

BALTIMORE

ESTATES

2022

Annual
Report

Message from Mayor Brandon M. Scott



Dear Friends,

One of the main elements of any vibrant city is a safe and reliable transportation system. Our transportation infrastructure must accommodate all types of users to increase the quality of life, safety, accessibility, and mobility for the residents of this great city. As we work to prioritize equity in our transportation system, I am honored to present this second annual report, which details our progress in the implementation of Complete Streets.

Baltimore passed its Complete Streets Ordinance in 2018 and officially adopted its first Complete Streets Manual early last year. Our Complete Streets legislation helps to ensure that the city's transportation infrastructure is built to serve everyone, no matter how they travel or what part of town they reside.

This year's Complete Streets Annual Report highlights the hard work, efforts, and improvements made by the Baltimore City Department of Transportation (BCDOT). Since our initial report last year, we have won the East-West Transit Corridor RAISE grant, which will continue to build on our progress in advancing transit as one of our top priorities. We also increased the total number of miles of dedicated bus lanes to provide better transit service for residents throughout the city.

The Baltimore City Department of Transportation will continue its focus on connecting Baltimore communities through transportation networks while transforming the quality of life in city neighborhoods. As BCDOT projects progress, residents and visitors alike will see city streets become safer and more accessible for all transportation system users.

In service,

A handwritten signature in brown ink that reads "Brandon M. Scott".

Brandon M. Scott
Mayor, City of Baltimore

Message from Director Steve Sharkey



Dear Friends,

As Director of the Baltimore City Department of Transportation (BCDOT), it is my priority to create an effective, equitable, and dependable transportation network that is safe for all users. To highlight our progress as required by our Complete Streets Ordinance, I am pleased to provide Baltimore City's second Annual Complete Streets Report. This report analyzes the geographic distribution of infrastructure investments and other data types based on equity measures throughout the city.

The BCDOT is responsible for providing a multimodal transportation system that is efficient and reliable. Through the Complete Streets program, BCDOT now focuses on equitably planning, designing, and constructing all new city transportation projects with the prioritization of pedestrians, bicyclists, transit riders, and persons of all abilities. Our mission is to redesign city streets, sidewalks, and public facilities to improve the quality of life for all residents.

Since our initial report last year, we've added 9.6 miles of bike facilities, decreased the number of traffic crashes with fatalities, and installed dedicated bus lanes along North Avenue through 71 intersections. I am excited to share this report for everyone to see the milestones that have been achieved through this program.

Our Complete Streets initiative helps to promote equity and accessibility for all users, and BCDOT is dedicated to making the city's transportation infrastructure safe and accessible for everyone.

Sincerely,

A handwritten signature in black ink that reads "Steven Sharkey". The signature is fluid and cursive.

Steve Sharkey
Director

INTRODUCTION

Purpose of Report

This is the second 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.

Data Availability

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

The Census Bureau American Community Survey (ACS) releases data from the prior year in the fourth quarter of the following year. For example, 2020 ACS data was released in the fourth quarter of 2021.

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

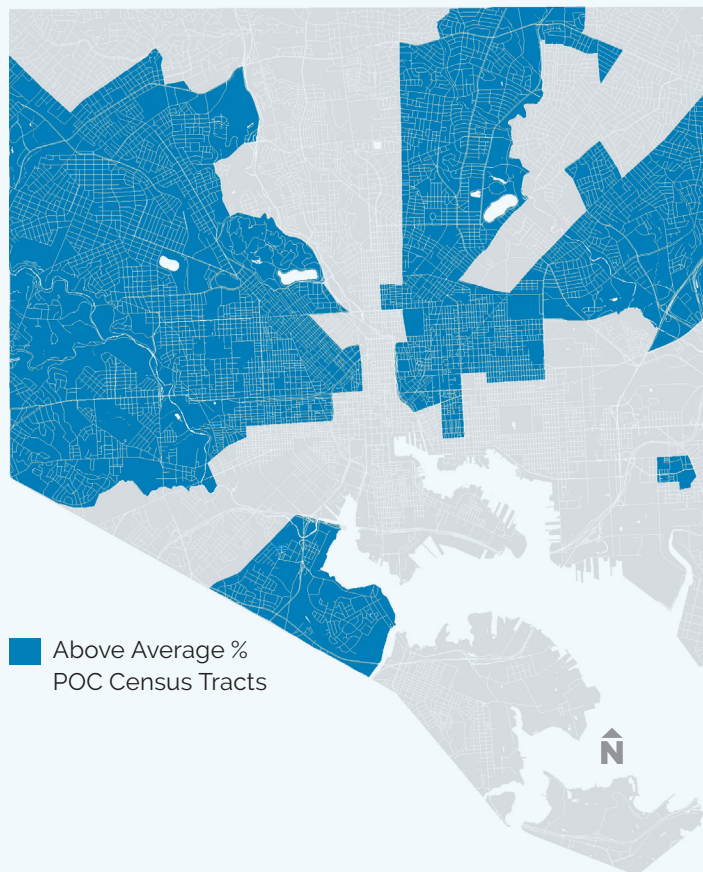
Transportation Equity

As required by the Complete Streets Ordinance, this report analyzes the geographic distribution of infrastructure investments and other data types based on equity measures. These measures come from 2019 ACS data to provide a consistent year-to-year comparison with the 2021 Baltimore Complete Streets Annual Report.

The geographies of focus are:

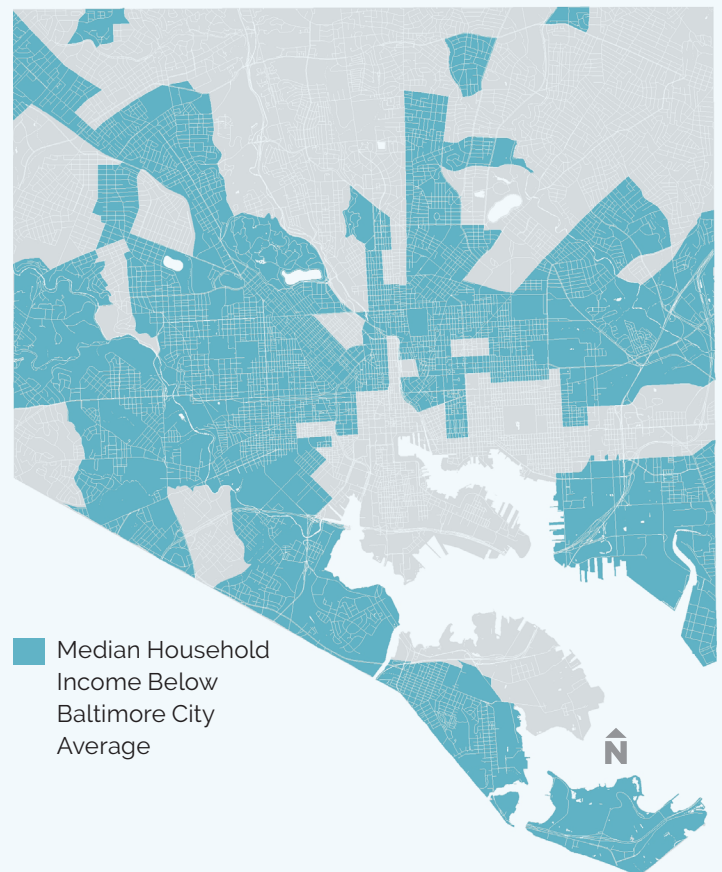
Census Tracts with an above-average percentage of people of color (POC).¹

- 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 2022 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 2022 report will refer to these Census Tracts as "neighborhoods with below-average household income."



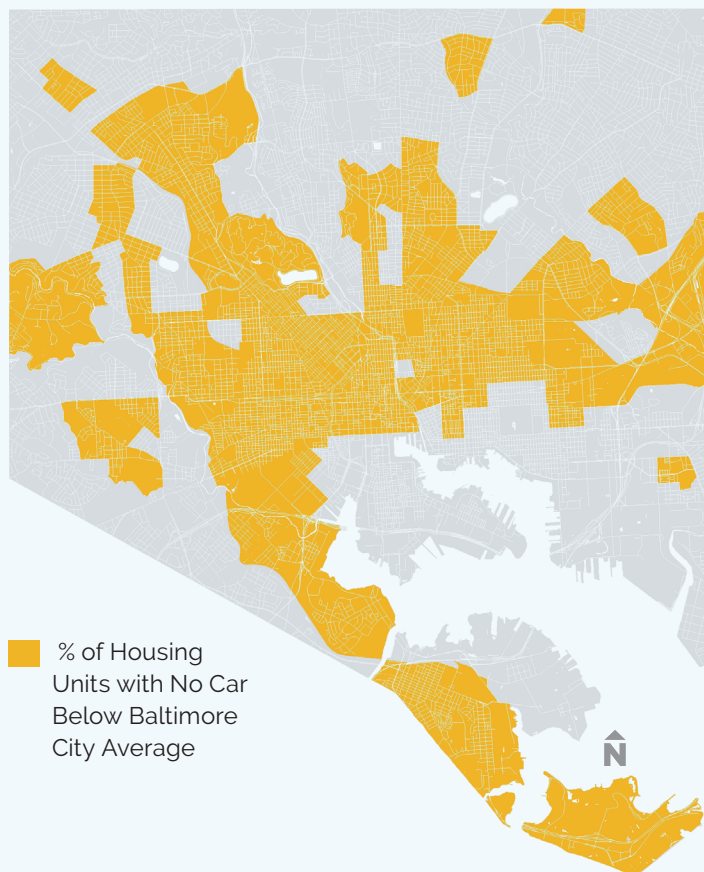
¹ This Report calculates the number of people of color in a given geography as the sum of Black and Hispanic/Latino residents.

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 2022 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

Quick Build Projects

Resurfacing Projects

Main Street Business Inventory

WALKING INFRASTRUCTURE

Streets 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

Intersections Redesigned for Transit

Bus Shelters

Dedicated Bus Lanes

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 2020 and 2021. This report analyzes the location, crash severity, and involvement of a pedestrian or bike as data types.



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 increased from 2020 to 2021. Only small year-over-year changes in crash data are expected. However, less people driving in 2020 due to the COVID-19 pandemic may have resulted in less crashes in 2020. It is important to note that there were more fatal injury crashes in 2020 than 2021 despite less people driving.

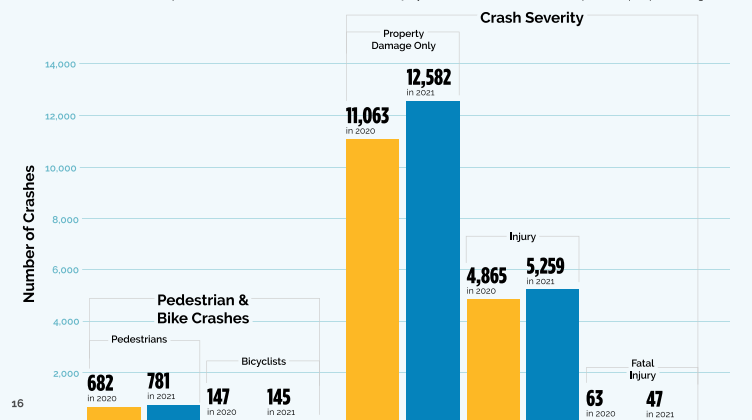
Purpose: This section describes the purpose of each performance measure and how results are displayed.

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

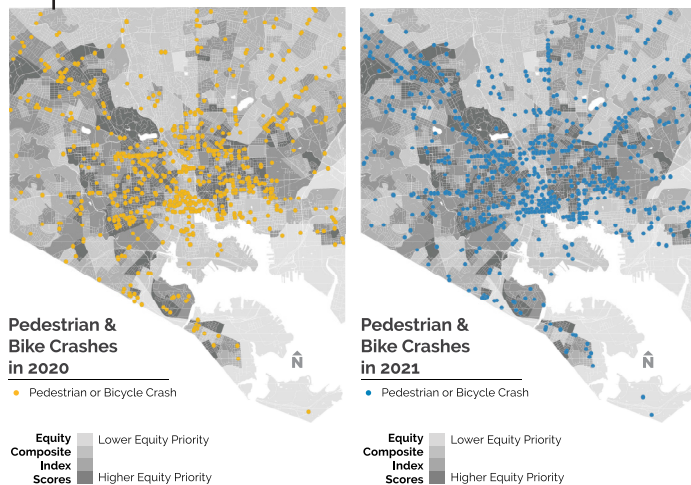
Methodology: This section describes the method used to process and analyze the provided data.

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 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 No Car
2020	Pedestrian & Bicycle Crashes	829	58%	42%	63%	37%	66%	34%
2021	Pedestrian & Bicycle Crashes	926	55%	45%	62%	38%	62%	38%

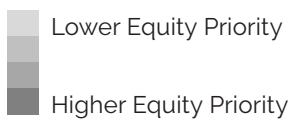
There were slight variations between the 2020 and 2021 crash data regarding equity reporting. More than half of the crashes involving a pedestrian or bike occurred in neighborhoods with above-average people of color (POC) populations in 2020 and 2021. 63% and 62% of crashes involving a person walking or biking occurred in neighborhoods with below-average household income in 2020 and 2021, respectively. 66% and 62% of pedestrian and bicycle crashes occurred in neighborhoods with below-average access to cars in 2020 and 2021, respectively.

Baltimore Complete Streets Annual Report 2022

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Equity Composite Index Scores



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 2022 Complete Streets Annual Report, the most recent available data was a 2020 "5-Year Estimate." This includes an average of data collected from 2016 through 2020.



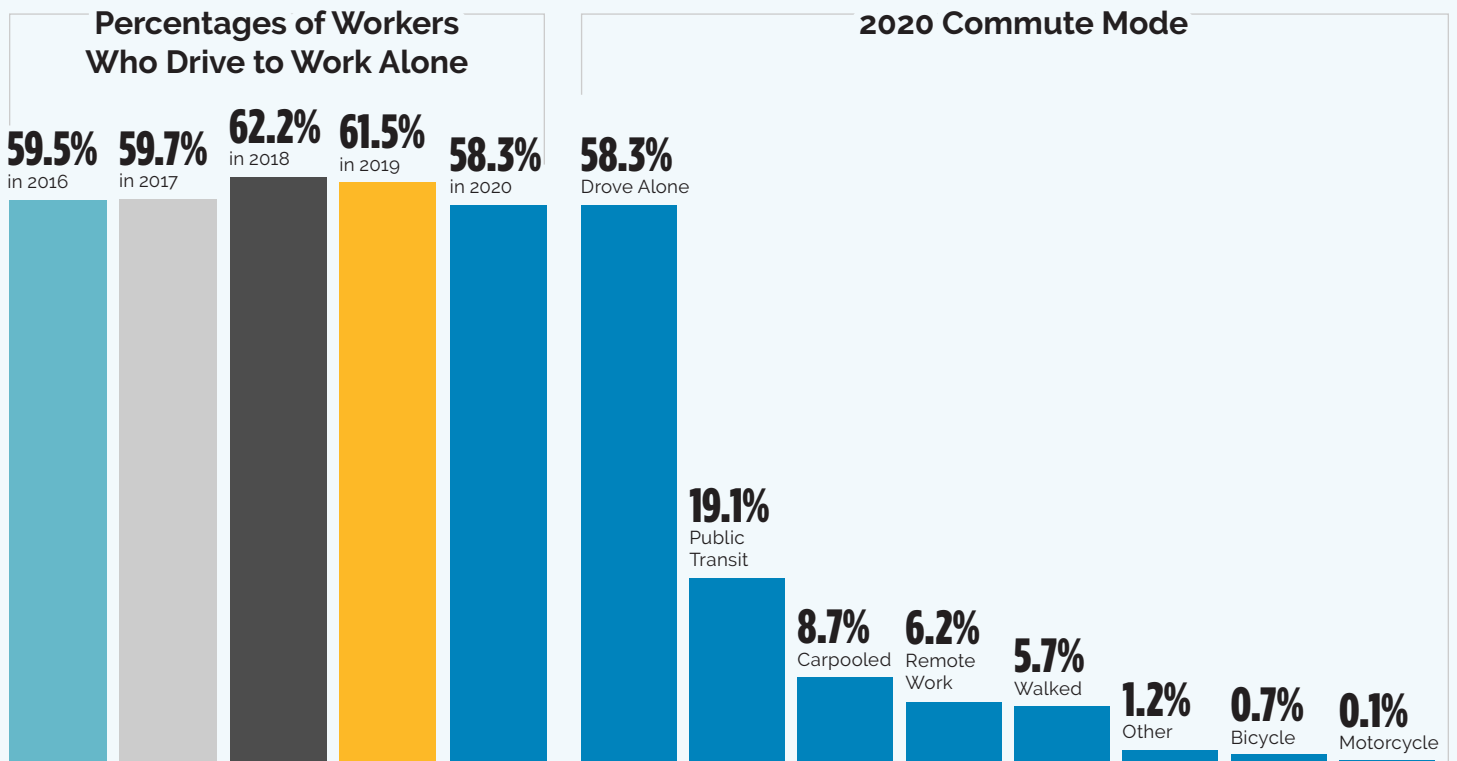
Methodology

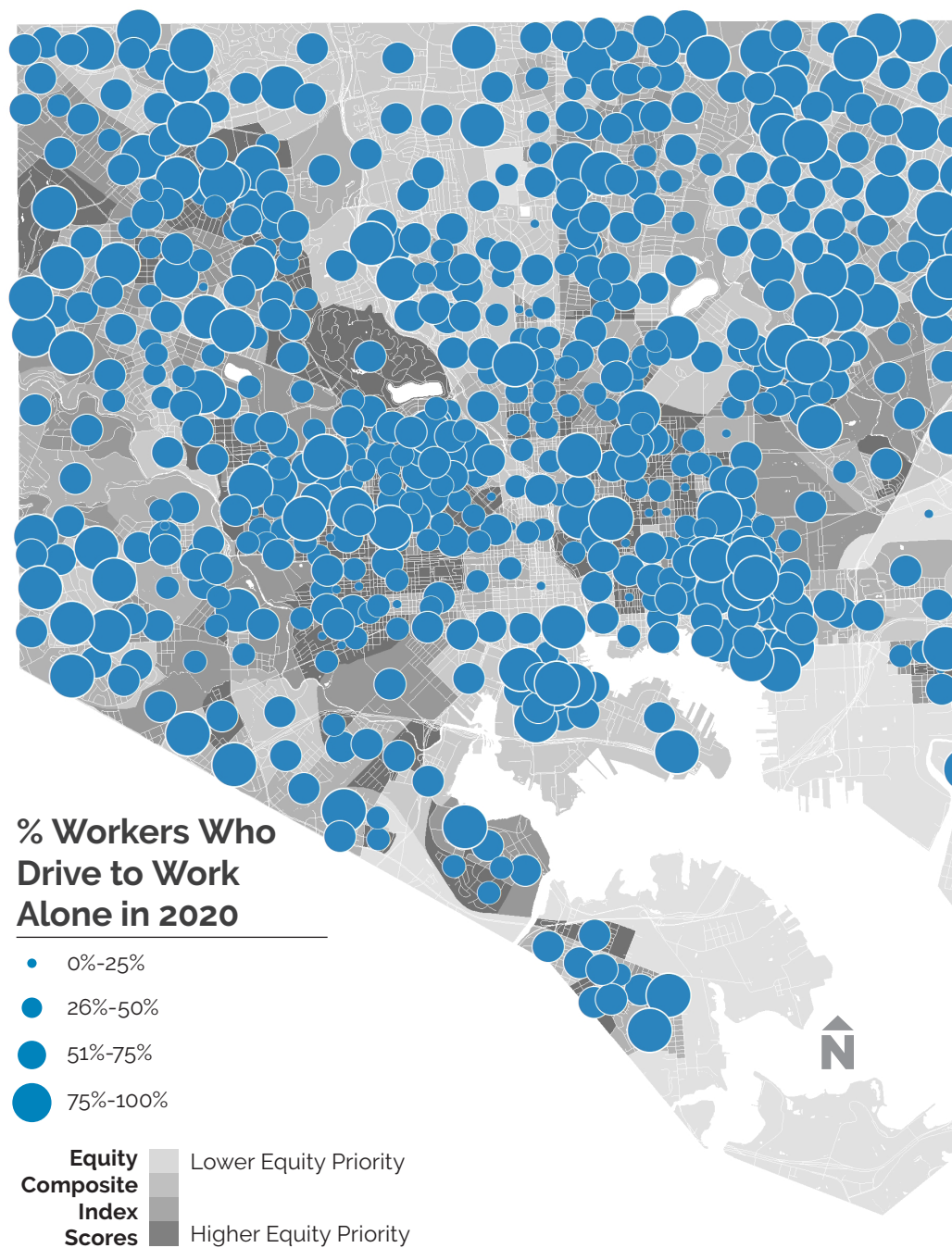
Census data was downloaded from Social Explorer and joined to Census Tract geometry. One-year citywide estimates were also collected from Social Explorer.



Results

The percentage of Baltimore City workers who drive alone to work increased from 2016 to 2019 from 59.5% to 61.5%. Due to COVID-19, the percentage in 2020 decreased to 58.3% and remote work increased from 4.5% to 6.2%.





Equity Reporting on Commute Mode Share

	Baltimore City Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	58.3%	56.6%	62.0%	54.5%	67.5%	53.2%	68.3%

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

- 5.4% more residents in neighborhoods with below-average POC populations drive to work alone than residents in neighborhoods with above-average POC populations.
- 13.0% more residents in neighborhoods with above-average household income drive to work alone than residents in neighborhoods with below-average household income.
- 15.1% 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 2020, 21.2% 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 2022 Complete Streets Annual Report, the most recent available data was a 2020 five-year estimate. This includes an average of data collected from 2016 through 2020.



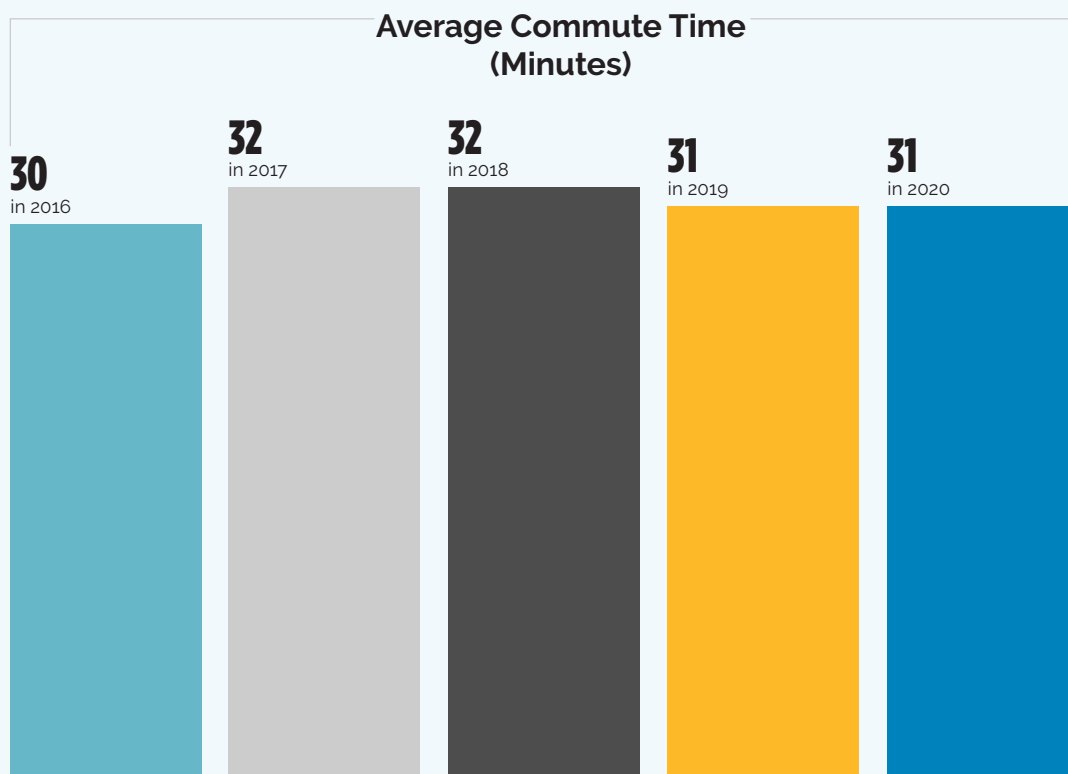
Methodology

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

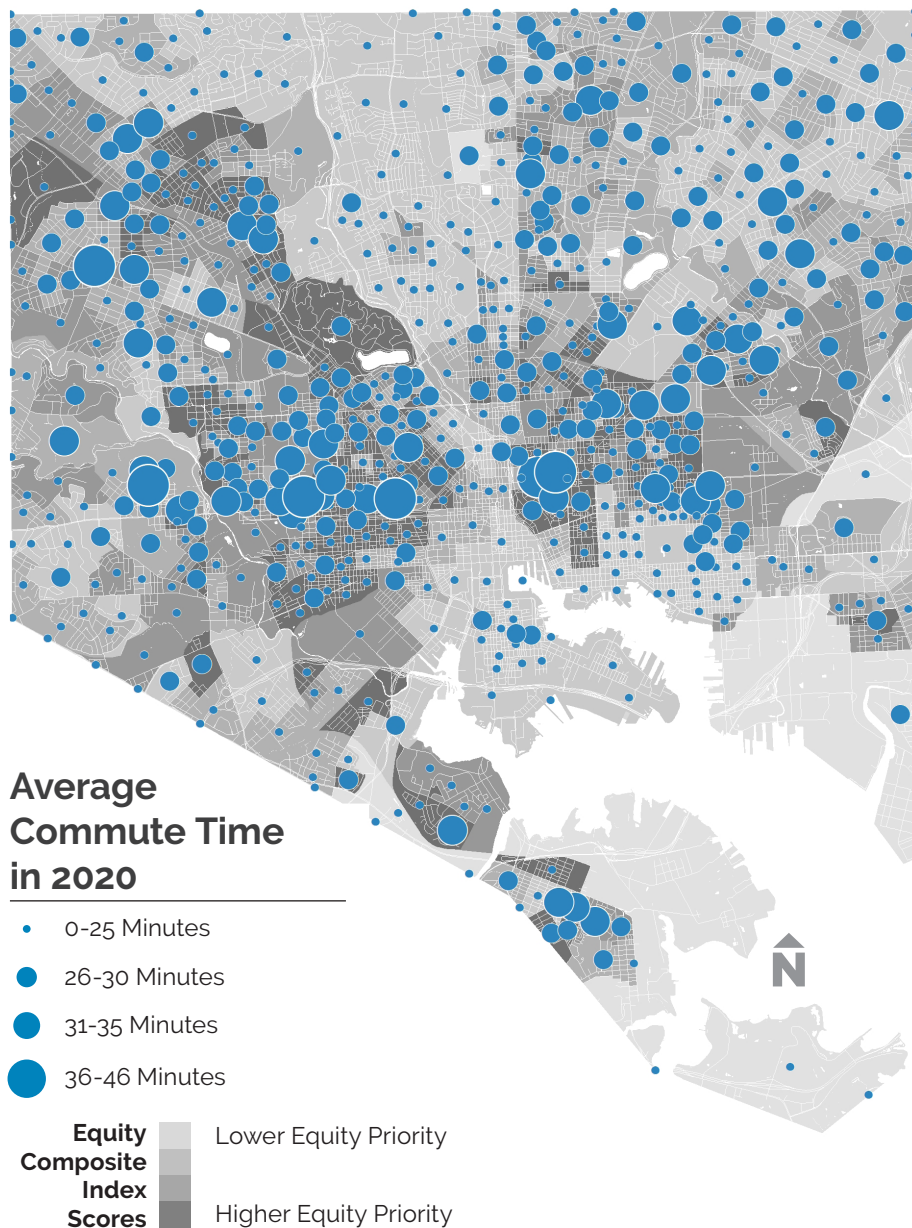


Results

The average commute time has remained fairly constant over the past five years, with an average of 31.2 minutes.



¹ <https://bniajfi.org/2018/01/02/lack-of-accessibility-leads-to-high-commute-time-neighborhoods/>
² American Community Survey Five-Year Estimates, 2016-2020.



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

	Baltimore City Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	21.2%	23.5%	16.4%	22.4%	18.2%	22.6%	18.7%

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

- 7.1% 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.
- 4.2% 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.
- 3.9% more workers who live in neighborhoods with above-average access to cars have commutes of 45 minutes or longer than 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.



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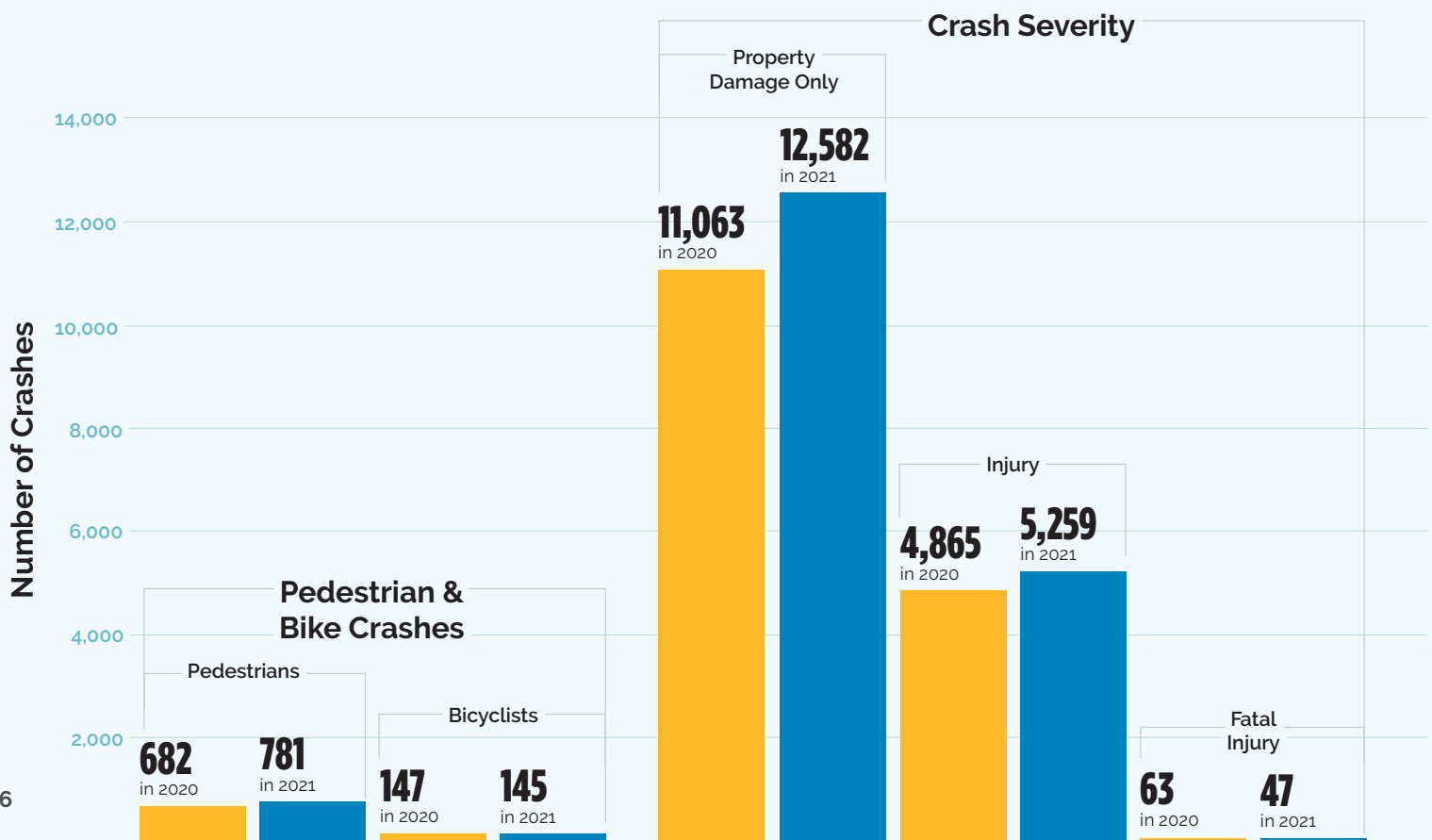
Methodology

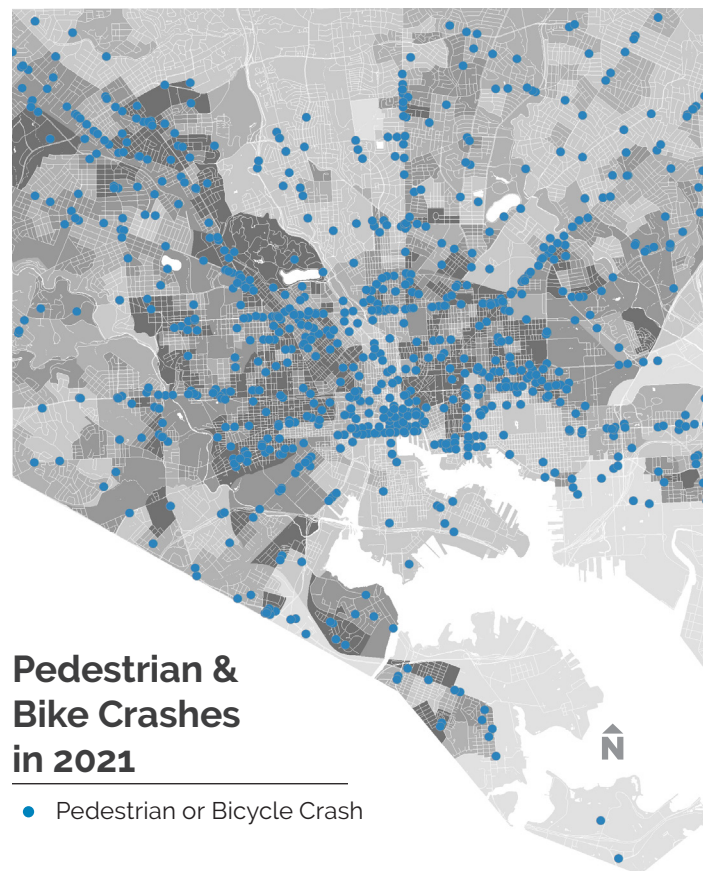
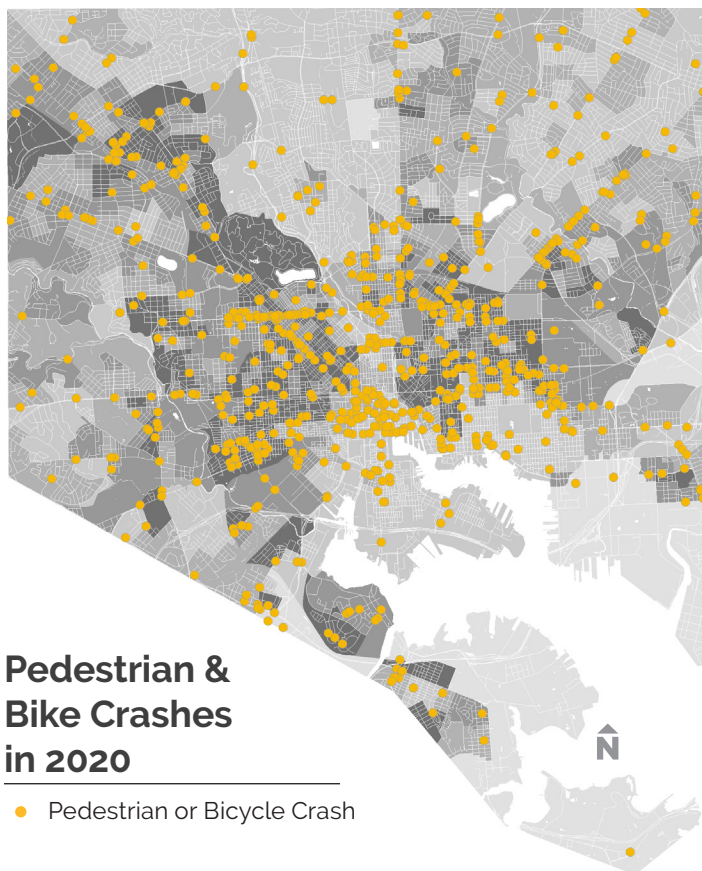
The provided data was used to create GIS maps of crash locations that involved pedestrians or bikes. The crash locations were then summarized by the number of crashes per Census Block Group, as shown below. Crashes located outside of the city boundary were removed from the dataset. In future reports, 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 increased from 2020 to 2021. Only small year-over-year changes in crash data are expected. However, less people driving in 2020 due to the COVID-19 pandemic may have resulted in less crashes in 2020. It is important to note that there were more fatal injury crashes in 2020 than 2021 despite less people driving.





Equity Reporting on Crash History

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2021	Pedestrian & Bicycle Crashes	926	55%	45%	62%	38%	62%	38%

There were slight variations between the 2020 and 2021 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 2020 and 2021. 63% and 62% of crashes involving a person walking or biking occurred in neighborhoods with below-average household income in 2020 and 2021, respectively. 66% and 62% of pedestrian and bicycle crashes occurred in neighborhoods with below-average access to cars in 2020 and 2021, respectively.

SYSTEMWIDE IMPROVEMENTS & SAFETY

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.

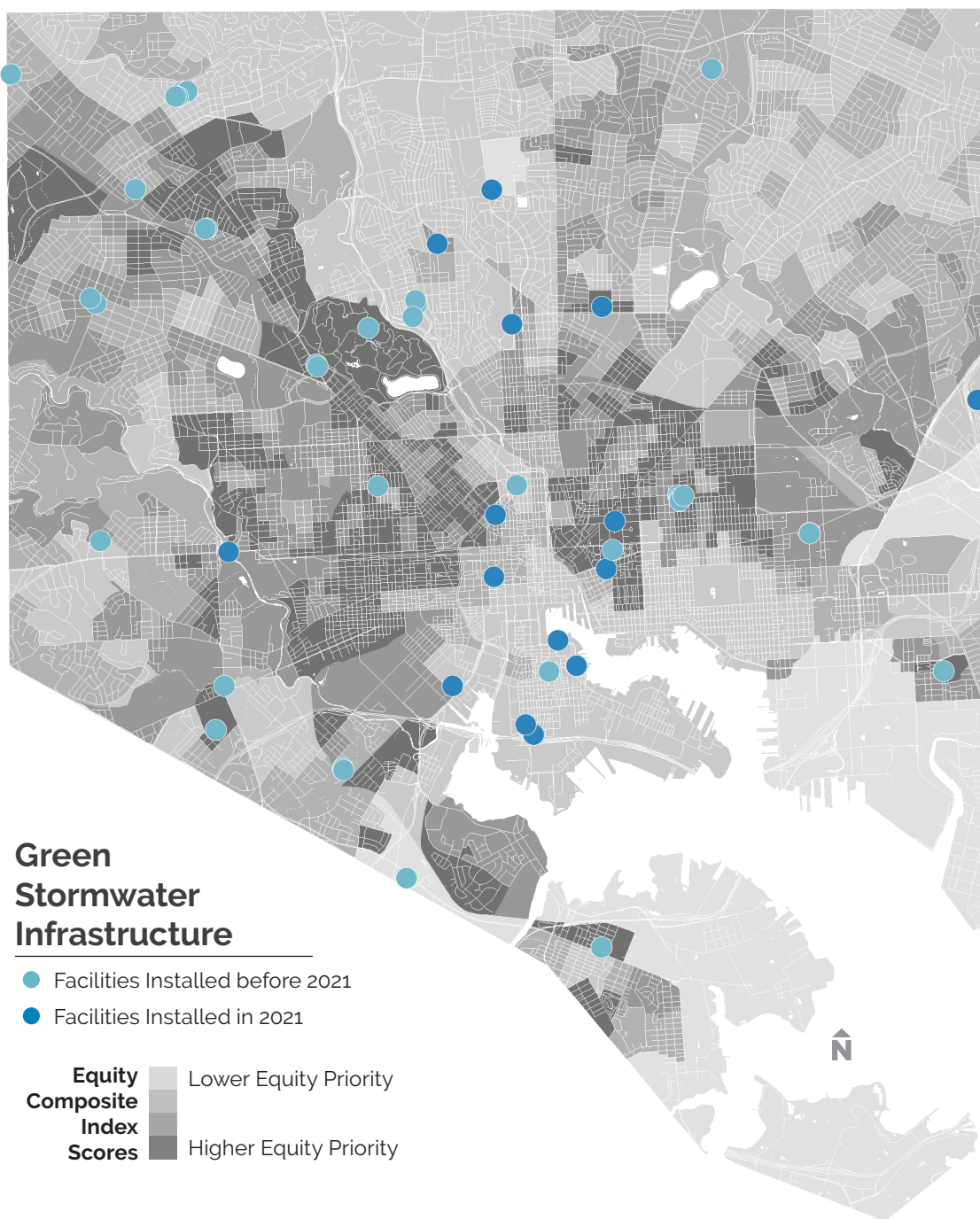
The following facility types were considered to be GSI, as recommended by DPW:

- 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.



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
GSI Infrastructure Installed before 2021	37	65%	35%	65%	35%	54%	46%
GSI Infrastructure Installed in 2021	16	31%	69%	38%	63%	38%	63%

The majority of GSI infrastructure installed in 2021 was located in neighborhoods with below-average POC populations, above-average household income, and above-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.

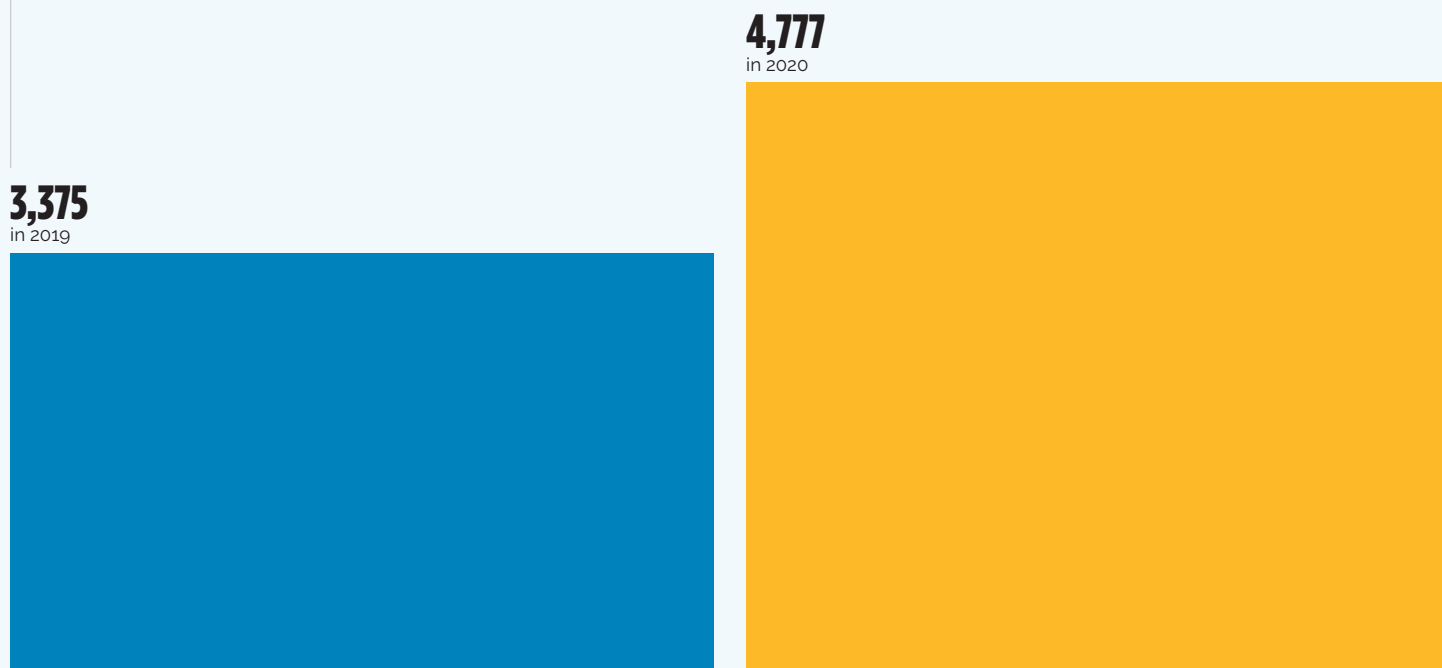
Note: 2021 data was not provided. This measure will be updated with 2021 data in the 2023 Complete Streets Report.

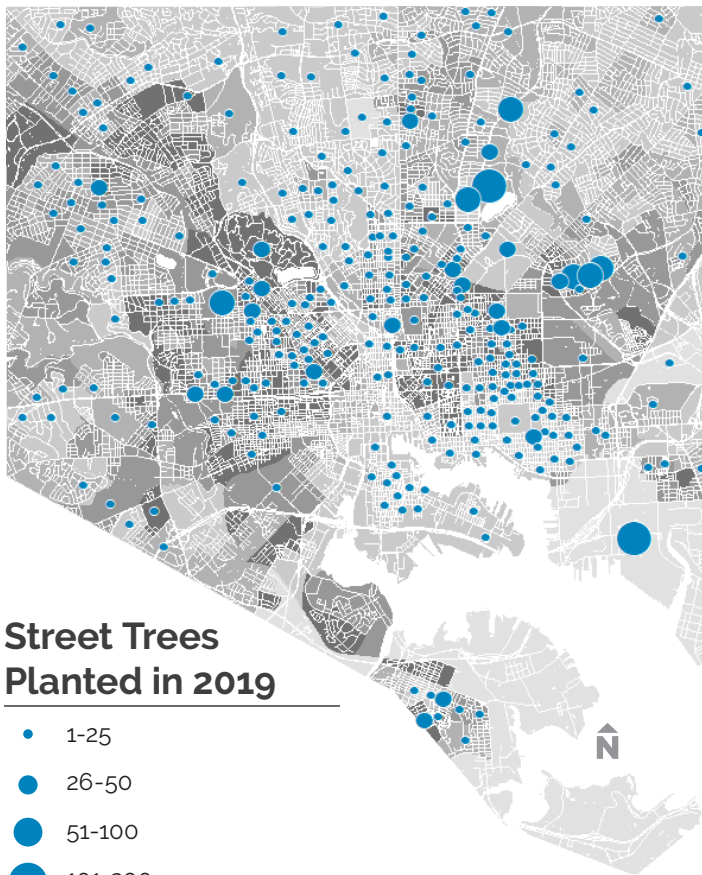


Results

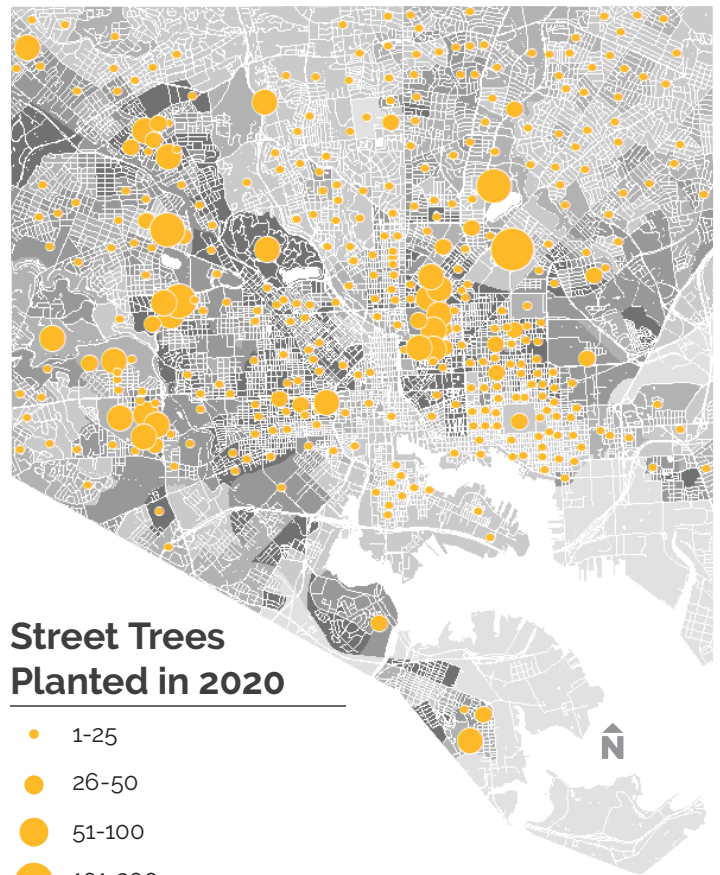
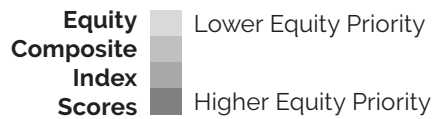
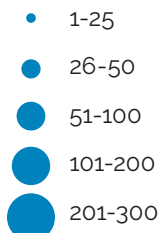
More street trees were planted in 2020 than in 2019.

Street Trees Planted

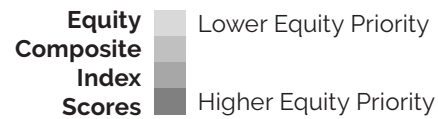




Street Trees Planted in 2019



Street Trees Planted in 2020



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 increased between 2020 and 2021. Installations were slowed in 2020 due to COVID-19.

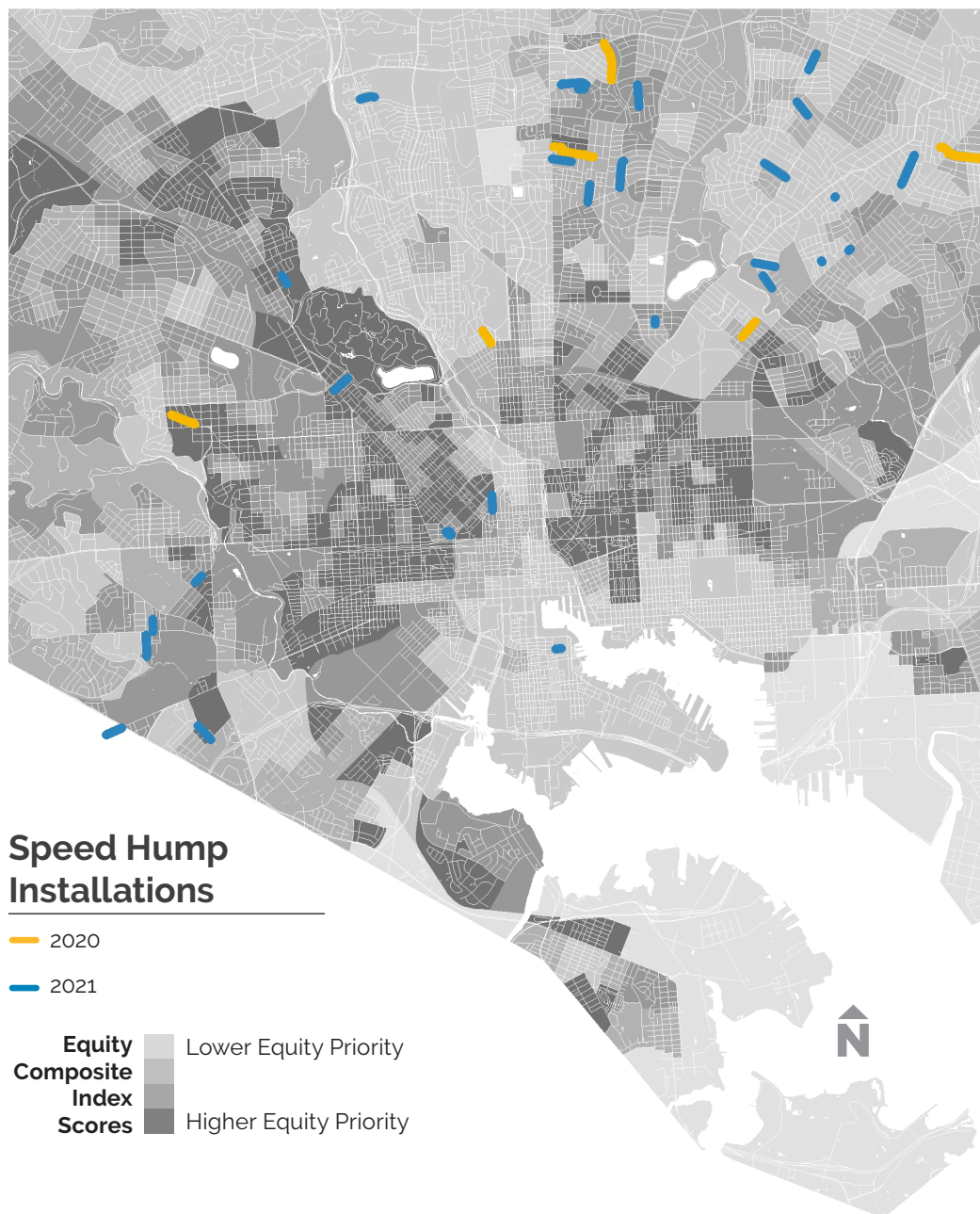
Speed Hump Installations

81

in 2021

20

in 2020



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
2020	20	75%	25%	55%	45%	10%	90%
2021	81	72%	28%	51%	49%	72%	28%

Approximately three-quarters of speed humps were installed in neighborhoods with above-average POC populations in 2020 and 2021. More than half of speed humps were installed in neighborhoods with below-average household income. While only 10% of speed humps were installed in neighborhoods with below-average access to cars in 2020, 72% of speed humps installed in 2021 were in neighborhoods with below-average access to cars.

SYSTEMWIDE IMPROVEMENTS & SAFETY

QUICK BUILD PROJECTS

Purpose

Quick build projects put bicycle, pedestrian, or traffic safety improvements in place using low-cost materials that can be installed quickly. In 2021, Baltimore's quick build projects included crosswalk enhancements, pavement marking enhancements, traffic circulation changes, and other traffic safety interventions.



Data Source

A list of quick build corridor and intersection projects completed in 2021 were provided by DOT.



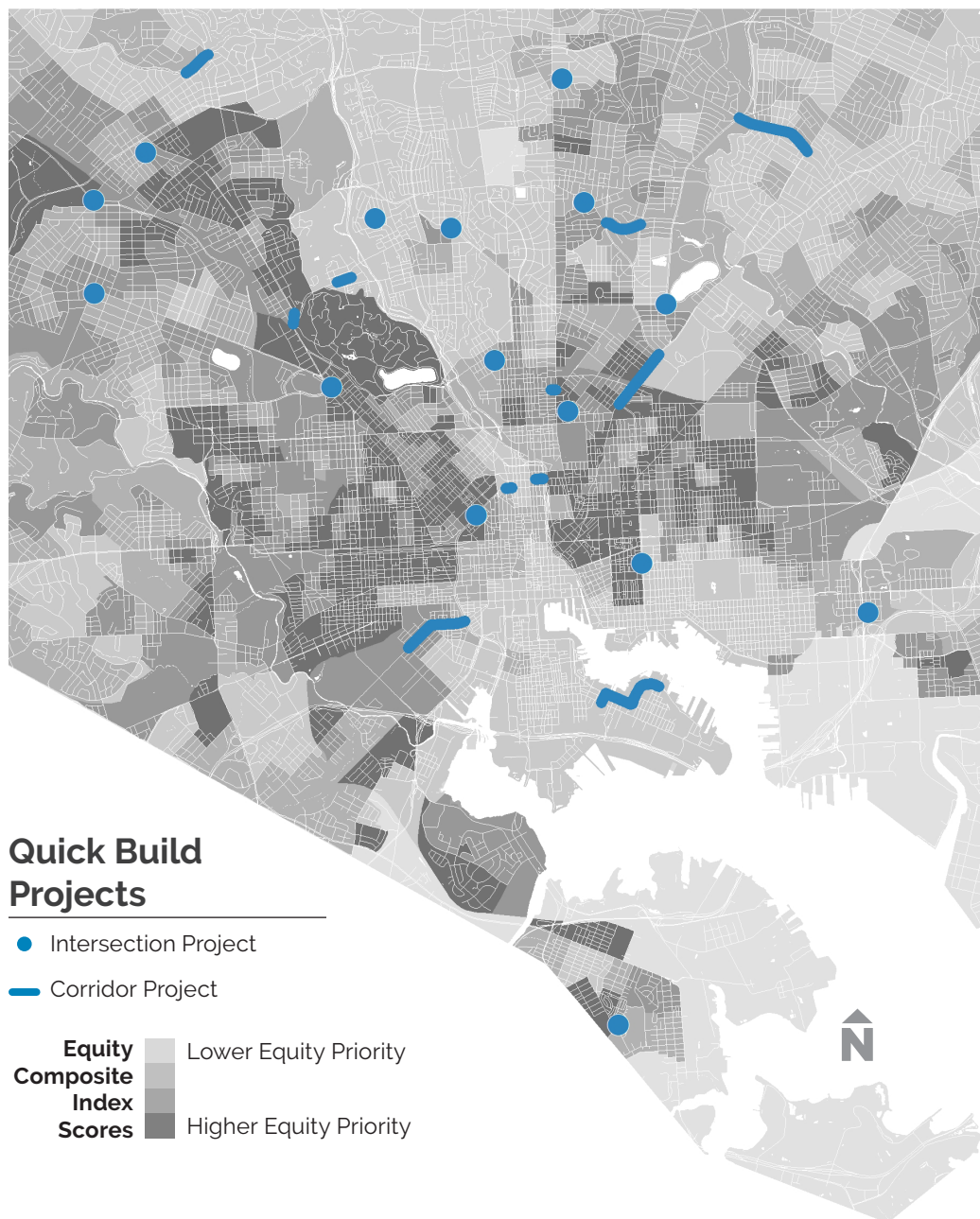
Methodology

The provided list was used to create a GIS map of the quick build projects.



Results

12 corridor projects encompassing approximately 4 miles of roadway and 15 intersection projects were completed in 2021. Intersection projects, specifically pavement marking enhancements at various elementary schools throughout the city, included improvements to more than one intersection.



Equity Reporting on Quick Build Projects

	Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
Intersection Projects	15 projects	60%	40%	40%	60%	40%	60%
Corridor Projects	3.9 miles	39%	61%	38%	62%	31%	69%

60% of intersection projects and 39% of corridor projects were implemented in neighborhoods with above-average POC populations. 40% of intersection projects and 38% of corridor projects were implemented in neighborhoods with below-average household income. 40% of intersection projects and 31% of corridor projects were implemented in neighborhoods with below-average access to cars.

SYSTEMWIDE IMPROVEMENTS & SAFETY

RESURFACING PROJECTS

Purpose

Resurfacing is a road maintenance technique in which a new layer of asphalt is laid over the existing road. Opportunities to implement complete street measures arise when a road is resurfaced, because the road will also need to be restriped. Striping can be used to repurpose some space used for cars to be used for other modes, such as bikes or transit.



Data Source

A list of resurfacing projects completed in 2020 and 2021 were provided by DOT.



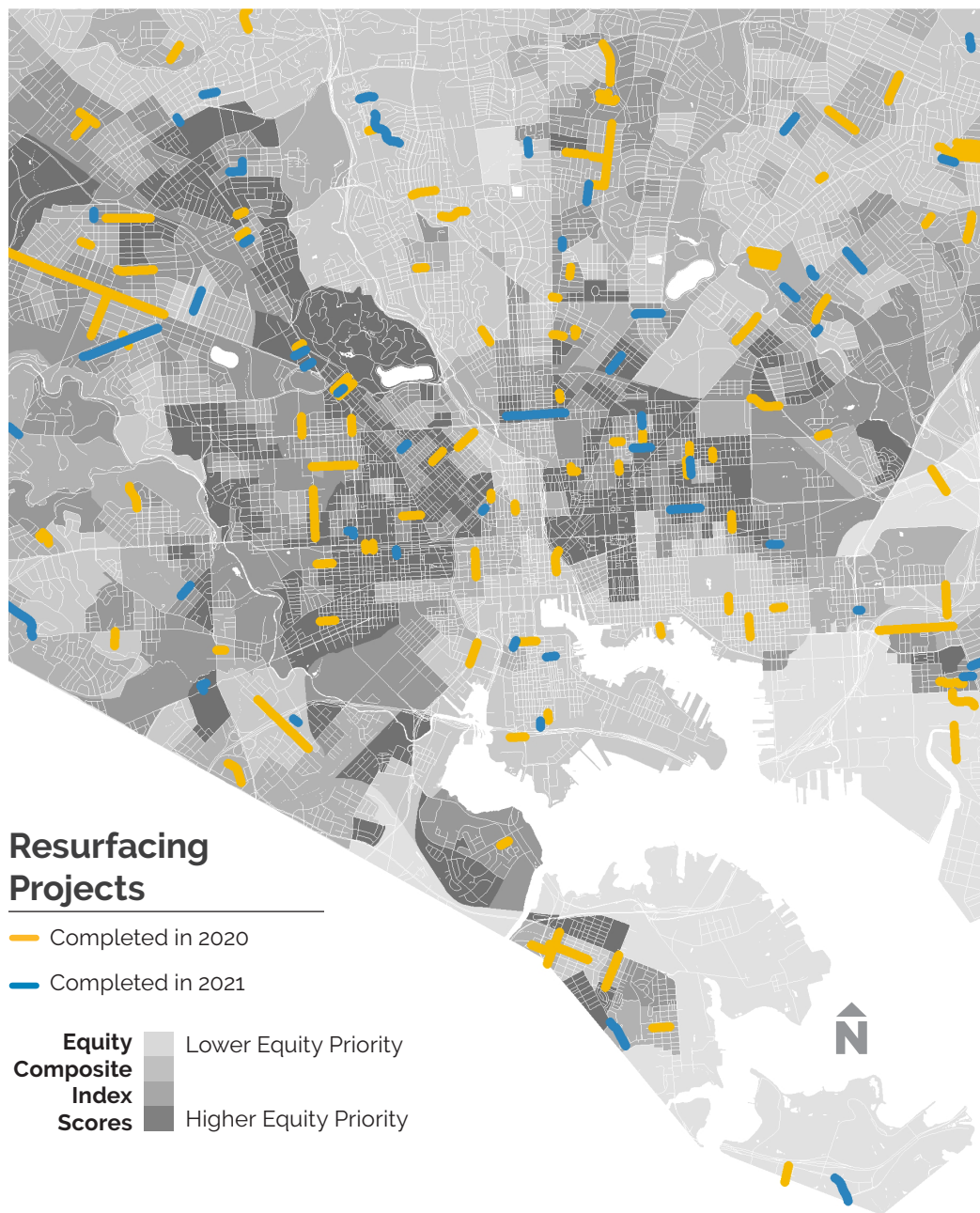
Methodology

The provided list was used to create a GIS map of the resurfacing projects.



Results

The miles of completed resurfacing decreased from 2020 to 2021.



Equity Reporting on Resurfacing Projects

	Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	22.1 miles	59%	41%	64%	36%	53%	47%
2021	8.3 miles	71%	29%	66%	34%	58%	42%

59% of resurfacing projects in 2020 were completed in neighborhoods with above-average POC populations, which increased to 71% in 2021. Approximately 65% of resurfacing projects were completed in neighborhoods with below-average household income in 2020 and 2021. More than half of resurfacing projects were completed in neighborhoods with below-average access to cars in 2020 and 2021.

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.

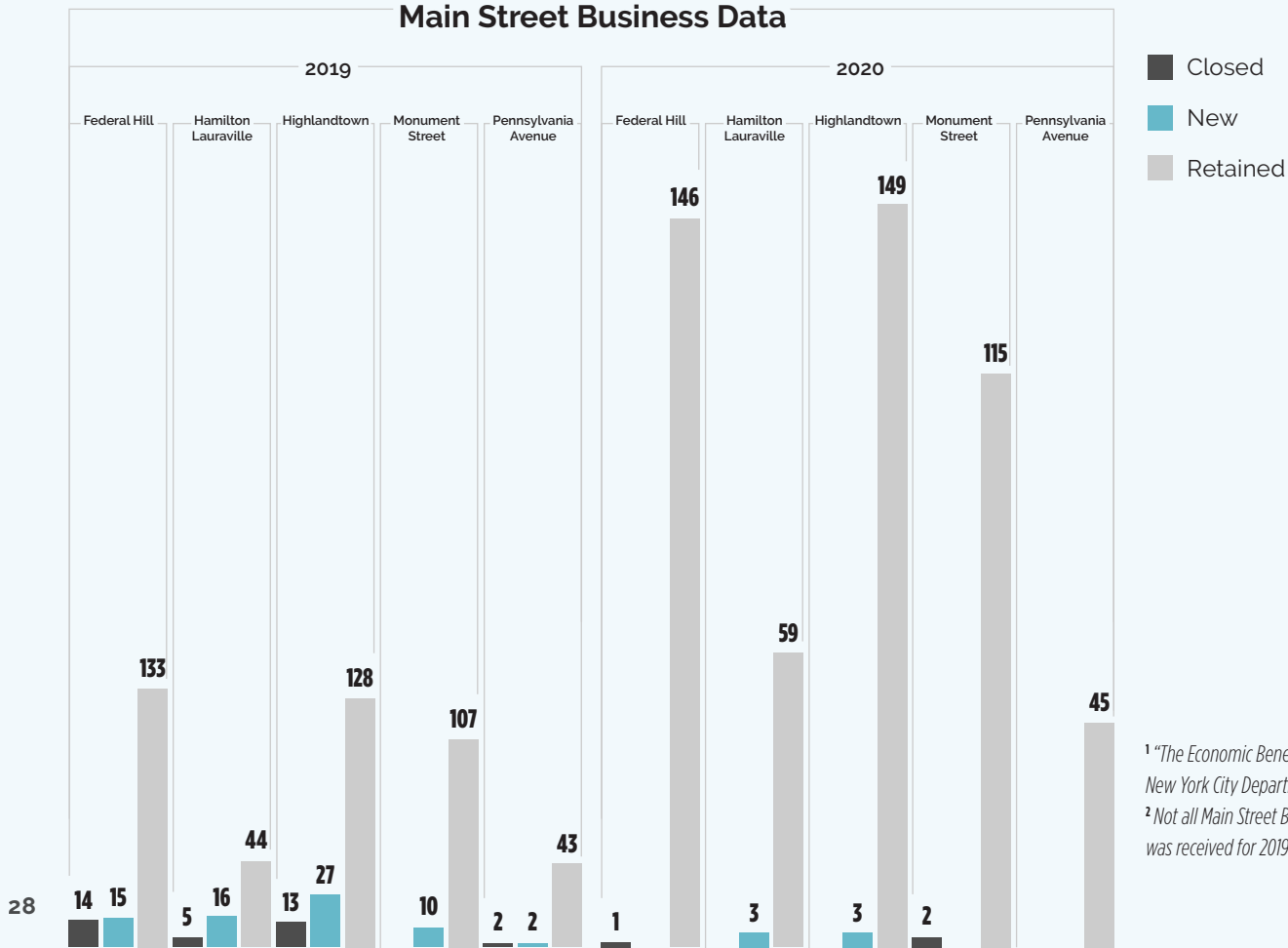
Note: 2021 data was not provided. This measure will be updated with 2021 data in the 2023 Complete Streets Report. Missing neighborhoods from the list of Main Streets represent data not received.



Results

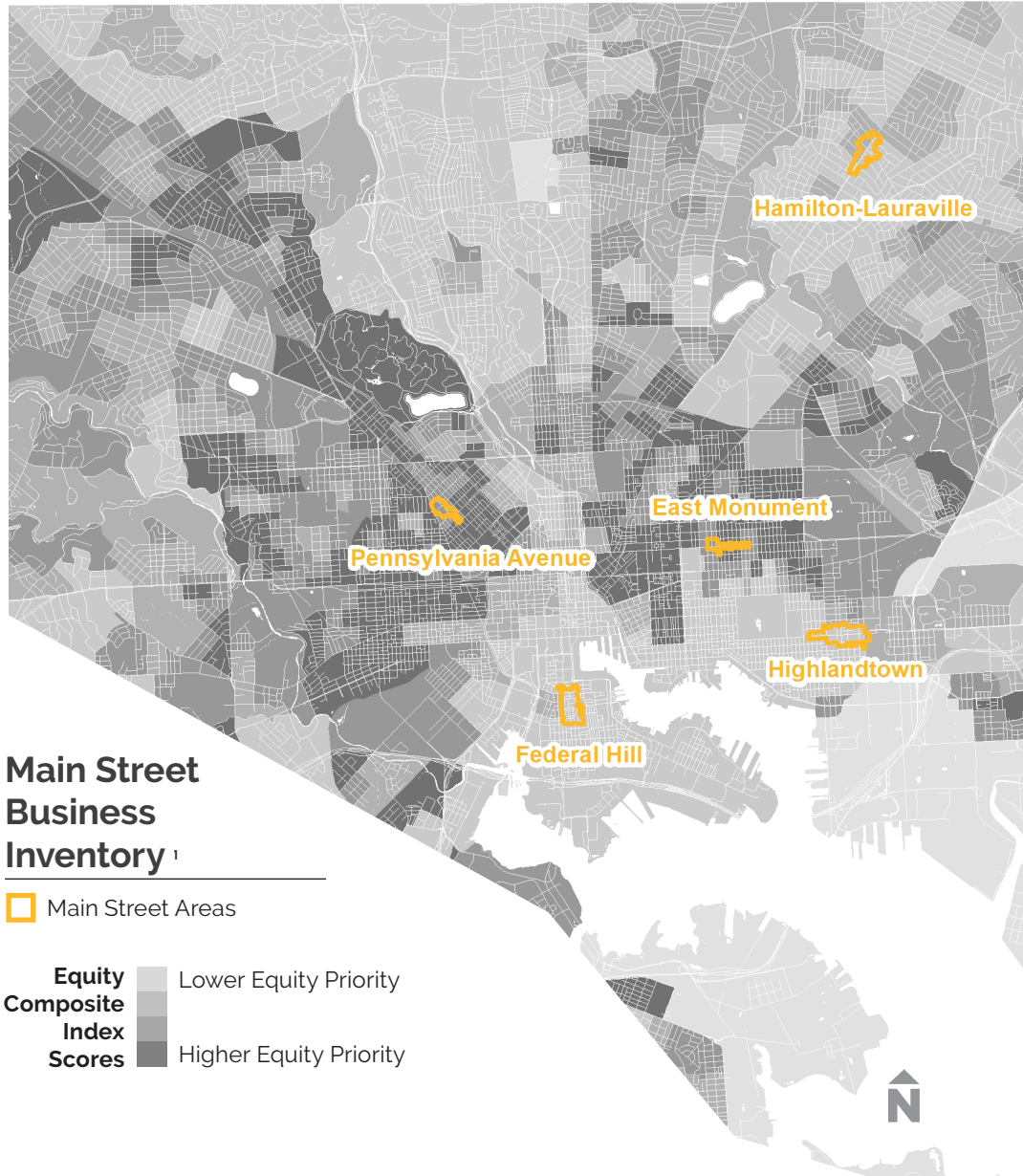
BDC reported fewer new business and fewer business closings across RBDLs in 2020, compared to 2019.² The "retained" category indicates the number of businesses that have stayed open throughout the year.

Main Street Business Data



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

² Not all Main Street Business Data was received for 2019 and 2020.



¹ Not all Main Street Business Data was received for 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.

Note: There were no new slow streets added in 2021. The City is currently transitioning from the temporary/emergency permit for outdoor dining to an official permit process for parklets and outdoor dining. This measure will be updated with 2021 and 2022 data in the 2023 Complete Streets Report.



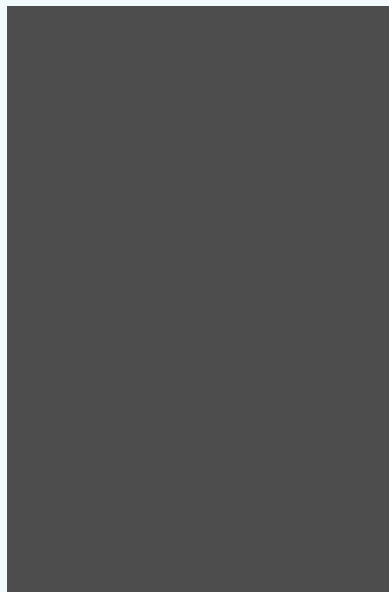
Results

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

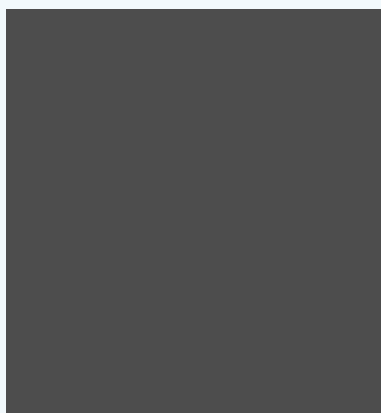
120

Parklets/Outdoor Dining Spaces



86

Slow Streets

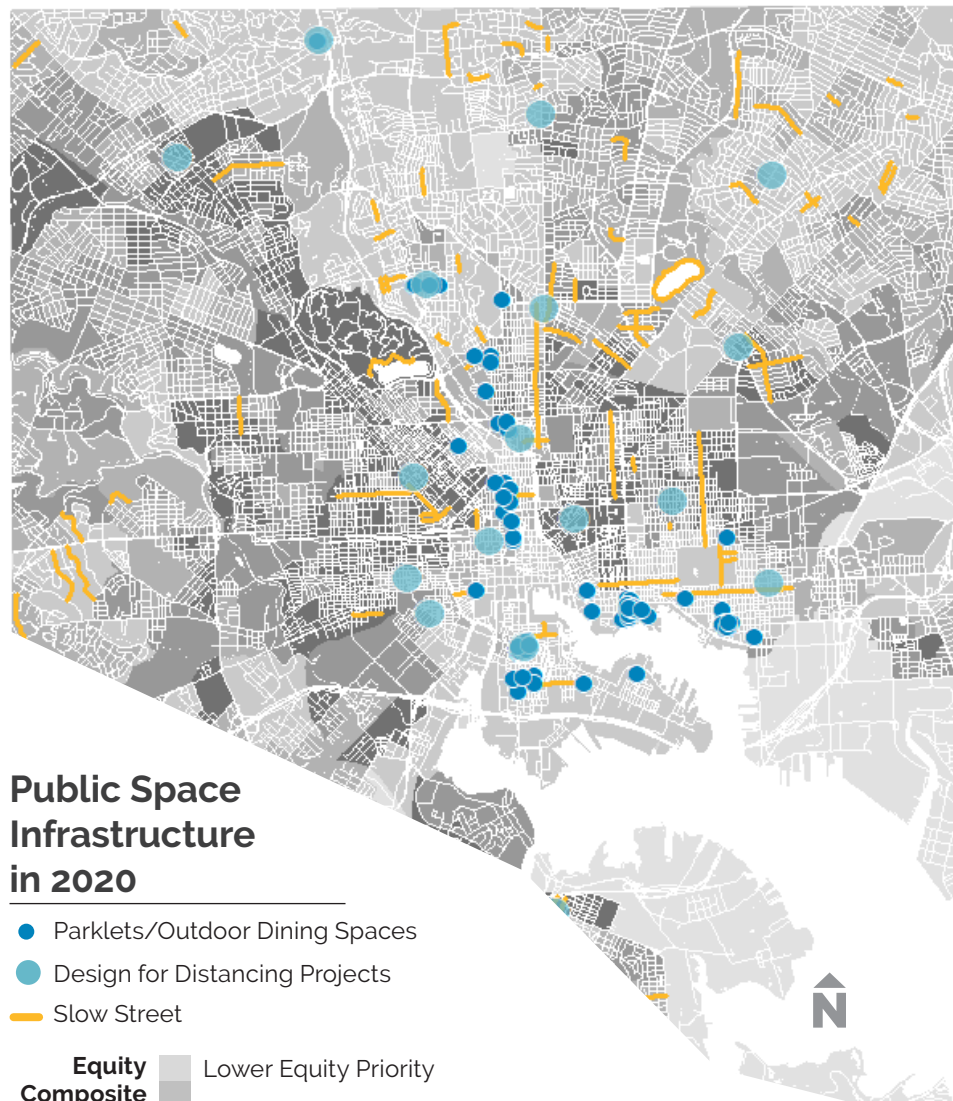


14

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.



Public Space Infrastructure in 2020

- Parklets/Outdoor Dining Spaces
 - Design for Distancing Projects
 - Slow Street
- Equity Composite Index Scores**
- Lower Equity Priority
 - Higher Equity Priority

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 2020 and 2021. 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.



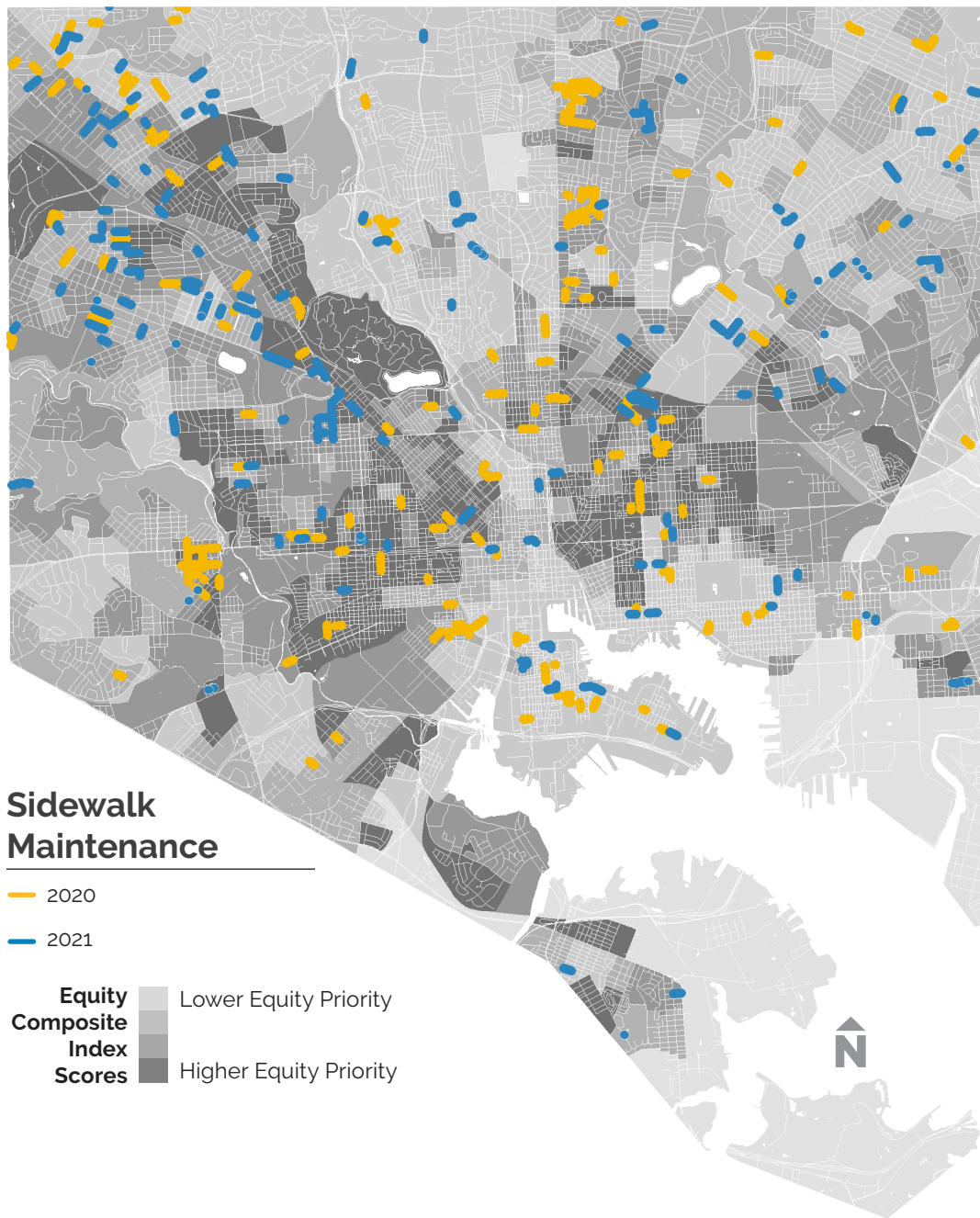
Results

Sidewalk repairs decreased from 2020 to 2021.

Sidewalk Repaired (Square Footage)

345,821
in 2020

207,984
in 2021



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
2020	345,821 SF	69%	31%	52%	48%	50%	50%
2021	207,984 SF	69%	31%	63%	37%	65%	35%

69% of sidewalk maintenance occurred in neighborhoods with above-average POC populations in 2020 and 2021. 52% of sidewalk maintenance occurred in neighborhoods with below-average household income in 2020, which increased to 63% in 2021. Half of sidewalk maintenance occurred in neighborhoods with below-average access to cars in 2020, which increased to 65% in 2021.

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. Similarly in 2021, a list containing maintenance locations was converted to a GIS layer. In 2021, bike facility maintenance included flex-post installations on Mount Royal Avenue between Charles Street and Lafayette Avenue and green striping added to the Light Street cycle track. This is not a complete list of maintenance locations. Future reports will include repairs to striping, green paint, and other elements identified in 311 requests.



Methodology

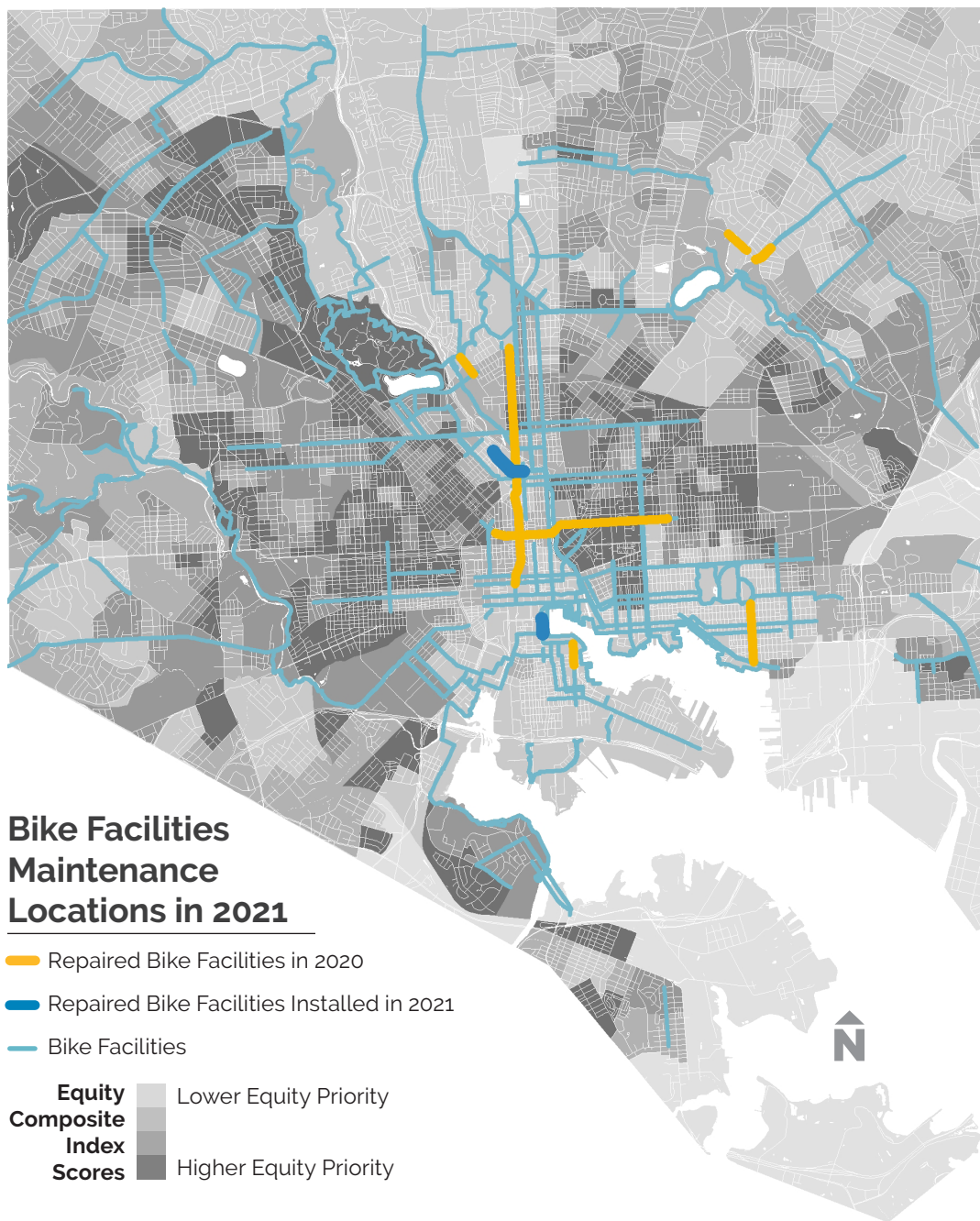
The provided information was used to create a GIS map of maintenance locations at the census Block Group level.



Results

Repairs occurred on approximately 1 mile of the existing 228 miles of bike facilities in the city. Less than 1% of citywide bike facilities received maintenance in 2021.¹

¹Data may be incomplete for 2021. Future reports will include repairs to striping, green paint, and other elements identified in 311 requests.



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
Repaired Bike Facilities	2020	4 miles	75%	25%	67%	33%	50%	50%
	2021	1 mile	0%	100%	42%	58%	83%	17%
All Bike Facilities		228 miles	46%	54%	47%	53%	50%	50%

Bike facility maintenance was minimal in 2021, with 1.0 miles receiving maintenance. None of the bike facility maintenance completed in 2021 occurred in neighborhoods with above-average POC populations. This represents a decrease from 2020, when three-quarters of bike facility maintenance occurred in neighborhoods with above-average POC populations. 42% of 2021 bike facility maintenance was completed in neighborhoods with below-average household income. 83% of 2021 bike facility maintenance was completed 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 and 2021. 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

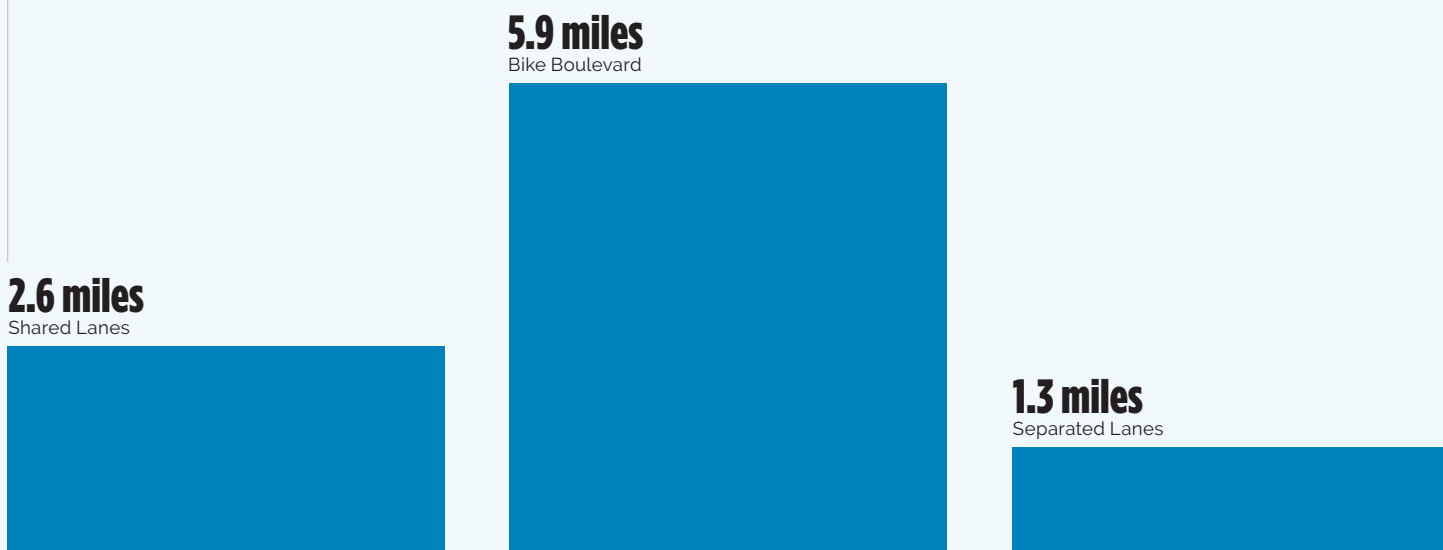
The provided GIS layer was used to create a GIS map of installations at the street block level.

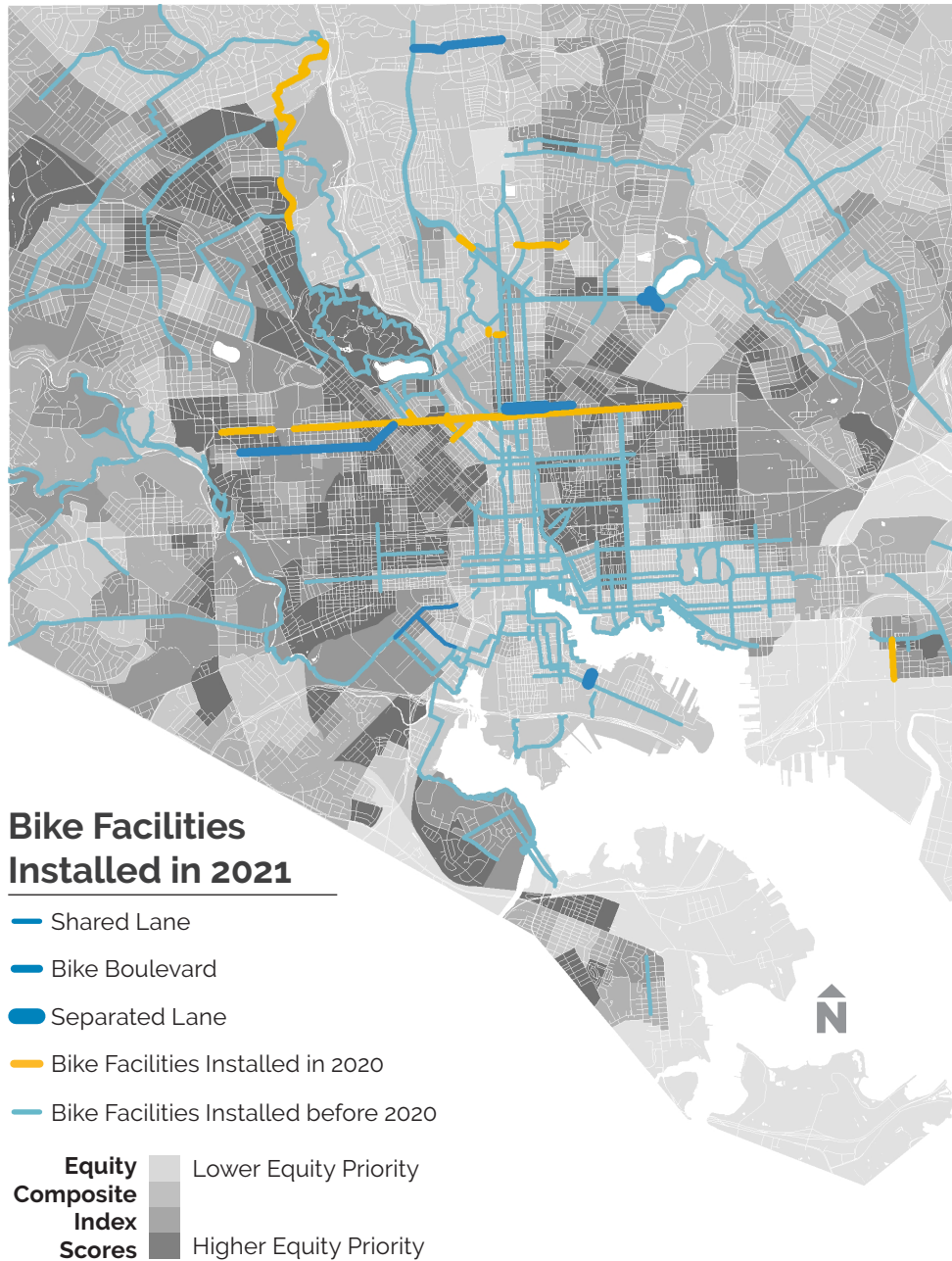


Results

In 2021, approximately 10 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 2021





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
2021	Shared Lanes	2.6 miles	0%	100%	35%	65%	46%	54%
	Bike Boulevard	5.9 miles	69%	31%	69%	31%	55%	45%
	Separated Lanes	1.3 miles	85%	15%	73%	27%	80%	20%
	Total	9.8 miles	53%	47%	61%	39%	56%	44%

The majority of shared lanes were implemented in neighborhoods with below-average POC populations, above-average household income, and above-average access to cars. Meanwhile, the majority of bike boulevards and separated lanes were implemented in neighborhoods with above-average POC populations, below-average household income, and below-average access to cars.

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 and 2021. 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.



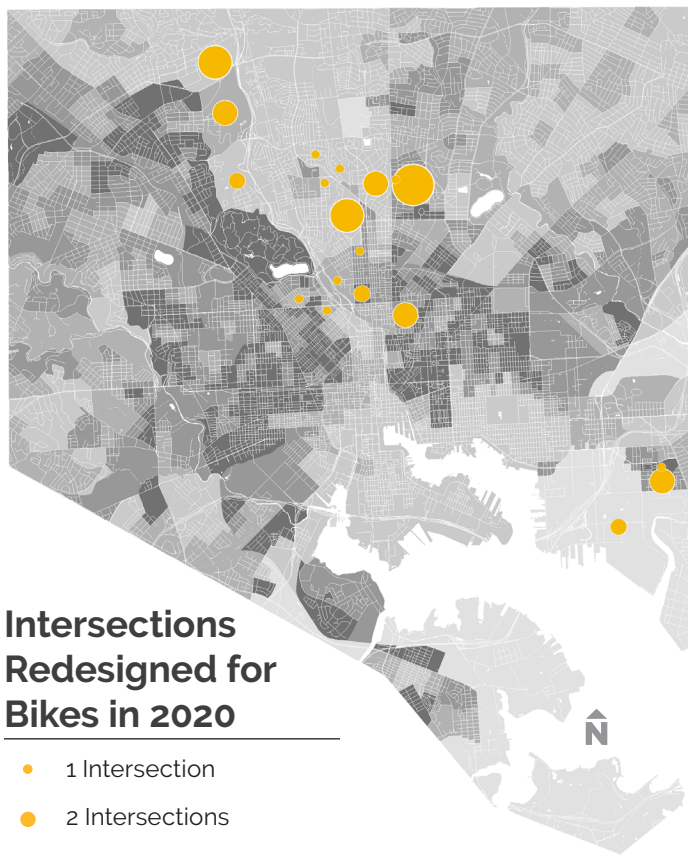
Methodology

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 2021, 23 intersections were redesigned for bikes. No intersections were reconstructed for bikes in 2021.



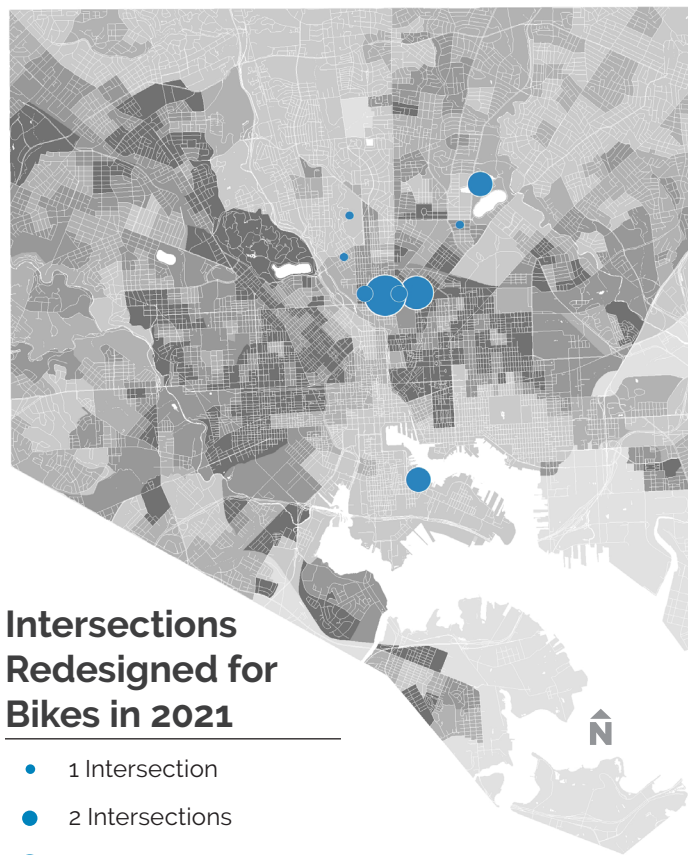
Intersections Redesigned for Bikes in 2020

- 1 Intersection
- 2 Intersections
- 3 Intersections
- 4 Intersections
- >5 Intersections

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



Intersections Redesigned for Bikes in 2021

- 1 Intersection
- 2 Intersections
- 3 Intersections
- 4 Intersections
- >5 Intersections

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority

Equity Reporting on Intersections Redesigned for Bikes

	Total	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	40 intersections	35%	65%	58%	42%	63%	37%
2021	23 intersections	70%	30%	70%	30%	70%	30%

70% of intersections redesigned to accommodate bikes were in neighborhoods with above-average POC, below-average household income, and below-average access to cars in 2021. This represents a percentage increase from 2020, although more total intersections were redesigned in 2020.

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

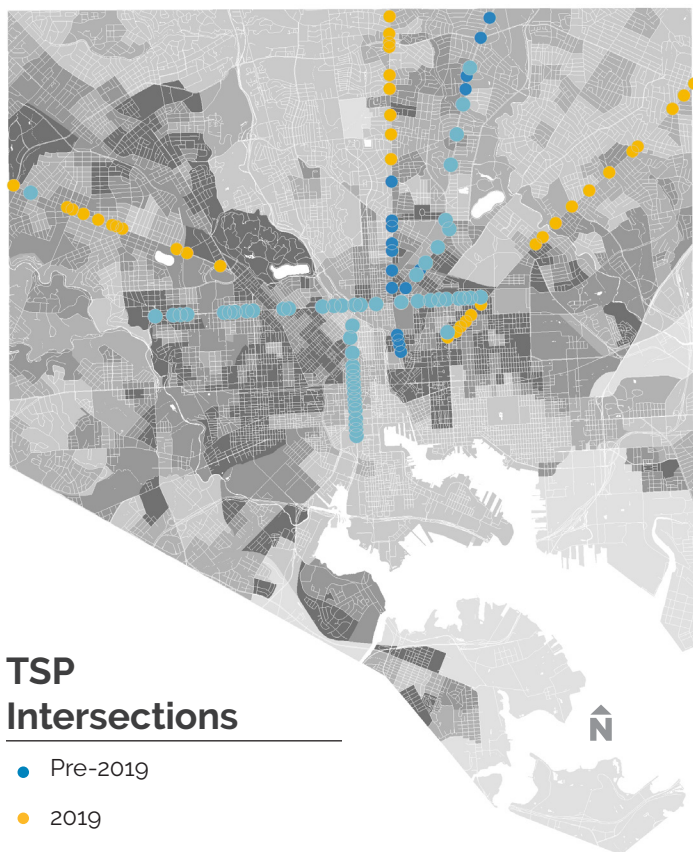
The provided layers were mapped and analyzed without modification.



Results

TSP was installed at 54 intersections in 2021 including along North Avenue and Howard Street corridors. In comparison, no TSP was installed in 2020.

Dedicated bus lanes were installed along North Avenue through 71 new intersections in 2021. These installations were significant increases from 2020.



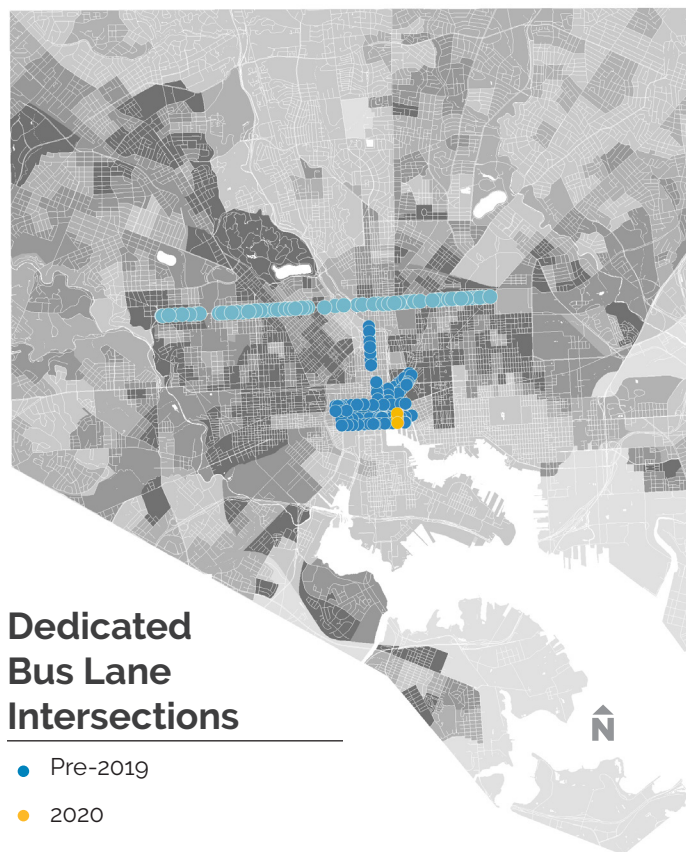
TSP Intersections

- Pre-2019
- 2019
- 2021

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



Dedicated Bus Lane Intersections

- Pre-2019
- 2020
- 2021

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
TSP Intersections	2020	0	0%	0%	0%	0%	0%	0%
	2021	54	76%	24%	74%	26%	85%	15%
DBL Intersections	2020	3	0%	100%	0%	100%	100%	0%
	2021	71	92%	8%	97%	3%	87%	13%

More than three-quarters of TSP intersections implemented in 2021 were in neighborhoods with above-average POC populations, below-average household income, and below-average access to cars. DBLs installed in 2021 passed through 71 intersections, with the majority located in neighborhoods with above-average POC populations, below-average household income, and 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

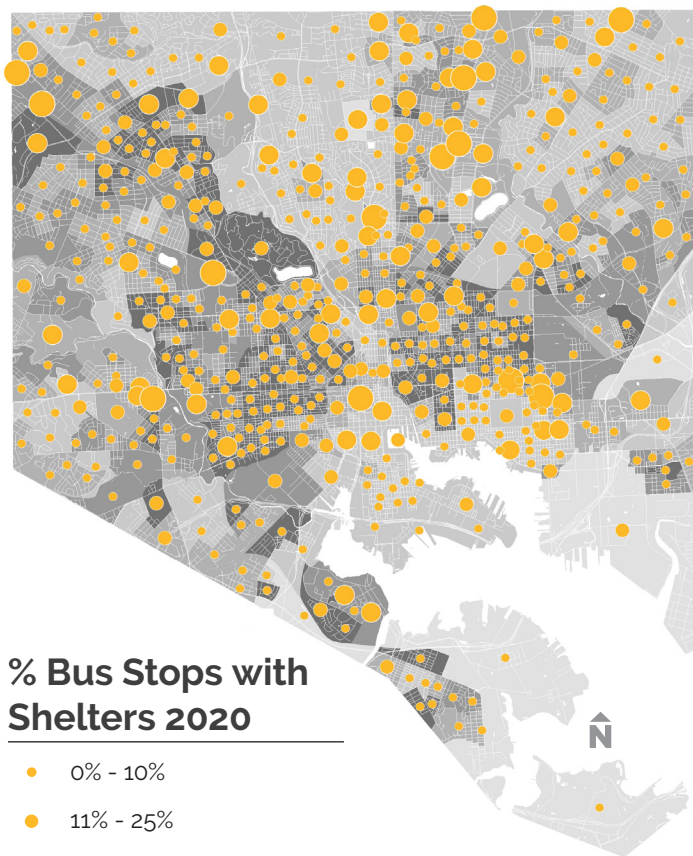
The provided GIS layer was used to create a GIS map of bus stops and bus shelters at the census Block Group level.



Results

As of 2021, 13.1% of Baltimore City bus stops have shelters. This is an increase from 10.8% in 2020.

¹ MDOT MTA Bus Stop Design Guide.



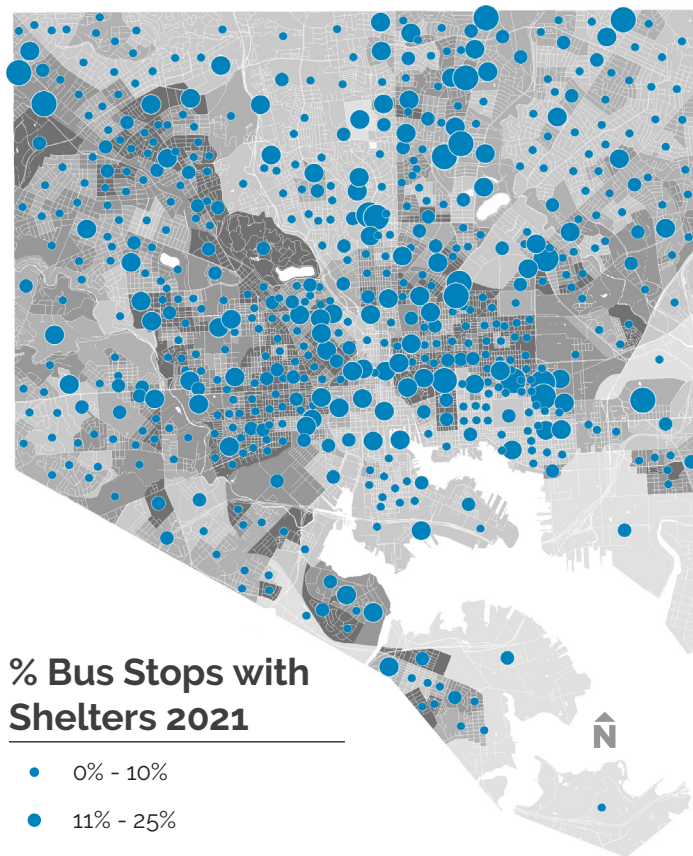
% Bus Stops with Shelters 2020

- 0% - 10%
- 11% - 25%
- 26% - 50%
- 51% - 100%

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority



% Bus Stops with Shelters 2021

- 0% - 10%
- 11% - 25%
- 26% - 50%
- 51% - 100%

Equity Composite Index Scores

Lower Equity Priority

Higher Equity Priority

Equity Reporting on Bus Stop Shelters

		Baltimore City Average	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
2020	% Bus Stops with Shelters	10.8%	9.6%	12.3%	9.8%	12.3%	11.1%	10.4%
2021	% Bus Stops with Shelters	13.1%	12.2%	14.5%	13.0%	13.4%	15.0%	10.8%

There were slight increases in % bus stops with shelters between 2020 and 2021. There was a 2.6% increase from 2020 to 2021 in stops with shelters for neighborhoods with above-average POC populations. There was a 3.2% increase for neighborhoods with below-average household income, and there was a 3.9% increase for neighborhoods with below-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

Over 7 miles of DBLs were installed in 2021 increasing the total miles of DBLs from 6 miles to 13.2 miles.

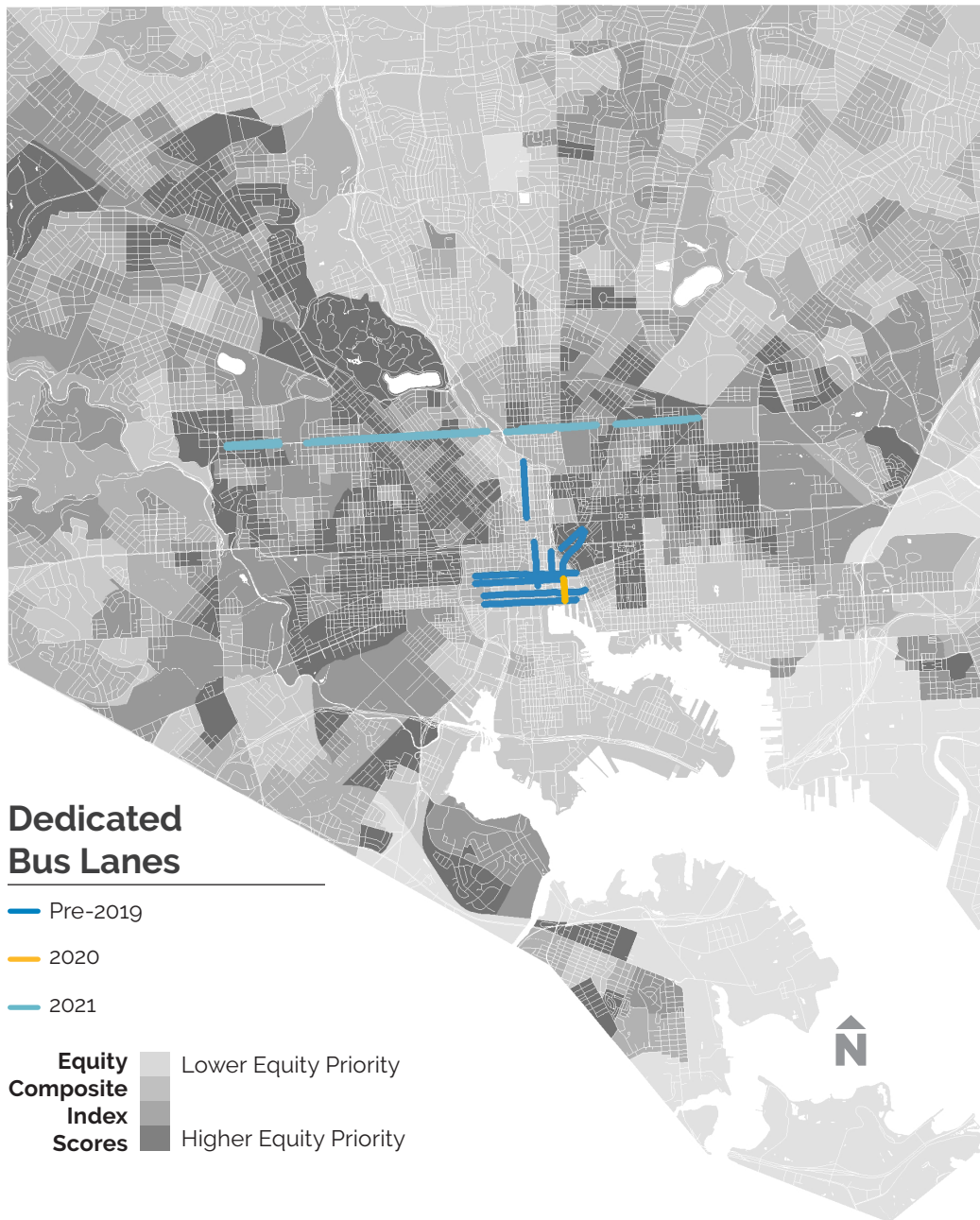
Dedicated Bus Lanes by Type

7.1 lane miles

Full-Time

0.2 lane miles

Day Time (8 AM - 6 PM)



Equity Reporting on Dedicated Bus Lanes

	Baltimore City	Above Average POC	Below Average POC	Above Average Low-Income	Below Average Low-Income	Above Average No Car	Below Average No Car
Pre-2019	5.8 miles	11%	89%	28%	72%	94%	6%
2020	0.2 mile	0%	100%	0%	100%	0%	100%
2021	7.3 miles	96%	4%	100%	0%	100%	0%

In 2021, the City expanded its DBL network outside of the downtown core. This added 7.3 miles in neighborhoods with above-average POC populations, below-average household income, and 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 2021.

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.

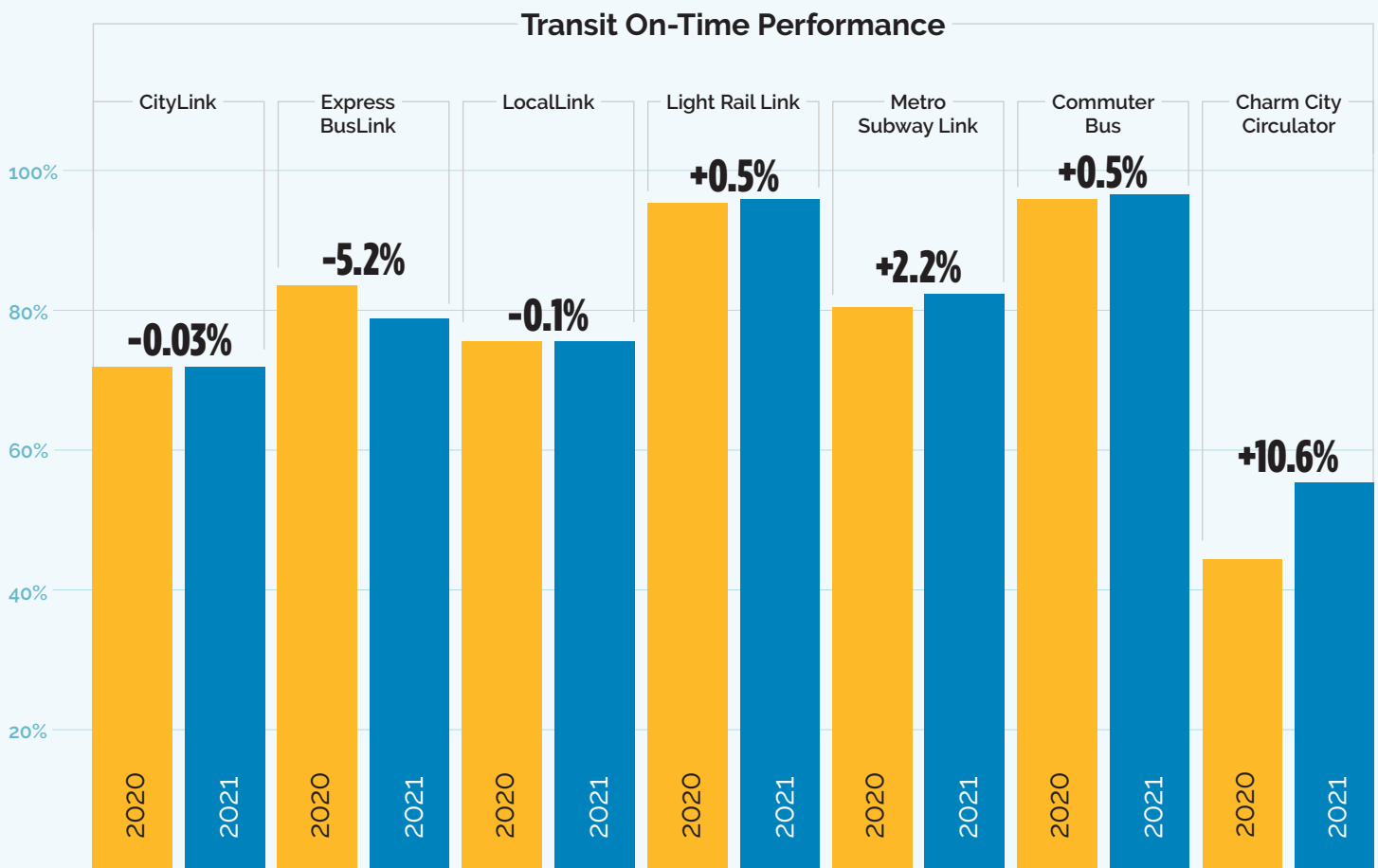
- All Express BusLink Service: Routes 103, 104, 105, 115, 120, 150, 154, 160, and 164.
- LocalLink Routes 38 and 92, which primarily served schools that closed for in-person instruction during COVID-19.



Results

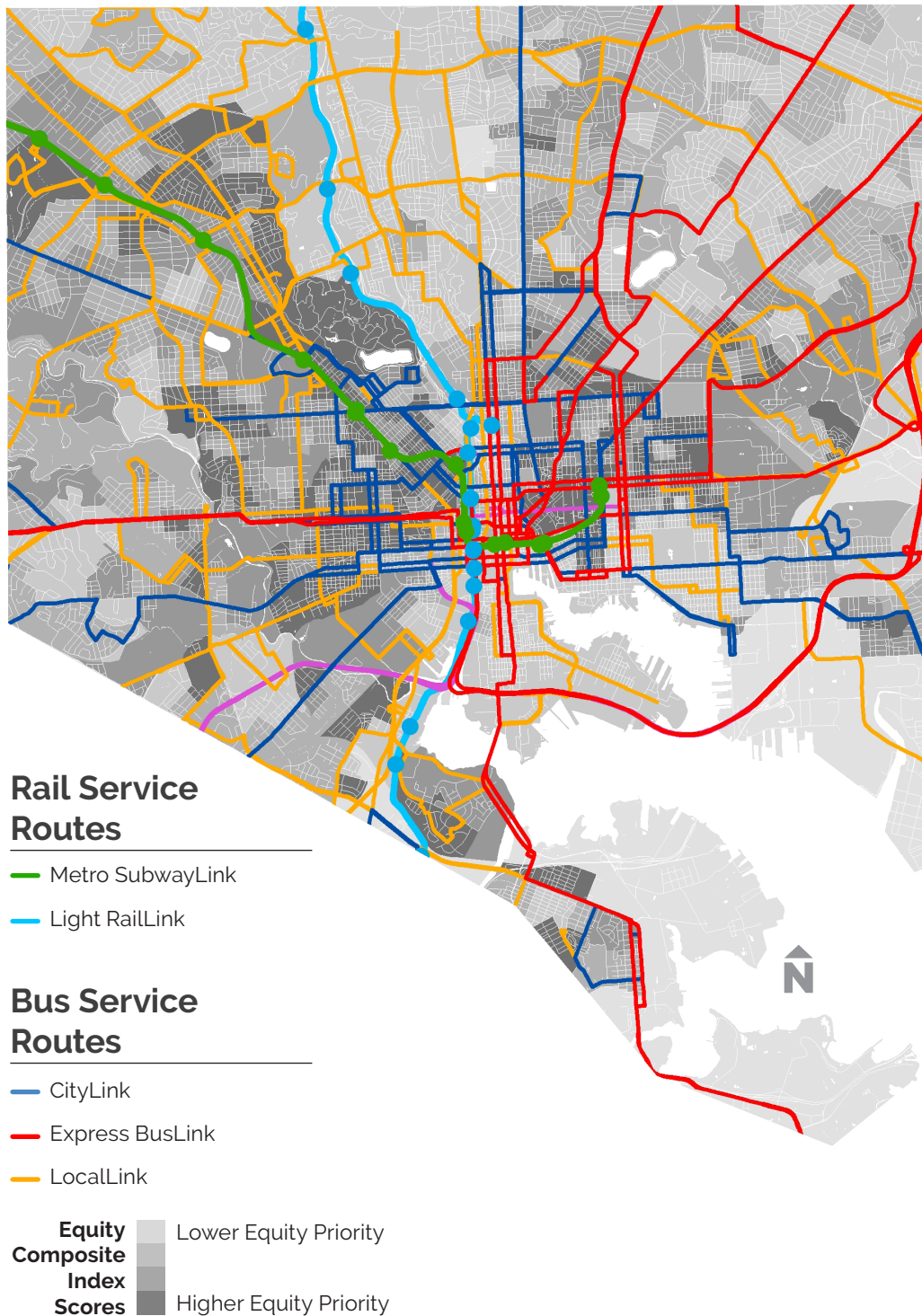
On-time performance was largely consistent for all MDOT MTA modes and service types between 2020 and 2021, with the exception of the Charm City Circulator and the Express BusLink. The Charm City Circulator on-time performance increased by more than 10%, while the Express BusLink on-time performance decreased by approximately 5%. The following modes and service types met MDOT MTA's on-time performance goal in either 2020 or 2021:

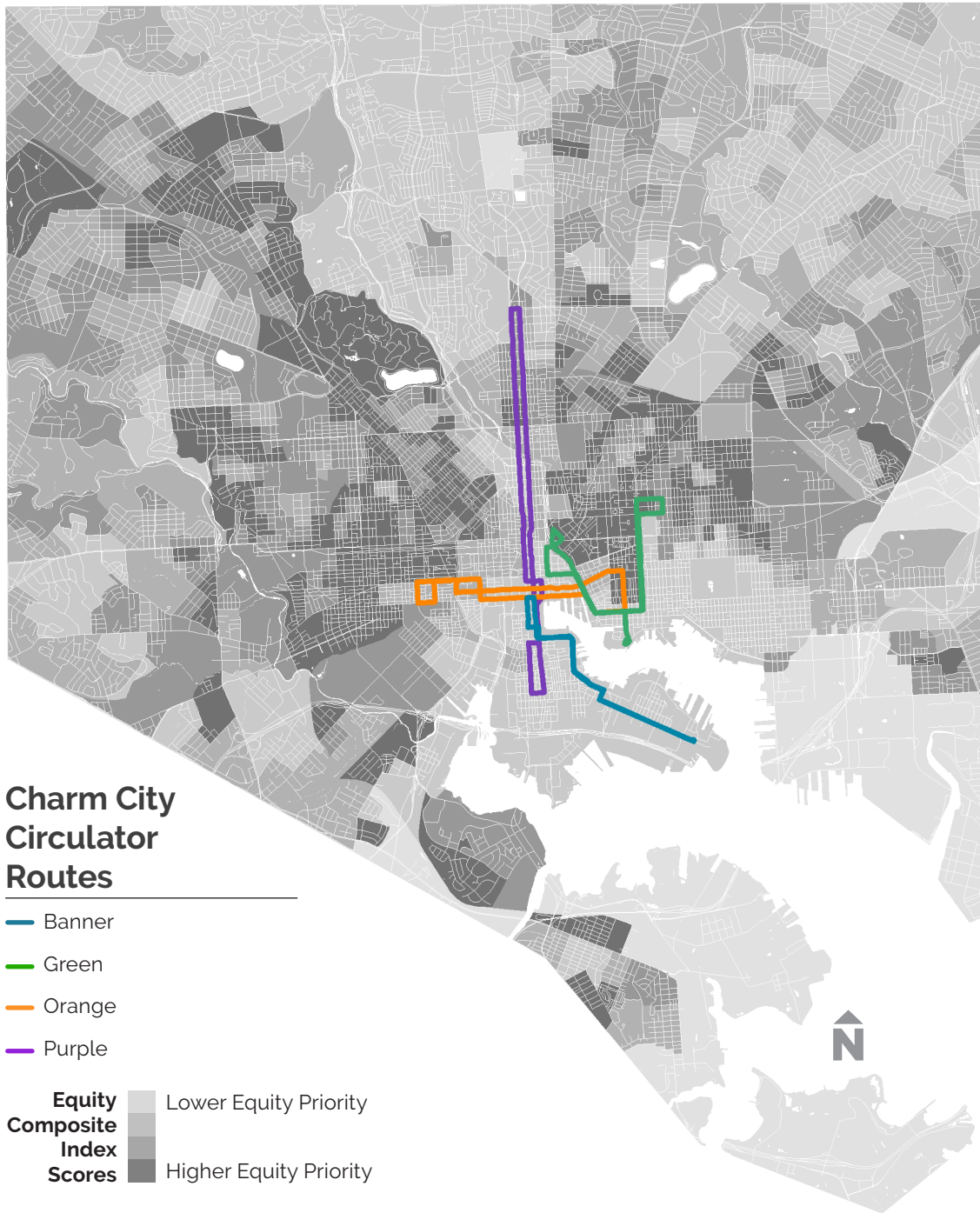
- Express BusLink (2020)
- Commuter Bus (2020 & 2021)
- LightRail Link (2020 & 2021)



TRANSIT

TRANSIT ON-TIME PERFORMANCE (CONTINUED)





CONCLUSION

This report summarizes relevant performance metrics and infrastructure investments in Baltimore City between 2019 and 2021. This is the second Complete Streets Annual Report and it aims to serve as a continued base upon which 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.
- Develop and report metrics on truck/ freight movement within the City and/ or infrastructure improvements that facilitate the movement of freight.

In 2021, Baltimore City DOT took the following steps to improve its complete streets programming:

- A Deputy Director of Complete Streets was hired to implement the guidelines from the Complete Streets Manual across departments and staff within Baltimore City DOT.
- A Capital Planning Chief was hired to oversee transportation planning functions and improve the process in which long-term priorities are programmed into the capital budget.
- A Grants Manager was hired to better coordinate, track, and execute grants for sustainable transportation.
- An additional Bike Planner was hired to assist in advancing the city's bike master plan while also focusing on rapid enhancement projects.
- A Transportation Working Group was started as part of the City's Sustainability Subcabinet, with the mission of developing strategies that will reduce emissions, decrease stormwater runoff, and encourage mode shift amongst city employees.

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."

