Seattle Department of Transportation

2023 Traffic Report

DATA FROM JANUARY 1 - DECEMBER 31, 2022

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Seattle Department of Transportation

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EXECUTIVE SUMMARY

In 2022, Seattle experienced continued changes in traffic patterns from the easing of the COVID-19 pandemic and reopening of the West Seattle High-Rise Bridge. Transit, pedestrian, bicycle and traffic volumes were generally higher than in 2021 but remained below pre-COVID-19 levels. Since the inception of the Vision Zero program in 2015, the total number of fatal and serious injury collisions have been on an upward trend. The following are key findings based on 2022 and historical data:

- In 2022, average daily traffic has rebounded to 86% of 2019 pre-Covid volumes within the city.
- From 2019 to 2022, the Seattle population has increased by over 15,000 residents, or a 2% increase.
- In 2022, transit ridership has rebounded to 56% of 2019 pre-COVID volumes in the region.
- From 2019 to 2021, the share of commuters working from home increased from 8% to 47%, however from 2021 to 2022, the share decreased to 36%.
- The West Seattle Bridge re-opened in September 2022, and 70% of pre-closure volumes returned.
- In 2022, bike volumes increased by 11% compared to 2021, but were still 27% less than 2019 volumes.
- In 2022, pedestrian volumes increased by 25% from 2021 but were still 27% less than 2019 volumes.
- 2022 police reported collisions remained consistent with 2021 numbers.
- The 2022 citywide collision rate decreased by 33% from 2021. Even though the overall number of collisions remained comparable to 2021, the rate dropped due to a rebound in traffic volumes.
- The number of fatal collisions in 2022 was the same as in 2021, however the number of serious injury collisions was 19% higher.
- The 2022 numbers of serious injury and fatal collisions continues to trend upwards.
- Serious injury and fatal pedestrian collisions comprised 27% of total pedestrian collisions, compared to 23% in 2021.
- Serious injury and fatal bicycle collisions comprised 13% of total bicycle collisions, compared to 9% in 2021.

This report presents the traffic data that – along with our department plans and policies – serve as the foundation of project and program decisions. The breadth and depth of the data collected allows objective discussion of project merits and results, be it a new crosswalk or an entire safety corridor. As the demands and complexity of Seattle's transportation network grow, the information supporting decisions about that network continues to expand and now includes significant data on people walking, biking, and freight.

This report is prepared in compliance with Seattle Municipal Code 11.16.220, and beyond this legal requirement, the report strives to serve as an accessible reference of Seattle traffic data and trends for all. In gathering and compiling the information in this report, the Seattle Department of Transportation does not waive the limitations on this information's discoverability or admissibility under 23 U.S.C § 409.

Additional information about traffic data and collisions on Seattle streets can be found on the Seattle Open Data Portal and SDOT webpage at www.seattle.gov/transportation/.

Greg Spotts
SDOT Director

Venu Nemani, P.E.
SDOT City Traffic Engineer

SAFEWAY
Wendy's
APARTMENTS

Traffic Volumes and Speeds

The Seattle Department of Transportation (SDOT) collects and maintains volume data for vehicles (including freight and buses), people walking, and biking. Engineers and planners use volume data to select future project locations, support grant applications, and track the performance of projects once they are installed.

SDOT collects and purchases vehicle speed data in addition to volume data. Speed data is particularly useful for making traffic safety decisions such as those connected with traffic calming, Safe Routes to School, Seattle's Vision Zero program, and crossing improvements.

Speed data also provides important information about the types of vehicles using city streets, including motorcycles, cars, buses, and numerous types of trucks. Such data gives planners and engineers a better understanding of the movement of people and goods within the city.

MOTOR VEHICLE VOLUMES

SDOT is responsible for counting the volume of traffic on certain city arterial streets each year.

SDOT conducts control counts at about 20 locations every month. These counts are used to create monthly control factors. These factors can be applied to every count collected to adjust for seasonal changes in traffic. SDOT also measures vehicle volume at approximately 250 additional locations. The locations of control and other regular counts are shown on maps and tables in the Supporting Data at the end of this report. SDOT also measures vehicle volume at ad hoc locations throughout the year as needed for traffic analysis and engineering studies.

Traffic volumes, reported collisions, and speeds are the three cardinal pieces of data traffic engineers and planners use to evaluate changes to Seattle rights-of-way.

Using the annual counts taken at 13 bridges in Seattle (including I-5, I-90, SR 520, and 1st Ave S), SDOT derives a proxy number for citywide motor vehicle Average Daily Traffic (ADT) volume. Traffic volumes were fairly level between 2012 and 2019.

Beginning in 2020, the combination of the COVID-19 pandemic, a shift to mass telecommuting, and the emergency closure of the West Seattle High-Rise Bridge led to a sharp decrease in traffic volumes. In 2022, the traffic volumes rebounded but remained below pre-COVID and pre-West Seattle High-Rise Bridge closure numbers. Figure 1 shows Seattle's overall ADT trend since 2012. Population, transit ridership, and employment trends are shown in Figures 2 through 5, along with commute mode share for context.

Key Findings

- In 2022, average daily traffic has rebounded to 86% of 2019 pre-Covid volumes within the city.
- From 2019 to 2022, the Seattle population has increased by over 15,000 residents, or a 2% increase.
- In 2022, transit ridership has rebounded to 56% of 2019 pre-COVID volumes in the region.
- From 2019 to 2021, the share of commuters working from home increased from 8% to 47%, however from 2021 to 2022, the share decreased to 36%.

FIGURE 1: AVERAGE DAILY TRAFFIC (ADT) IN SEATTLE

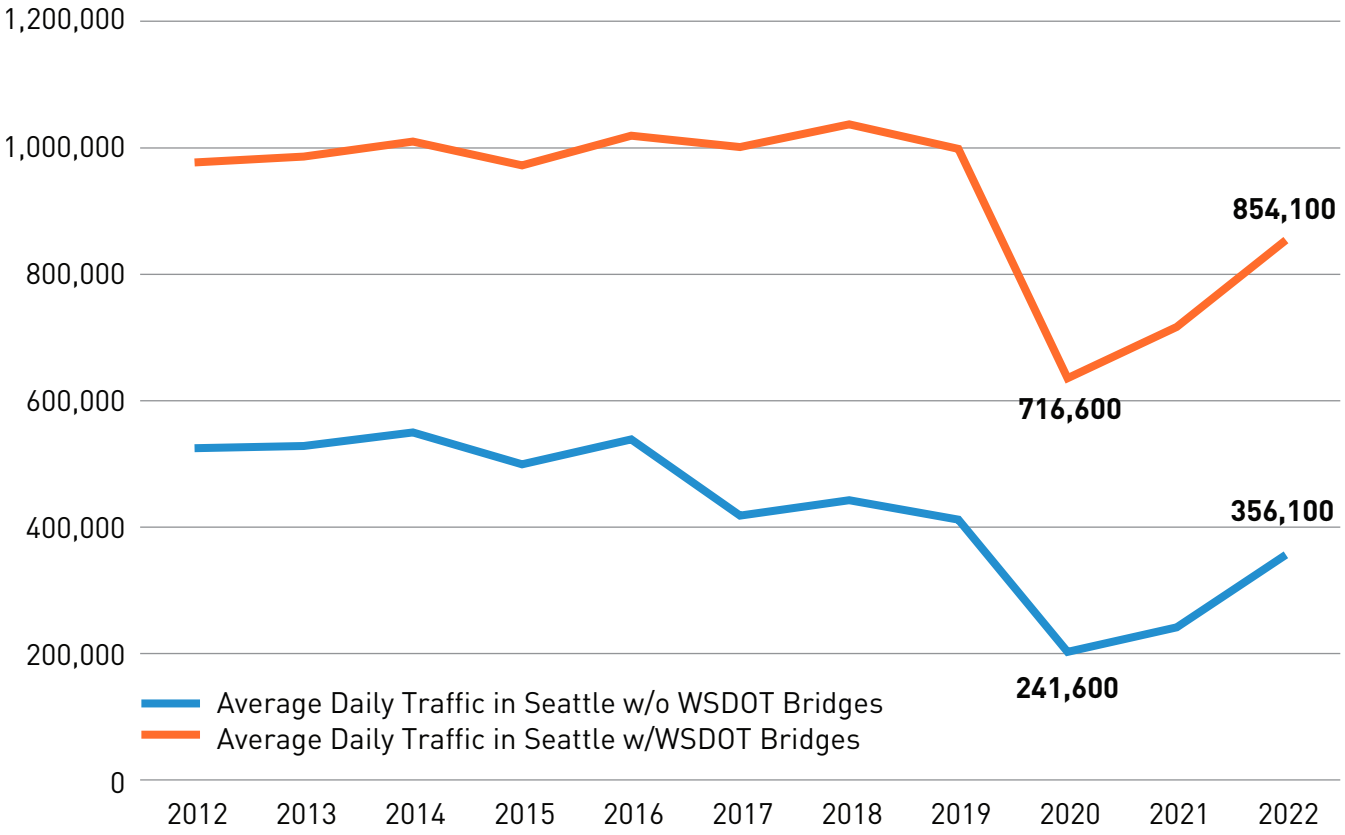


FIGURE 2: SEATTLE POPULATION

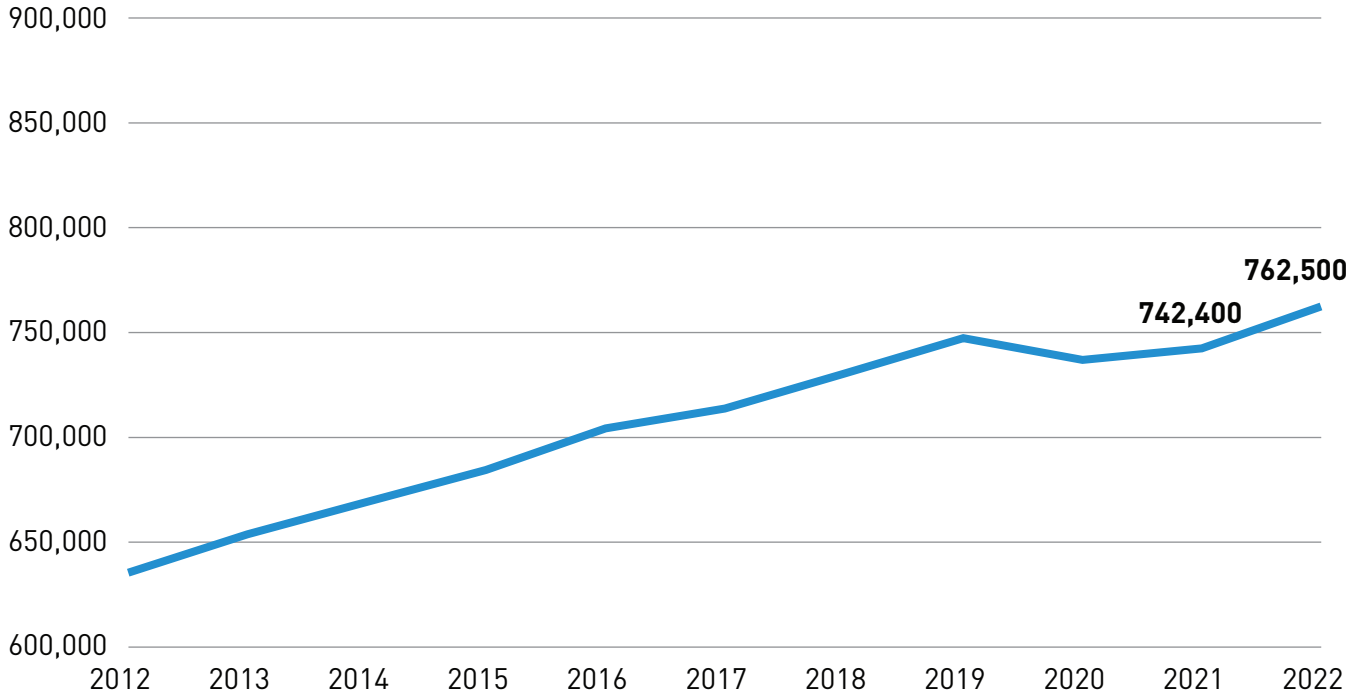
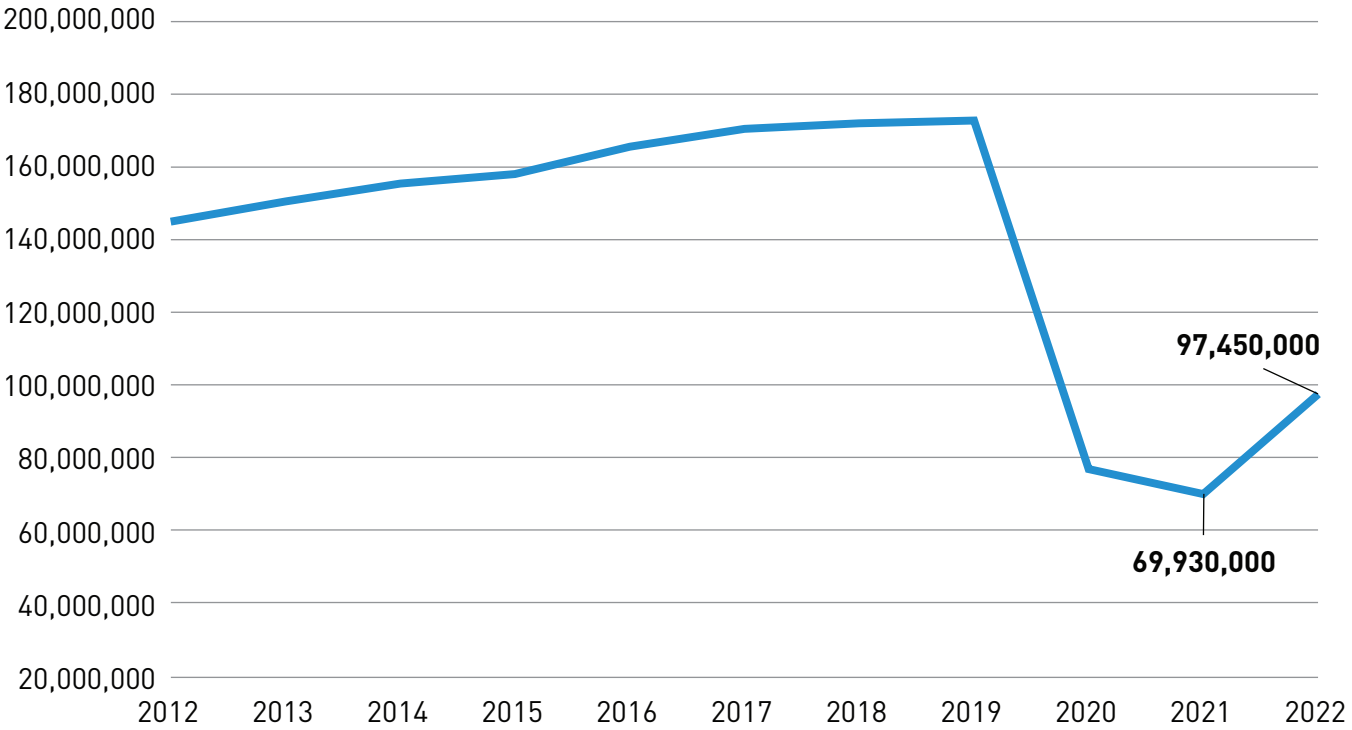
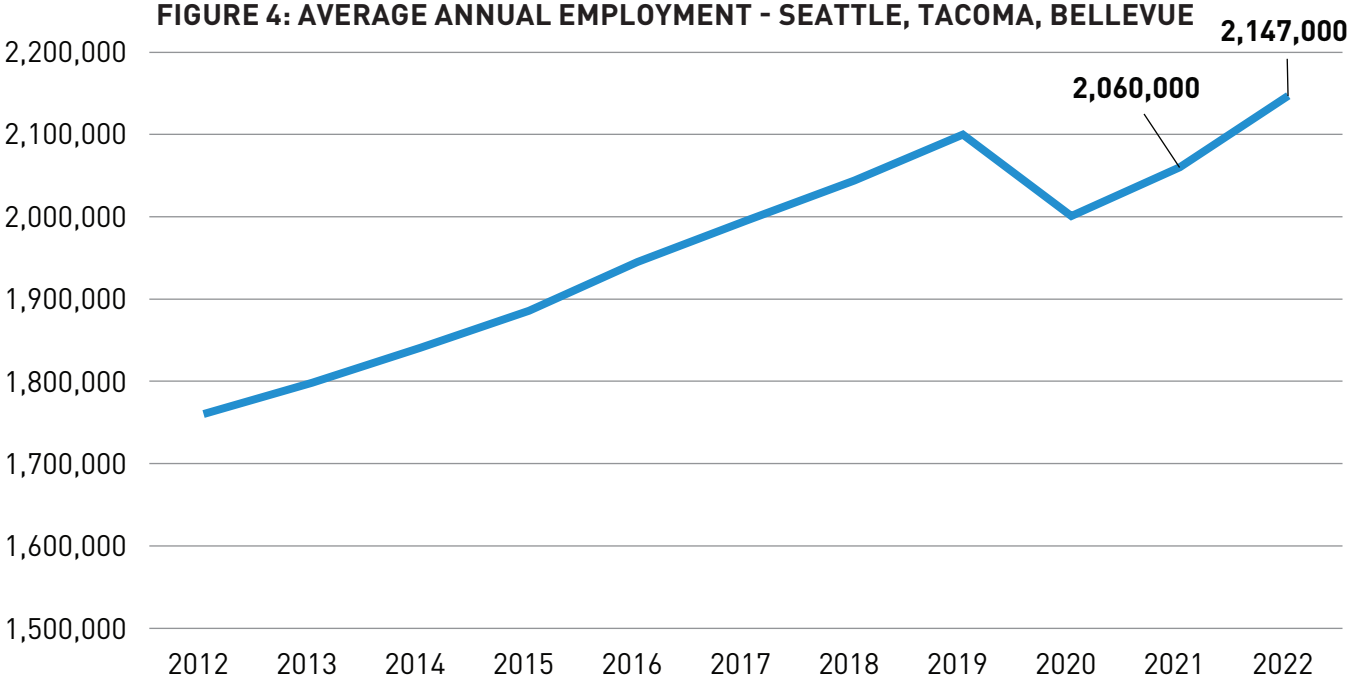


FIGURE 3: ANNUAL REGIONAL TRANSIT RIDERSHIP



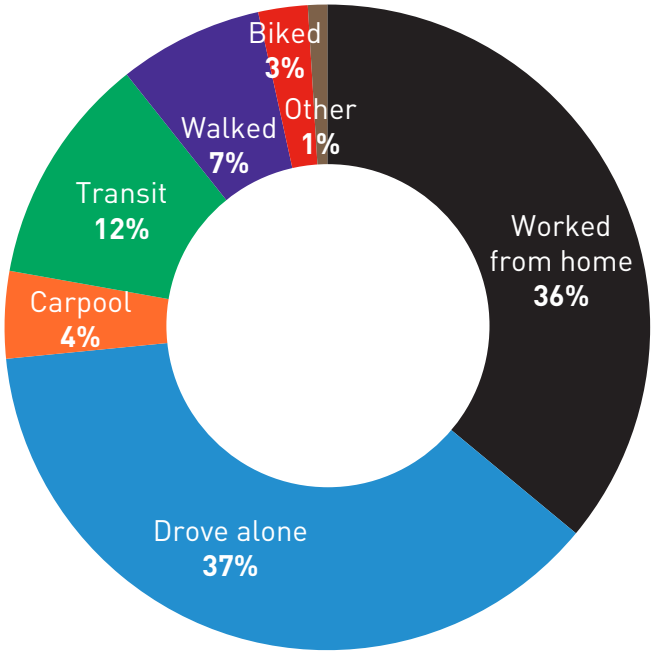
*Annual Regional Transit Ridership is shown as tabulated in Table 15.

FIGURE 4: AVERAGE ANNUAL EMPLOYMENT - SEATTLE, TACOMA, BELLEVUE



Source: Bureau of Labor, 2022, https://beta.bls.gov/dataViewer/view/timeseries/LAUMT534266000000005

FIGURE 5: SEATTLE COMMUTE MODE SHARE



Source: US Census Bureau,
https://data.census.gov/ table/ACSDT1Y2022.
B08301?q=seattle+B08301&g=160XX00US5363000

TRAFFIC FLOW AND ARTERIAL CLASS MAPS

The 2022 Traffic Flow Map, shown in Figure 6, and the Arterial Classification Map, shown in Figure 7, are two products of the volume counts program. The volumes on the map represent the Average Weekday Daily Traffic (AWDT) (Monday through Friday, 24-hour) for that section of roadway. A full-size version of this map is available on SDOT's website at: www.seattle.gov/transportation/document-library/reports-and-studies

Table 1 lists the ten busiest arterials Average Weekday Daily Traffic (AWDT) as measured in 2022. In general, traffic volumes on city streets in 2022 were higher than in 2021 but remained below pre-COVID-19 levels. The West Seattle High-Rise Bridge reopening in September 2022 impacted traffic volumes in the West Seattle and Duwamish River Valley corridors. After the Bridge reopened, approximately 70% of the trips returned from the 2019 baseline AWDT of 84,100.

Key Findings

The West Seattle Bridge re-opened in September 2022, and 70% of pre-closure volumes returned.

TABLE 1: TOP 10 ARTERIALS BY VOLUME (AWDT)

Top 10 Arterials by Volume - as measured in 2022	Average Weekday Daily Traffic (AWDT)
1st Ave S Bridge	85,000
West Seattle High-Rise Bridge	59,200
Aurora Bridge	54,000
Montlake Bridge	54,000
East Marginal Way, N/O 1st Ave S	53,600
S Spokane St, E/O 1st Ave S	45,700
Mercer St, E/O Westlake Ave N	44,100
Ballard Bridge	36,600
Elliott Ave W, NW/O W Mercer Pl	32,400
Denny Way, W/O 2nd Ave	29,400

FIGURE 6: 2022 SEATTLE TRAFFIC FLOW MAP

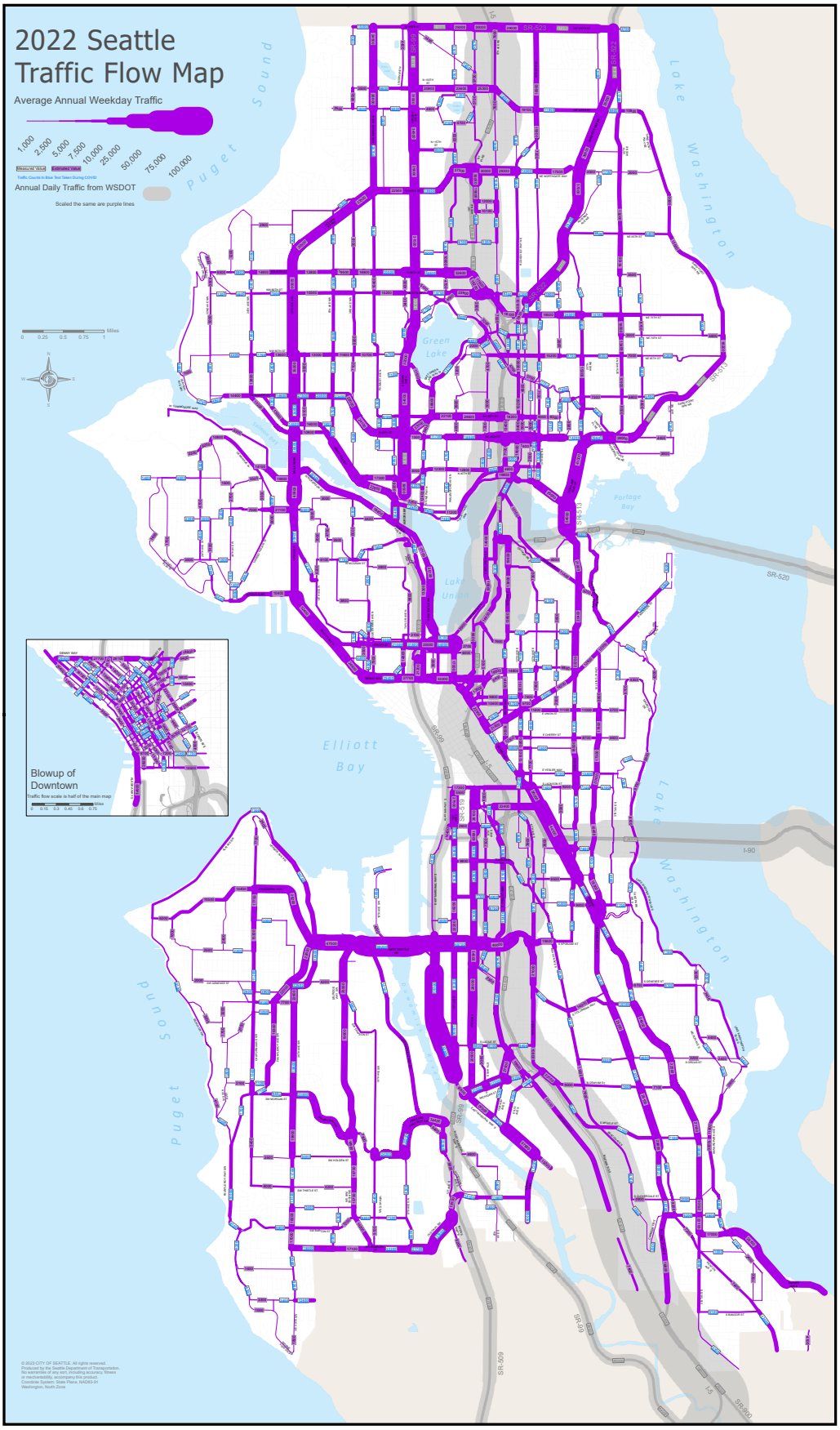
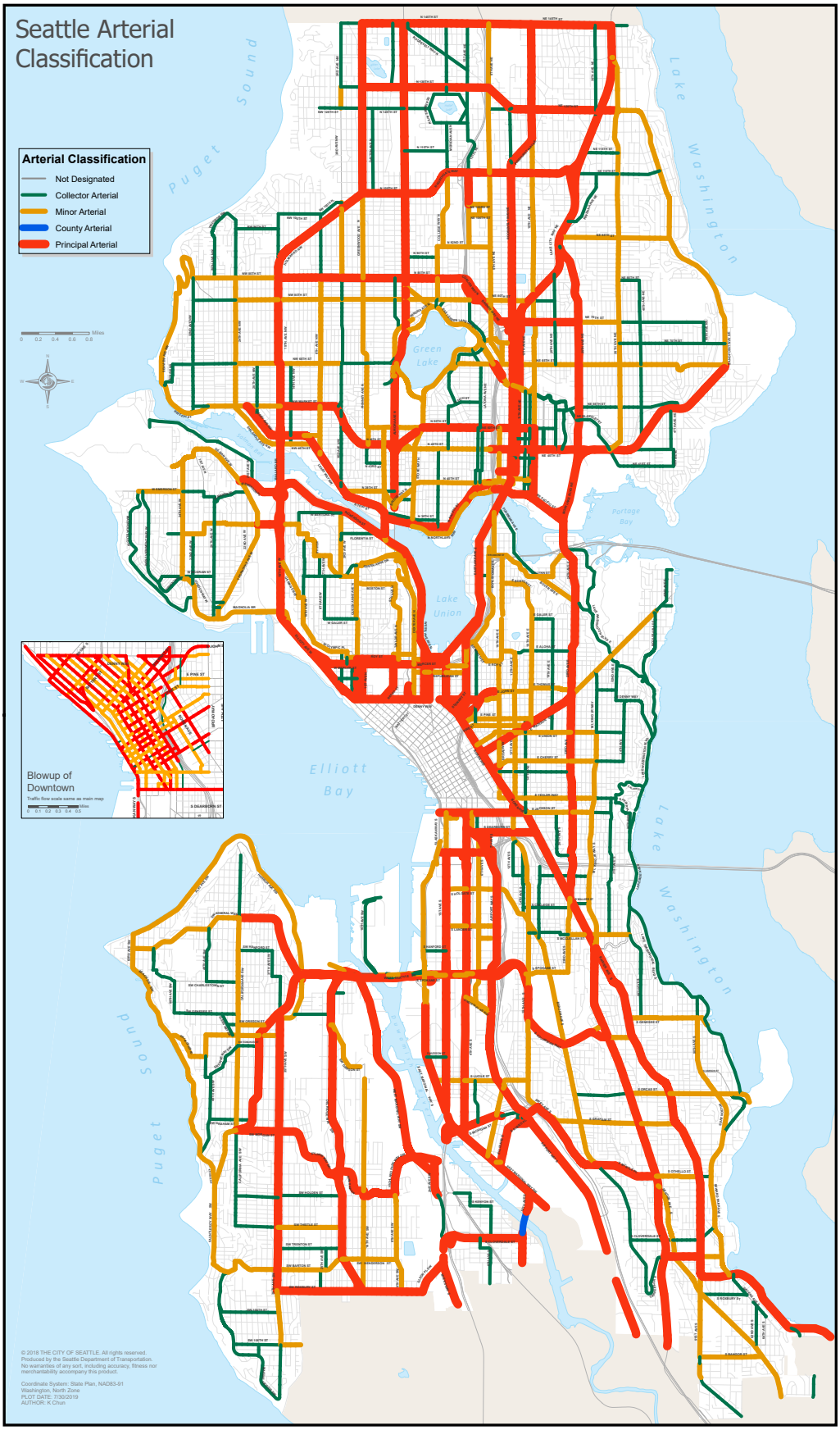


FIGURE 7: SEATTLE ARTERIAL CLASSIFICATION



BICYCLE VOLUMES

In 2022, SDOT collected volumes of people biking with three different programs: automated permanent bicycle counters at 4 locations, about 100 multiday short counts, and regular spot counts at 50 intersections.

Key Findings

In 2022, bike volumes increased by 11% compared to 2021, but were still 27% less than 2019 volumes.

Automated Bicycle Counters

The automated permanent bicycle counters collect volumes at 4 locations collect bike data 24 hours a day, 7 days a week. This data shows both hourly and daily patterns of people biking and allows the effects of weather and other factors to be evaluated. The first automated permanent bicycle counter was installed in October 2012 to count people biking across the Fremont Bridge on both eastern and western sidewalks. The location is Seattle's busiest bicycle count location. As seen in Figure 8, the total bike volume for 2022 was 797,500, which represents an 11% increase compared to 2021, but was still 33% less than 2019 volumes. 2022 marks the tenth full year of complete data for the Fremont Bridge bike counter.

The impact of COVID-19 pandemic and the induced shift to teleworking continues to impact volumes of people biking. Table 2 provides more detailed breakdowns of the Fremont Bridge bike count data for 2022 as well as the 3 other permanent bike count locations.

FIGURE 8: PERMANENT BIKE COUNTER COUNT TOTAL

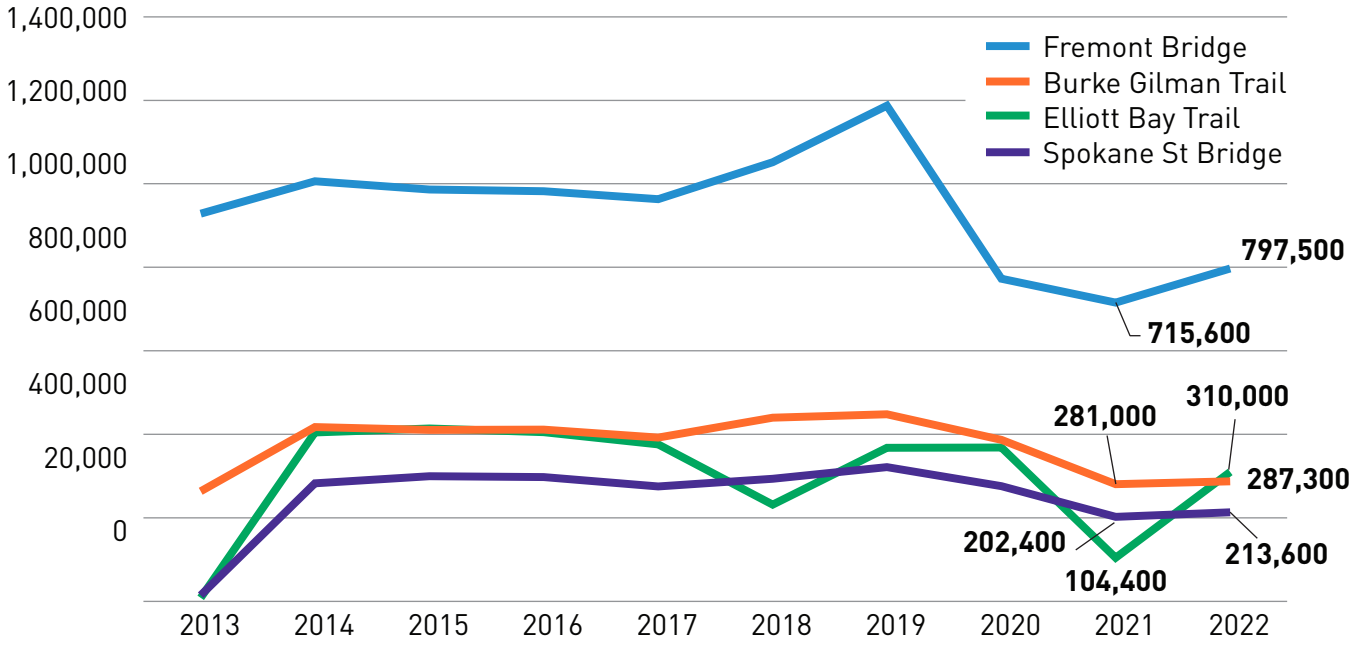


TABLE 2: 2022 PERMANENT BIKE COUNTER SUMMARY

	Burke Gilman Trail, north of NE 70th St	Elliott Bay Trail in Myrtle Edwards Park	Fremont Bridge Sidewalks, south of N 34th St	Spokane St. Bridge, west of 11th Ave SW
Daily Average	800	800	2,200	600
Average weekdays	700	800	2,300	600
Average weekend traffic	1,100	900	1,800	400
Daily Median	800	800	2,200	600
Peak Count	2,500	1,800	4,200	1,500
Peak Day	Saturday June 25, 2022	Saturday June 25, 2022	Saturday August 13, 2022	Tuesday July 19, 2022
Average peak day of the week	Sunday	Saturday	Wednesday	Wednesday

In addition to the Fremont Bridge permanent bike counter, 2022 marks the tenth continuous year of full counts from three other permanent bike counters on multi-use trails.

To obtain total annual bike count numbers, SDOT used the day of the year data to fill in data gaps from the permanent bike counters in accordance with the National Cooperative Highway Research Program (NCHRP) Report 797 methodology. The results are shown in Table 3, presenting the total annual bike count at 4 locations from 2018 to 2022.

TABLE 3: BICYCLE PERMANENT COUNTS

Site	2018 Annual Count	2019 Annual Count	2020 Annual Count	2021 Annual Count	2022 Annual Count
Burke Gilman north of NE 70th St	348,100	511,700	420,000	311,200	310,000
Elliott Bay in Myrtle Edward Park	439,700	287,300	387,200	378,600	287,300
Fremont Bridge Bike Counter	1,051,900	1,187,200	772,600	715,600	797,500
Spokane St Bridge*	239,500	321,800	285,600	269,400	261,800

*Spokane St Bridge bike counts may have been influenced by the West Seattle High-Rise Bridge closure/detours and the corresponding mode shift.

Multiday Short Bike Counts

In 2022, SDOT conducted about 100 multiday short bike counts in different parts of the city in addition to the permanent bike counting locations. These 7-day bike counts provide a snapshot of the number of people biking across a wider geographic area than the locations with permanent bike counters. These multiday short bike counts support the Bicycle Master Plan's ridership performance measurement and/or ad-hoc projects across Seattle.

Using bike volumes from the permanent counting locations, SDOT created daily volume factors to extrapolate short bike counts into annual volume estimates for approximately 100 locations (as per NCHRP report 797). Because of the high seasonal variation in volume of people biking, the daily summer volume is often higher than the annual average daily volume. In contrast, the number of people biking in the winter is lower than the annual average. Table 17 in the Appendix presents the multiday short bike counts extrapolated into annual volume estimates.

Quarterly Citywide Bike Counts

In 2011 SDOT began a systematic bicycle counts program that uses the National Bicycle and Pedestrian Documentation (NBPD) methodology to count bicycles and pedestrians at 50 locations citywide multiple times a year. These counts were taken quarterly in winter, spring, summer, and autumn from 2011 to 2013 and 2020 onwards and were taken three times a year from 2014 to 2019. For every count iteration, the volume of people biking was collected during the weekday AM peak (7-9 am), the weekday PM peak (5-7 pm), and Saturday (noon-2pm) time periods. Figure 9 shows the annual bike count trend from 2012 to 2022 by season. Figure 10 represents the quarterly sum of bike counts at those 50 locations collected quarterly using the NBPD methodology.

In 2022, the quarterly citywide bike count program documented 25,400 people biking. The overall number of people biking rebounded from 2020, but it was still lower compared to the pre-COVID-19 conditions. We also conducted short counts in different locations and have permanent counters. These counts provide a better assessment of daily ridership due to longer periods of counts. From the NBPD count analysis Fremont Ave N showed the most overall ridership with approximately 3,500 total weekday riders.

FIGURE 9: NBPD SPRING, SUMMER, FALL AND WINTER QUARTER BIKE VOLUMES FOR THE PAST DECADE

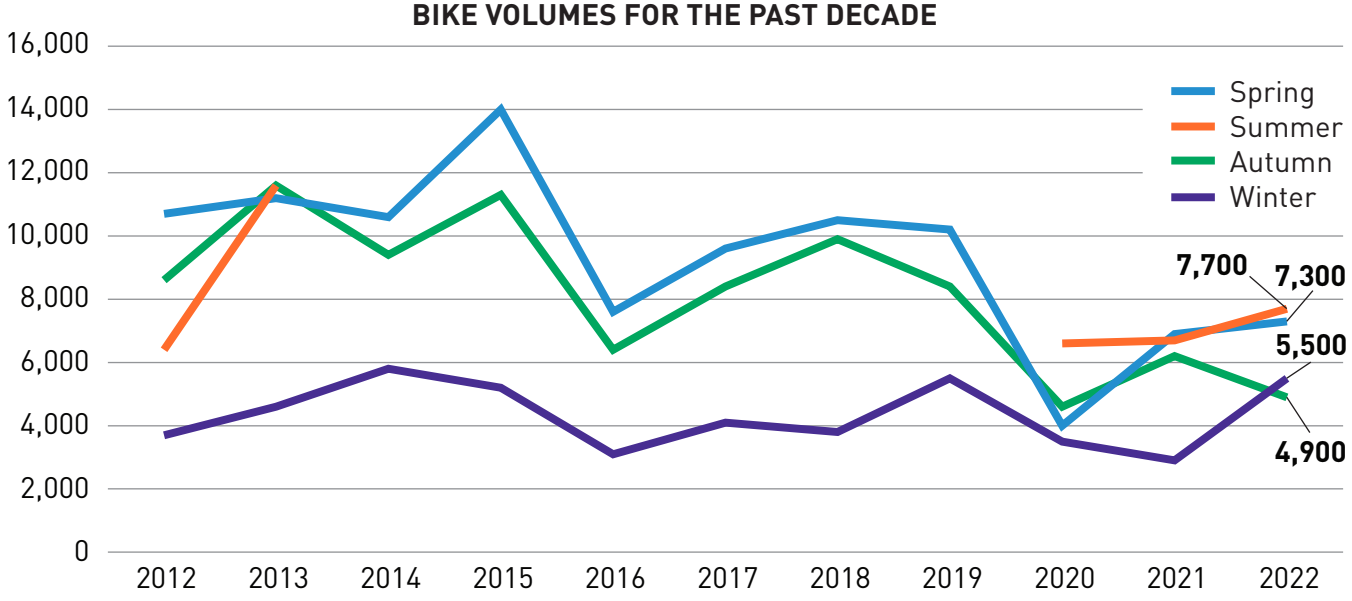
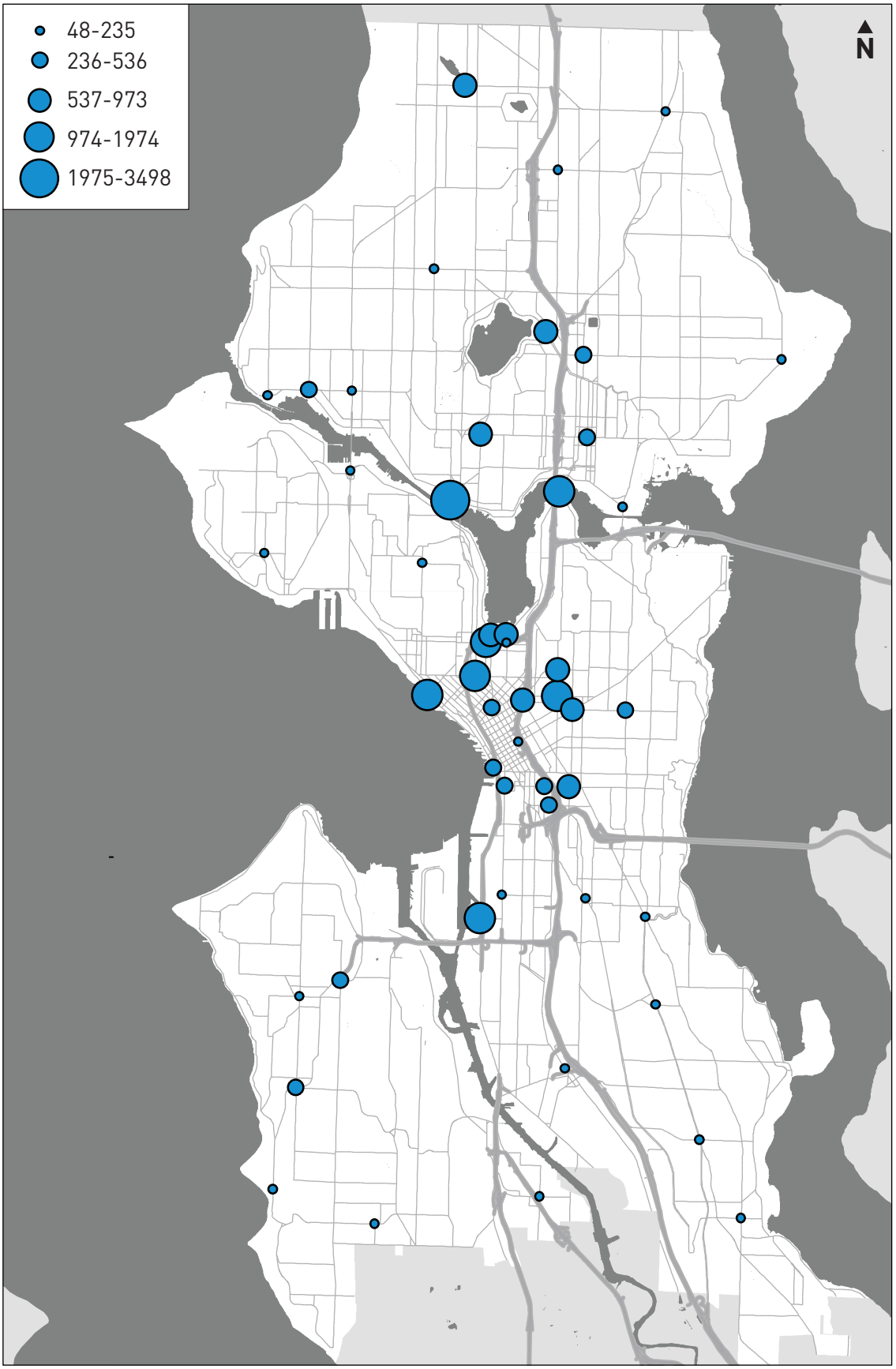


FIGURE 10: 2022 AVERAGE DAILY BIKE VOLUMES FOR NBPD



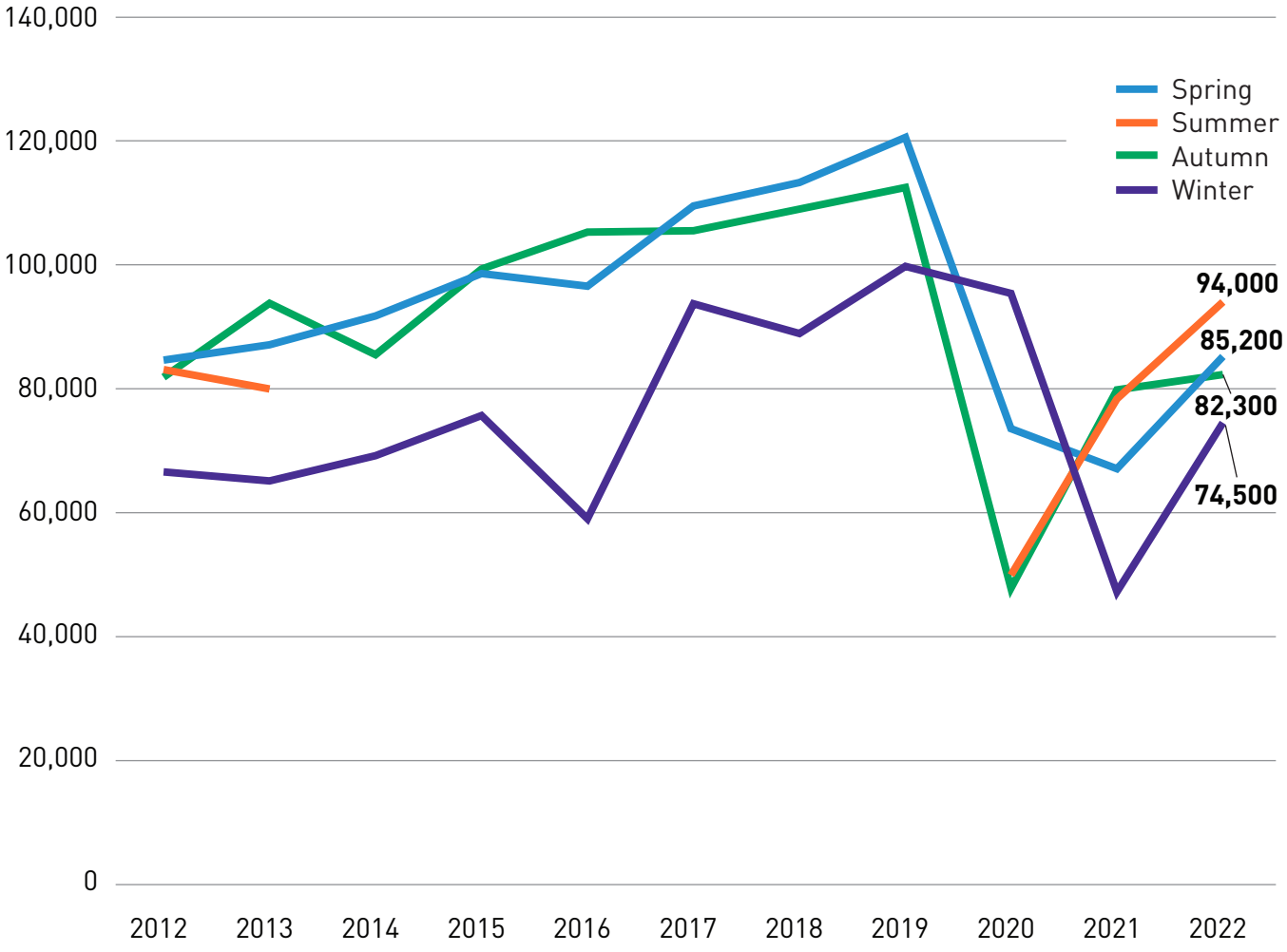
PEDESTRIAN VOLUMES

Beginning in 2011, SDOT began collecting quarterly citywide counts using the National Bicycle and Pedestrian Documentation (NBPD) methodology. Since these pedestrian counts are collected in conjunction with the bicycle counts, they share the quarterly frequency, as well as the weekday AM peak (7-9 am), weekday PM peak (5-7 pm) and Saturday (noon-2pm) time periods. Some of the permanent multi-use trail counter locations can also measure pedestrian volumes.

KEY FINDINGS

In 2022, pedestrian volumes increased by 25% compared to 2021 but were still 27% less than 2019 volumes.

FIGURE 11: NBPD SPRING, SUMMER, FALL AND WINTER QUARTER PEDESTRIAN VOLUMES FOR THE PAST DECADE

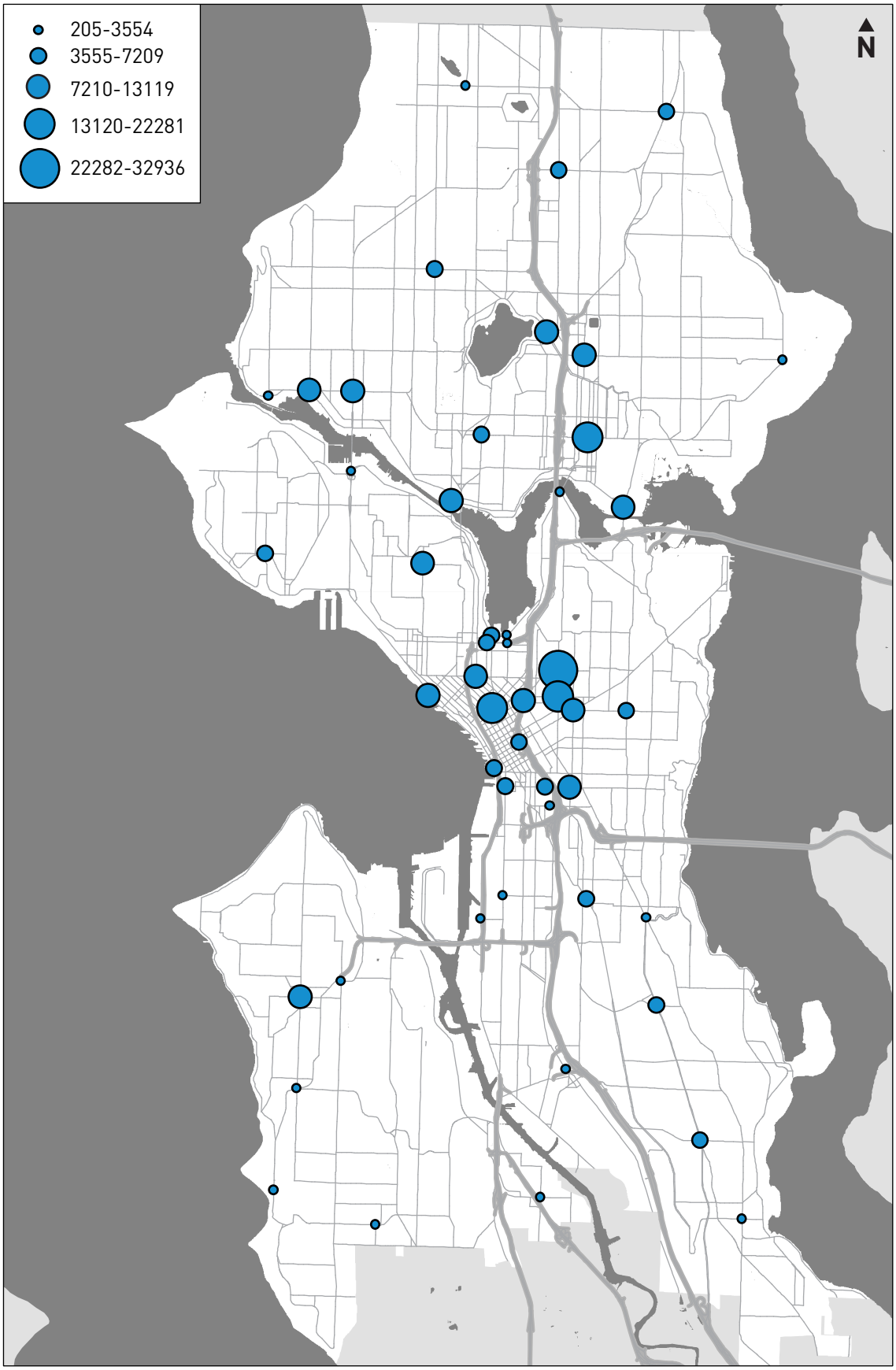


Quarterly Citywide Pedestrian Counts

In 2011, SDOT started using the NBPD project methodology for counting the volume of people walking and biking. These spot counts provide consistent, annual pedestrian volumes that we can track over time. Each count is conducted at an intersection and records the number of pedestrians crossing each leg of the intersection. Figure 11 shows the total combined annual pedestrian counts by season at the 50 NBPD locations for 2012 to 2022. The discontinuous gray trendline indicates counts collected in summer due to SDOT resuming this data collection in 2020.

The total number of people walking counted in 2022 by the program was 336,000, up 25% from the COVID-19 low in 2020, but still below the pre-COVID-19 numbers for winter, spring, and autumn. The busiest pedestrian location counted in 2022 was Broadway and East Olive Street with approximately 32,900 total pedestrians counted; this location also had the highest pedestrian volumes counted for the previous years. Figure 12 shows the shows the pedestrian volumes and count locations for the 2022 NBPD iteration. Details of the 2022 counts by location are available on the web at http://data.seattle.gov.

FIGURE 12: 2022 AVERAGE DAILY PEDESTRIAN VOLUME FOR NBPD



MOTOR VEHICLE SPEEDS

SDOT began collecting speed data on a regular four-year rotation cycle in 2010, at about 250 unique locations, in addition to the ad-hoc locations that serve site-specific traffic evaluation needs. Each year, SDOT collects vehicle speeds at about 50 to 70 of the 250 locations for regular speed measurements and a variable number of one-off, project-based locations for purposes of traffic safety investigations, prospective project selection and design, and for evaluation of completed projects. Additionally, SDOT subscribed to a third-party data service to better understand speeds on many streets in Seattle.

The third-party vendor uses anonymized probe data to calculate speeds on street segments. This data is available for most but not all city street segments, with the arterial network and busier streets most represented.

Engineers measure speed in different ways, but the 85th percentile measure is the most widely used. It represents the speed at or below which 85 percent of traffic travels. Of the approximately 50 regular speed study locations measured in 2022, Table 4 lists those street segments with 85th percentile speeds exceeding 30 miles per hour (mph).

TABLE 4: SPEED STUDY LOCATIONS WITH 85TH PERCENTILE SPEED EXCEEDING 30 MPH

Location	Direction	2022 Speed Limit	85th Percentile Speed
16th Ave S, N/O 16th Ave S Br	NB	30	43.9
16th Ave S, N/O 16th Ave S Br	SB	30	43.4
SW Admiral Way, SE/O SW City View St	SEB	25	41.8
SW Admiral Way, SE/O SW City View St	NWB	25	40.7
Greenwood Ave N, S/O N 145th St	SB	30	38.7
Elliott Ave W SE/O W Mercer Pl	SEB	25	38.5
NE Northgate Way, W/O 15th Ave NE	EB	25	38.3
Elliott Ave W SE/O W Mercer Pl	NWB	25	38.1
4th Ave S, N/O S Dawson St	SB	30	37.7
Pinehurst Way NE, NE/O NE 115th St	SWB	25	37.5
4th Ave S, N/O Dawson St	NB	30	37.3
NE Northgate Way, W/O 15th Ave NE	WB	25	37.2
Aurora Ave N, S/O N 112th St	SB	35	37.1
Greenwood Ave N, S/O N 145th St	NB	30	37.1
Ellis Ave S, S/O S Warsaw St	NB	25	36.6
Sand Point Way NE, S/O NE 74th St	SB	30	36.6
Pinehurst Way NE, NE/O NE 115th St	NEB	25	36.5
Aurora Ave N, S/O N 112th St	NB	35	36.5
Seaview Ave NW, N/O NW 67th St	NB	25	36.2
NE 125th St, W/O 27th Ave NE	WB	25	35.4
SW Avalon Way, N/O 30th Ave SW	NB	25	35.1
1st Ave NE, S/O NE 145th St	NB	25	34.8
M L King Jr Way S, S/O S Holly St	NB	25	34.6
Seaview Ave NW, N/O NW 67th St	SB	25	34.5

Location	Direction	2022 Speed Limit	85th Percentile Speed
8th Ave S, S/O S Director St	NB	25	34.4
M L King Jr Way S, S/O S Holly St	SB	25	34.2
Ellis Ave S, S/O S Warsaw St	SB	25	34.0
1st Ave NE, S/O NE 145th St	SB	25	33.9
24th Ave E, N/O E Prospect St	SB	25	33.8
NE 125th St, W/O 27th Ave NE	EB	25	33.5
Delridge Way SW, N/O SW Myrtle St	SB	25	33.4
31st Ave S, S/O S Jackson St	NB	25	33.1
S Columbian Way, W/O Beacon Ave S	WB	25	33.1
35th Ave SW, S/O SW Morgan St	NB	25	33.0
8th Ave S, S/O S Director St	SB	25	32.9
35th Ave SW, S/O SW Morgan St	SB	25	32.9
Rainier Ave S, NW/O S Holly St	NWB	25	32.7
24th Ave E, N/O E Prospect St	NB	25	32.6
Greenwood Ave N, S/O Holman Rd N	SB	25	32.6
31st Ave S, S/O S Jackson St	SB	25	32.4
SW Avalon Way, N/O 30th Ave SW	SB	25	32.3
N 105th St, W/O Evanston Ave N	WB	30	32.1
Nickerson St, NW/O Florentia St	NWB	25	31.8
S Columbian Way, W/O Beacon Ave S	EB	25	31.8
3rd Ave NW, S/O NW 145th St	NB	25	31.5
3rd Ave NW, S/O NW 145th St	SB	25	31.5
N 105th St, W/O Evanston Ave N	EB	30	31.3
Greenwood Ave N, S/O Holman Rd N	NB	25	31.3
S Othellow St, E/O 43rd Ave S	WB	25	31.2
SW Roxbury St, E/O 26th Ave SW	WB	25	31.0
S Spokane SR ST, W/O 4th Ave S	EB	25	31.0
SW Roxbury St, E/O 26th Ave SW	EB	25	30.9
Fauntleroy Way SW, S/O SW Alaska St	SB	25	30.8
NE 65th St, W/O 15th Ave NE	EB	25	30.7
Beach Dr SW, SE/O 61st Ave SW	NWB	25	30.7
Rainier Ave S, NW/O S Holly St	SEB	25	30.6
E Green Lake Dr N, NW/O Latona Ave NE	SEB	25	30.5
24th Ave NW, S/O NW 80th St	SB	25	30.5
24th Ave NW, S/O NW 80th St	NB	25	30.3
N 50th St, W/O 1st Ave NE	WB	25	30.3
Nickerson St, NW/O Florentia St	SEB	25	30.2
N 50th St, W/O 1st Ave NE	EB	25	30.0

Traffic Collisions

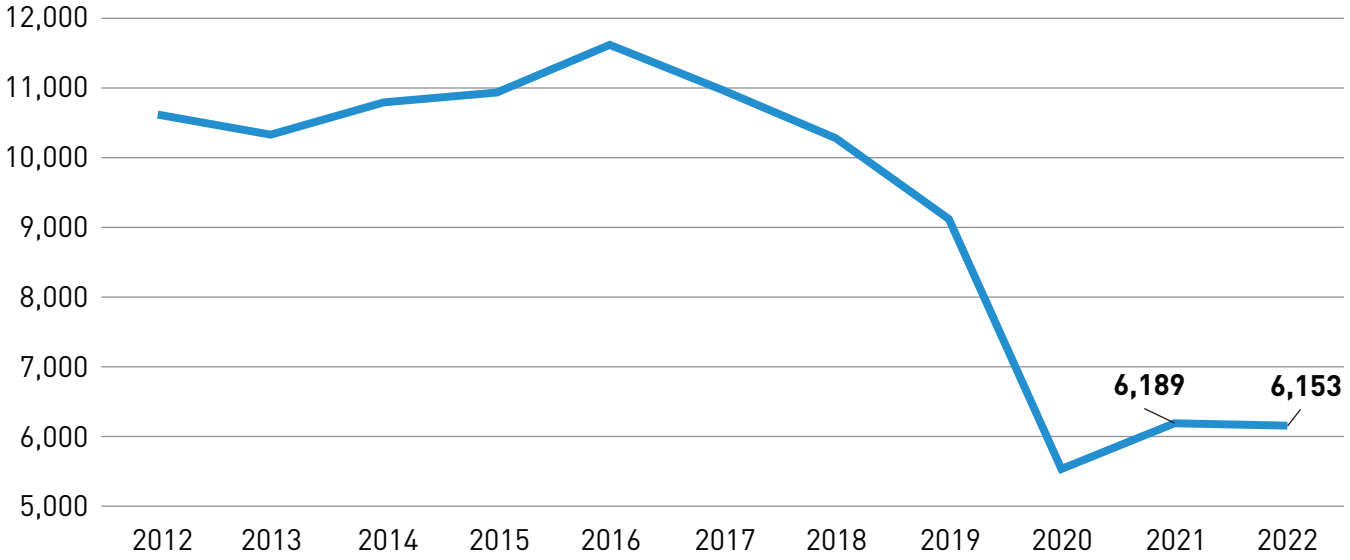
Collision data is used to help with safety analyses to identify locations that may benefit from further investigation. There were 6,153 police reported collisions on Seattle streets in 2022, a 32% decrease from 2019. In addition, there were 1,525 self-reported collisions, which are not included in our analysis due to reliability and completeness factors. Figure 13 shows the trend of police reported collisions on Seattle streets for 2012 to 2022. The trend for all types of reports is listed in the Supporting Data section.

There were 6,153 collisions in 2022 on Seattle streets reported by police.

Key Findings

2022 police reported collisions remained consistent with 2021 numbers.

FIGURE 13: POLICE REPORTED COLLISIONS ON SEATTLE STREETS



CITYWIDE COLLISION RATE

The Citywide Collision rate is the number of police reported collisions per million Average Annual Daily Trips (AADT). The AADT is a citywide approximation of arterial traffic volumes. In this case, AADT has been adjusted to exclude volumes on I-5, I-90 and SR-520 because our collision data do not include collisions on these roadways.

Figure 14 and Table 5 show the collision and rate trends for the past decade. For 2022, the overall citywide police reported collision rate decreased 33% compared to 2021. The number of police reported collisions stayed consistent with 2021, but ADT increased by 114,500 resulting in a lower citywide collision rate.

Key Findings

The 2022 citywide collision rate decreased by 33% from 2021. Even though the overall number of collisions remained comparable to 2021, the rate dropped due to a rebound in traffic volumes.

FIGURE 14: CITYWIDE COLLISION RATE

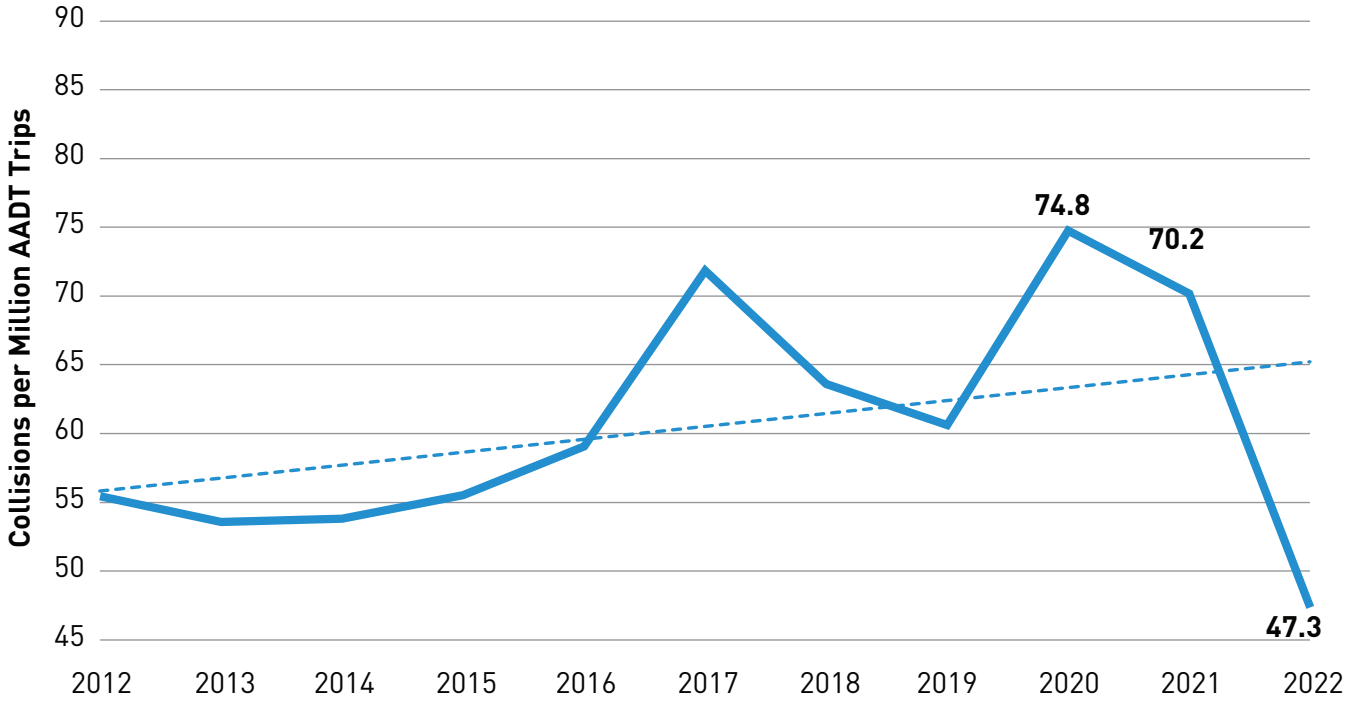


TABLE 5: COLLISION AND COLLISION RATE TRENDS

Year	All Collisions *	Police Reported Collisions	Average Daily Traffic	AADT	Citywide Collision Rate
2012	12,757	10,616	524,732	191,527,180	55.4
2013	13,213	10,328	528,174	192,783,510	53.6
2014	14,259	10,796	549,655	200,624,075	53.8
2015	13,955	10,937	539,600	196,954,000	55.5
2016	12,485	11,620	539,106	196,773,690	59.1
2017	12,218	10,968	418,187	152,638,255	71.9
2018	11,235	10,280	442,722	161,593,530	63.6
2019	9,119	7,253	412,205	150,454,825	60.6
2020	8,173	5,533	202,743	74,001,195	74.8
2021	8,101	6,189	241,598	88,183,215	70.2
2022	7,678	6,153	356,067	129,964,294	47.3

*All Collisions include both police-reported and self-reported collisions.

FATAL AND SERIOUS INJURY COLLISIONS

Overall, for 2022, there were a total of 256 serious injury and fatal collisions, representing a 32% increase from 2019, a pre COVID-19 pandemic year. In 2022, the number of serious injury and fatal collisions represented 4.1% of the total number of police reported collisions, increasing from 3.6% in 2021. Figure 15 shows the trend of fatal and serious injury collisions on Seattle streets since 2012, obtained from police reports.

Figure 16 shows the trend of lives lost on Seattle streets since 2012. Figure 17 maps the locations of serious and fatal collisions for 2022. SDOT adopted Vision Zero and set a goal of eliminating such collisions.

These numbers exclude incidents on limited-access State Highways and Interstates, which are SR509, SR520, I-5 and I-90, respectively. Additional details on fatalities and tables of historical trends can be found in the Supporting Data section.

Key Findings

- The number of fatal collisions in 2022 was the same as in 2021, however the number of serious injury collisions was 19% higher.
- The 2022 numbers of serious injury and fatal collisions continues to trend upwards.

FIGURE 15: FATAL/SERIOUS INJURY COLLISION TREND

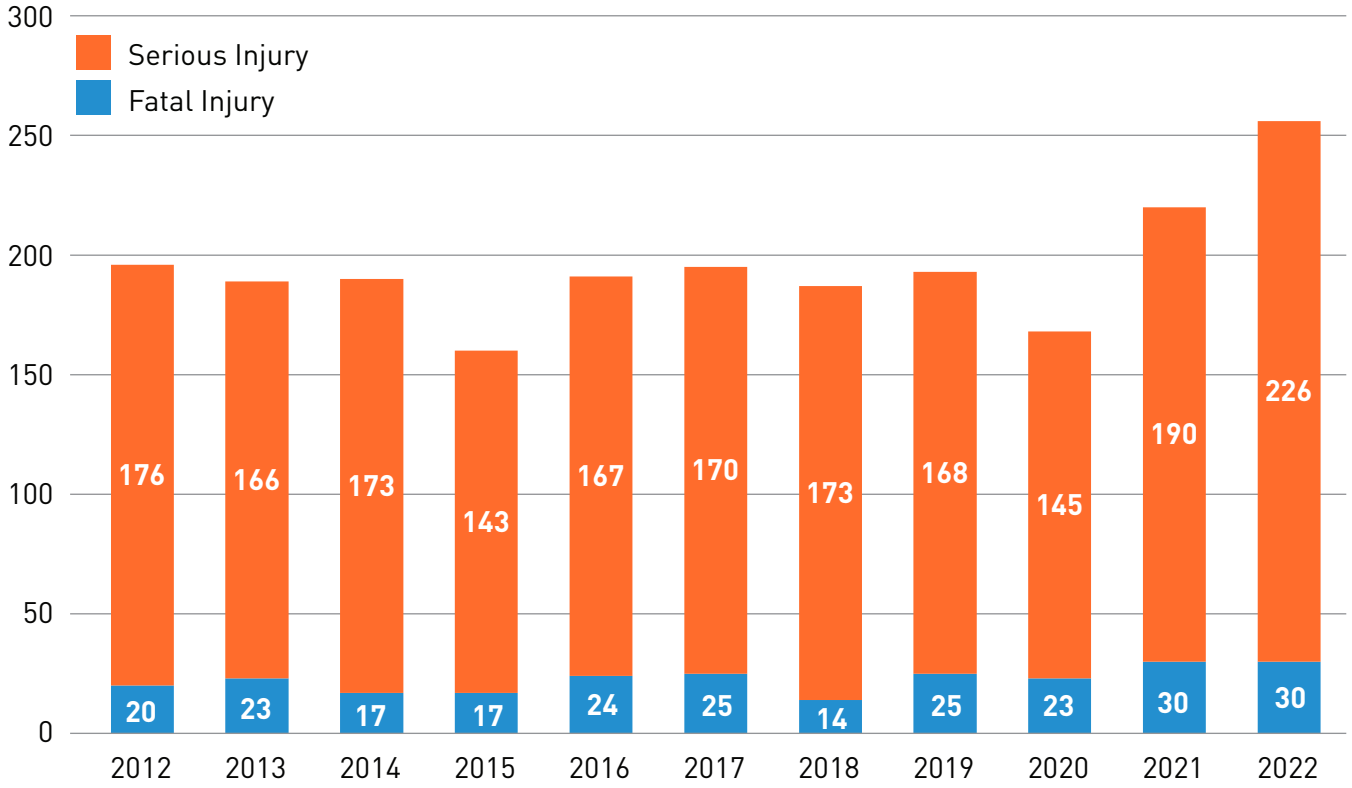


FIGURE 16: LIVES LOST ON SEATTLE STREETS

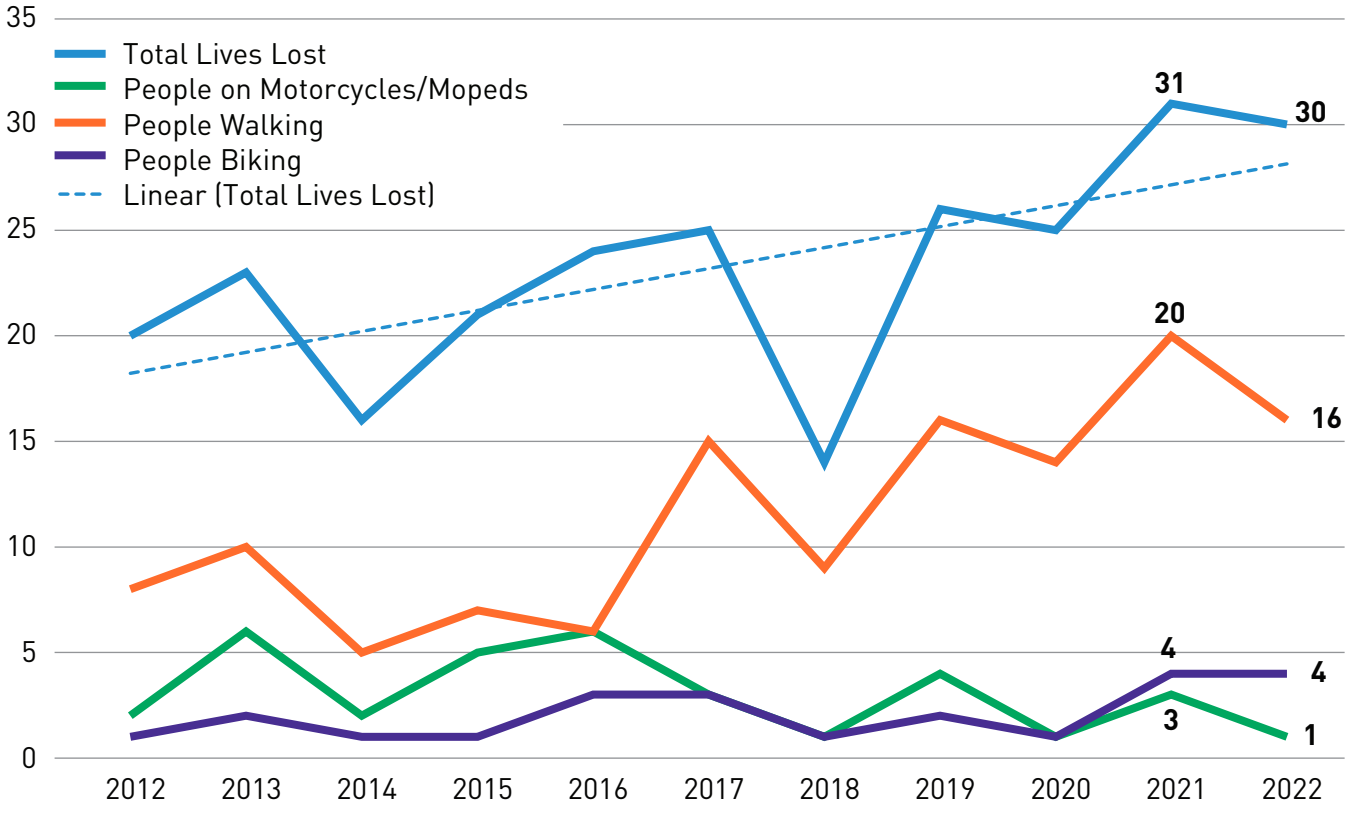
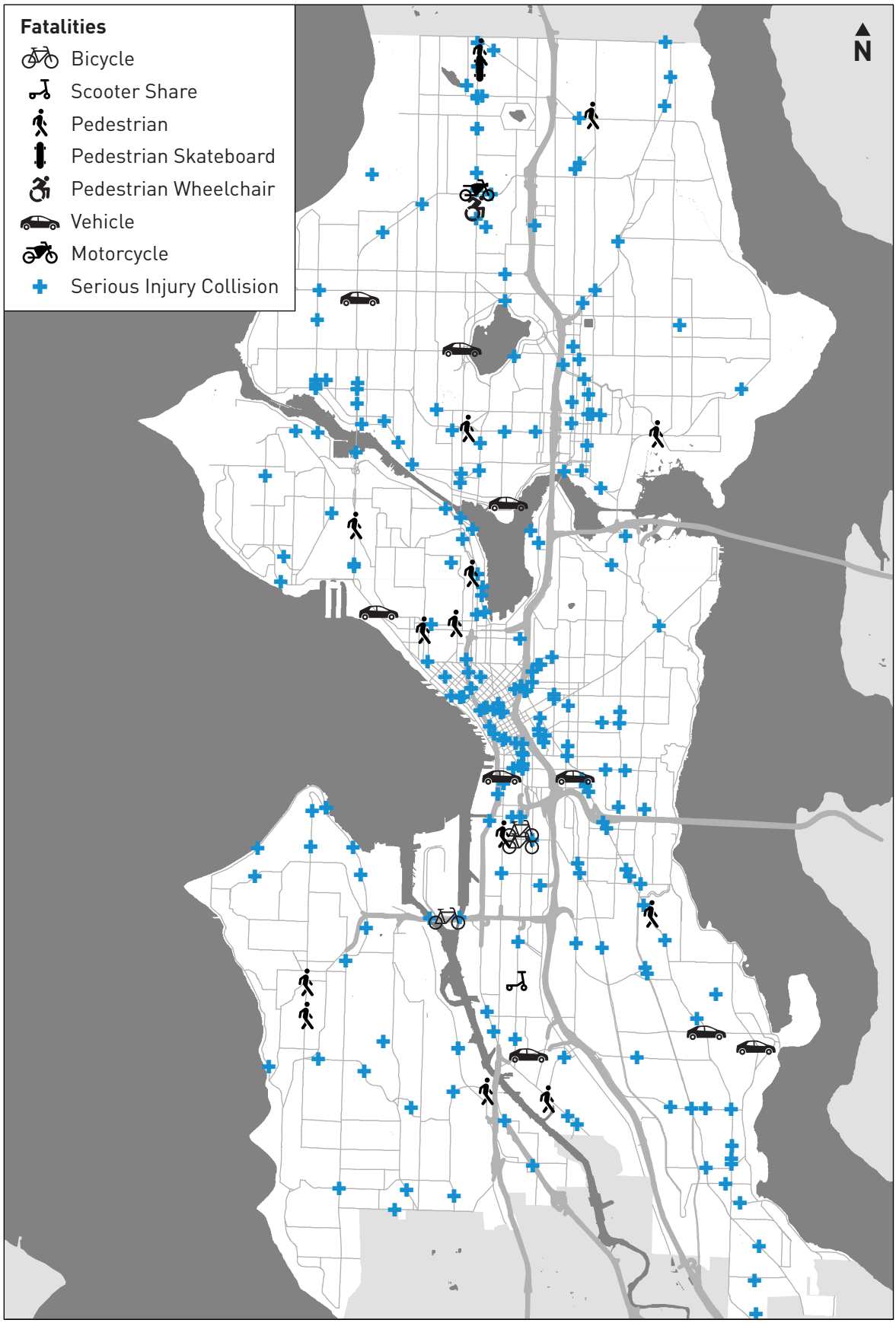


FIGURE 17: MAP OF SERIOUS AND FATAL COLLISIONS IN SEATTLE FOR 2022



PEDESTRIAN-INVOLVED COLLISIONS

Along with Vision Zero, the 2009 Pedestrian Master Plan defined a decreasing trend in the rate of collisions involving pedestrians as a safety goal. SDOT continues to measure its pedestrian-involved vehicle collision rate as the number of pedestrian-involved collisions divided by the population of the City of Seattle.

The pedestrian-involved collisions per 100,000 residents decreased from 77 to 49 from 2019 to 2022, as shown in Figure 18. As shown in Figure 19, the total number of serious injury and fatal pedestrian collisions increased from 87 to 100 over the same time span. Table 6 tabulates all pedestrian-involved collisions by collision severity. Lastly, Figure 20 maps the locations of all pedestrian-involved collisions in Seattle for 2022.

Key Findings

Serious injury and fatal pedestrian collisions comprised 27% of total pedestrian collisions, compared to 23% in 2021.

FIGURE 18: PEDESTRIAN-INVOLVED COLLISION RATE PER 100,000 RESIDENTS

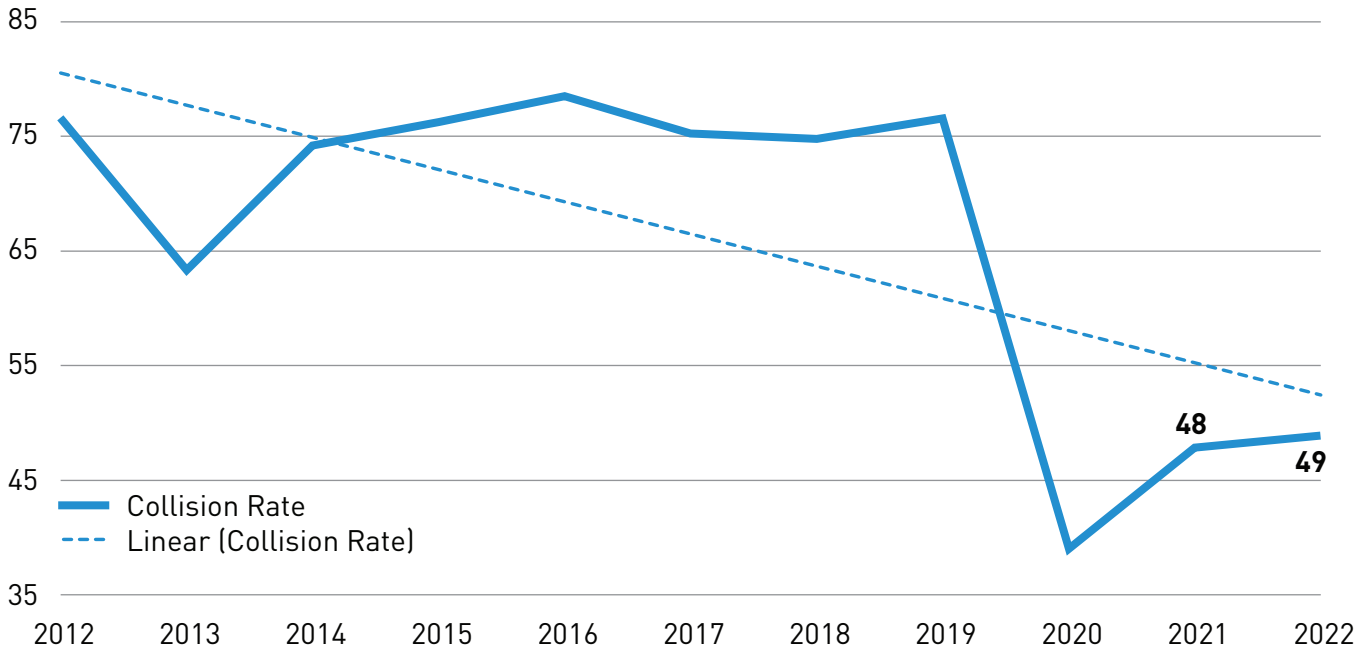


FIGURE 19: SERIOUS AND FATAL COLLISIONS FOR PEDESTRIANS

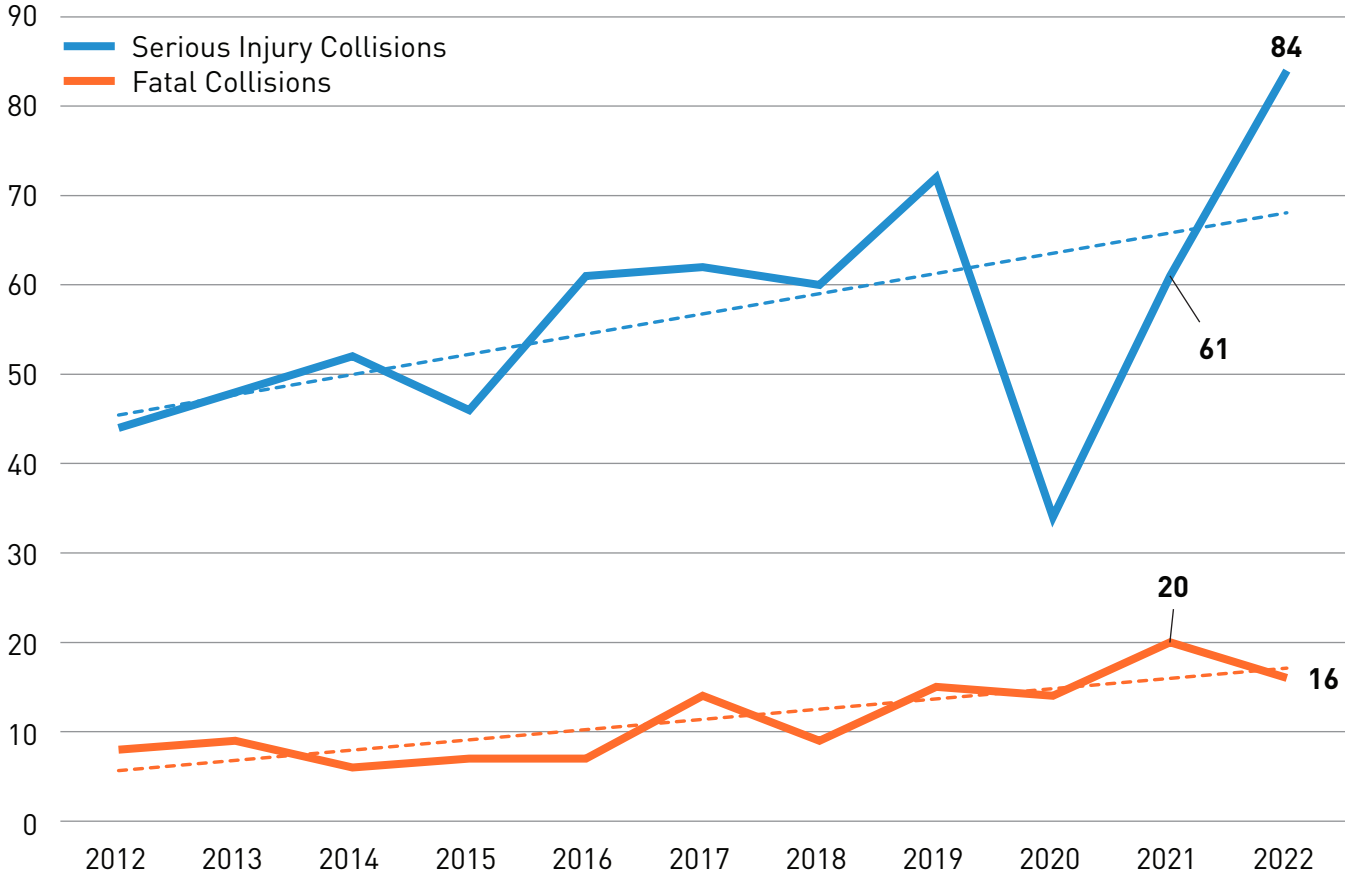
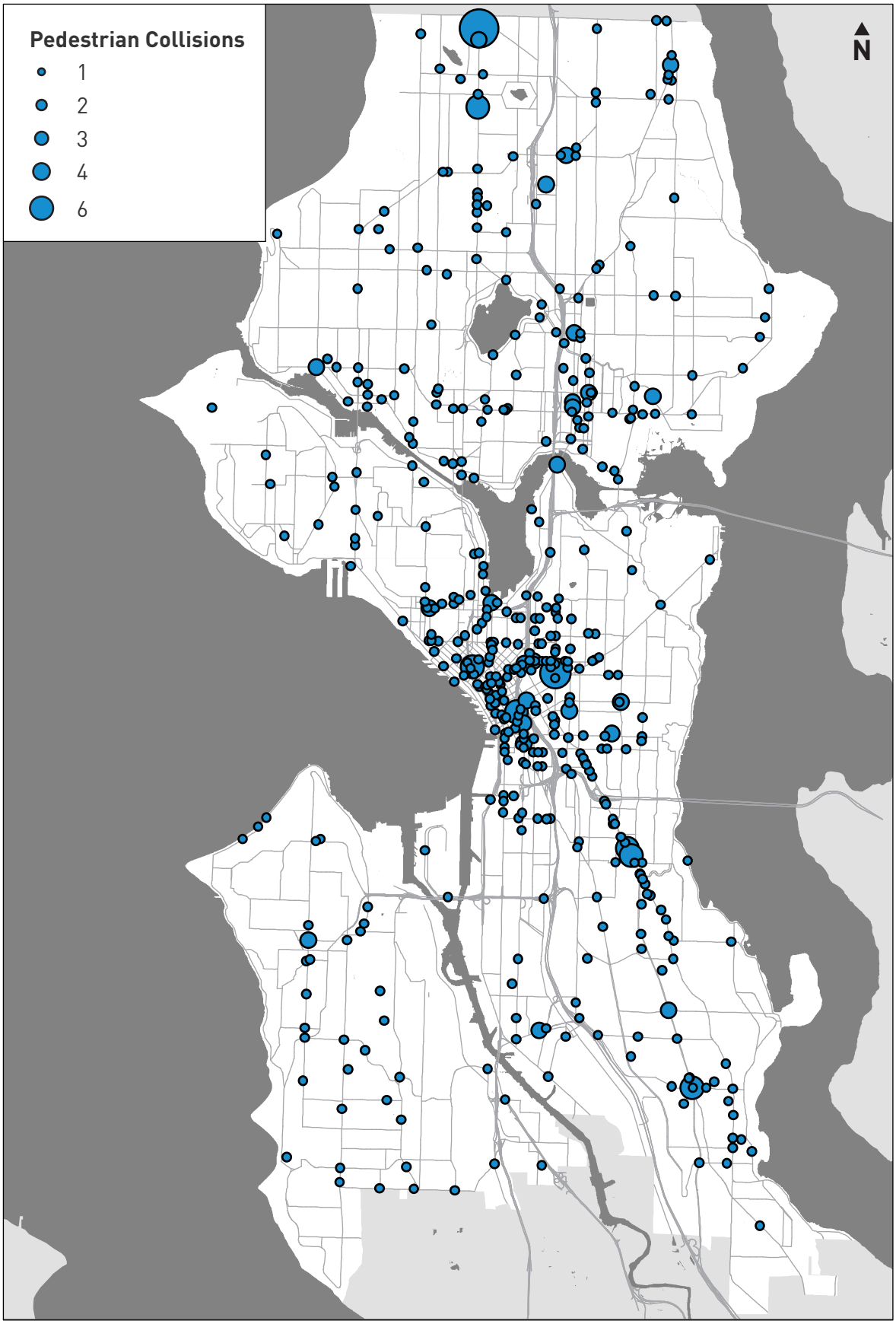


TABLE 6: PEDESTRIAN-INVOLVED COLLISIONS

Year	Total Collisions	Possible/ Evident Injury	Serious Injury Collisions	Fatal Collisions	Fatal, Serious Injury Collisions
2012	469	417	44	8	52
2013	396	339	48	9	57
2014	473	360	52	6	58
2015	522	412	46	7	53
2016	553	428	61	7	68
2017	537	396	62	14	76
2018	546	425	60	9	69
2019	572	415	72	15	87
2020	297	208	34	14	48
2021	355	228	61	20	81
2022	374	233	84	16	100

FIGURE 20: MAP OF PEDESTRIAN-INVOLVED COLLISIONS IN SEATTLE FOR 2022



BICYCLE COLLISION RATE

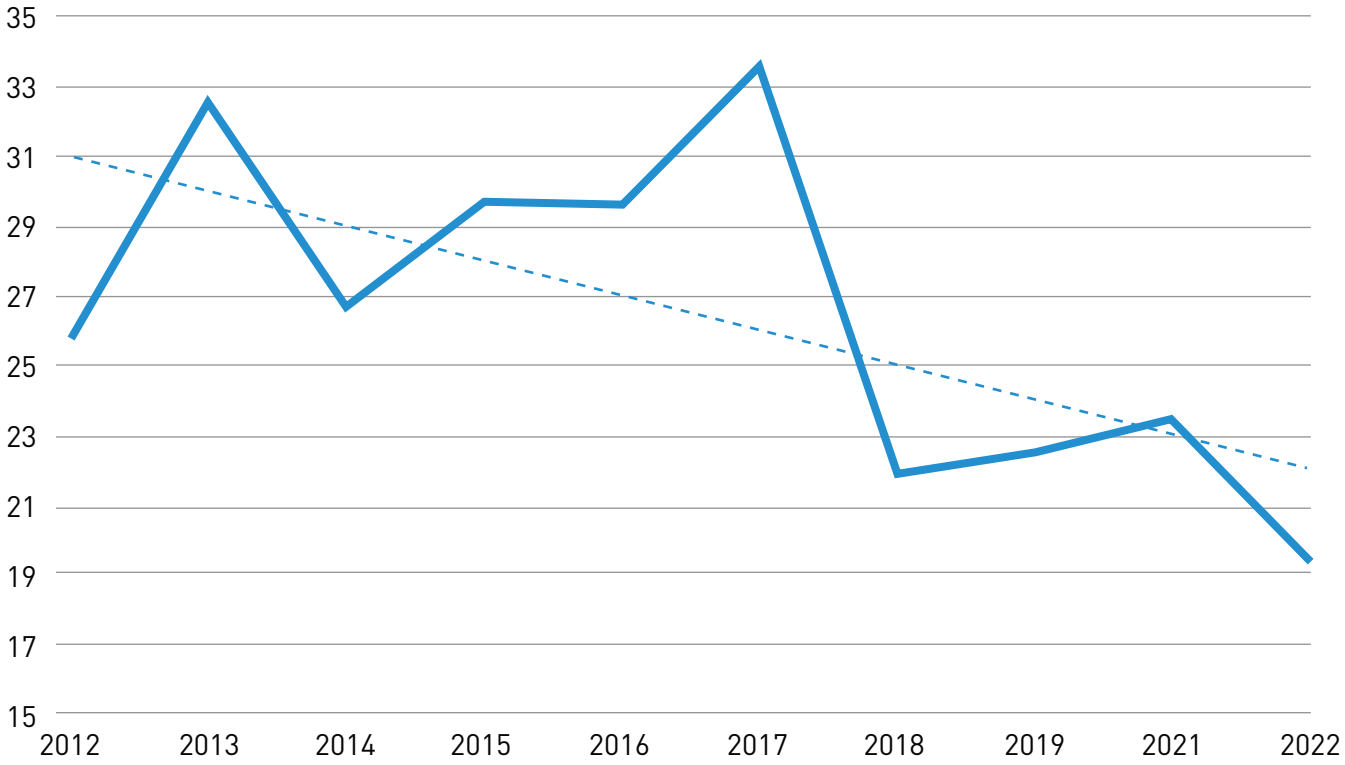
Figure 21 shows the bicycle collision rate as a factor of the number of bicycle commuters as reported by the U.S. Census Bureau's American Community Survey (ACS). Currently the bicycle collision rate shows a decreasing trend to 19 collisions per 1,000 commuters in 2022.

Alternatively, serious injury and fatal bicycle collisions trends are shown in Figure 22 and Table 7 below. The data indicates the number of serious injury bicycle collisions increased from 2021 to 2022, while the number of fatal bike collisions stayed the same. Finally, Figure 22 maps the location of all bicycle collisions in Seattle for 2022.

Key Findings

Serious injury and fatal bicycle collisions comprised 13% of total bicycle collisions, compared to 9% in 2021.

FIGURE 21: BICYCLE COLLISION RATE PER BICYCLE 1,000 COMMUTERS*



*Bicycle Commuter Data from American Community Survey is not available for 2020

FIGURE 22: SERIOUS AND FATAL COLLISIONS FOR BICYCLES

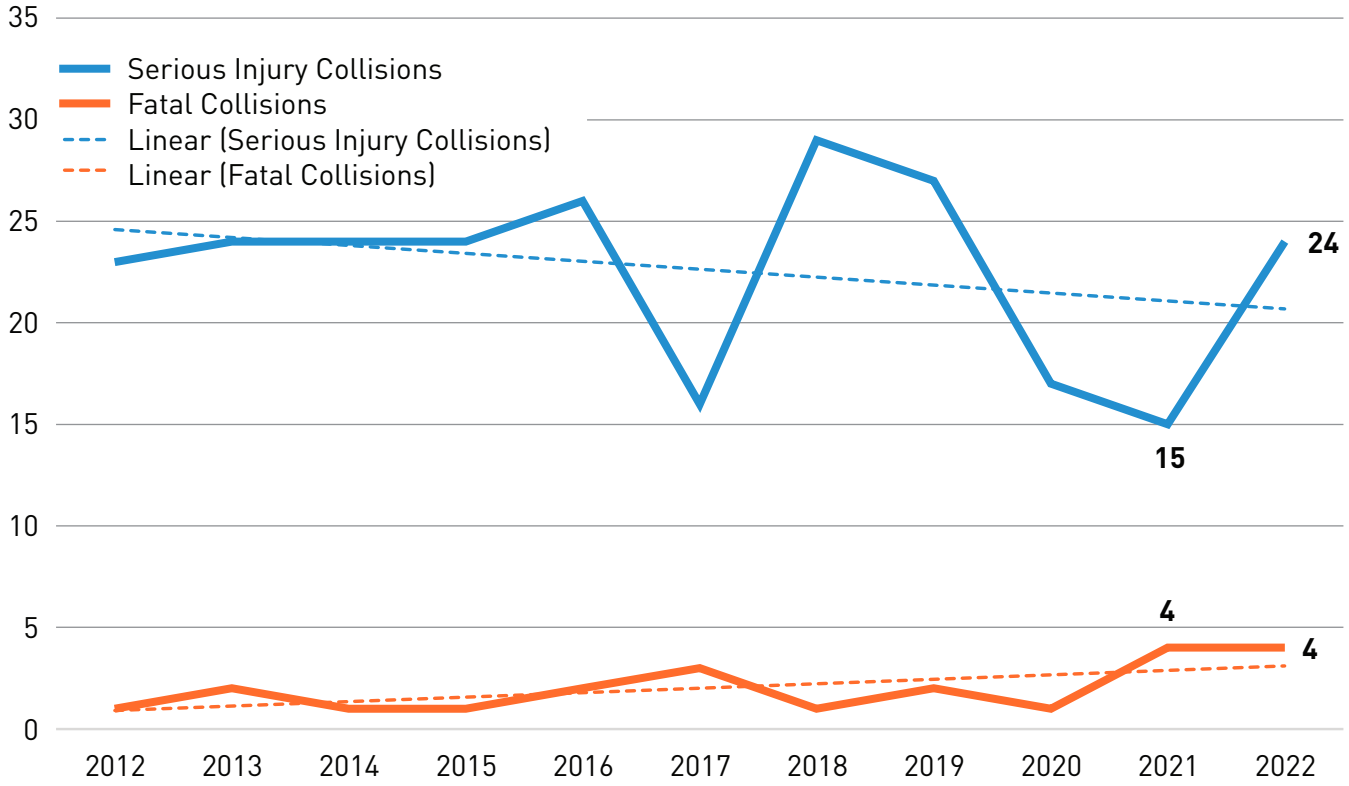
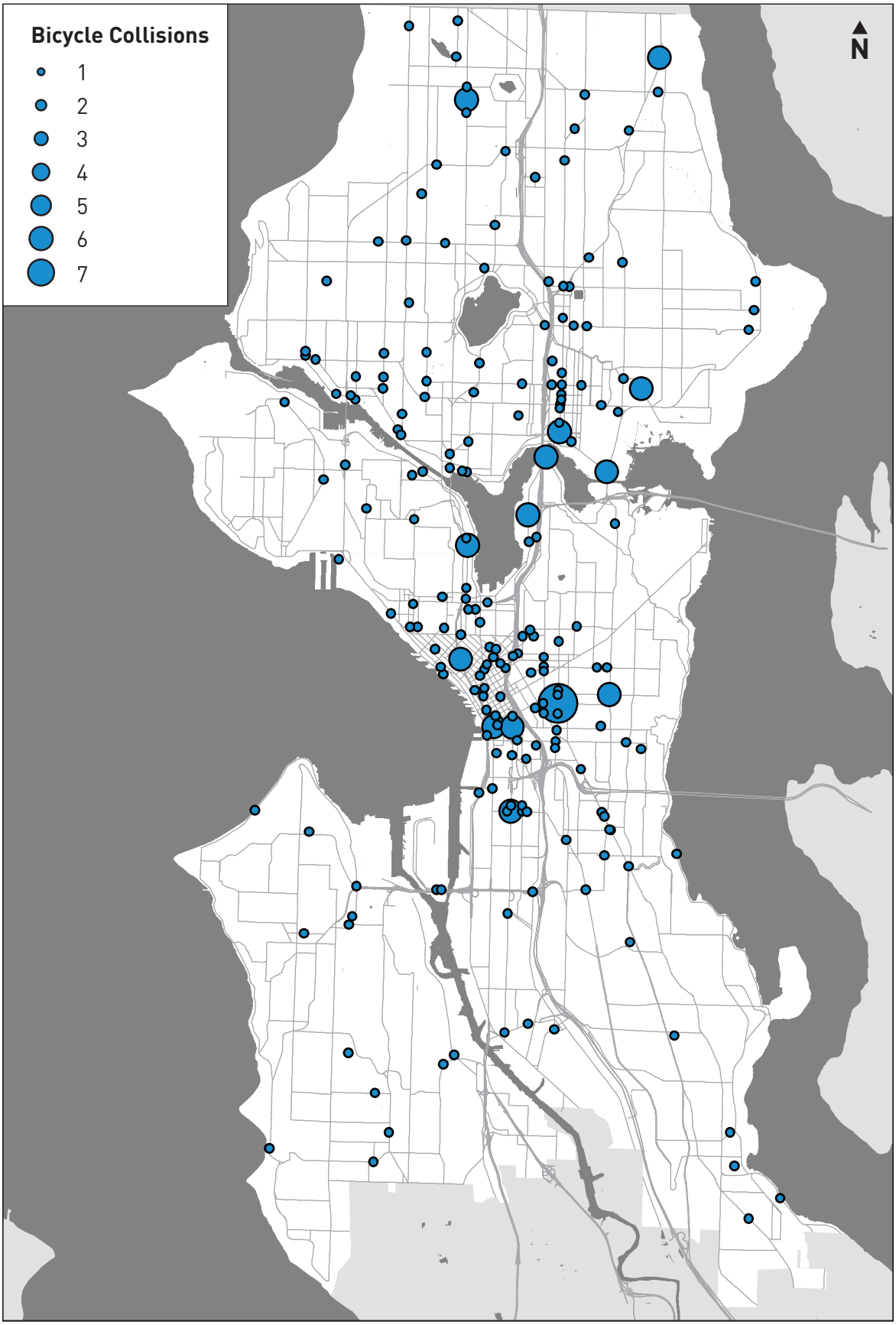


TABLE 7: BICYCLE-INVOLVED COLLISIONS

Year	Total Collisions	Possible/ Evident Injury	Serious Injury Collisions	Fatal Collisions	Fatal and Serious Injury Collisions
2012	387	358	23	1	24
2013	421	365	24	2	26
2014	380	316	24	1	25
2015	483	404	24	1	25
2016	440	352	26	2	28
2017	393	324	16	3	19
2018	370	284	29	1	30
2019	385	315	27	2	29
2020	177	139	17	1	18
2021	212	158	15	4	19
2022	220	164	24	4	28

FIGURE 23: MAP OF BICYCLE COLLISIONS IN SEATTLE FOR 2022



Supporting Data

VOLUME DATA

Table 8 shows the Control Count locations that are counted every month for 2022. The resulting counts are added together (all locations for all 12 months). The resulting sum is then divided by 12 to get an average sum, which is then divided by the sum of the volume counts for a particular month. This ratio of the average sum divided by the sum of the volume counts for a particular month produces the monthly control factor. This factor can then be applied to counts to correct for seasonal variation.

TABLE 8: CONTROL COUNT LOCATIONS

1. Denny Way, W/O 2nd Ave
2. East Green Lake Way N, NE/O N 57th St
3. Fremont Br, S/O Point A
4. N 85th St, W/O Ashworth Ave N
5. Queen Anne Ave N, S/O Crockett St
6. University Br, SW/O Point A
7. Lake City Way NE, NE/O NE 95th St
8. M L King Jr. Way S, N/O S Andover St
9. NW Market St, W/O 8th Ave NW
10. Rainier Ave S, S/O S Othello St
11. S Lander St, W/O 6th Ave S
12. Alki Ave SW, W/O Harbor Ave SW
13. 3rd Ave SE/O Union St
14. Alaskan Way SE/O Blanchard St
15. Stewart St, NE/O 4th Ave
16. University St, SW/O 4th Ave
17. SW Spokane Bridge, W/O SW Spokane St

TABLE 9: 2022 BRIDGE COUNT LOCATIONS

1. Aurora Bridge
2. Ballard Bridge
3. Fremont Bridge
4. Montlake Bridge
5. Spokane Street Corridor
(Duwamish West Waterway)
6. SW Spokane Bridge (Swing)
7. University Bridge
8. 1 Ave S Bridge
9. 16th Ave S Bridge
10. West Seattle High-Rise Bridge
11. I-90 Bridge
12. SR520 Bridge
13. I-5 Bridge

TABLE 10: AVERAGE DAILY TRAFFIC VOLUMES (ADT)

Year	ADT
2012	976,600
2013	986,200
2014	1,009,800
2015	972,100
2016	1,019,000
2017	1,001,000
2018	1,037,000
2019	998,100
2020	635,600
2021	716,600
2022	854,000

TABLE 11: 2022 MONTHLY EXPANSION FACTOR

	JAN	FEB	MAR	APR	MAY	JUN
Count	256,100	252,800	286,500	264,300	276,500	268,900
Factor	1.039	1.053	0.929	1.007	0.963	0.99
	JUL	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Count	273,100	274,900	258,300	258,600	263,900	260,700
Factor	0.975	0.968	1.031	1.03	1.009	1.021

TABLE 12: 2022 TOP ARTERIAL TRAFFIC COUNTS

Location	Average Weekday Daily Traffic (AWDT)
1st Ave S Bridge	85,000
West Seattle Bridge	59,200
Aurora Bridge	54,000
Montlake Bridge	54,000
East Marginal Way, N/O 1st Ave S	53,600
S Spokane St, E/O 1st Ave S	45,700
Mercer St, E/O Westlake Ave N	44,100
Ballar Bridge	36,600
Elliott Ave W, NW/O W Mercer Pl	32,400
Denny Way, W/O 2nd Ave	29,400

TABLE 13: SEATTLE POPULATION

Year	Seattle Population
2012	635,500
2013	653,700
2014	669,200
2015	684,500
2016	704,400
2017	713,700
2018	730,400
2019	747,300
2020	737,000
2021	742,400
2022	762,500

TABLE 14: REGIONAL EMPLOYMENT

Year	Seattle/Tacoma/Bellevue Employment
2012	1,760,000
2013	1,798,000
2014	1,841,000
2015	1,886,000
2016	1,945,000
2017	1,995,000
2018	2,044,000
2019	2,100,000
2020	2,001,000
2021	2,060,000
2022	2,147,000

TABLE 15: REGIONAL ANNUAL TRANSIT RIDERSHIP

Year	King County Metro				Sound Transit Bus & Rail Boardings	Total Transit Ridership
	Metro Bus Boardings	Access Boardings	Taxi Overflow Boardings	CAT* Boardings		
2012	115,400,000	1,165,000	31,200	312,800	28,030,000	**144,900,000**
2013	118,600,000	1,158,000	31,300	316,700	30,380,000	**150,500,000**
2014	121,000,000	1,079,000	27,500	343,000	33,000,000	**155,400,000**
2015	121,800,000	980,100	24,100	362,500	34,860,000	**158,000,000**
2016	121,500,000	961,500	20,200	347,600	42,740,000	**165,600,000**
2017	122,200,000	958,400	17,200	340,300	47,030,000	**170,500,000**
2018	122,400,000	1,027,000	16,000	330,100	48,250,000	**172,000,000**
2019	123,500,000	887,900	177,800	346,500	47,840,000	**172,800,000**
2020	58,390,000	455,400	86,500	258,800	17,630,000	**76,820,000**
2021	51,340,000	468,100	88,900	270,000	17,760,000	**69,930,000**
2022	64,680,000	552,200	110,800	229,500	31,880,000	**97,450,000**

*Community Access Transit

FIGURE 24: SDOT BIKE AND PEDESTRIAN SPOT COUNT LOCATIONS

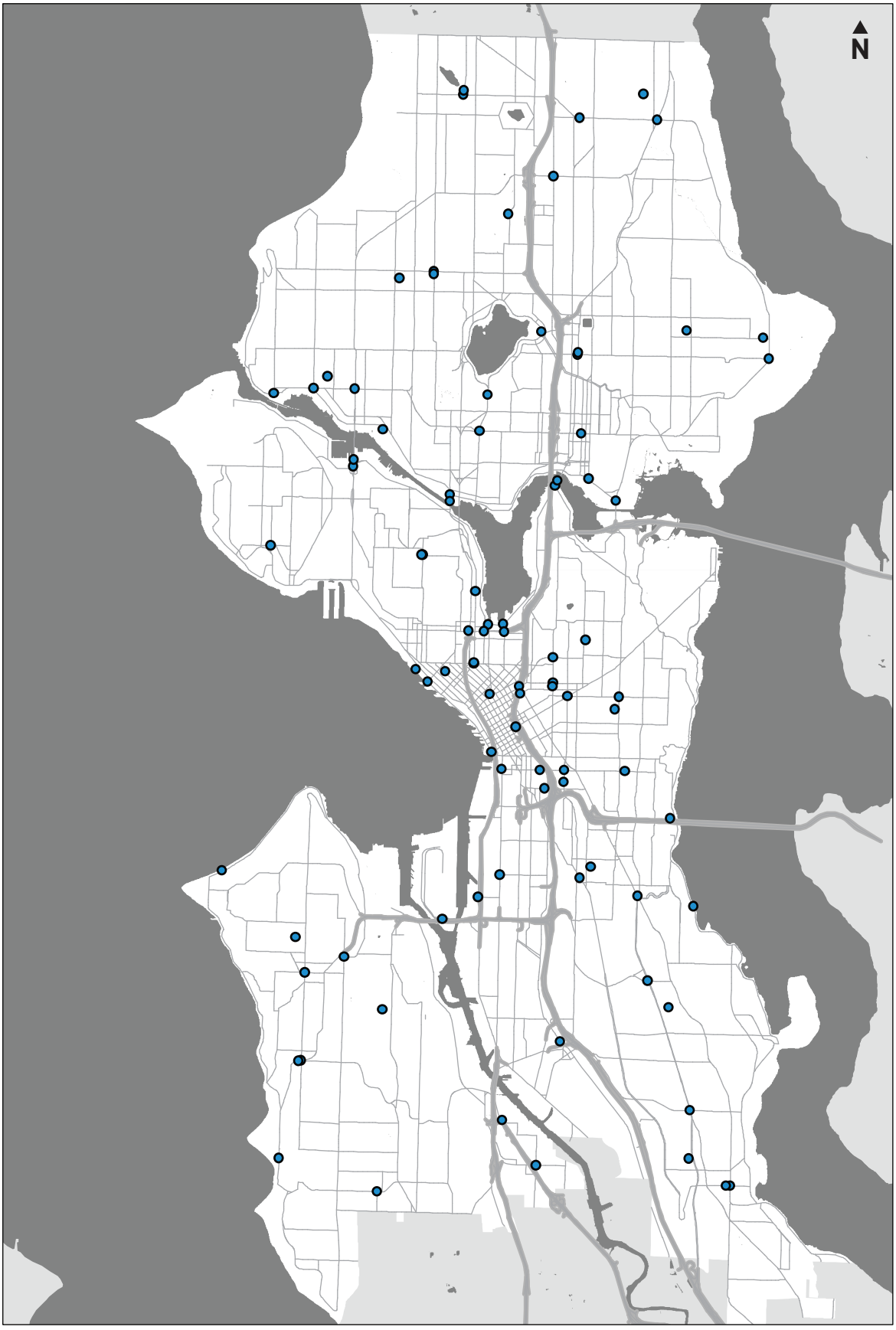


FIGURE 25: SDOT 2022 TRAFFIC FLOW MAP VOLUME COUNT LOCATIONS

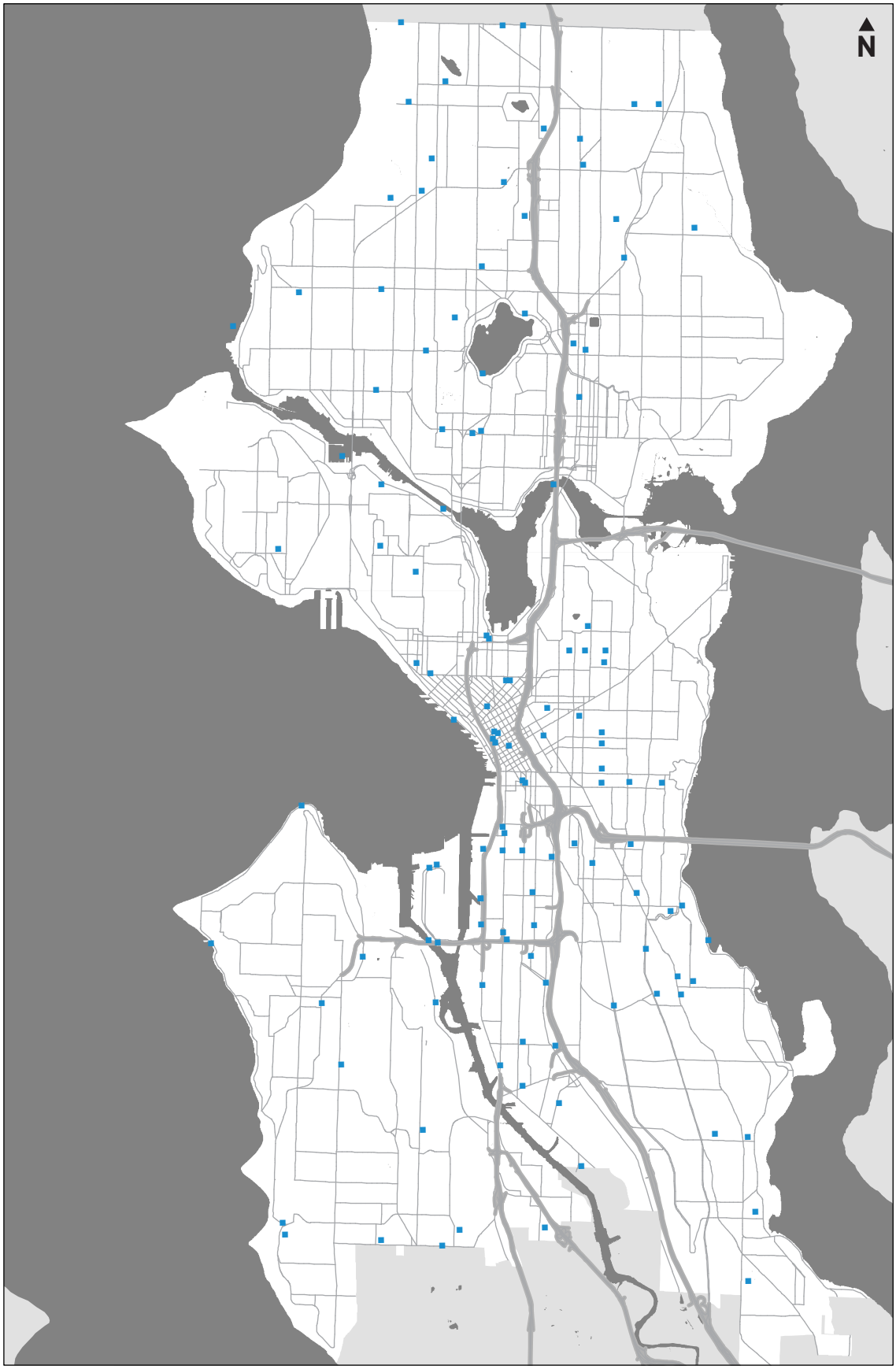


FIGURE 26: PERMANENT BICYCLE AND PEDESTRIAN COUNT LOCATIONS

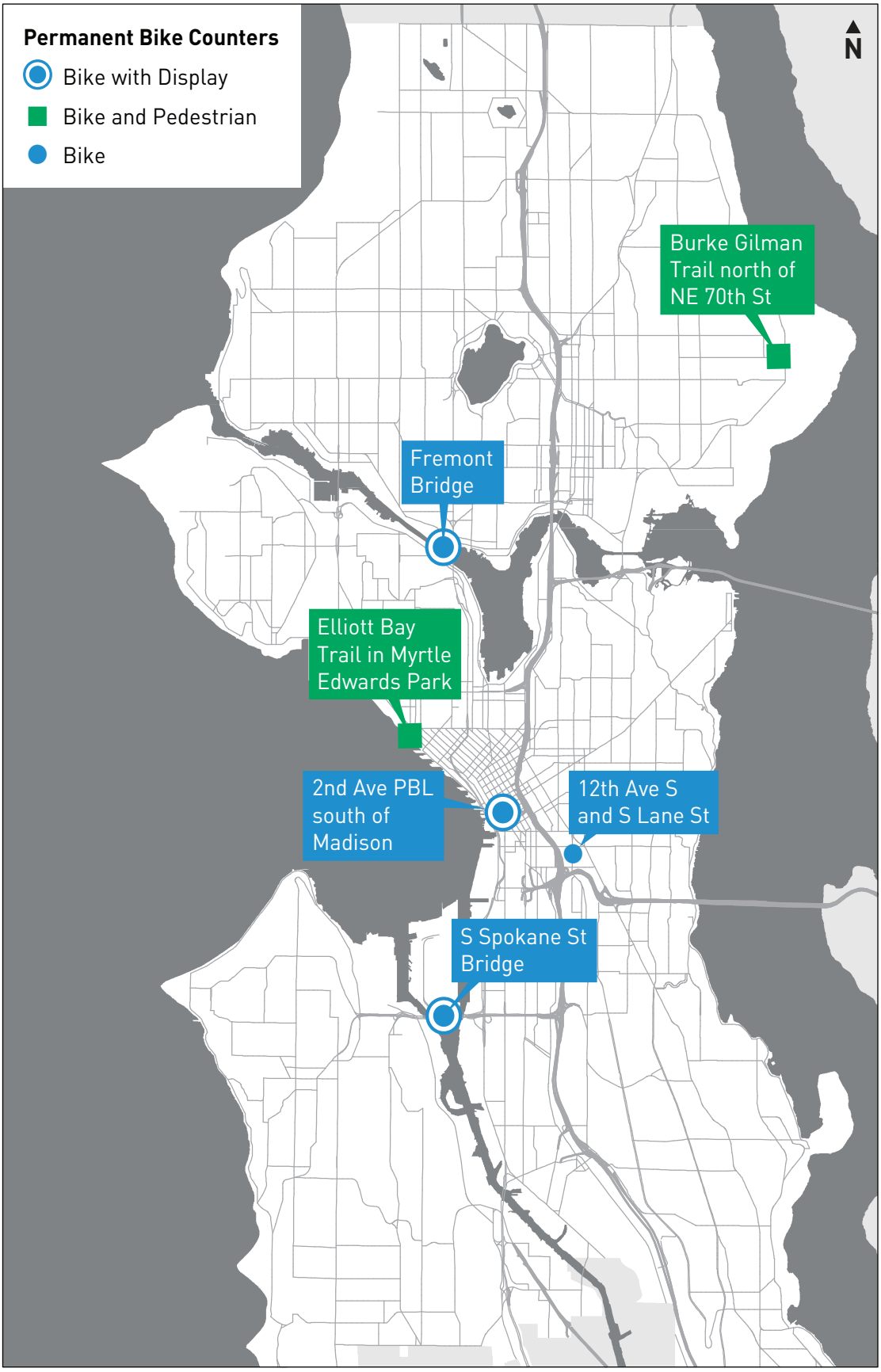


TABLE 16: FREMONT BRIDGE BICYCLE VOLUMES

Month	2013	2014	2015	2016	2017
January	44,900	59,900	60,600	51,700	49,800
February	50,000	47,000	58,700	60,400	42,000
March	66,100	63,500	71,100	69,800	58,700
April	72,000	86,900	83,700	93,600	68,400
May	108,600	118,600	107,800	114,200	109,100
June	99,300	110,900	113,700	107,600	107,800
July	118,000	120,700	112,800	105,700	118,900
August	104,500	112,500	103,400	112,400	120,200
September	80,700	97,600	91,100	94,200	96,500
October	81,400	83,200	83,000	69,900	88,100
November	59,300	57,000	56,700	64,100	57,700
December	43,600	48,500	44,000	38,900	45,900
Month	**2018**	**2019**	**2020**	**2021**	**2022**
January	58,600	72,900	59,000	35,600	34,300
February	50,700	36,100	72,500	29,500	38,600
March	77,300	85,500	57,900	50,200	56,400
April	79,900	87,900	65,400	69,300	63,200
May	129,800	129,100	72,700	73,000	73,500
June	113,100	132,500	75,800	77,500	85,300
July	128,000	137,700	88,200	94,000	99,900
August	111,800	142,400	88,400	86,400	104,100
September	96,200	112,200	58,100	74,400	91,000
October	91,000	104,500	58,800	58,200	74,500
November	68,400	85,000	39,900	40,100	49,900
December	46,900	61,400	36,100	27,500	27,000

TABLE 17: 2022 BICYCLE COUNTS

Location	2022 AADT
Fremont Bridge Totem	2,200
Elliott Bay Trail in Myrtle Edwards Park	1,000
Montlake Br S/O NE Pacific St (E Sidewalk)	900
BGT N/O NE 70th St	850
Spokane St Bridge	720
2nd Avenue Display	590
Gilman Ave W NW/O W Bertona St	520
Mercer St PBL E/O Taylor Ave N	470
Lake Washington Blvd S N/O S Horton St NR	450
University Br N/O Point A (SB Bike Path)	410
University Br N/O Point A (NB Bike Path)	360
Broadway N/O James St	320
Dexter Ave N N/O Denny Way	280
Fremont Ave N S/O N 109th St	250
Dexter Ave N N/O Howe St (NB)	200
Montlake Br S/O NE Pacific St (W Sidewalk)	200
Dexter Ave N N/O Howe St (SB)	170
17th Ave NW N/O NW 53rd St	160
12th Ave NE N/O NE 50th St	140
17th Ave NW S/O NW 65th St	120
Ballard BR (W Sidewalk)	120
NE 40th St E/O Brooklyn Ave NE	110
Roosevelt Way NE S/O NE 45th St	110
27th Ave NE N/O NE 130th St	100
Ballard BR (E Sidewalk)	90
E Columbia St W/O 23rd Ave	90
18th Ave S N/O S Bayview St	80
NW 58th St & 22nd Ave NW	80
W Boston St E/O 1st Ave W	80
22nd Ave N/O E Columbia St	70
22nd Ave S/O E Union St	70
25th Ave N/O E Yesler Way	70
25th Ave S/O S Jackson St	70
E Republican St W/O Malden Ave E	70
Lafayette Ave S N/O S Hinds St	70
NW 83rd St W/O 8th Ave NW	70
17th Ave NW N/O NW 85th St	60
38th Ave S N/O S Alaska St	60

Location	2022 AADT
E Columbia St E/O 12th Ave	60
E Republican St E/O 17th Ave E	60
N 92nd St E/O Aurora Ave N	60
25th Ave N/O E Cherry St	50
Courtland Pl S S/O S Andover St	50
E Republican St W/O 16th Ave E	50
12th Ave NE S/O NE 50th St	40
46th Ave S S/O S Holden St	40
Chief Sealth TRL S/O S Brighton St	40
E Republican St E/O 16th Ave E	40
NE 68th St E/O 27th Ave NE	40
NE 68th St E/O Ravenna Ave NE	40
NE 70th St W/O 15th Ave NE	40
NE 143rd St E/O 32nd Ave NE	40
Renton Ave S S/O Bennett St	40
SW Graham St E/O 42nd Ave S	40
13th Ave E N/O E Republican St	30
27th Ave NE N/O NE 133rd St	30
34th Ave S S/O Mt Baker Blvd EB	30
34th Ave SW N/O SW Morgan St	30
E Republican St E/O 20th Ave E	30
N 43rd St W/O Wallingford Ave N	30
Sodo Trail N/O S Forest St	30
17th Ave SW N/O SW Henderson St	20
39th Ave S S/O S Mead St	20
46th Ave S S/O S Thistle St	20
E Roy St E/O 11th Ave E	20
Hiawatha Pl S SE/O S Charles St	20
NE 44th St W/O Latona Ave NE	20
Renton Ave S S/O S Findlay St	20
S Willow St E/O 42nd Ave S	20
37th Ave NE S/O NE 135th St	10
High Point Dr SW N/O SW Morgan St	10
NE 68th St E/O 17th Ave NE	10
S Director St E/O 46th Ave S	0

HISTORICAL COLLISION DATA

TABLE 18: HISTORICAL COLLISION DATA

Year	Statewide Collisions	Seattle Collisions	Police Reported	Citizen Reported
2012	99,609	12,757	10,616	2,116
2013	99,766	13,213	10,328	2,429
2014	107,673	14,259	10,796	2,417
2015	117,062	13,955	10,937	3,322
2016	122,378	12,485	11,620	2,335
2017	121,152	12,218	10,968	1,517
2018	116,078	11,235	10,280	1,938
2019	111,709	7,253	9,119	2,116
2020	86,345	8,173	5,533	1,720
2021	103,309	8,101	6,189	1,984
2022	103,235	7,678	6,153	1,525

TABLE 19: FATAL/SERIOUS COLLISIONS

Year	Fatal	Serious Injury	Total Serious/Fatal
2012	20	176	196
2013	23	166	189
2014	17	173	190
2015	17	143	160
2016	24	167	191
2017	25	170	195
2018	14	173	187
2019	25	168	193
2020	23	145	168
2021	30	190	220
2022	30	226	256

2022 COLLISION DATA

All of the collision data contained in this section is representative of Washington State Police data provided to SDOT for collisions that occurred within Seattle jurisdiction, inclusive of self-reported collisions.

TABLE 20: 2022 TOTAL COLLISIONS BY STATED COLLISION TYPE

All Other Multi Vehicle	1
All other non-collision	2
Breakage of any part of the vehicle resulting in injury or in further property damage	1
Domestic animal other (cat, dog, etc)	2
Entering at angle	1,296
Fixed object	687
From Opposite Direction	2,287
Jackknife Trailer	1
Not stated	1
One car entering parked position	23
One car leaving parked position	81
One parked--one moving	1,026
Other object	17
Bicycle	243
Person fell, jumped or was pushed from vehicle	1
Railway Vehicle Strikes Vehicle	2
Same Direction	56
Strikes or Was Struck by Object from the Load of Another Vehicle	3
Pedestrian	343
Vehicle overturned	14
Vehicle Strikes Railway Vehicle	8
Blank	1583

FIGURE 27: 2022 COLLISION SEVERITY

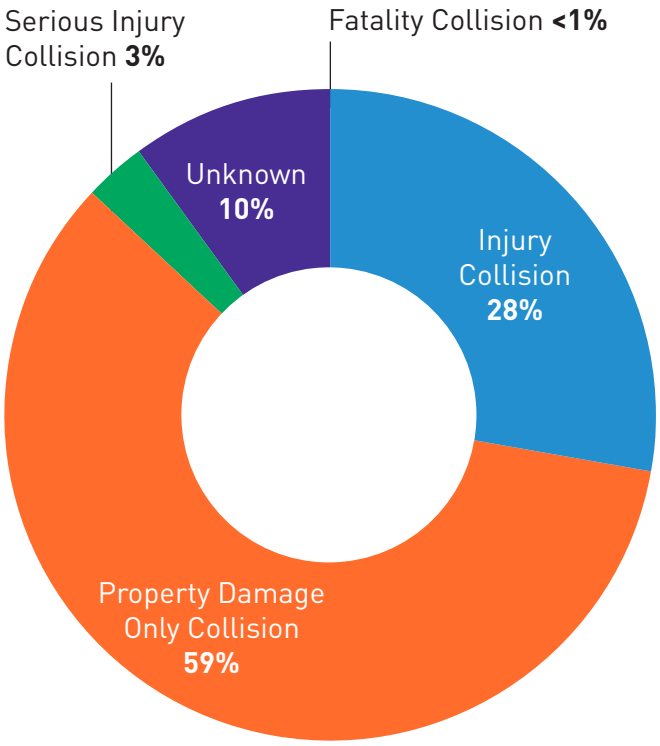


TABLE 21: CONTRIBUTING CIRCUMSTANCES FOR ALL PEOPLE INVOLVED IN 2022 COLLISIONS

Circumstance	Fatality	Serious Injury	Injury	No Injury	Unknown	Total
Apparently Asleep		1	28	35		64
Apparently Emotional (Depressed, Angry, Disturbed, etc.)			1	5		6
Apparently Ill		4	8	10		22
Did not Grant Right of Way to Non-Motorist		21	108	15		144
Did not Grant Right of Way to Vehicle	2	22	306	499		829
Disregard Flagger/Officer			2	3		5
Disregard Traffic Sign or Signal	1	11	133	135		280
Distracted by Adjusting Vehicle Controls		1	11	9		21
Distracted by Other Occupant		2	8	8		18
Distractions Outside Vehicle	1	1	31	40		73
Driver Operating Other Electronic Devices (computers, navigational, etc.)			4	3		7
Eating or Drinking			3	5		8
Exceeding Reasonable and Safe Speed		10	73	123		206
Exceeding Stated Speed Limit	4	8	32	49		93
Failing To Signal			3	3		6
Failure to Use Xwalk	6	13	14	1		34
Following Too Closely		2	112	187		301
Had Taken Medication			1			1
Improper Backing			8	88		96
Improper Parking Location		1	2	7		10
Improper Passing	1	4	16	47		68
Improper Signal		2	2	5		9
Improper Turn/Merge	1	15	108	296		420
Improper U-Turn		2	22	38		62
Light Violation - No Lights/Fail to Dim			4	4		8
Lost in Thought/Day Dreaming		2	11	14		27
Non motorist on Wrong Side OF Road	1		3	3		7
None	18	198	2,085	3,820		6,121
None Stated	18	142	1,435	2,310	747	4,652
Operating Defective Equipment		1	28	48		77
Operating Handheld Cell Phone		1	10	17		28
Operating Hands-free Cell Phone			2	1		3
Operating Reckless or Aggressively		4	17	40		61
Other Distractions	1	6	67	77		151

Circumstance	Fatality	Serious Injury	Injury	No Injury	Unknown	Total
Other/Contributing Circ. Not Listed	3	21	246	765		1035
Overcorrecting/Oversteering			8	26		34
Physically Impaired			2	4		6
Racing			2			2
Smoking				1		1
Under the Influence of Alcohol	4	26	145	296		471
Under the Influence of Drugs		9	39	60		108
Unknown Distraction	6	43	302	690		1041

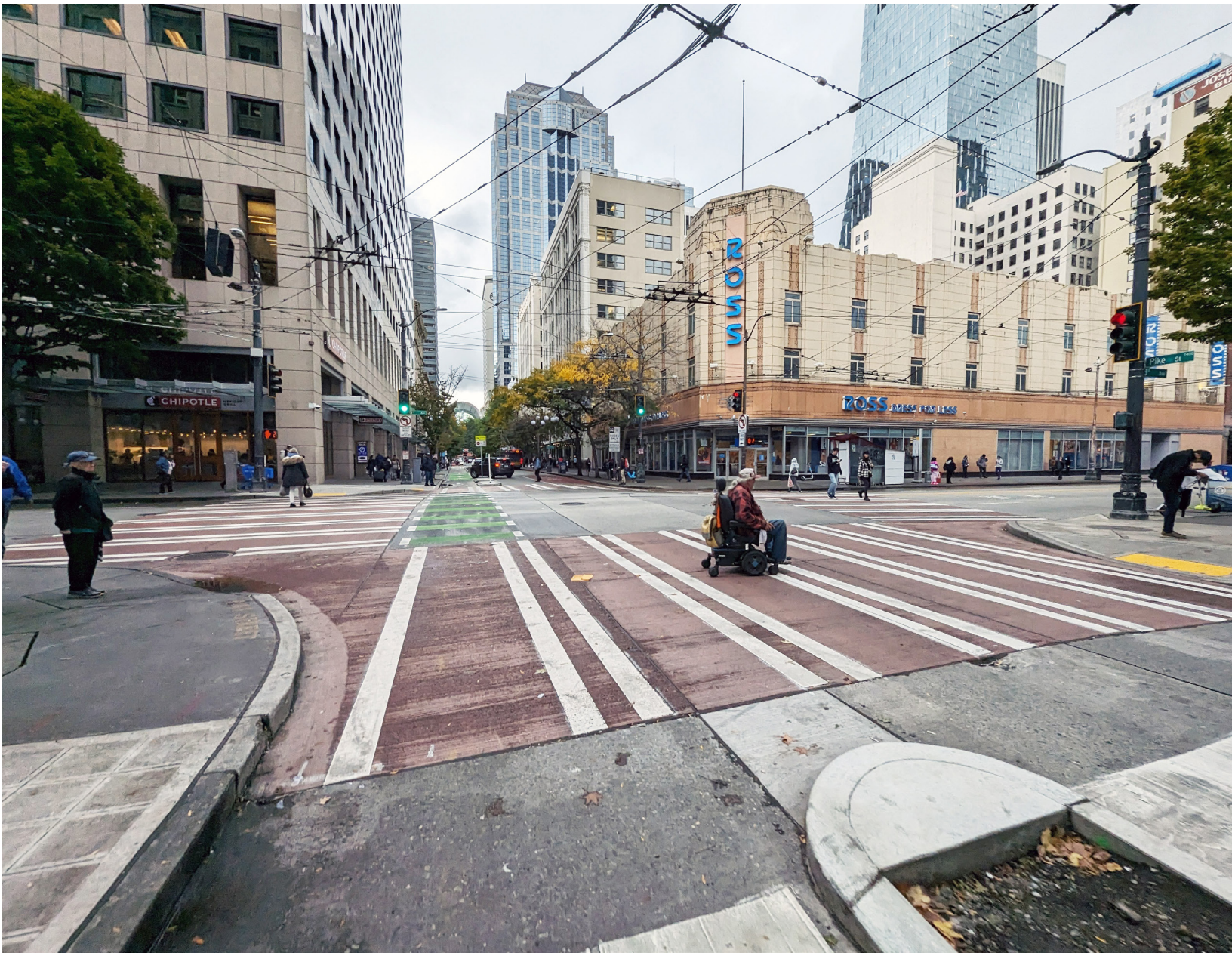


TABLE 22: 2022 FATALITIES

Location	Date	Victim Mode	# Victims
S King St betweeen 12th Ave S and Rainier Ave S	1/1/22	Vehicle (passenger)	1
3rd Ave S and S Holgate St	1/4/22	Bicycle	1
NE 45th St between U Village Dr and NE 45th Pl	1/30/22	Pedestrian	1
6th Ave S and S Michigan St	2/16/22	Vehicle	1
2nd Ave SW and Highland Park Way SW	3/25/22	Pedestrian	1
Aurora Ave N between N 66th St and N 67th St	4/2/22	Vehicle (passenger)	1
Elliott Ave W between W Mercer Pl and W Prospect St	4/4/22	Vehicle	1
15th Ave W and Gilman Dr W	4/23/22	Pedestrian	1
N Northlake Way between Meridian Ave N and Corliss Ave N	4/29/22	Vehicle	1
California Ave SW between SW Brandon St and SW Findlay St	5/6/22	Pedestrian	1
4th Ave S between S Massachusetts St and S Holgate St	5/11/22	Bicycle	1
15th Ave NW between NW 77th St and NW 80th St	6/10/22	Vehicle	1
Aurora Ave N between N 107th S St and N 107th N St	6/27/22	Vehicle (motorcycle)	1
Wilson Ave S between S Hawthorn Rd and S Upland Rd	6/30/22	Vehicle	1
Aurora Ave N between N 141st St and N 143rd St	7/3/22	Pedestrian	1
11th CR Ave SW and SW Spokane St	7/15/22	Bicycle	1
Rainier Ave S between S Findlay St and S Orcast St	8/1/22	Vehicle (passenger)	1
15th Ave NE between NE 125th St and NE 127th St	8/29/22	Pedestrian	1
1st Ave S between S Massachusetts St and S Holgate St	9/28/22	Pedestrian	1
Aurora Ave N between N 137th St and N 140th St	10/2/22	Pedestrian (skateboard)	1
Aurora Ave N and N 100th St	10/10/22	Pedestrian (wheelchair)	1
Rainier Ave S between S Walden St and S Estelle St	10/21/22	Pedestrian	1
Ellis Ave S and E Marginal Way S	10/27/22	Pedestrian	1
Aurora Ave N between N Phinney Way and N 46 Upper St	11/6/22	Pedestrian	1
Mercer St between Queen Anne Ave N and 1st Ave N	11/10/22	Pedestrian	1
Erskine Way SW between California Ave SW and Lewis Pl SW	11/19/22	Pedestrian	1
4th Ave N between Valley St and Aloha St	11/19/22	Pedestrian	1
Aurora Ave N between Garfield St and Howe St	11/21/22	Pedestrian	1
Alaskan Way S and S Dearborn St	12/8/22	Vehicle	1
4th Ave S between S Spokane SR St and W Seattle Bridge EB 4th Ave Off Ramp	12/16/22	Bicycle (scooter share)	1

2022 PEDESTRIAN-INVOLVED COLLISION DATA

TABLE 23: 2022 PEDESTRIAN COLLISION LOCATIONS

Collision Location	Count
Alley	3
Block	144
Intersection	226

FIGURE 28: 2022 PEDESTRIAN-INVOLVED COLLISION LOCATIONS

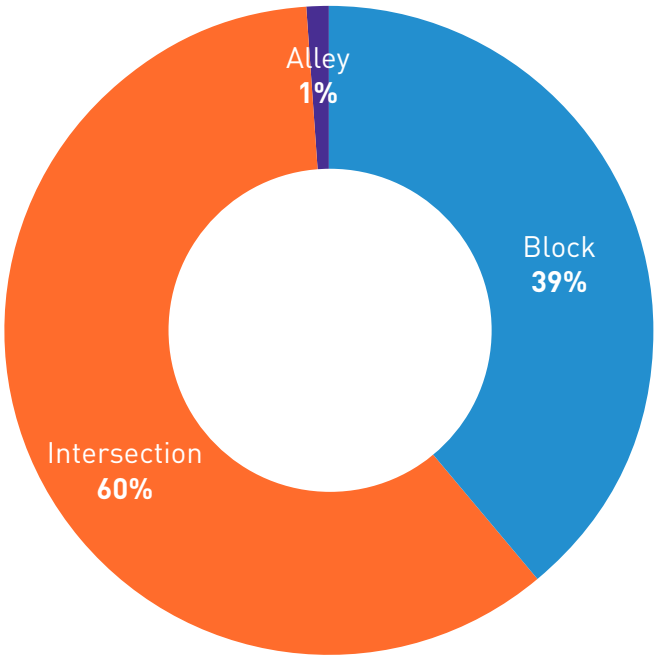


TABLE 24: 2012-2022 PEDESTRIAN - INVOLVED COLLISION RATE PER MILLION INHABITANTS

Year	Pedestrian Collisions	Seattle Population	Pedestrian Collisions Per Capita	Pedestrian Collisions Per 100,000
2012	486	634,535	0.000766	77
2013	413	652,000	0.000633	63
2014	496	668,342	0.000742	74
2015	522	684,451	0.000763	76
2016	553	704,352	0.000785	79
2017	537	713,700	0.000752	75
2018	546	730,400	0.000748	75
2019	572	747,300	0.000765	77
2020	297	761,100	0.000390	39
2021	355	742,400	0.000478	48
2022	373	762,500	0.000490	49

TABLE 25: 2022 INJURY CLASS OF PEDESTRIANS-INVOLVED COLLISIONS BY FACILITY TYPE

Facility	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Designated Bike Route		3	5		8
Marked Cross Walk		17	58	13	88
Other		2	5		7
Roadway	7	21	43	9	80
Shoulder		1	2		3
Sidewalk	1	1	8	1	11
Unmarked Crosswalk		2	14		16
Walkway			4		4
None Stated	8	42	96	15	161

TABLE 26: 2022 INJURY CLASS OF PEDESTRIANS-INVOLVED COLLISIONS

Age	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
18 and under		6	26	2	34
19-29	2	25	48	9	84
30-40	2	15	54	10	81
41-51	2	11	39	2	54
52-62	2	8	22	7	39
63-73	6	12	20	2	40
74-84	2	3	8		13
85 and Over		1	4		5
None Stated		8	14	6	28

FIGURE 29: 2022 GENDER IDENTITY OF PEDESTRIANS INVOLVED COLLISIONS

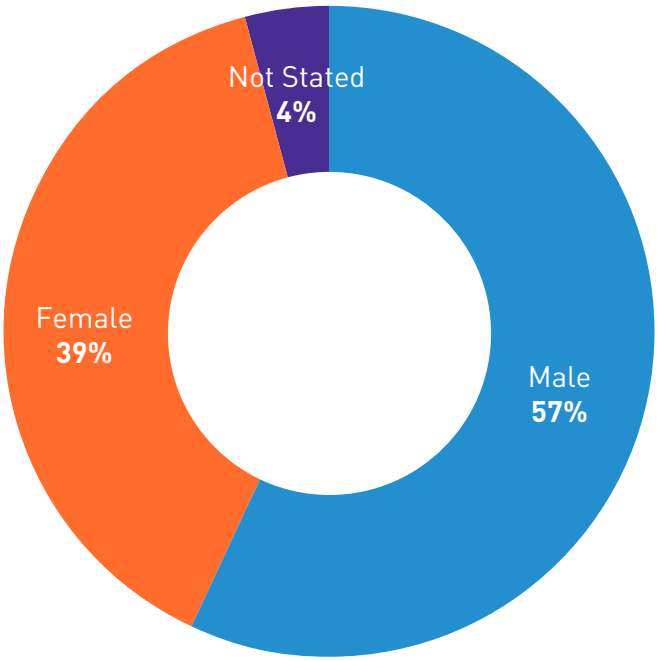


FIGURE 30: 2022 PEDESTRIAN COLLISION SEVERITY BY HOUR OF THE DAY

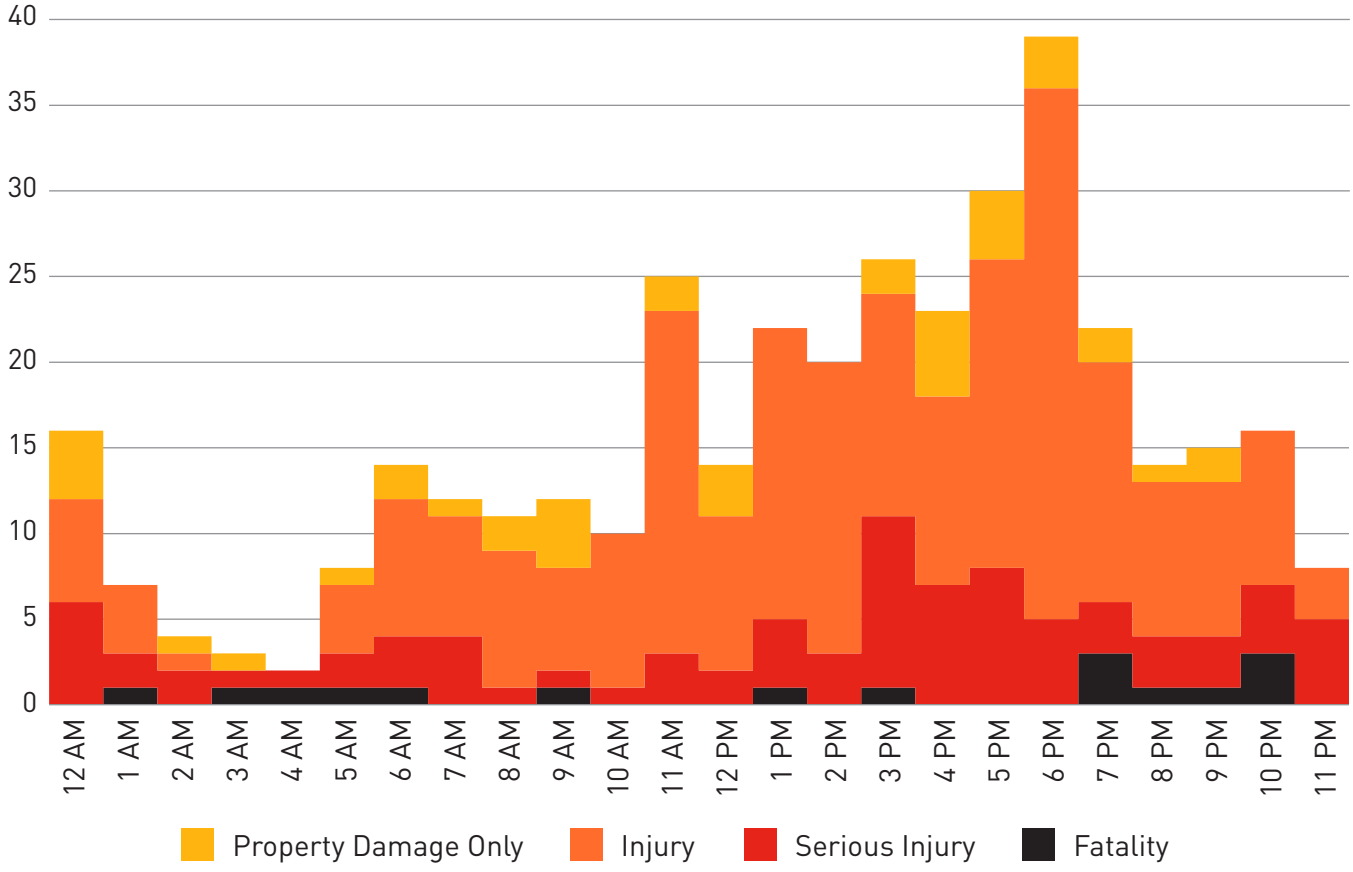


TABLE 27: 2022 PEDESTRIAN-INVOVLED COLLISION SEVERITY BY HOUR OF DAY

Hour of Day	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Not Stated		5	13	3	21
12 AM	1	6	6	3	16
1 AM		2	3		5
2 AM		2	1	1	4
3 AM	1	1		1	3
4 AM	1				1
5 AM	1	2	4	1	8
6 AM	1	3	8	2	14
7 AM		4	6	1	11
8 AM			8	1	9
9 AM	1	1	6	4	12
10 AM		1	9		10
11 AM		2	19	2	23
12 PM		2	9	3	14
1 PM	1	4	17		22
2 PM		3	16		19
3 PM	1	10	13	2	26
4 PM		7	11	5	23
5 PM		7	17	4	28
6 PM		4	27	3	34
7 PM	3	3	12	1	19
8 PM	1	3	8	1	13
9 PM	1	3	8	2	14
10 PM	3	4	9		16
11 PM		5	3		8

FIGURE 31: 2022 PEDESTRIAN COLLISION SEVERITY BY DAY OF WEEK

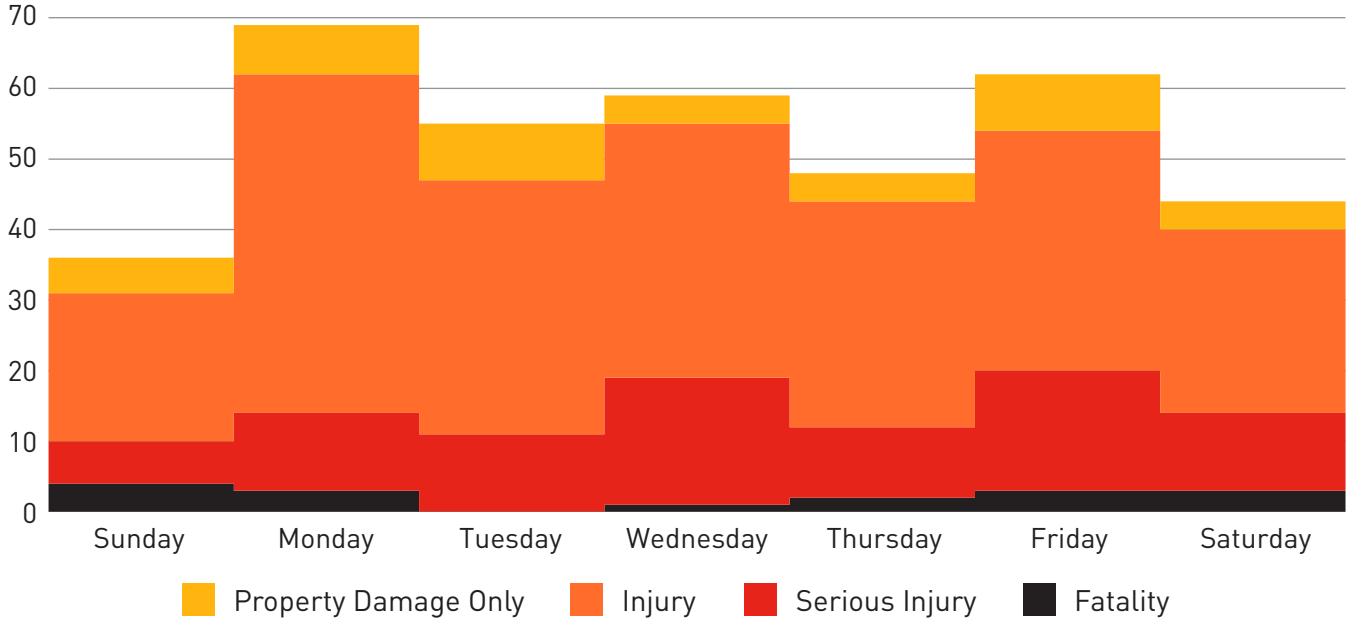


TABLE 28: 2022 PEDESTRIAN-INVOLVED COLLISION SEVERITY BY DAY OF WEEK

Day of Week	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Sunday	4	6	21	5	36
Monday	3	11	48	7	69
Tuesday		11	36	8	55
Wednesday	1	18	36	4	59
Thursday	2	10	32	4	48
Friday	3	17	34	8	63
Saturday	3	11	26	4	44

FIGURE 32: 2022 PEDESTRIAN COLLISION SEVERITY BY MONTH

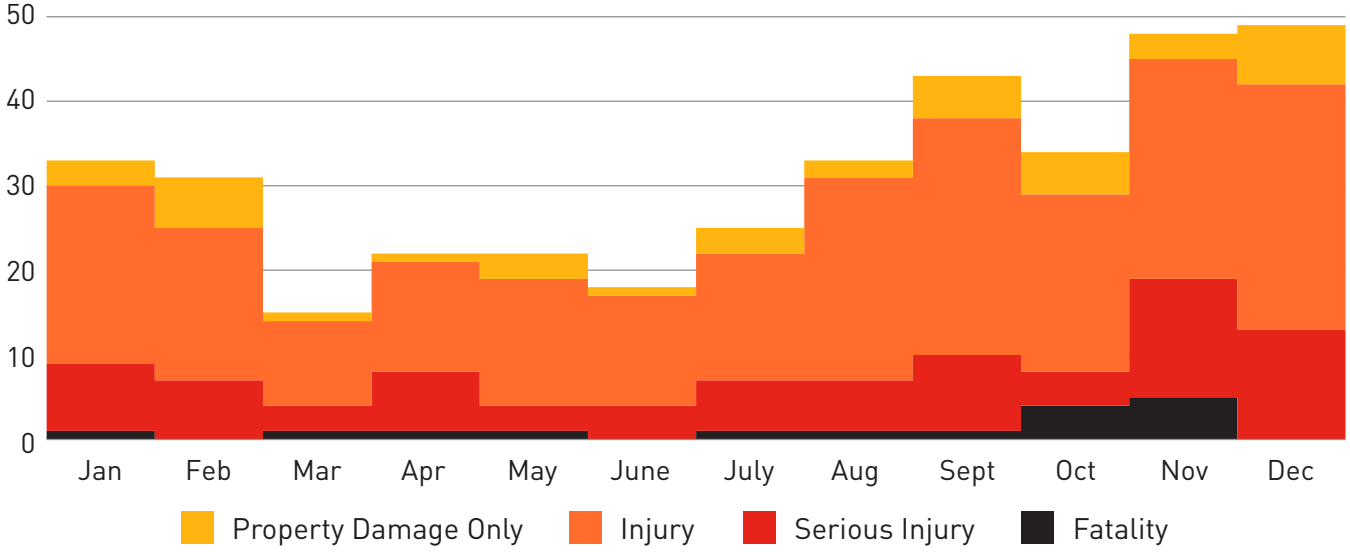


TABLE 29: PEDESTRIAN-INVOLVED COLLISION SEVERITY BY MONTH IN 2022

Month	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
January	1	8	21	3	33
February		7	18	6	31
March	1	3	10	1	15
April	1	7	13	1	22
May	1	3	15	3	22
June		4	13	1	18
July	1	6	15	3	25
August	1	6	24	2	33
September	1	9	28	5	43
October	4	4	21	5	34
November	5	14	26	3	48
December		13	29	7	50

TABLE 30: VEHICLE ACTIONS IN PEDESTRIAN-INVOLVED COLLISIONS IN 2022

Vehicle Action	Total
All other non-collision	1
Entering at angle	3
Fixed object	3
From same direction - both going straight - both moving - sideswipe	3
From same direction - both going straight - one stopped - rear-end	3
From same direction - one right turn - one straight	1
One car entering parked position	1
One parked--one moving	4
Other object	1
Pedal cyclist Strikes Moving Vehicle	1
Pedal cyclist Strikes Pedal cyclist or Pedestrian	1
Vehicle backing hits pedestrian	11
Vehicle going straight hits pedestrian	191
Vehicle hits Pedestrian - All Other Actions	9
Vehicle turning left hits pedestrian	98
Vehicle turning right hits pedestrian	47

TABLE 31: INJURY CLASS OF 2022 PEDESTRIAN-INVOLVED COLLISIONS BY WEATHER

Weather Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Clear	6	50	138	20	215
Fog/Smog/Smoke			1		1
Not Stated	1	6	15	3	25
Other				1	1
Overcast	5	15	39	8	67
Raining	4	12	38	7	61
Sleet/Hail/Freezing Rain		1			1
Snowing			2	1	3

TABLE 32: 2022 PEDESTRIAN-INVOLVED COLLISIONS BY LIGHT CONDITIONS

Condition	Total
Dark - No Street Lights	7
Dark - Street Lights Off	5
Dark - Street Lights On	130
Dark - Unknown Lighting	5
Dawn	7
Daylight	181
Dusk	13
Not Stated	23
Other	1
Unknown	1

TABLE 33: 2022 PEDESTRIAN-INVOLVED COLLISIONS BY ROAD CONDITION

Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Dry	10	54	158	24	246
Ice		1	3		4
Not Stated	2	5	13	3	23
Snow/Slush		1	2	1	4
Unknown		1	1	1	3
Wet	4	22	56	11	93

2022 BICYCLE COLLISION DATA

FIGURE 33: 2022 BICYCLE COLLISION LOCATIONS

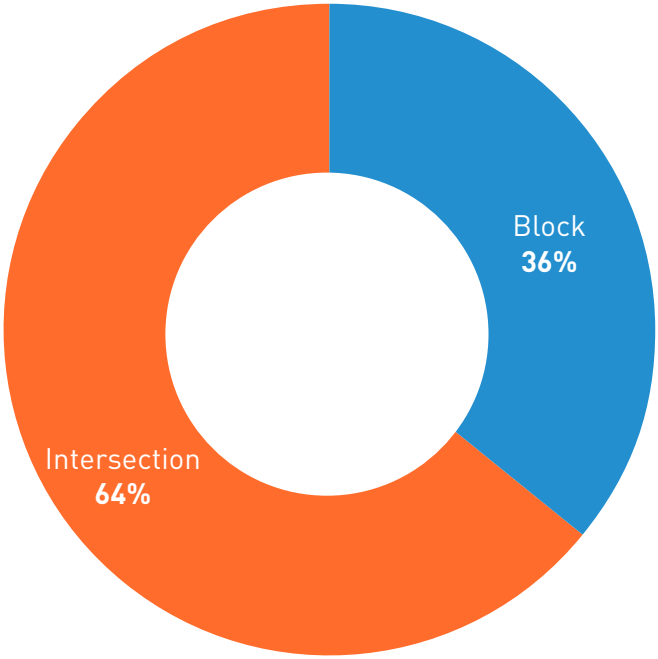


TABLE 34: CONTRIBUTING CIRCUMSTANCE FOR 2022 BICYCLE COLLISIONS

Motor Vehicle Driver Action	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Did not Grant Right of Way to Vehicle	1	2	13	1	17
Disregard Traffic Sign or Signal		1	4	1	6
Exceeding Reasonable and Safe Speed		1	6		7
Exceeding Stated Speed Limit		1			1
Improper Passing		1		1	2
Improper Signal		1	1		2
Improper Turn/Merge		1	1		2
Non motorist on Wrong Side of Road			2	2	4
No Description	2	21	126	14	163
Operating Defective Equipment			3		3
Operating Reckless or Aggressively			1		1
Other Distractions			4	1	5
Other/Contributing Circ. Not Listed	1	2	6	2	11
Under the Influence of Alcohol			3		3
Unknown Distraction		4	12	2	18
Not Stated		3	14	1	18

FIGURE 34: GENDER IDENTITY OF CYCLISTS INVOLVED IN 2022 COLLISIONS

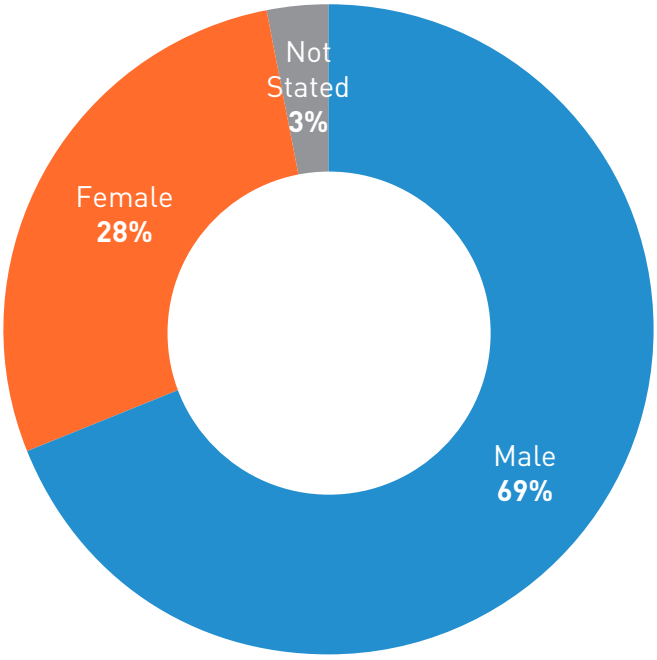


TABLE 35: GENDER IDENTITY OF CYCLISTS INVOLVED IN 2022 COLLISIONS

Gender	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Male	4	26	132	18	180
Female		12	60	2	74
Not Stated			4	5	9

FIGURE 35: AGE OF CYCLISTS INVOLVED IN 2022 COLLISIONS

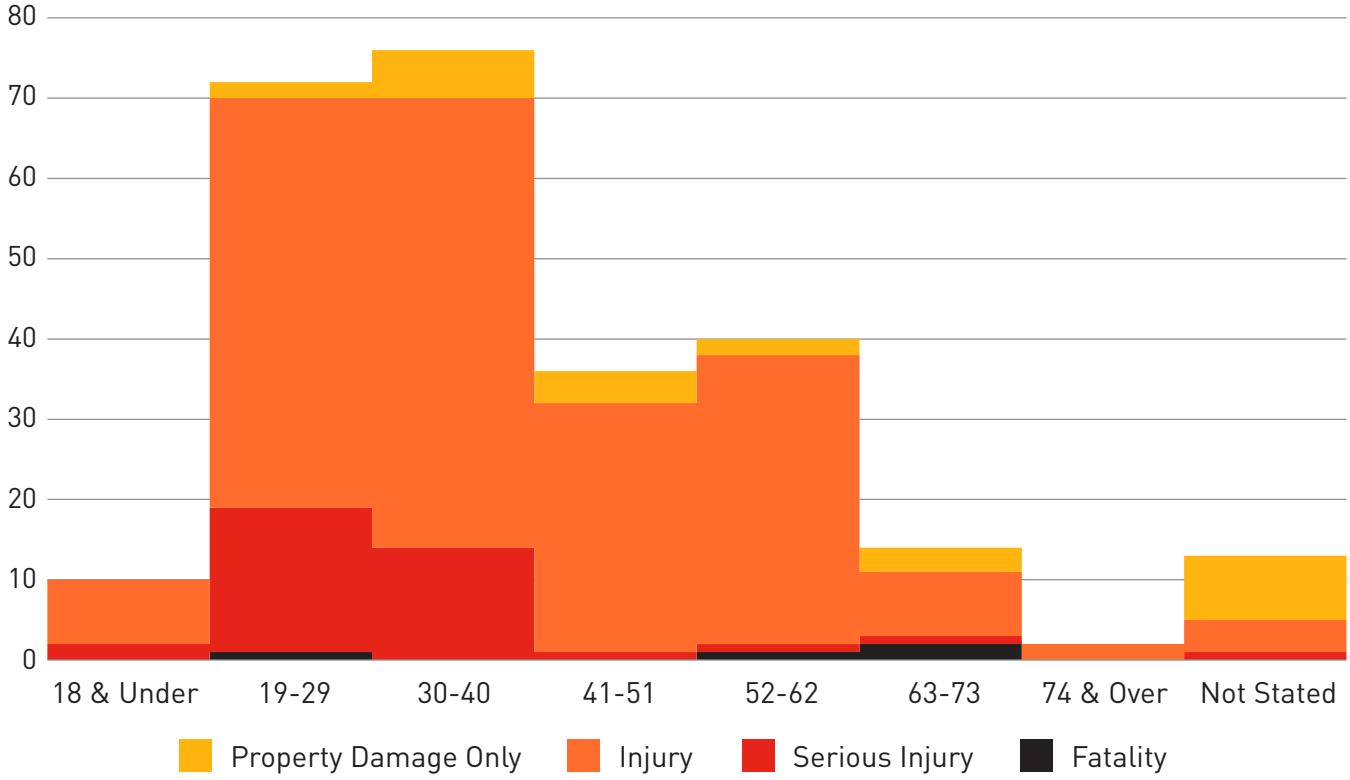


TABLE 36: AGE OF CYCLISTS INVOLVED IN 2022 COLLISIONS

Age	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
18 and Under		2	8		10
19-29	1	18	51	2	72
30-40		14	56	6	76
41-51		1	31	4	36
52-62	1	1	36	2	40
63-73	2	1	8	3	14
74 and Over			2		2
Not Stated		1	4	8	13

FIGURE 36: 2022 BICYCLE COLLISIONS BY MONTH

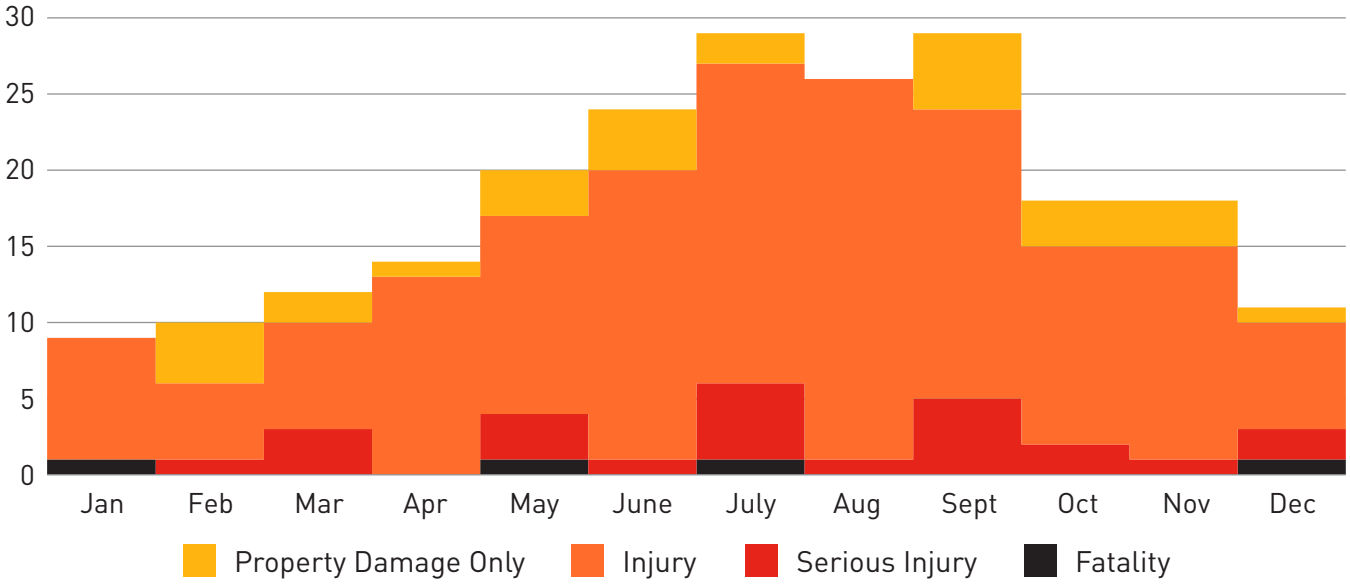


TABLE 37: BICYCLE COLLISIONS BY MONTH IN 2022

Month	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
January	1		8		9
February		1	5	4	10
March		3	7	2	12
April			13	1	14
May	1	3	13	3	20
June		1	19	4	24
July	1	5	21	2	29
August		1	25		26
September		5	19	5	29
October		2	13	3	18
November		1	14	3	18
December	1	2	7	1	11

FIGURE 37: 2022 BIKE COLLISION SEVERITY BY HOUR OF THE DAY

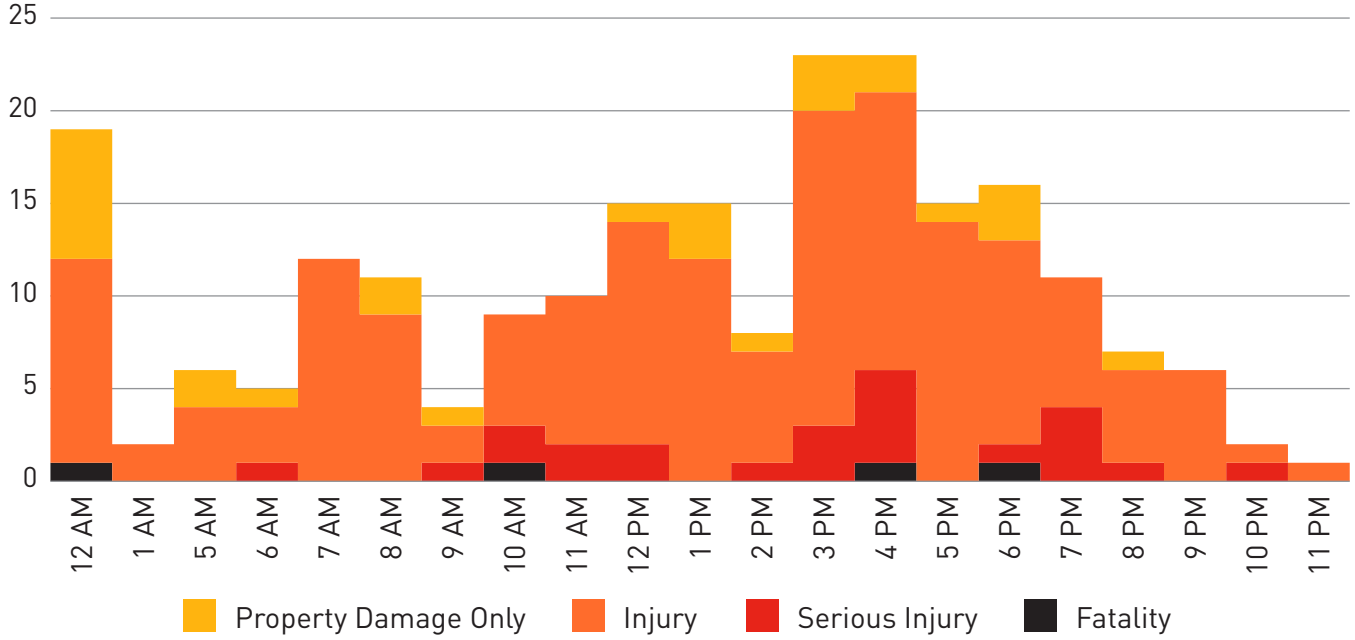


TABLE 38: BIKE COLLISION SEVERITY BY HOUR OF DAY IN 2022

Hour	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Not Stated	1		9	7	16
12 AM			2		2
1 AM			2		2
5 AM			4	2	6
6 AM		1	3	1	5
7 AM			12		12
8 AM			9	2	11
9 AM		1	2	1	4
10 AM	1	2	6		9
11 AM		2	8		10
12 PM		2	12	1	15
1 PM			12	3	15
2 PM		1	6	1	8
3 PM		3	17	3	23
4 PM	1	5	15	2	23
5 PM			14	1	15
6 PM	1	1	11	3	16
7 PM		4	7		11
8 PM		1	5	1	7
9 PM			6		6
10 PM		1	1		2
11 PM			1		1
10 PM	0	1	2	1	4
11 PM	0	0	3	1	4

FIGURE 38: BIKE COLLISION SEVERITY BY DAY 2022

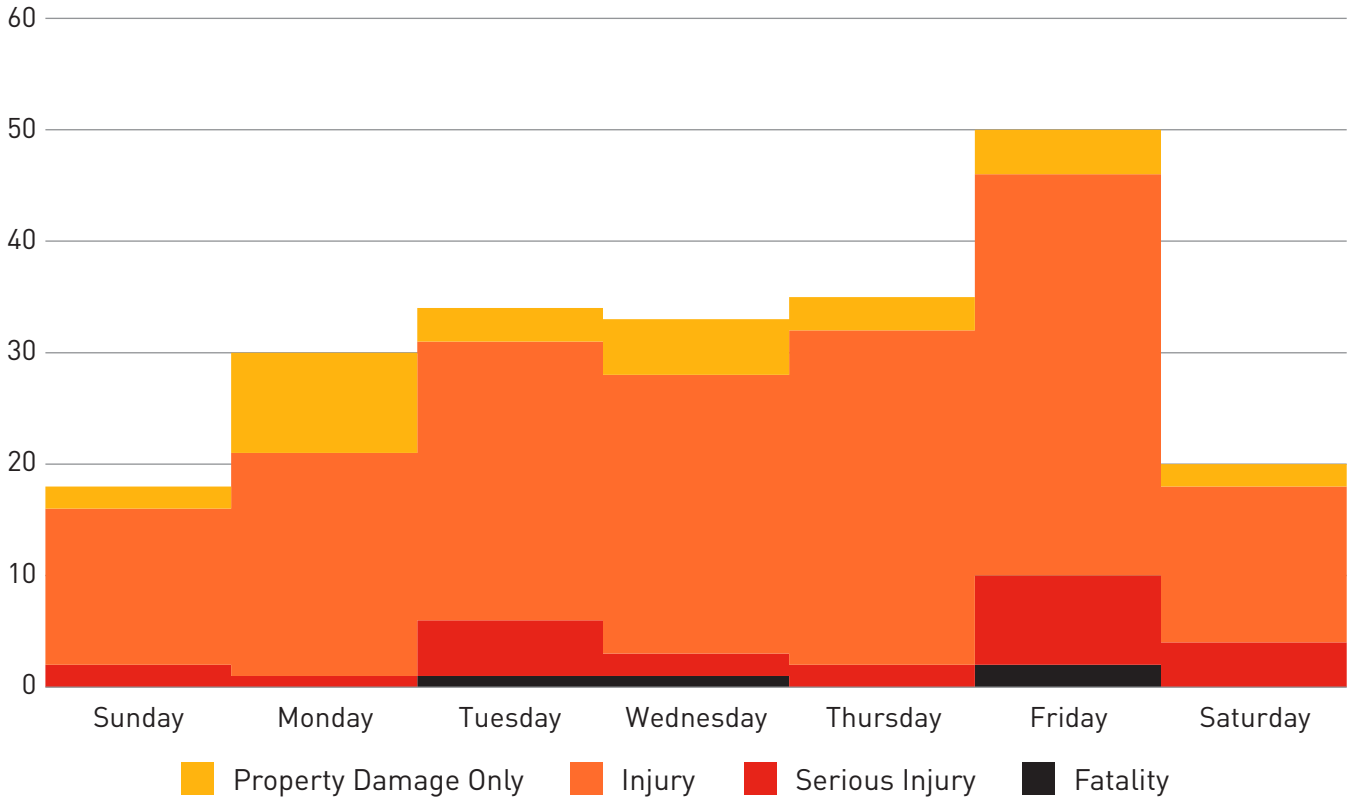


TABLE 39: BIKE COLLISION SEVERITY OF THE DAY IN 2022

Day	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Sunday		2	14	2	18
Monday		1	20	9	30
Tuesday	1	5	25	3	34
Wednesday	1	2	25	5	33
Thursday		2	30	3	35
Friday	2	8	36	4	50
Saturday		4	14	2	20

TABLE 40: INJURY CLASS OF CYCLISTS IN 2022 COLLISIONS BY WEATHER

Weather Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Clear	3	17	124	18	162
Other				1	1
Overcast		6	17		23
Raining	1	1	14	2	18
Not Stated			9	7	16
Raining	1	0	11	4	16
Not Stated	2	2	17	8	31

TABLE 41: INURY CLASS OF CYCLISTS INVOLVED IN 2022 COLLISIONS BY FACILITY TYPE

Facility	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Designated Bike Route		12	65	6	83
Marked Cross Walk		2	27	3	32
Other		1	4		5
Roadway	3	12	66	15	95
Shoulder			4		4
Sidewalk	1	4	18	1	24
Unmarked Crosswalk			4		4
Walkway			3		3
Not Stated			5	2	7

TABLE 42: CLOTHING VISIBILITY FOR CYCLISTS INVOLVED IN 2022 COLLISIONS

Clothing	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Dark	2	13	42	6	63
Light		7	29	3	39
Mixed	2	15	106	13	136
Not Stated		3	5	2	10
Other Reflective Apparel - Shoes, Patches			8	1	9
Retro - Reflective			6		6

TABLE 43: INJURY CLASS OF CYCLISTS IN 2022 COLLISIONS BY LIGHT CONDITION

Light Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Dark - No Street Lights			2		2
Dark - Street Lights Off			1	1	2
Dark - Street Lights On	2	3	22	2	29
Dawn			2	1	3
Daylight	2	18	120	15	155
Dusk		2	8	1	11
Other		1			1
Unknown				1	1
Not Stated			9	7	16

SPEED DATA

TABLE 44: PROBE AND TUBE-BASED SPEED DATA FOR 2022

Location	Direction	2022 Speed Limit	85th Percentile Speed	Date
SW Admiral Way, SE/O SW City View St	SEB	25	41.8	10/1/2022
SW Admiral Way, SE/O SW City View St	NWB	25	40.7	10/1/2022
Greenwood Ave N, S/O N 145th St	SB	30	38.7	10/1/2022
Elliott Ave W, SE/O W Mercer Pl	SEB	25	38.5	10/1/2022
Elliott Ave W, SE/O W Mercer Pl	NWB	25	38.1	10/1/2022
4th Ave S, N/O S Dawson St	SB	30	37.7	10/1/2022
16th Ave S, N/O 16th Ave S Br*	NB	30	43.9	3/25/2022
16th Ave S, N/O 16th Ave S Br*	SB	30	43.4	3/25/2022
NE Northgate Way, W/O 15th Ave NE*	EB	25	38.3	2/24/2022
Pinehurst Way NE, NE/O NE 115th St*	SWB	25	37.5	2/24/2022
NE Northgate Way, W/O 15th Ave NE*	WB	25	37.2	2/24/2022
Ellis Ave S, S/O S Warsaw St*	NB	25	36.6	3/31/2022
4th Ave S, N/O S Dawson St	NB	30	37.3	10/1/2022
Aurora Ave N, S/O N 112th St	SB	35	37.1	10/1/2022
Greenwood Ave N, S/O N 145th St	NB	30	37.1	10/1/2022
Sand Point Way NE, S/O NE 74th St	SB	30	36.6	10/1/2022
Aurora Ave N, S/O N 112th St	NB	35	36.5	10/1/2022
M L King Jr ER Way S, S/O S Holly St	NB	25	34.6	10/1/2022
M L King Jr ER Way S, S/O S Holly St	SB	25	34.2	10/1/2022
24th Ave E, N/O E Prospect St	SB	25	33.8	10/1/2022
Delridge Way SW, N/O SW Myrtle St	SB	25	33.4	10/1/2022
35th Ave SW, S/O SW Morgan St	NB	25	33.0	10/1/2022
35th Ave SW, S/O SW Morgan St	SB	25	32.9	10/1/2022
Rainier Ave S, NW/O S Holly St	NWB	25	32.7	10/1/2022
Pinehurst Way NE, NE/O NE 115th St*	NEB	25	36.5	2/24/2022
Seaview Ave NW, N/O NW 67th St*	NB	25	36.2	3/30/2022
NE 125th St, W/O 27th Ave NE*	WB	25	35.4	3/8/2022
SW Avalon Way, N/O 30th Ave SW*	NB	25	35.1	3/3/2022
24th Ave E, N/O E Prospect St	NB	25	32.6	10/1/2022
1st Ave NE, S/O NE 145th St*	NB	25	34.8	3/8/2022
Seaview Ave NW, N/O NW 67th St*	SB	25	34.5	3/30/2022
8th Ave S, S/O S Director St*	NB	25	34.4	3/25/2022
Ellis Ave S, S/O S Warsaw St*	SB	25	34.0	3/31/2022

*Tube-based data

Location	Direction	2022 Speed Limit	85th Percentile Speed	Date
N 105th St, W/O Evanston W Ave N	WB	30	32.1	10/1/2022
Nickerson St, NW/O Florentia St	NWB	25	31.8	10/1/2022
1st Ave NE, S/O NE 145th St*	SB	25	33.9	3/8/2022
NE 125th St, W/O 27th Ave NE*	EB	25	33.5	3/8/2022
31st Ave S, S/O S Jackson St*	NB	25	33.1	3/30/2022
S Columbian Way, W/O Beacon WR Ave S*	WB	25	33.1	3/31/2022
8th Ave S, S/O S Director St*	SB	25	32.9	3/25/2022
Greenwood Ave N, S/O Holman Rd N*	SB	25	32.6	8/24/2022
N 105th St, W/O Evanston W Ave N	EB	30	31.3	10/1/2022
SW Roxbury St, E/O 26th Ave SW	WB	25	31.0	10/1/2022
S Spokane SR St, W/O 4th Ave S	EB	25	31.0	10/1/2022
31st Ave S, S/O S Jackson St*	SB	25	32.4	3/30/2022
SW Avalon Way, N/O 30th Ave SW*	SB	25	32.3	3/3/2022
S Columbian Way, W/O Beacon WR Ave S*	EB	25	31.8	3/31/2022
3rd Ave NW, S/O NW 145th St*	NB	25	31.5	3/24/2022
3rd Ave NW, S/O NW 145th St*	SB	25	31.5	3/24/2022
Greenwood Ave N, S/O Holman Rd N*	NB	25	31.3	3/24/2022
S Othello St, E/O 43rd Ave S*	WB	25	31.2	3/10/2022
Fauntleroy Way SW, S/O SW Alaska St*	SB	25	30.8	3/24/2022
NE 65th St, W/O 15th Ave NE*	EB	25	30.7	2/24/2022
Beach Dr SW, SE/O 61st Ave SW*	NWB	25	30.7	3/3/2022
SW Roxbury St, E/O 26th Ave SW	EB	25	30.9	10/1/2022
Rainier Ave S, NW/O S Holly St	SEB	25	30.6	10/1/2022
E Green Lake Dr N, NW/O Latona Ave NE*	SEB	25	30.5	3/10/2022
24th Ave NW, S/O NW 80th St*	SB	25	30.5	3/3/2022
N 50th St, W/O 1st Ave NE	WB	25	30.3	10/1/2022
Nickerson St, NW/O Florentia St	SEB	25	30.2	10/1/2022
N 50th St, W/O 1st Ave NE	EB	25	30.0	10/1/2022
24th Ave NW, S/O NW 80th St*	NB	25	30.3	3/3/2022
Fauntleroy Way SW, S/O SW Alaska St*	NB	25	29.8	3/24/2022
N 46th St, W/O Phinney Ave N	WB	25	29.8	10/1/2022
Roosevelt Way NE, N/O NE 50th St	SB	25	29.4	10/1/2022
E Marginal Way S, N/O Alaskan Way VI NB	NB	25	29.0	10/1/2022
Mercer St, W/O Dexter Ave N	WB	25	29.0	10/1/2022
S Othello St, E/O 43rd Ave S*	EB	25	29.7	3/10/2022

*Tube-based data

Location	Direction	2022 Speed Limit	85th Percentile Speed	Date
E Green Lake Dr N, NW/O Latona Ave NE*	NWB	25	29.3	3/10/2022
S Lucile St, E/O 4th Ave S*	EB	25	29.1	3/10/2022
Beach Dr SW, SE/O 61st Ave SW*	SEB	25	28.9	3/3/2022
NE 65th St, W/O 15th Ave NE*	WB	25	28.1	2/24/2022
Phinney Ave N, S/O N 65th St*	NB	25	28.0	3/3/2022
Mercer St, W/O Dexter Ave N	EB	25	28.7	10/1/2022
N 130th St, W/O Ashworth Ave N	EB	25	26.9	10/1/2022
S Lucile St, E/O 4th Ave S*	WB	25	27.0	3/10/2022
Phinney Ave N, S/O N 65th St*	SB	25	26.9	3/3/2022
N 46th St, W/O Phinney Ave N	EB	25	26.1	10/1/2022
Stone Way N, S/O N 45th St*	SB	25	24.9	3/3/2022
Fremont Ave N, S/O N 46th St*	SB	25	24.2	3/10/2022
E Madison St, SW/O Lake Washington Blvd E	SWB	25	25.7	10/1/2022
E Madison St, SW/O Lake Washington Blvd E	NEB	25	25.3	10/1/2022
Stone Way N, S/O N 45th St*	NB	25	24.1	3/3/2022
Fremont Ave N, S/O N 46th St*	NB	25	23.9	3/10/2022
12th Ave NE, S/O NE 75th St	NB	25	25.3	10/1/2022
Sand Point Way NE, S/O NE 74th St	NB	30	25.0	10/1/2022
N 130th St, W/O Ashworth Ave N	WB	25	23.9	10/1/2022

*Tube-based data

Glossary

TRAFFIC VOLUME TERMS

Source – William R. McShane and Roger P. Roess, *Traffic Engineering* (Englewood Cliffs, New Jersey: Prentice Hall, 1990) 49.

ADT: Average Daily Traffic. An average 24-hour traffic volume at a given location for some period less than a year.

AWDT: Average Weekday Daily Traffic. An average 24-hour traffic volume occurring on weekdays for some period of time less than one year, such as for a month or a season.

AADT: Average Annual Daily Traffic. The average 24-hour traffic volume at a given location over a full 365-day year.

INJURY TYPES

Source – State of Washington Police Traffic Collision Report Instruction Manual and SDOT

No Injury: Applies when the officer at the scene has no reason to believe that, at the time of the collision, the person received any bodily harm due to the collision.

Possible Injury: Any injury reported to the officer or claimed by the individual such as momentary unconsciousness, claim of injuries not evident, limping, complaint of pain, nausea, hysteria, etc. These are counted as injuries when the total number of injuries is presented.

Non Serious Injury (Evident Injury): Any injury other than fatal or disabling at the scene, including broken fingers or toes, abrasions, etc.

Serious Injury: Any injury that results in at least a temporary impairment, e.g. a broken limb. It does not mean that the collision resulted in a permanent disability.

Fatality: This category includes persons who died at the scene of the collisions, were dead on arrival at the hospital, or died within 30 days of the collision from collision-related injuries.

ROADWAY CLASSIFICATION TYPES Source – City of Seattle Comprehensive Plan, Section 3.4 and SDOT

Residential (Non-Arterial) Streets: Roadways that provide localized traffic circulation, including access to neighborhood land uses, commercial and industrial land uses, and access to higher level traffic streets.

Collector Arterials: Roadways that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.

Minor Arterials: Roadways that distribute traffic from principal arterials to collector arterials and access streets.

Principal Arterials: Roadways that are intended to serve as the primary routes for moving traffic through the city, connecting urban centers and urban villages to one another, or to the regional transportation network.

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This report is prepared in compliance with Seattle Municipal Code 11.16.220, which requires the City Traffic Engineer to present an annual traffic report that includes information about traffic trends and traffic collisions on City of Seattle streets. Beyond this legal requirement, the report strives to serve as an accessible reference of Seattle traffic data and trends for all.

In gathering and compiling the information in this report, the Seattle Department of Transportation does not waive the limitations on this information's discoverability or admissibility under 23 U.S.C § 409.

For additional information about traffic data and collisions on Seattle streets, readers may contact the City Traffic Engineer Venu Nemani at venu.nemani@seattle.gov or visit http://data.seattle.gov.

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