



# **Bicycle and Pedestrian Counts in the Buffalo-Niagara Region**

**September 2022**



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## Executive Summary

Regular bicycle and pedestrian counts are crucial transportation data. After all, when it comes to designing our streets, if you're not counted, you don't count. Bicycle and pedestrian counts allow communities to understand where people are currently walking and biking, and where they are not. Counts help us understand how biking and walking patterns change from year to year, and how street design can influence bicycle and pedestrian volumes. Data enables informed conversations with community members and elected officials.

While there are scattered bicycle and pedestrian counts in the Buffalo Niagara region, there is no regular count program. In an effort to fill this gap, in 2019, GObike Buffalo organized a volunteer bicycle and pedestrian counting program using the methodology established by the National Bicycle and Pedestrian Documentation Project over ten years ago. GObike used the power of volunteers to spread out across the region and, following specific instructions, count people biking and walking on sidewalks, streets, and trails of all kinds.

Thanks to volunteers, GObike's Buffalo Niagara Count Program now has a third year of estimates of how many people are walking and biking each day at 22 locations around the region, from South Buffalo to Lewiston. According to GObike's 2022 data:

- The most popular spots to bike were on Fuhrmann Boulevard (Outer Harbor), Ralph C. Wilson Centennial Park (formerly LaSalle Park), Porter Avenue, Elmwood Avenue, and Linwood Avenue.
- Most pedestrian activity was seen on Elmwood Avenue, Pearl Street, Linwood Avenue, and Bidwell Parkway.
- On average, women make up just 23% of the bicycle traffic. In comparison, we saw an average of 49% female pedestrians.
- Streets without bicycle facilities create challenges for people riding bicycles there. On Clinton Street, Elmwood Avenue, Main Street, and Grant Street, over 45% of cyclists were biking on the sidewalk.
- Wrong way riding is common on some streets, such as Clinton Street and Prospect Avenue, which is a one-way street.
- Porter Avenue, William L. Gaiter Parkway, LaSalle Park Trail, Fillmore Avenue, Grant Street, and South Park Avenue saw an increase in bicycle volume between 2019 and 2022.
- Delaware Avenue, Fillmore Avenue, Grant Street, Linwood Avenue, Pearl Street, Porter Avenue, the Scajaquada Trail, South Park Avenue, and William L Gaiter Parkway all saw an increase in pedestrian volume between 2019 and 2022.

This report is the first step in building a robust system of regional bicycle and pedestrian counting. Count data will be used to inform dialogue with community members, agency partners, and elected officials about improving comfort and safety for people biking and walking. This report highlights and makes visible disparities in the use of our transportation system, leading questions, such as:

- Why don't more women ride bikes?
- Why are so many people riding on the sidewalk in some locations?
- How can bike and pedestrian traffic estimates and characteristics be applied to make this region safer for all road users?

## Background

Transportation agencies nationwide are planning and implementing comprehensive bicycle and pedestrian counting systems. The Federal Highway Administration (FHWA) added “Traffic Monitoring for Non-Motorized Traffic” to its Traffic Monitoring Guide in 2016, recommending that agencies include bicycle and pedestrian traffic in data programs and providing an overview of technologies and strategies.

Bicycle and pedestrian counts are crucial transportation data that allow communities to understand when and where people are walking and cycling. While the City of Buffalo has installed a number of automated bicycle counters using “puck” technology, and the Greater Buffalo Niagara Regional Transportation Council counts bikes and pedestrians at some signalized intersections as part of their traffic counting program, at this time there is no routine regional bicycle counting program in Western New York. To fill this gap, in 2019, GObike Buffalo organized a volunteer bicycle and pedestrian counting program using the methodology established by the National Bicycle and Pedestrian Documentation Project.

The objectives of the Buffalo-Niagara bicycle and pedestrian count program are:

- Establish baseline bicycle and pedestrian data throughout the region
- Track biking and walking behavior over time, especially before and after bike infrastructure or complete streets projects are installed
- Evaluate changes in walking and biking on a seasonal and annual basis
- Inform future street design projects
- Better understand crash and safety data
- Support informed conversations with the community and with and elected officials

This report details the methodology and results of count efforts to-date, along with an analysis of major trends and observations. This information is intended to provide a baseline for an annual volunteer count program, and to spark regional conversations about the importance of bicycle and pedestrian counts.

## Count Methodology

GObike's Buffalo-Niagara Count Program followed the protocol recommended by the National Bicycle and Pedestrian Documentation Project, The National Bicycle and Pedestrian Documentation Project methodology uses 2-hour peak counts to estimate daily bicycle and pedestrian travel. To complete 2-hour counts, volunteers tally marks on a spreadsheet to count the number of bikes and pedestrians that cross a designated screenline<sup>1</sup> (see sample count spreadsheet in Appendix A).

An advantage of manual counting is that volunteers may also collect additional data about people counted biking and walking, including: perceived gender<sup>2</sup>, sidewalk riding, wrong way riding, and/or presence of an assistive device other than a bicycle (e.g. a stroller, scooter, or wheelchair, etc).

Manual counts may be made stronger by supplementing them with additional data sources. Additional data sources such as Strava and personal smartphone health apps, bicycle share programs' trip data, public security and streetlight cameras are beyond the scope of this study, but could be considered in the future as part of expanded non-motorized counting efforts.

The nationwide bicycle and pedestrian count dates in 2022 were Sept 13, 14, and 15 (Tues-Thurs) between the hours of 4 and 6 pm, and Saturday, Sept 17, from 12 - 2 pm. Due to rain on Tuesday Sept 13, counts were rescheduled to the following Tuesday, Sept 20. Table 1 shows details on the weather conditions on the count dates for 2022.

*Table 1. Weather conditions for count dates, 2022.*

Date	Cloud cover	High (F)	Low (F)	24-Hour Precipitation
Wednesday, September 14th	Cloudy	73	58	0.04
Thursday, September 15th	Cloudy	66	50	0
Saturday, September 17th	Cloudy	78	59	0
Tuesday, September 20th	Cloudy	73	60	0.29

*Source: Weather Underground historical data at Buffalo Niagara International Airport.*

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<sup>1</sup> A screenline is an imaginary line on the ground that covers the entire public right-of-way, including the sidewalk or trail. Any time a person crosses the screenline, they are counted.

<sup>2</sup> Gender is tallied as perceived by the count volunteer. Genders attributed to counted users may not match users' gender identity. Gender of users intersectionality is a critical framework for analyzing multiple, overlapping identities, privileges, and oppressions.

According to the National Bicycle and Pedestrian Documentation Project, differences in travel patterns on Tuesdays, Wednesdays, and Thursdays are not statistically significant, meaning that counts on any of those days may be considered equivalent for report estimates. To limit the impact of weather or unforeseen circumstances on the count estimates, methodology requires each site be counted on two weekdays and two weekend days. Due to limited volunteer capacity, the 2022 count program prioritized obtaining one count at more locations vs. several counts at fewer locations, which limits the accuracy of estimates. With the assistance of 25 volunteers, the 2022 counts included 22 sites:

- 6 trail locations,
- 9 existing bike lanes, and
- 7 locations with no existing bicycle facility.

Volunteers counted three weekday sites twice, and four sites on one weekend day. As GObike continues the program in coming years, counts will be repeated as often as possible and coverage on weekends will be prioritized.

After the counts were completed, volunteers submitted count forms to GObike staff, who tabulated the information by count site. Then, using the two hour counts, GObike staff calculated “Estimated Daily Traffic” (EDT) using data from the National Bicycle and Pedestrian Documentation Project. It is important to calculate EDT number to not only make this information more understandable to the general public, but also to provide a comparable measure with how traffic engineers typically report motor vehicle traffic data (Annual Average *Daily* Traffic, or AADT).

According to data from the National Bicycle and Pedestrian Documentation Project, based on counts across the country, in “long winter short summer” climate zones, peak hour travel (4-6 pm in this region) accounts for 14% of daily non-motorized traffic on weekdays. On weekends, peak hour travel (12-2pm) accounts for 17% of daily non-motorized travel. GObike staff used these percentages to extrapolate from 2-hour counts to estimated daily traffic.

Note: If a continuous bicycle counter<sup>3</sup> were in-use in the Buffalo-Niagara Region (), that data could be used to refine calculations for estimations, rather than relying on national percentages which may not reflect travel behaviors in our region.

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<sup>3</sup> one that counts 24 hours a day, 365 days per year

## Data Summary

The 2022 Buffalo Niagara Count Program provides a third year of estimated daily traffic (EDT) for people walking and bicycling across 22 locations.

A full list of count sites along with Estimated Daily Traffic (EDT) for bikes and pedestrians is included in Table 2. To view all raw count sheets and data collected, see Appendix A. All data includes perceived gender split, % children, sidewalk riding, and wrong way riding.

*Table 2. List of count sites with weekday and weekend EDT, 2022.*

ID	Location	Facility	Bike EDT (Weekday)	Bike EDT (Weekend)	Ped EDT (Weekday)	Ped EDT (Weekend)
1	South Park Avenue	Bike Lanes	179	—	571	—
2	Fuhrmann Boulevard	Trail	—	971	—	194
3	Marine Drive	None	314	—	779	—
4	Pearl Street	Bike Lanes	121	—	1521	—
5	LaSalle Park trail	Trail	—	571		106
6	Prospect Avenue	None	93	—	571	—
7	Porter Avenue	Trail	514	—	271	—
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lane	343	—	1229	—
11	Fillmore Avenue	Bike Lanes	243	—	493	—
14	Richmond Avenue*	Bike Lanes	265	—	561	—
15	Elmwood Avenue	None	—	347	—	4353
16	Grant Street*	None	286	—	729	—
17	Bidwell Parkway	Bike Lanes	264	—	1100	—
18	Delaware Avenue*	Bike Lanes	118	—	261	—
19	Lincoln Parkway	None	243	—	729	—
20	Scajaquada Trail	Trail	143	—	229	—
21	Broderick Park / Robert Rich Way Bridge	Trail	71	—	64	—
22	William L Gaiter Parkway	Trail	50	—	50	—
41	Main Street	None	129	—	621	—
48	South Park Avenue	Bike Lanes	236	—	179	—
51	Clinton Street	None	221	—	250	—
52	Niagara Street	Cycle Track	—	582	—	59

\* = average (multiple weekday counts collected)

## Key Trends and Observations – People Bicycling

### Characteristics of Higher Volume Sites

Bike counts help us understand *where* people are currently cycling, and analyzing the characteristics of high volume sites can help us understand *why*. Table 3 below shows the sites with the highest cyclist volumes. Note that weekend and weekday counts are represented separately where the data is available.

In 2022, the top four count sites with the highest volume were facilities that are completely separated from motor vehicle traffic. This shows preference for biking in the safe, comfortable, pleasant environment afforded by parks and trails. Each of these sites were compared to bike count data conducted in 2019 and 2020; counts were not completed in 2021.

*Table 3. Bike count sites with highest volumes, 2019-2022.*

ID	Location	Existing Bicycle Facility	Day Type*	EDT (2022)**	EDT (2020)	EDT (2019)
2	Fuhrmann Boulevard	Trail	Weekend	971	1835	229
52	Niagara Street	Cycle Track	Weekend	582	—	—
5	LaSalle Park trail	Trail	Weekend	571	518	494
7	Porter Avenue	Trail	Weekday	514	271	64
15	Elmwood Avenue	None	Weekend	347	429	—
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lanes	Weekday	343	486	393
16	Grant Street	None	Weekday	336	253	308
3	Marine Drive	None	Weekday	314	550	64
14	Richmond Avenue	Bike Lanes	Weekday	293	521	271
17	Bidwell Parkway	Bike Lanes	Weekday	264	893	271

\*Line colors are differentiated by day of the week.

\*\* Counts were not completed in 2021.

There was a significant shift between 2019 and 2022 both in terms of the highest recorded trail volumes and the sites with the highest volumes. Table 4 below shows bike count sites with the highest volumes from 2020 and 2019. Eight of the top ten sites were on designated off-road trails. In addition, the EDT for the top sites skyrocketed in 2020. In 2020, the highest site was Fuhrmann Boulevard (Outer Harbor) with an EDT of 1835 (weekend), whereas the EDT at the same location was 229 (weekend) in 2019. These results show a 800% increase in trail use at the Outer Harbor between 2019 and 2020. Overall, these results represent the increase in outdoor activities and park usage throughout the US during the COVID-19 pandemic.



Table 4. Bike count sites with highest volumes, 2020 and 2019.

ID	Location	Existing Bicycle Facility	Day Type*	EDT (2020)	EDT (2019)
2	Fuhrmann Boulevard	Trail	Weekend	1835	229
28	Shoreline Trail	Trail	Weekend	1488	—
37	Clarence Bike Path	Trail	Weekend	1171	—
42	Tonawanda Rail Trail	Trail	Weekend	1100	424
42	Tonawanda Rail Trail	Trail	Weekday	929	250
17	Bidwell Parkway	Bike Lanes	Weekday	893	376
37	Clarence Bike Path	Trail	Weekday	850	286
17	Bidwell Parkway	Bike Lanes	Weekend	729	376
29	E Niagara Street + Trail	Trail	Weekday	700	407
28	Shoreline Trail	Trail	Weekday	693	579

\*Line colors are differentiated by day of the week.

Figure 1. Weekday Bike EDT for On-Road Facilities, 2019-2022.

### Weekday Bike EDT By Year - On-Road Facilities

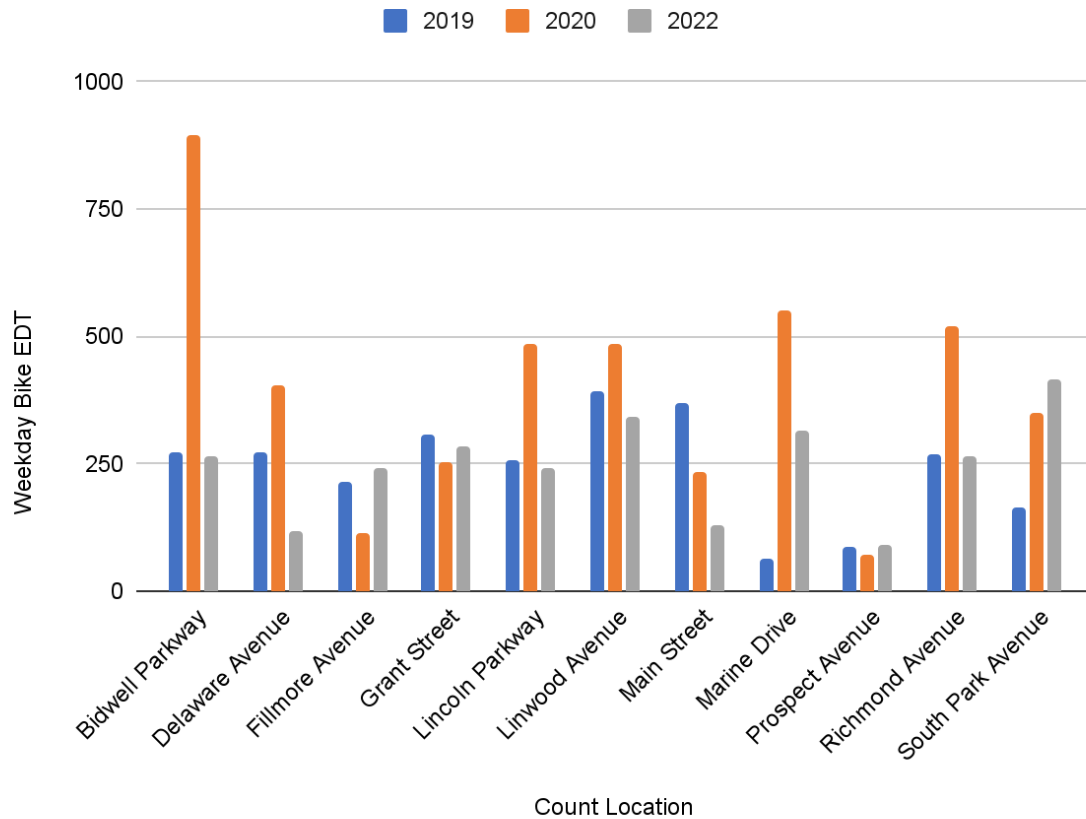


Figure 2. Weekday Bike EDT for Off-Road Facilities, 2019-2022.

### Weekday Bike EDT By Year - Off-Road Facilities

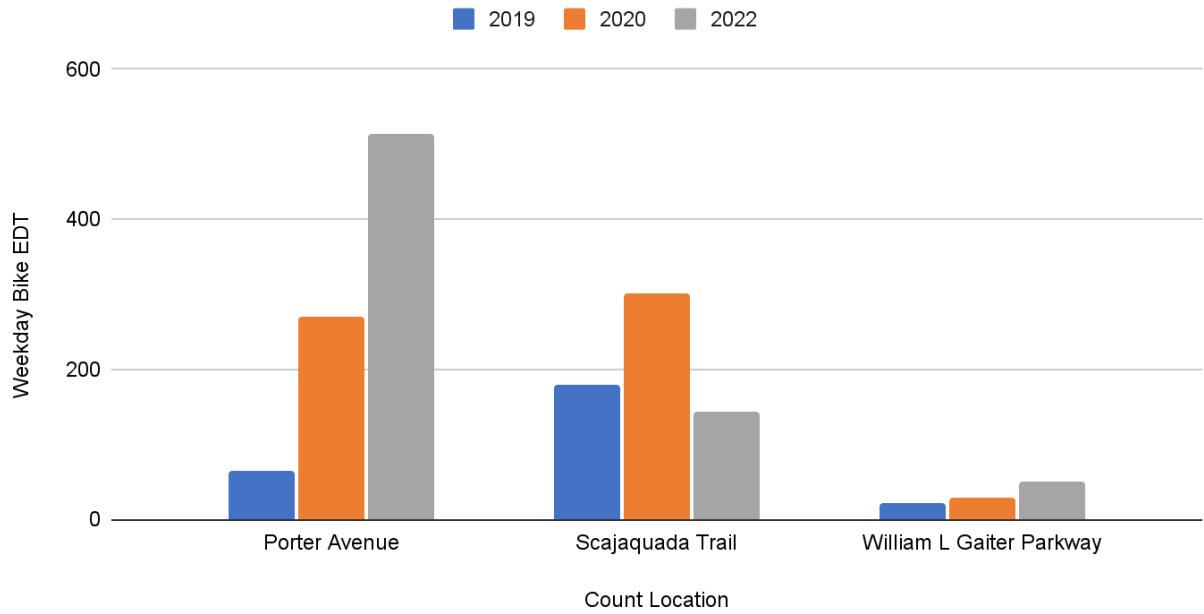
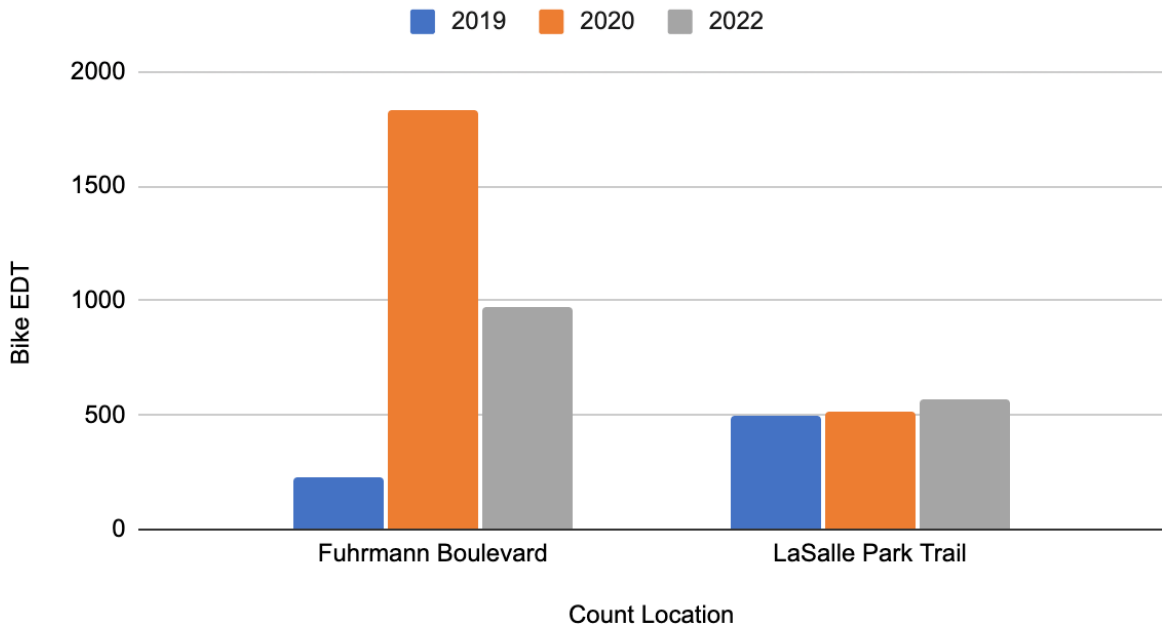


Figure 3. Weekend Bike EDT for Off-Road Facilities, 2019-2022.

### Weekend Bike EDT By Year - Off-Road Facilities



## Gender Split

National data indicates that there is a gender gap in biking in the United States, where more men than women regularly ride a bike.<sup>4</sup> The size of this gender gap varies by geography. GObike’s data shows that there is a significant gender gap here in the Buffalo region, with females comprising 23% of the cyclist traffic. The average percentage of women at sites counted in 2019 was 22%, indicating a slight decrease in the gender gap between 2019 and 2022, despite the increase in bicycle activity as a result of the COVID-19 pandemic. Additional information is needed to determine if this is a trend.

*Table 5. Highest percentage of female cyclists for bike count locations, 2022.*

ID	Location	Existing Bicycle Facility	Day Type*	Bike EDT (2022)	% Female (2022)
5	LaSalle Park trail	Trail	Weekend	571	40%
2	Fuhrmann Boulevard	Trail	Weekend	971	36%
14	Richmond Avenue	Bike Lanes	Weekday	293	32%
17	Bidwell Parkway	Bike Lanes	Weekday	264	30%
52	Niagara Street	Cycle Track	Weekend	582	28%
16	Grant Street	None	Weekday	236	24%
18	Delaware Avenue	Bike Lanes	Weekday	121	24%
15	Elmwood Avenue	None	Weekend	347	20%
20	Scajaquada Trail	Trail	Weekday	143	20%
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lane	Weekday	343	19%

*\*Line colors are differentiated by day of the week.*

Note: For this analysis, very low volume sites were excluded, recognizing that conclusions about gender split are limited with such a small sample size.

<sup>4</sup> 2009 National Household Travel Survey (NHTS)

## Sidewalk Riding

Sidewalk riding is an indication that people either don't feel safe riding in the road, or they are unaware that they are supposed to be riding in the road.

GObike's data shows high levels of sidewalk riding in some locations. Clinton Street stands out with 55% of cyclists using the sidewalk. More than half of the cyclists GObike saw were riding on the sidewalk on Elmwood Avenue and Main Street. Notably, there are existing conventional bike lanes on both South Park Avenue (north of Reading Avenue) and Fillmore Avenue, but they are wide, straight corridors which are conducive to speeding.<sup>5</sup> Table 6 below shows the top 10 sites for sidewalk riding according to GObike's 2-hour counts.

At the other end of the spectrum, GObike saw little sidewalk riding on Richmond Avenue and Delaware Avenue, which also have conventional bike lanes, but which evidently feel safer to people on bikes.

*Table 6. Top 10 sites for sidewalk riding, 2022.*

ID	Location	Existing Bicycle Facility	% Sidewalk Riding (2022)
51	Clinton Street	None	55%
15	Elmwood Avenue	None	53%
41	Main Street	None	50%
16	Grant Street	None	45%
11	Fillmore Avenue	Bike Lanes	35%
1	South Park Avenue	Bike Lanes	28%
19	Lincoln Parkway	None	21%
21	Broderick Park / Robert Rich Way Bridge	Trail	20%
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lane	19%
3	Marine Drive	None	18%

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<sup>5</sup> Daisa, James M & John B Peers. "[Narrow Residential Streets: Do They Really Slow Down Speeds?](#)" Presented at the Institute of Transportation Engineers 67th annual Meeting, Tampa, FL: 1997

## Wrong Way Riding

Wrong way riding is when someone rides facing traffic. New York State law indicates that people on bikes should ride with the flow of traffic.<sup>6</sup> Similar to sidewalk riding, wrong way riding is an indicator that people either don't know that they should be riding with traffic, or they feel safer riding facing traffic, due to facility design, or the lack of a bicycle facility.

Wrong way riding is not as prevalent as sidewalk riding. Prospect Avenue, Clinton Street, and Marine Drive were the top three count locations for wrong way riding. All three of these locations do not have existing bicycle facilities. Prospect Avenue saw the highest level of wrong way riding, likely because it is a key connection route that is a one-way street.

*Table 7. Top 10 sites with the most wrong way riding, 2022.*

ID	Location	Existing Bicycle Facility	% Wrong Way Riding (2022)
6	Prospect Avenue	None	46%
51	Clinton Street	None	35%
3	Marine Drive	None	20%
11	Fillmore Avenue	Bike Lanes	18%
1	South Park Avenue	Bike Lanes	16%
16	Grant Street	None	15%
14	Richmond Avenue	Bike Lanes	15%
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lane	15%
48	South Park Avenue	Bike Lanes	12%
16	Grant Street	None	6%

Aside from trails, the locations where volunteers did not see any wrong way riding during GObike's observation periods were:

- Site 4: Pearl Street (Bike Lanes) - Weekday
- Site 15: Elmwood Avenue (No bicycle facilities) - Weekend
- Site 18: Delaware Avenue (Bike Lanes) - Two weekdays
- Site 19: Lincoln Parkway (No bicycle facilities) - Weekday
- Site 52: Niagara Street (Cycle Track) - Weekend

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<sup>6</sup> [https://www.dot.ny.gov/display/programs/bicycle/safety\\_laws/laws#1234](https://www.dot.ny.gov/display/programs/bicycle/safety_laws/laws#1234)

## Key Trends and Observations – Pedestrian Counts

### Characteristics of Higher Volume Sites

In 2019 and 2020, locations with the highest pedestrian volumes were the walkable commercial districts (Elmwood Avenue, Allen Street, Pearl Street, Grant Street, and Bailey Avenue) and park settings, including Bidwell Parkway and the Shoreline Trail. In 2022, Elmwood Avenue still had the highest pedestrian volume, but in a COVID-19 related shift, GOBike saw corridors such as Linwood Avenue move above commercial districts like Main Street and Grant Street.

*Table 8. Highest pedestrian volume count sites, 2022.*

ID	Location	Ped EDT – Weekday (2022)	Ped EDT – Weekend (2022)
15	Elmwood Ave	—	4353
4	Pearl Street	1521	—
17	Bidwell Parkway	1229	—
9	Linwood Avenue	1100	—
3	Marine Drive	779	—
19	Lincoln Parkway	729	—
16	Grant Street	729	—
41	Main Street	621	—
1	South Park Avenue	571	—
6	Prospect Avenue	571	—

*Table 9. Highest pedestrian volume count sites, 2019 and 2020.*

ID	Location	Ped EDT – Weekday (2019)	Ped EDT – Weekday (2020)	Ped EDT – Weekend (2019)	Ped EDT – Weekend (2020)
15	Elmwood Avenue	2464	2143	—	4618
8	Allen Street	2332	—	—	—
17	Bidwell Parkway	1807	1479	600	1200
4	Pearl Street	1443	586	—	—
23	Bailey Avenue	1357	986	—	—
16	Grant Street	1161	607	—	106
28	Shoreline Trail	1050	693	—	871
19	Lincoln Parkway	900	1243	—	—
3	Marine Drive	786	529	—	—
41	Main Street	779	471	—	—

Figure 4. Weekday Pedestrian EDT, 2019-2022.

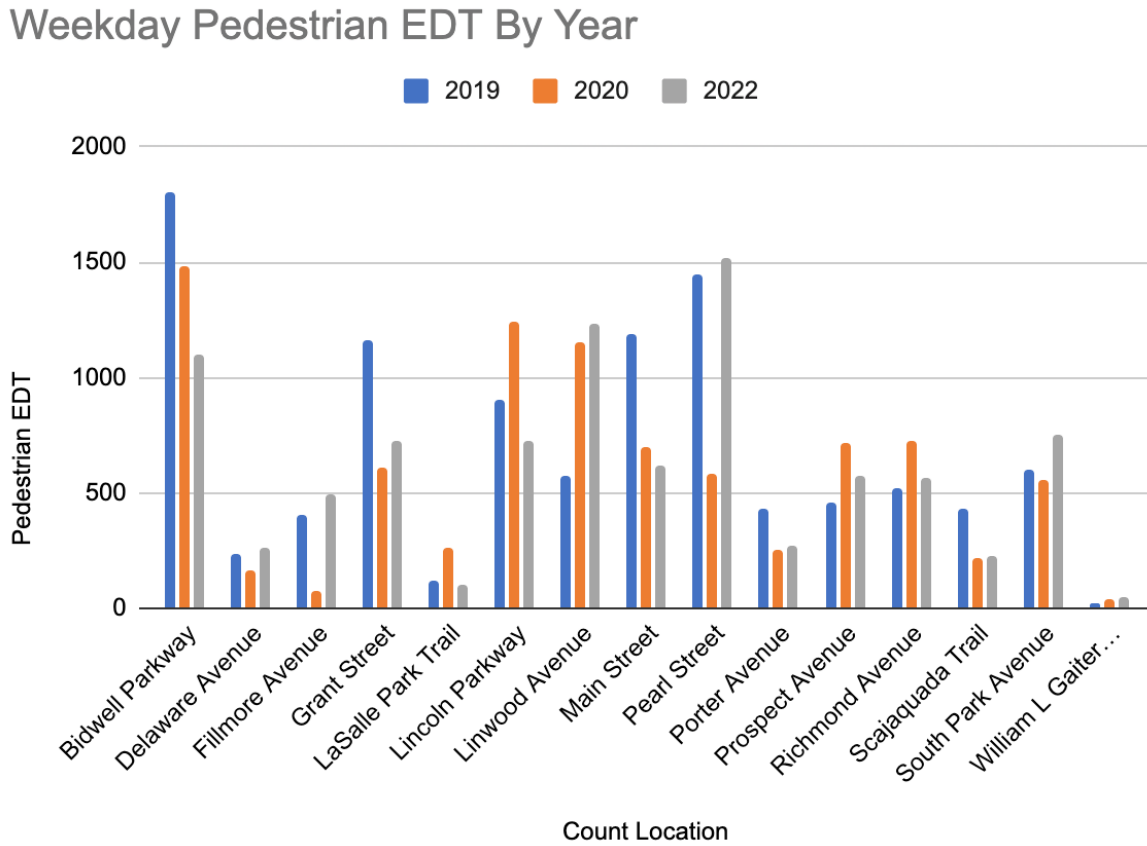
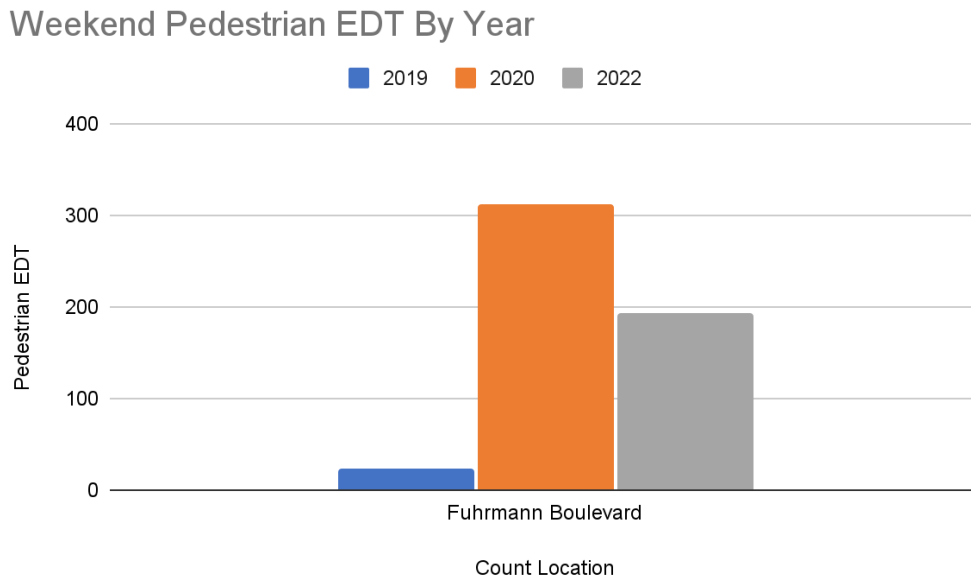


Figure 5. Weekend Pedestrian EDT, 2019-2022.



## Gender Split

GObike saw a significantly smaller gender gap among pedestrians than among bicyclists. 49% of pedestrians counted were female (compared to the 23% average among female cyclists). Out of the 25 total counts, 17 locations had 40% or more female pedestrians. Table 10 below shows the locations which have a percentage of 40% or more female pedestrians at each count location.

*Table 10. Highest female pedestrian count sites, 2022.*

ID	Location	Existing Bicycle Facility	Pedestrian EDT (2022)	% Female (2022)
5	LaSalle Park Trail	Trail	106	61%
15	Elmwood Avenue	None	4353	59%
17	Bidwell Parkway	bike lanes	1100	53%
6	Prospect Avenue	None	571	51%
11	Fillmore Avenue	Bike Lanes	493	51%
52	Niagara Street	Cycle Track	59	50%
9	Linwood Avenue	Bike Lanes, Contraflow Bike Lane	1229	49%
19	Lincoln Parkway	None	729	48%
18	Delaware Avenue	Bike Lanes	179	48%
1	South Park Avenue	Bike Lanes	571	46%
2	Fuhrmann Boulevard	Trail	194	45%
3	Marine Drive	None	779	45%
4	Pearl Street	Bike Lanes	1521	44%
22	William L Gaiter Parkway	Trail	50	43%
16	Grant Street*	None	736	41%
14	Richmond Avenue	Bike Lanes	579	41%
16	Grant Street*	None	721	40%

\*One location with counts conducted on different days.



## Next Steps

As GObike wraps up its third year of bicycle and pedestrian counts, our next steps are as follows:

- Share this data with agency and community partners. GObike's goal is to spark regional conversations about biking and walking and to support data driven decision making.
- Continue this volunteer program on an annual basis, each September.
- Prioritize assigning volunteers to count at corridors that have data for every count year thus far.
- Work with local and regional partners to install permanent, continuous count stations that count bikes and/or pedestrians 24/7/365. There are a variety of viable products that could provide us with valuable count data and would enable us to more accurately extrapolate volunteer bike counts.
- Acquire portable bicycle and/or pedestrian count devices to supplement permanent count stations and volunteer counts.

## Appendix A: Bicycle and Pedestrian Count Tables – 2019-2022

ID	Location	Where	Municipality	Existing Bicycle Facility	Year	Bike EDT - Weekday	Bike EDT - Weekend	% Female	% Child	% Sidewalk riding	% Wrong way riding	Ped EDT - Weekday	Ped EDT - Weekend
1	South Park Avenue	N of Reading Avenue	Buffalo	Bike Lanes	2022	179		12%		28%	16%	571	
1	South Park Avenue	N of Reading Avenue	Buffalo	Bike Lanes	2020	350		20%		33%	35%	557	
1	South Park Avenue	N of Reading Avenue	Buffalo	Bike Lanes	2019	164	165	0%	17%	65%	39%	600	335
2	Fuhrmann Boulevard	S of Ohio Street	Buffalo	Trail	2019	21	229					21	24
2	Fuhrmann Boulevard	S of Ohio Street	Buffalo	Trail	2020	736	1835	44%	4%	0%	0%	143	312
2	Fuhrmann Boulevard	S of Ohio Street	Buffalo	Trail	2022		971	36%	2%	0%	0%		194
3	Marine Drive	E of Commercial Street	Buffalo	None	2022	314		11%	2%	18%	20%		
3	Marine Drive	E of Commercial Street	Buffalo	None	2020	550		16%	0%	25%	0%	529	
3	Marine Drive	E of Commercial Street	Buffalo	None	2019	64				0%	0%	786	
4	Pearl Street	N of W Seneca Street	Buffalo	Bike Lanes	2022	121		18%	0%	0%	0%	1521	
4	Pearl Street	N of W Seneca Street	Buffalo	Bike Lanes	2020	164		43%	0%	13%	9%	586	
4	Pearl Street	N of W Seneca Street	Buffalo	Bike Lanes	2019	186		27%	0%	0%	4%	1443	
5	LaSalle Park Trail	N/W of Lakefront Boulevard	Buffalo	Trail	2022		571	40%	5%	0%	0%	106	
5	LaSalle Park Trail	N/W of Lakefront Boulevard	Buffalo	Trail	2020	214	518	40%	0%	0%	0%	264	241
5	LaSalle Park Trail	N/W of Lakefront Boulevard	Buffalo	Trail	2019	200	494	39%	0%			121	118
6	Prospect Avenue	S of Carolina Street	Buffalo	None	2022	93		15%	8%	15%	46%	571	
6	Prospect Avenue	S of Carolina Street	Buffalo	None	2019	86				0%	67%	457	
6	Prospect Avenue	S of Carolina Street	Buffalo	None	2020	71		20%	0%	0%	20%	714	
7	Porter Avenue	E of DAR Drive	Buffalo	Trail	2022	514		8%	0%	0%	0%	271	
7	Porter Avenue	E of DAR Drive	Buffalo	Trail	2020	271		21%	8%	21%	39%	250	
7	Porter Avenue	E of DAR Drive	Buffalo	Trail	2019	64	559	11%				436	547
8	Allen Street	E of Mariner Street	Buffalo	None	2019	336		19%	0%	27%	16%	2332	
9	Linwood Avenue	N of North Street	Buffalo	Bike Lanes, Contraflow Bike Lane	2022	343		19%	0%	19%	15%	1229	
9	Linwood Avenue	N of North Street	Buffalo	Bike Lanes, Contraflow Bike Lane	2020	486	335	34%	0%	12%	12%	1157	441
9	Linwood Avenue	N of North Street	Buffalo	Bike Lanes, Contraflow Bike Lane	2019	393	212	33%	3%	4%	3%	571	506
10	Broadway	E of Gibson Street	Buffalo	Bike Lanes	2020	200		11%	4%	43%	7%	979	
10	Broadway	E of Gibson Street	Buffalo	Bike Lanes	2019	207		24%	21%	31%	45%	443	
11	Fillmore Avenue	N of Best Street	Buffalo	Bike Lanes	2022	243		6%	0%	35%	18%	493	
11	Fillmore Avenue	N of Best Street	Buffalo	Bike Lanes	2020	114		25%	6%	6%	38%	79	
11	Fillmore Avenue	N of Best Street	Buffalo	Bike Lanes	2019	214	35	0%	0%	63%	3%	407	200
12	Jefferson Avenue	N of E Ferry Street	Buffalo	None	2020	71		30%	0%	50%	0%	236	
12	Jefferson Avenue	N of E Ferry Street	Buffalo	None	2019	36	41			40%	20%	343	259
13	East Delavan Avenue	E of Bailey Avenue	Buffalo	None	2020								
14	Richmond Avenue	N of Utica Street	Buffalo	Bike Lanes	2020	521	524	27%	0%	4%	7%	721	688
14	Richmond Avenue	N of Utica Street	Buffalo	Bike Lanes	2019	271		34%	6%	5%	0%	525	
14	Richmond Avenue*	N of Utica Street	Buffalo	Bike Lanes	2022	265		24%	0%	8%	11%	561	
15	Elmwood Avenue	N of Breckenridge Street	Buffalo	None	2022		347	20%	5%	53%	0%		4353
15	Elmwood Avenue	N of Breckenridge Street	Buffalo	None	2020	586	429	16%	5%	35%	18%	2143	4618
15	Elmwood Avenue	N of Breckenridge Street	Buffalo	None	2019	493		20%	7%	39%	3%	2464	
16	Grant Street*	N of Lafayette Avenue	Buffalo	None	2022	286		13%	17%	47%	11%	729	
16	Grant Street*	N of Lafayette Avenue	Buffalo	None	2020	254	112	15%	3%	48%	3%	607	106
16	Grant Street	N of Lafayette Avenue	Buffalo	None	2019	308		21%	5%	34%	34%	1161	
17	Bidwell Parkway	N of Potomac Avenue	Buffalo	Bike Lanes	2022	264		30%	5%	0%	5%	1100	
17	Bidwell Parkway	N of Potomac Avenue	Buffalo	Bike Lanes	2020	893	729	23%	5%	6%	3%	1479	1200
17	Bidwell Parkway	N of Potomac Avenue	Buffalo	Bike Lanes	2019	271	376	21%	13%	3%	3%	1807	600
18	Delaware Avenue*	N of Rumsey Road	Buffalo	Bike Lanes	2022	118		15%	3%	16%	0%	261	
18	Delaware Avenue*	N of Rumsey Road	Buffalo	Bike Lanes	2020	404	288	38%	3%	7%	0%	168	147
18	Delaware Avenue	N of Rumsey Road	Buffalo	Bike Lanes	2019	271		21%	3%	47%	3%	236	
19	Lincoln Parkway	Rose Garden	Buffalo	None	2022	243		18%	6%	21%	0%	729	
19	Lincoln Parkway	Rose Garden	Buffalo	None	2020	486		22%	3%	22%	1%	1243	
19	Lincoln Parkway	Rose Garden	Buffalo	None	2019	257		17%	3%	11%	0%	900	
20	Scajaquada Trail	Wegmans/Playground area	Buffalo	Trail	2022	143		20%	0%	0%	0%	229	
20	Scajaquada Trail*	Wegmans/Playground area	Buffalo	Trail	2020	300		18%	0%	0%	0%	215	
20	Scajaquada Trail	Wegmans/Playground area	Buffalo	Trail	2019	179	235	24%	20%			429	100
21	Broderick Park	Robert Rich Way Bridge	Buffalo	Trail	2022	71		0%	10%	20%	0%	64	
21	Broderick Park	Robert Rich Way Bridge	Buffalo	Trail	2020		276						76
21	Broderick Park	Robert Rich Way Bridge	Buffalo	Trail	2019	93				85%	8%	164	
22	William L Gaiter Parkway	S of Kensington Avenue	Buffalo	Trail	2022	50		0%	0%	0%	0%	50	
22	William L Gaiter Parkway	S of Kensington Avenue	Buffalo	Trail	2020	29	24	0%	0%	0%	0%	36	0
22	William L Gaiter Parkway	S of Kensington Avenue	Buffalo	Trail	2019	21				33%	33%	21	
23	Bailey Avenue	N of Kensington Avenue	Buffalo	None	2020	121		6%	12%	82%	6%	986	
23	Bailey Avenue	N of Kensington Avenue	Buffalo	None	2019	129				56%	6%	1357	
24	Tonawanda Rail Trail (CAMERA)	N of Sheridan Avenue	Tonawanda	Trail	2019	348						78	
25	Grand Island Bridge - South	River Road entrance - capture both north and south pathways	Tonawanda	Trail	2019	36	35					7	0
26	River Road & Shoreline Trail	S of Grand Island Bridge	Tonawanda	Trail	2020	229		34%	0%	0%	0%	93	
26	River Road & Shoreline Trail	S of Grand Island Bridge	Tonawanda	Trail	2019	193	153	15%	7%			21	18
27	GI W River Pkwy	S of Whitehaven	Grand Island	Trail	2020	250	406	74%	17%	17%	0%	164	53
27	GI W River Pkwy	S of Whitehaven	Grand Island	Trail	2019	193	165					39	47
28	Shoreline Trail	Niawanda Park bet Gibson and V	Tonawanda	Trail	2020	693	1488	19%	0%	0%	0%	693	871
28	Shoreline Trail	Niawanda Park bet Gibson and V	Tonawanda	Trail	2019	579		40%	7%	2%	0%	1050	
29	E Niagara Street + Trail*	Bet Douglas St and Carney St	Tonawanda	Trail	2020	650		37%	3%	0%	0%	386	
29	E Niagara Street + Trail	Bet Douglas St and Carney St	Tonawanda	Trail	2019	407		23%	0%	0%	0%	43	
30	River Road	near Old Stone Chimney	Tonawanda	Trail	2020	136		37%	0%	0%	0%	36	
31	NF State Park South	near Old Stone Chimney	Niagara Falls	Trail	2020		335						135
31	NF State Park South	near Old Stone Chimney	Niagara Falls	Trail	2019	36						0	
32	Devil's Hole Gateway	S of Devil's Hole State Park Parkin	Niagara Falls	Trail	2019	7						79	
33	N 2nd St, Lewiston	N of Oneida Street	Lewiston	None	2019	29				25%	0%	50	
34	William Street	W of Pine Street	Buffalo	Bike Lanes	2019	136				26%	21%	200	
34	William Street	W of Pine Street	Buffalo	Bike Lanes	2020	57		0%	0%	38%	25%	207	
35	Main Street	S of Scajaquada Expressway	Buffalo	None	2020	150		5%	0%	43%	14%	229	
35	Main Street	S of Scajaquada Expressway	Buffalo	None	2019	200	118	14%	0%	29%	21%	414	200
36	Niagara Scenic Parkway Trail	N of Mohawk	Lewiston	Trail	2020	250		23%	29%	0%	0%	79	
36	Niagara Scenic Parkway Trail	N of Mohawk	Lewiston	Trail	2019	29						0	
37	Clarence Bike Path	Clarence Center	Clarence Center	Trail	2020	850	1171	36%	6%	0%	0%	236	241
37	Clarence Bike Path	Clarence Center	Clarence Center	Trail	2019	286		33%	0%			121	
38	Canalway Trail and Tonawanda Creek RD	W of Creekside Assembly of God	Amherst	Trail	2020		618						65
38	Canalway Trail and Tonawanda Creek Rd	W of Creekside Assembly of God	Amherst	Trail	2019	100					7%	50	
39	Strawn Avenue	~50 ft from trail entrance	Cheektowaga	Trail	2019	36				50%	80%	36	
40	Two Mile Creek Trail	S of Niagara Street	Tonawanda	Trail	2019	36						157	
41	Main Street	N of Virginia Street	Buffalo	None	2022	129		0%	0%	50%	6%	621	
41	Main Street	N of Virginia Street	Buffalo	None	2020	86		25%	0%	33%	0%	471	
41	Main Street	N of Virginia Street	Buffalo	None	2019	171		17%	0%	38%	4%	779	
42	Tonawanda Rail Trail*	N of Englewood Avenue	Tonawanda	Trail	2020	803	1100	27%	6%	0%	2%	450	365
42	Tonawanda Rail Trail	N of Englewood Avenue	Tonawanda	Trail	2019	250	424	34%	17%			207	335
43	Lehigh Valley Trail		Cheektowaga	Trail	2020	236		36%	24%	0%	0%	171	
44	Ridge Road	W of Electric Avenue	Lacawana	None	2020	100		14%	0%	0%	7%	364	
45	Heritage Trail*		Lancaster	Trail	2020	283		43%	0%	0%	0%	125	
46	Penny Trail		Lancaster	Trail	2020	307	200	33%	26%	0%	0%	393	194
47	Pop Warner Trail		Lancaster	Trail	2020		82					47	
48	South Park Avenue	East of Mississippi Street	Buffalo	Bike Lanes	2022	236		12%	0%	6%	12%	179	
51	Clinton Street	West of Ogden Street	Buffalo	None	2022	221		13%	10%	55%	35%	250	
52	Niagara Street	South of Lafayette Avenue	Buffalo	Cycle Track	2022		582	28%	4%	0%	0%		59