

# Report on Traffic Accidents in Denver 2012

Presented by:

Camilo Perez

Michelle Luong

Neda Rostami

Sylvie Wette

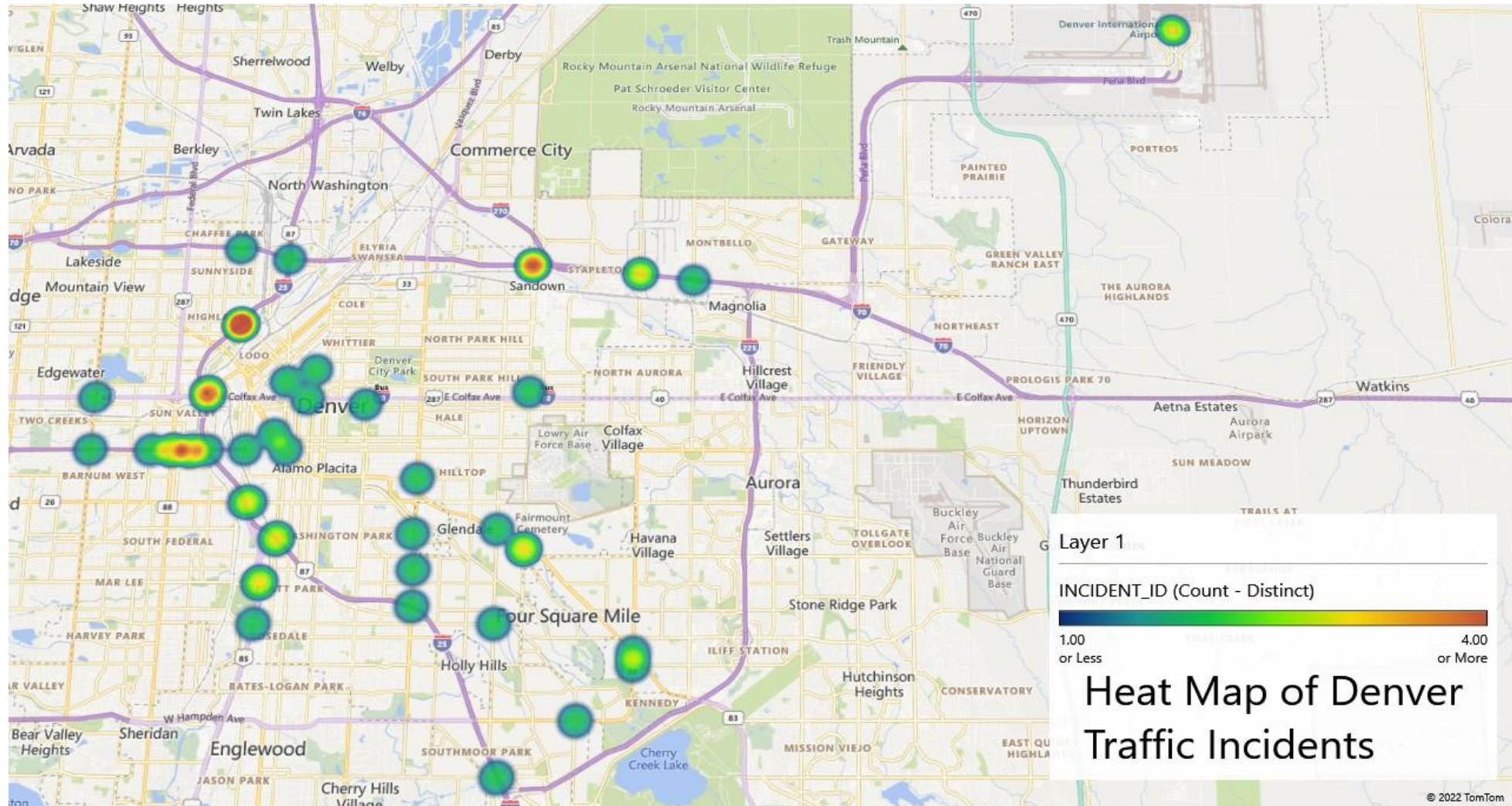
# Executive Summary

Traffic incidents represent a major concern to all who use roadways – drivers, pedestrians, bicyclists, and transit riders, but are also of interest to municipal leaders and planners, who work to minimize them.

People injured or death by traffic accidents are counted by thousands, but such statistics only hint at the tragedy experienced by individuals, families, and communities. These crashes incur **large costs including property damage, medical expenses, lost productivity, excess traffic congestion, and the pain and suffering associated with an injury or fatal crash.**

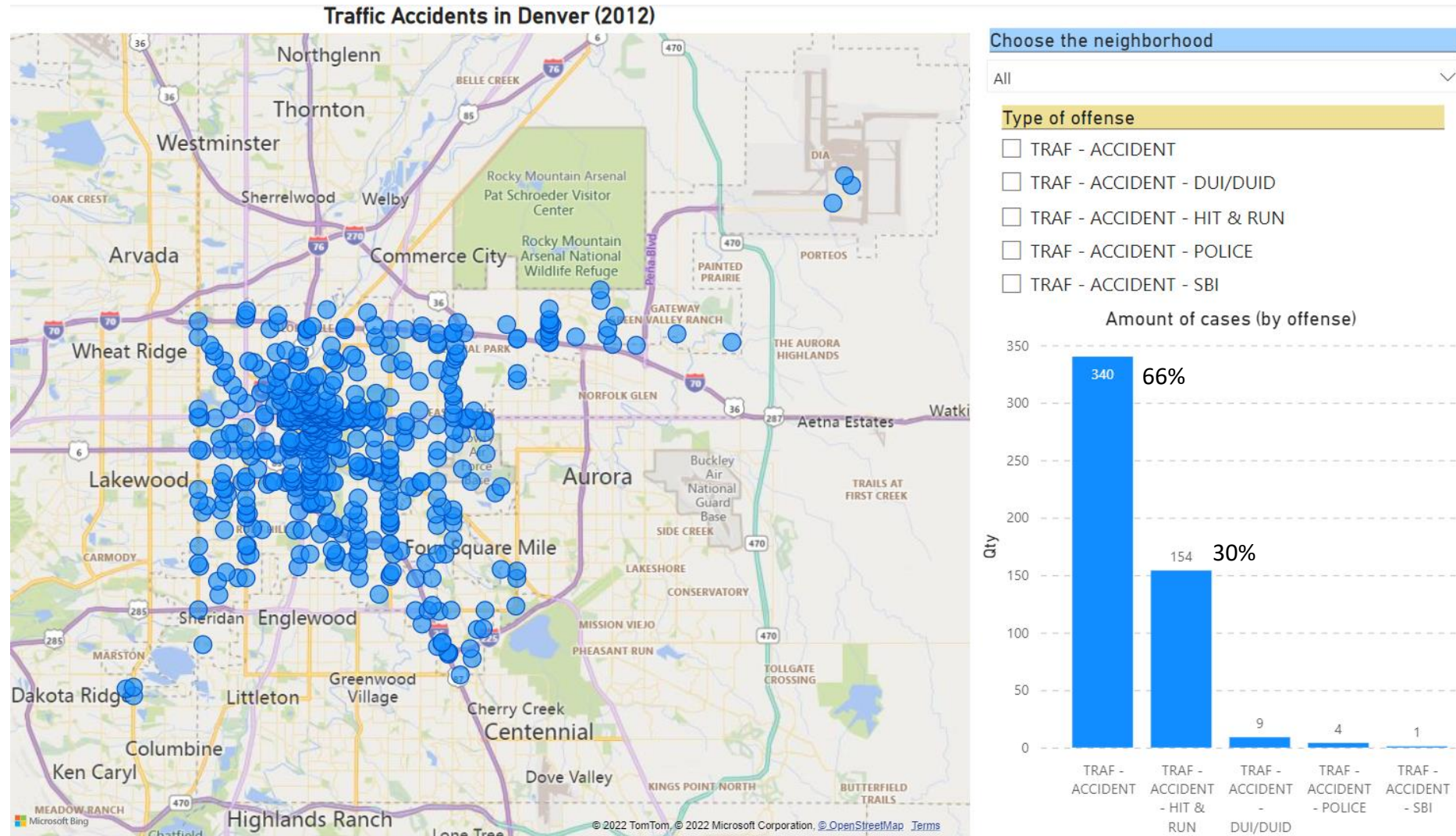
The purpose of this analysis is to produce actionable insights and provide them to planners, engineers, elected officials, and the general public to implement strategies to reduce its occurrence and limit the damages.

# Findings and importance

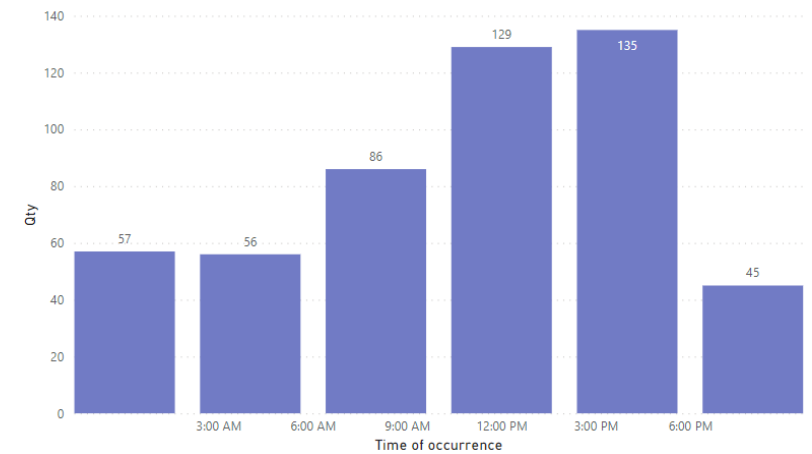
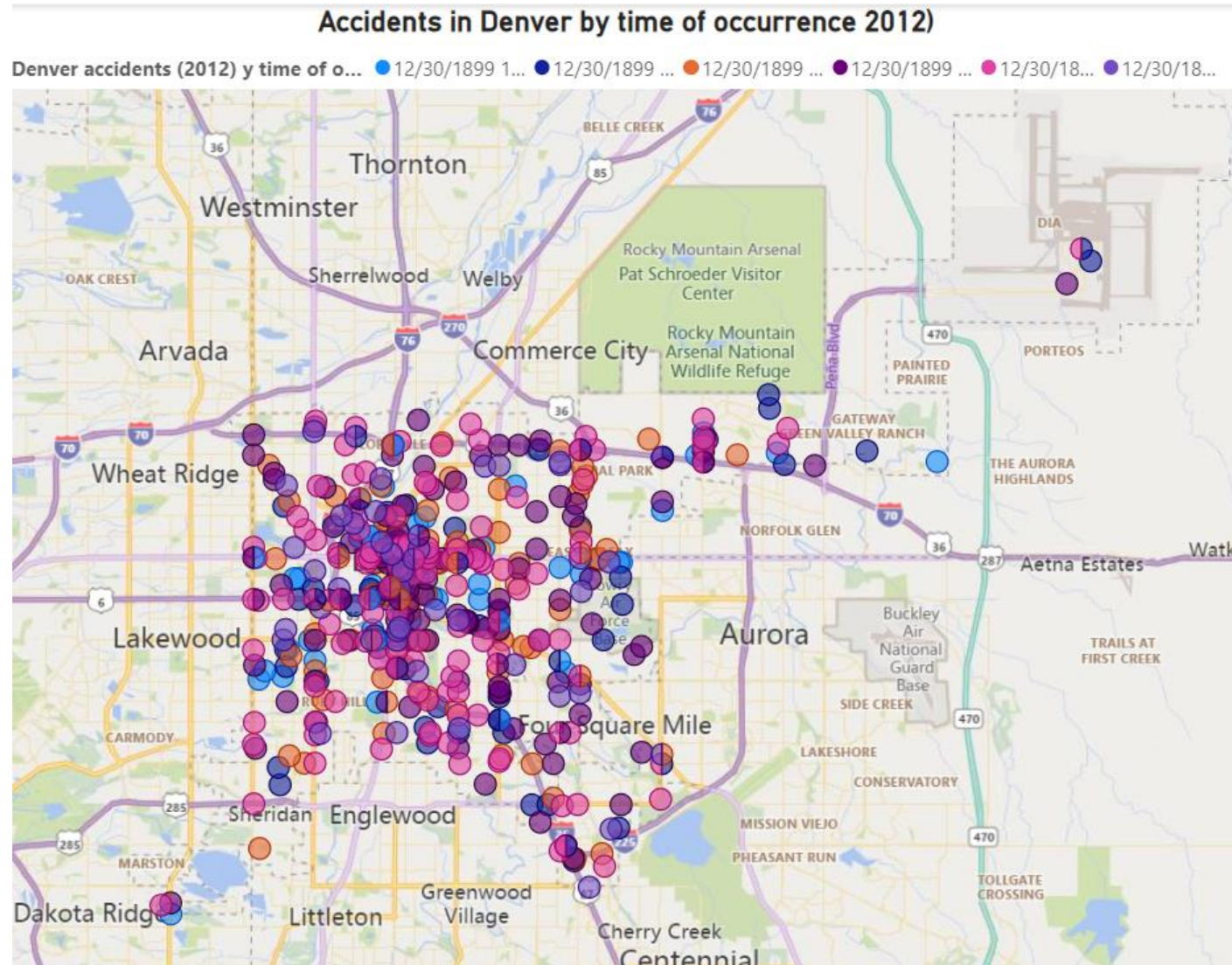




# Findings and importance



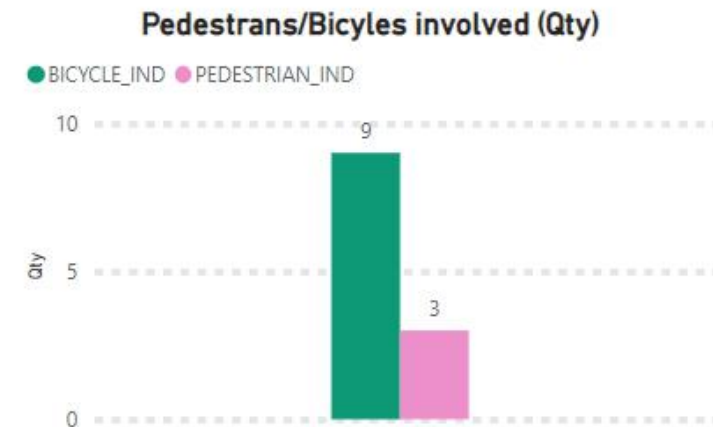
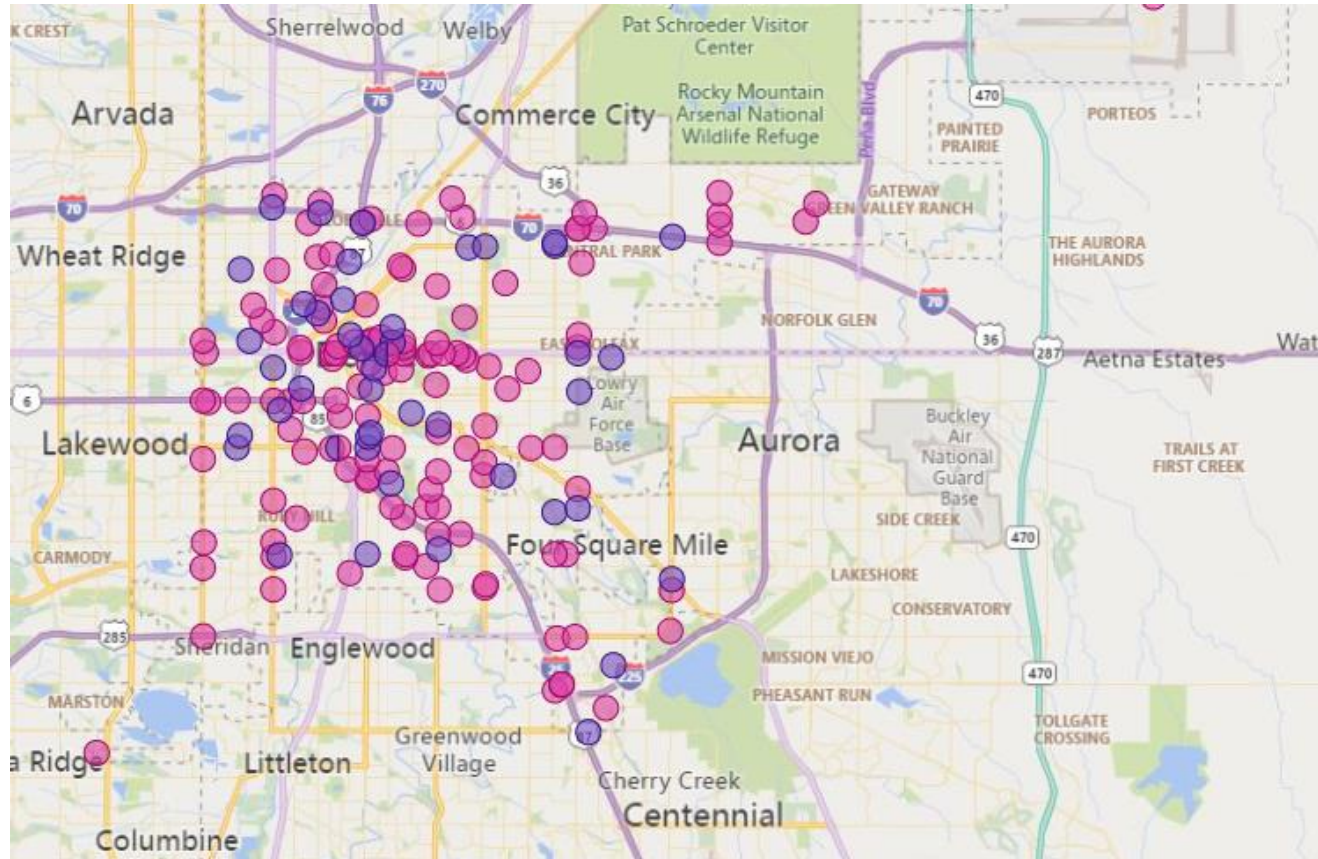
# Findings and importance



Almost 70% of the accidents happened during day hours, so low lighting conditions are not the most influential factor.

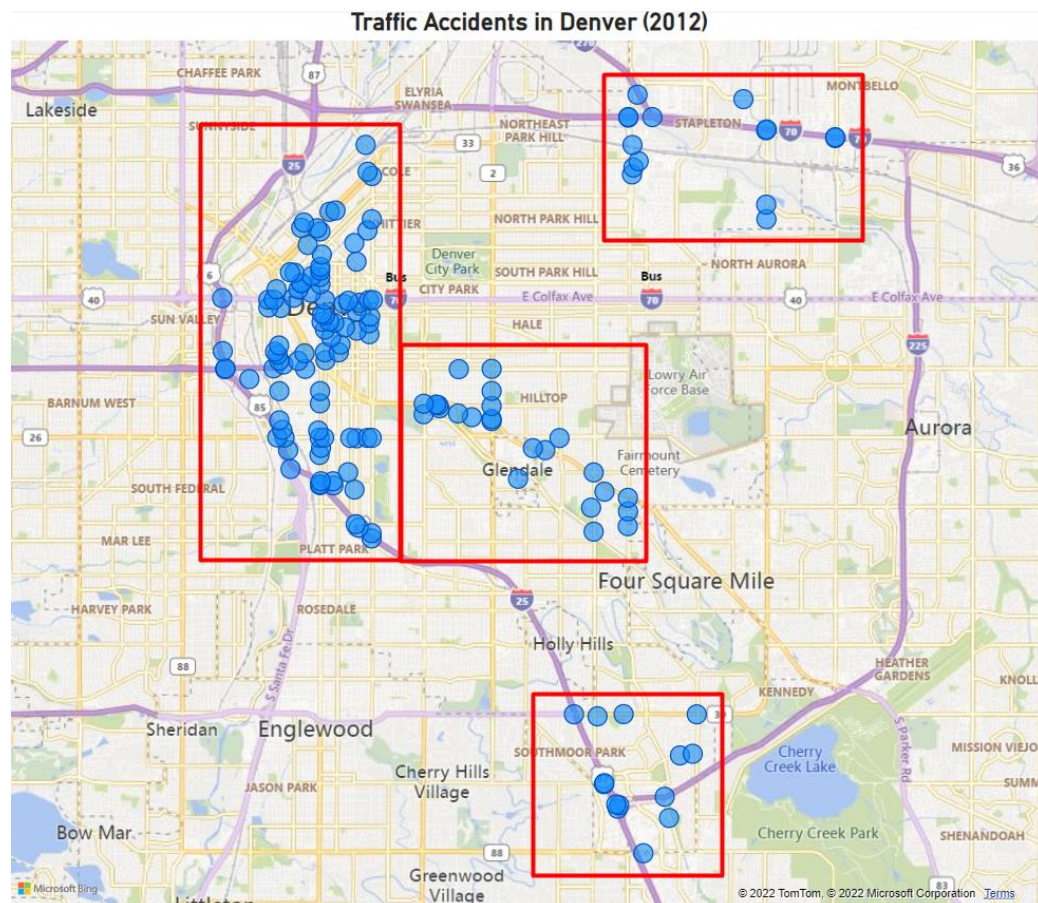


# Supporting Information



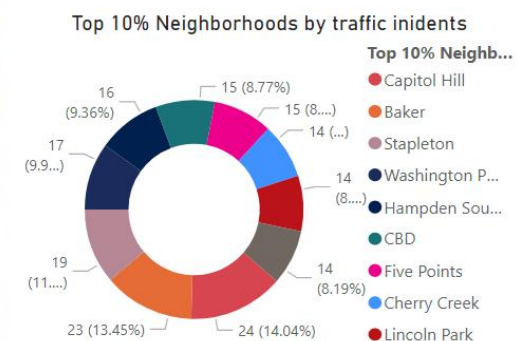
Incidents involving bicycles occur mainly between 16:00 and midnight, when people are returning home after work. Physical exhaustion can be considered a cause for accidents during this time.

# Supporting Information



Choose the neighborhood

Multiple selections



OBJECTID_1	INCIDENT_ID	OFFENSE_CATEGORY_ID	INCIDENT_ADDRESS	ISOLATED INCIDENT?	NEIGHBORHOOD_ID
393	2012587525	TRAF - ACCIDENT	600 BLOCK E COLFAX AVE	SAME CROSSROAD	Capitol Hill
424	2012510446	TRAF - ACCIDENT - DUI/DUI	757 E 20TH AVE	SAME CROSSROAD	Five Points
51	2012453286	TRAF - ACCIDENT	E 18TH AVE / N BROADWAY ST	SAME CROSSROAD	CBD
162	2012420181	TRAF - ACCIDENT	E HAMPDEN AVE / S YOSEMITE ST	SAME CROSSROAD	Hampden South
591	2012447277	TRAF - ACCIDENT	I225 HWYNB / I25 HWYSB	SAME CROSSROAD	Hampden South
622	2012501369	TRAF - ACCIDENT - HIT & RU	I25 HWYNB / S BROADWAY ST	SAME CROSSROAD	Washington Park West
670	2012138721	TRAF - ACCIDENT	I25 HWYSB / W COLFAX AVE	SAME CROSSROAD	Lincoln Park
693	2012109998	TRAF - ACCIDENT	I70 HWYWB / N HAVANA ST	SAME CROSSROAD	Stapleton
703	20124509	TRAF - ACCIDENT	I70 HWYWB / N NORTHFIELD QUE	SAME CROSSROAD	Stapleton
992	2012387902	TRAF - ACCIDENT	S MONACO ST / E EXPOSITION AV	SAME CROSSROAD	Washington Virginia Vale
1003	201246065	TRAF - ACCIDENT	S PARKER RD / S QUEBEC ST	SAME CROSSROAD	Washington Virginia Vale
1019	2012172370	TRAF - ACCIDENT	S SANTA FE DR / W ALAMEDA AVE	SAME CROSSROAD	Baker
1103	2012414894	TRAF - ACCIDENT	W 6TH AVE / N KALAMATH ST	SAME CROSSROAD	Baker

30% of the incidents (171/508) occurred in these 10 neighborhoods. They have in common the proximity to the city center (Highly crowded) and that have been reported as recurrent zones.

# Recommendations

- The peak incidence time (12m - 8pm) can have as a subjacent cause the high number of vehicles returning from work or school to their homes and, highly likely, day fatigue.
- Bike-involving incidents occur around 4 pm and early evening. Wearing a reflective jacket to be seen at a long distance could help to reduce those incidents.
- Road safety education and public advocacy is necessary for all actors involved.
- Improve road conditions and adequate signaling will reduce incidents.
- Infrastructure maintenance should become a priority for transit authorities.



# Aspects that require further clarification

- Some attributes from the original data set were not present and include them can be beneficial for the analysis and recommendations.

Variable	Description	Variable present on the data set provided	Its important for further analysis? , Justify.
FATALITIES	Indicates the number of people who were fatally injured as a result of the crash	N	Yes, Could be used for safety campaigns.
FATALITY_MODE_1	Indicates the mode (means of travel) of a person fatally injured as a result of the crash, not related to traffic unit number	N	Yes, Could be used for safety campaigns.
FATALITY_MODE_2	Indicates the mode (means of travel) of a second person fatally injured as a result of the crash, not related to traffic unit number	N	Yes, Could be used for safety campaigns.
ROAD_CONDITION	Describes the roadway conditions at the time and location of the crash	N	Yes, because it might provide information on infrastructure conditions and maybe lead to improves on the equipment and/or locative construction
ROAD_CONTOUR	Describes the specific location of the crash relating to horizional and vertical curves at the location of the first harmful event	N	Yes, because it might provide information on infrastructure conditions and maybe lead to improves on the equipment and/or locative construction
ROAD_DESCRIPTION	Describes the specific location of the crash in relation to intersections, alleys, driveways, highway interchanges, and parking lots	N	Yes, because it might provide information on infrastructure conditions and maybe lead to improves on the equipment and/or locative construction
SERIOUSLY_INJURED	Indicates the number of people who were seriously injured as a result of the crash	N	Yes, Could be used for safety campaigns.
SERIOUSLY_INJURED_MODE_1	Indicates the mode (means of travel) of a person seriously injured as a result of the crash, not related to traffic unit number	N	Yes, Could be used for safety campaigns.
SERIOUSLY_INJURED_MODE_2	Indicates the mode (means of travel) of a second person seriously injured as a result of the crash, not related to traffic unit number	N	Yes, Could be used for safety campaigns.
TOP_TRAFFIC_ACCIDENT_OFFENSE	The most significant motor vehicle accident offense associated with the crash (in order, most to least): FATAL, SBI, HIT & RUN, DUI, POLICE, ACCIDENT	N	Yes, could be used as part of the ROOT CAUSE and reduce it thru policy design

