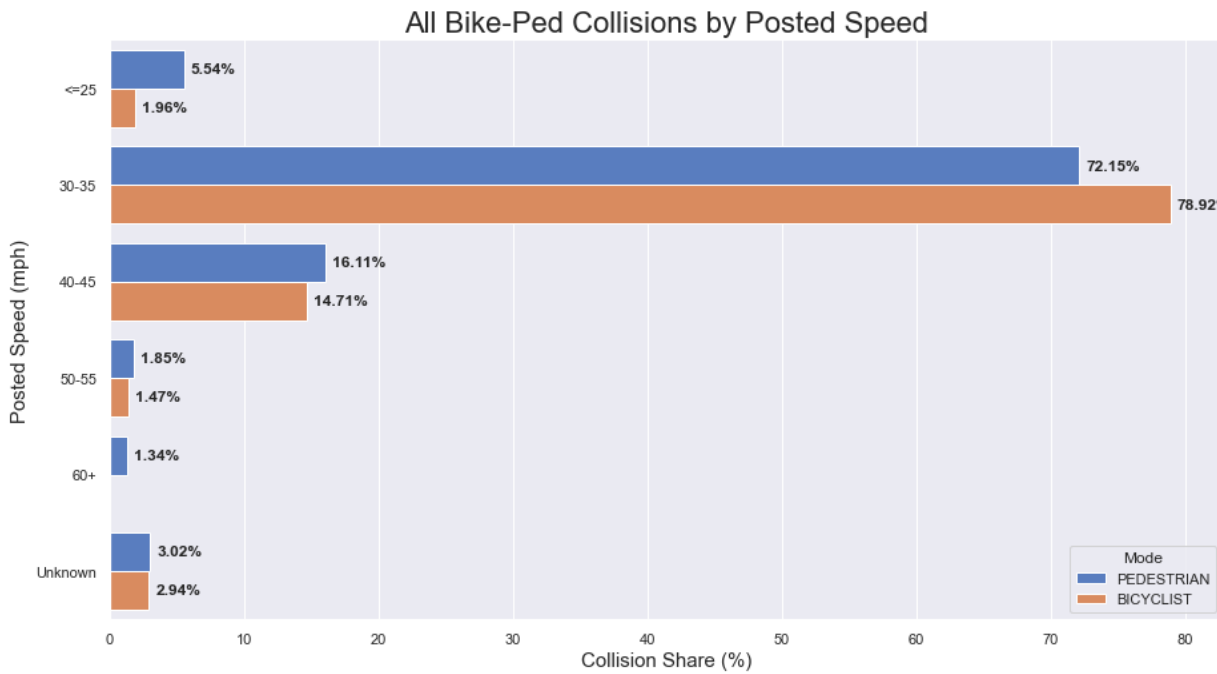
All Motorcycle Collisions by Posted Speed Limit



KSI Motorcycle Collisions by Posted Speed Limit

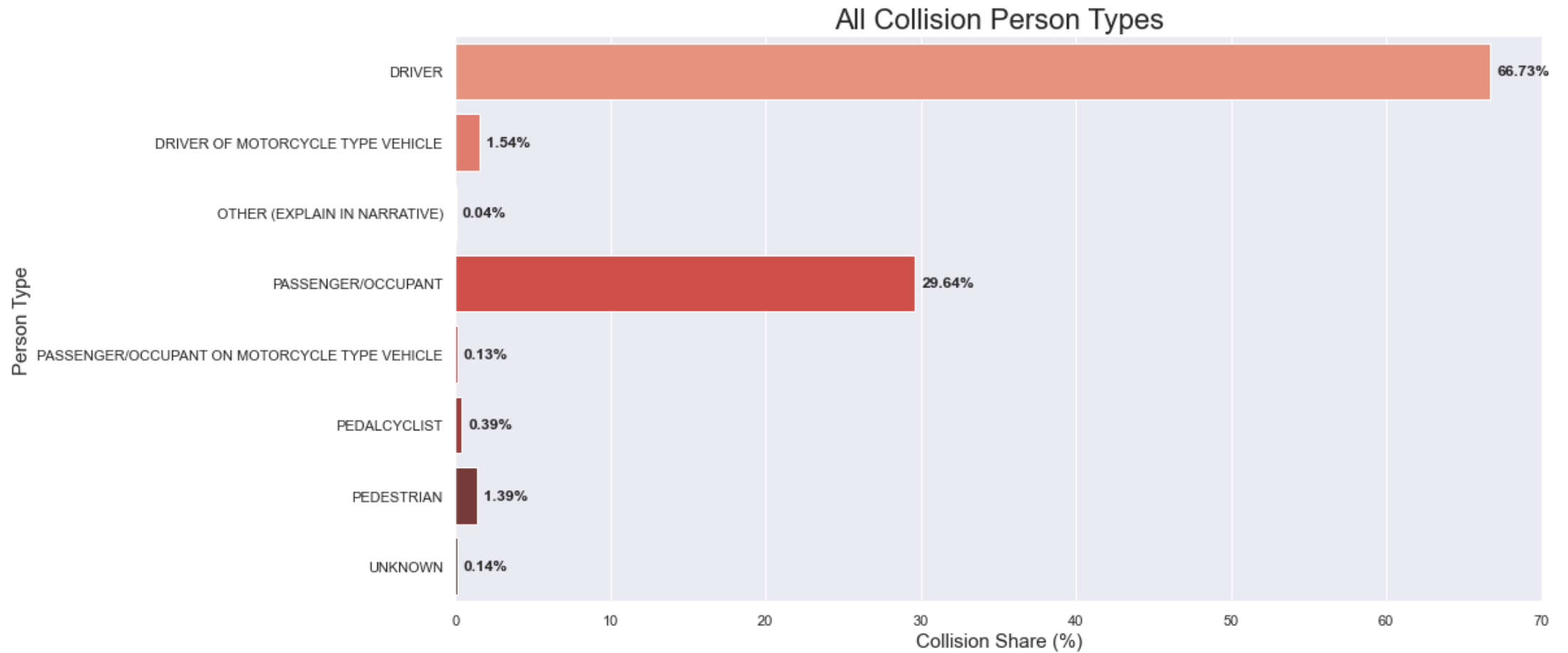


# Posted Speed Limit – Bike & Ped



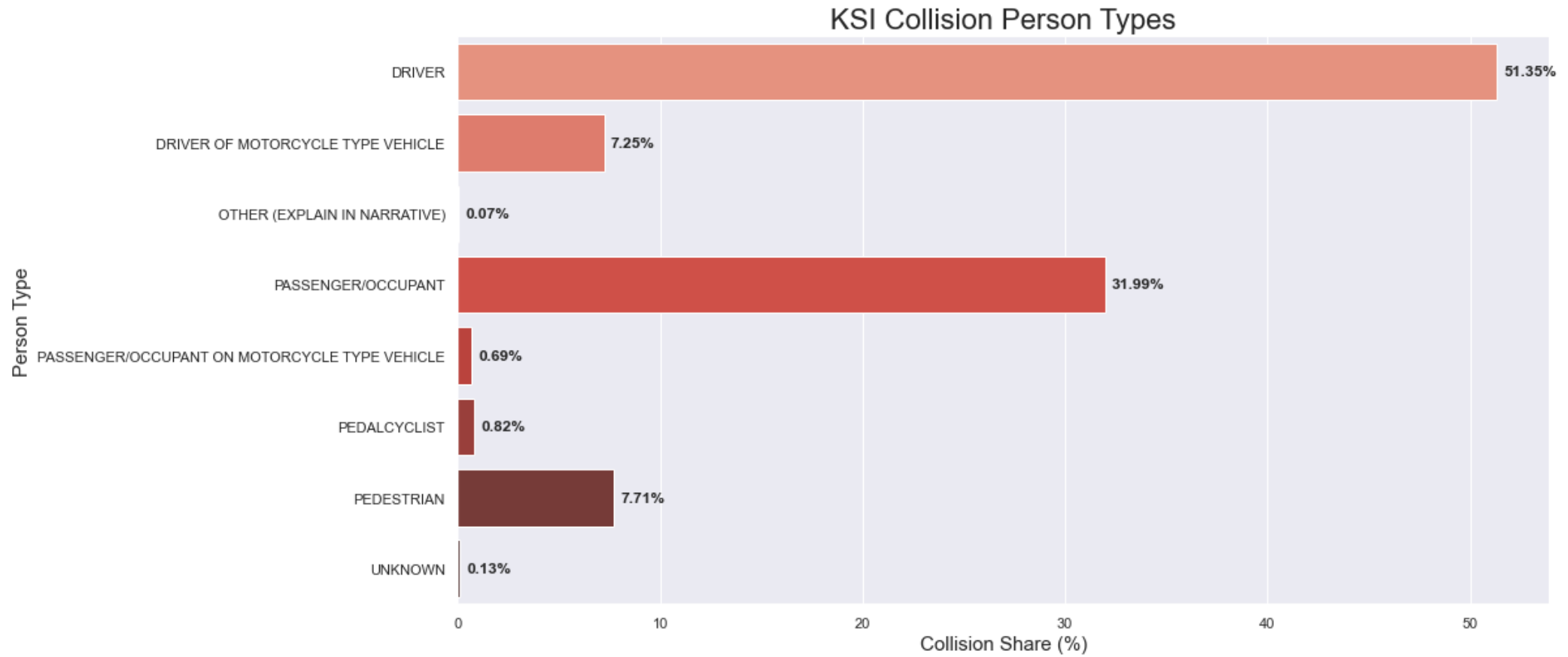
The majority of bike and ped collisions occur on streets with posted speed 30-35 mph

# Person Type - All

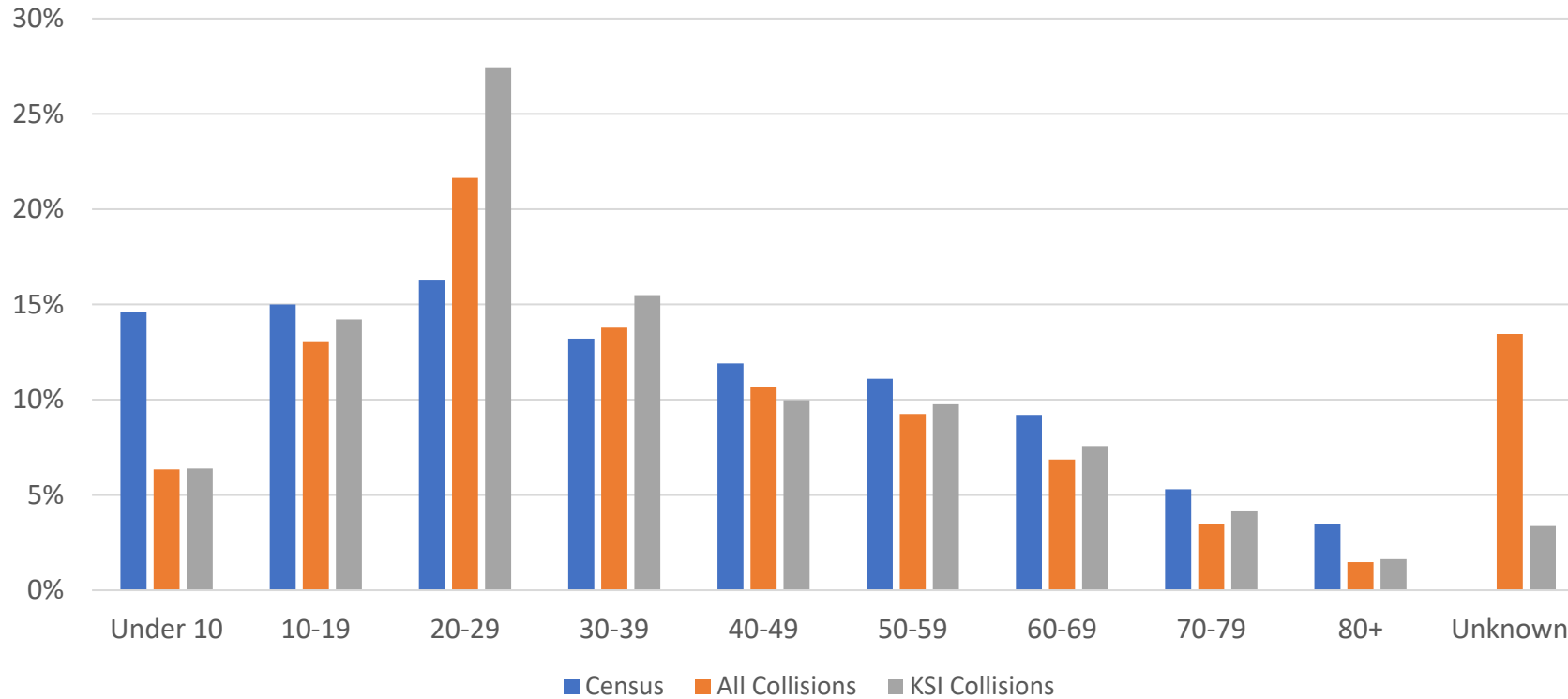




# Person Type - KSI

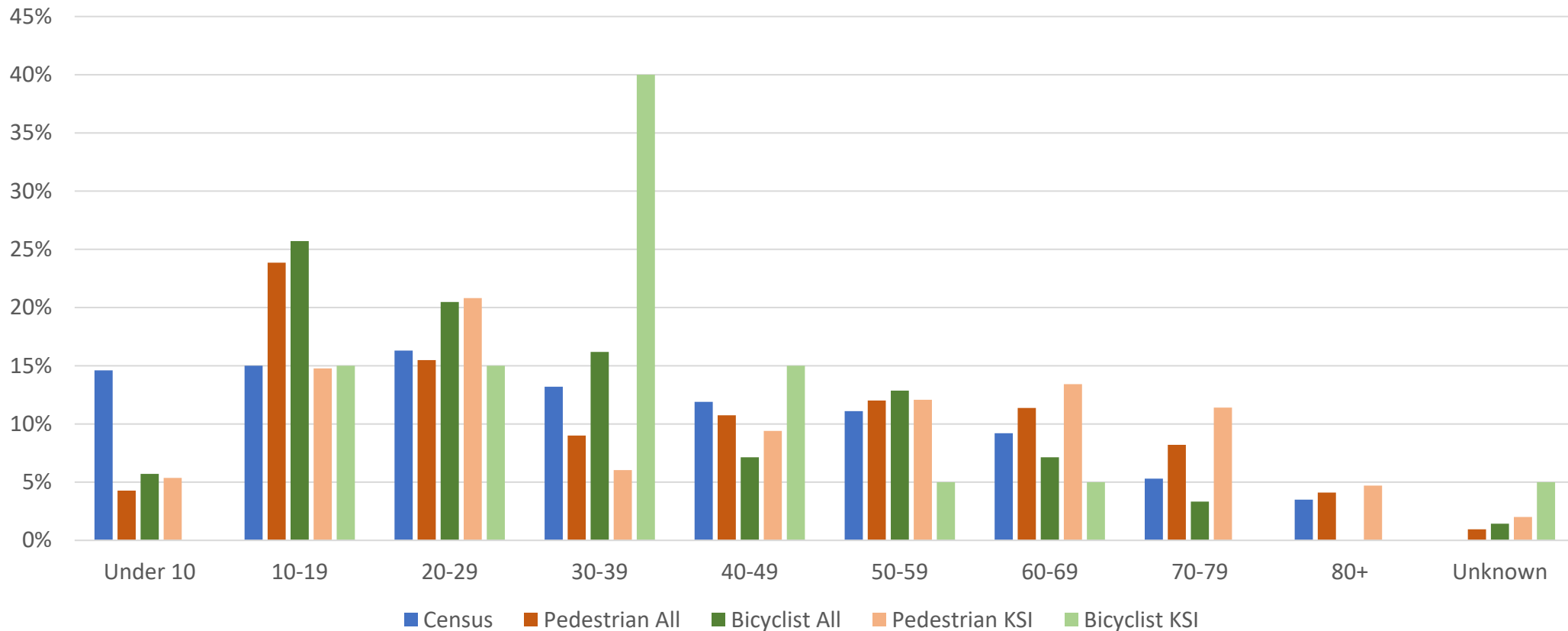


# Age – All



People age 20-29 are overrepresented in collisions and KSI collisions, compared to the census

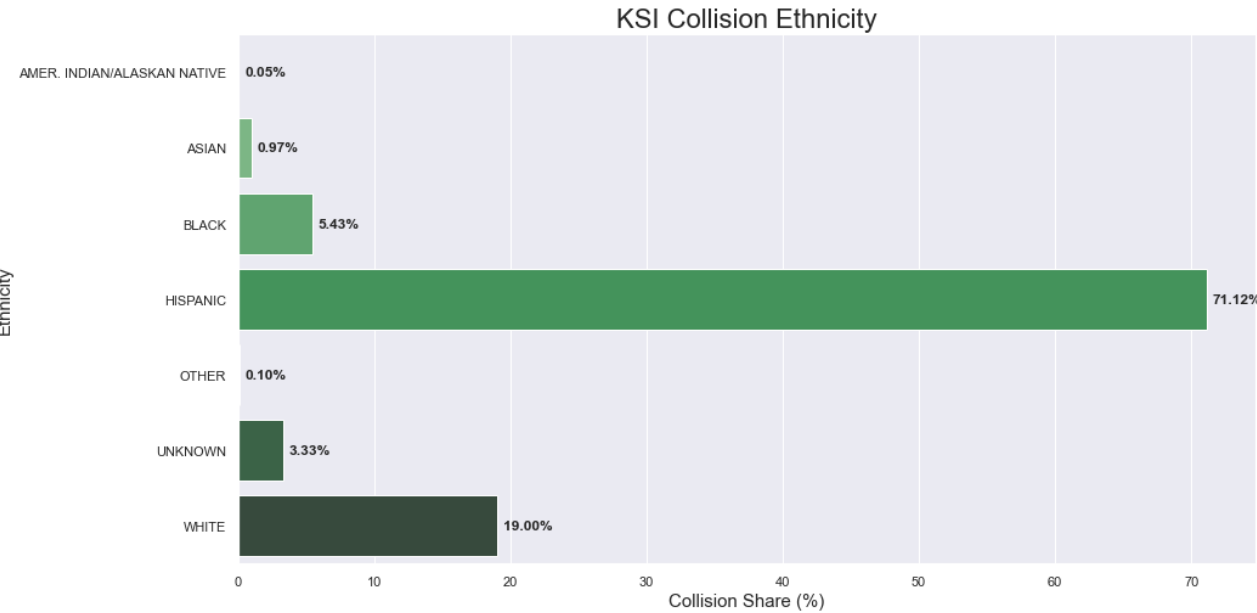
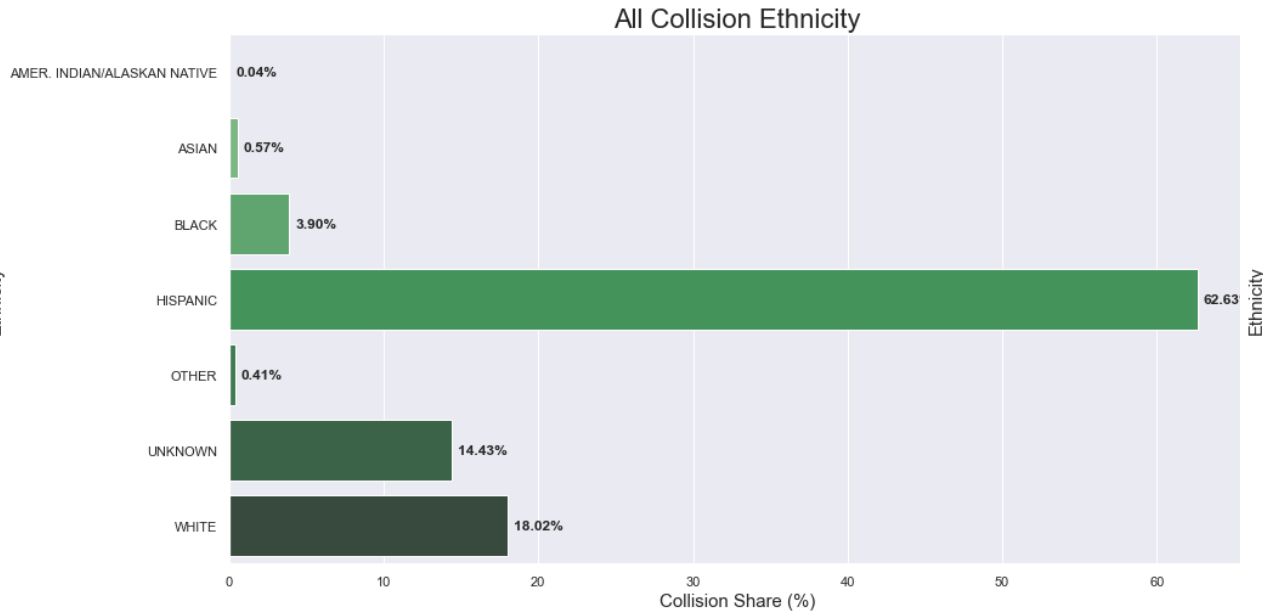
# Age – Bicyclists and Pedestrians



Bicyclists and pedestrians age 10-19 are overrepresented in collisions, compared to the census

Note: Bicyclist KSI numbers are very small, skewing percentages shown here

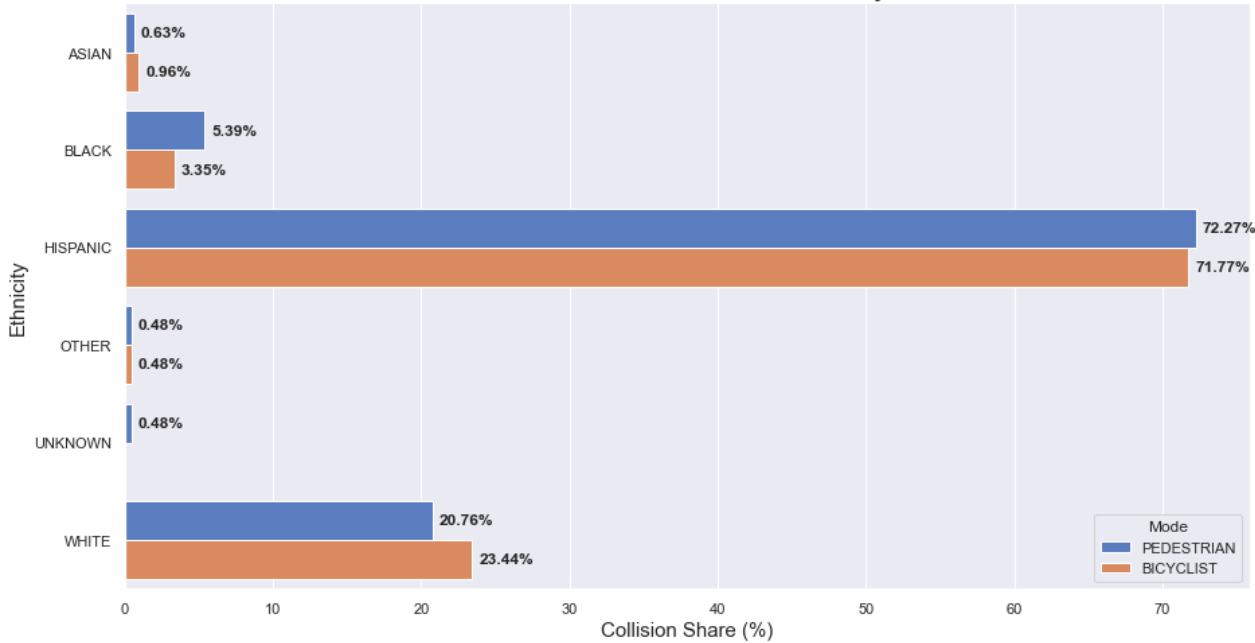
# Race & Ethnicity – All



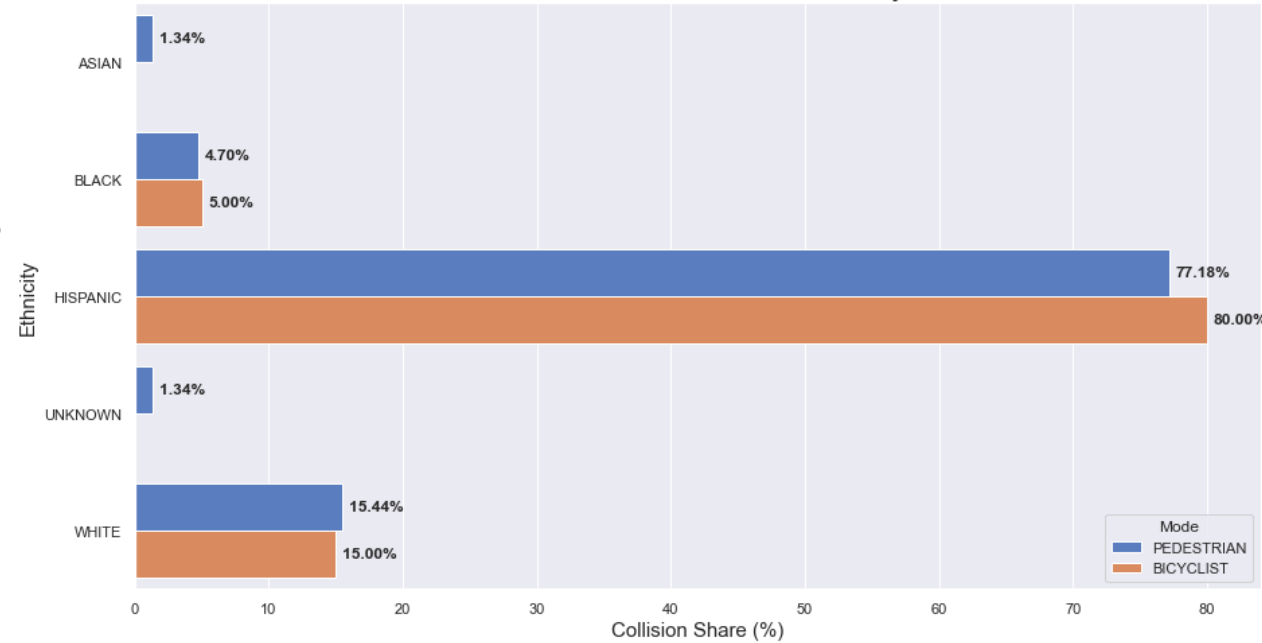
Black and white people are overrepresented in KSI collisions, compared to the census

# Race & Ethnicity – Bicyclists and Pedestrians

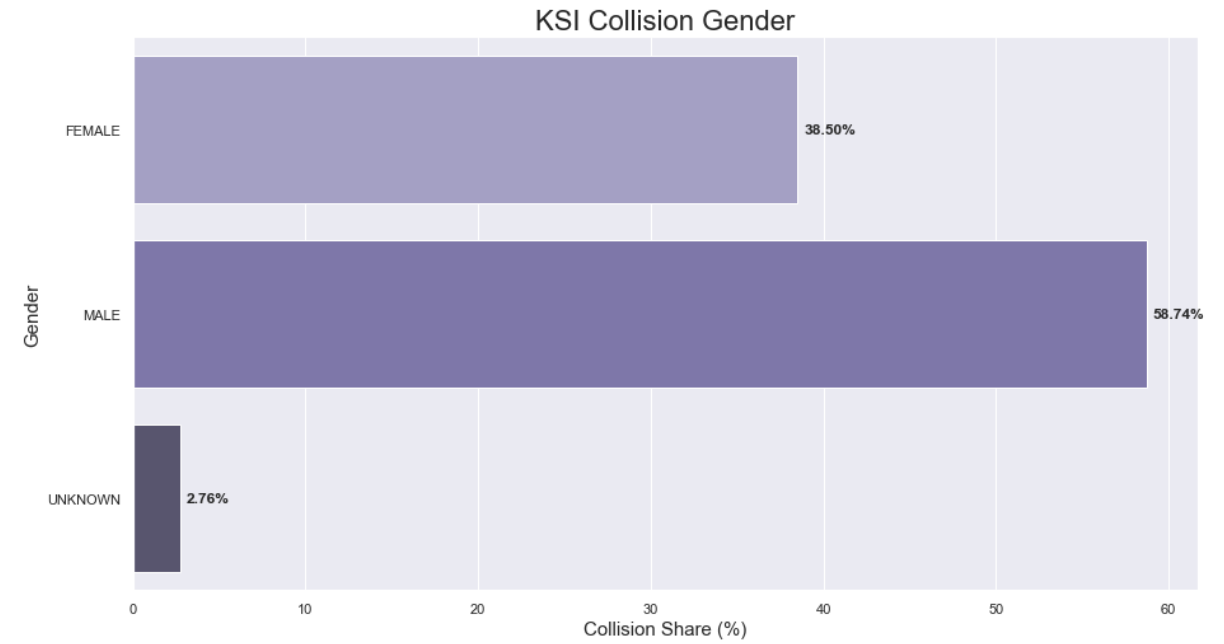
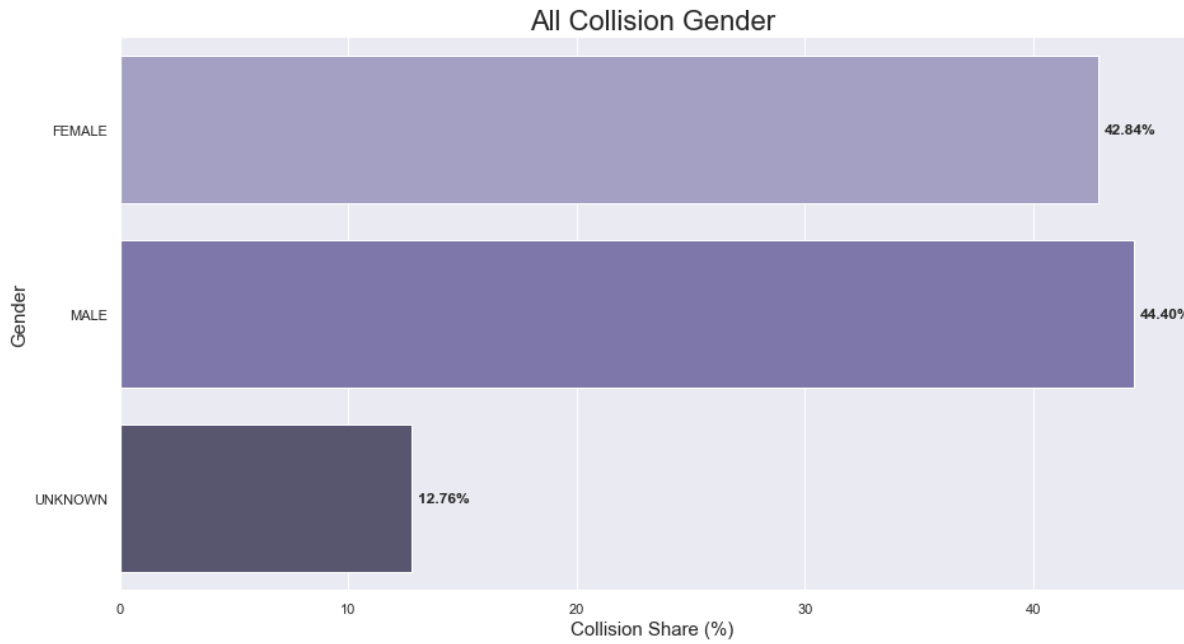
All Bike-Ped Collision Ethnicity



KSI Bike-Ped Collision Ethnicity



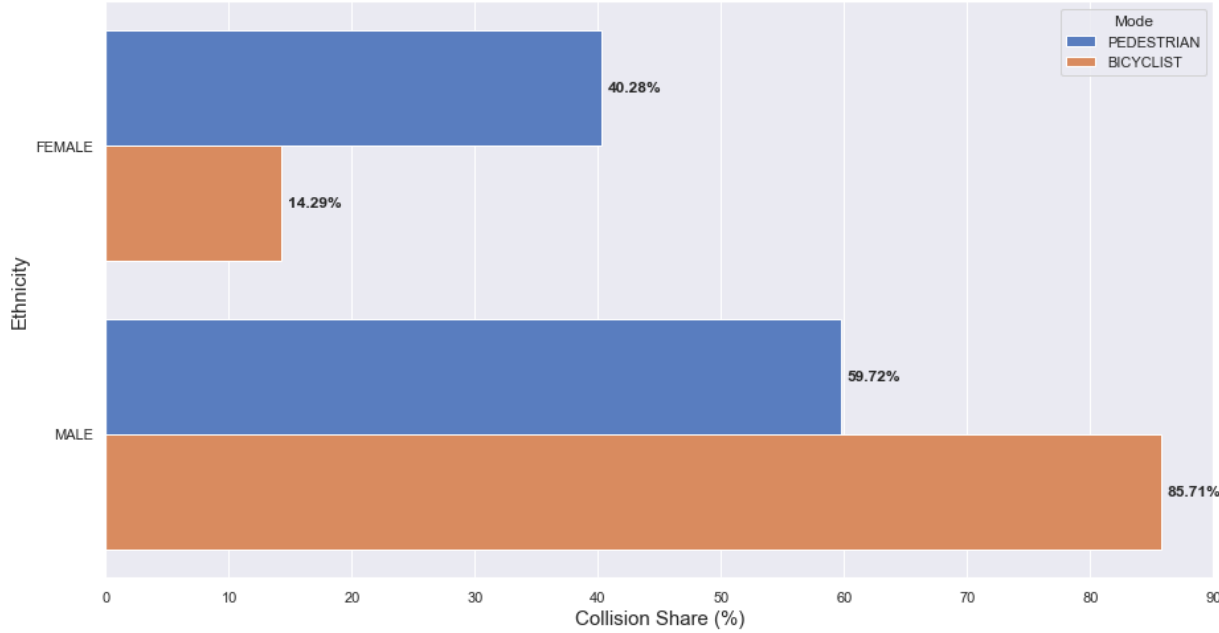
# Gender – All



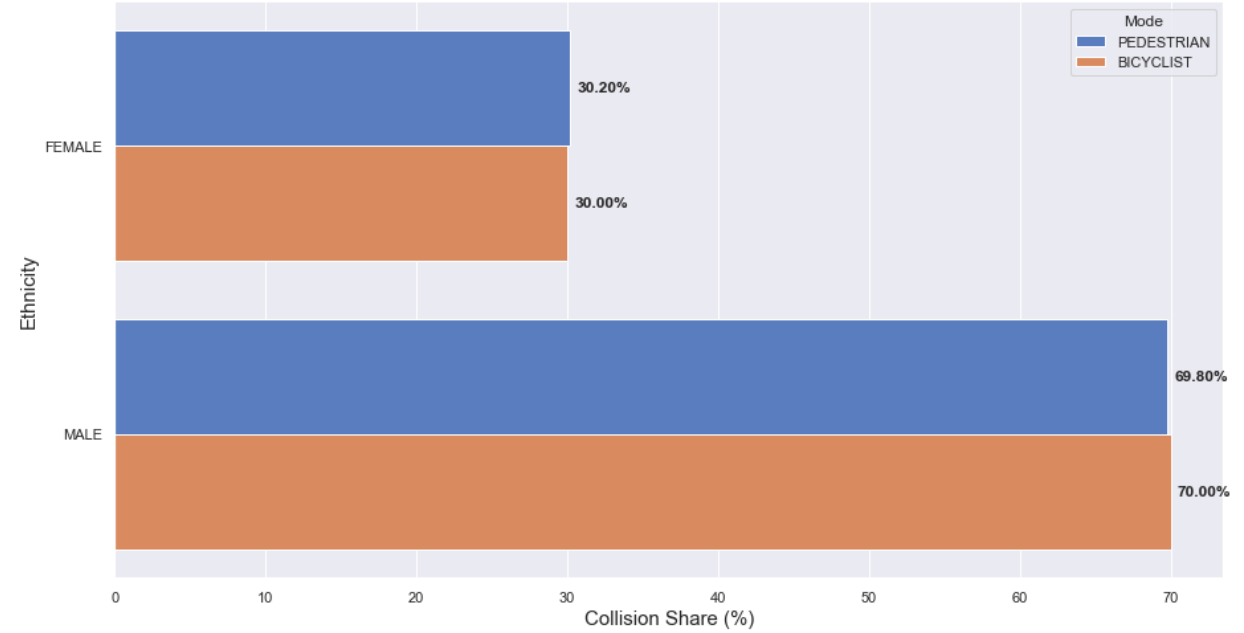
Men are overrepresented in KSI collisions, compared to the census

# Gender – Bicyclists and Pedestrians

All Bike-Ped Collision Gender



KSI Bike-Ped Collision Gender



# Vehicle Body Style – All Parties

VEH_BODY_STYL_ID	ALL_COUNT	ALL_SHARE	KSI_COUNT	KSI_SHARE
AMBULANCE	6	0.016879	0.000000	0.000000
BUS	125	0.351637	9.000000	0.629371
FARM EQUIPMENT	1	0.002813	0.000000	0.000000
FIRE TRUCK	8	0.022505	0.000000	0.000000
MOTORCYCLE	736	2.070440	171.000000	11.958042
NEV-NEIGHBORHOOD ELECTRIC VEHICLE	1	0.002813	0.000000	0.000000
OTHER (EXPLAIN IN NARRATIVE)	87	0.244740	3.000000	0.209790
PASSENGER CAR, 2-DOOR	2702	7.600990	126.000000	8.811189
PASSENGER CAR, 4-DOOR	15584	43.839316	582.000000	40.699301
PICKUP	4198	11.809384	159.000000	11.118881
POLICE CAR/TRUCK	32	0.090019	2.000000	0.139860
POLICE MOTORCYCLE	2	0.005626	0.000000	0.000000
SPORT UTILITY VEHICLE	5849	16.453809	211.000000	14.755245
TRUCK	884	2.486778	42.000000	2.937063
TRUCK TRACTOR	368	1.035220	29.000000	2.027972
UNKNOWN	3669	10.321256	45.000000	3.146853
VAN	1277	3.592326	51.000000	3.566434
YELLOW SCHOOL BUS	19	0.053449	0.000000	0.000000



# Contributing Factor for Parties at Fault (top 10)

All Parties at Fault

CONTRIB_FACTR_1_ID	ALL_COUNT	ALL_SHARE	KSI_COUNT	KSI_SHARE
FAILED TO CONTROL SPEED	3367	24.706487	108	21.343874
OTHER (EXPLAIN IN NARRATIVE)	2577	18.909598	82	16.205534
DRIVER INATTENTION	1200	8.805401	38	7.509881
FAILED TO YIELD RIGHT OF WAY - TURNING LEFT	990	7.264456	30	5.928854
FAILED TO YIELD RIGHT OF WAY - STOP SIGN	805	5.906956	25	4.940711
DISREGARD STOP SIGN OR LIGHT	571	4.189903	23	4.545455
DISREGARD STOP AND GO SIGNAL	404	2.964485	12	2.371542
FAILED TO YIELD RIGHT OF WAY - PRIVATE DRIVE	401	2.942471	6	1.185771
CHANGED LANE WHEN UNSAFE	348	2.553566	7	1.383399
FAILED TO YIELD RIGHT OF WAY - OPEN INTERSECTION	303	2.223364	10	1.976285

Driver Parties at Fault in Bike & Ped Collisions

CONTRIB_FACTR_1_ID	ALL_COUNT	ALL_SHARE	KSI_COUNT	KSI_SHARE
FAILED TO YIELD RIGHT OF WAY - TO PEDESTRIAN	152	35.849057	11	16.417910
OTHER (EXPLAIN IN NARRATIVE)	70	16.509434	11	16.417910
DRIVER INATTENTION	62	14.622642	8	11.940299
FAILED TO CONTROL SPEED	20	4.716981	9	13.432836
PEDESTRIAN FAILED TO YIELD RIGHT OF WAY TO VEHICLE	16	3.773585	7	10.447761
FAILED TO YIELD RIGHT OF WAY - STOP SIGN	14	3.301887	0	0.000000
FAILED TO YIELD RIGHT OF WAY - TURNING LEFT	14	3.301887	1	1.492537
DISTRACTION IN VEHICLE	8	1.886792	2	2.985075
BACKED WITHOUT SAFETY	7	1.650943	1	1.492537
UNDER INFLUENCE - ALCOHOL	7	1.650943	4	5.970149

Top contributing factors for parties at fault are “Failed to Control Speed,” “Driver Inattention,” “Failed to Yield Right of Way – Turning Left”

Top contributing factor for drivers at fault in bike/ped collisions is “Failed to Yield Right of Way to Pedestrian”

# Contributing Factor for Parties at Fault (top 10)

## Bike & Ped Parties at Fault

CONTRIB_FACTR_1_ID	ALL_COUNT	ALL_SHARE	KSI_COUNT	KSI_SHARE
OTHER (EXPLAIN IN NARRATIVE)	112	35.555556	17	26.984127
PEDESTRIAN FAILED TO YIELD RIGHT OF WAY TO VEHICLE	103	32.698413	32	50.793651
DRIVER INATTENTION	12	3.809524	0	0.000000
WRONG SIDE - APPROACH OR INTERSECTION	10	3.174603	3	4.761905
DISREGARD STOP AND GO SIGNAL	8	2.539683	0	0.000000
FAILED TO YIELD RIGHT OF WAY - OPEN INTERSECTION	8	2.539683	2	3.174603
HAD BEEN DRINKING	7	2.222222	0	0.000000
DISREGARD STOP SIGN OR LIGHT	7	2.222222	2	3.174603
UNDER INFLUENCE - ALCOHOL	7	2.222222	2	3.174603
FAILED TO STOP AT PROPER PLACE	6	1.904762	1	1.587302