

BALTIMORE STREET RENTALS BOSS

2021

Annual
Report

Message from Mayor Brandon M. Scott



Dear Friends,

As I speak to residents across this great City, I constantly hear about the importance of keeping our streets and transportation infrastructure safe and livable. Now it is more critical than ever that I task the Baltimore City Department of Transportation (BCDOT) with implementing Complete Streets across the City. It is paramount that our efforts make our streets safer and prioritize the needs of our residents. Baltimoreans deserve a transportation network and streets designed to accommodate their needs and put pedestrians first.

Since the Complete Streets Ordinance in 2018 and the recent adoption of our Complete Streets Manual, we are now working to prioritize equity in the City's transportation system. Our Complete Streets legislation was adopted to ensure that the City's transportation infrastructure is built to serve everyone, no matter how they travel or what part of town they live in. Complete Streets emphasize the needs of the most neglected and vulnerable populations so that those walking, biking, using scooters, and transit are elevated in our infrastructure designs. As a city,

we have learned to recognize that inequities in transportation policy have always existed, and that these inequities have had disproportionately adverse effects on the wellbeing of residents in underserved communities. Thanks to our Complete Street Manual, we now have a process that will help increase racial and economic equity throughout the City.

Since the adoption of Complete Streets Legislation in Baltimore City, our true measure of success will be determined not by what we say, but by the work that we do. I am proud to present this annual report, which shares our progress in Complete Streets implementation. The metrics in this document show our commitment to transparency and accountability, our commitment to building a more equitable City by documenting changes to traffic safety, usability, and accessibility in our communities, while filtering the data through an equity lens.

We will produce this report on an annual basis to gauge our progress, celebrate our successes, and direct attention to areas that need improvement. I'm excited to implement these significant changes to our transportation infrastructure and look forward to working with BCDOT to build streets that accommodate all city residents.

Respectfully,

A handwritten signature in black ink that reads "Brandon M. Scott". The signature is written in a cursive, flowing style.

Brandon M. Scott

Message from Director Steve Sharkey



Dear Friends,

It gives me great pleasure to introduce the City's first Annual Complete Streets Report following the adoption of the Complete Streets Manual. As Baltimore City continues to grow, adapt, and thrive constantly, it is important that we provide the public with information regarding our progress to make streets safer. As Director of the Baltimore City Department of Transportation (BCDOT), my number one goal is to create an effective, transparent, and dependable transportation network that is safe for all of its users.

As we work to attract new residents and ensure the safety of our current residents, our goals remain clear. The BCDOT will ensure that efficient and reliable modes of transportation are provided to users of its transportation system. BCDOT is focused on equitably planning, designing, and constructing all new City transportation improvement projects with the prioritization of pedestrians, bicyclists, transit riders, and persons of all abilities.

I believe that Complete Streets helps promote accessibility for all users, and BCDOT has the responsibility to make sure that users of our transportation system can safely move from one neighborhood to the next. Our duty is to redesign our streets, sidewalks, and all public facilities to improve the quality of life for all residents.

Baltimore City is on the verge of applying innovative improvements to all of our city streets in accordance with the Complete Streets Ordinance and Manual. I encourage everyone to read this report and understand that BCDOT is actively working to deliver quality data and performance analysis so that we can be held accountable for making Baltimore City a safe place to live. We have many challenges ahead of us, but BCDOT is just getting started. We as a city will collectively strive to become equitable and rise to these challenges by improving our transportation system in every community.

With hope and optimism,

A handwritten signature in black ink that reads "Steven Sharkey". The signature is written in a cursive, flowing style.

Steve Sharkey
Director

INTRODUCTION

Purpose of Report

This is the first Annual Complete Streets Report following the adoption of Baltimore City's Complete Streets Manual. It is intended to assess the status of Baltimore City's transportation system through a complete streets lens. The report contains assessments of the transportation system using the measures established in Baltimore's Complete Streets Ordinance to the extent that data is available.

Baltimore's Complete Streets Ordinance, adopted on December 6, 2018, states:

The Department shall construct and operate a comprehensive Complete Streets Transportation System that enables access, mobility, economic development, attractive public spaces, health, and well-being for all people. This Transportation System must be designed and operated in ways that ensure the safety, security, comfort, access, and convenience of all users of the streets. This includes pedestrians, bicyclists, public transit users, emergency responders, transporters of commercial goods, motor vehicles, and freight providers. This transportation system must include integrated networks of connected facilities accommodating all modes of travel.

The Complete Streets Ordinance also committed to a more formal equity evaluation for selecting transportation projects. Transportation projects should be prioritized in places with a greater need for improved transportation services. Equitable distribution of transportation services and transportation improvements enhances opportunities for Baltimore residents regardless of access to a personal vehicle. In addition to assessing the inventory of transportation infrastructure in Baltimore's overall transportation system, this report also evaluates the distribution of infrastructure through an equity lens by tracking the sociodemographic trends of where investments occur.

Modal Hierarchy

Baltimore's Modal Hierarchy refers to the amount of priority, in terms of space and investment, that different transportation modes should receive. The hierarchy was established in the Complete Streets Ordinance and clarified in the Complete Streets Manual, prioritizing the safety and accessibility of transportation modes other than single-occupant vehicles. Baltimore's citywide modal hierarchy is:



Walking



**Cycling/
Public Transit/
Micromobility**



**Taxi/Commercial
Transit/Shared
Vehicles**



**Single Occupant
Automobiles**

The modal hierarchy serves as the framework for this report, and implementation of transportation infrastructure and improvements should reflect the priorities it establishes. This report organizes the required performance measures by transportation mode to highlight progress as well as areas of need for each mode.

Conflicts between State/ Federal Standards and Local Requirements

No conflicts between State/Federal Standards and Local Requirements were reported by Baltimore City DOT.

Inventory of Projects

An inventory of ongoing transportation projects and the projected cost of each project is provided in Appendix A.

Data Availability

Baltimore City DOT is developing an asset management inventory that will compile and categorize all existing infrastructure and aid the preparation of the 2022 Complete Streets Annual Report. The asset management inventory was not completed in time for preparation of the 2021 Report, so this report largely focuses on new infrastructure completed in calendar years 2019 and 2020.

The Census Bureau American Community Survey (ACS) releases data from the prior year in the fourth quarter of the following year. For example, 2019 ACS data was released in the fourth quarter of 2020. Thus, this report will establish a convention of using the most recently published ACS data, which will be from two years before the 2021 report's publication date.

Limitations in data availability are reported in the individual performance measures that follow.

Census Data Definitions

These terms related to ACS/Census data are used throughout the report and are defined here.

Census Tracts are subdivisions of Baltimore City that are defined by the U.S. Census Bureau with input from local stakeholders. The boundaries are updated prior to each decennial census, but the boundaries are drawn with the intention of being maintained over time so that long-term comparisons can be made. According to the Census Bureau, Census Tracts generally encompass 1,200 to 8,000 people, with an optimum size of 4,000 people. Census Tract boundaries generally follow visible and identifiable features.

Census Block Groups are subdivisions of Census Tracts and generally encompass 600 to 3,000 people.¹

A **Housing Unit** is defined by the Census Bureau as "a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with other persons in the structure and which have direct access from the outside of the building or through a common hall."

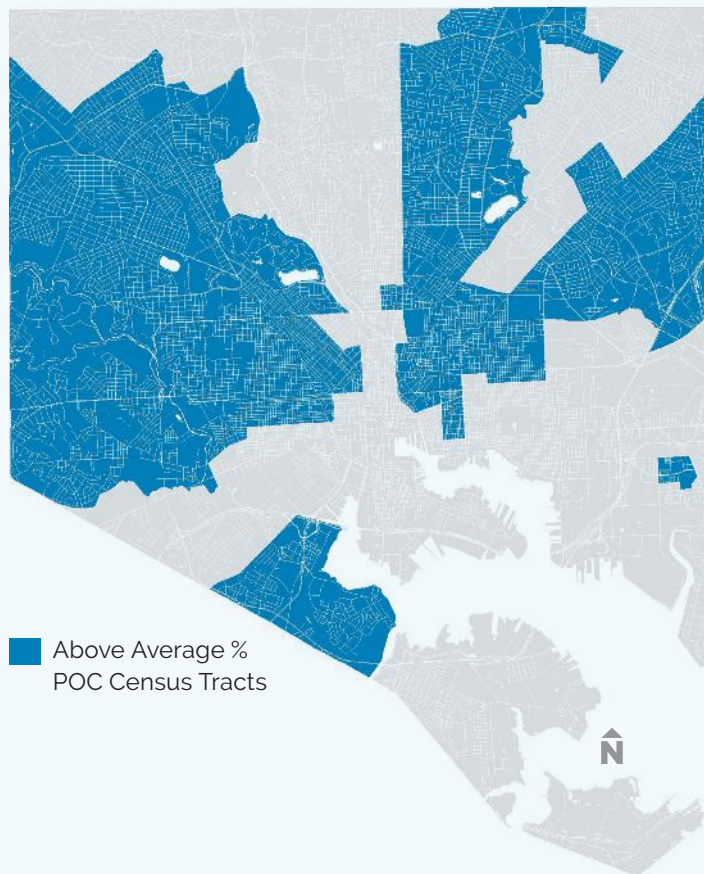
A **Household** includes all the people who occupy a housing unit as their usual place of residence. A person living alone in a housing unit and a group of unrelated people sharing a housing unit would both count as a single household.²

Transportation Equity

As required by the Complete Streets Ordinance, this report analyzes the geographic distribution of infrastructure investments and other data types based on equity measures. The geographies of focus are:

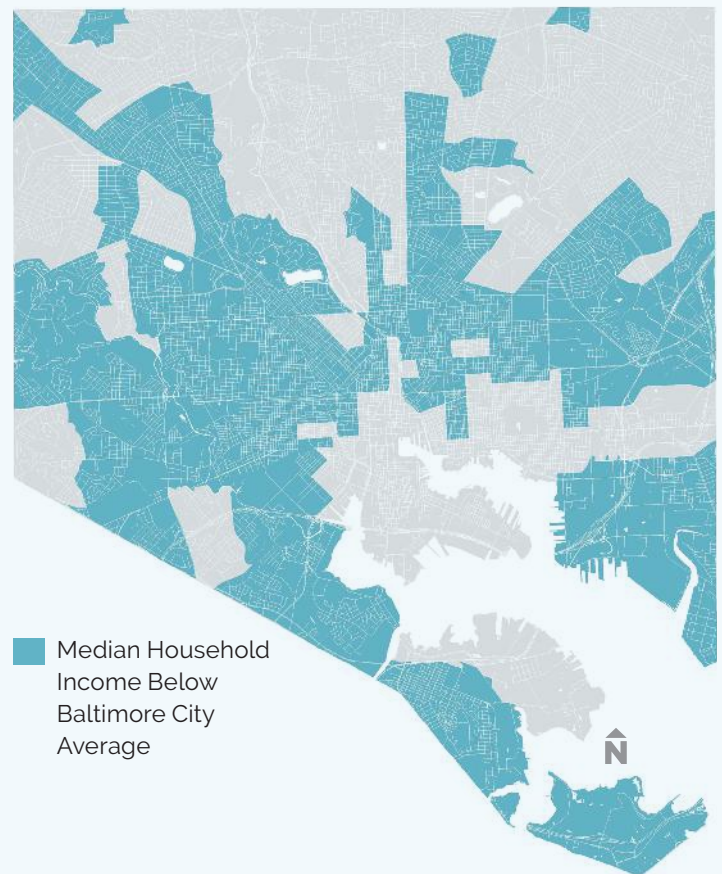
Census Tracts with an above-average percentage of people of color (POC).¹

- In 2019, 67% of the Baltimore City population were POC.
- 48% of Baltimore City's land area is comprised of census tracts with above-average POC population. 57% of Baltimore's overall population lives in these communities.
- The 2021 report will refer to these Census Tracts as "neighborhoods with above-average POC populations."



Census Tracts with below-average median household income.

- The Baltimore City median household income for 2019 was \$50,379.
- 53% of Baltimore's land area is comprised of Census Tracts with below-average median household income. 54% of Baltimore's overall population lives in these communities.
- The 2021 report will refer to these Census Tracts as "neighborhoods with below-average household income."



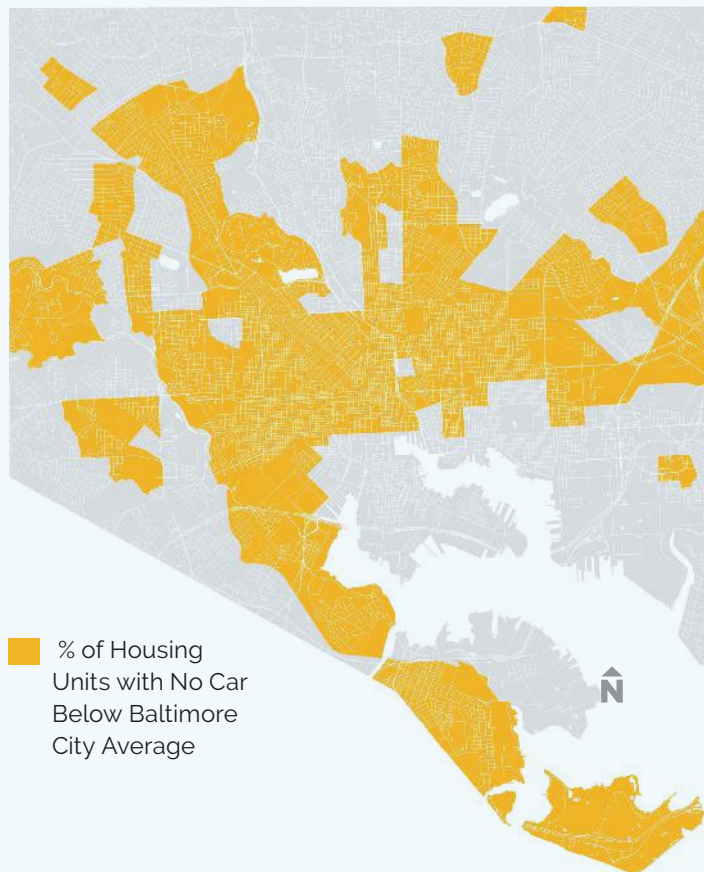
¹ This Report calculates the number of people of color in a given geography as the sum of Black and Hispanic/Latino residents.

Navigating the Performance Measures

This report includes the following performance measures for complete streets in Baltimore City:

Census Tracts with an above-average percentage of housing units with no car available.

- The Baltimore City average percentage of occupied housing units without a car available for 2019 was 28.9%.
- The 2021 report will refer to these Census Tracts as "neighborhoods with below-average access to cars."
- 41% of Baltimore City's land area is comprised of census tracts with an above-average percentage of housing units without a car available. 47% of Baltimore's overall population lives in these communities.



SYSTEMWIDE IMPROVEMENTS & SAFETY

Commute Mode Share

Commute Times

Year-Over-Year Changes in Crash Data

Green Stormwater Infrastructure

Number of Street Trees Added

Speed Hump Installations

Main Street Business Inventory

WALKING INFRASTRUCTURE

Number of Intersections

Redesigned for Pedestrians

Public Space Infrastructure

Added for Pedestrians

Sidewalk Maintenance

BIKE INFRASTRUCTURE

Bike Facilities Maintenance Locations

Length of Bike Facilities

Number of Intersections

Redesigned for Bikes

TRANSIT

Dedicated Bus Lanes

Intersections Redesigned for Transit

Bus Shelters

Transit On-Time Performance

THIS IS A GUIDE TO NAVIGATING THE PERFORMANCE MEASURE PAGES.

Top Blue Text: Mode Category

Top Black Text: Title of Performance Measure

SYSTEMWIDE IMPROVEMENTS & SAFETY

YEAR-OVER-YEAR CHANGES IN CRASH DATA

Purpose

A Complete street is a street in which walking and biking feels safe. Crash data can help agencies determine the least safe areas for walking and biking and prioritize investment in these areas. This information helps ensure that department priorities reflect the transportation system's safety needs. Year-over-year changes can help show success in current safety programs or the need for more investment in traffic safety initiatives.



Data Source

The Maryland State Highway Administration (MDOT SHA) provided crash data for 2018 and 2019. This report analyzes the location, crash severity, and involvement of a pedestrian or bike as data types. Crash data for 2020 was not available at the time of publication. This report will be updated to include 2020 data when it is available in the fall of 2021.



Methodology

The provided data was used to create GIS maps of crash locations that involved pedestrians or bikes. The crash locations were then summarized by the number of crashes per Census Block Group, as shown below. Crashes located outside of the city boundary were removed from the dataset. In future reports, it is recommended that pedestrian and bike volumes are collected to determine crash rates (number of pedestrian and bike crashes/pedestrian and bike volume). Crash rates more accurately reflect areas in need of safety investment.



Results

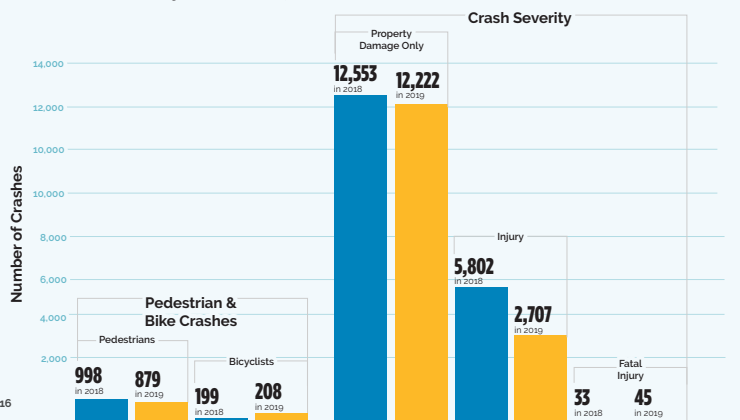
The total number of crashes remained relatively consistent between 2018 and 2019. Only small year-over-year changes in crash data are expected. Though the total numbers of crashes in 2018 and 2019 were relatively similar, there was a slight increase in fatal injuries in 2019.

Purpose: This section describes the purpose of each performance measure and how results are displayed.

Data Source: This section describes the data source for each measure, the level of detail provided, and any data limitations.

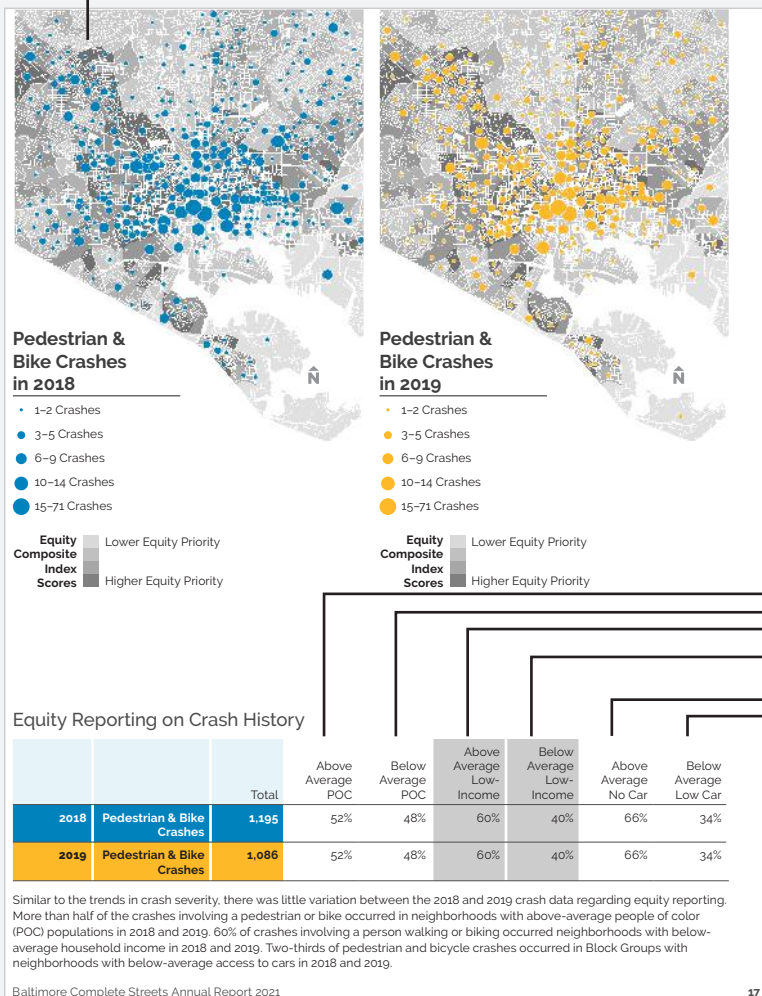
Methodology: This section describes the method used to process and analyze the provided data.

Results: This section will describe key results and trends.



Results graph section: This section will include graphs and other graphics to explain the results.

Results map section: In this section, results will be mapped over the equity composite scores for Census Block Groups in Baltimore City. The equity composite score metric was developed by the Complete Streets Advisory Committee to prioritize projects and determine equity focus areas. A larger version of the equity composite score map can be found on the following page. More information on the calculation of equity composite scores can be found in Appendix B.



Equity Reporting Section: This section reports the distribution of data according to the equity geographies described above.

The percentage of relevant data/infrastructure within Census Tracts with an above-average percentage of people of color (POC).

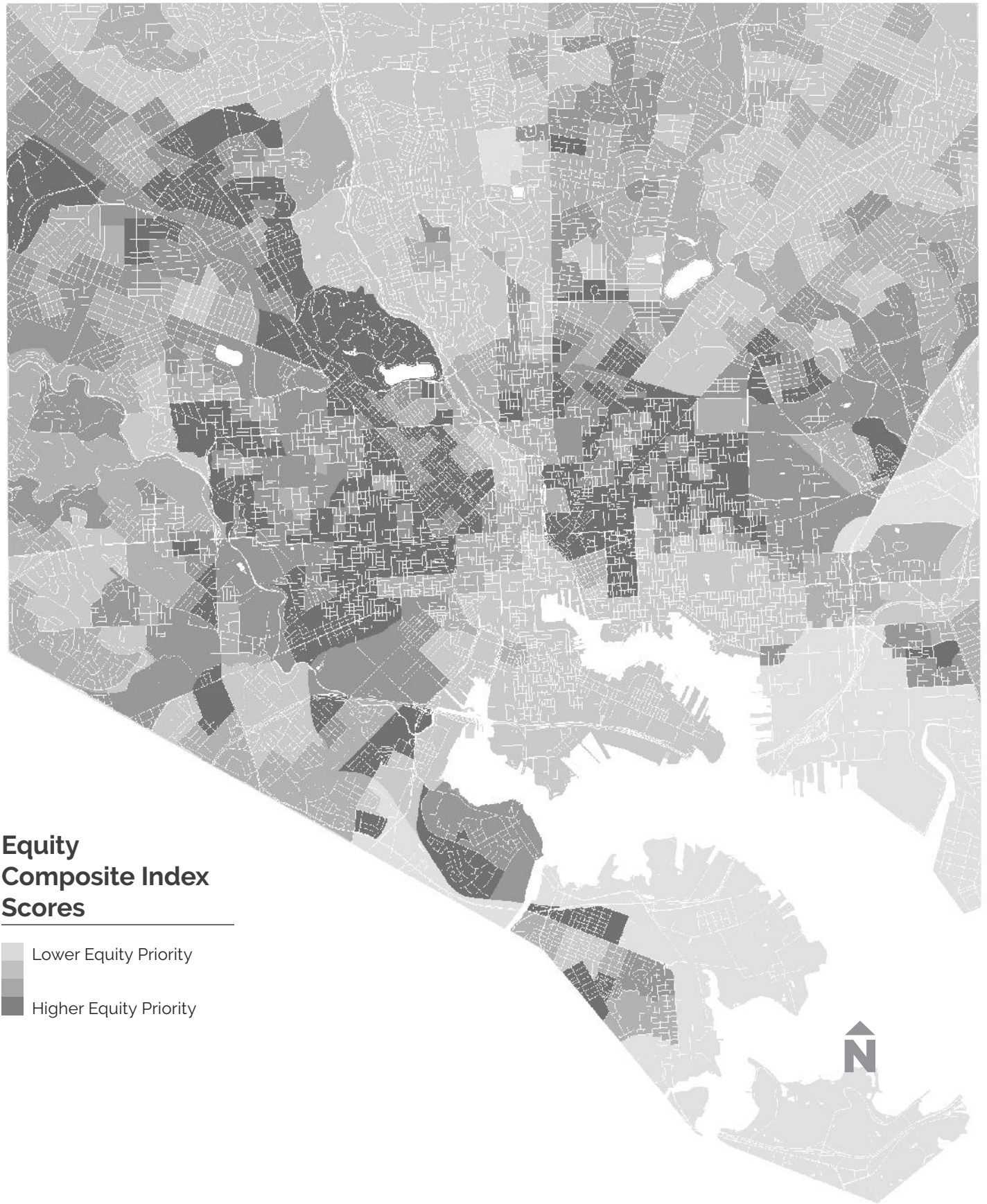
The percentage of relevant data/infrastructure within Census Tracts with a below-average percentage of POC.

The percentage of relevant data/infrastructure within Census Tracts with below-average median household income.

The percentage of relevant data/infrastructure within Census Tracts with above-average median household income.

The percentage of relevant data/infrastructure within Census Tracts with an above-average percentage of occupied housing units with no car available.

The percentage of relevant data/infrastructure within Census Tracts with a below-average percentage of occupied housing units with no car available.



**Equity
Composite Index
Scores**

- Lower Equity Priority
- Higher Equity Priority

PERFORMANCE MEASURES

SYSTEMWIDE IMPROVEMENTS & SAFETY

COMMUTE MODE SHARE

Purpose

Complete streets are planned, designed, and operated with all types of transportation in mind. Not only should they enable more active and sustainable modes of travel, they should also encourage them. Successful Complete streets implementation equitably improves the experience and accessibility of non-automotive travel so that residents truly have options when it comes to commuting to work. Complete streets implementation can help reduce commute times by enabling a greater dispersion of commuters across transportation modes, thereby decreasing car congestion.



Data Source

The United States Census Bureau's American Community Survey collects commute mode share data for all workers age 16 and over for each Census Tract. At the time of publication of the 2021 Complete Streets Annual Report, the most recent available data was a 2019 "5-Year Estimate." This includes an average of data collected from 2015 through 2019. One-year estimates are also available for the citywide average commute time (see chart below), while the five-year estimate data is mapped at the Census Tract level.



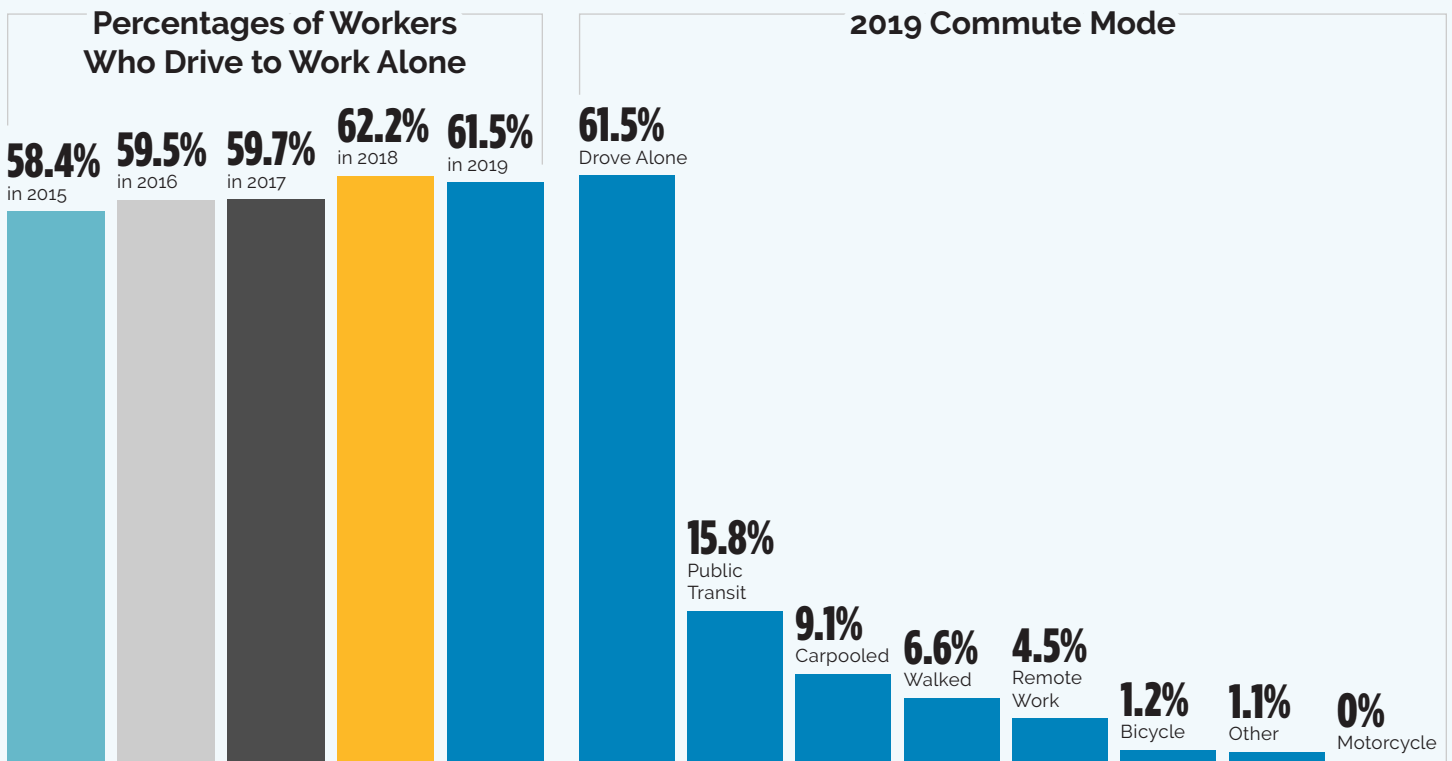
Methodology

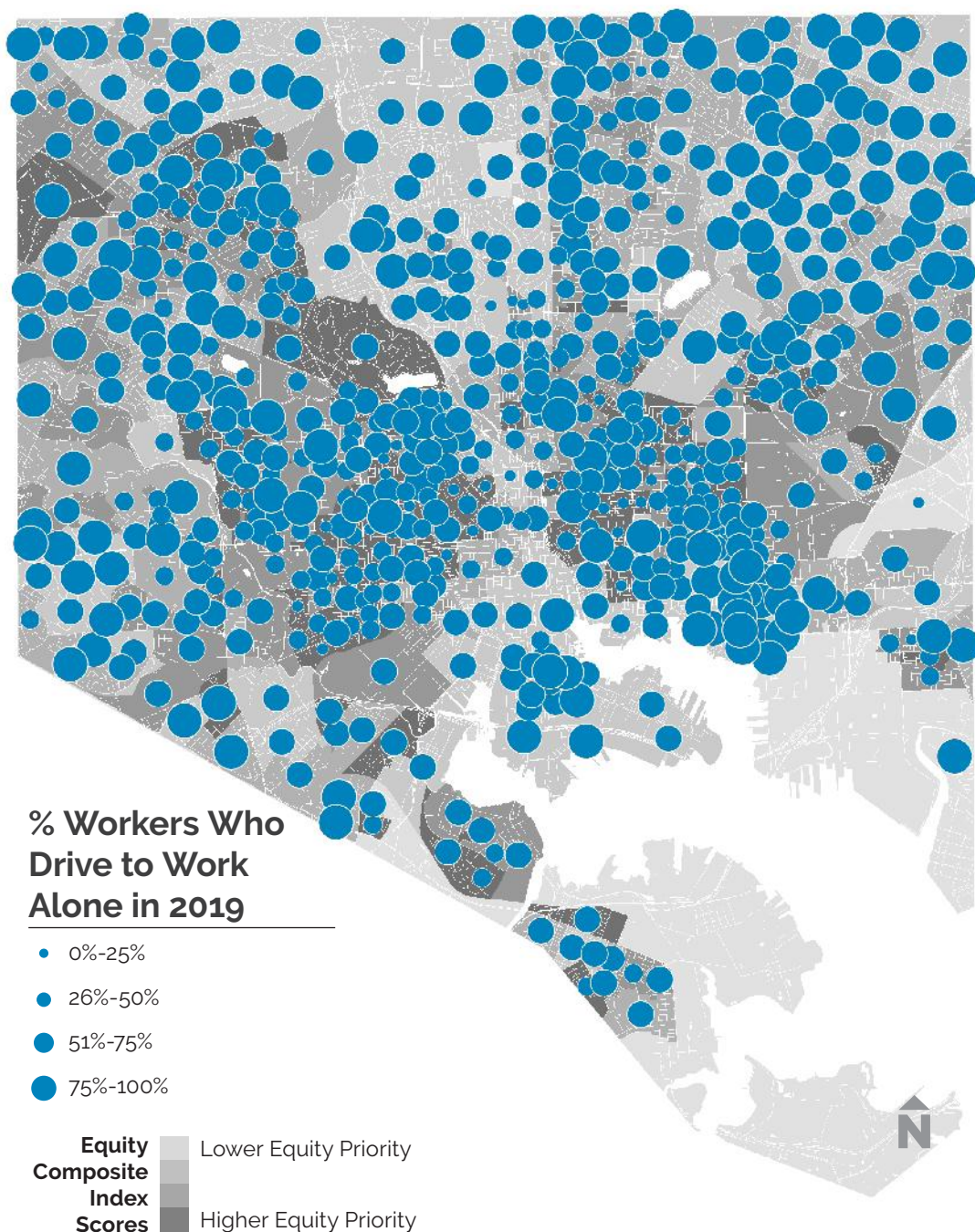
Census data was downloaded from Social Explorer and joined to Census Tract geometry. One-year citywide estimates were also collected from Social Explorer.



Results

The percentage of Baltimore City workers who drive alone to work has increased slightly over the past five years, from 58.4% to 61.5%. More substantial changes are expected in 2020, due to COVID-19. Driving alone was the most common commute mode in 2019—more popular than all other modes combined.





Equity Reporting on Commute Mode Share

	Citywide Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	61.5%	58.2%	62.1%	53.5%	65.9%	50.8%	66.6%

For each equity geography, a weighted average of the percentage of workers driving alone to work was calculated.¹ On average:

- 3.9% more residents in neighborhoods with below-average POC populations drive to work alone than residents in neighborhoods with above-average POC populations.
- 12.4% more residents in neighborhoods with above-average household income drive to work alone than residents in neighborhoods with below-average household income.
- 15.8% more residents in neighborhoods with above-average access to cars drive to work alone than residents in neighborhoods with below-average access to cars.

¹ For all relevant Census Tracts, the percentage driving to work alone was multiplied by the number of workers age 16 and over. These products were summed over all relevant Census Tracts and then divided by the total number of workers across all relevant Census Tracts to create a weighted average.

SYSTEMWIDE IMPROVEMENTS & SAFETY

COMMUTE TIMES

Purpose

Commute times are an equity issue in Baltimore City. According to the Baltimore Neighborhood Indicators Alliance (BNIA), the percent of workers in a neighborhood that travel more than 45 minutes to get to work is strongly correlated with population decline in a neighborhood as well as job retention.¹ In 2019, 20.4% of Baltimore City workers age 16 and over had a commute time of 45 minutes or more.² Complete streets implementation can help reduce commute times by enabling a greater dispersion of commuters across transportation modes, thereby decreasing car congestion.



Data Source

The United States Census Bureau's American Community Survey collects this data at the Census Tract-level for all workers age 16 and over. At the time of publication of the 2021 Complete Streets Annual Report, the most recent available data was a 2019 five-year estimate, which includes an average of data collected from 2015 through 2019. One-year estimates are available for the citywide average commute time, and this data is presented below.



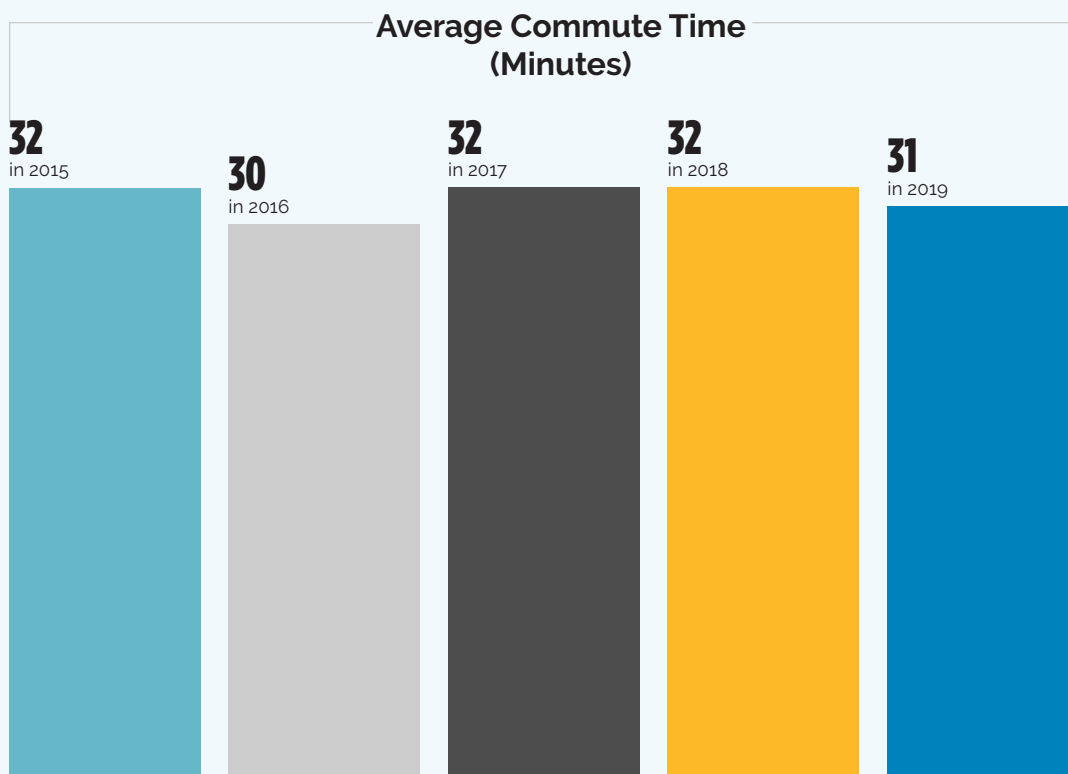
Methodology

Census data was downloaded from Social Explorer and joined to Census Tract geometry. One-year citywide estimates were also collected from Social Explorer.



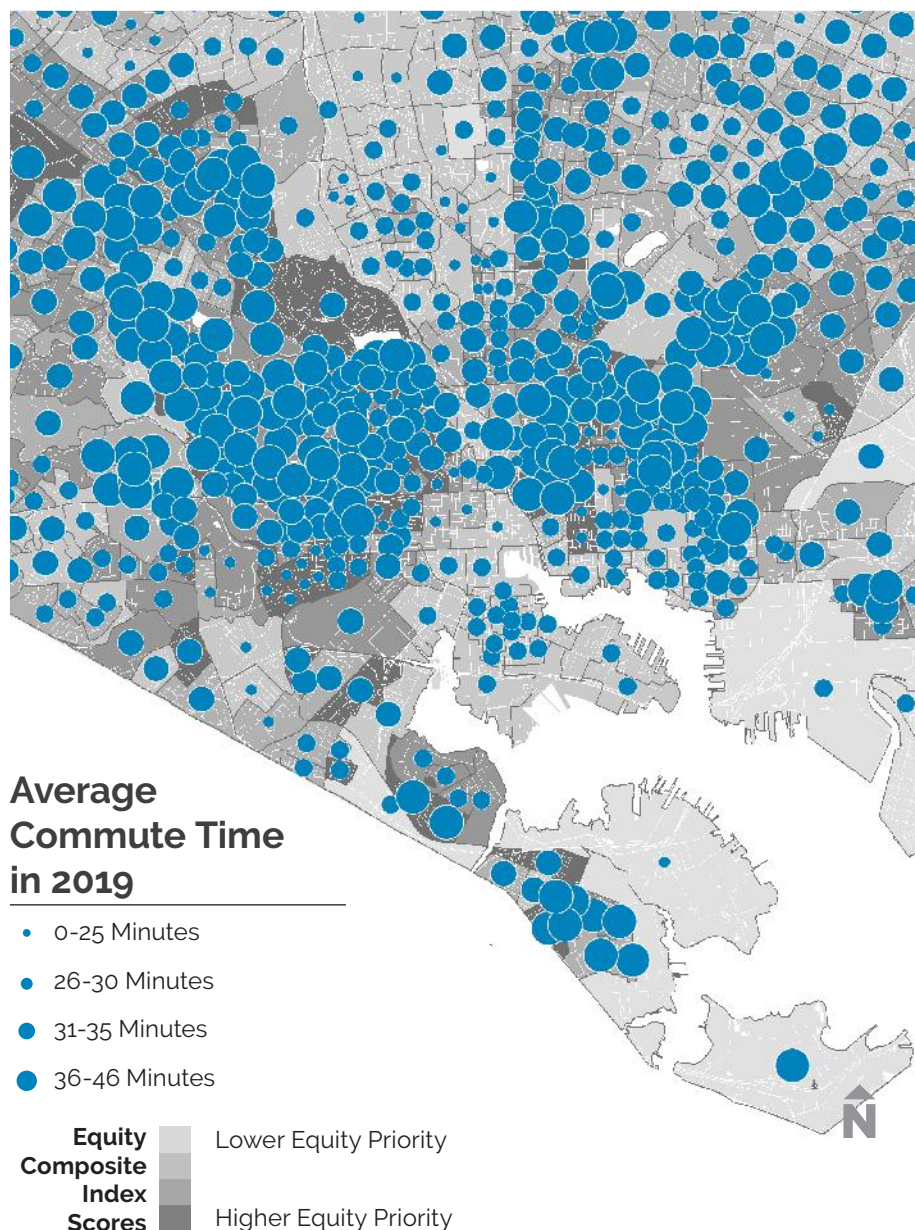
Results

The average commute time has remained fairly constant over the past five years, with an average of 31.4 minutes.



¹ <https://bniajfi.org/2018/01/02/lack-of-accessibility-leads-to-high-commute-time-neighborhoods/>

² American Community Survey One-Year Estimates, Tables A09001 and A09002, 2019



Equity Reporting on Commute Time – Percentage of Workers with Commute of 45 Minutes or Longer

	Citywide Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	20.4%	23.9%	17.7%	24.8%	17.2%	24.8%	17.9%

For each equity geography, a weighted average of the percentage of workers with commutes of 45 minutes or longer was calculated.¹ On average:

- 6.2% more workers who live in neighborhoods with above-average POC populations have commutes of 45 minutes or longer than those who live in neighborhoods with below-average POC populations.
- 7.6% more workers who live in neighborhoods with below-average household income have commutes of 45 minutes or longer than in neighborhoods with above-average household income.
- 6.9% more workers who live in neighborhoods with above-average access to cars drive to work alone than residents in neighborhoods with below-average access to cars.

¹For all relevant Census Tracts, the percentage of workers with a commute time over 45 minutes was multiplied by the number of workers age 16 and over. These products were summed over all relevant Census Tracts and then divided by the total number of workers across all relevant Census Tracts to create a weighted average.

SYSTEMWIDE IMPROVEMENTS & SAFETY

YEAR-OVER-YEAR CHANGES IN CRASH DATA

Purpose

A Complete street is a street in which walking and biking feels safe. Crash data can help agencies determine the least safe areas for walking and biking and prioritize investment in these areas. This information helps ensure that department priorities reflect the transportation system's safety needs. Year-over-year changes can help show success in current safety programs or the need for more investment in traffic safety initiatives.



Data Source

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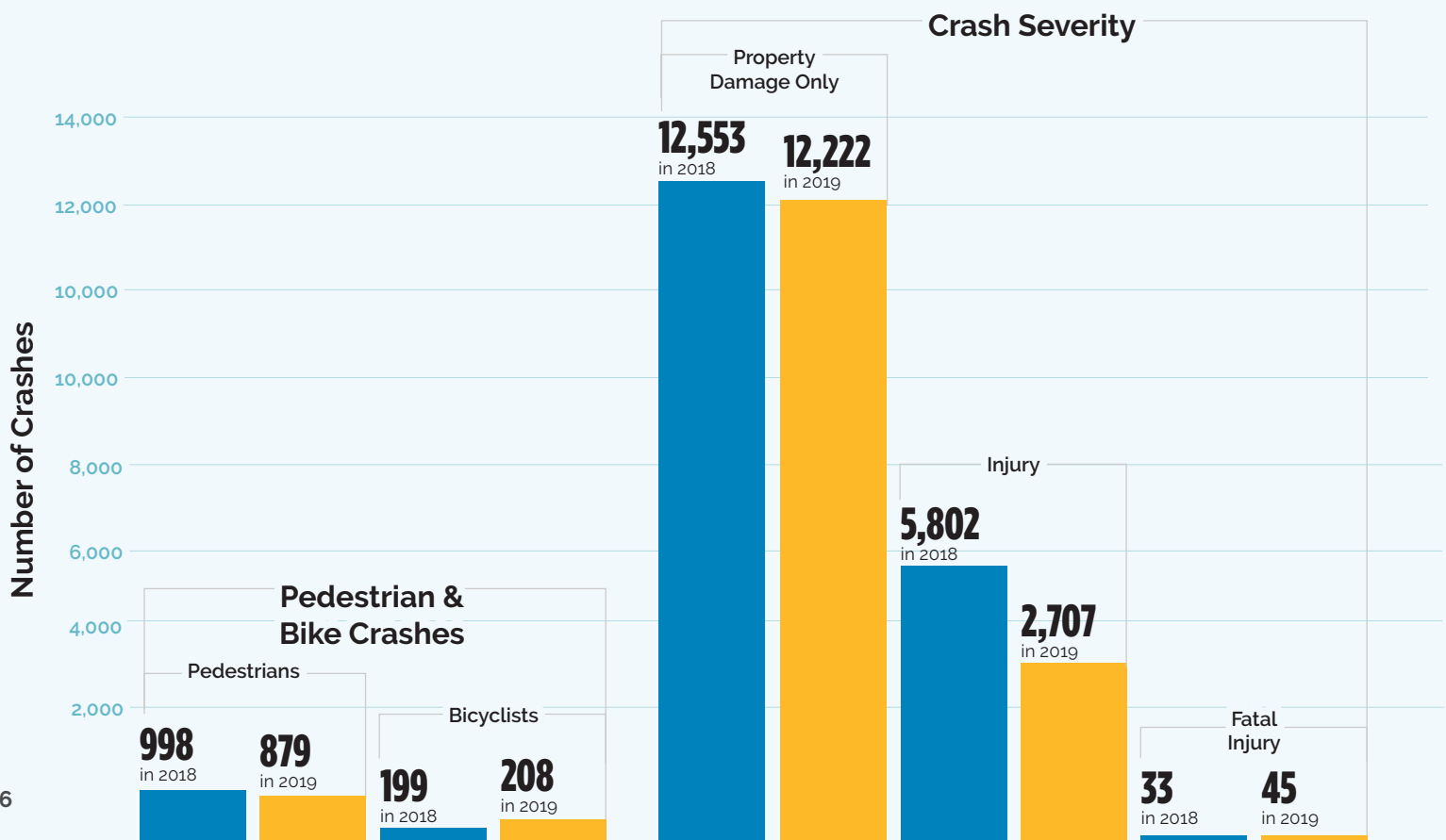
Methodology

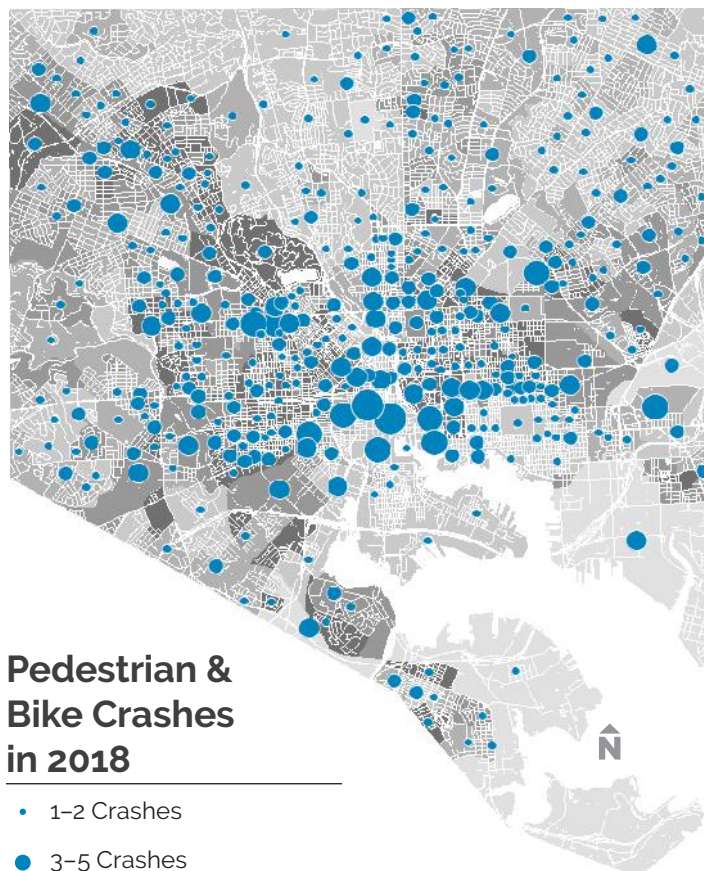
The provided data was used to create GIS maps of crash locations that involved pedestrians or bikes. The crash locations were then summarized by the number of crashes per Census Block Group, as shown below. Crashes located outside of the city boundary were removed from the dataset. In future reports, it is recommended that pedestrian and bike volumes are collected to determine crash rates (number of pedestrian and bike crashes/pedestrian and bike volume). Crash rates more accurately reflect areas in need of safety investment.



Results

The total number of crashes remained relatively consistent between 2018 and 2019. Only small year-over-year changes in crash data are expected. Though the total numbers of crashes in 2018 and 2019 were relatively similar, there was a slight increase in fatal injuries in 2019.





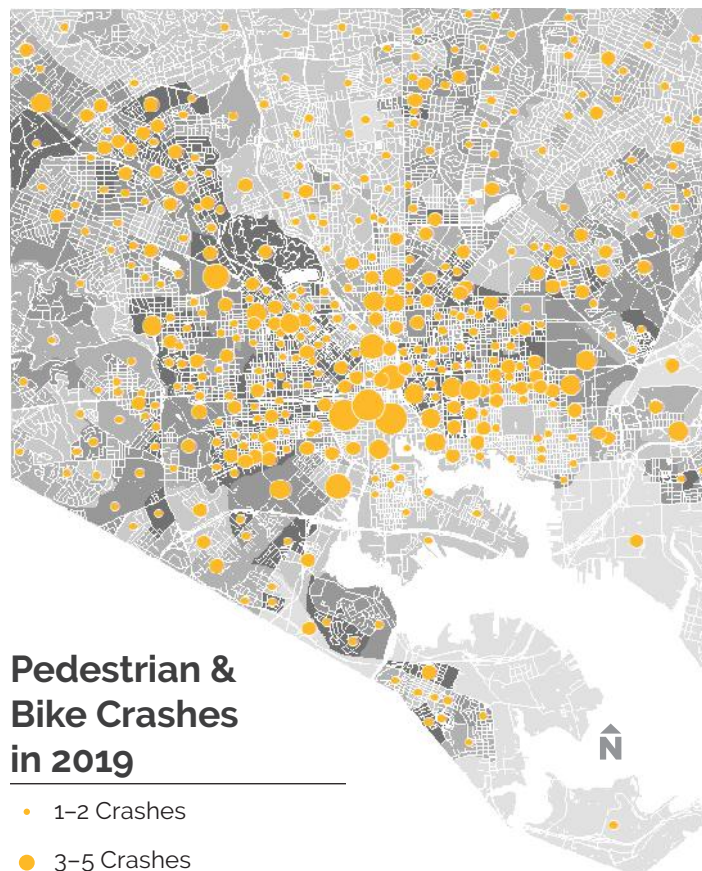
Pedestrian & Bike Crashes in 2018

- 1-2 Crashes
- 3-5 Crashes
- 6-9 Crashes
- 10-14 Crashes
- 15-71 Crashes

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



Pedestrian & Bike Crashes in 2019

- 1-2 Crashes
- 3-5 Crashes
- 6-9 Crashes
- 10-14 Crashes
- 15-71 Crashes

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority

Equity Reporting on Crash History

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average Low Car
2018	Pedestrian & Bike Crashes	1,195	52%	48%	60%	40%	66%	34%
2019	Pedestrian & Bike Crashes	1,086	52%	48%	60%	40%	66%	34%

Similar to the trends in crash severity, there was little variation between the 2018 and 2019 crash data regarding equity reporting. More than half of the crashes involving a pedestrian or bike occurred in neighborhoods with above-average people of color (POC) populations in 2018 and 2019. 60% of crashes involving a person walking or biking occurred neighborhoods with below-average household income in 2018 and 2019. Two-thirds of pedestrian and bicycle crashes occurred in Block Groups with neighborhoods with below-average access to cars in 2018 and 2019.

GREEN STORMWATER INFRASTRUCTURE

Purpose

Complete streets should also be green streets. A major component of what the Complete Streets Manual defines as a green street is green stormwater infrastructure (GSI), which may do the following:

- Collect stormwater runoff for water quality treatment.
- Cause a slow, controlled release of stormwater that mitigates adverse downstream impacts, such as flooding and erosion.



Data Source

The Baltimore City Department of Public Works (DPW) provided a GIS layer of stormwater infrastructure in Baltimore City. DPW also provided a recommended list of facility types that should be considered GSI.



Methodology

The data from DPW was filtered to show features that have already been constructed along with features either on City-owned property or not on private property (therefore assumed to be in the public right of way).

The DPW-provided data does not include an installation date for GSI facilities. However, it was confirmed that all features that made it through this filtering process were constructed no later than 2017. These facilities will serve as a base condition to which future reports will compare.

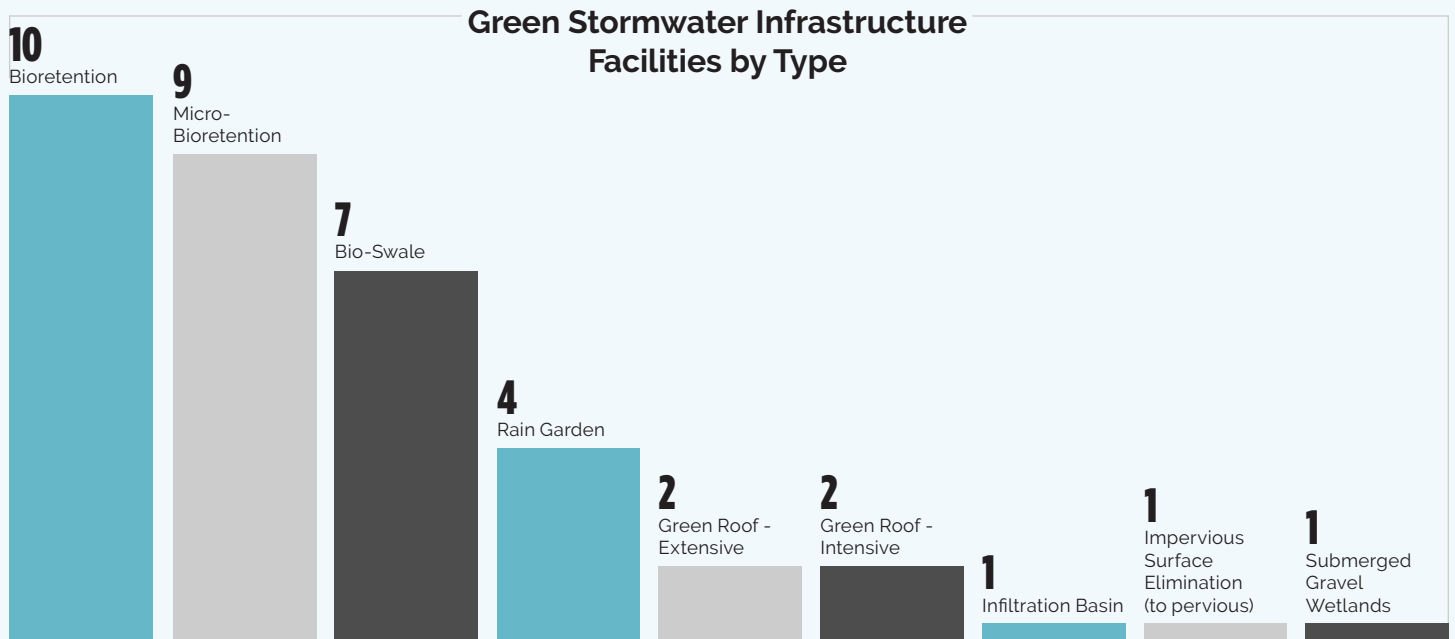
The following facility types were considered to be GSI, as recommended by DPW:

- Green Roof-Extensive
- Green Roof-Intensive
- Bioretention
- Infiltration Basin
- Micro-Bioretention
- Rain Gardens
- Submerged Gravel Wetlands
- Bio-Swale
- Grass Swale
- Wet Swale
- Step Pool Storm Conveyance
- Pocket Wetland
- Impervious Surface Elimination (to forest)
- Impervious Surface Elimination (to pervious)
- Planting Trees or Forestation on Pervious Urban



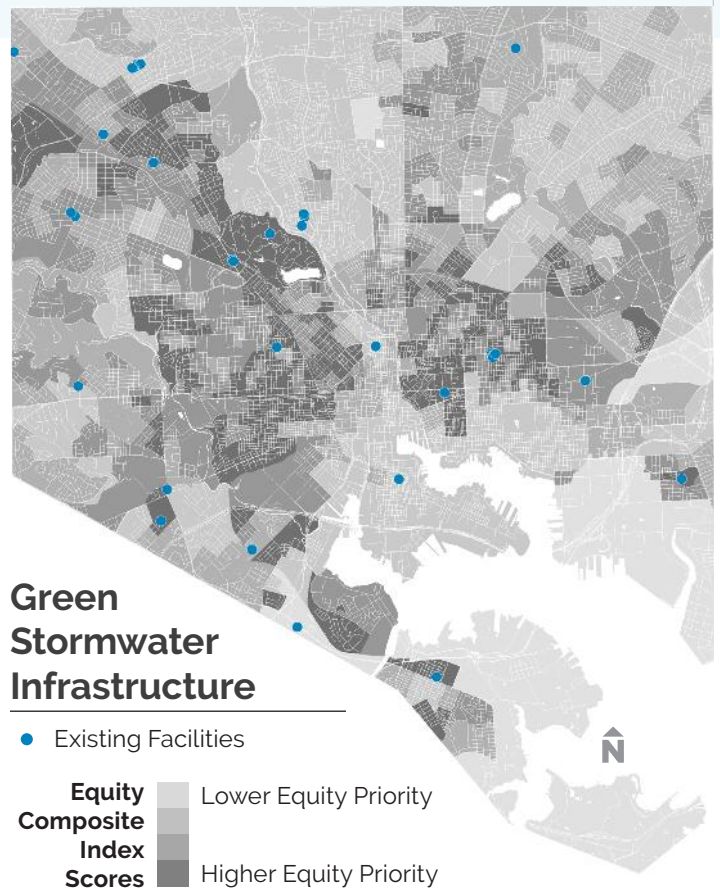
Results

The most common types of GSI facilities—bioretention, micro-bioretention, bio-swales, and rain gardens—all fall under the larger umbrella of bioretention. The Maryland Stormwater Design Manual defines bioretention as “a water quality practice that utilizes landscaping and soils to treat urban stormwater runoff by collecting it in shallow depressions before filtering through a fabricated planting soil media.” In other words, these are landscaped areas that slow runoff and use vegetation to filter pollutants from stormwater.



A bioretention facility on Liberty Heights Avenue.

Source: Baltimore City Complete Streets Manual.



Equity Reporting on Green Stormwater Infrastructure

	Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
Existing GSI Infrastructure	37	65%	35%	65%	35%	54%	46%

The majority of existing GSI facilities are located in neighborhoods with above-average POC populations, in neighborhoods with below-average household income, and in neighborhoods with below-average access to cars.

SYSTEMWIDE IMPROVEMENTS & SAFETY

NUMBER OF STREET TREES PLANTED

Purpose

Complete Streets should also be green streets. Green streets incorporate trees and plants in many ways, including boulevard strips, street trees, planter boxes, rain gardens, and swales. Street trees in complete street design provide multiple benefits, including traffic calming, enhanced aesthetics, reduced runoff, and reduction of the heat island effect, which all contribute to added pedestrian comfort, improved environmental health, and increased livability.



Data Source

Tree Baltimore provided a spreadsheet of street tree installation in 2019 and 2020. The spreadsheet lists the location (latitude and longitude), quantity, and type of tree planted.



Methodology

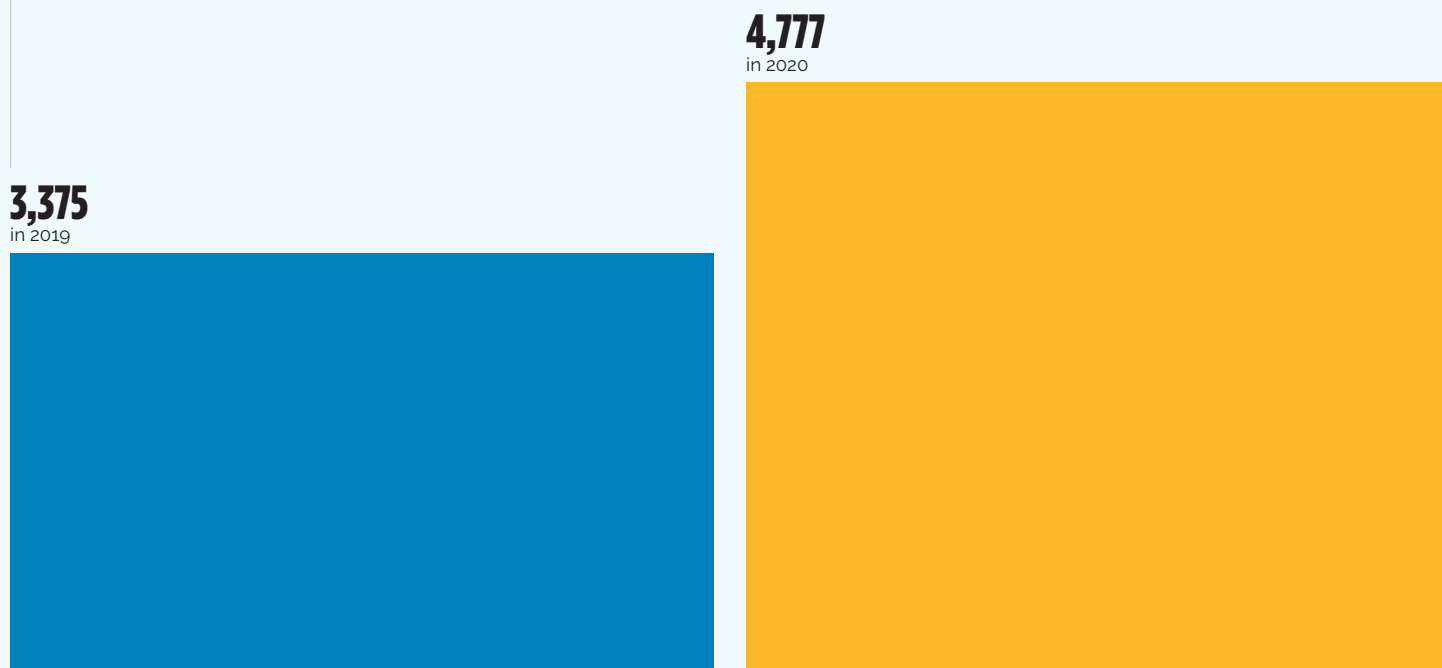
The provided spreadsheet was used to create a GIS map of street trees planted in 2019 and 2020 at the census Block Group level.

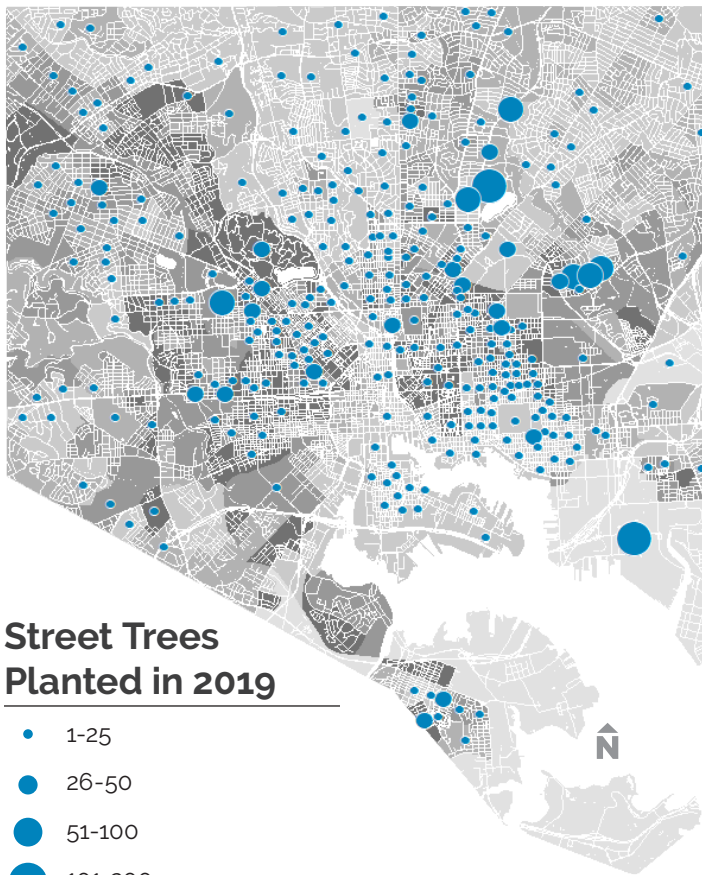


Results

More street trees were planted in 2020 than in 2019.

Street Trees Planted





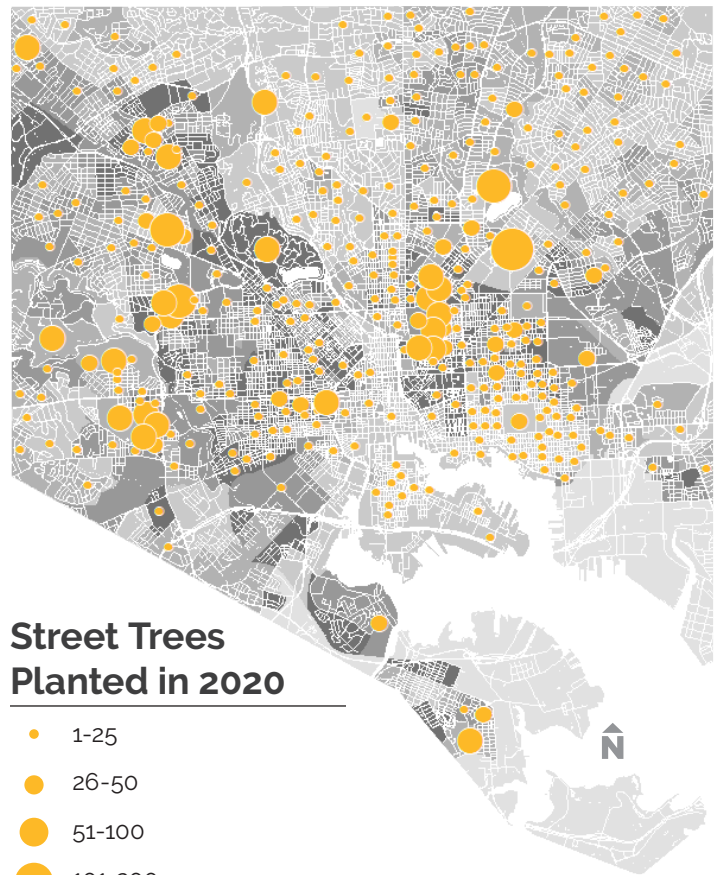
Street Trees Planted in 2019

- 1-25
- 26-50
- 51-100
- 101-200
- 201-300

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



Street Trees Planted in 2020

- 1-25
- 26-50
- 51-100
- 101-200
- 201-300

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority

Equity Reporting on Street Trees Planted

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	Street Trees Planted	3,375	67%	33%	70%	30%	63%	27%
2020	Street Trees Planted	4,777	72%	28%	69%	31%	56%	34%

At least two-thirds of street trees were installed in neighborhoods with above-average POC populations and in neighborhoods with below-average household income in 2019 and 2020. Over half of street trees were planted in neighborhoods with below-average access to cars in 2019 and 2020. Though more street trees were planted in 2020, a smaller percentage of the street trees were planted in neighborhoods with below-average access to cars in 2020 than in 2019.

SYSTEMWIDE IMPROVEMENTS & SAFETY

SPEED HUMP INSTALLATIONS

Purpose

Speed humps are intended to slow traffic speeds on low-volume, low-speed roads. Speed humps can reduce speeds by 20 to 25 percent, though the amount of speed reduction depends on hump shape and spacing.¹ According to the Complete Streets Manual, they are most appropriate on the following street types:

- Urban Village Neighborhood
- Urban Village Shared Street
- Neighborhood Corridor



Data Source

Baltimore City DOT provided a spreadsheet of speed hump installations. The spreadsheet lists the locations in terms of the block number and street, the type of installation (i.e., new or re-installed)², the number of humps, the date of installation, and the neighborhood.



Methodology

The provided spreadsheet was used to create a GIS map of installations at the street block level.

¹ <https://www.ite.org/>

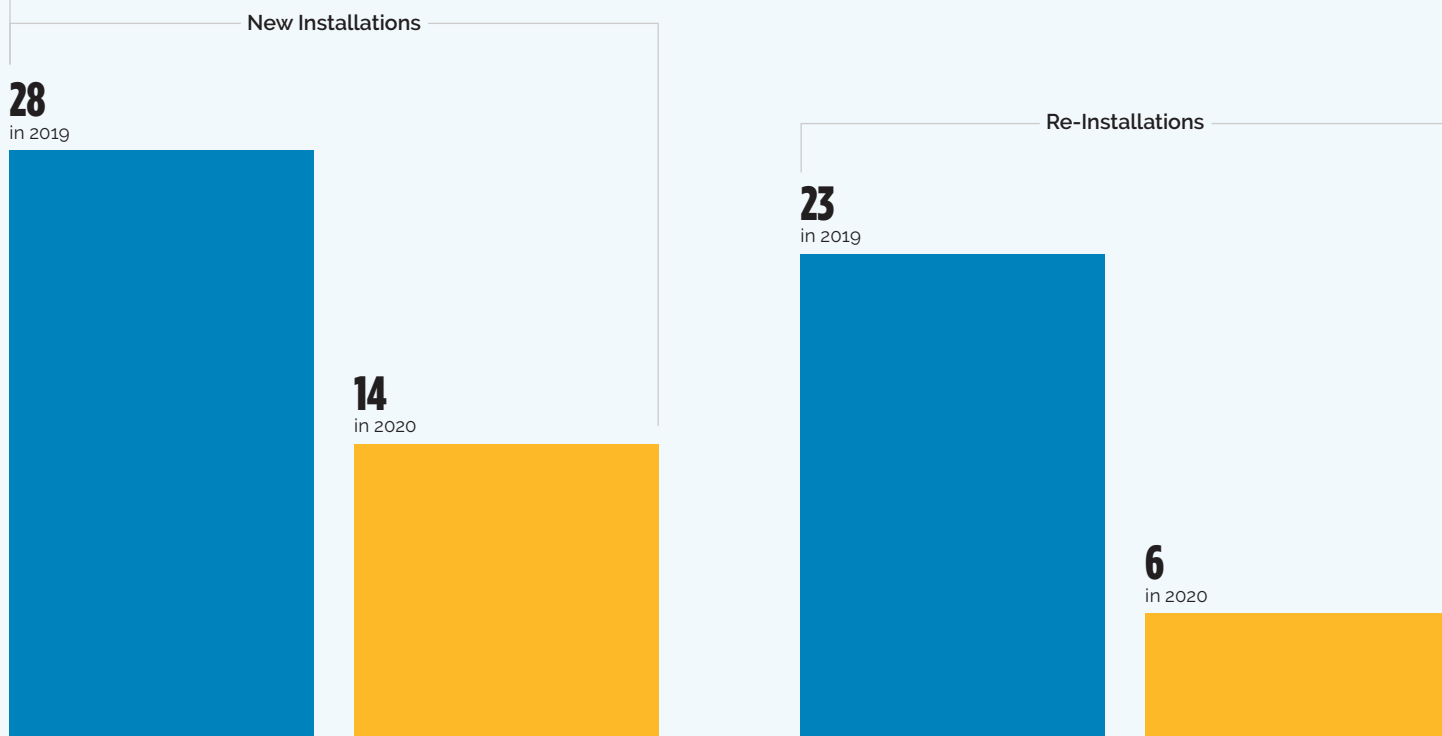
² "Re-installed" indicates a speed hump installed as part of a resurfacing project at a site where there was an existing speed hump

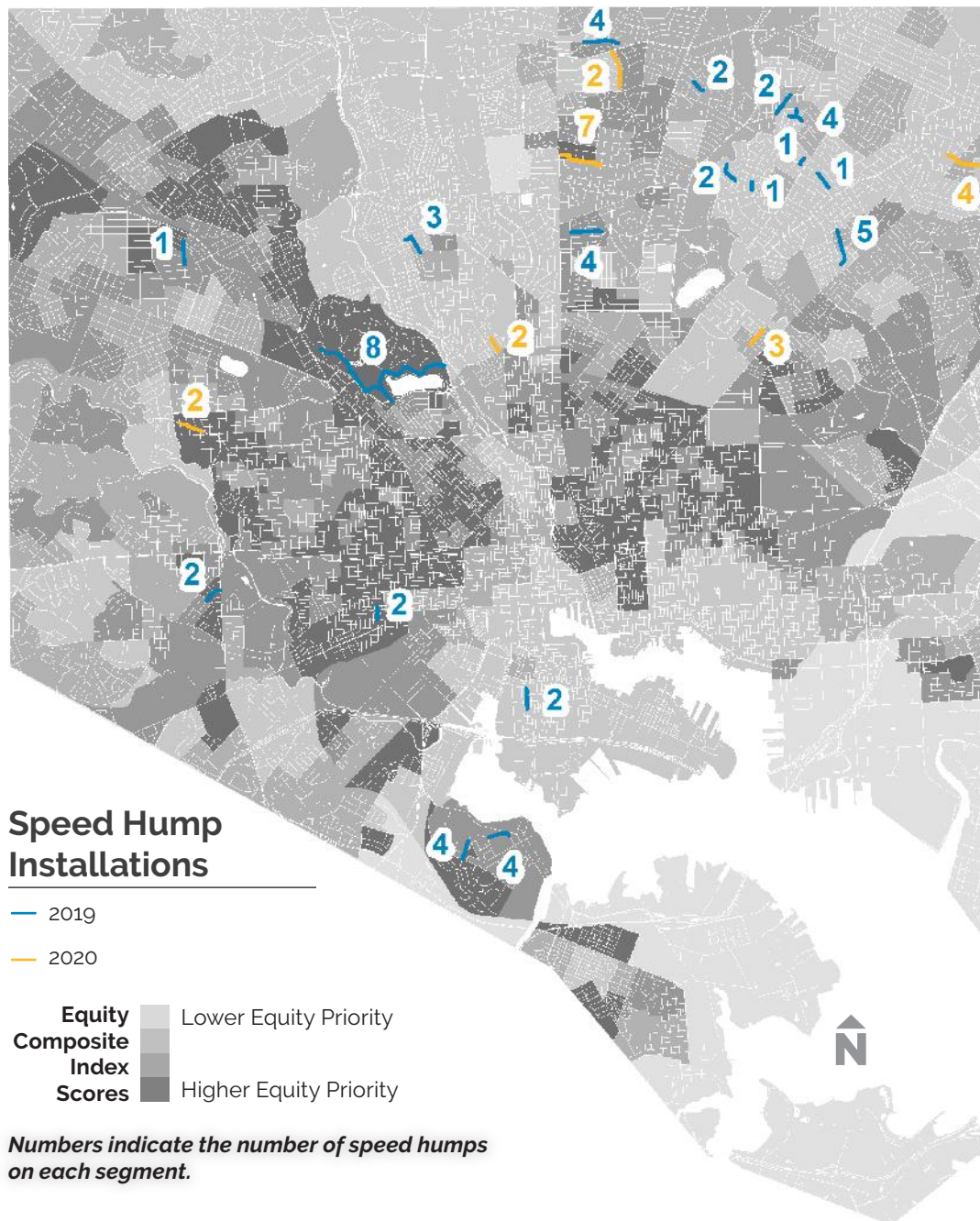


Results

Speed hump installations fell between 2019 and 2020, largely due to COVID-19. DOT is currently working on process improvements to accelerate traffic calming installations.

Speed Hump Installations





Equity Reporting on Speed Hump Installations

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	New Installations	28	54%	46%	54%	46%	54%	46%
	Re-Installations	23	61%	39%	35%	65%	35%	65%
2020	New Installations	14	64%	36%	79%	21%	14%	86%
	Re-Installations	6	100%	0%	0%	100%	0%	100%

At least half of speed humps were installed and re-installed in neighborhoods with above-average POC populations in 2019 and 2020. At least one-third of speed humps were installed and re-installed in neighborhoods with below-average household income and in neighborhoods with below-average access to cars in 2019. 79% of speed humps installed in 2020 were installed in neighborhoods with below-average household income, but only 14% were installed in neighborhoods with below-average access to cars. Zero of the six speed humps re-installed in 2020 were in neighborhoods with below-average household income or in neighborhoods with below-average access to cars, but all were installed in neighborhoods with above-average POC populations.

SYSTEMWIDE IMPROVEMENTS & SAFETY

MAIN STREET BUSINESS INVENTORY

Purpose

The Complete Streets Manual states that economic performance of Main Street areas is a performance measure through which complete streets should be measured. Other cities including New York City have identified an increase in business sales following complete streets improvement projects.¹



Data Source

The Baltimore Development Corporation (BDC) provided a spreadsheet of business status for five Retail Business District License (RBDL) areas, which are subareas within larger Baltimore City Main Street areas.



Methodology

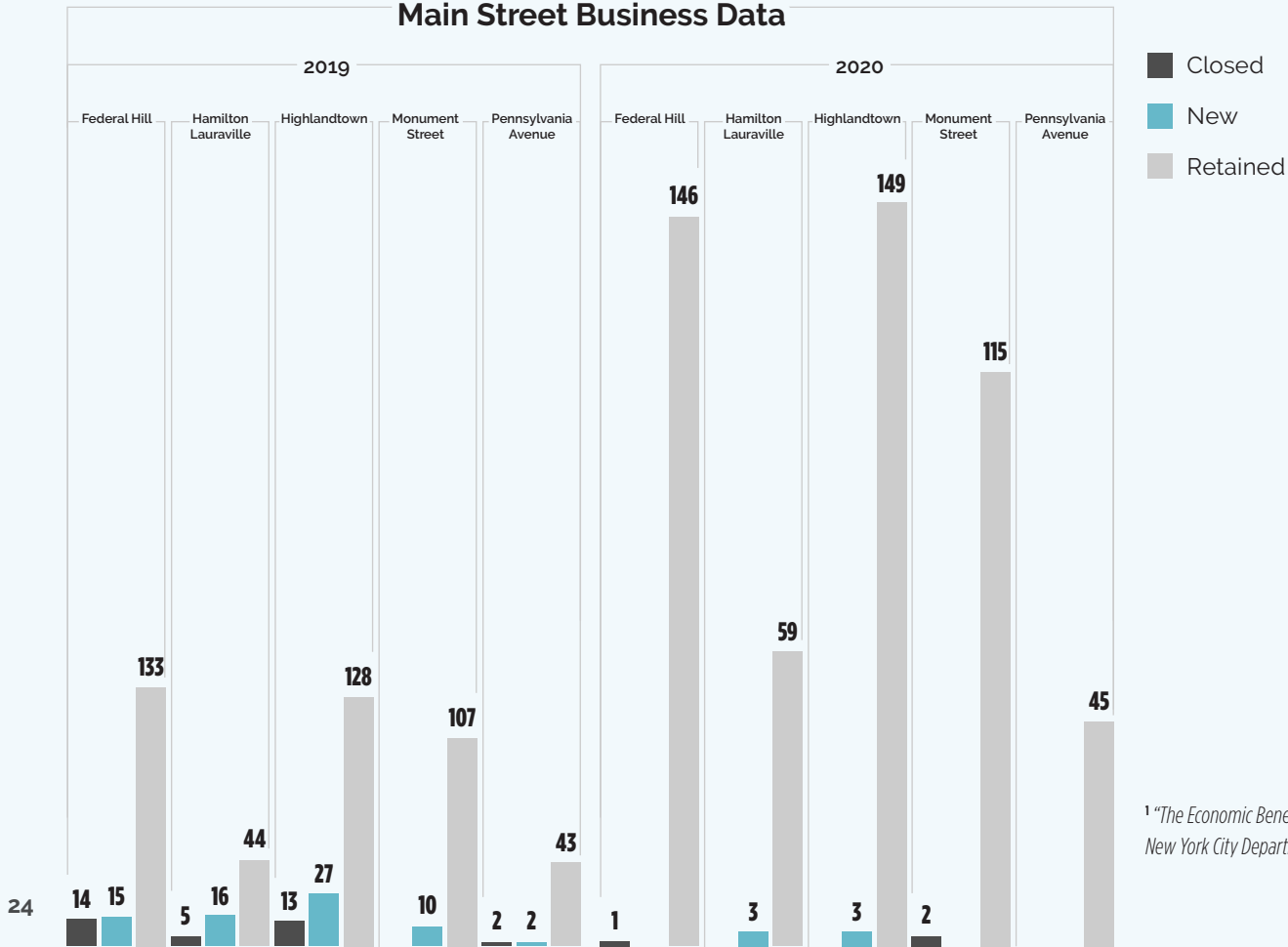
The number of businesses opened, closed, and retained each year was summarized from the provided data.



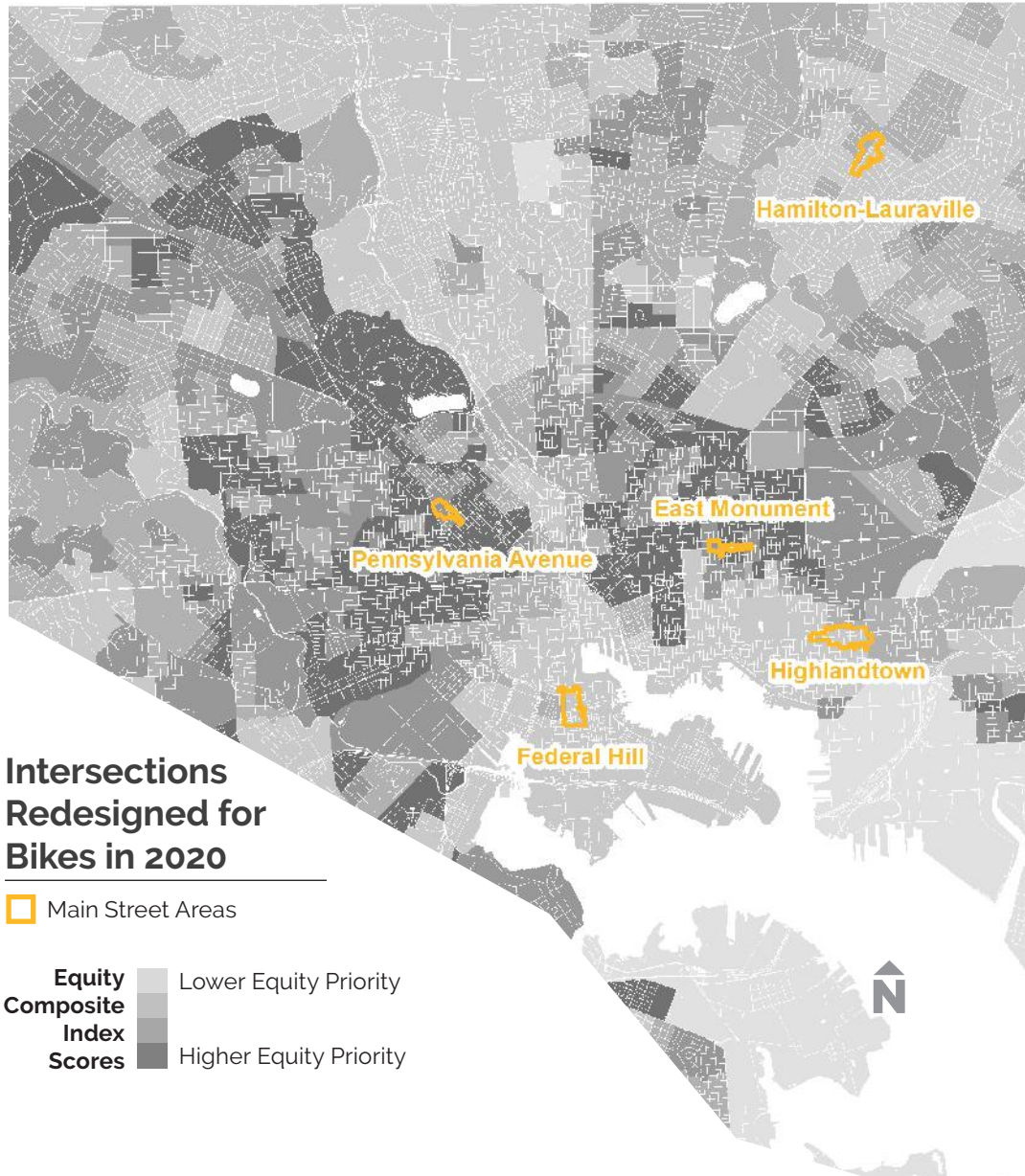
Results

BDC reported fewer new business and fewer business closings across RBDLs in 2020, compared to 2019. The "retained" category indicates the number of businesses that have stayed open throughout the year.

Main Street Business Data



¹ "The Economic Benefits of Sustainable Streets."
New York City Department of Transportation.



NUMBER OF INTERSECTIONS REDESIGNED FOR PEDESTRIANS

Purpose

Walking is the highest-priority mode in Baltimore City's complete streets modal hierarchy; pedestrian safety at intersections is essential. The Baltimore City Complete Streets Manual identifies the following general strategies for improving pedestrian safety at intersections:

- Slow vehicle speeds to align with the street's target speed.
- Improve visibility (sight distance and lighting).
- Shorten pedestrian crossing distances.
- Improve accessibility (accessible curb ramps and crossings).



Data Source

Baltimore City DOT provided shapefiles of resurfacing projects in 2019 and 2020 as well as an Excel spreadsheet of capital projects in the Transportation Engineering and Construction Division (TEC).



Methodology

The application of the Project Delivery Process in the Complete Streets Manual is still in progress for certain functions, such as resurfacing projects. However, the design standards in the Manual are followed for all resurfacing projects on collector and arterial roadways. This analysis counts the number of intersections contained within external resurfacing and TEC project extents. In the future, it is recommended to create a centralized record of the specific improvements implemented at the intersections and incorporate additional data sources. The number of intersections redesigned for pedestrians is displayed on the following map as the number of intersections per Census Tract.



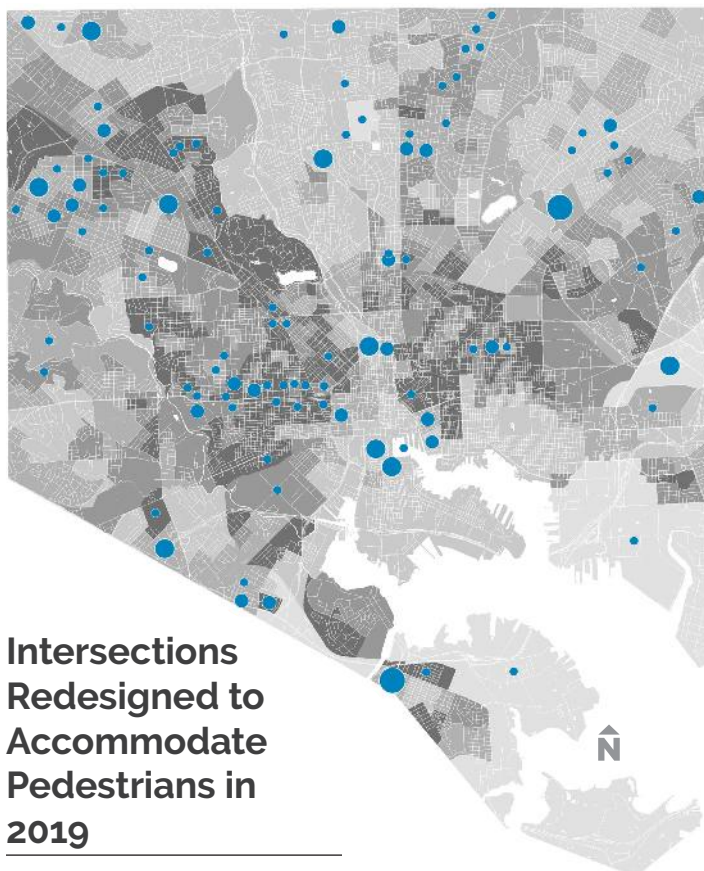
Results

The number of intersections redesigned to accommodate pedestrians decreased from 2019 to 2020, largely due to COVID-19. No federally funded streetscape projects were completed in 2020, though some were in progress.

Intersections Redesigned to Accommodate Pedestrians

322
in 2019

176
in 2020

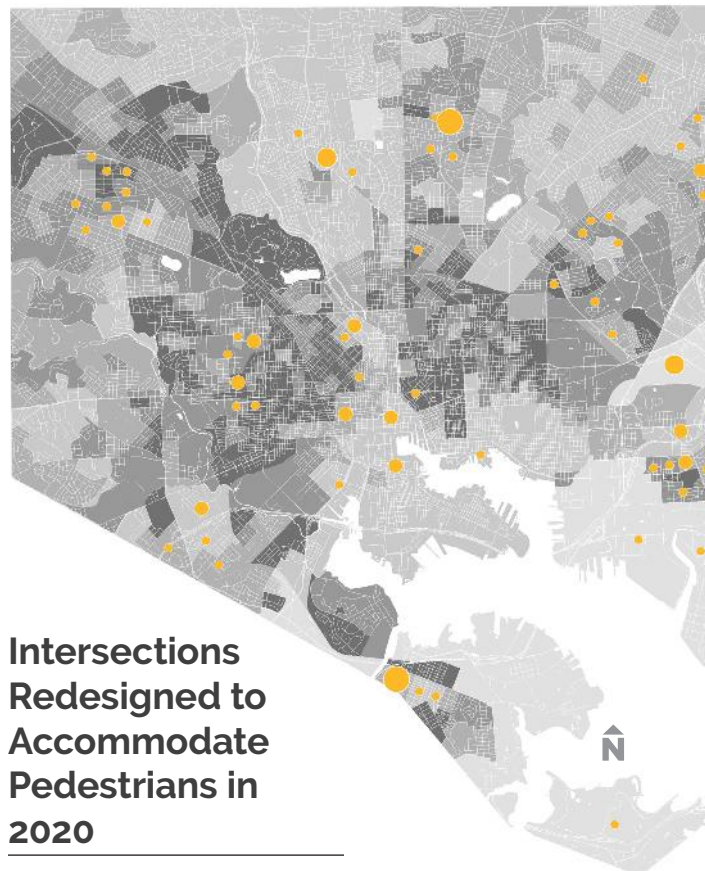


- 1-3 intersections
- 4-6 intersections
- 7-10 intersections
- 11-15 intersections

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



- 1-3 intersections
- 4-6 intersections
- 7-10 intersections
- 11-15 intersections

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority

Equity Reporting on Pedestrian Intersection Improvements

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	Number of Intersections	322	51%	49%	53%	47%	43%	57%
2020	Number of Intersections	176	48%	52%	55%	45%	48%	52%

Approximately half of the intersections redesigned for pedestrians were in neighborhoods with above-average POC populations, in neighborhoods with below-average household income, and in neighborhoods with below-average access to cars in 2019 and 2020. The proportion increased for neighborhoods with below-average household income and for neighborhoods with below-average access to cars between 2019 and 2020. The proportion decreased for neighborhoods with above-average POC populations between 2019 and 2020.

PUBLIC SPACE INFRASTRUCTURE ADDED FOR PEDESTRIANS

Purpose

Public space infrastructure can include a variety of different features, such as parks, plazas, green spaces, seating, etc. For this report, only public space infrastructure that was installed within Baltimore City DOT right of way was considered. In response to the pandemic, the right of way typically devoted to driving or parking vehicles was converted to public space to provide people with a greater ability to maintain physical distance from others while making essential trips or exercising outdoors. Quick-build public space projects, such as parklets, outdoor dining spaces, and slow streets are expected to continue as interest in using more public space for socializing and recreation grows.



Data Source

A list of slow streets,¹ parklets, and outdoor dining spaces and their extents were provided by the DOT and the Baltimore Development Corporation, which led the "Design for Distancing" initiative. All of these facilities were installed in 2020.



Methodology

The provided spreadsheets were used to create GIS map of the parklets/outdoor dining spaces, slow streets, and BDC's Design for Distancing projects.



Results

120 parklets/outdoor dining spaces, 86 slow streets (30 miles), and 17 Design for Distancing projects were installed in 2020.

Public Space Infrastructure Installed in 2020

120

Parklets/Outdoor Dining Spaces

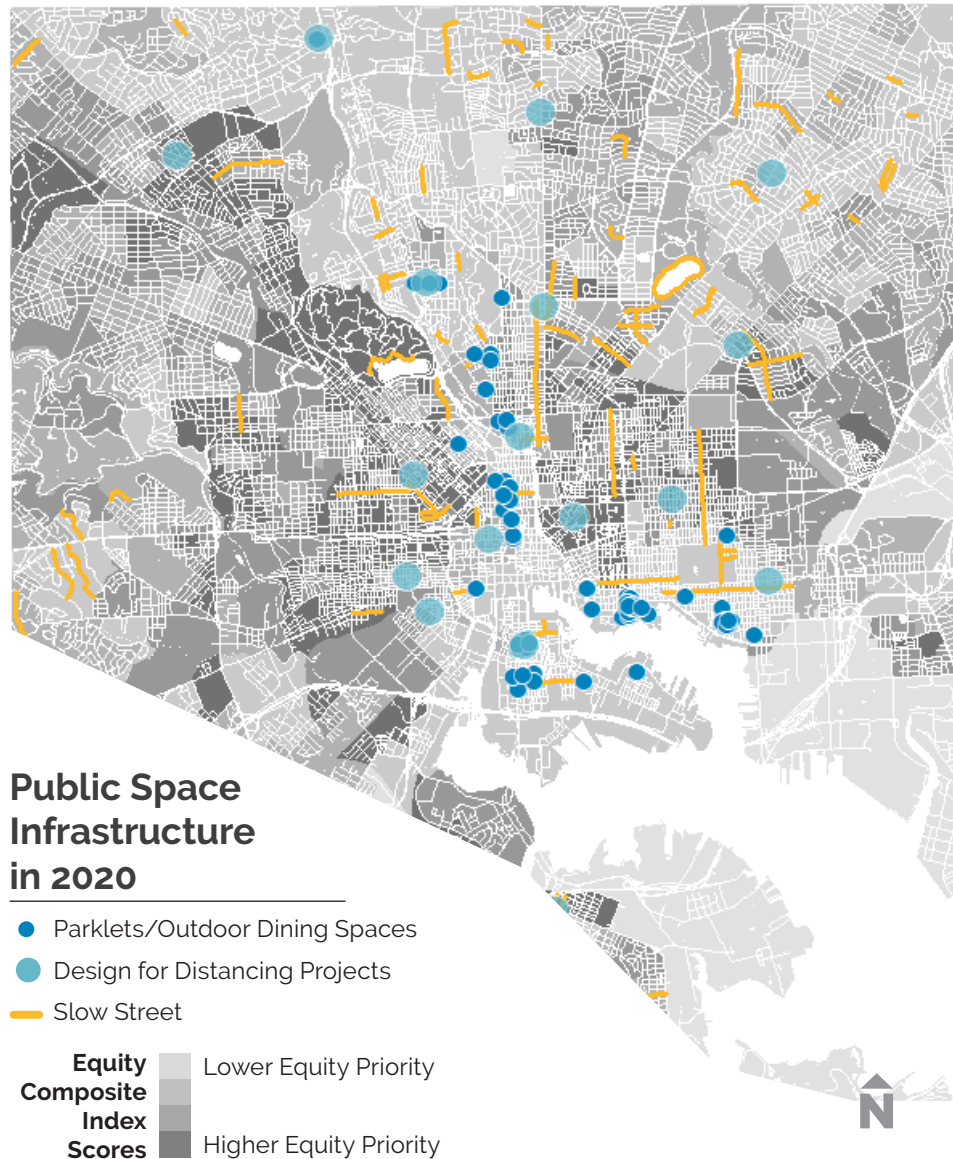
86

Slow Streets

14

Design for Distancing Projects

¹Slow streets implemented temporary "Road Closed: Local Traffic Only" soft closure barriers, so that people could more comfortably use these low-traffic streets for physically distant walking, wheelchair rolling, jogging, and biking across the city during the COVID-19 pandemic.



Equity Reporting on Public Space Infrastructure

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	Parklets or Outdoor Dining Spaces added	120	0%	100%	12%	88%	14%	86%
2020	Design for Distancing Projects	14	43%	57%	50%	50%	64%	36%
2020	Slow Streets	30 miles	53%	47%	46%	54%	42%	58%

Few parklets and outdoor dining spaces were added in neighborhoods with above-average POC populations, in neighborhoods with below-average household income, and in neighborhoods with below-average access to cars. It should be noted that while the Baltimore Development Corporation held a competition and awarded grant funds to neighborhoods throughout the city, the majority of outdoor dining installations were processed as they came in from individual businesses or non-profit organizations.

In contrast, slow streets were more equitably distributed. Approximately half of the slow streets installed were placed in neighborhoods with above-average POC populations. Less than half of slow streets were installed in neighborhoods with below-average household income and in neighborhoods with below-average access to cars.

WALKING INFRASTRUCTURE

SIDEWALK MAINTENANCE

Purpose

Baltimore City has 3,600 miles of sidewalks. Maintaining sidewalks is essential to ensure the accessibility and safety of Baltimore City streets for pedestrians. Property owners in Baltimore City are financially responsible for the maintenance of the sidewalk adjacent as performed by Baltimore City DOT. The Complete Streets Manual identifies a project prioritization process for sidewalk improvements.



Data Source

Baltimore City DOT provided an Excel spreadsheet containing records of sidewalk repairs from 2019 and 2020. These locations were then aggregated to the street-block level in GIS. Sidewalk maintenance is measured by the linear feet of curb repaired and the square footage of sidewalk surface repaired.



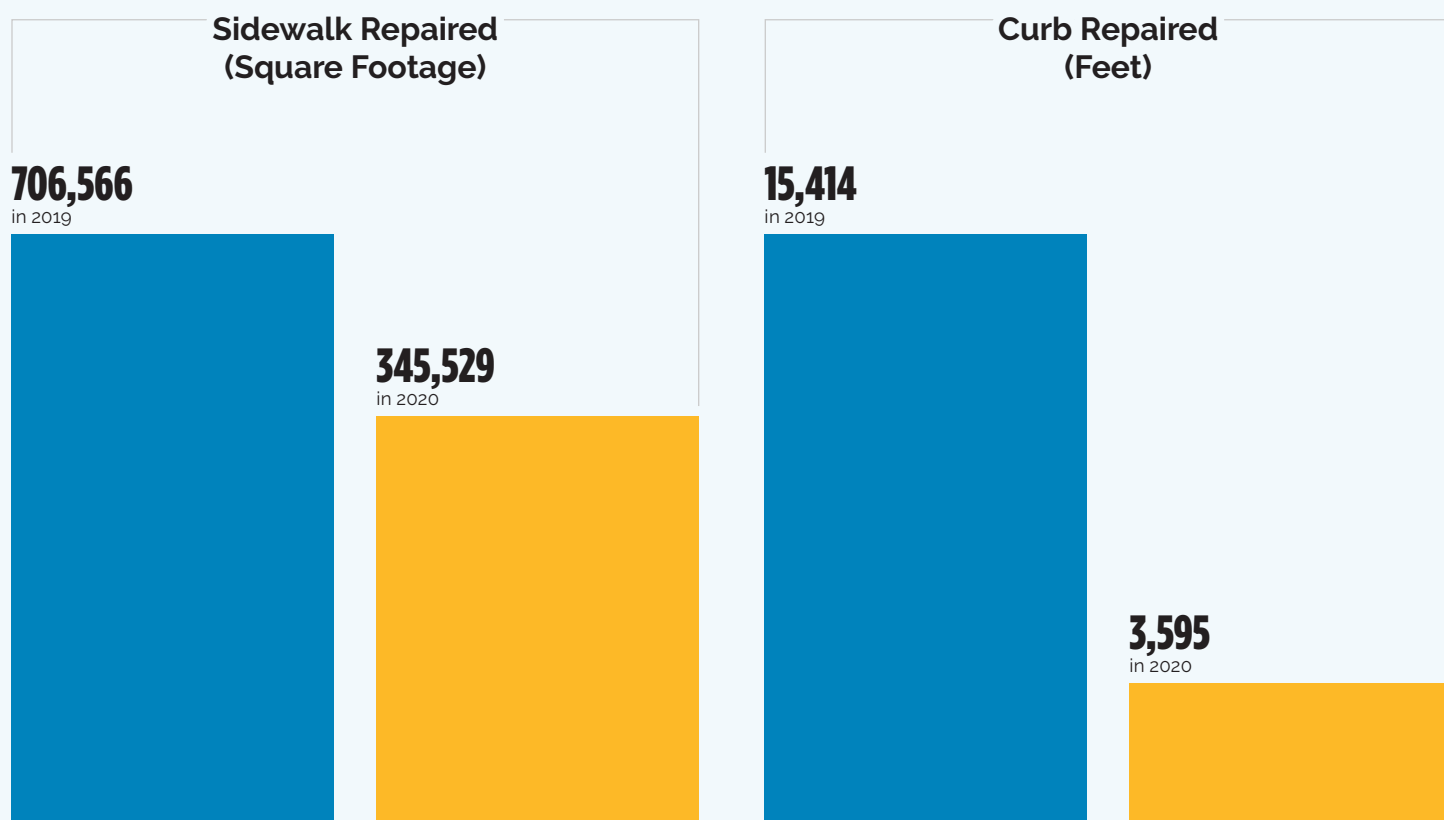
Methodology

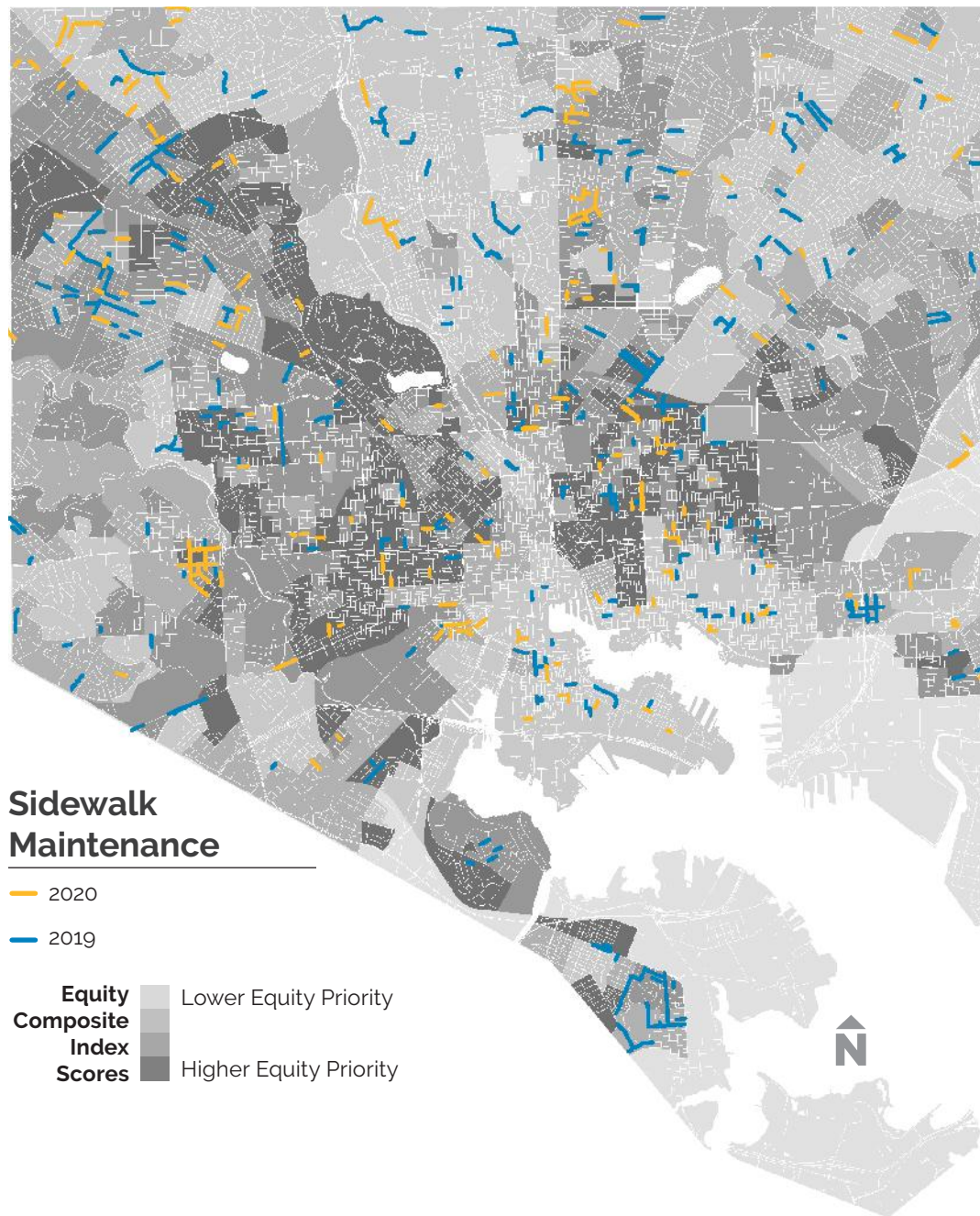
The provided information was used to create a GIS map of maintenance locations at the Census Tract level.



Results

Sidewalk and curb repairs fell between 2019 and 2020, largely due to COVID-19.





Equity Reporting on Sidewalk Maintenance

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2019	Curb (ft)	15,414	57%	43%	41%	59%	40%	60%
	Sidewalk (sq ft)	706,566	60%	40%	55%	45%	49%	51%
2020	Curb (ft)	3,595	53%	47%	32%	68%	38%	62%
	Sidewalk (sq ft)	345,529	57%	37%	52%	48%	50%	50%

Generally, a higher percentage of maintenance occurred in neighborhoods with above-average POC populations, in neighborhoods with below-average household income, and in neighborhoods with below-average access to cars in 2019 than in 2020. However, the percentage of sidewalk repairs in neighborhoods with below-average access to cars increased by 0.8% from 2019 to 2020, and the percentage of sidewalk repairs in neighborhoods with above-average POC populations increased by 6.8% from 2019 to 2020. At least half of sidewalk repairs were in neighborhoods with above-average POC populations in 2019 and 2020. The same is true for neighborhoods with below-average household income. Nearly 50% of sidewalk repairs were in neighborhoods with below-average access to cars, as well.

BIKE INFRASTRUCTURE

BIKE FACILITIES MAINTENANCE LOCATIONS

Purpose

Frequent and responsive maintenance of bike facilities ensures the safety of people biking. Maintenance can include repairs to various elements of bike facilities, including roadway striping, flex post replacement, and keeping other assets related to bike infrastructure in a state of good repair. Maintenance of bike facilities is critical to ensure people biking are provided with adequate guidance and protection from automobiles.



Data Source

An Excel spreadsheet containing information from the Baltimore City DOT Bike Program's annual bike facilities audit along with information from 311 requests received in 2020 was used to identify bike facilities maintenance was completed in 2020. These locations were then converted to GIS layers. In 2020, bike facility maintenance focused on flex-post repair and replacement. Striping work was completed by private contractors on Maryland Avenue, Monument Street, and Biddle Street as part of the street cut repair process. The maintenance locations do not reflect this striping. Future reports will include repairs to striping, green paint, and other elements in addition to flex post repair.



Methodology

The provided information was used to create a GIS map of maintenance locations at the census Block Group level.



Results

There were 58 locations where flex posts were repaired in 2020. The flex post repairs occurred on approximately 4 miles of the existing 218 miles of bike facilities in the city. Less than 2% of citywide bike facilities received maintenance in 2020.



Equity Reporting on Bike Facility Maintenance

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
	Existing Bike Facilities (miles)	218	46%	54%	46%	54%	50%	50%
2020	Repaired Bike Facilities (miles)	4	75%	25%	67%	33%	81%	19%

Less than 2% of citywide bike facilities (4 miles of 218 miles) received maintenance in 2020. Of the 4 miles of the bike network that received maintenance in 2020, 75% was in neighborhoods with above-average POC populations. Over two-thirds of the repaired bike facilities was in neighborhoods with below-average household income and over 80% of the repaired bike facilities was in neighborhoods with below-average access to cars.

BIKE INFRASTRUCTURE

LENGTH OF BIKE FACILITIES

Purpose

Most cities that have improved the quality and extent of their bike infrastructure have seen increases in biking. This supports the assumption that more total miles of bike facilities will result in more trips taken by bicycle, which will lead to the tracking of length of bike facilities as a complete streets implementation measure. However, it is also important to consider the types of bike facilities installed and the connectivity they provide when evaluating a city's bike network. Potential riders are unlikely to choose to ride a bike unless they are confident that they will feel safe for the entire, end-to-end trip. The type of bike facilities available will attract bicyclists of different comfort levels, and connectivity determines a bicyclist's ability to access key destinations safely and efficiently.



Data Source

Baltimore City DOT provided a GIS layer of existing bike facilities. The GIS layer shows the location, facility type, and length of the facility. Installation dates were available only for bike facilities installed in 2020. Moving forward, the installation dates will be updated with new bike facilities according to information submitted by the DOT Bike Program to the DOT GIS team annually.



Methodology

The provided GIS layer was used to create a GIS map of installations at the street block level.



Results

In 2020, more than 14 miles of bike facilities were installed. While the majority of the installations were shared bike facilities, future protected bike lanes and trail projects are currently in design.

Length of Bike Facilities Installed in 2020

7.80 miles

Shared Bike Facilities



2.24 miles

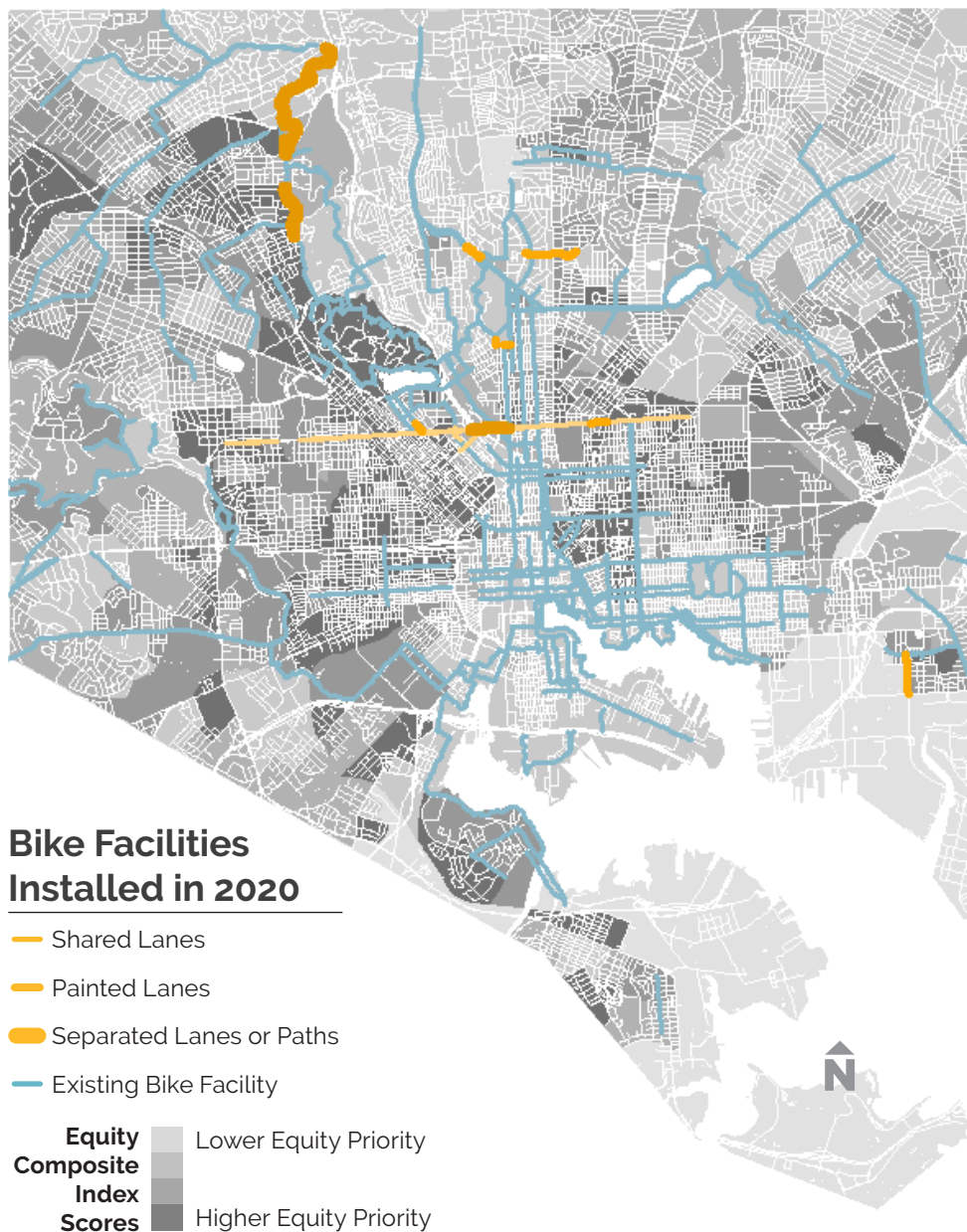
Designated
Bike Facilities



4.04 miles

Separated
Bike Facilities





Equity Reporting on Length of Bike Facilities

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	Shared Lanes (miles)	7.80	88%	12%	93%	7%	78%	22%
	Painted Lanes (miles)	2.24	36%	64%	62%	38%	68%	32%
	Separated Lanes or Paths (miles)	4.04	41%	59%	13%	87%	47%	53%

More shared bike facilities were implemented in neighborhoods with above-average POC populations, in neighborhoods with below-average household income, and in neighborhoods with below-average access to cars than designated and separated bike facilities. Notable projects in 2020 included shared bike facilities added as part of the North Avenue Rising project and the extension of separated bike facilities for the Jones Falls Trail.

NUMBER OF INTERSECTIONS REDESIGNED FOR BIKES

Purpose

Most crashes involving a bike occur at an intersection. Intersections with bike facilities should be designed to reduce conflict between bikes and vehicles by heightening the level of visibility of people on bikes or providing dedicated time for them to cross the intersection through changes to signal timing and phasing. Heightened visibility for bikes may include color, signage, medians, signal detection, and pavement markings.



Data Source

Baltimore City DOT provided a GIS layer of existing bike facilities. The GIS layer shows the location, facility type, and length of the facility. Installation dates were available only for bike facilities installed in 2020. Moving forward, the installation dates will be updated with new bike facilities according to information submitted by the DOT Bike Program to the DOT GIS team annually.



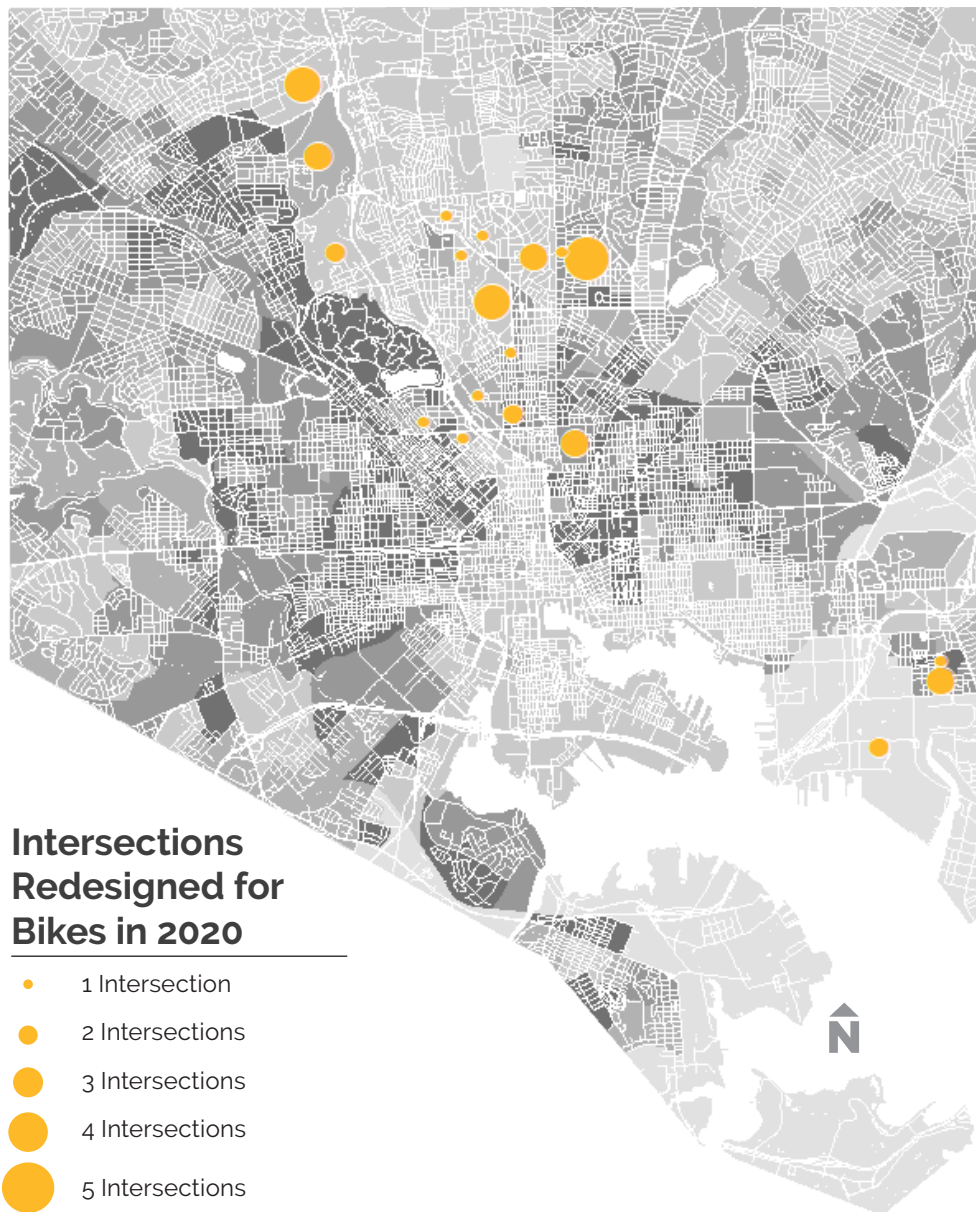
Methodology

The provided GIS layer was used to create a GIS map of bike facility installations at the street block level. From this information, it was assumed that any intersection that a designated bike facility continued through was redesigned to accommodate bikes. Redesigns include the addition of paint or flexposts to protect bicyclists. Shared lanes were excluded, and only intersections with designated bike facilities were counted. In the future, it is recommended to record the specific improvements implemented at the intersections and incorporate additional data sources. The number of intersections redesigned to accommodate bikes is displayed on the following map as the number of intersections per census Block Group.



Results

In 2020, 40 intersections were redesigned for bikes. No intersections were reconstructed for bikes in 2020.



Equity Reporting on Bike-Related Intersection Improvements

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	Number of intersections redesigned for bikes	40	35%	65%	58%	42%	63%	37%

Approximately one-third of intersections redesigned to accommodate bikes were in neighborhoods with above-average POC populations in 2020. More than half of intersections redesigned to accommodate bikes were in neighborhoods with below-average household income and in neighborhoods with below-average access to cars.

INTERSECTIONS REDESIGNED FOR TRANSIT

Purpose

Transit signal priority (TSP) helps to move buses through intersections with less delay by modifying the timing and/or phasing of a traffic signal as a bus approaches. Dedicated bus lanes (DBLs) can also help buses to move through intersections by creating dedicated space where the bus can bypass queues, but most DBLs in Baltimore City are shared with right-turn lanes.



Data Source

The Maryland Transit Administration (MDOT MTA) provided layers of TSP intersections and intersections with dedicated bus lanes. Both layers included the installation date for each intersection.



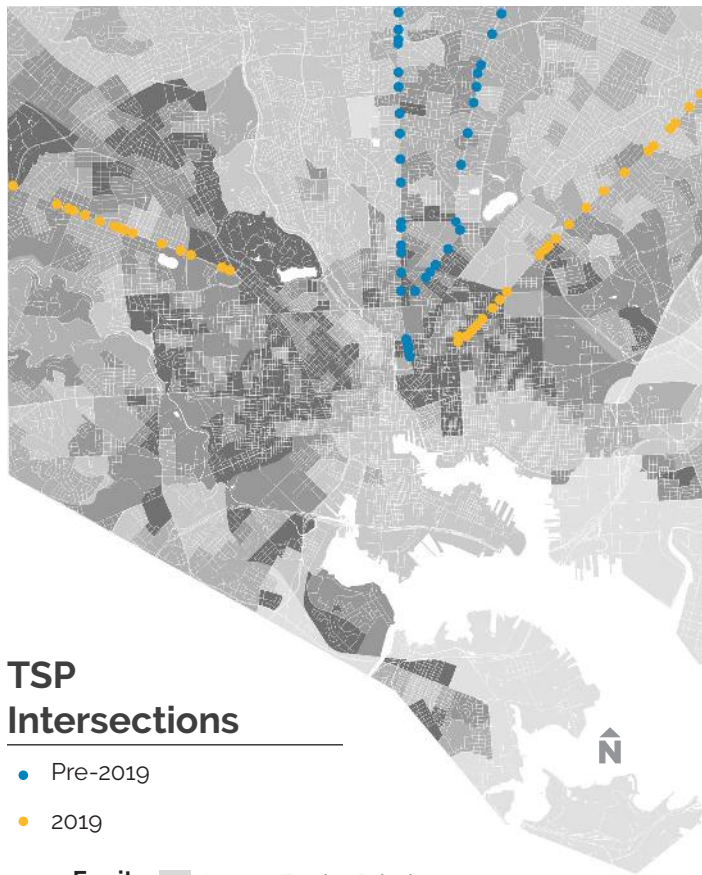
Methodology

The provided layers were mapped and analyzed without modification.



Results

TSP was installed along the Belair Road and Liberty Heights Avenue corridors in 2019. No TSP was installed in 2020. The only dedicated bus lane installed in 2020 was a short segment on Gay Street.

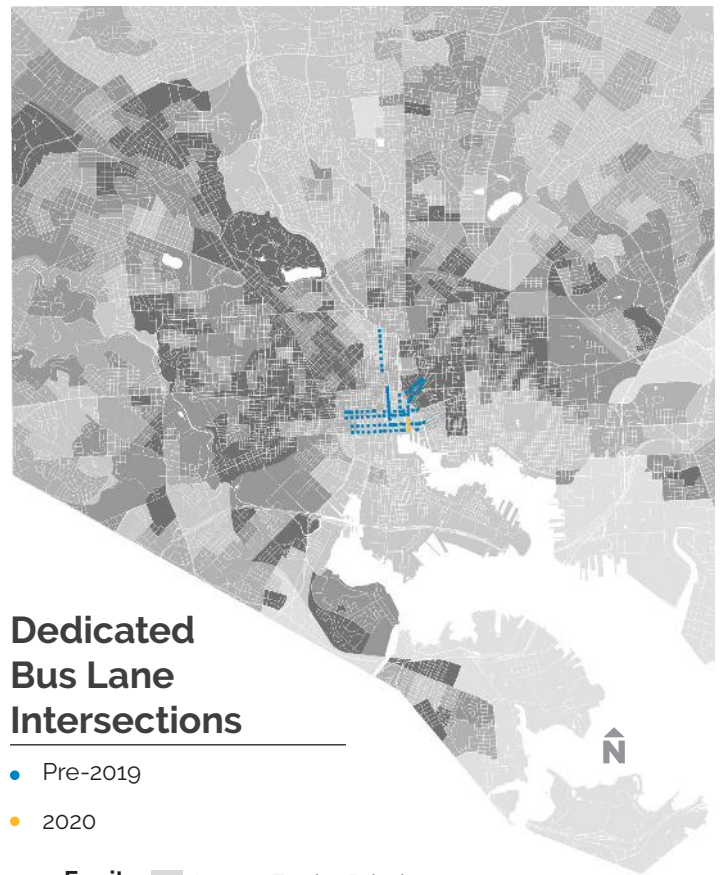


TSP Intersections

- Pre-2019
- 2019

Equity Composite Index Scores

- Lower Equity Priority
- Higher Equity Priority



Dedicated Bus Lane Intersections

- Pre-2019
- 2020

Equity Composite Index Scores

- Lower Equity Priority
- Higher Equity Priority

Equity Reporting on Transit Intersection Improvements

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
Pre-2019	TSP Intersections	35	91%	9%	74%	26%	63%	37%
	DBL Intersections	107	16%	84%	32%	68%	92%	8%
2019	TSP Intersections	41	90%	10%	51%	49%	21%	79%
2020	DBL Intersections	3	0%	100%	0%	100%	100%	0%

Just over 50% of TSP Intersections installed in 2019 were in neighborhoods with below-average household income, and just over 50% of TSP intersections installed in 2019 were in neighborhoods with below-average access to cars. Just over 90% of TSP intersections installed in 2019 were in neighborhoods with above-average POC populations. DBLs installed in 2020 only passed through three intersections, and they are in neighborhoods with below-average access to cars.

TRANSIT BUS SHELTERS

Purpose

Bus shelters make waiting for the bus more comfortable. According to MDOT MTA, "The goal for placing shelters within the BaltimoreLink network is to improve comfort for the greatest number of passengers."¹

MDOT MTA uses a scoring system to determine eligibility for new shelters. Characteristics that improve eligibility include:¹

- A high number of average weekday boardings;
- Location at an official transfer point;
- Low bus frequency (less than 4 buses per hour during peak periods);
- Location in a "predominantly minority area, low income area, or both";
- Proximity to human service facilities; and
- Location at an operator relief point.



Data Source

A layer of all MDOT MTA bus stops, which included a field indicating the presence of a bus stop, was provided by the agency.



Methodology

The provided GIS layer was used to create a GIS map of bus stops and bus shelters at the census Block Group level.



Results

As of summer 2020, 10.8% of Baltimore City bus stops have shelters. Downtown has the highest concentration of bus shelters in Baltimore City at 41.5%. 3.1% of bus stops and 12.0% of bus shelters in Baltimore City are located in Downtown.

Bus Stops with Shelters

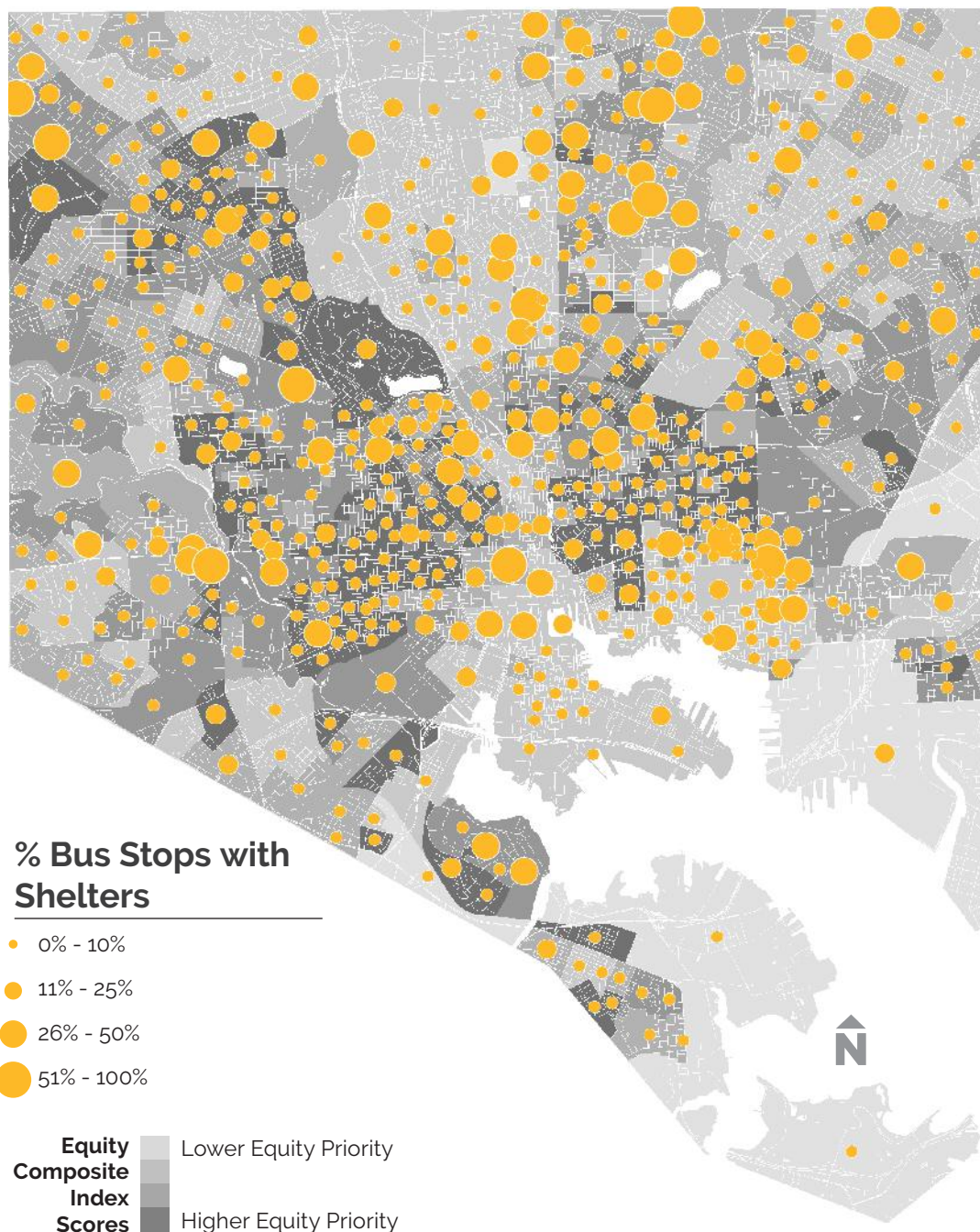
41.5%

Baltimore City

10.8%

Downtown Only

¹ MDOT MTA Bus Stop Design Guide.



Equity Reporting on Bus Stop Shelters

		Citywide Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	% of Stops with Shelters	10.8%	9.6%	12.3%	9.8%	12.3%	11.1%	10.4%

On average:

- 2.7% more bus stops have shelters in neighborhoods with below-average POC populations than in neighborhoods with above-average POC populations.
- 2.5% more bus stops have shelters in neighborhoods with above-average household income than in neighborhoods with below-average household income.
- 0.7% more bus stops have shelters in neighborhoods with below-average access to car than residents in neighborhoods with above-average access to cars.

TRANSIT

DEDICATED BUS LANES

Purpose

Dedicated bus lanes (DBL) are sections of the roadway designated exclusively for buses that improve bus speed and reliability, especially during peak traffic.



Data Source

MDOT MTA provided a layer of DBLs, which included the installation date for each facility and whether it was a full-time or peak-only lane.



Methodology

The provided layers were mapped and analyzed without modification.



Results

There are currently a total of 6 miles of DBLs in Baltimore City. The only DBL installed in 2019 or 2020 was a short, 0.2-mile segment on Gay Street.

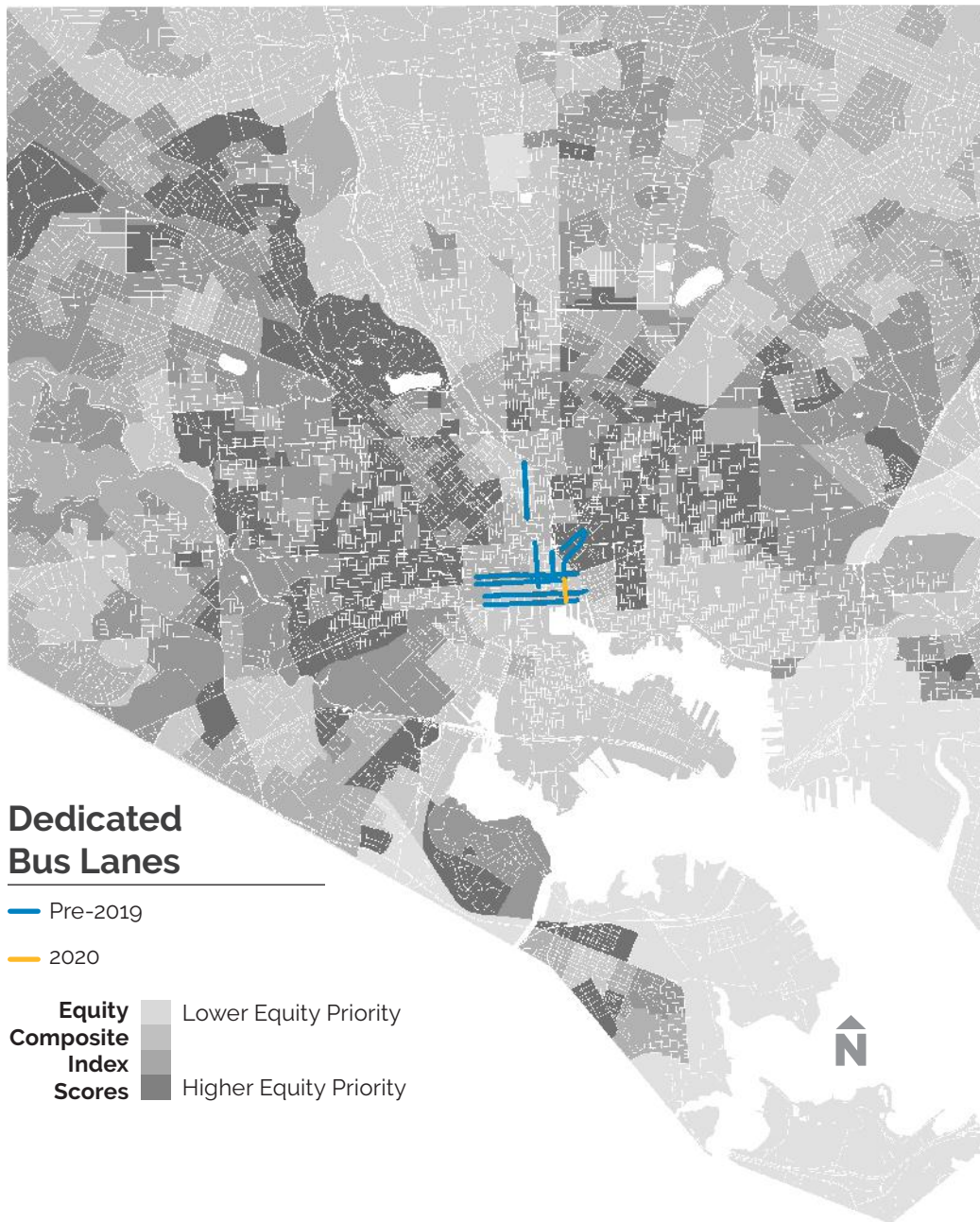
Dedicated Bus Lanes by Type

4.9 lane miles

Full-Time

1.1 lane miles

Peak-Only



Equity Reporting on Dedicated Bus Lanes

		Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
Pre-2019	DBL Lane Miles	5.8	11%	89%	28%	72%	94%	6%
2020	DBL Lane Miles	0.2	0%	100%	0%	100%	0%	100%

Baltimore City's current DBL network centers on the downtown core, with short connections to arterials beyond downtown. Thus, only 11% of lane miles constructed before 2019 are in neighborhoods with above-average POC populations, and only 28% of lane miles constructed before 2019 are in neighborhoods with below-average household income. On the other hand, 94% of lane miles constructed before 2019 and 100% of lane miles constructed in 2020 are in neighborhoods with below-average access to cars.

TRANSIT ON-TIME PERFORMANCE

Purpose

Transit on-time performance (OTP) measures the rate at which the transit provider delivers service that matches the service provider's stated schedule of when trips will arrive and depart within a set tolerance for variation, which varies by service. Increased OTP can mean decreased wait times for passengers who plan their trips around transit schedules. It also allows the transit service provider to better predict the locations of its vehicles and better manage its fleet. It does not measure other things that could decrease passenger travel times more generally, such as increased transit speeds.



Data Source

The Maryland Transit Administration (MDOT MTA) provided OTP data for CityLink, LocalLink, and Express BusLink routes as well as for all commuter buses that serve Baltimore City. MDOT MTA also provided OTP data for Light RailLink and Metro SubwayLink.

Baltimore City DOT provided system-wide OTP for the Charm City Circulator by month for April to December 2020. Baltimore City DOT resumed measuring OTP for the Charm City Circulator in April 2020.

MDOT MTA defines on-time performance by mode as follows:¹

- Core Bus (CityLink, LocalLink, and Express BusLink): A bus is considered on time if it departs a given timepoint between two minutes before and seven minutes after the scheduled departure time. For each route, certain stops are designated as "timepoints." The OTP goal is 80% for Core Bus.
- Commuter Bus: Commuter Bus trips are considered on-time if they depart the first stop of a route within a time window of one minute and 59 seconds early to six minutes and 59 seconds late. The OTP goal is 95% for Commuter Bus.
- Light RailLink: A train trip is considered on time if it arrives within three minutes of the scheduled time. The OTP goal is 95% for Light RailLink.
- Metro SubwayLink: A train trip is considered on time if it leaves the terminus within three minutes of the scheduled time. The OTP goal is 95% for Metro SubwayLink.

Baltimore City DOT considers a Charm City Circulator bus on time if it departs a given timepoint between one minute before and five minutes after the scheduled departure time.

¹ MDOT MTA 2020-2023 Title VI Program



Methodology

Calculation methods varied by mode, as the data provided varied by mode.

- **Core Bus:** The number of total timepoints and number of timepoints at which the bus was on time was provided by route and by month. This data was aggregated by year and by service type, and for each year and service type, the sum of on-time timepoints was divided by the sum of all timepoints. Data were also aggregated by year and by route, and these results are provided in Appendix C.
- **Commuter Bus:** On-time performance was provided by route and by month. On-time performance was averaged across all routes for each year. Data by route is provided in Appendix C.
- **Light RailLink and Metro SubwayLink:** The daily numbers of scheduled trips and on-time trips were provided for 2019 and 2020. The sum of on-time trips was divided by the sum of scheduled trips for each year.
- **Charm City Circulator:** On-time performance was averaged across all months provided for 2020 (April to December).

Equity analysis was not performed for on-time performance because the metric is only available at the route and/or system level and not the individual stop level. Note that the following routes were suspended in 2020 due to COVID-19. 2020 OTP for these routes is an average of OTP for the period during which the service was running.

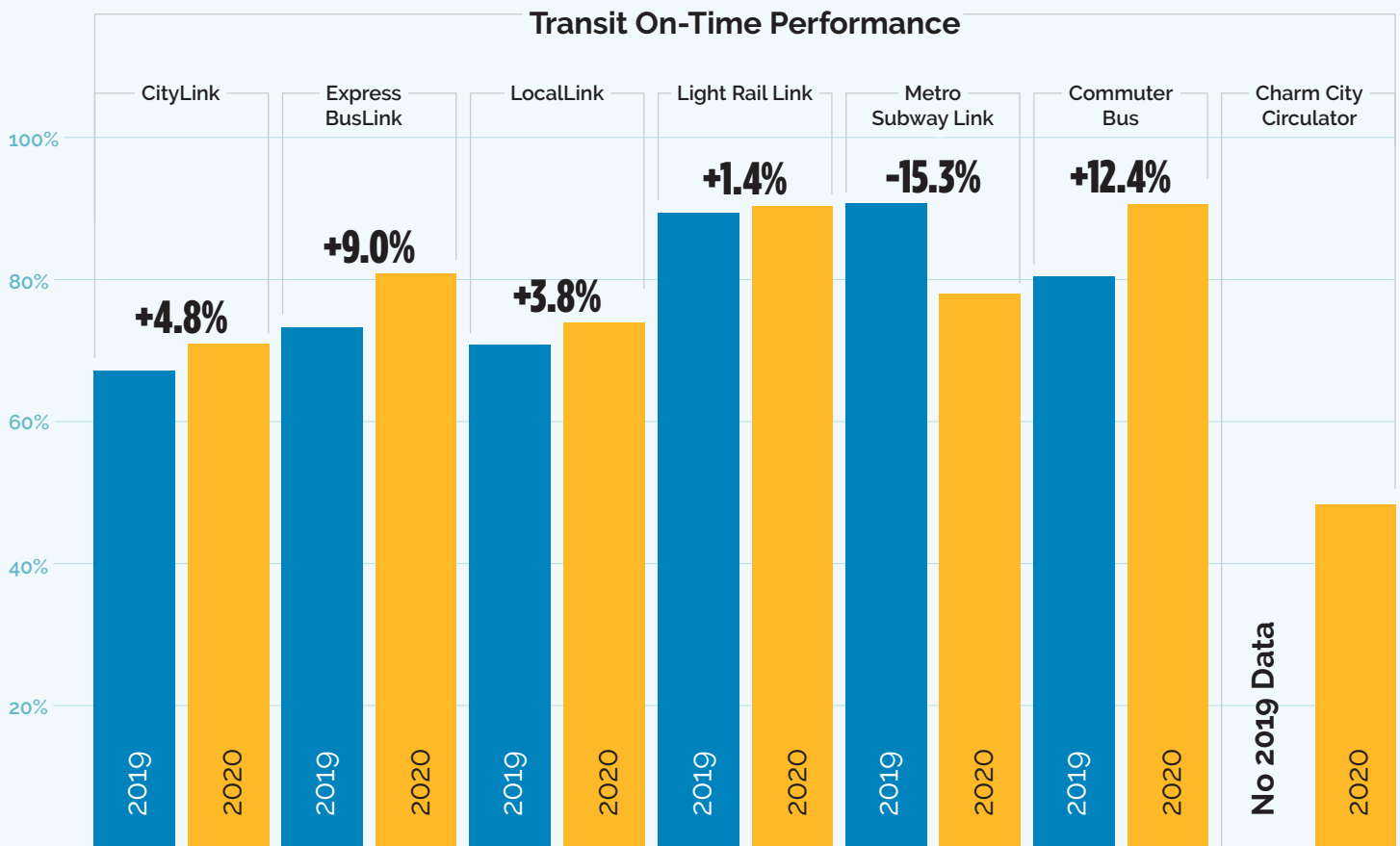
- All Express BusLink Service: Routes 103, 104, 105, 115, 120, 150, 154, 160, and 164.
- LocalLink Routes 38 and 92, which primarily served schools that closed for in-person instruction during COVID-19.



Results

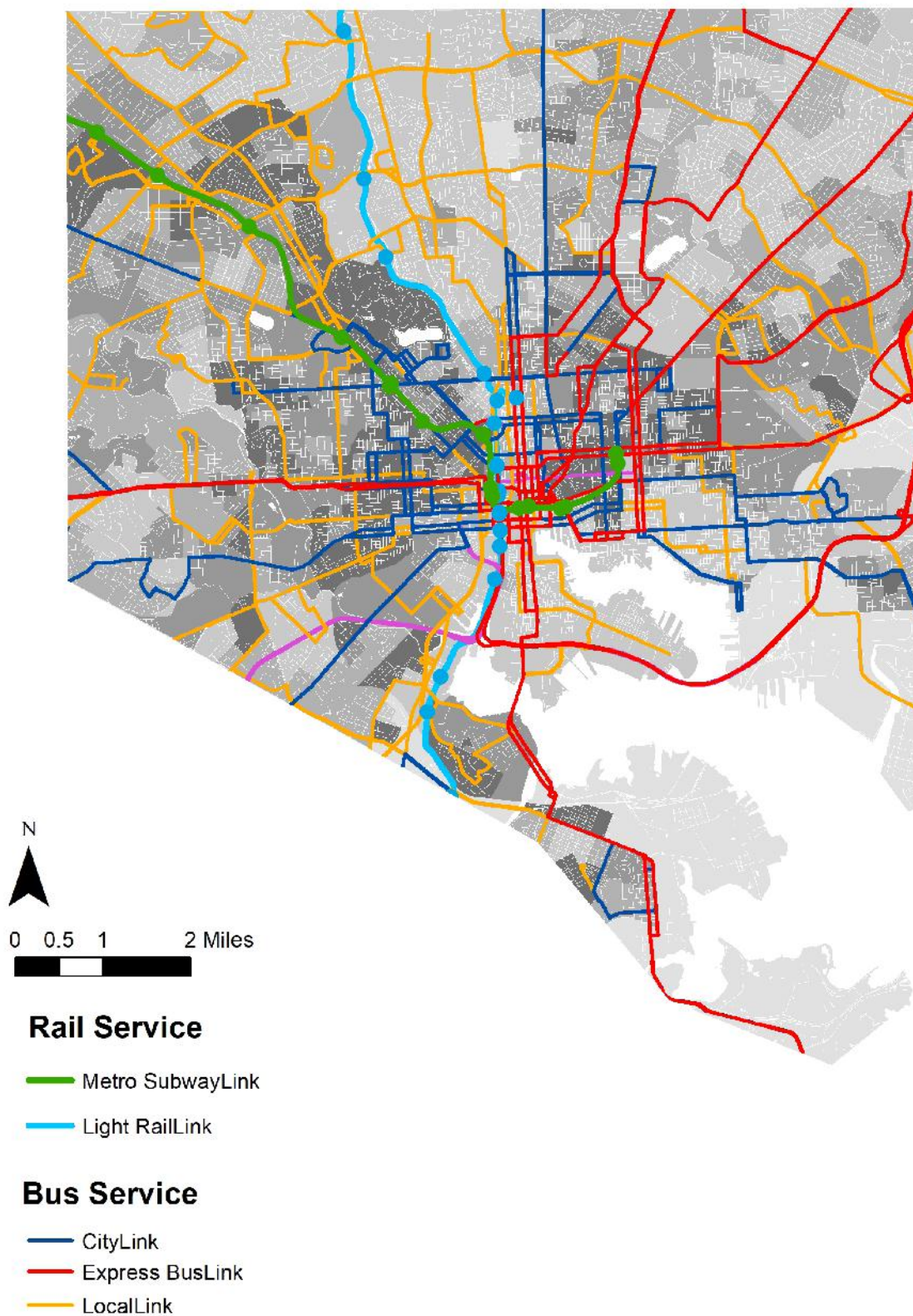
On-time performance increased for all MDOT MTA modes and service types between 2019 and 2020, except for Metro SubwayLink. The following modes and service types met MDOT MTA's on-time performance goal in either 2019 or 2020:

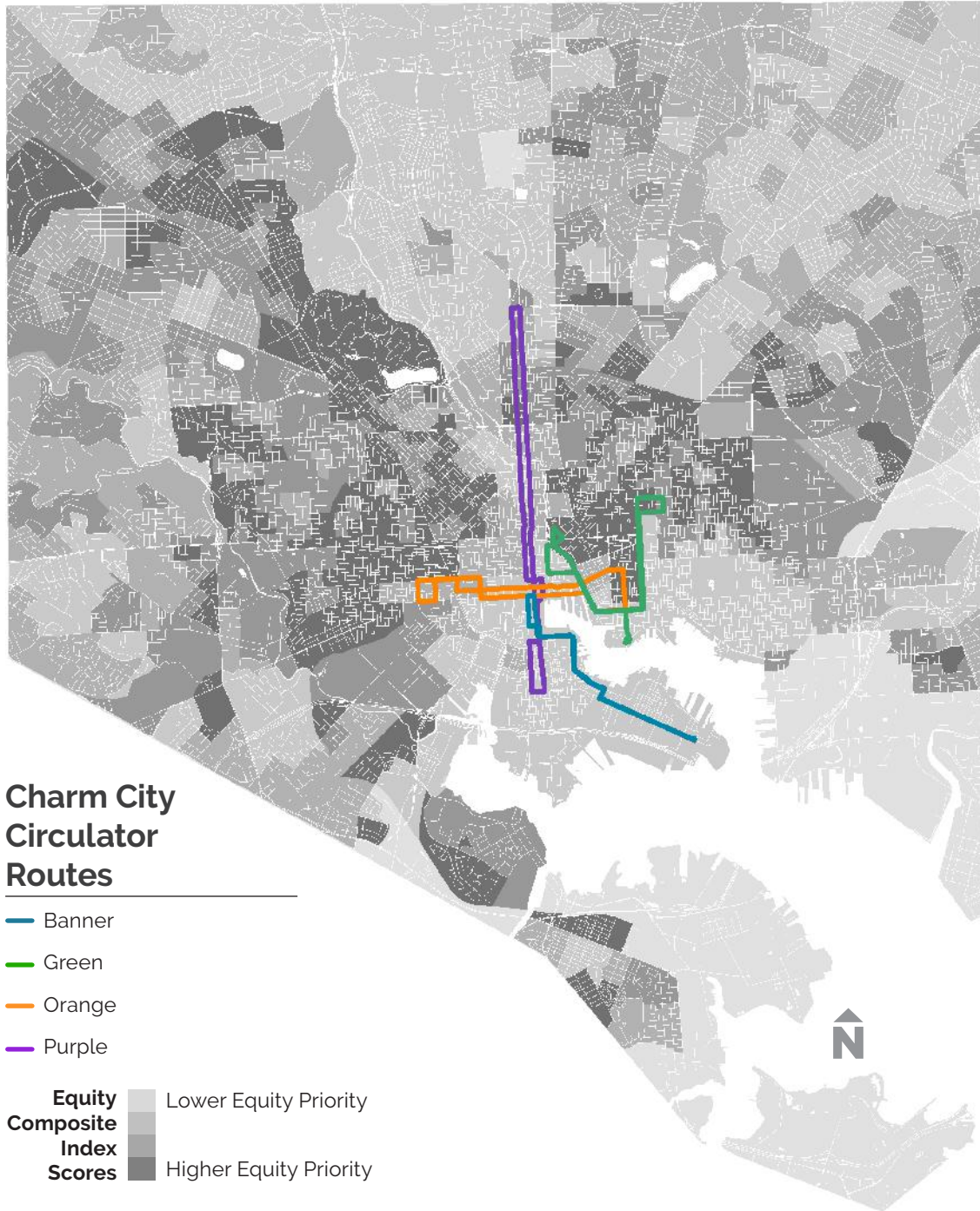
- Express BusLink (2020)
- LightRail Link (2020)
- Metro SubwayLink (2019)
- Commuter Bus (2020)



TRANSIT

TRANSIT ON-TIME PERFORMANCE (CONTINUED)





CONCLUSION

This report summarizes relevant performance metrics and infrastructure investments in Baltimore City between 2019 and 2020. This is the first Complete Streets Annual Report, and it aims to serve as a base upon which a more comprehensive data reporting structure will be built.

Based on lessons learned from this process, the following are recommended for reports in future years:

- Develop methods for tracking longer-term trends in performance measures in addition to tracking year-over-year changes.
- Develop short- and long-term goals and benchmarks for each performance measure.
- Conduct public outreach to determine performance measures that are of greatest concern to Baltimore City residents, particularly those in disadvantaged communities.
- Evaluate community outreach as a performance metric.
- Develop equity reporting metrics more specifically tailored to each performance measure.
- Report on specific complete streets projects and their measurable impacts.
- Track agency management/ prioritization of complete streets initiatives. Staff hired, internal processes implemented, staff trained, etc.

Baltimore City DOT is taking the following steps to improve its complete streets programming:

- Hosting interagency data coordination meetings to improve the data gathering and collection process for future complete streets reports.
- Implementing equity-based prioritization processes for new projects and repairs
- Hiring three active transportation planners.
- Hiring a Deputy Director of Complete Streets who will continue implementing the Complete Streets Manual across departments and staff within Baltimore City DOT and improving data collection.
- DOT hired three complete streets engineers.

With each year of reporting, Baltimore City DOT strives to move towards its mandate to "construct and operate a comprehensive Complete Streets Transportation System that enables access, mobility, economic development, attractive public spaces, health, and well-being for all people."

