

FY22

Capital Improvement Program

Equity Analysis

Annual Update to 2019 Report

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

Introduction

Overview of 2019 Report

Overview of Methodology

FY22 CIP Analysis

- Percent of Dollars Mapped
- Per Capita Investment by Community Statistical Area
- Investment by Race and Income

Recommendations for Future Analysis

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 second annual update to that report, adding data for FY22. The following pages include an overview of the initial report and an analysis of the FY22 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 study 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.

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 actually spent is only known after expenditures are made. Capital projects that fall into this category that were not included in this analysis include 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.

FY22 Analysis

The remainder of this document serves as an update to the 2019 report, covering fiscal year 2022 (FY22). In FY22, the Department of Planning (DoP) pursued one major adjustment to the equity analysis. 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 will be 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. Unfortunately, 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 which demographics are benefitting most from the City's capital investments.

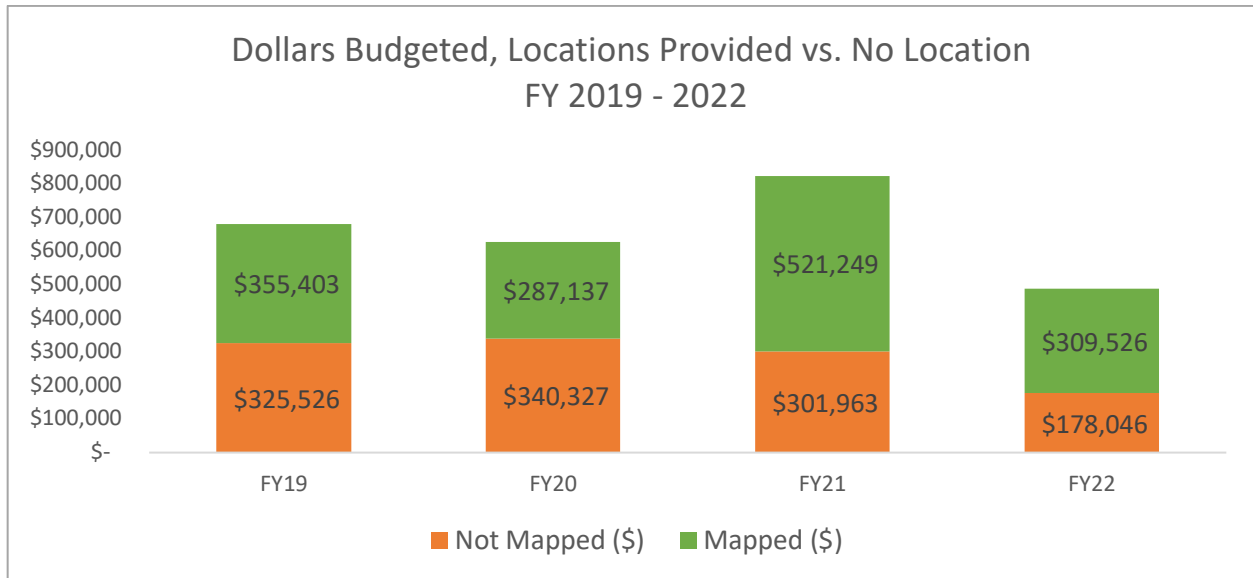
Throughout the analysis, specific projects may be referenced by their CIPI number. The CIPI number is a six-digit code that can be used to cross-reference projects and find additional detail in the reports available on the [CIP Reports website](#).

Percent of Dollars Mapped

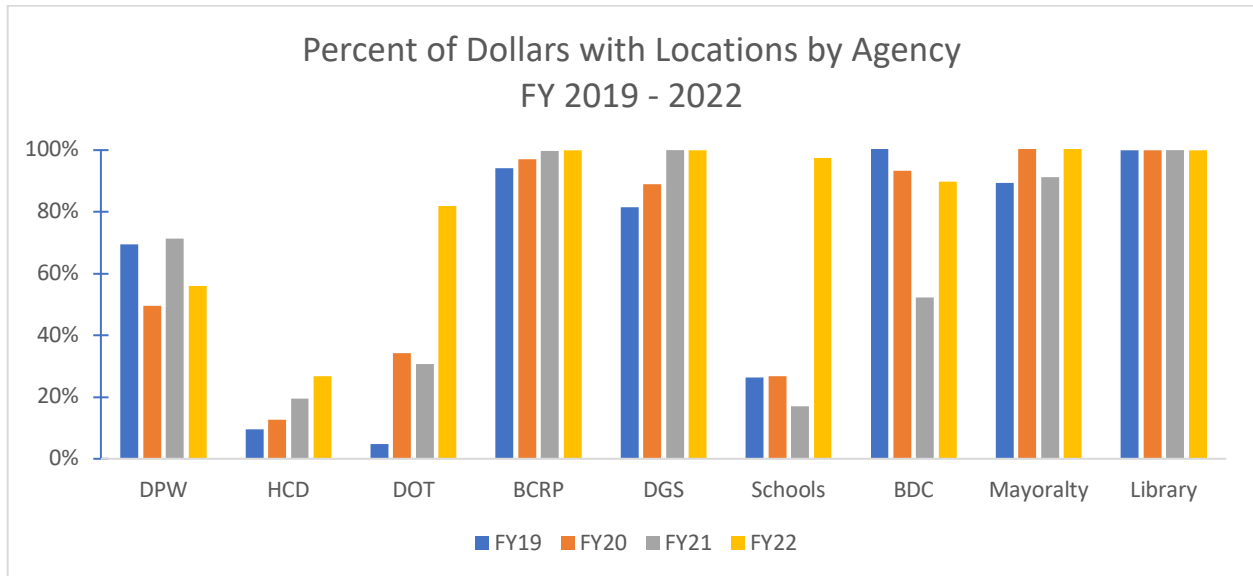
The equity analysis can only be conducted on those projects for which there is location information. In FY22, DoP began requiring agencies to submit a waiver for projects without location information. Acceptable reasons for a waiver include urgent needs, technology projects, or funds to be used for a 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 FY22, \$178 million could not be mapped to a specific location. This is the lowest value of any year since DoP began tracking this metric, which shows progress. The percent of dollars mapped, 63 percent, remained the same as FY21. This is due, at least in part, to the fact that a large portion of the unmapped dollars is in projects for urgent needs in DPW and Department of Transportation (DOT). It is important for these agencies to have funds for urgent needs projects so they can respond to urgent issues with the water, sewer, and transportation systems. Because the FY22 capital budget was small relative to other years, the urgent needs

contracts made up a higher percent of the overall total, resulting in little progress in the percent of projects that can be mapped. Aside from urgent needs contracts, agencies showed significant progress in proactively providing locations for requested funds.



The percent of dollars mapped varies widely by agency. Certain agencies such as General Services, Pratt Library, and Recreation and Parks provide location information for nearly every project. This year, the City School System provided location information for nearly all its projects, which represents an important improvement for this analysis. The Department of Transportation (DOT) also showed significant improvement, this year including locations for projects such as road resurfacing and sidewalk improvements. While many agencies showed significant improvement, the three agencies with the largest capital budgets (DPW, HCD, and DOT) have the lowest percentage of locations mapped, which limits the overall percentage of dollars that can be mapped to a specific location in the capital budget.



Per Capita Investment by Community Statistical Area

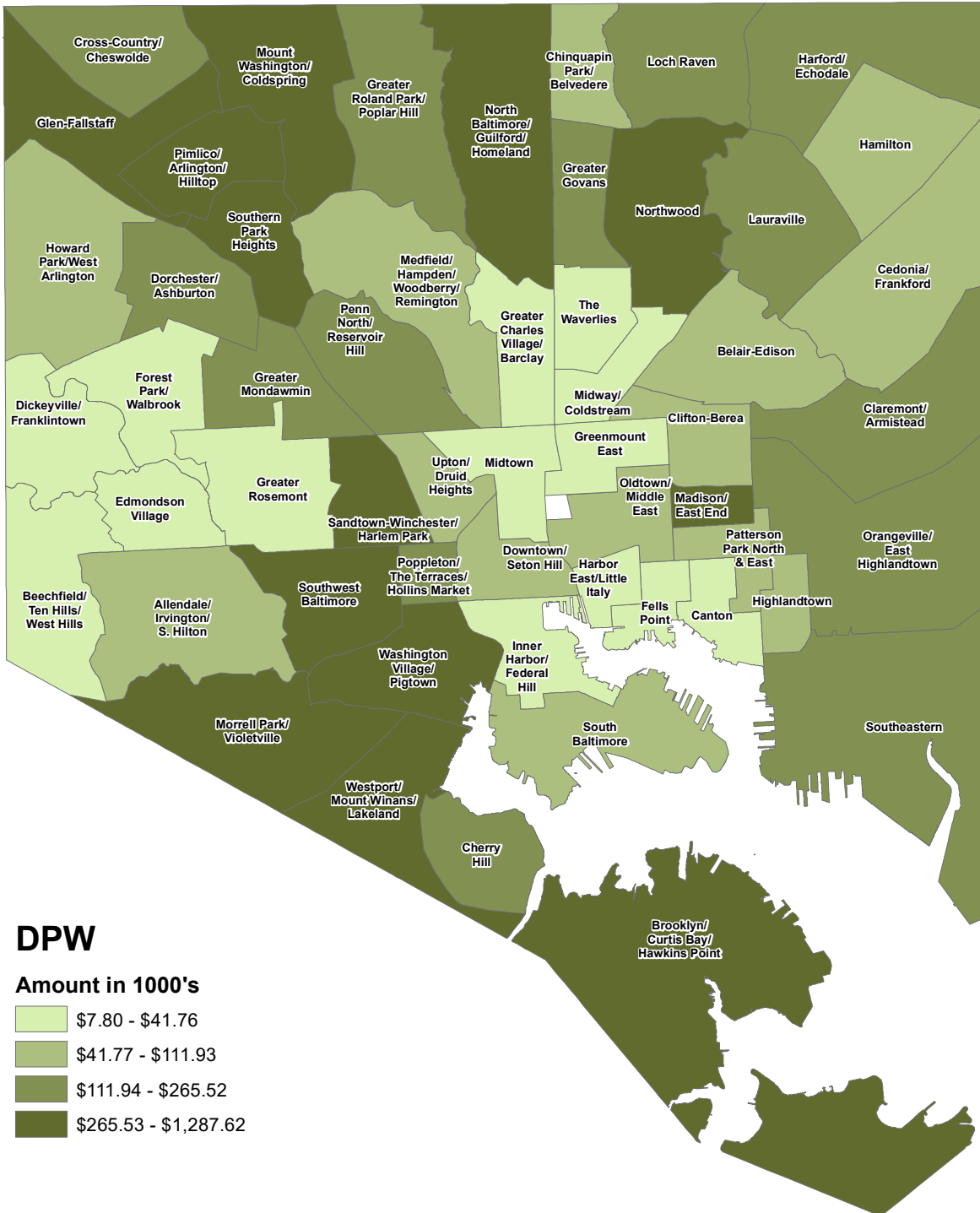
To understand which communities are getting the benefit of investment through the capital budget, DoP maps projects using Geographic Information System (GIS) and attributes the dollars to a Community Statistical Area (CSA). The total allocations are normalized for the population in the CSA to derive 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. For example, DPW requested \$23.3 million in FY22 for Montebello Lake Dredging (557-051). This is the highest dollar amount of any project mapped in FY22 and led to the Northwood CSA having the highest per capita investment of any CSA in the DPW analysis. Other major projects include Jones Falls Sewershed Inflow and Infiltration Reduction (551-132), a \$17.5 million appropriation covering areas of central and west Baltimore, and Water Main Replacement and Rehab at Franklin Square (557-175), a \$14.9 million appropriation in Southwest Baltimore. The large projects tend to overshadow other neighborhood-based investments, which is why DPW is broken out for the analysis. The chart and map below show the CSAs with the highest DPW investment. Many of the CSAs with the highest per capita allocations are in the vicinity of the projects noted above.

Some of these major water and sewer projects, such as the Montebello Lake Dredging, are for infrastructure that serves the entire City. DPW is working to develop a more nuanced equity analysis to better attribute the dollars budgeted to the communities that benefit the most.

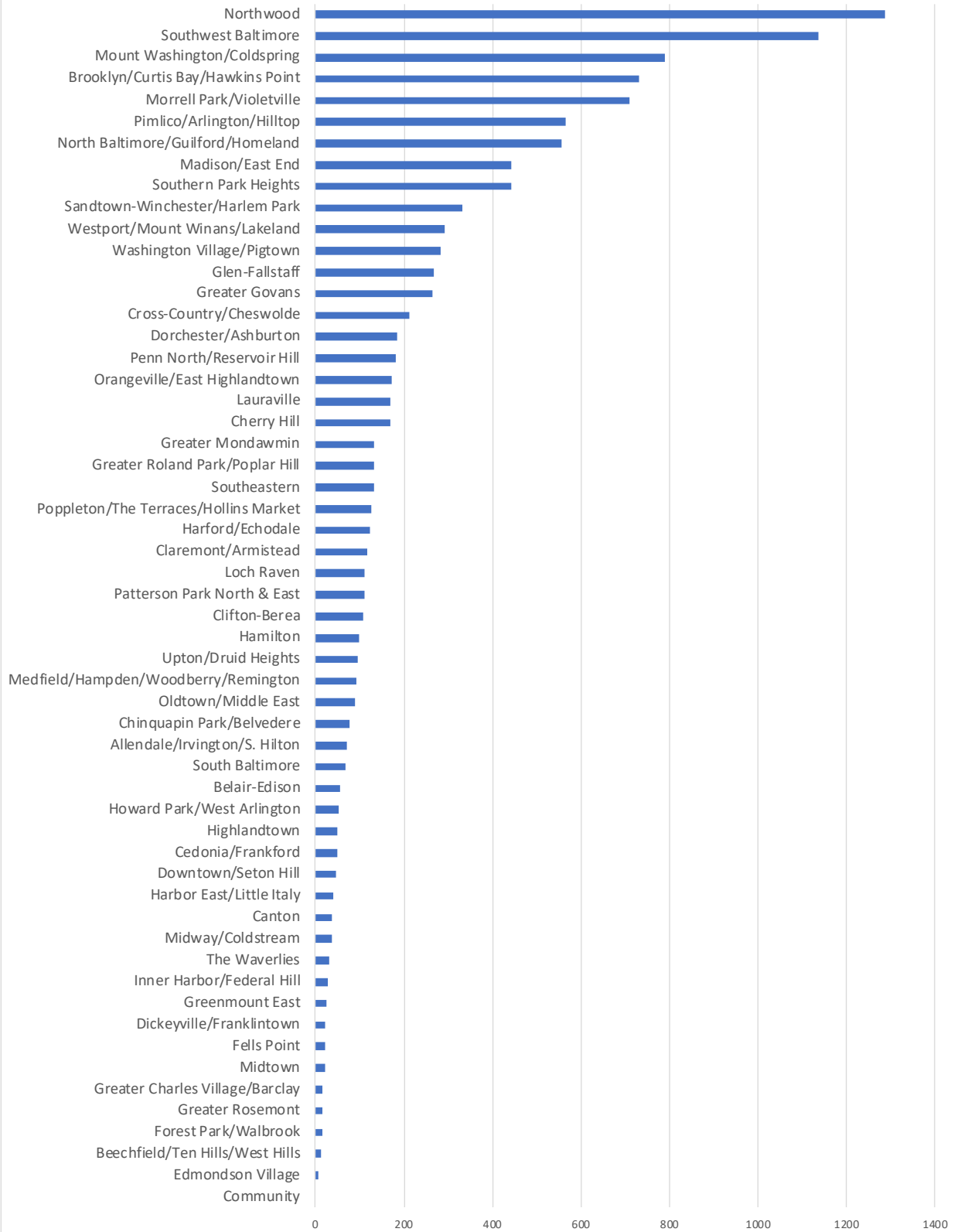
Per Capita CIP Allocations, FY 2022



Per capita is reported as per 1,000 people.

Source: Baltimore City Planning, June 2021

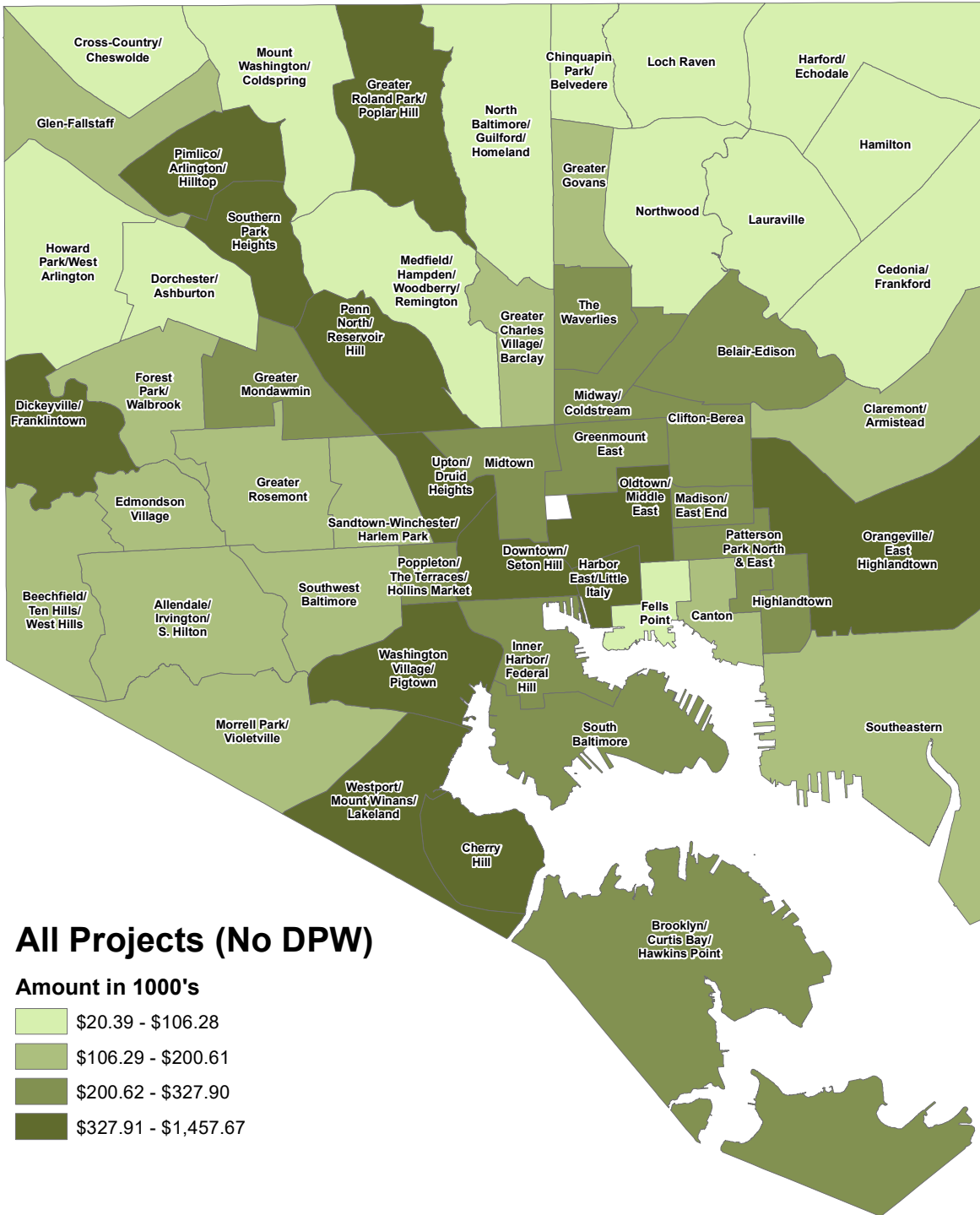
Fiscal Year 2022 DPW Allocations per Capita



Non-DPW Projects

While DPW projects comprised 57 percent of the capital budget in FY22, many non-DPW capital projects have a more tangible and immediate benefit to the communities in which they are located. The CSA with the highest per capita allocation for non-DPW projects is Washington Village/Pigtown. Several high-value projects were in or near this CSA, including \$10.2 million for Russell Street Bridge and Monroe Street Ramp over CSX (507-003), and \$3.6 million for improvements to the Warner Street Entertainment Corridor (601-098).

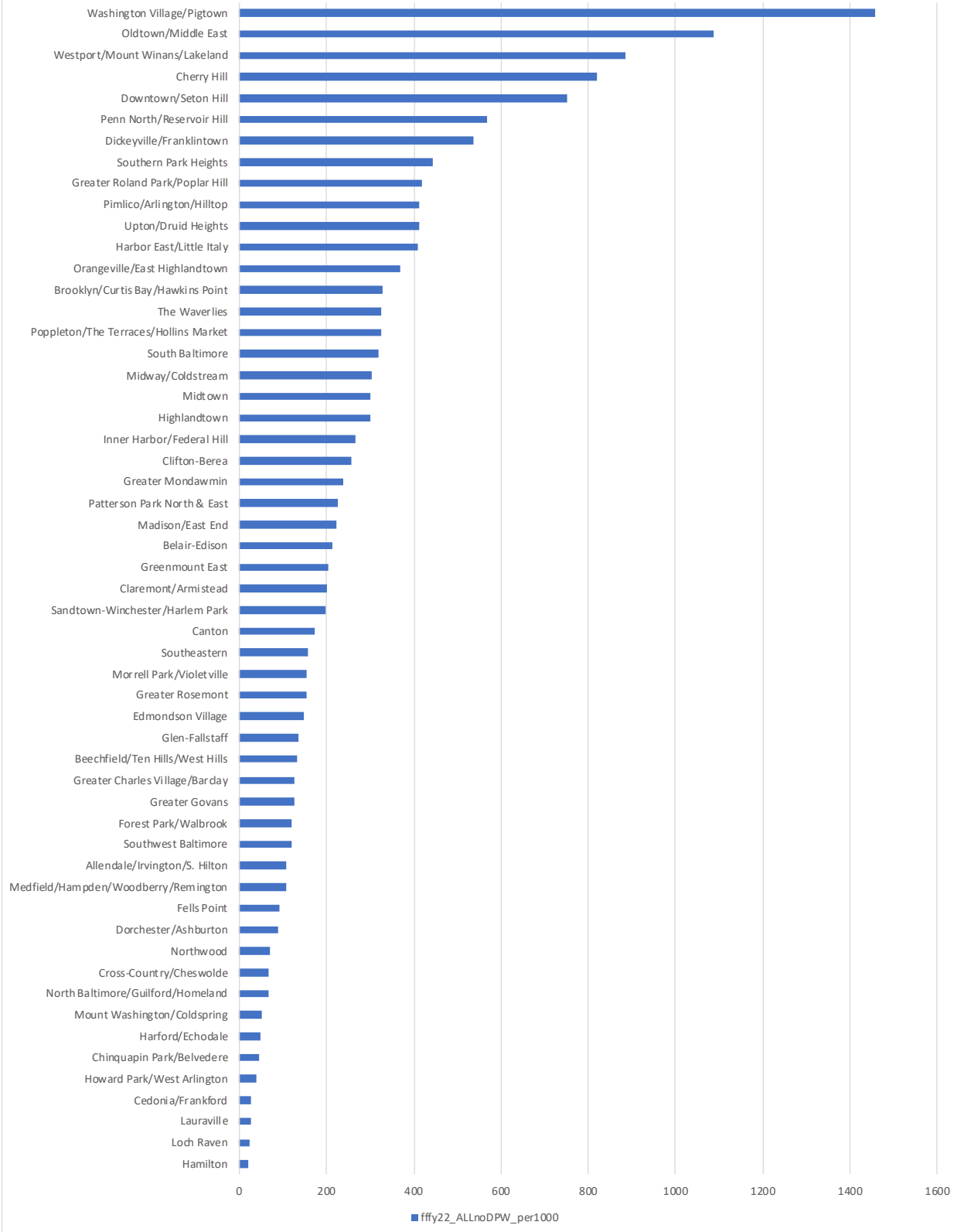
Per Capita CIP Allocations, FY 2022



Per capita is reported as per 1,000 people.

Source: Baltimore City Planning, June 2021

Fiscal Year 2022 Allocations per Capital (All Projects Except DPW)



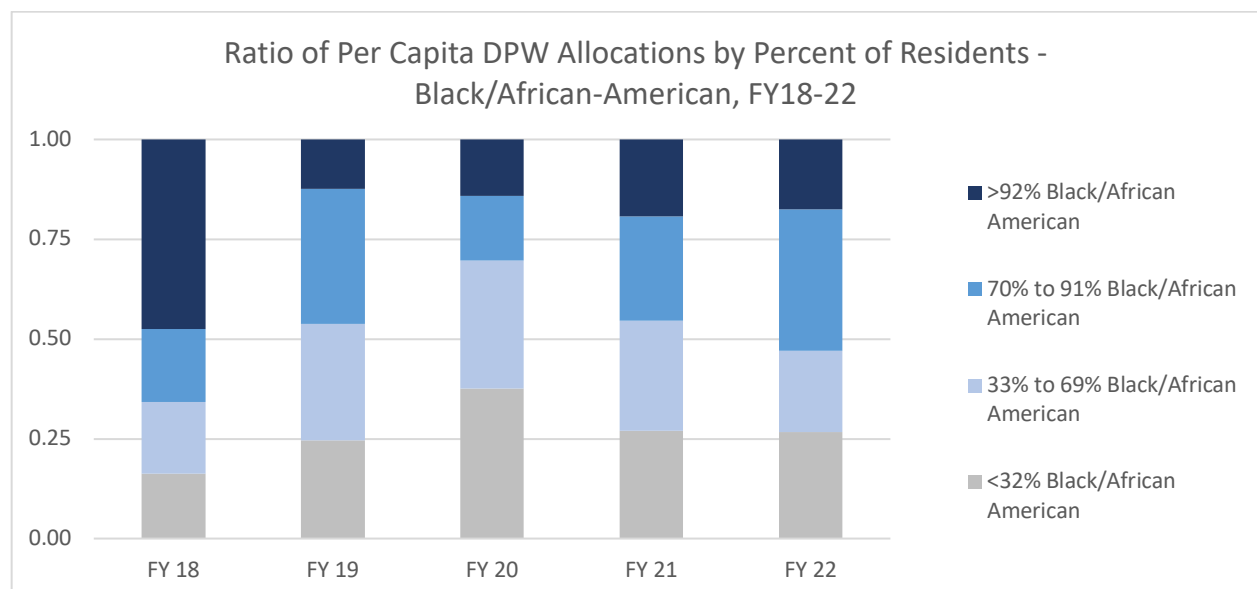
Investment by Race and Income

Allocations by % of Black/African American Residents

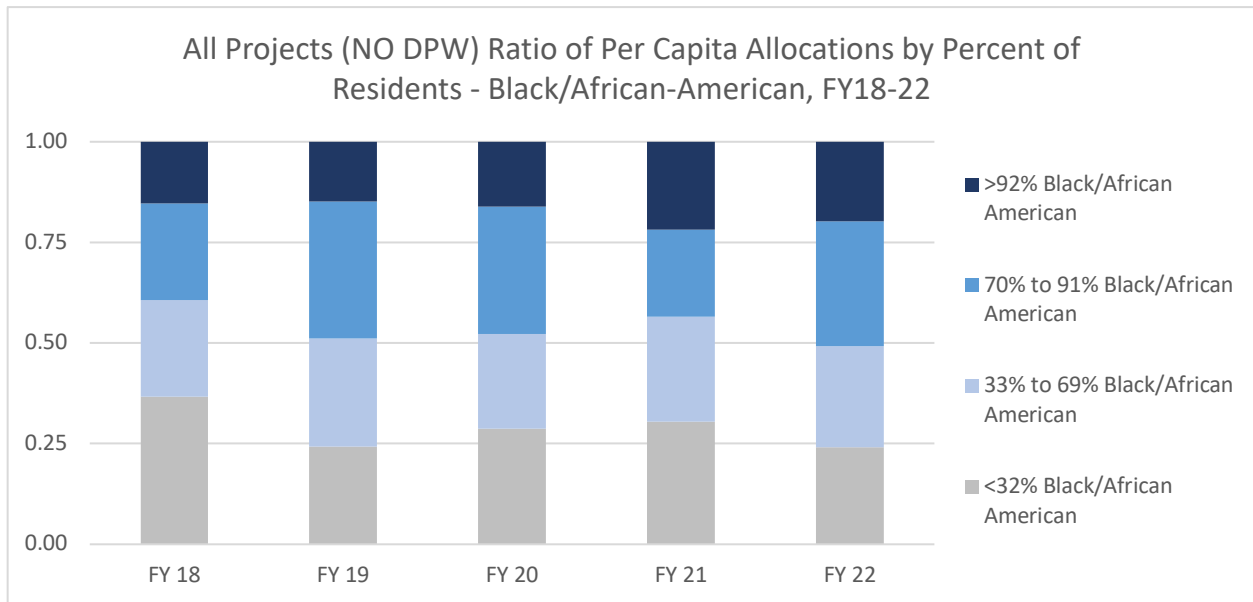
One of the most important goals is to ensure capital budget resources are consciously redistributive towards areas where persons of color make up a large percentage of the population. In 2017, Baltimore had an overall 62.3% Black/African American (AA) population. A quarter of the Community Statistical 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 FY22, the data shows a higher allocation in CSAs where Black/AA residents make up 70-90 percent of the population, which is again likely driven by large water main replacement projects in those communities.

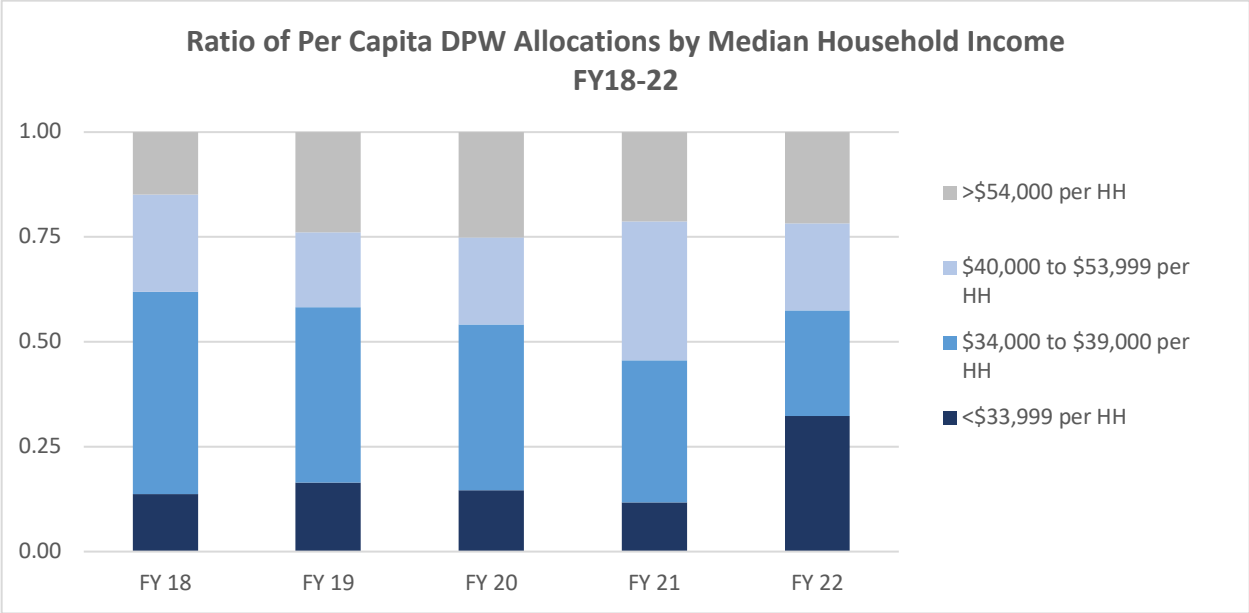


The chart showing all projects excluding DPW shows less variation across the years. The allocations were skewed toward CSAs with fewer than 70 percent Black/AA residents in FY18. Relatively large amounts budgeted for projects downtown likely drove the trend in that year, including \$3 million for City 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.

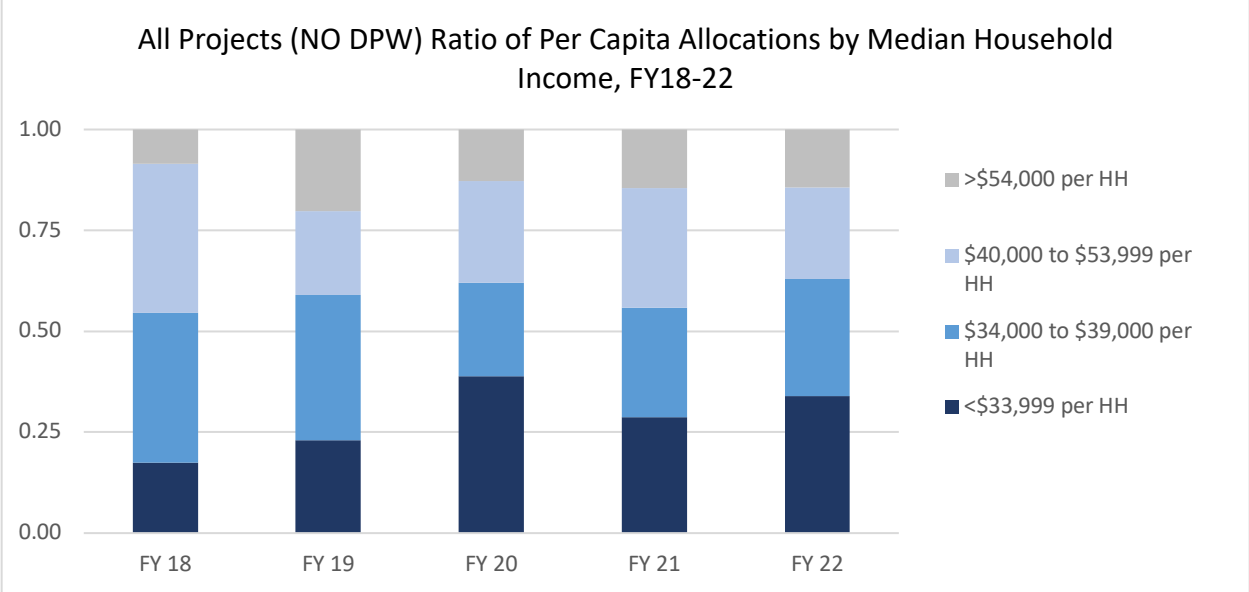


Allocations by Income

The median income in Baltimore in 2017 was \$46,641. Both DPW projects and all other projects show that lower income areas were 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 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.



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 improvements made in the past year. Since the previous analysis, DoP has convened a CIP oversight committee with participation from agencies that participate in the CIP, the Office of Equity and Civil Rights, the Mayor’s Office, and the City Council President’s Office. Also, because of recommendations made last year, DoP split out the analysis of DPW versus non-DPW projects and implemented a waiver process for projects that are submitted without location information. Finally, DoP ran 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. This analysis will continue to evolve, in partnership with the Office of Equity and Civil Rights and other stakeholders. Below are several ideas for ways to further improve the analysis and capital budgeting process:

- **Provide more active review of utility funded projects.** As the Department of Public Works has by far the largest share of the CIP and the highest value projects, the locations of public works projects have the greatest impact on the distribution of investment by CSA, race, and income. While breaking DPW out in this analysis is helpful, DoP could continue to work with DPW to improve transparency and oversight for how projects are selected and funded.
- **Continue to leverage the Equity Assessment Program to require agencies to provide additional location information.** As noted earlier in this report, one of the challenges of conducting the equity analysis is getting information about the location of projects. While there was some progress on this metric this year, particularly for Department of Transportation and the School System, it will be important to continue to find ways to get more and better information about where capital projects are planned.
- **Engage with community stakeholders to understand the impact of projects.** The analysis currently differentiates between projects with local, multi-neighborhood, and citywide impact, but does not consider other ways that projects might have different impacts. Some projects may negatively impact neighborhoods while others have a positive impact; some projects may have a high impact, while others may have a low impact. It is also important to understand how agencies are engaging with community stakeholders about the scope of projects and construction impacts.
- **Learn from best practices from other cities.** At first, there were not many examples of equity analyses from other cities. However, in the last few years many cities have developed equity programs and policies that could help to inform and improve this analysis.