

FY23

Capital Improvement Program

Equity Analysis

Annual Update to 2019 Report

“Equity Analysis of Baltimore City’s Capital Improvement Plan, FY2014-FY 2020”

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Introduction

In 2019, the Department of Planning (DoP) partnered with Baltimore Neighborhood Indicators Alliance-Jacob Francis Institute at the University of Baltimore (BNIA) to prepare an analysis of Baltimore's capital budget for FY14-20 and to develop a methodology that the Department could use to do annual analysis going forward. This is the third annual update to that report, adding data for FY23. The following pages include an overview of the initial report and an analysis of the FY23 capital budget using the methodology that BNIA outlined. It also includes an update on the process and methodology, and ideas for how the analysis can continue to evolve.

Why conduct this analysis?

Baltimore has often been cited as one of the most segregated cities in the United States. As stated in the DoP [Equity Action Plan](#), "it is undeniable that historic policy and planning decisions created and exacerbated inequity and inequality in Baltimore City. Policies to deliberately segregate white and black residents – such as restrictive covenants, the Federal Housing Administration's openly racist system for mortgage loan approval, urban renewal, and others – directly contributed to so many of the economic and social challenges Baltimore City faces today." The problem today is that continued residential segregation provides an often unknown basis upon and means for which different standards of public service or public policies can be delivered. To overcome persistent segregation requires intentional action to address these biases.

Recognizing the longstanding, and continuing, patterns of inequity in Baltimore, in 2015, staff at the DoP convened an Equity in Planning Committee. Over the next few years, DoP established an Equity Action Plan that set forth goals and strategies to address the legacy effects of inequity and how current policies continue to maintain or exacerbate these inequities. The Baltimore Planning Commission, staffed by the DoP, is legally tasked with providing the primary review and approval of the City's billion-dollar Capital Improvement Program (CIP), the first year of which becomes the City's capital budget. For this reason, one of the first action steps under the Equity Action Plan was to conduct an equity analysis of the CIP, which was the subject of the 2019 report. Using the report's analysis of the CIP as a starting point, the DoP aims to implement policies that support more equitable allocation of funds, engage more stakeholders in the capital budget process, and identify additional funding sources to meet Baltimore's overwhelming capital needs.

In 2018, the Equity Assessment Program was passed by the Baltimore City Council requiring the DoP to conduct an annual equity assessment of the proposed capital budget. This annual report serves as this assessment.

Overview of 2019 Report

The [2019 report](#) uses an equity lens created by the U.S. Urban Sustainability Directors Network (USDN) to analyze Baltimore's capital budget investments. DoP uses the USDN equity lens to evaluate existing practices and procedures as outlined in the agency's Equity Action Plan. The USDN lens considers four overarching areas of equity: Structural Equity, Procedural Equity, Distributional Equity, and Transgenerational Equity.

The main goals of the analyses in the report were: 1) to establish a methodology for assessing the influence of various kinds of CIP investments to neighborhoods and 2) to track these investments across different measures of equity over time.

To understand who is likely benefiting from capital improvement investments through the CIP, the report analyzes the distribution of capital improvement appropriations from FY14-20 compared to the distribution of various community-based indicators (race, income, vacancy, etc.). The report includes analysis of all projects from FY14-20 where a location can be identified, which ranges from between 20 percent to 60 percent of the total funds in the CIP.

Of course, CIP allocations are one of many kinds of neighborhood investments. A 2019 study¹ by the Urban Institute found that up to 90 percent of capital investment in neighborhoods comes from the private sector in the form of commercial lending for real estate development and/or residential mortgage and rehabilitation. In addition, funds spent directly by State or Federal agencies, such as improvements to state universities or public transit infrastructure, are not included in the CIP. While the Urban Institute report discusses the larger context of investment in the City, the analysis in this report only focuses on those dollars which are allocated through the City's capital budget.

¹ <https://apps.urban.org/features/baltimore-investment-flows/>

Overview of Methodology

Because the Department of Planning (DoP) plays a large role in coordinating and approving the capital budget each year, the report focuses solely on those dollars which flow through the City's capital budget.

Capital budget data consists of funding levels that were approved and allocated to agency-requested capital projects prior to the start of the fiscal year. Capital projects included in the 2019 analysis include bridges, major road reconstructions (but not resurfacing), parks, recreation centers, playgrounds, athletic fields, pumping stations, municipal building upgrades (fire stations, police stations, city office buildings, libraries, etc.), cultural organizations receiving City GO bonds, the landfill, solid waste transfer stations, and more.

Identifying Project Locations

Projects fall into two categories with respect to how the data can be analyzed: those with a location identified and those without a location identified; the latter are referred to as "bulk" project accounts. In many cases, the location of the capital investment is known when funds are requested as the funds are targeted towards a specific building or bridge, for example. However, for some types of capital investments, agencies request funds for a type of work, such as road resurfacing or vacant building demolition, to be used for that purpose throughout the city. Where the money for these kinds of projects is spent is only known after expenditures are made. Capital projects that fall into this category that were not included in the initial analysis include urgent demolition, housing and business incentives, traffic safety improvements, traffic signals, urgent water and sewer projects, and more.

Determining Areas of Influence for CIP Projects

One of the main objectives of this analysis was to provide a replicable methodology for determining how different kinds of CIP projects impact neighborhoods. For example, capital investment in a local library branch will be very important to the neighborhood(s) served by the branch, but may not have too much impact in other parts of town. In contrast, investments in major cultural destinations such as the National Aquarium affect the immediate downtown area as well as the city as a whole.

To account for this kind of differentiation in the spatial influence of different CIP projects, the Department of Planning staff along with members of the Planning Commission categorized projects into three categories based on the geographic impact of each project:

- Projects with a smaller footprint, largely beneficial solely to the community in which they are located were categorized as "Local".
- Projects with a slightly larger, multi-neighborhood impact, were classified as "Multi-Neighborhood".
- The third and final category, "Citywide", was applied to projects that would impact the city as a whole.

Projects classified as Multi-Neighborhood or Citywide also had neighborhood impacts so it was important to craft a methodology that would allow for a higher amount of funding to be assigned to the area surrounding the project.

The CIP investment data with definitive spatial information- such as an address or parcel ID, a street segment, or project with clear boundaries- was entered into a Geographic Information System (GIS) for analysis (See Appendix A of the [2019 Report](#) for more details). Distance buffers were created around the project’s spatial location in order to distribute the value of funds. A quarter (0.25) mile distance has been established in the literature as a “walking distance” within the fields of public health, planning, and transportation; this distance was used as a basis for local project impact.

Influence of CIP Projects	Distribution of Allocation	Examples
Local	¼ mile buffer applied to all projects Funding distributed by share of area in each Community Statistical Area (CSA)	Park and playground renovations, road reconstruction and streetscapes, environmental restoration sites, recreation centers, school improvements
Multi-Neighborhood	50% of funding remains in ¼ buffer 50% of funding distributed beyond to a 1-mile radius	Rec & Parks (Cylburn, Middle Branch Fitness), Business Parks, Public Markets
Citywide	50% of funding remains in ¼ buffer 50% of funding distributed beyond to a 5-mile radius	Major Cultural/Tourism (Walter’s, B&O, Aquarium, Rash Field), City Services (City Hall, Police HQ, Landfill)

Distribution of CIP Allocations by Community

Using this methodology to distribute CIP allocations to communities, allocations were calculated for all 55 Community Statistical Areas (CSAs) in Baltimore. CSAs are clusters of neighborhoods organized around census tract boundaries, which are consistent statistical boundaries. Total values were normalized by the population size of each CSA to create per-capita spending figures.

FY23 Analysis

The remainder of this document serves as an update to the 2019 report, covering fiscal year 2023 (FY23). The FY23 capital budget benefited from several new or one-time funding streams. A City budget surplus led to the highest general fund investment in the capital budget in recent history. A State surplus led to significant state funding, such as \$17 million for Druid Hill Park Improvements and \$10 million for ADA infrastructure. The federal Infrastructure Investment and Jobs Act (IIJA) will result in an immediate increase in federal funds for transportation projects. All of these factors influence this analysis.

FY23 was the second year for which the analysis was separated into two components: one for Department of Public Works (DPW) projects (comprised of the City's water, sewer, and stormwater utilities and solid waste investments), and one for all other projects in the capital budget. DPW projects tend to be either major infrastructure items that benefit the City's water and sewer system generally (such as reservoir improvements, water filtration or treatment plant upgrades, and pumping station improvements) or water/sewer main projects that address underground infrastructure. While these projects certainly affect residents of the City, they have a very different effect on quality of life than above-ground or vertical infrastructure such as roads, bike lanes, sidewalks, recreation centers, parks, libraries, etc. In the analysis that follows, DPW projects are broken out from all other projects in the capital budget.

This annual update includes three important components:

- The **percent of dollars mapped** documents what is included in the analysis. A significant portion of the capital budget is excluded from the analysis because there is no location information.
- The **per capita investment by community statistical area** shows the geographic distribution of capital resources. This shows which communities are getting large investments, and which ones are not.
- Finally, the **investment by race and income** shows the demographics of areas with relatively higher and lower investment.

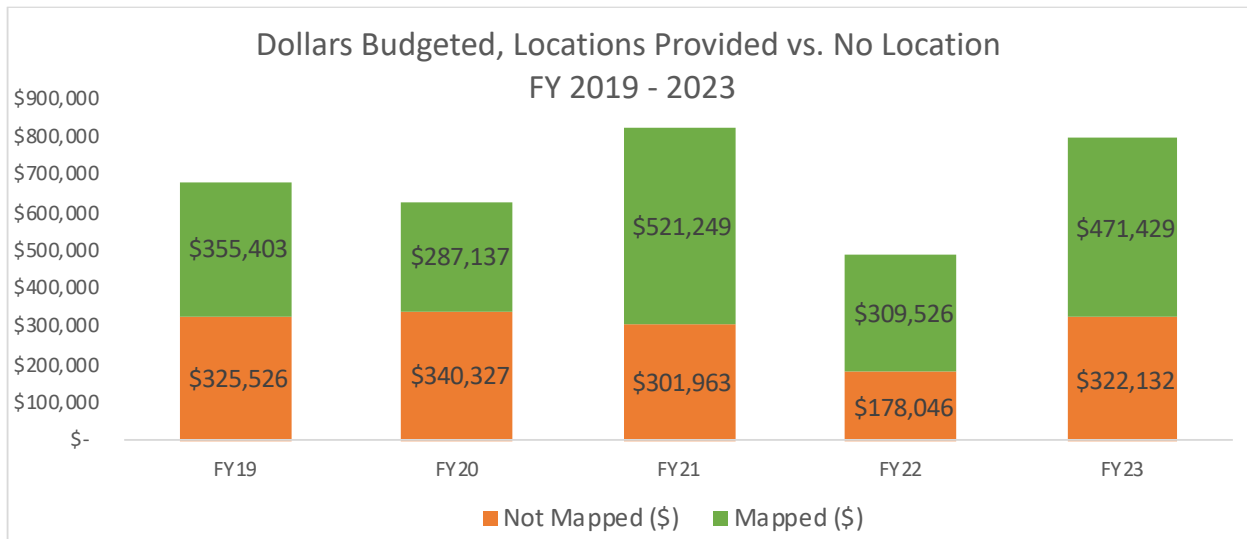
Throughout the analysis, specific projects may be referenced by their CIPI number. The CIPI number is a six-digit code that can be used to cross-reference projects and find additional detail in the reports available on the [CIP Reports website](#).

Percent of Dollars Mapped

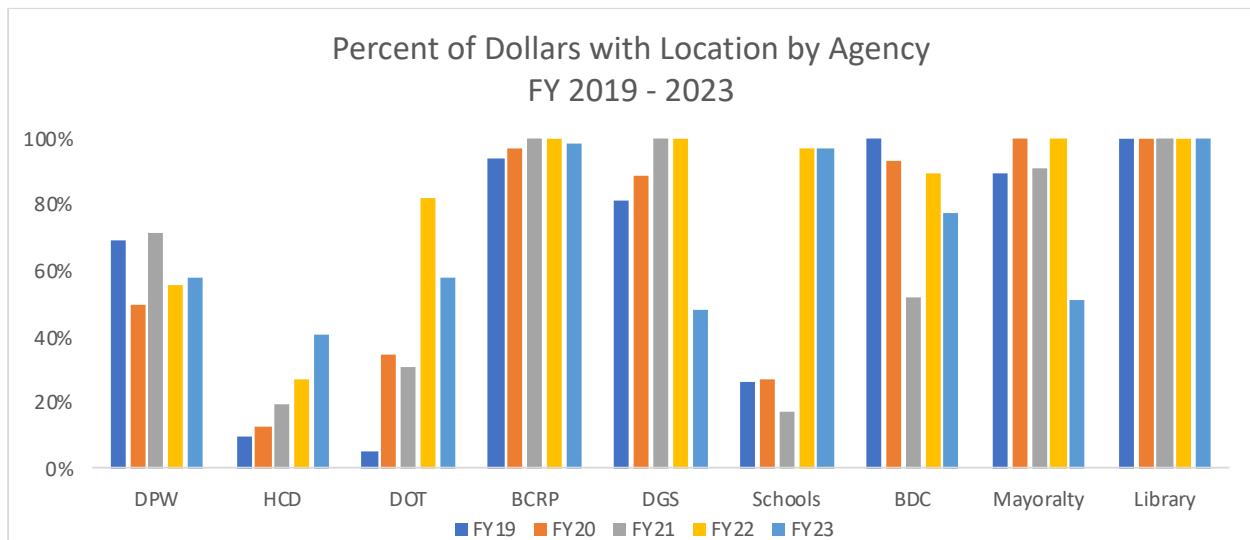
The equity analysis can only be conducted on those projects for which there is location information. Often, agencies cannot provide locations because the project is for urgent needs, technology that is not at a fixed location, or funds to be used for a program with a public application process. For some of these items, agencies could analyze equity by looking back at how funds were distributed in prior years, but they cannot be included in this analysis.

In FY23, \$471 million, or 59 percent of the \$794 million total, could be mapped to a specific location. This is a decline of four percentage points from FY22. This decline can be attributed to

several major investments from State and local sources that are designated for specific purposes, but don't yet have locations. These major investments include: \$13 million for improvements to street and sidewalk infrastructure to better accommodate those with diverse mobility needs, as required by the Americans with Disabilities Act (ADA); \$25 million for fire department buildings and \$15 million for public safety buildings more generally, for which specific locations have not yet been identified; and \$5 million in State funds for broadband infrastructure, in anticipation of a potential grant. Without these major investments, there would have been a slight improvement in the percent of dollars that can be mapped to a specific location.



The percent of dollars mapped varies widely by agency. The agencies with the largest capital budgets, including Department of Public Works (DPW), Transportation (DOT), and Housing and Community Development (HCD) have the lowest percent of mappable projects year after year. In DPW, this is due to a large amount budgeted for urgent needs, which cannot be predicted in advance. In DOT, it is a combination of urgent needs (for bridges and resurfacing) and funding for communications and signal infrastructure, for which precise locations are not determined in advance of budget passage. HCD has a large percent of its capital budget dollars budgeted in programs, such as those for home repair, homeownership incentives, and the Community Catalyst Grant Program. These are programs with an open, public application process that begin after the budget is adopted and therefore locations cannot be provided in advance. Notable for FY23 is the major decline in percent of dollars with a specific location for DOT, Department of General Services (DGS), and Mayoralty. The major state and local investments noted above (ADA, public safety buildings, and broadband) fell within these agencies.



Per Capita Investment by Community Statistical Area

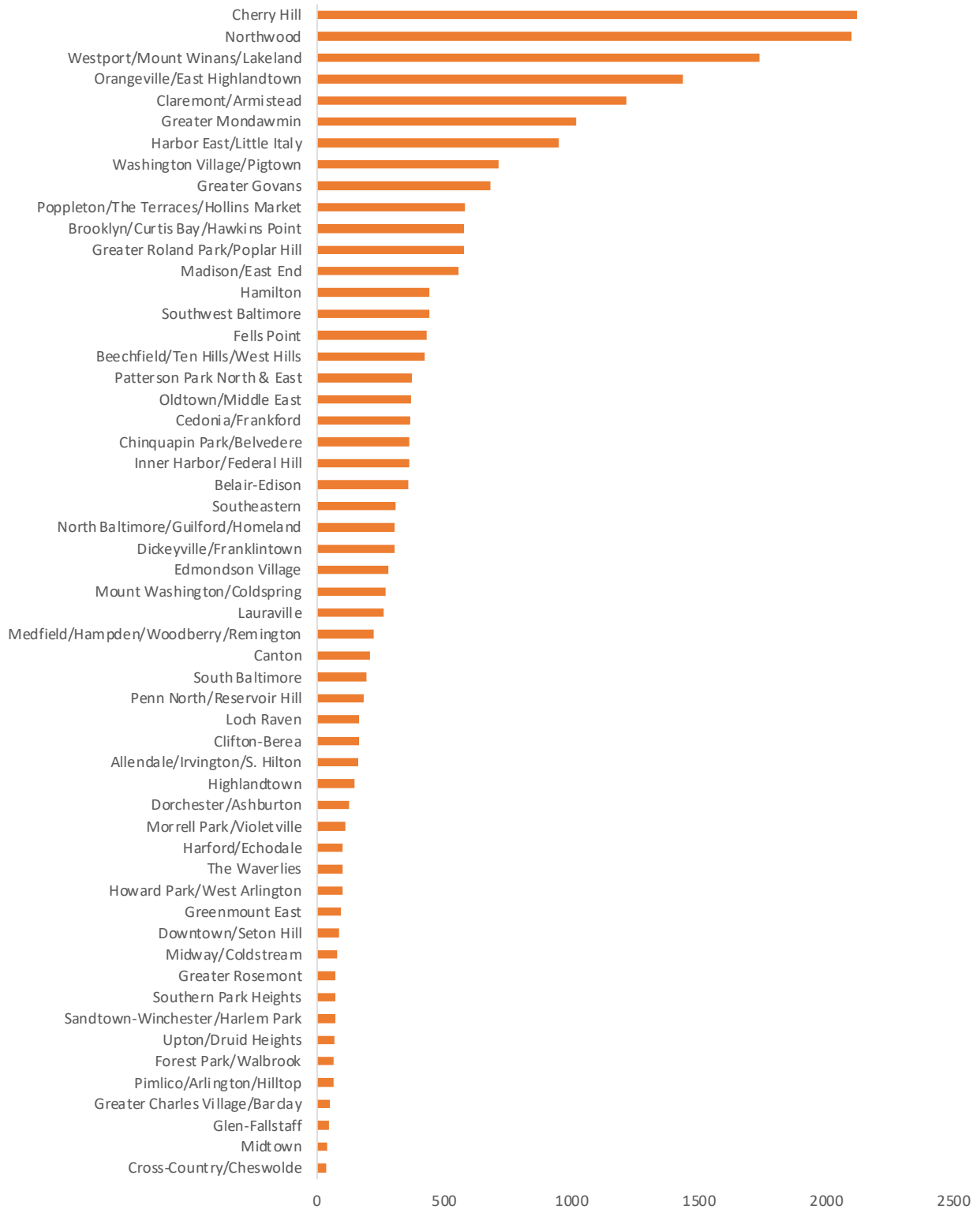
To understand which communities are getting the benefit of investment through the capital budget, DoP maps projects using Geographic Information System (GIS) and attributes the dollars to a Community Statistical Area (CSA). The total allocations are normalized for the population in the CSA to derive a per capita figure. Maps and charts showing the total investment by CSA for both DPW projects and all other projects are provided below.

DPW Projects

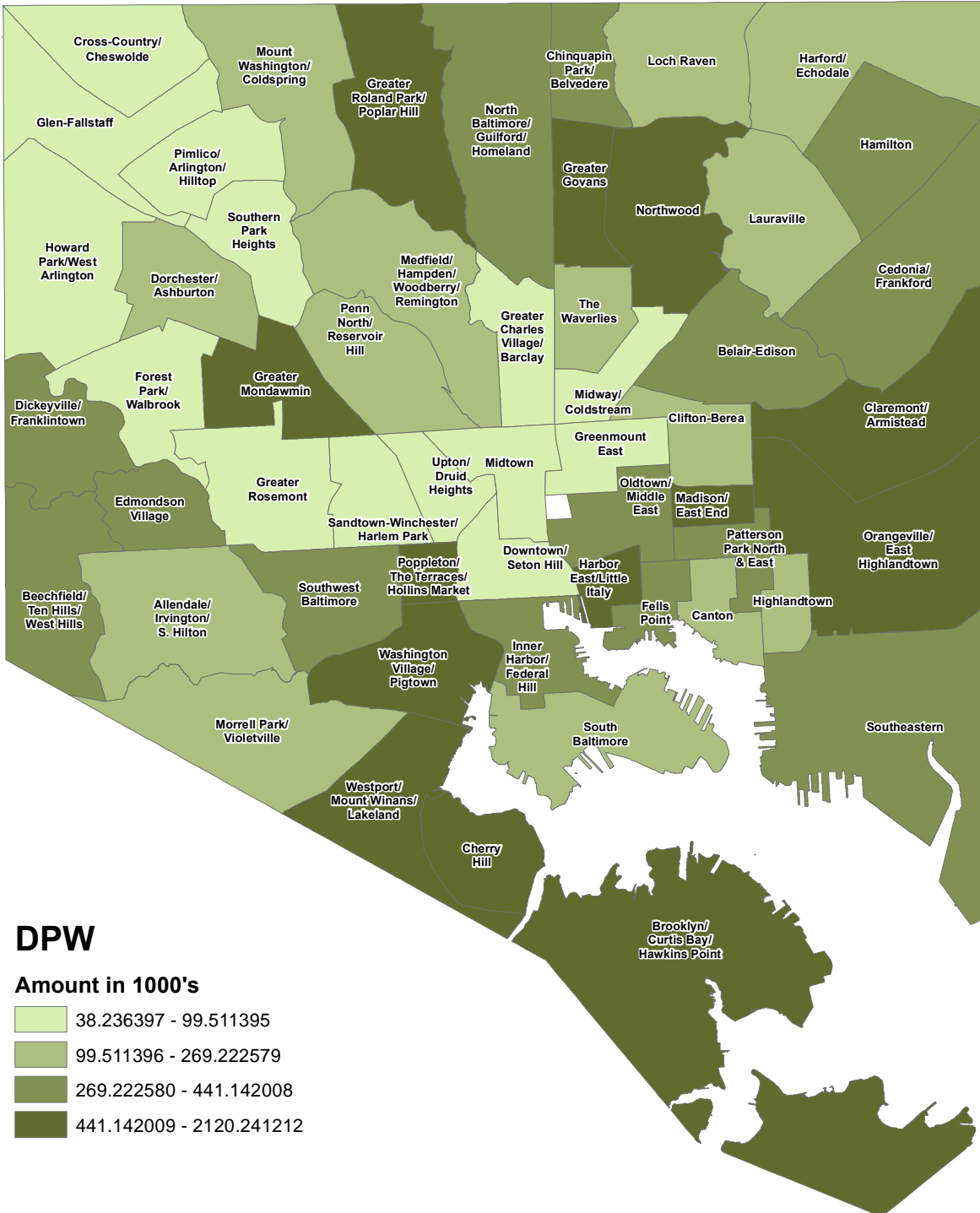
DPW projects are among the largest and most expensive infrastructure projects in the CIP. The chart and map below show the CSAs with the highest DPW investment across the three utilities (water, waste water, and stormwater) and the solid waste bureau. Cherry Hill, Northwood, and Westport/Mt. Winans/Lakeland comprise the three CSAs with the highest per capita investment. Each has multiple large infrastructure projects in the FY23 capital budget.

Some of these major water and sewer projects, such as investments at the Ashburton or Montebello filtration plants, are for infrastructure that serves the entire City. DPW has partnered with a consultant to develop a more nuanced equity analysis. This nuanced analysis better attributes the dollars budgeted to the communities that benefit the most from the project.

Fiscal Year 2023 DPW Allocations per Capital by Community Statistical Area



Per Capita CIP Allocations, FY 2023



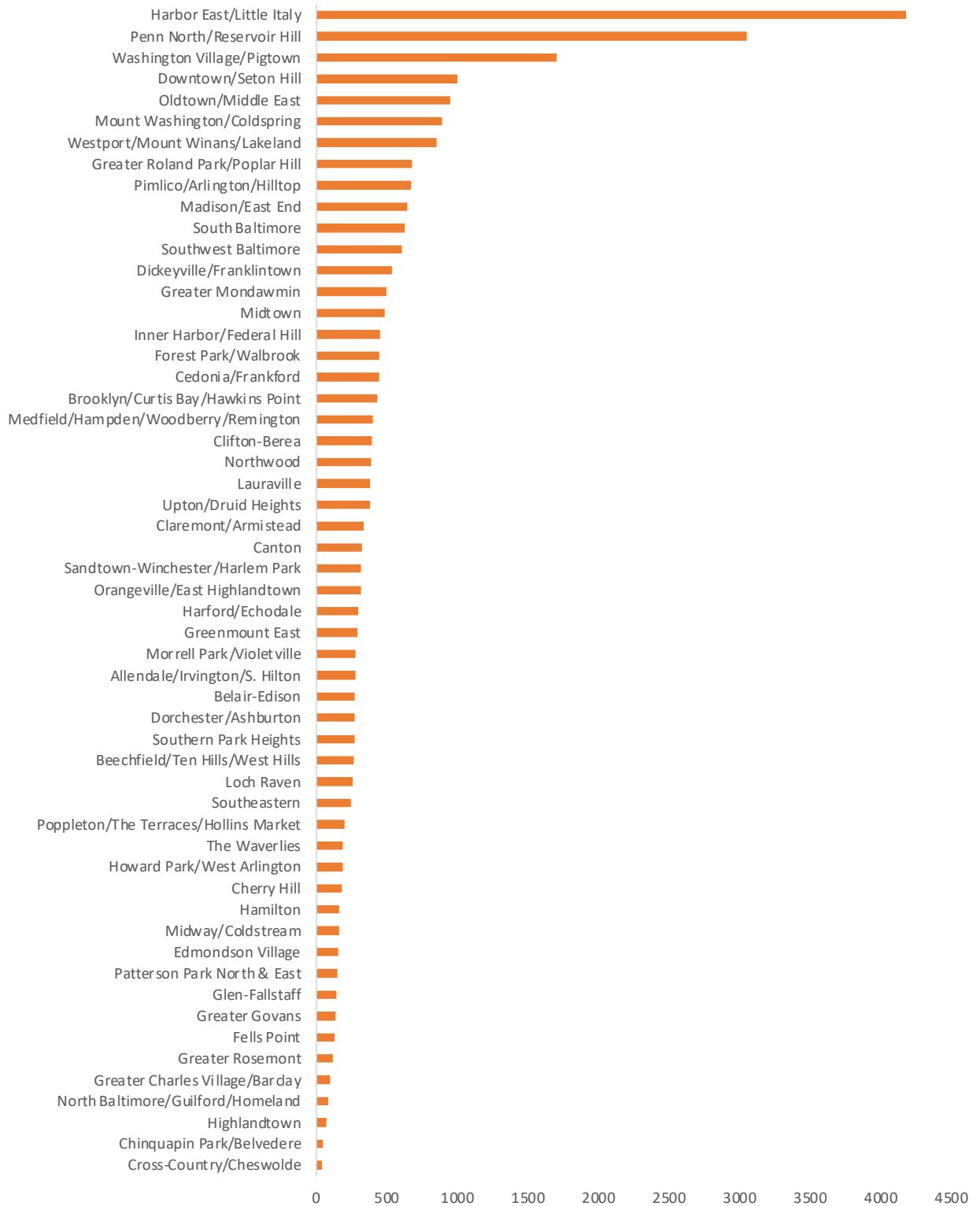
Per capita is reported as per 1,000 people.

Source: Baltimore City Planning, May 2022

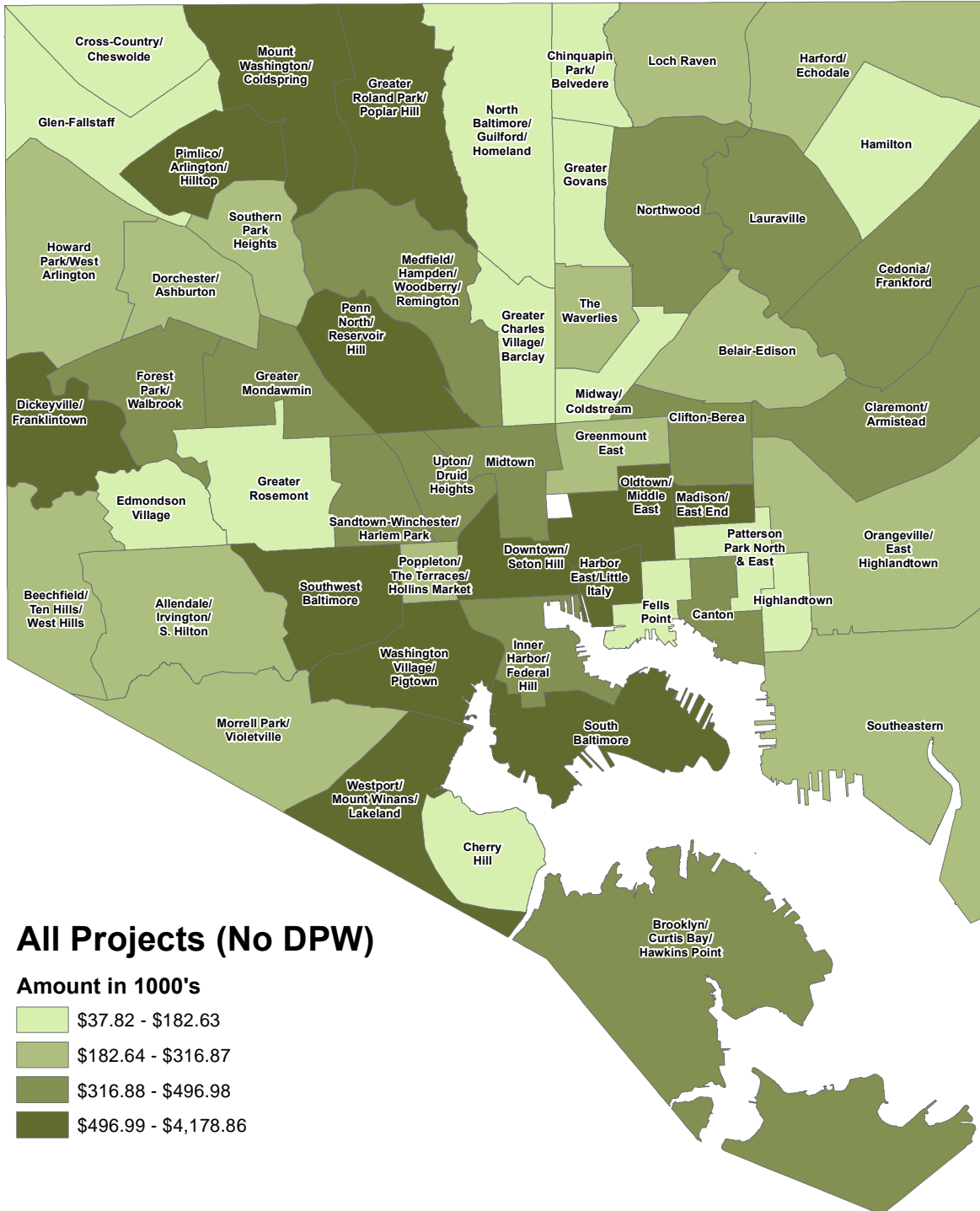
Non-DPW Projects

While DPW projects comprised 49 percent of the capital budget in FY23, many non-DPW capital projects have a more tangible and immediate benefit to the communities in which they are located. Harbor East/Little Italy has the highest per capita allocation by far, due to projects associated with the Perkins-Somerset-Oldtown Choice Neighborhoods project, including \$20 million in federal loan funds budgeted for the City Springs School replacement (588-092), \$3.5 million in local and State funds budgeted for Chick Webb Recreation Center (474-114), and more. Penn North/Reservoir Hill has the second-highest per capita investment, mostly due to the \$11.25 million budgeted for Parkview Recreation Center (474-147) and \$18 million budgeted for Druid Hill Lake – Phase 1 (474-106).

Fiscal Year 2023 CIP Allocations per Capital (Excluding DPW) by Community Statistical Area



Per Capita CIP Allocations, FY 2023



Per capita is reported as per 1,000 people.

Source: Baltimore City Planning, May 2022

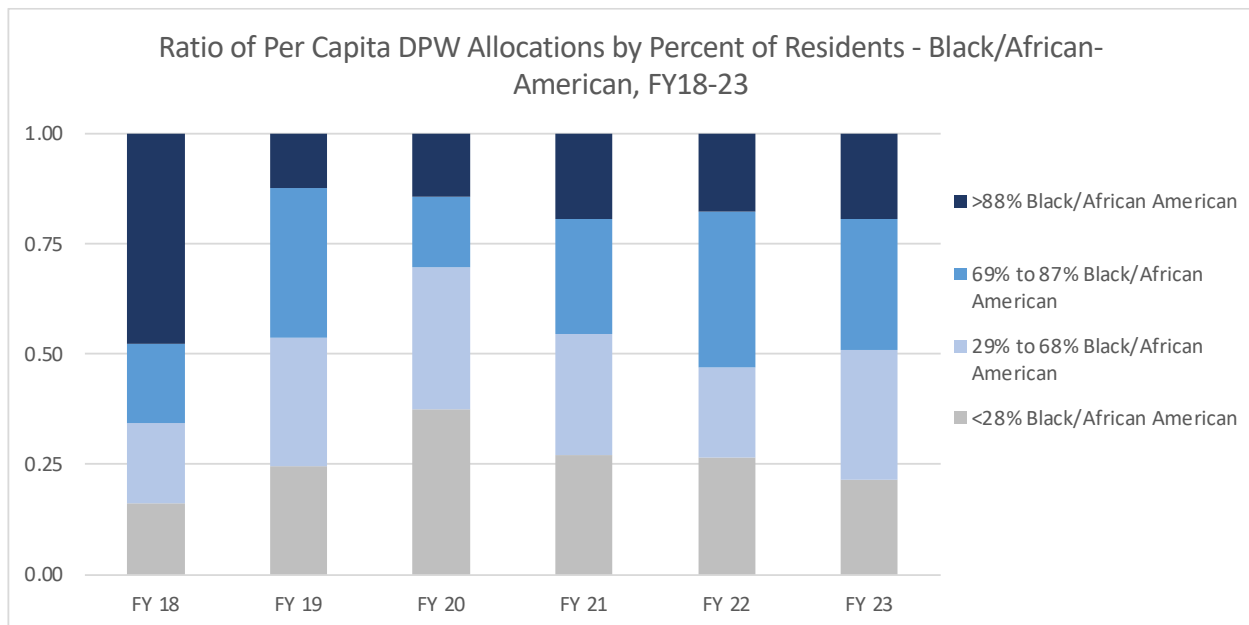
Investment by Race and Income

Allocations by % of Black/African American Residents

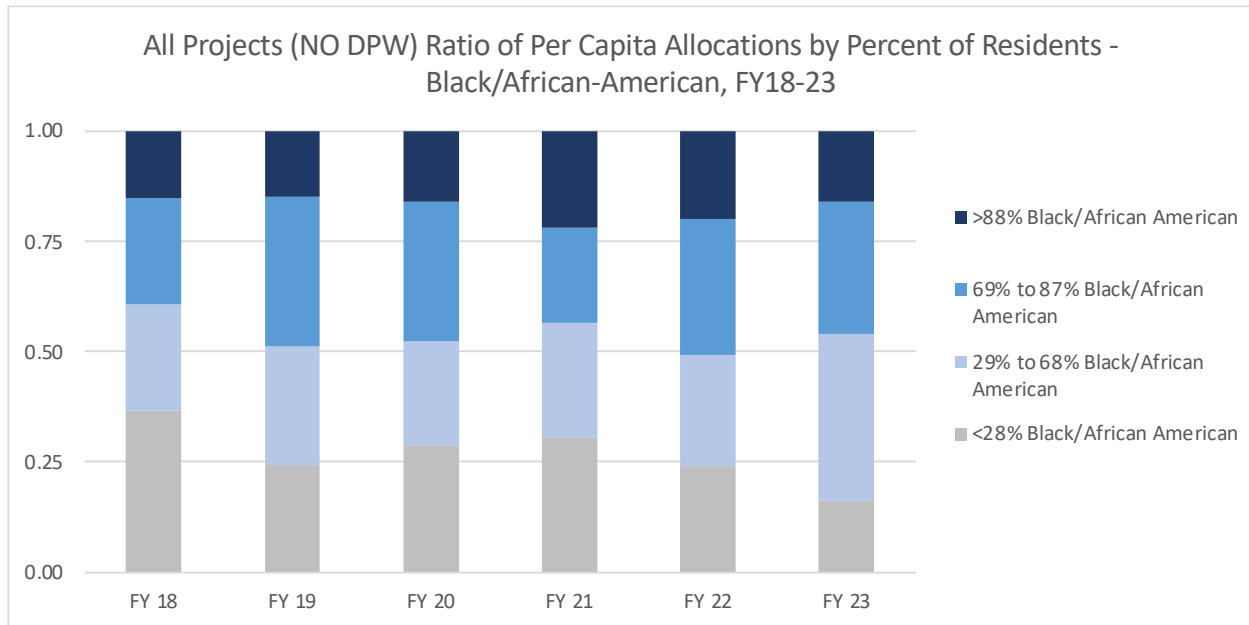
One of the most important goals is to ensure capital budget resources are consciously redistributive towards areas where persons of color make up a large percentage of the population. In 2017, Baltimore had an overall 62.3% Black/African American (AA) population. A quarter of the Community Statistical Areas (CSAs) in this analysis have more than 92% Black/AA residents.

The charts below break the 55 CSAs into four quartiles, or categories, based on the demographic makeup of the community. The quarter of CSAs with the highest percentage of Black/AA residents are shown in the darkest blue, whereas the quarter of communities with the lowest percentage of Black/AA residents are shown in the grey bar. If per capita spending were equal across all four quartiles, each segment of the bar would be the same size.

The chart covering DPW allocations shows significant variability across the years based on neighborhood demographics. The FY18 capital budget included \$157 million for Ashburton Finished Water Reservoir Improvements (557-715) and \$41 million for Ashburton Pumping Station Rehabilitation (557-929), both of which are in predominantly Black/AA CSAs. These investments help to explain why the investment in Black/AA CSAs was so high in FY18. The FY20 trend with higher allocations in CSAs with fewer Black/AA residents was likely driven by water main replacement projects, such as \$10 million for Water Main Rehabilitation in South Street Vicinity/Downtown (557-122) and \$15.4 million for Upper Fells Point & West Canton Water Main Replacements (557-176). In FY23, the data shows a higher allocation in CSAs where Black/AA residents make up 29-90 percent of the population.

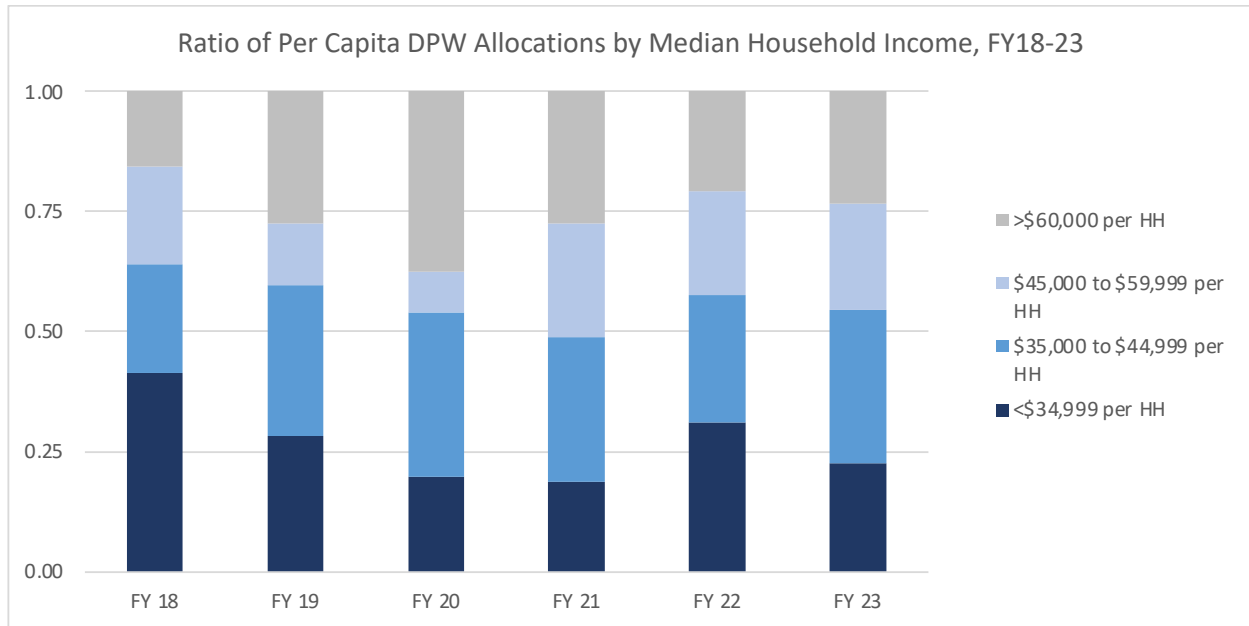


The chart showing all projects excluding DPW shows less variation across the years. The allocations were skewed toward CSAs with fewer than 70 percent Black/AA residents in FY18. Relatively large amounts budgeted for projects downtown likely drove the trend in that year, including \$3 million for City Hall Elevator Upgrades (197-042) and \$32 million in State funding for the Central Library Renovation (457-024). In FY22, the allocations were similar across all quartiles, while in FY23, the neighborhoods in the middle had higher investment than the neighborhoods with the most and least Black/AA residents.

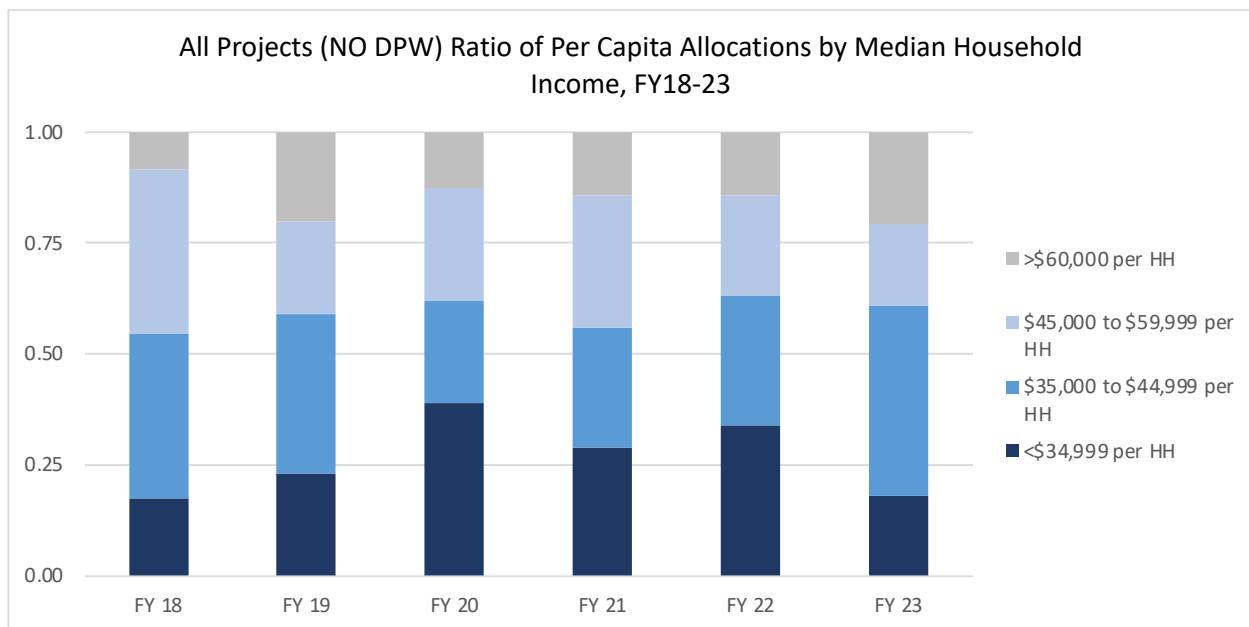


Allocations by Income

The median income in Baltimore in 2017 was \$46,641. Both DPW projects and all other projects show that lower income areas are getting relatively more investment per capita than high-income areas. In DPW’s projects, the highest allocations were in the CSAs with median households ranging from \$34,000 to \$39,000, the second-lowest income quartile. Only in FY 18 and FY22 did the per capita investment in the lowest-income quartile exceed all others.



For all projects excluding DPW, the half of CSAs with the lowest median household incomes had higher allocations than the higher-income CSAs in each year in this analysis. In FY18, FY19, and FY21, the middle-income CSAs had the highest per capita allocations. In FY20 and FY22, the lowest-income quarter of CSAs had the highest per capita allocation. In FY23, the second-lowest income quartile had a far greater share than any others. Harbor East/Little Italy and Penn North/Reservoir Hill are both in this quartile.



Recommendations for Future Analysis

The analysis included in this report is based on the methodology outlined by BNIA in their 2019 Report, “Equity Analysis of Baltimore City’s Capital Improvement Plan, FY2014-FY 2020,” with several important key differences, including splitting out the analysis of DPW versus non-DPW projects and running an informal draft analysis at several points during the CIP process, to better inform decisions as they were being made rather than only looking back. Although this analysis provides an important citywide perspective on public capital investment patterns, location is not the only factor determining whether an investment is equitable. It is also necessary to consider the population served, the importance of the service provided by the investment, and more. In recognition of this, for FY23 agencies were also asked to consider whether and how well a project closes gaps in outcomes based on race, gender, religion, sexual orientation, and income, consistent with the Equity Assessment Program legislation.

The analysis will continue to evolve. Many recommendations from previous years, such as providing more active review of utility funded projects, pushing for better location data, and learning best practices from other cities still apply. One additional recommendation this year is to continue to promote a citywide asset management program. An asset management program will allow greater transparency into the state of repair of various assets across the City. This in turn will allow decision makers to ensure that projects are distributed equitably, while also prioritizing those assets most in need of repair. In 2020, DoP hired an asset management analyst to work with agencies to improve their asset management practices. Agencies are working to collect, store, and analyze data on their assets, and DoP is working to better incorporate this information into capital budgeting decisions. This work is critical to ensuring an equitable capital budget.