

The Social Determinants of Public Housing Performance

by

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August 2021

Presented to the
College of Public Affairs
University of Baltimore

In partial fulfillment of the
Requirements for the Degree of
DOCTOR OF PUBLIC ADMINISTRATION

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For Emily, Madeline, and Eliza

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Acknowledgements

This dissertation represents a collection of various skills earned through a career of service. To all the Navy chiefs and petty officers who instilled within me a sense of discipline and attention to detail, the senior public managers who shaped my writing style and policy knowledge, and the academic professionals who helped me structure my abstract thought process into a focused work, I am grateful. I wish specifically to thank Dr. John Mulhern at the University of Pennsylvania for introducing me to the field of Public Administration and Bill Tamburrino, former Director of HUD's Baltimore office of Public and Indian Housing, who helped spark the idea of measuring the differences in public housing agency performance.

I would also not have completed this work without my editorial team: my parents, Jim, and Jana, as well as my sister, Dr. Erin Hayden-Baldauf, who have provided invaluable insight on everything I have ever written. Along with the support of my loving wife, Emily, whose patience has miraculously lasted through this nearly five-year endeavor and the birth of our two amazing daughters, Madeline, and Eliza. I love you.

Lastly, I would still be wandering through a forest of ideas were it not for the guidance of the entire faculty at the University of Baltimore and my committee. Dr. Lorenda Naylor and Dr. John Topinka provided insightful direction that opened my eyes to an avenue of inquiry that not only reframed my dissertation research but shifted my approach to public administration as both a scholar and practitioner. And, most importantly, I would like to thank my chair, Dr. John Callahan, who kept me grounded when I would spin off on various tangents and helped me focus. He separated the wheat from the chaff and without that, this work would be incomplete.

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Abstract

For the past twenty years, the U.S. Department of Housing and Urban Development has used the Public Housing Assessment System (PHAS) to measure the performance of local public housing agencies in their implementation of the public housing program. Among the more than 3,500 public housing agencies across the country that operate public housing, there is wide variation in performance scores, with some agencies consistently being rated as “High Performers” and others regularly designated as “Troubled.” However, the factors that can identify and help distinguish the strong from the weak performers remains unclear.

This study examines PHAS through a social equity lens, examining the history of the performance measurement system’s development and its relationship to the residents. Socially constructed as hotbeds of crime and despair, public housing and those who reside in it often bear a negative stigma that influences the policymaking process. This research digs into that stigma and measures the linkages between performance incentives, race, poverty, crime, politics and public housing authorities’ PHAS scores to uncover the social determinants of performance.

While there is no single smoking gun to explain variations in performance scores, the research finds that, despite two decades of use as the standard performance measurement system of the public housing program, there is still little understanding of public housing’s effectiveness in achieving socially equitable outcomes.

Keywords: Performance measurement, public housing, social equity, structural inequality

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List of Acronyms

ACS	American Community Survey
AMP	Asset Management Project
CFP	Capital Fund Program
DOFA	Date of Full Availability
ELI	Extremely Low-Income
FASS	Financial Assessment Subsystem
FDS	Financial Data Schedule
GAO	U.S. General Accounting Office (later Government Accountability Office)
GPRA	Government Performance Results Act
HABC	Housing Authority of Baltimore City
HUD	The U.S. Department of Housing and Urban Development
IPA	Independent Public Accountant
LSS	Lean Six Sigma
MASS	Management Assessment Subsystem
MBO	Management by Objectives
NAHA	National Affordable Housing Act of 1990
OIG	Office of the Inspector General
PASS	Physical Assessment Subsystem
PD&R	Office of Policy Development and Research
PHA	Public Housing Agency/Authority
PHAS	Public Housing Assessment System
PHMAP	Public Housing Management Assessment Program
PPBS	Planning, Programing, and Budgeting System
QHWRA	Quality Housing and Work Responsibility Act of 1998
RAD	Rental Assistance Demonstration Program
RCR	Resident Characteristics Report
REAC	Real Estate Assessment Center
RUCC	Rural-Urban Continuum Code
TANF	Temporary Assistance for Needy Families
TAP	Tenant Accounts Payable
TAR	Tenant Accounts Receivable
TQM	Total Quality Management
UPCE	Uniform Physical Conditions Standards
ZBB	Zero-Based Budgeting

The Social Determinants of Public Housing Performance

For over eight decades, the government of the United States has provided affordable rental housing to millions of its citizens of modest means. Rising out of the Great Depression and the New Deal reforms of the Roosevelt administration, America's public housing has evolved since the passage for the Housing Act of 1937, also known as the Wagner-Stegall Act, from a program designed to address a housing market failure, to assistance for the temporarily "submerged middle class," to becoming the housing of last resort for the "poorest of the poor." Today, the public housing program provides "decent, safe, and sanitary" housing for nearly two million Americans.

Along this arc of public housing, the federal government has made many attempts to evaluate the program's performance to ensure the most efficient expenditure of tax dollars. The U.S. Department of Housing and Urban Development (HUD) is the agency that administers the public housing program and, thus, is charged with ensuring that the money allocated by Congress to provide public housing does precisely that. Complicating this, however, is the fact that public housing itself is not managed directly by the federal government but is instead operated by a collection of nearly four thousand independent public housing authorities (PHAs) nationwide. These PHAs, established primarily by local county or municipal-level jurisdictions, receive federal subsidies to provide low-rent housing to residents who cannot otherwise afford market-rate accommodations. Some PHAs provide clean, well-run apartment complexes in good repair within their modest operating budgets, while other PHAs, unfortunately, do not. Why do some PHAs regularly get recognized as "high performers" by HUD, while others are perpetually "substandard" or "troubled?" In other words, what makes the difference between a "good" housing authority and a "bad" one?

Chapter 1. Statement of the Problem

Public housing has played an integral role in American federal housing policy for nearly a century. It has reshaped the physical, social, economic, and political landscape of cities large and small. Public housing authorities, however, do not operate within a vacuum. Three decades of reform policies aimed at enhancing performance, streamlining operations, and improving housing quality have passed, as well as twenty years of standardized monitoring and inspection. Despite this, there is a dearth of research explicitly examining the underlying factors that differentiate the performance scores of PHAs as measured by the Public Housing Assessment System (PHAS). This dissertation seeks to answer the question, “What effect, if any, do social factors have on public housing agency PHAS scores?” More simply put, “What are the social determinants of public housing performance?”

To better understand PHA performance, this research examines HUD’s PHAS performance measurement system. For two decades, HUD has used PHAS to shape its policy decisions regarding public housing program management and funding calculations. PHAS uses a series of indicators to assess the current state of PHAs, including the physical condition of their properties and their overall management and service delivery. While some indicators may seem straightforward—broken windows and poorly lit stairwells, for example, are easy indicators of poor physical conditions—what is less clear is the reason why those conditions exist within some PHAs and not at others. Other indicators, such as the tenant accounts receivable (TAR) or the capital fund expenditure rate, can tell at least part of the story about how the PHA is performing these functions. Still, such indicators cannot explain *why* a PHA cannot collect the rent or spend capital funds in a timely manner. All PHAs receive their funding based on the same formulas

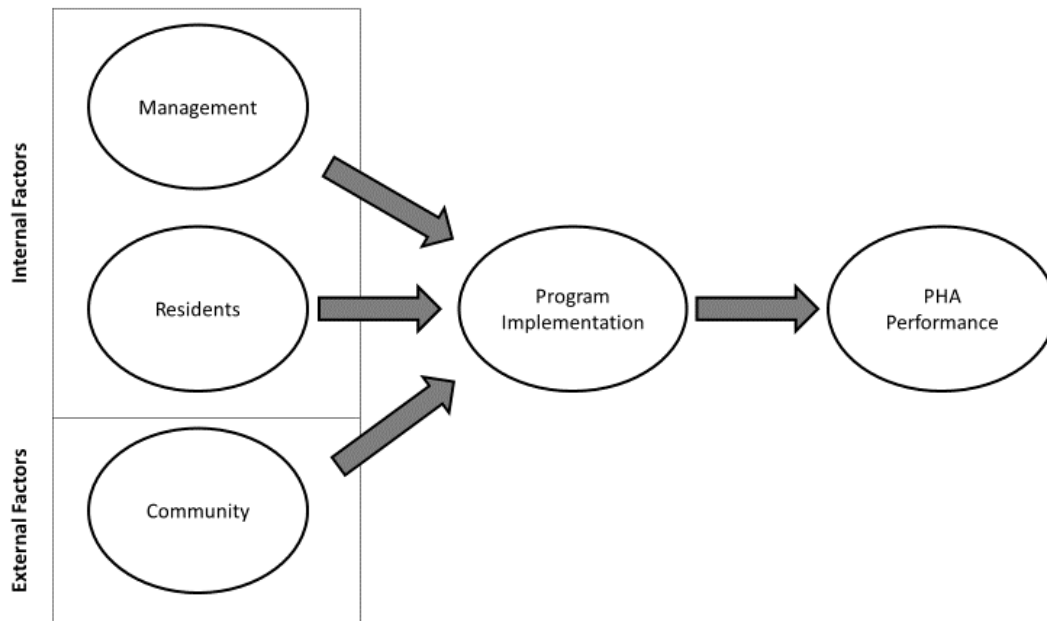
established by HUD and are generally subject to the same rules and regulations. Given this, it is plausible that some other factors are responsible for variations in performance among PHAs.

Purpose of the Study

The purpose of this study is to explain the variance of performance scores in the public housing program. Research has shown that management matters concerning the performance of PHAs (Topinka, 2011). While the PHAS indicators capture how PHA executives manage the public housing program, it is reasonable to assume that not all managers or executives are created equal. This holds true in how executives are compensated, which could potentially influence their respective PHAs' performance.

Additionally, PHAs are not all uniform in terms of the populations they serve. Generally, households are determined to be eligible to live in public housing based on certain income thresholds. However, a lack of financial resources is often not the only significant challenge facing program participants. Population differences could influence service delivery in different ways. So, it is worth examining whether relationships exist between the various characteristics of public housing residents and the performance of their respective PHAs.

Lastly, PHAs and those who manage them are subject to the influences of their surrounding environment. It is reasonable to assume that external factors such as local job opportunities, poverty, crime, politics, and others could influence how a PHA invests in its properties or manages its resources. As seen in Figure 1, this research examines whether such internal or external factors influence the implementation of the public housing program and, thus, impact PHA performance.

Figure 1*Logic Model of the Research Study***Background and Significance**

Since the mid to late 1960s, public housing, particularly in densely populated urban areas, has dramatically declined. A combination of the flight of working lower-middle income families from urban public housing to suburban homeownership, cutbacks in federal subsidies for housing agencies, and income limits set by Congress that exacerbated concentrated poverty led to significant disinvestment by PHAs in the physical condition of their properties. By the 1990s, many housing developments, some of which were built in the 1930s, were crumbling.

In the early 1990s the federal government plunged headlong into the Reinventing Government movement, attributed to Osborne and Gaebler's work of the same name (1992). This movement coincided with other scientific management approaches, such as Total Quality Management (TQM) and Lean and Six Sigma, which gained widespread acceptance in both the public and private sectors (Frederickson et al., 2012). The two leading elements of this effort

were the Government Performance and Results Act (GPRA) and the National Performance Review (Coe, 1997), later renamed the National Partnership for Reinventing Government. At the heart of these reforms, there was an emphasis on using performance measures to identify agencies' successes and failures in achieving their program goals.

As a result of the dilapidated infrastructure and changes in sentiment regarding many social safety net programs (Schill & Wachter, 2001), the mid-1990s brought several notable changes to the public housing program. Welfare-to-Work, HOPE VI, and the Quality Housing and Work Responsibility Act (QHWRA) of 1998 dramatically reshaped America's subsidized housing policy landscape. Out of these reforms, HUD established a new division to monitor the performance of public housing, called the Real Estate Assessment Center (REAC). Central to REAC's mission to remedy the problems of deteriorating public housing was a new performance measurement tool: The Public Housing Assessment System.

During this period, Congress significantly reduced federal spending, putting the future of America's subsidized housing programs for low-income families in doubt. This was due, in no small part, to an ideological shift in Congress with the introduction of the Republican "Contract with America," which cut \$17 billion from the federal budget, \$7 billion of which came from HUD (Stegman, 2002). Out of necessity, HUD was forced to adopt reforms to prove its worth as an agency, as there were serious discussions about dissolving the department entirely (Schill & Wachter, 2001). HUD had to find ways to work smarter, not harder. However, becoming "smarter" as an agency required new intelligence about how program implementation. This drive for new information meant that local PHAs, who are the primary instruments of program implementation, were burdened with new reporting requirements for performance measures few could measure (U.S. General Accounting Office, 2003).

Beginning in 1994, the Government Accountability Office (GAO)¹ had rated HUD as a “high risk” agency based its “weak internal controls, inadequate information and financial management systems, an ineffective organizational structure, and an insufficient mix of staff with the proper skills” (Czerwinski, 2000). HUD began a series of institutional reforms, and by Fiscal Year 2000, it developed a performance plan that “link[ed] the program activities to strategic goals and objectives” and identified outcomes and outputs that “generally are results-oriented and measurable...” (Davis & Radford, 1999). After five years, HUD had begun to find its way. Just the year prior, to monitor PHA compliance with program regulations and their performance relative to established HUD-established goals, the Department developed PHAS. PHAS inspections and compliance became the responsibility of the newly established REAC division.

Initially, there were doubts about the new REAC. As the Office of the Inspector General (OIG) noted, REAC inspections were costing millions of dollars. The development of new information technology to support it was expensive, and there were concerns about the reliability and effectiveness of the inspections themselves (U.S. Government Accountability Office, 2001). Many of those observations are still relevant today. Nearly two decades after PHAS’ adoption, public housing continues its decline, with HUD moving toward tenant-based and project-based vouchers (Kleit & Page, 2008; Olsen, 2006). Thus, it is worth examining how HUD measures the performance of the public housing program and how the Department’s focus on resident data over management data and its organizational culture influences its understanding of the state of public housing.

¹ Previously the U.S. General Accounting Office, established in 1921, the GAO changed its name in 2004 to the U.S. Government Accountability Office.

How Public Housing Performance is Measured: PHAS

More than 3,400 local PHAs administer public housing nationwide. These PHAs serve low-income families generally at the county or municipal level by providing below-market-rate public housing for over 1.8 million Americans with the assistance of two federal grants:

Operating Subsidy and Capital Fund. HUD disburses these grants under the governance of Part 24 of the Code of Federal Regulations. In this sense, HUD acts as a control agency because it oversees the disbursement and use of grant funding to local bureaucracies without directly administering the program itself (Johansen 2014).

The way the PHAS measures PHA performance is through a one-hundred-point scoring system that measures physical, financial, and management conditions, as well as capital fund utilization. The point breakdown for the four indicators is as follows:

- PASS (Physical Assessment Subsystem) – 40 points
- FASS (Financial Assessment Subsystem) – 25 points
- MASS (Management Assessment Subsystem) – 25 points
- CFP (Capital Fund Program) – 10 points

REAC-certified inspectors inspect PHAs on a risk-based “3-2-1” schedule. Agencies that score 90 or above are designated as High Performers and are inspected every third year. In addition to a relaxed inspection schedule, High Performers are awarded bonus funding in their operating subsidy calculation. PHAs with scores between 60 and 90 are Standard Performers. Standard Performers with a score of 80 or above are inspected every second year. All PHAs below 80 points are inspected annually and those PHAs scoring 60 or below are designated as Troubled. REAC provides PHAs with a report of deficiencies to make corrections. The local HUD Field Office can implement “treatments” in the form of training or technical assistance for

PHA management and employees. These treatments are often implemented through onsite visits to PHAs by HUD field staff and involve examining records, financial documentation, and conversations with PHA employees, executives, and board members.

Points for the four indicators are a weighted mean of sub-indicators tallied for individual housing projects. For example, a housing authority may have three separate properties constructed at different times. Each of these properties is called an asset management project (AMP), and each is scored individually. In Baltimore, for example, Gilmor Homes, Latrobe Homes, and Perkins Homes are three different properties owned by the Housing Authority of Baltimore City (HABC). Each is located in separate parts of the city. Each is managed independently by an asset manager responsible for the conditions at their respective housing project. The mean AMP scores, weighted by the number of each AMP's units from these and all HABC's other housing projects, represent the PHA's overall PHAS score.

Several sub-indicators comprise each AMP's score. The MASS score, for example, is based on the occupancy rate, which is worth sixteen points, as well as tenant accounts receivable (TAR) and tenant accounts payable (TAP), which are worth the remaining five points and four points, respectively. PASS, FASS, and CFP all have their own sets of sub-indicators that are similarly calculated.

How Performance Information is Gathered

REAC inspectors are certified, independent contractors. All inspectors are trained to use the Uniform Physical Conditions Standards (UPCS) to evaluate public housing units. Inspection scores and reviews documenting the physical condition are uploaded into the PASS system, and there are quality assurance and technical reviews before a final score is issued. The process is

designed to minimize the ability of the PHA to influence the scoring for a more favorable outcome.

The FASS score is initially calculated on self-reported financial data the PHAs upload into the Financial Data Schedule (FDS) within two months of the end of their respective fiscal years. Within six months of submitting their self-reported data, PHAs must have an independent public accountant (IPA) conduct an audit. REAC calculates an adjusted FASS score once the audit is complete, increasing or decreasing from the original score based on the findings.

The benefit of a duplicative scoring process for FASS is unclear. There is often a wide discrepancy between the unaudited and the audited financial statements. This, in itself, would seem to be an indicator of financial mismanagement. However, there is little evidence to suggest that headquarters examines the underlying factors that cause such discrepancies and that only the final adjusted FASS score is counted in the decision-making process. Some housing authorities, for example, may underreport their unrestricted cash reserves by thousands and sometimes tens of thousands of dollars when compared to the final audit. Still, there seems to be little consequence for these actions.

HUD Measures the “How” but not the “Why”

As stated earlier, the PHAS effectively identifies specific deficiencies at individual housing projects and prescribes corrective action. Thus, it is a reasonably simple back-of-the-envelope calculation to understand how a PHA received the PHAS score that it did in any given year. However, what PHAS does not explain is *why* a housing authority receives the scores it does year after year.

Public housing authorities are comprised of the people who run them, and, like people, they are creatures of habit. They have good years and bad years. Some PHAs are consistently

rated as “High Performers,” while others regularly dip their toes into “Troubled” waters. PHAS allows these PHAs to identify which issues to correct so that they may get out of trouble by the next inspection. Sooner or later, however, the usual suspects tend to tread the 60-point line again within a year or two. These patterns suggest underlying factors beyond what the inspection process captures that influence overall performance. This raises an important question: If PHAS is a tool to indicate the performance of housing authorities, what factors determine variation in PHAS scores? In other words, what drives PHA performance and separates the good housing authorities from the bad? This question is difficult to answer because, while there is a wealth of research on public housing conditions, there is a significant lack of research on the *performance* of public housing.

One possible reason for the lack of research is the types of data HUD accumulates about its programs and makes publicly available. For this reason, it is vital to examine the types of data that HUD collects because such information provides insight into where the agency’s focus lies. Determining the agency’s focus is helpful to understanding what shapes its performance measurement system.

A Wealth of Resident Data

HUD collects a large quantity of information about its program participants, including demographic, employment, and family data via HUD Form 50058, also known as the Family Report. The 50058, or “5-8” for short, collects information for all subsidized participants in both public housing and on the Section 8 Housing Choice Voucher program. It is the primary collection instrument that populates HUD’s Inventory Management System / Public Housing Information Center (IMS/PIC) database.

PIC, as it is generally called, is the nexus for all information regarding the public housing program. PIC records all entrances and exits to the program, calculates rental subsidies, and tracks the occupancy status of every unit at every PHA. Local PHAs enter participant information into the PIC database, and HUD generates reports to monitor each PHA's implementation of the program.

One critical report generated by the PIC system is the Resident Characteristics Report (RCR), which compiles participant statistics from the national level down to the individual housing development. The data reported by the RCR is categorized as follows:

- Unit information
- Income information (Distributions, Averages, Sources)
- Total Tenant Payment (TTP)/Family Type
- Race and Ethnicity
- Household Size
- Length of Stay

This data is regularly updated by the individual PHAs across the county whenever a family enters the program, has an annual recertification, and ends participation. The RCR is publicly available, and reports present a near real-time snapshot of the current population of public housing and Section 8 program participants.

One challenge with the RCR is that it overwrites the data every few months, so it is impossible to query the RCR for past demographic information. However, HUD publishes another dataset, the *Picture of Subsidized Households*, which captures much of the same information as the RCR but provides it as an annual snapshot. This study relies on this second dataset as the source for resident data.

Resident Data's Role in Public Housing Performance

Historically, the data collected on residents have played a minor role in HUD's assessment of its public housing performance. The PHAS indicators and sub-indicators make no mention of resident family size, income level, or racial demographics. However, resident data can inform HUD policymakers and housing experts about the driving factors of public housing performance in ways still unknown. Such data is helpful for broader policy development to provide contextual information regarding the program's populations.

Issues of racial inequality and segregation have been intertwined with public housing policy since its inception (Popkin, 2008; Rothstein, 2012). There is ample evidence of overt discrimination in the siting of public housing developments (Wood, 2015), a fact the verdicts in the landmark fair housing cases, *Gautreaux v. Chicago Housing Authority* and *Thompson v. HUD* recognized. Despite the existence of PHAS for nearly twenty years, however, there is little evidence of any research that explicitly examines race and its relationship to public housing performance scores. It is an area that appears ripe for further investigation.

A Lack of Management Data

If one were looking for variables to analyze potential causes of PHA performance, it would probably make sense to examine those performing the functions of administering the program: the PHAs themselves. In contrast to the resident data, there is a shortage of information about PHAs, particularly those who manage them. Current contact information for executive leadership is infrequently updated, and reports even contain information for housing authorities that no longer exist. The meticulous nature of data collection applied to the program participants appears to be somewhat of an afterthought when collecting information about program administrators.

The lack of accurate data concerning program administrators is essential because, if analyses were to indicate a relationship between public housing residents' race and agency performance scores, similar racial data could reveal disparities that indicate racial discrimination in the delivery of public housing. If, for example, HUD required PHAs to submit diversity information such as the race and gender of the PHA executive director and the board members along with the contact information they typically submit, it could potentially reveal patterns currently unknown to HUD. Are PHA executives representative of the populations they serve? If not, does that have an impact on the performance of the PHA? These are essential questions that, for now, HUD lacks the means to answer.

One source of information on this subject is the *Executive / Deputy Director Compensation Survey* (2019), published by the Public Housing Authorities Directors Association (PHADA), which collects information from its members regarding salary, benefits, education levels, certifications, and the years of experience. Unfortunately, for this study, the survey data provides only regional summary statistics, has high non-response rates, particularly in New England and the New York-New Jersey regions, and does not lend itself to any meaningful analysis. Of the 821 respondents to their survey, however, most of whom represented small PHAs in the Southeast and Midwest, the statistics do present a picture of the executives surveyed:

- 70% female
- 52% have a bachelor's degree or higher
- The median salary is between \$55K and \$65K per year
- 53% have an annual operating budget of less than \$1 Million
- 80% have a pension plan

- 21% have a performance-based pension plan
- 56% received a High Performer rating on their last PHAS score

Management Data's Role in Public Housing Performance

Under PHAS, the MASS score, which is the measure of management performance, boils down to two questions: Does the PHA fill its units, and does it collect the rent? Unfortunately, analysis at the headquarters level rarely goes beyond these scores; it is the field office's role to understand the local conditions that influence the PHAS numbers. For example, a well-managed housing authority in a rural area may suffer from local market conditions beyond the agency's control that cause low occupancy, resulting in a Substandard Management rating. Through its direct interaction with the PHA, the HUD field office may recognize that it serves the current residents well. Still, there is no measurement system or mechanism for disseminating that information beyond the field office. Thus, the public image of the housing authority is the one that is propagated from the headquarters perspective—that the PHA is substandard in its management practices.

While the availability of performance data on housing authorities' that receive and distribute millions of dollars in taxpayer funding is a positive development of the data age, it has some downsides. Board members, most of whom are politically appointed by local elected officials, employ public housing executive directors. For such local officials, lack of knowledge of the nuances of PHAS could lead some to misinterpret the severity of PHAS scores, especially if the PHA is rated as Substandard in an individual category, but not Troubled overall. Overreaction sometimes creates a desire to intervene in PHA management to correct perceived shortcomings when, in most cases, technical assistance from the HUD field office would suffice.

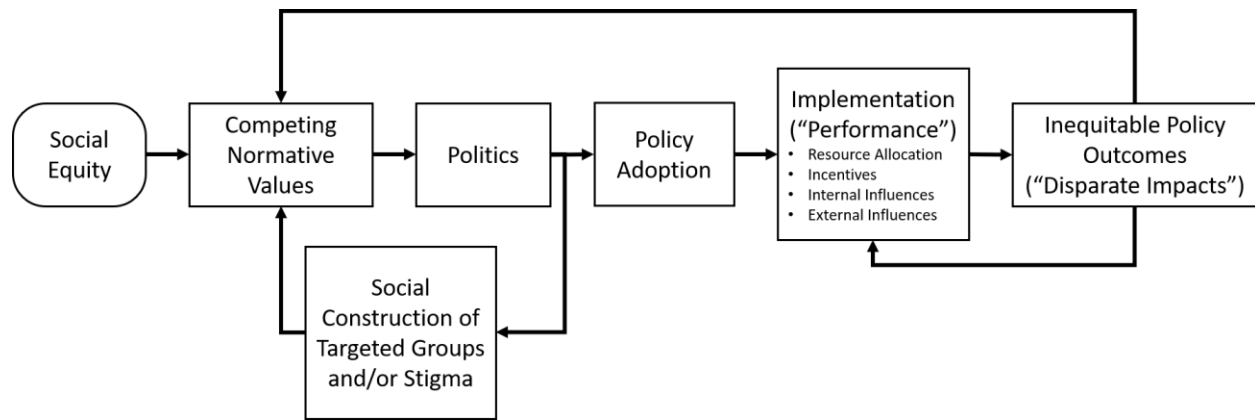
Theoretical Framework

Classical public administration is generally defined as the “efficient, economical, and coordinated management” of various public services (Frederickson, 2010). Efficiency and economy are two of the four pillars of public administration, with effectiveness and social equity being the other two. These four pillars all have one underlying principle in common: sameness or equality (Stone, 2002). Efficiency, for example, seeks equality among inputs and outputs or outcomes—the aim is to reduce waste and get an outcome from a process comparable to the effort put in to achieve it. Similarly, economy seeks equilibrium, whereby the supply equals the demand. In other words, the inputs equal the need; no more. As Frederickson defines it, economy in public administration values the “management of scarce resources and particularly with expending the fewest resources for an agreed upon level of public services” (2010, p. xv). Regarding effectiveness, program or process outcomes should be equal to expectations, i.e., “does this do what it was said it would/should/could do?” Social equity, like the previous three examples, seeks equality either in terms of funding, treatment under the law, program requirements, etc., but asks the question, “For *whom*?” The first three of these pillars—efficiency, economy, and effectiveness—fit easily into a discussion of public housing performance measurement, as some combination of these are often openly cited as reasons for the establishment of performance measurement programs (Behn, 2003; Hatry, 2002, 2006). The fourth, however, has not enjoyed recognition as “an equal among its peers” (Norman-Major, 2011), having not been a primary focus of performance systems. Yet, it is critical to understanding public housing performance. The growing discussion surrounding economic inequality in recent years and its connection to housing (Heathcote et al., 2009; Krivo &

Kaufman, 2004; Smeeding, 2005) only reinforces the necessity of examining public housing performance through a social equity lens.

Achieving social equity in public administration is a process that ultimately influences public agencies' performance, including PHAs. It begins by weighing competing normative values, which can only happen through the political process. Political actors adopt policies, such as the public housing program and subsequent reforms, which must then be implemented. However, political choices about competing normative values are complicated by social constructions of populations who are the target of adopted policies and the stigmas sometimes associated with them. Such social constructions and stigmas, in turn, can have the effect of redefining the normative values that shape the political process.

Implementation of adopted policies occurs primarily among public housing authorities, and how that implementation plays out in the real world is what most would consider “performance.” Numerous elements influence performance, like allocating resources and incentives, including executive compensation, internal agency influences, and external influences. These different factors influencing performance are not equal across all agencies, often leading to inequitable outcomes, also known as disparate impacts. Figure 2 demonstrates this process:

Figure 2*Theoretical Model of Socially Equitable Performance*

As seen in Figure 2, achieving social equity is an asymptotic, not a linear process, meaning that one can infinitely move toward greater equity without attaining it. Perfect agreement about the equity of a policy outcome is unattainable, and disagreement over outcomes resets the bar by which equity is measured by redefining the normative values.

Chapter 2. Review of the Literature

A Brief History of the Performance Movement

The performance management movement has developed into a collection of highly specialized processes, tools, and an overall mindset that has integrated itself with nearly every facet of public administration. At the federal level, the signature legislative achievement of this movement is the Government Performance and Results Act of 1993 (GPRA), which established principles based on efficiency and accountability to reduce wasteful spending and increase performance in government agencies. Shaped by the Reinvention (Osborne & Gaebler, 1992) and managerialism ethos, GPRA created a wave of performance measurement tools that changed how federal agencies delivered services in the decades since its passage. These changes, however, were not spontaneous revelations in management reform but the product of nearly a century of evolving efforts to systemize and scientifically legitimize the processes of distributing public resources and services.

Iterations of government performance management have gone by many names. Some of the more commonly identified terms are performance-based budgeting (PBB), governing for results, results-driven government, new public management (NPM), as well as several others (Anechiarico, 2007; Patrick & French, 2012). The notion of measuring performance to establish performance-based decision-making processes first appeared about three decades after the birth of public administration itself, which traces its lineage to Woodrow Wilson's *The Study of Administration* (1887). The genesis of organizational performance measurement can be traced back to *The Principles of Scientific Management* (Taylor, 1919), which established the concept of planned work activities centered around defined employee competencies. Performance

management lies in a positivist framework of public administration theory, grounded in a belief in empirical, fact-based determinism (Henkel, 1991; Morçöl, 2005).

Attempts to apply scientific management to government gained traction in the Progressive Era by establishing “good-government” organizations like the Economy League of Greater Philadelphia and the New York Bureau of Municipal Research (Nyhan & Marlowe Jr., 1995; Straight, 2000). Good government organizations transformed scientific management principles into a professional civil service in many cities nationwide. Despite the positivist roots of their efforts, it was not their goal to altogether remove politics from government administration but, instead, to systematically enhance the political process and fortify democracy itself. Such organizations established themselves to focus on developing standards of professionalism in government as an alternative to the existing patronage systems of the time. These efforts coincided with a significant influx of predominantly European immigrants and served the additional purpose of encouraging democratic governance among this growing population.

In the post-World War II era through the 1970s, the performance management movement shifted from the Progressive aims of openness and professionalism toward budgeting and resource management. Throughout the 1960s and '70s, the Johnson, Nixon, and Carter administrations each introduced their own budgeting reform initiatives at the federal level. These included, respectively, the Planning, Programing, and Budgeting System (PPBS), Management by Objectives (MBO), and Zero-Based Budgeting (ZBB)(Radin, 2006).

During this time, however, the United States was experiencing significant social and political upheaval. The Civil Rights Movement and the war in Vietnam were catalysts for changing a status quo that was rife with inequalities and injustice. The 1968 Minnowbrook

conference that established the New Public Administration left behind the notion that administration was neutral in the face of injustice and that social equity was to be the chief aim of public administration (Frederickson, 2010) This is not to say that the scientific management adherents, focusing on efficiency and economy, withered away; their inertia would continue to shape policy for decades to come.

By the 1980s, government adoption of performance measures hit its stride with Margaret Thatcher's Financial Management Initiative (Behn, 2008) and the appearance of "public choice" economic theory that helped fuel a conservative anti-government movement (Qiao & Thai, 2002). A neoliberal focus on the application of market discipline and private sector efficiency to government was popularized by Osborne and Gaebler's book, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (1992), which quoted President Bill Clinton as saying, "This book gives us the blueprint." *Reinventing Government* provided the framework for the National Performance Review, later named the National Partnership for Reinventing Government, which paved the way for the Government Performance Results Act of 1993.

The Performance Movement Meets Public Housing

During this period, Congress passed the Cranston-Gonzalez National Affordable Housing Act (NAHA) of 1990, which established the Public Housing Management Assessment Program (PHMAP), the precursor to PHAS. PHMAP (pronounced FEE-map) graded PHAs on a 202-point scale across twelve indicators, seven statutory and five at HUD's discretion that focused on modernization, development, and, as the name suggests, management assessment (U.S. Department of Housing and Urban Development, 1993). Under HUD Secretary Andrew Cuomo and after the passage of QHWRA, the focus shifted from the development of public housing to

asset management, necessitating a simplified version of PHMAP, leading to the creation of PHAS.

The Purposes of Performance Measurement

The chief purpose of performance measurement is to tell public administrators how well they are achieving government goals. The goals of government can generally be summed up as the “four pillars,” mentioned earlier: Efficiency, Economy, Effectiveness, and Social Equity. Despite this, however, Hatry argues that the two key aims of most performance measurement regimes have focused primarily on achieving efficiency and accountability (2002). Many view government accountability as a fundamental building block in the foundation of representative democracy (Ingram et al., 2007). If citizens lack a basic comprehension of how their government works and distributes resources, they begin to lose faith in the belief that the government is working in their interest. Compulsory taxation to pay for the government's goods and services leads to citizen demands that such allocations be distributed efficiently. For this reason, much of the outputs of many performance management reform efforts have emphasized performance *measurement*. The logic is that empirically measured government performance demonstrates that open and efficient management is possible.

Though performance-based reform efforts have mainly been achieving efficiency and accountability, the chief aim of performance management is to adopt systematic analysis and continuous process improvement (Nielsen, 2014). Organizations at all levels of government, from federal to municipal, have experienced a growth in the adoption of tools like CompStat and similar “Stat” systems (Behn, 2006). These include Lean Six Sigma and any of the numerous other measurement instruments borrowed from the private sector, whose acceptance only continues to become more widespread. However, while the adoption of performance

measurement systems has grown over the past two decades, it remains unclear whether adoption alone leads to improved management of public organizations. Arguably, the utilization of performance measurement is insufficient to explain what drives organizational performance.

Some have argued that public policy is a collection of choices weighing competing normative values (Stone, 2002) that does not lend itself well to empirical analysis. Furthermore, the ubiquity of “one-size-fits-all” approaches throughout performance literature (Radin, 2006) does not mesh with the unpredictable nature of policy outcomes. This indicates that the existing body of performance literature lacks a normative explanation of not just how agencies perform as they do but why.

Challenges to the Performance Movement

Utilization: Adoption Versus Implementation

Performance measurement systems in government are not adopted universally. De Lancer Julnes and Holzer (2003) identified a segmentation between adopting and utilizing performance measures. According to their framework, adopting a performance measurement system is influenced mainly by rational, technocratic factors, allowing policymakers to use impartial data to justify their use. On the other hand, implementation is primarily driven by political and cultural factors that require changes in organizational norms. This distinction is important because it highlights the role of politics and culture in defining organizational performance.

Another challenge with using performance measurement systems arises from the intentions of those establishing the criteria to be measured. Hatry (2002) notes that many agencies choose to focus on measurement rather than improvement of outcomes. Outside funders like Congress and other legislative bodies which hold the purse strings seek accountability and push for performance measure adoption instead of internal managers seeking information to

guide program improvement. Thus, the “right things” do not always get measured, which generates misinformation, thereby compromising the decision-making process (Hatry, 2006).

Performance Measurement in a Political Context

The role of Congress (or state legislatures, city councils, etc.) mentioned in the development of performance measures highlights the political nature of measurement regimes. Reference to Lasswell’s definition of politics as a matter of “who gets what, when and how”(1936) in any discussion of public administration and policy development is reflexive. This definition and its ubiquity in public administration literature are likely due to its elegant simplicity, like $E=mc^2$. It follows, then, that the *measurement* of who gets what, when and how is an extension of the definition of politics. Thus, performance measurement of government agencies than their programs is inherently political—a central argument for the development of the New Public Administration in the 1960s and the rejection of the Wilsonian politics-administration dichotomy (Norman-Major, 2011). Therefore, it only makes sense to examine performance measurement in a political context.

Performance measures inform citizens about what the government does with the taxes they pay, and they allow elected officials to ensure accountability for the expenditures it distributes. Such measures also enable program managers to demonstrate how well they conduct their business (Hatry, 2006).

Public policy is about distribution. “Distributive conflict,” (Stone, 2002) can be described as the series of choices that shape the flow of public resources (think dollars, for simplicity’s sake) toward specific groups or individuals. It would violate the American notions of “equal protection of the laws” and that “all [persons] are created equal,” as laid out in the country’s founding documents if one group of people were arbitrarily given a disproportionate distribution

of the public wealth. While this disproportionate distribution often tends to be the ultimate reality, “equity is the goal for all sides in a distributive conflict...” (Stone, 2002).

Suppose a goal of distribution is equity, and the public housing program is a distribution of resources to assist low-income families. In that case, the question arises of whether the public housing is equitable. The rational response might be to examine the current model, compare it to the alternatives, and choose the most equitable one. However, as the political model suggests, the equitable alternative is often ambiguous at best. This is because competing normative values create multiple equally valid definitions of equity. One version of equitable housing would be to say that all people deserve a roof over their heads regardless of income. It is another matter to suggest that all people have the same *quality* of housing. It may not be the government’s responsibility to ensure everyone has a fancy 50-year tile roof, but cheap plywood with holes would hardly qualify as meeting its social responsibility. Or, perhaps, the *process* that selects people for available public housing units would be enough to say whether the program is equitable. Regarding PHAS, a set of standards suggests that public housing residents should expect an equal level of *performance* out of the housing provided to them. These are political decisions, which means the political process has a role in establishing some baseline definition of social equity.

Stigma, Dependent Social Construction, and Performance Measurement

Stigma

A well-documented stigma is associated with subsidized housing programs in the United States and the people they serve. To many Americans, the words “public housing” evoke an image of superblock housing towers like Chicago’s Cabrini Green, St. Louis’s Pruitt-Igoe, and Baltimore’s Lafayette Courts. Such buildings were constructed explicitly to stand out from the

adjacent neighborhoods; it was segregation by design. Such segregation, however, from a Modernist design perspective, was not to achieve racial segregation *per se*, but to design a “better world” (Rowe, 2011). This is evidenced by similar architecture that had been constructed in the post-war years in the United Kingdom, France, Germany, and other industrialized nations that never experienced Jim Crow. However, the separation such designs created from the surrounding communities provided a convenient vehicle to implement racially segregationist policies in the United States. As a result, when the nation experienced skyrocketing crime rates beginning in the late 1960s through the 1980s (U.S. Department of Justice, 2019), large public housing projects were a prominent marker society used to identify the roots of urban social disorder. Media reports promoted the vision of “notorious” public housing (Badger, 2015b), creating an indelible image in the American consciousness that persists today.

Livingston and Porter documented the perception that the presence of public housing residents equated to drugs and crime in “The Great Chicago Migration Myth” (2014). When Chicago demolished its high-rise public housing towers under the HOPE VI program in the early 2000s, residents of Lafayette, Indiana, claimed that a local increase in crime resulted from an influx of displaced public housing residents from the larger city two hours to their north. Livingston and Porter’s analysis of crime patterns and migration patterns from Cook County, Illinois, into Tippecanoe County, Indiana, showed that few families left Chicago after the towers’ demolition. Such presentation of fact did little to quell the myth, as sociologist and associate dean at Purdue University, JoAnn Miller, observed, “There is no shortage of opinions, including prejudicial ones” (Livingston & Porter, 2014). The Chicago myth serves as a perfect example of the *post hoc ergo propter hoc* logical fallacy—the notion that, just because a perceived change occurs after an event, it must be that event and no others that caused the change.

Goffman (1963) identified three types of stigma: physical stigma, which relates to bodily deformities; the stigma of character blemishes, which includes stigmas associated with deviant behavior; and stigma of group identity, which includes racial or ethnic groups. Williamson (1974) argued that public dependency, of which public housing is included, was generally related to the second type because it is seen as a character defect. Still, the third type may also be a factor as the stigma corresponds with programs associated with marginalized groups. One of the answers to the question of why receiving public assistance is stigmatized can be found in labeling theory (Williamson, 1974) because recipients are labeled as deviants (Huttman, 1970). Public opinion of the poor throughout American history has been generally negative, especially in periods of prosperity. The Great Depression may have reduced some of the stigma associated with poverty and public dependence because a larger cross-section of the American public shared this experience. Conditions created a policy window (Kingdon, 1995) that allowed a policy entrepreneur like President Franklin Roosevelt to push through his New Deal agenda, thereby establishing a national public housing program. Despite subsequent periods of prosperity and recession since that time, most Americans enjoy a high standard of living relative to the conditions of the Great Depression. Those who cannot achieve this standard are seen as deviating from it.

Dependent Social Construction

When stigma transforms into policy, it manifests itself as restricted benefits and higher sanctions or burdens for stigmatized groups. Policy design theory (Ingram et al., 2007; A. Schneider & Ingram, 1993; A. L. Schneider & Ingram, 1997) examines how public policies are designed to either benefit or burden socially constructed “target populations,” and that policymakers’ social constructions of such populations become self-perpetuating. Positively

constructed groups receive the greatest share of public benefits through direct budget expenditures, favorable tax advantages, and reduced regulation and oversight. Their outsized benefit distribution reinforces their social and political capital, which, in turn, perpetuates their positive image. The opposite is true of negatively constructed groups, which receive more burdens than benefits, reinforcing their negative image. Within his framework, programs designed to benefit populations who depend on public assistance, which would include the public housing program, are classified into four categories: Advantaged, Contenders, Dependents, and Deviants (Ingram et al., 2007). Their classification of deviants differs somewhat from Huttman (1970), who identified deviants as those outside the social norm. Schneider and Ingram classify deviants as those whom society views as having little or no redeeming value, who lack any political power and deserve only sanctions with little to no public benefits. Examples of deviants in this classification would be prisoners and terrorists. Their classification of Dependents, in which they identified “welfare mothers” as belonging to this group because of their construction as being “generally good, but less deserving of public benefits” (Ingram et al., 2007), would closely fit the characteristics of public housing recipients. Dependents receive public benefits, but often with strict controls, means testing, and other restrictive administrative burdens. This is apparent by examining the legislation proposing drug testing of welfare recipients and constraining the food choices of Temporary Assistance for Needy Families (TANF) recipients (Badger, 2015a). Public housing is no exception. Despite offering some reforms to the public housing program to help alleviate the concentration of poverty, the Quality Housing and *Work Responsibility* Act of 1998, in name alone, suggested the target population of the reforms was inherently irresponsible and in need of reform. In other words, it was a defect of residents’ character that placed them in public housing.

Diminished Resource Allocations for Housing Programs

In 1973, President Richard Nixon declared a moratorium on the construction of new public housing and redistributed public housing funds toward the newly created Section 8 program. A later wave of neoliberalism in the 1980's ushered in a shift toward market discipline and privatization of public social welfare programs, which has been responsible for the "dismantling" of America's public housing (Goetz, 2012). Much of this shift toward a more privatized form of government focused on reducing the size of the welfare state in general, of which housing programs were a substantial part (Kemp, 1995). As part of this shift, lawmakers have cut public assistance programs by enacting policies that "rely on a distinction between the deserving and undeserving poor" (Reid, 2017).

Congress passed QHWRA intending to redevelop distressed public housing through the HOPE VI program and deconcentrating poverty. However, an amendment to QHWRA known as the Faircloth Amendment, named after the one-term Republican senator from North Carolina who introduced it, had the far-reaching effect of ensuring the declination of America's public housing stock by prohibiting the use of redevelopment funding that would result in a net increase of existing public housing units at the time. The Faircloth Amendment set the cap of housing units at the level in existence at the beginning of FY1999, with redevelopment limited only to replacement housing. By preventing any expansion of the public housing program, the Faircloth Amendment removed the public housing program from the list of viable options to address any future housing shortages.

Since the passage of QHWRA and the development of the HOPE VI program, the number of units in America's affordable housing stock has been on a sharp decline. Additionally, Congress has not fully funded PHAs based on their funding calculations, choosing instead to

allocate pro-rata funding that changes from year to year. In 2010, HUD estimated the funding shortfall in the unmet capital needs within public housing to be approximately \$26 billion and growing by an additional \$3.6 billion annually (Blom, 2018). As a result of the massive capital expenditures that Congress has indicated it does not have the appetite to spend, HUD has opted for new options to “reposition” public housing. Repositioning happens either by mortgaging public housing properties to attract private redevelopment funding through the Rental Assistance Demonstration (RAD) program or simple demolition and releases of the deeds of trust. Under these scenarios, housing assistance is converted to voucher-based assistance.

The 1973 moratorium, QHWA, the Faircloth Amendment, and HOPE VI all had various impacts on public housing redevelopment. Such policy changes have created a wide range in the nation’s public housing stock age, with many still operating since the program’s founding. The management challenges posed by the state of the nation’s public housing infrastructure and their effect on agency performance are ripe for examination.

Performance Disparities in Housing Assistance Programs

One measure that factors into the PHAS calculation is occupancy. Housing authorities are provided with federal dollars to house families, and, therefore, it would seem reasonable to ensure that PHAs are utilizing all available units to serve residents. HUD requires a 96 percent occupancy rate to award the full point allocation. The benefits of achieving a higher score are that the PHA has less frequent inspections—high performers are inspected once every three years—in addition to receiving bonus funding. The logic seems to be that rewarding success served to incentivize higher PHA performance. However, occupancy measures disproportionately affect smaller PHAs in rural communities, as even minor resident turnover changes can substantially impact scores. A difference of only a handful of families moving in or

out could change both the amount of scrutiny and the level of funding a small PHA receives in a way that would not matter much to a larger organization.

Another challenge with such measures is that these organizations are held to the same standards despite experiencing vastly different market conditions. Cities offer greater economic opportunities, and many will continue experiencing a population increase over the next several decades (United Nations Department of Economic and Social Affairs, 2018). As a result, sizeable urban housing authorities often have waiting lists that are several years long. Meanwhile, many rural housing authorities lack the market demand even to have a waiting list and offer immediate occupancy to any qualified households. These housing authorities still provide safe, decent, affordable housing in an area where private enterprise has not provided comparable housing stock. Yet, they are penalized by a scoring system designed for a different type of organization in an entirely different market.

Chapter Summary

On its face, the influence of scientific management, the performance management movement, and its many iterations throughout the 20th century on the development of PHAS is readily apparent. The linkages between the literature and the legislation that led to PHAS are clear. One of the authors of *Reinventing Government*, for example, was even an architect of the National Performance Review, which was the wellspring of the subsequent federal performance management initiatives of the 1990s and early 2000s. The literature also shows that the implementation of such initiatives, while rooted in the quest for seemingly objective performance measures, is inherently political. And so, much of the evolution of the performance management movement can explain the creation of PHAS and what shaped it into what it is today.

However, there is an alternative and equally compelling theoretical foundation that indicates PHAS as being a product of the social constructions of both the public housing program and its residents. Because performance measurement is inherently political, the literature shows, it is the socially constructed heuristics used by politicians that shape policy design of performance measurement programs. Such theory suggests the stigma, which is simply a negative social construction associated with public housing and its residents, particularly its residents of color, is baked into the design of the PHAS system. As Frederickson states, “the most productive governments, the most efficient governments, and the most economizing governments can still be perpetuating poverty, inequality of opportunity, and injustice”(2010). Selection of measures that can indicate disparities in the distribution of public housing and identify potentially stigmatizing influences is essential to develop a deeper understanding of PHA performance. Chapter 3 explains the methodology used to test several hypotheses based on these theories.

Chapter 3. Research Methodology

Quantitative Research Design: A Two-Pronged Approach

The comparative factors to be examined are divided into two broad categories: internal and external. Internal factors are those characteristics that vary among PHAs. External factors are those characteristics of the surrounding environment in which PHAs operate. This analysis focuses on both to develop a comprehensive view of the possible influences on performance.

The purpose of this approach serves several aims. From a performance management standpoint, only one of the variables—executive compensation—would be, for the most part, within the control of a public housing authority.² Assuming they engage in fair housing practices, PHAs generally do not control their residents' racial makeup and should admit participants to the program based on their eligibility criteria. Furthermore, PHAS scores are supposed to measure the performance of a PHA and should be “colorblind.” Examining race at a PHA level as well as a county level, however, can shed light on possible unfair housing practices. For example, a county may have a primarily white population, but the public housing in that county has a significant non-white majority of residents. It is possible that public housing is the only viable option for people of color in a county with discriminatory practices in either the private housing market or employment sector. Such an indication would warrant further examination for other policymakers at either the state or federal level.

Scope of the Study

The study aims to analyze performance across America’s public housing stock by examining a sample of public housing agencies nationwide. Table 3-1 summarizes the number of

² HUD places a maximum cap on the amount of a PHA director’s salary that can come from the federal operating subsidy, but some directors may also have a portion of their total compensation provided by the municipal or county government.

PHAs that will be included in the study. Using 2017 as the sample year, which is discussed further in the section on data collection, the HUD dataset listed a total population of 3,621 PHAs with an active public housing program, of which 1,794 PHAs, approximately fifty percent, had a PHAS assessment score in that year. Still, only 1,621 also had corresponding data regarding the number of units at the PHA. The United States and its territories have 3,143 counties and county-equivalents, of which 1,151, or approximately thirty-seven (37) percent, had one or more PHAs operating public housing within them in 2017.

Table 3-1

Summary of HUD Datasets for Study (2017)

PHAs in the United States	PHAs with PHAS scores and unit count data	Counties with weighted mean PHAS scores
3,621	1,621	1,151

The study does not include PHAs that operate under a Moving-to-Work (MTW) agreement because they do not have the exact program requirements as non-MTW agencies that run most of the nation’s public housing. Additionally, housing agencies that converted their portfolios under the Rental Assistance Demonstration (RAD) program to project-based vouchers were not included in the analysis, as their programs are no longer considered public housing. Some of these RAD-converted PHAs remain in the PIC database, but they contain no building or unit data. It is possible to compare performance across multiple counties by calculating the mean PHAS scores for each county, weighted by the number of units each PHA operates within a given county. PHAs with zero units do not distort or dilute the performance scores of PHAs with operational public housing programs, as null values carry no weight in the calculation.

Data Collection

This study compiles data from several datasets published by REAC and HUD's Office of Policy Development and Research (PD&R). These datasets formed the basis of the internal factor analysis. It also relied upon census data from the American Community Survey (ACS), the U.S. Department of Agriculture's Economic Research Service (ERS), the Opportunity Nation initiative, and the Massachusetts Institute of Technology (MIT) to establish a set of independent variables for the external analysis.

The HUD data on executive compensation covers the years 2014 and 2017. Among these two years, the PHAS data for 2017 covered a relatively more significant percentage of the overall population of PHAs nationwide. This study focused solely on the year 2017, as it generated a more complete dataset.

"Internal" Factors to Influence Performance**PHA Data: Executive Compensation.**

PHA boards and appointing authorities may use executive compensation as an incentive to achieve higher levels of agency performance. Assuming that higher-performing executives are compensated in a manner that reflects the performance of agencies they are hired to lead, one could expect to see a positive correlation between compensation levels and PHAS scores. However, leading larger complex agencies carries with it significantly more responsibilities. The largest agencies are in dense urban areas, which would likely have tighter market competition for experienced executive talent. Such competition could generate higher levels of compensation than in less populated communities. Therefore, this study measures the size of an expected positive correlation between executive compensation and PHAS scores after controlling for

agency size. This analysis segments the data using HUD’s agency size classification, as listed in Table 3-2, with regression coefficients calculated for each type:

Table 3-2

Number of PHAs with PHAS scores by HUD agency size classification

PHA Size Classification	Number of PHAs with PHAS score (2017)
Very Small (0 to 49 units)	340
Small (50 to 249 units)	706
Low Medium (250 to 499 units)	334
High Medium (500 to 1,249 units)	162
Large (1,250 to 9,999 units)	79
Very Large (>10,000 units)	1
Total	1,621

PHA Data: Building Age.

Older public housing buildings generally have higher physical demands as they are less energy-efficient, and aging heating, plumbing, lighting, and other systems are susceptible to breakdown, creating higher maintenance costs. Maintaining such infrastructure presents a set of challenges for PHA managers. This study examines whether the age of the public housing infrastructure explains variation in performance.

For its funding calculations, HUD uses the Date of Full Availability (DOFA), which is the date that a public housing project first began operation. Housing authorities may have multiple projects, each built at various times, each with their own DOFA date. HUD calculates a PHA’s average weighted DOFA date—the average of all project DOFA dates weighted by the number of their respective units—to assess the amount of capital funding the PHA requires. This

study uses this same method to calculate each PHA's average weighted DOFA date and examine whether a relationship exists between the age of a PHA's building and its overall performance.

Resident Data: Race.

As evidenced by the literature, the prevailing narrative of public housing is one of distressed, poorly managed housing with high minority concentrations. Survey data shows that 37% of Americans believe most public housing recipients are Black (Huffington Post / YouGov, 2018). While not the majority, Black residents do have disproportionately high representation in public housing. About 48 percent of public housing residents identify as Black Non-Hispanic, and the slim majority of public housing residents are, in fact, White (U.S. Department of Housing and Urban Development, 2020b). By comparison, Black Americans represent only 13.4 percent of the U.S. population (U.S. Census Bureau, 2020a). To test the negative association of minority populations with public housing performance, this study examines the relationship, if any, between the percentage of Black public housing residents and their respective PHAs' PHAS scores. From a management perspective, while public housing managers have little control over the racial makeup of their agencies' resident populations, information about the nature of the relationship could potentially allow managers to change the general perception of their program.

Resident Data: Poverty.

QHWRA and HOPE VI aimed to reduce concentrated poverty and create more mixed-income communities. HUD identified increased costs for local governments, including public housing authorities, as one of the five "wide-ranging" impacts of concentrated poverty (2013). While many PHAs have made efforts to redevelop and build more mixed-income communities,

many others have high percentages of residents who qualify as extremely low-income (ELI).³

This study examines the relationship, if any, between the percentage of ELI residents and PHAS scores.

“External” Factors to Influence Performance

Race.

Given the historical evidence of racial segregation in the public housing program, both with regards to its resident population as well as the siting of public housing projects in marginalized communities, this study examines the relationships between not just the racial composition of PHA residents, as listed in the “internal” factors, but in the counties in which PHAs operate as well.

De jure segregation of public housing ended with the Civil Rights Act of 1964, but de facto segregation remains (Rothstein, 2012, 2017). This is evidenced by the lack of what this study calls “racial reflectivity,” where a PHA’s resident population is reflective or closely represents the surrounding area's population. By adapting the concept of the *Racial Dissimilarity Index*, which “measures the percentage of a group's population in a county that would have to move Census tracts for each tract in the county to have the same percentage of that group as the whole county” (Federal Reserve Bank of St. Louis, 2020), this study substitutes the tract-level population data with public housing resident data. This method gives the percentage of a group’s population who would have to move into or out of public housing to have the same percentage of that group as the whole county.

³ QHWA created a new income category based on 30 percent of median family income. In 1999, a statutory change tied this category to the Section 8 very low-income limits and redefined extremely low-income as the greater of 30/50ths (60 percent) of the Section 8 very low-income limit or the poverty guideline as established by the Department of Health and Human Services (HHS). This was further clarified in 2014 so that extremely low-income calculations could not be higher than the very low-income threshold. (U.S. Department of Housing and Urban Development, 2020a)

For example, the public housing resident population of Wicomico County, Maryland is nine percent (9%) White and ninety percent (90%) Black (U.S. Department of Housing and Urban Development, 2020b). In contrast, the overall population of Wicomico County is sixty-six percent (66%) White and twenty-seven percent (27%) Black (U.S. Census Bureau, 2020b). Wicomico serves as an example of low racial reflectivity, whereas the public housing population in Allegany County, Maryland, by comparison, is eighty-eight percent (88%) White and eleven percent (11%) Black, which is more reflective of a county that is also eighty-eight percent (88%) White and eight percent (8%) Black. This study measures the racial reflectivity of public housing relative to its surrounding environment by calculating the difference between public housing and county race data. By subtracting the percentage of any given racial category in public housing from the percentage of that same racial group within the entire county, it is possible to calculate the absolute value of the difference and establish a reflectivity score ranging from zero to ninety-eight. A score of zero represents perfect reflectivity because there is no difference between the public housing and the county percentages. A county with ninety-nine percent of one race but only once percent of that same race in public housing would be the least reflective score, making a difference of ninety-eight percent. A county with one hundred percent of a single race would, by default, have one hundred percent of its public housing residents being of that same race and, thus, would have perfect reflectivity.

Nationally, ninety-six percent (96%) of the population of public housing residents are categorized as either “White Only” or “Black/African American Only.”(U.S. Department of Housing and Urban Development, 2020b). As seen in

Table 3-3, HUD and the U.S. Census Bureau use different categorizations in identifying racial and ethnic groups. The two closest comparison groups between these two agencies' datasets are those for White and Black persons.

Table 3-3

Racial categories used by HUD⁴ and the Census Bureau

HUD	Census Bureau
White Non-Hispanic	White alone
Black Non-Hispanic	Black or African American alone
Native American Non-Hispanic	American Indian and Alaska Native alone
Asian or Pacific Islander Non-Hispanic	Asian alone
White Hispanic	Native Hawaiian and Other Pacific Islander alone
Black Hispanic	Two or more races
Other Hispanic	Hispanic or Latino
Other Race	White alone, not Hispanic or Latino

Crime.

As identified throughout the literature, the association of public housing with crime is ubiquitous. Much of the literature focuses on the impact that public housing has on crime rates in the surrounding area. However, crime also impacts public housing authorities. Vandalism adds additional maintenance costs, and drug activity can render units uninhabitable. Violent crime directly affects residents' ability to live in public housing and employees' ability to operate safe, affordable housing. For these reasons, this study compares the *2017 Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)*, a county-level community

⁴ The categories listed are used in the *Picture of Subsidized Households* dataset and differ from the labels used in the *Resident Characteristics Report*.

indicator in the *Opportunity Index* (Opportunity Nation, 2020), with the weighted mean PHAS scores to determine the effect, if any, of violent crime on PHA performance.

Politics.

Since the beginning of the public housing program, its proponents have generally belonged to those on the political Left, identified as fiscally or socially progressive or liberal, have been members of the Democratic Party, and have introduced legislation to expand or strengthen the program. This includes champions of the program like President Franklin Delano Roosevelt, Senator Edward Brooke (MA), and Congresswoman Alexandria Ocasio-Cortez (NY). Conversely, the program's detractors have generally been on the political Right, have identified as fiscally or socially conservative, members of the Republican Party, and have introduced legislation to diminish the program. Notable figures in this list would include Presidents Richard Nixon and Ronald Reagan, and Senator Lauch Faircloth (SC). Under this broad framework, this study applies a measure of the political leanings of counties to identify the relationship, if any, between politics and PHA performance.

For the political leaning measure, the study relies upon the *County Presidential Election Returns 2000-2016* dataset, developed by the MIT Election Data and Science Lab. Averaging the margins of victory, or the percentage difference between the winner and loser, in each county across the five general elections from 2000 to 2016 produces a continuous variable ranging from negative one hundred to positive one hundred. The absolute value of the scores only represents the strength of a party's repeated success within a given county; a party's assignment to either negative or positive value is arbitrary and not reflective of that party's platform position vis-à-vis the public housing program.

This study codes political leanings as negative values for Republican candidates and positive values for Democratic candidates. The absolute value represents the margin of victory, so a score of negative twelve (-12), for example, would mean that from 2000 to 2016, a Republican won in that county by an average of twelve percentage points. Likewise, a positive score of twelve (12) would mean that a Democrat won in that county by an average twelve-point margin of victory in that period. The greater the absolute value, the stronger the political leaning within that county, so a negative forty (-40), for example, would be a solidly Republican county. In contrast, a positive two (2) would lean only slightly Democratic.

Location.

As discussed in the earlier literature review, PHAs are located throughout the country, from large urban cities to smaller rural jurisdictions. These different locations provide different market conditions in terms of housing, education, and job opportunities. Notwithstanding the variation in these conditions, the PHAS standards are held constant. While examination of the potential various relationships of individual housing, education and employment opportunities may be warranted, this study focuses on location as a control measure to ensure that the independent variables are applies to comparable PHAs.

For location, this study uses the *Rural-Urban Continuum Code*, that “distinguishes metropolitan counties by the population size of their metro area, and nonmetropolitan counties by degree of urbanization and adjacency to a metro area”(U.S. Department of Agriculture-Economic Research Service, 2020) by assigning each county in the U.S. one of nine codes.

*Analysis Procedures***Dependent Variable for Internal Analysis: PHAS scores.**

Each PHA has its own PHAS score and the data for the internal independent variables are likewise at the PHA level. All data points can be identified by their corresponding PHA code (ex. WV009). This allows for a direct comparison of the independent variables to the raw PHAS scores without transformation by using the PHA codes as a primary key.

Dependent Variable for External Analysis: County-Level Performance Score.

Because PHAS scores are issued to individual housing authorities, they do not readily lend themselves to comparison with other more widely available datasets, such as Census data, for example. As the municipal or county government establishes most PHAs, county-level data is the closest comparison. Most housing authorities in the country are the sole entity within a county that operates public housing; thus, allowing a one-to-one comparison. In other words, if a county with one PHA scored a 96, for example, it can be said that the county scored a 96. However, many counties have more than one housing authority, and some may have multiple agencies that each operate their own public housing. Multiple PHAs often exist in suburban and exurban counties with numerous municipal jurisdictions that are sizable enough to justify establishing their respective housing authorities. It is impossible to make a one-to-one comparison to county-level data in these instances, and a PHAS data transformation is necessary to offer a reasonable approximation.

To normalize the PHAS scores for counties with multiple PHAs, it helps to look at how the PHAS score itself is calculated. Each PHAS score is a weighted mean: first, each asset management project (AMP) within the housing authority receives an individual score; second, the AMP PHAS scores are averaged together, weighed by the number of units in each AMP, to

generate an overall mean PHAS score for the housing authority as a whole. For example, a housing authority has two properties, AMP 1 and AMP 2, with 1,000 units and 500 units. AMP 1 represents 66.7% of the PHAs portfolio, and AMP 2 represents 33.3%. If AMP 1 receives a PHAS score of 90 and AMP 2 receives a PHAS score of 95, a simple mean would yield an overall PHAS score of 92.5, as seen in the following example:

$$\frac{(90 + 95)}{2} = 92.5$$

An overall mean, in this case, would overstate the agency's performance because most of the units are in AMP 1, which was a poorer performer than AMP 2. Thus, a weighted mean is used to calculate an overall score that is more representative of the agency's performance:

$$\frac{(0.66 \times 90 + 0.33 \times 95)}{(0.66 + 0.33)} = 91.66666667$$

This same methodology may be used to normalize PHAS scores for counties with multiple PHAs. In this case, it is simply a matter of scaling up one level, so instead of a single PHA with multiple AMPs receiving a score that is weighted by the number of units in each AMP, the calculation would provide an overall mean for a single county with multiple PHAs, weighted by the number of units in each PHA. Thus, allowing larger PHAs to count more toward the county's overall performance in which they operate.

An example of the weighted mean as applied to counties can be demonstrated by Middlesex County, Massachusetts, which in 2017 had six PHAs with different PHAS scores, the highest number of any county.⁵ The PHAS scores, number of units, and the percent of the total units in the county that each PHA represents are seen in Table 3-4:

⁵ This does not include PHAs listed under Small PHA Deregulation.

Table 3-4*Characteristics of PHAs in Middlesex, Co., MA*

PHA	PHAS Score	Units	Percent of Overall Units
Waltham Housing Authority	77	266	0.06
Newton Housing Authority	91	298	0.06
Somerville Housing Authority	96	584	0.12
Medford Housing Authority	92	699	0.15
Malden Housing Authority	92	1,195	0.25
Lowell Housing Authority	90	1,698	0.36

Using the calculation from the PHA with two AMPs demonstrated earlier, it is possible to develop a weighted mean for Middlesex County as a whole using the following equation:

$$\frac{(0.06 \times 77 + 0.06 \times 91 + 0.12 \times 96 + 0.15 \times 92 + 0.25 \times 92 + 0.36 \times 90)}{(0.06 + 0.06 + 0.12 + 0.15 + 0.25 + 0.36)} = 90.8$$

A simple mean for Middlesex County would yield a PHAS score of 89.7, and the median would be 91.5. Of these three calculations, the weighted mean PHAS score of 90.8 is the most representative of the county's overall performance.

Table 3-5*Mean Number of PHAs Per County by Rural-Urban Continuum Code*

RUCC	Mean
1	2.0
2	1.7
3	1.3
4	1.5
5	1.3
6	1.5
7	1.4
8	1.3
9	1.1

Table 3-5 that, across all nine of the rural-urban continuum categories, there are counties with multiple PHAs, which underscores the necessity of using the weighted mean PHAS score for each county.

Hypotheses

Internal variables

H_{01} —There is no significant relationship between Executive Compensation and PHAS scores.

H_{a1} —Assuming that Executive Compensation is used as a tool to incentivize higher performance and holding all other variables constant, there should be a significant positive relationship between PHA executive compensation and PHAS scores.

H_{02} — There is no significant relationship between the age of a PHA's housing stock, as calculate by the average weighted DOFA date, and its PHAS scores.

H_{a2} —Assuming that buildings become more costly and challenging to maintain as they age, there should be a significant negative relationship between the average weighted DOFA dates and housing authority PHAS scores.

H_{03} —Assuming the PHAS assessment system is “race neutral,” there should be no significant relationship between residents’ race and PHAS scores.

H_{a3} —Assuming that higher concentrations of minority populations are associated with poorer performing PHAs, there should be a significant negative correlation between the percentage of Black residents and PHAS scores.

H_{04} —There is no significant relationship between the percentage of extremely low-income residents and PHAS scores.

H_{a4} —Assuming that concentrated places increased burdens on PHAs, there should be a significant negative relationship between the percentage of ELI residents and PHAS scores.

External variables

H_{05} —There is no significant relationship between “racial reflectivity” and PHAS scores.

H_{a5} —Assuming that less reflective PHAs are associated with poorer performance, there should be a significant negative correlation between racial reflectivity scores (higher score = less reflective) and mean weighted PHAS scores.

H_{06} —There is no significant relationship between county-level violent crime rates per 100,000 people and mean weighted PHAS scores.

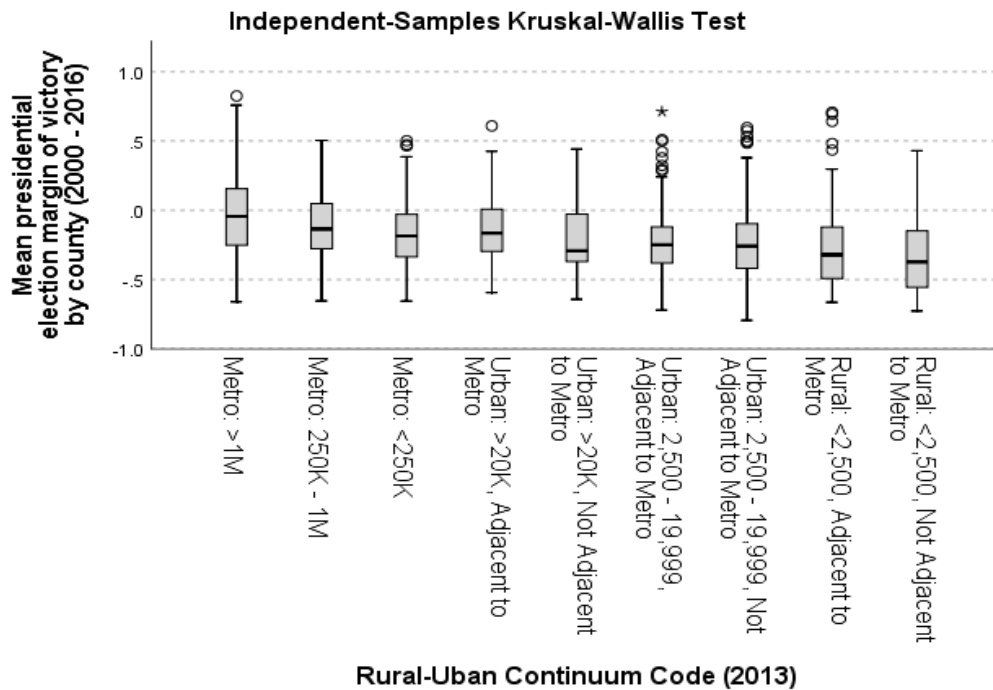
H_{a6} —Assuming that violent crime imposes considerable costs on the PHA, its residents, and employees, there should be a significant negative correlation between incidents of violent crime and mean weighted PHAS scores.

Preliminary analysis also shows a significant relationship ($p = .000$) between place and politics. Using an *Independent-Samples Kruskal-Wallis* hypothesis test, it is evident that counties become more conservative, based on the margin of victory for Republican candidates, as they get

more rural. This relationship is demonstrated in Figure 3, which shows a negative trend (i.e., increasing Republican margin of victory) across the Rural-Urban Continuum as one moves from highly populated metro areas to sparsely populated rural ones. For this reason, an analysis of the relationship between county political leanings and public housing performance scores must control for location along the Rural-Urban Continuum.

Figure 3

Hypothesis test of the relationship between place and politics



The analysis of political leanings with respect to performance tests the following hypotheses:

H_{07} —Politics do not influence PHAS scores, and there is no significant relationship between counties' political leaning and PHA scores.

H_{a7a} —Assuming that county political leanings influence PHA performance, as counties become more liberal, there should be a significant positive relationship with PHA scores.

H_{a7b} —Assuming that county political leanings influence PHA performance, as counties become more conservative, there should be a significant negative relationship with PHA scores.

Chapter Summary

By taking a “two-pronged” approach, exhibiting both factors within PHAs and external factors, this study generates a more complete picture of the influences on agency performance. Controlling for agency size and location, the analysis examines whether higher executive compensation leads to increased agency performance and whether aging buildings, race, poverty, and crime have the negative influences upon performance that the traditional narrative of public housing suggests. Lastly, the study looks for the effects of local political leanings on the performance of agencies that administer this politically contentious program.

Chapter 4. Findings

This chapter presents the descriptive and statistical findings regarding the relationships between the selected social indicator variables and PHA performance.

Descriptive Statistics

Topinka's study examining PHAS scores using a sample of 542 PHAs⁶ showed more significant percentages of PHAs at the high end of the scale and a median score above 90, indicating a possible but inconclusive "bias in the sample towards higher performers"(2011). For this reason, it made sense to examine the distributions using the larger dataset to determine if the scores were indeed skewed toward the High Performers. Preliminary analysis of the PHAS score data, including a visual inspection of the histogram in Figure 4 and Q-Q plot in Figure 5, indicated that the performance scores are not normally distributed, with a skewness of -1.442 (SE: 0.058) and kurtosis of 2.510 (SE: 0.116).

⁶ Prior to the 2011 HUD interim rule that replaced resident survey scores with the Capital Fund score and changed the Physical assessment score from 30% to 40% of the overall PHAS score.

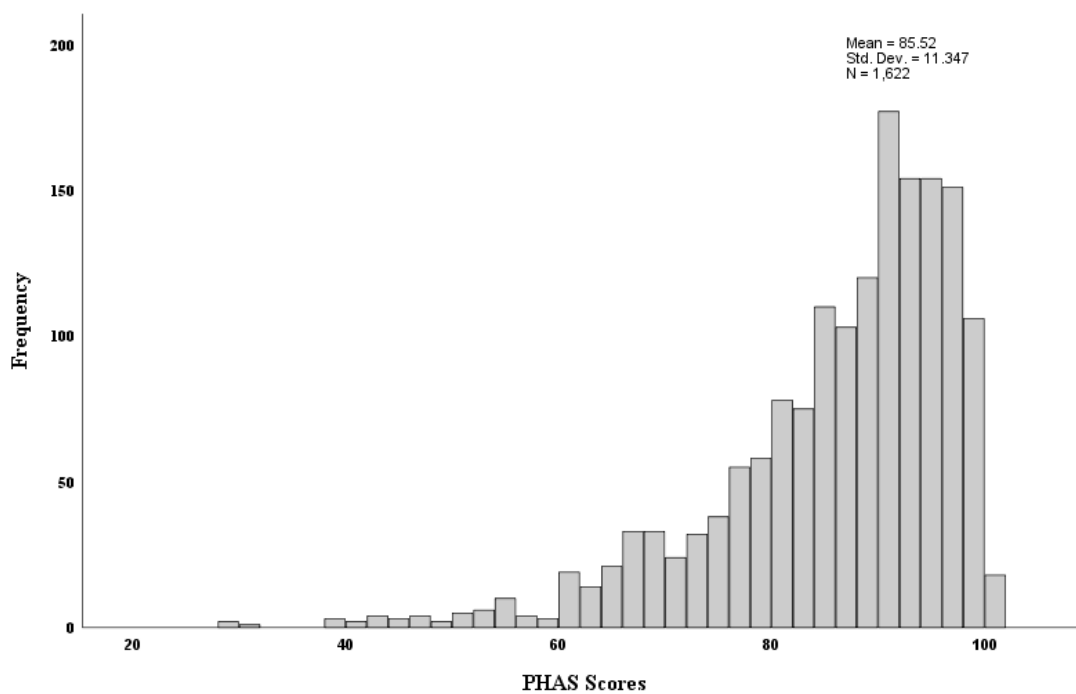
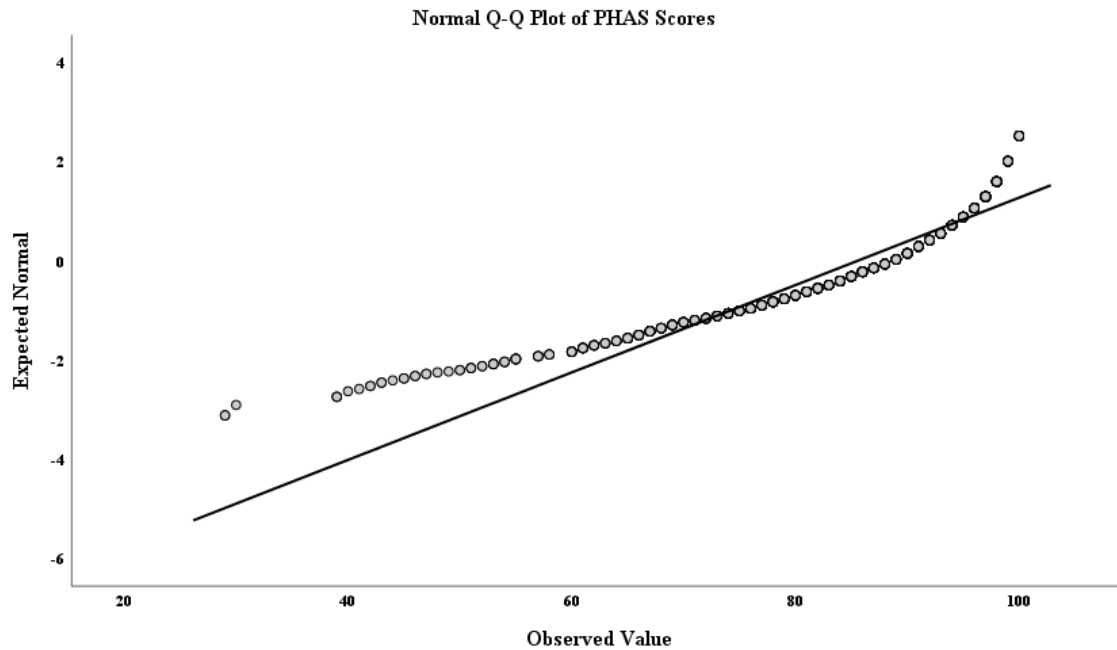
Figure 4*Distribution of PHAS scores*

Figure 5

Normality plot of PHAS score distribution



Likewise, the Mean Weighted PHAS Scores were also not normally distributed, with a skewness of -1.240 (SE: 0.072) and a kurtosis of 1.635 (SE: 0.144). For that reason, the study relied on Spearman's Rho correlation analysis to test the hypotheses, which were tested at a minimum of the .05 level of significance. This study used the scale depicted in Table 4-1 to assess correlation strength.

Table 4-1*Scale of Correlation Strength*

From	To	Strength
+/- .81	+/- 1.00	Very Strong
+/- .61	+/- .80	Strong
+/- .41	+/- .60	Moderate
+/- .21	+/- .40	Weak
+/- .00	+/- .20	Weak to No Correlation

Source: (Hair et al., 2009)

Internal Analysis**Table 4-2***Spearman's Rho Correlation of Internal Variables for Very Small PHAs*

	n	1	2	3	4	5
1. PHAS Scores	346	--				
2. Reported W-2 Total Compensation	252	.03	--			
3. Weighted Mean Building Age	339	.02	-.27**	--		
4. Percent Black Non-Hispanic	148	-.05	-.07	.29**	--	
5. Percent Extremely Low Income	329	-.09	.21**	-.04	.13*	--

**p < .01 (2-tailed); *p < .05

Among Very Small PHAs, there were no statistically significant relationships between the independent variables and agency performance scores.

Table 4-3*Spearman's Rho Correlation of Internal Variables for Small PHAs*

	n	1	2	3	4	5
1. PHAS Scores	711	--				
2. Reported W-2 Total Compensation	640	.03	--			
3. Weighted Mean Building Age	707	.01	-.10**	--		
4. Percent Black Non-Hispanic	579	-.21**	.03	.18**	--	
5. Percent Extremely Low Income	710	-.22**	.16**	-.01	.15**	--

**p < .01 (2-tailed)

Among Small PHAs, there were weak yet statistically significant negative relationships between agency performance and the percentage of Black Non-Hispanic residents as well as the percentage of ELI residents. The original hypotheses (H_{a3} , H_{a4}) suggested negative relationships for both variables.

Table 4-4

Spearman's Rho Correlation of Internal Variables for Low-Medium PHAs

	n	1	2	3	4	5
1. PHAS Scores	326	--				
2. Reported W-2 Total Compensation	314	-.01	--			
3. Weighted Mean Building Age	321	.06	-.06	--		
4. Percent Black Non-Hispanic	315	-.22**	.16**	.01	--	
5. Percent Extremely Low Income	325	-.23**	.18**	0.03	.17**	--

**p < .01 (2-tailed)

Like the Small PHAs, there were weak yet statistically significant negative relationships among the Low-Medium-sized PHAs between agency performance and the percentage of Black Non-Hispanic residents as well as the percentage of ELI residents. Again, this aligns with the original hypotheses (H_{a3} , H_{a4}), which suggested negative relationships for both variables.

Table 4-5

Spearman's Rho Correlation of Internal Variables for High-Medium PHAs

	n	1	2	3	4	5
1. PHAS Scores	161	--				
2. Reported W-2 Total Compensation	150	.19*	--			
3. Weighted Mean Building Age	160	-.03	-.13	--		
4. Percent Black Non-Hispanic	159	-.30**	-.01	-.12	--	
5. Percent Extremely Low Income	161	-.25**	.01	-.01	.23**	--

**p < .01 (2-tailed); *p < .05

In addition to the significant correlations of the residential variables, the data also indicated a weak yet statistically significant positive relationship between executive

compensation and agency performance among High-Medium-sized PHAs. The original hypothesis (H_{a1}) predicted such a correlation.

Table 4-6

Spearman's Rho Correlation of Internal Variables for Large PHAs

	n	1	2	3	4	5
1. PHAS Scores	77	--				
2. Reported W-2 Total Compensation	77	.11	--			
3. Weighted Mean Building Age	76	.05	-.08	--		
4. Percent Black Non-Hispanic	77	-.33**	.19*	-.15	--	
5. Percent Extremely Low Income	77	-.23*	.13	.10	.05	--

**p < .01 (2-tailed); *p < .05

Weak correlations between PHASs scores and the percentage of Black Non-Hispanic residents as well as the percentage of extremely low-income residents remains consistent across Small, Medium (Low and High), and Large PHAs. There is, however, a small increase in the strength of the correlation between the percentage of Black Non-Hispanic residents and agency performance as one moves from smaller to larger PHAs.

In all, the resident predictors were found to have statistically significant correlations in four of the five agency size categories. Only one of the two management predictors, executive compensation, was found to have a significant correlation and only among High-Medium-sized agencies. With respect to the only remaining internal predictor variable, building age, the data failed to reject the null hypothesis (H_{02}), as no statistically significant correlations were detected.

External Analysis

Metropolitan Counties

Table 4-7 depicts the Spearman's Rho correlations among the external variables for counties in metro areas with populations of 1 million or more.

Table 4-7*Spearman's Rho Correlation of External Variables in RUCC 1*

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	194	--			
2. Black Racial Reflectivity	194	.24**	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	192	-.25**	-.37**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	194	-.28**	-.16**	.47**	--

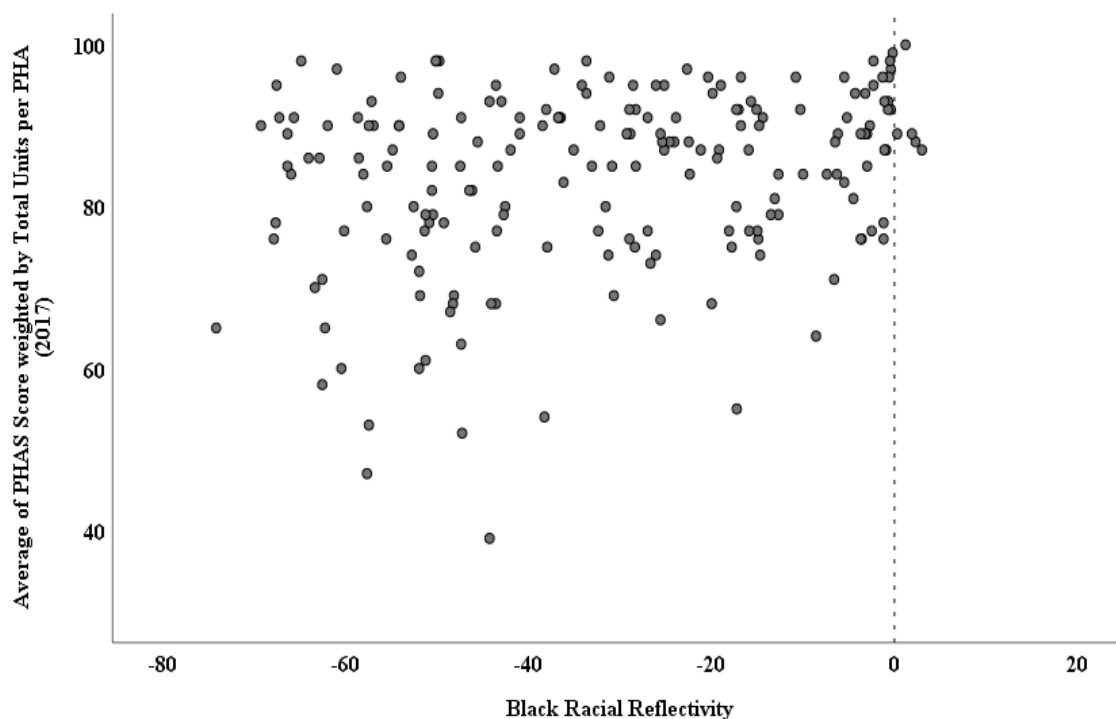
**p < .01 (2-tailed)

The data indicates weak, yet statistically significant correlations between performance and the predictor variables in large metropolitan counties. Regarding the Black Racial Reflectivity variable, the data shows a weak positive yet statistically significant correlation, thereby rejecting the null hypothesis (H_{05}). However, the original hypothesis (H_{a5}) predicted a negative relationship. At first glance, it appeared that the correlation results were contradictory to the hypothesis. Meaning that as public housing became less reflective, its reflectivity *score* would increase, while PHA performance would experience a corresponding decrease. In terms of absolute value, that is precisely what occurred. As seen in Figure 6, as the score moved further away from a perfect reflectivity score of zero (an increase in absolute value), PHAS scores decreased, representing a negative correlation. As calculated by the SPSS software, reflectivity itself increased along with PHAS scores, creating the positive correlation described in Table 4-7.

Figure 6 depicts the upward and rightward trend of the correlation, indicating that counties have lower average weighted PHAS scores where Black residents are overrepresented in public housing relative to the county at-large and higher scores where the resident population is proportionally similar to the surrounding county.

Figure 6

Scatterplot of Black Racial Reflectivity and Average Weighted PHAS Scores in Large Metropolitan Counties



Only six large metropolitan counties had populations of Black public housing residents that were slightly underrepresentative of the county as a whole. For example, Trousdale County, Tennessee's Black population is twelve percent, while only nine percent of its public housing residents are Black, an underrepresentation of only three percent. Trousdale County represented the most prominent difference on the positive side of the reflectivity scale among metropolitan counties with a million or more residents.

The data for large metropolitan areas also showed a weak but significant negative correlation between the second predictor variable, incidents of violent crime per 100,000 residents, and public housing performance scores. This data is consistent with the original hypothesis (H_{a6}) that predicted lower PHAS scores in counties with higher crime rates.

The third predictor variable, mean presidential election results, also had a weak but significant negative correlation with county public housing performance. Public housing performance scores were higher in counties with higher margins of victory for Republican candidates and decreased as the margin of victory leaned toward Democratic candidates. While the statistical significance allows one to reject the null hypothesis (H_{07}), the resulting coefficient contradicts the original hypotheses (H_{a7a} , H_{a7b}) that predicted lower PHAS scores in Republican-leaning counties and higher scores in Democratic-leaning counties. Figure 7 depicts the downward trend, interpreted as a negative correlation, with the Republican margins of victory to the left (negative) of zero—zero representing a 50-50 tie between the two candidates—and Democratic margins of victory to the right (positive) of zero.

Figure 7

Scatterplot of Mean Presidential Margin of Victory (2000-2016) and Weighted Average PHAS Scores in Large Metropolitan Counties

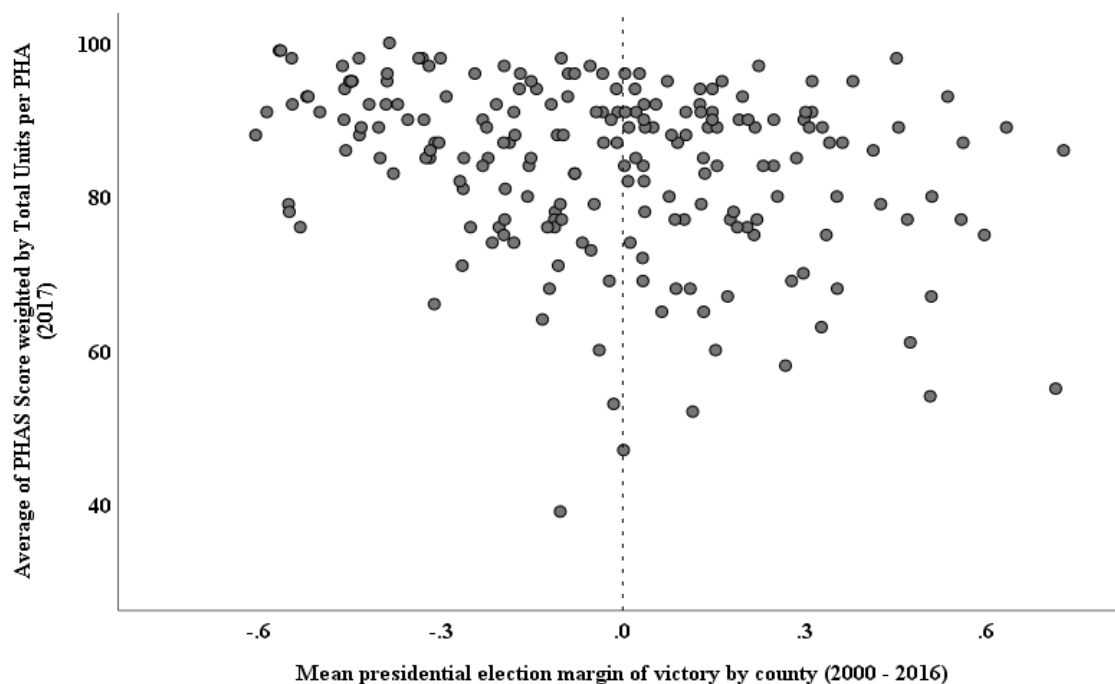


Table 4-8 depicts the Spearman's Rho correlations among the external variables for counties in metro areas with a population range of 250,000 to 1 million residents.

Table 4-8

Spearman's Rho Correlation of External Variables in RUCC 2

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	179	--			
2. Black Racial Reflectivity	179	.31**	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	178	-.20**	-.37**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	179	-.15	-.08	.29**	--

**p < .01 (2-tailed)

As with large metropolitan counties, medium-sized metropolitan counties depicted similar correlations between public housing performance scores and the first two predictor variables, black racial reflectivity and incidents of violent crime per 100,000 residents, respectively. Supporting the same hypotheses, performance was lower in counties where the percentage of Black public housing residents was less reflective than the Black population countywide, and performance was lower in counties with higher incidents of violent crime. One difference, however, is that the data did not show a significant correlation between election results and PHAS scores.

Table 4-9 depicts the Spearman's Rho correlations among the external variables for counties in metro areas of fewer than 250,000 residents.

Table 4-9

Spearman's Rho Correlation of External Variables in RUCC 3

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	161	--			
2. Black Racial Reflectivity	161	.39**	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	159	-.26**	-.46**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	161	-.09	-.04	.13	--

**p < .01 (2-tailed)

The resulting correlations between PHAS scores and the predictor variables are the same for small metropolitan counties as in medium-sized metropolitan counties but for slight differences in correlation strength. Both Black racial reflectivity and incidents of violent crime appear to have weak but statistically significant relationships with PHAS scores, while the political leaning of the counties does not.

Nonmetropolitan Counties

Table 4-10 depicts the Spearman's Rho correlations among the external variables for urban populations of 20,000 residents or more, adjacent to a metro area.

Table 4-10

Spearman's Rho Correlation of External Variables in RUCC 4

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	93	--			
2. Black Racial Reflectivity	93	.05	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	93	-.02	-.45**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	93	-.21*	.06	-.09	--

**p < .01 (2-tailed); *p < .05

In the largest non-metropolitan counties, the data indicates a weak but statistically significant negative relationship between the political variable and public housing performance. However, in these counties, the data does not show any significant relationships with the other two predictor variables.

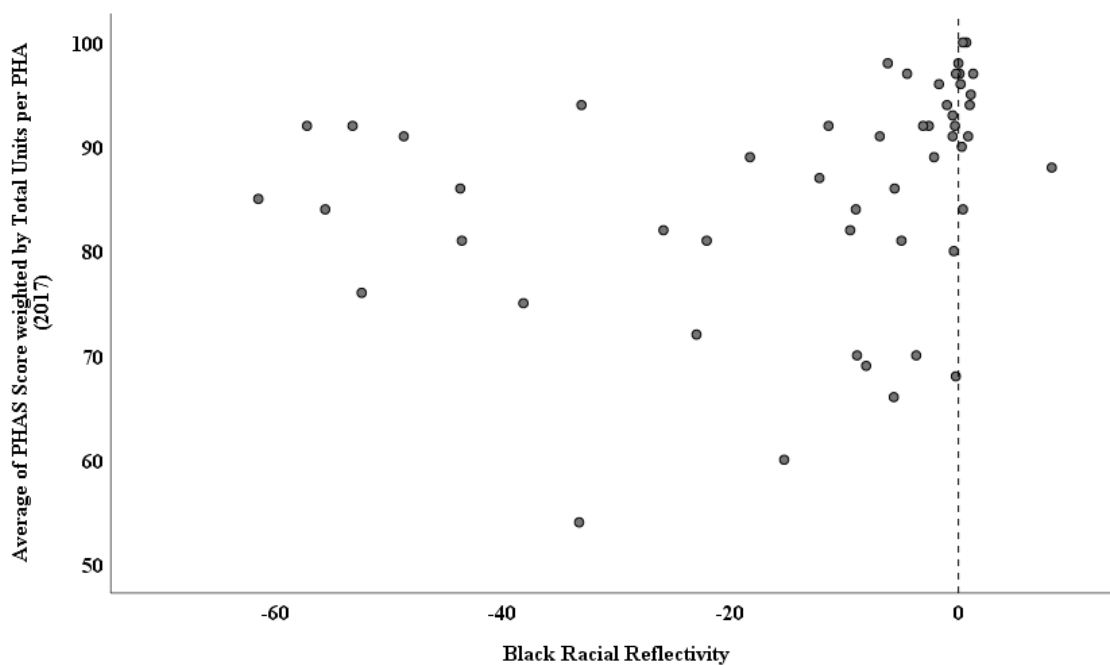
Table 4-11 depicts the Spearman's Rho correlations among the external variables for urban populations of 20,000 or more residents, not adjacent to a metro area.

Table 4-11*Spearman's Rho Correlation of External Variables in RUCC 5*

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	52	--			
2. Black Racial Reflectivity	52	.47**	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	50	-.29*	-.29**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	52	.07	.10	-.06	--

**p < .01 (2-tailed); *p < .05

Black racial reflectivity appears to have a moderate relationship to public housing performance in mid-sized non-metropolitan areas, which would generally be considered the suburbs. This relationship seems consistent with the findings in the large metropolitan areas and supports the original hypothesis (H_{a5}). However, the increased strength of this correlation compared to the large metropolitan areas ($n = 194$) is likely influenced by its relatively small sample size ($n = 52$). Further examination of the scatterplot in Figure 8 shows a less definitive pattern than in Figure 6. Still, a negative trend as the Black population in public housing becomes less reflective of the surrounding county remains discernable.

Figure 8*Scatterplot of Black Racial Reflectivity in Mid-Sized Non-Metropolitan Areas*

The relationship between the number of incidents of violent crime and public housing performance in Table 4-11 is also consistent with earlier findings and supports the original hypothesis.

Table 4-12 depicts the Spearman's Rho correlations among the external variables for urban populations of 2,500 to 19,999 residents, adjacent to a metro area.

Table 4-12*Spearman's Rho Correlation of External Variables in RUCC 6*

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	210	--			
2. Black Racial Reflectivity	210	.13	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	206	-.16*	-.43**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	210	-.09	-.06	.09	--

**p < .01 (2-tailed); *p < .05

Moving toward the outer suburbs, the data in Table 4-12 only indicate a statistically significant relationship, albeit weaker than in previous examples, between violent crime and public housing performance. Table 4-13 depicts the Spearman's Rho correlations among the external variables for urban populations of 2,500 to 19,999, not adjacent to a metro area.

Table 4-13*Spearman's Rho Correlation of External Variables in RUCC 7*

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	138	--			
2. Black Racial Reflectivity	138	.20*	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	128	-.21*	-.30**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	138	-.05	-.02	.13*	--

**p < .01 (2-tailed); *p < .05

The data in Table 4-13 shows a similar yet weaker relationship to that of more densely populated areas between Black Racial Reflectivity and PHAS scores. Likewise, the relationship between violent crime and PHAS is consistent with earlier examples.

Table 4-14 depicts the Spearman's Rho correlations among the external variables for completely rural counties or urban counties with populations less than 2,500, adjacent to a metro area, and Table 4-15 depicts those not adjacent to a metro area.

Table 4-14

Spearman's Rho Correlation of External Variables in RUCC 8

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	35	--			
2. Black Racial Reflectivity	35	.08	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	33	-.34	-.28**	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	35	-.10	-.19	.21*	--

**p < .01 (2-tailed); *p < .05

Table 4-15

Spearman's Rho Correlation of External Variables in RUCC 9

	n	1	2	3	4
1. County Mean PHAS Score weighted by Total Units per PHA	79	--			
2. Black Racial Reflectivity	79	.14	--		
3. Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	69	.10	-.09	--	
4. Mean presidential election margin of victory by county (2000 - 2016)	79	-.22	-.18*	.18*	--

*p < .05 (2-tailed)

The tables for completely rural areas, both adjacent and not adjacent to metro areas, indicate no significant correlations between performance scores and the independent variables.

Chapter Summary

Summary of Internal Analysis

In examining the four selected measures for the internal analysis, when controlling for agency size, it is apparent that executive compensation and building age have no substantive impact on PHA performance scores. As seen in

Table 4-16, only High-Medium sized PHAs experienced a statistically significant relationship of negligible strength to executive compensation. At the same time, public housing building age had no discernable relationship to performance.

Table 4-16

Significant Correlations with PHA Performance Scores

	Reported W-2 Total Compensation	Weighted Mean Building Age	Percent Black Non-Hispanic	Percent Extremely Low Income (ELI)
Very Small PHAs	--	--	--	--
Small PHAs	--	--	-.21**	-.22**
Low-Medium PHAs	--	--	-.22**	-.23**
High-Medium PHAs	.19*	--	-.30**	-.25**
Large PHAs	--	--	-.33**	-.23*

**p < .01 (2-tailed); *p < .05

Across all PHA size categories but the very smallest, however, there are significant relationships between the percentage of Black Non-Hispanic residents in public housing and agency performance scores. As the percentage of Black Non-Hispanic residents increases, performance scores decrease. Similar relationships existed across all but the Very Small PHA category between the percentage of ELI residents and performance scores: as the percentage of ELI residents increased, performance decreased. Because the relationships between the percentage of Black residents and ELI residents were, from Very Small to Large PHAs, .13, .15,

.17, .23, .05, respectively, the similarity of their correlations with performance scores is unlikely a result of multicollinearity.

Summary of External Analysis

Analysis of the external variables showed statistically significant correlations between performance scores and each of the independent variables. These correlations, however, were not consistent across the entire Rural-Urban Continuum and, as seen in Table 4-17, all relationships had weak correlation coefficients but one, that of Black Racial Reflectivity in urban populations of 20,000 or more residents, not adjacent to a metro area, which had a moderate coefficient of .47.

Table 4-17

Significant Correlations with County Mean Weighted PHAS scores

RUCC	Black Racial Reflectivity	Incidents of Violent Crime Reported to Law Enforcement Agencies (per 100,000 population)	Mean presidential election margin of victory by county (2000 - 2016)
1.	.24**	-.25**	-.28**
2.	.31**	-.20**	--
3.	.39**	-.26**	--
4.	--	--	-.21*
5.	.47**	-.29*	--
6.	--	-.16*	--
7.	.20*	-.21*	--
8.	--	--	--
9.	--	--	--

**p < .01 (2-tailed); *p < .05

Across the Rural-Urban Continuum where significant correlations did exist, the coefficients show the following:

1. As the percentage of Black residents in public housing became more reflective of the surrounding population, there was a corresponding increase in PHAS scores.
2. As the incidents of violent crime increased, PHAS scores decreased.

3. As one moves across the political spectrum from heavily Republican-leaning counties toward heavily Democratic-leaning counties, there is a corresponding decrease in PHAS scores.

Chapter 5. Discussion of Findings

Relationships of Independent Variables to Performance

Although five out of seven independent variables—Percent Black Non-Hispanic, Percent ELI, Black Racial Reflectivity, Incidents of Violent Crime, and Mean Presidential Margin of Victory—had statistically significant correlations to the dependent variable allowing for the rejection of the null hypotheses, the weakness of these relationships makes it difficult to say that these are predictor variables or, in other words, the social determinants of public housing performance. This research did not uncover any variables that could feasibly be used as the basis for making policy changes to improve performance or create a more socially equitable housing program.

That this study did not uncover clear social determinants of performance is not to say that the independent variables are not important. The findings raise their own set of questions. For example, “Even after controlling for PHA size, why do performance scores decrease as the percentage of Black residents increases?” The same question can be asked about extremely low-income residents as well. Indeed, there are other missing variables beyond the scope of this study that warrant further investigation.

It remains unclear what the contributing factors are behind the variation in PHAS scores. What is clear, however, is that differences in quality and performance remain across the nation’s public housing stock. With nearly two million households enrolled in the program, the differences in program performance still means a significant number of families experience inequitable outcomes under the current design. In the absence of clear determinants of performance, perhaps the solution is to take a fresh look at how supportive housing is delivered and examine alternatives for a new program design.

Working Toward a Socially Equitable Housing Program

The National Academy of Public Administration developed four measures of social equity: quality, access, procedural fairness, and outcomes. Using this framework, the following is a series of proposals to reshape supportive housing in the United States.

Quality

Reintroduce resident feedback in the performance measurement process

A relatively small but significant step toward making the public housing program and the system that measures it more socially equitable would be to incorporate resident feedback in evaluating PHA performance. It is worth noting that the current PHAS measurement system does not use the same calculation as when it was originally designed. In the 2011 PHAS interim rule, HUD removed the resident service and satisfaction indicator, as well as the resident survey while it considered “better means of accurately measuring resident satisfaction, tenant participation, and the efficacy of resident self-sufficiency efforts to be included in the final rule.” HUD went on further to say that:

...resident input into the assessment process is important. HUD is committed to exploring resident satisfaction, self-sufficiency, and participation measures in the final rule, which will be promulgated subsequent to and based on HUD’s experience with, and the public comments on, this interim rule (2011).

That was over a decade ago. PHAs have operated under the 2011 Interim Rule, and no mechanism has been developed to incorporate resident input into the performance process.

The absence of any measure of the lived experience of the people who inhabit public housing greatly diminishes the validity of PHAS as a measure of how well it serves program participants. As one of HUD’s stated aims is to “utilize housing as a platform for improving

quality of life” (U.S. Department of Housing and Urban Development, n.d.), the agency must reincorporate resident feedback into its formula.

Creating a resident feedback mechanism for PHAS has potential implications for all housing assistance programs. Recipients of Section 8 Housing Choice Vouchers could be surveyed to inform the Section 8 Management Assessment Program (SEMAP), the rough equivalent of PHAS for the voucher program. With newer technology, implementation costs would likely be significantly less than when these measurement systems were first established. However, implementing such changes would require a combination of political will, a shift in agency priorities, and of course, funding. Still, the same is true of any other social policy.

Access

Federal housing assistance in the United States only serves about a quarter of those eligible, and the number of households facing financial hardship is only increasing (Turner & Kingsley, 2008). In nearly every locality in the country, finding affordable housing is becoming more difficult for low-income households, so much so that affording a two-bedroom apartment on a minimum wage is essentially impossible anywhere in the United States (Holder, 2019).

Move Toward a Social Housing Model

One means of addressing access to affordable housing is to create a sustainable housing program like the Viennese municipal housing model or the social housing in Finland and Sweden that serves people of all income levels and not just the “deserving poor” (Gowan & Cooper, 2018). In the United States, affordable housing, whether built under the public housing program or the Low-Income Housing Tax Credit (LIHTC), rations access based on income. However, the result of this approach has led to the concentrations of poverty in subsidized housing, economic and racial segregation, stigma, and lack of opportunity. The government has long recognized the

need to develop mixed-income communities, as evidenced by HOPE VI and the Choice Neighborhoods Program. Inclusionary zoning policies at the local level also seek to build mixed-income housing because of the well-established benefits to the residents and the community. One wonders why the government maintains a program that restricts access to only the poorest people. HUD acknowledged that:

Within the fixed number of subsidized units, it is not always clear who ought to be served first. There has been a fairly clear consensus that the poorest families deserve first priority...[and] that young people without children should have the lowest priority but there has been little consensus beyond that, and there has been some indication that all other households should be served equally (Burke, 1981).

This focus on serving the most impoverished families is an intuitive approach from a social equity standpoint if income and purchasing power is the only yardstick by which equity is measured. However, suppose it results in significantly disparate impacts where households are cordoned in pockets of poverty and excluded from areas of opportunity. In that case, the program can hardly be considered socially equitable. The main issue is scarcity—there are not enough low-income housing units to meet the demand. Prioritizing available units for the neediest is one way of approaching a socially equitable outcome. Still, it is not the only way, as it will continue to be expensive to subsidize publicly, reducing public and political support over time and leading to a more significant decline in the program. This has and will continue to have the ultimate outcome of reducing the supply of affordable housing when the demand is increasing.

Another somewhat counterintuitive approach is to remove the income limitation for public housing eligibility. For public housing to become sustainable, a new funding model that generates enough rent to cover a larger share of operating costs is required. Giving PHAs greater

flexibility in tenant selection based on income will enable them to cross-subsidize low-income tenants within the rental framework, reducing the need for federal subsidies. Notwithstanding the rent limitations of the Omnibus Budget Reconciliation Act of 1981, which established a maximum rent at 30 percent of a household's monthly adjusted income, it is possible to offset the costs of subsidized housing for low-income tenants while at the same time incentivizing upward economic mobility. This would require a progressive scale that has reduced rents for the poorest tenants and gradual increases as a percentage of income to within 30 percent as tenants approach the fair market rent (FMR) for a specific unit.

Currently, flat rents and ceiling rents are used as a means of maintaining affordability. However, ceiling rents, which are generally set at or below FMRs, result in lost revenue for PHAs. To capture lost revenues, PHAs should incentivize tenants who can afford comparable units in the private market—not necessarily rich, but working class—to stay in public housing and do so at rents *above* FMR. By doing this, PHAs will be able to use a portion of the rent from higher-income tenants to cross-subsidize those with lower incomes.

At first glance, this would seem to be outright competition with the private market. However, for the tenants currently known as “over-income tenants” (Kasperowicz, 2015), their rents would continue to increase at a rate that would make the PHA progressively *less* competitive with the private market for higher-income earners. Elimination of rent ceilings and income eligibility requirements creates no disincentives for those moving up the economic ladder. It also encourages those who have become more economically stable to lend a hand to those coming up behind them. Furthermore, removing hard eligibility cutoff lines smooths the transition for upwardly mobile families to the private market, creating a *graduation to the middle class*.

The Back Side of the Power Curve

There is a substantial gap between the rental price of a fair market unit and what they could reasonably afford to pay for low-income public housing residents. For some, even 100 percent of their income would not be enough to maintain in a fair-market unit simply. This phenomenon is similar to what, in aviation, is called the “back side of the power curve,” where there is not enough airspeed to keep flying, requiring more and more energy, or thrust, just to stay aloft. At a certain point, if there is too little airspeed flowing over the wings, even at full throttle, a plane will stall and crash. Airspeed, like money, is life; the less one has, the harder it is to stay alive. This stage of flight is also referred to as the “area of reverse command,” where counterintuitive inputs—thrust to control elevation and pitch to control speed—are necessary to maintain flight and avoid a stall. Sometimes, a pilot must dive toward the ground at full throttle to have any chance of climbing out of danger. The speed with which one intervenes is critical—if the downward fall persists too long, no amount of effort can save the situation. Concerning public housing, sustaining the program requires counterintuitive changes in the rent structure to assist those with the greatest need. One could argue, it is simply applying the laws of physics to public housing finance.

Suppose, for example, there are two low-income families: family (A) is a single mother with one child living on \$10,000 per year and family (B) is a family of four living on the same amount. The first would presumably have fewer financial needs than the larger family, but family (B) would also require a larger rental unit, which would generally cost more. The new model would flip this situation, whereby the family with the greater need would pay *less* in rent than one with fewer financial burdens. While the mother in family (A) could pay about \$117 per month for a one-bedroom apartment, family (B) could expect to pay about \$60 for a four-

bedroom unit. The result would be a family with greater financial needs being able to save a larger percentage of income for food, clothing, and other necessities.

Figure 9

Graph of Graduated Rents

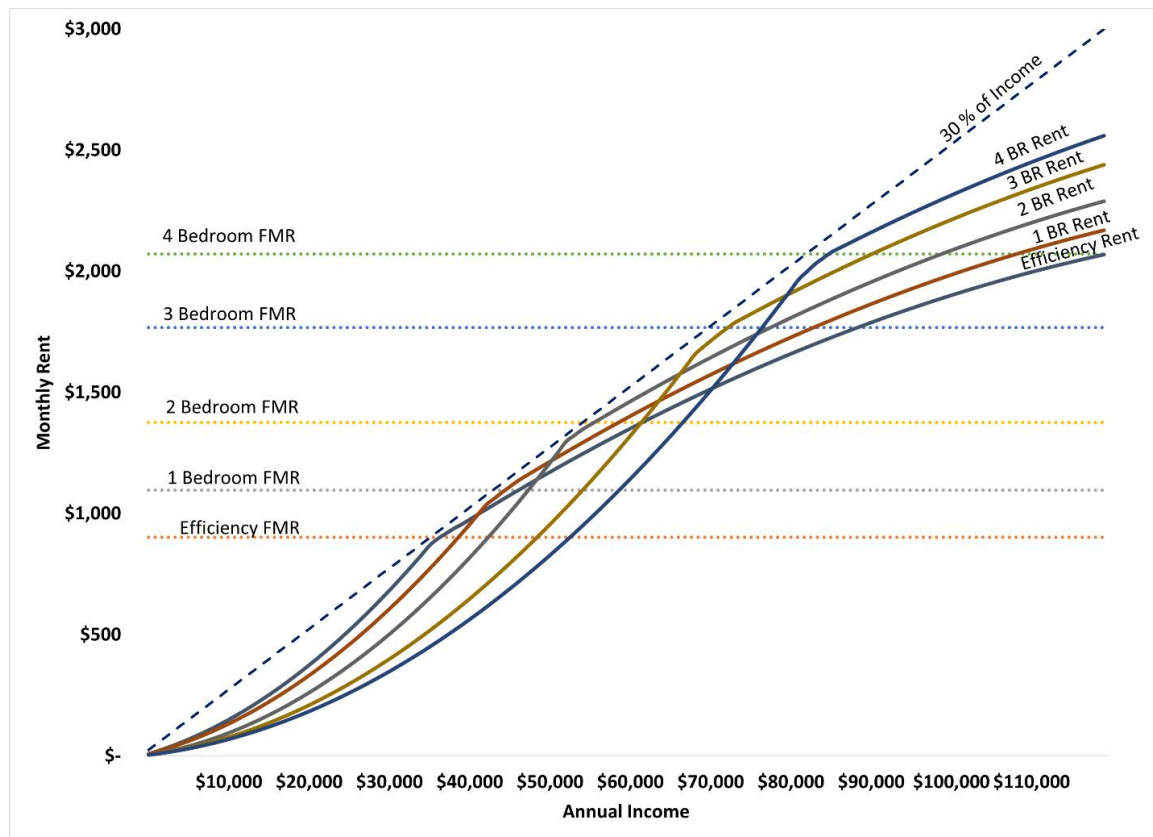


Figure 9 depicts the proposed funding model for public housing. The horizontal bands represent FMRs for the Baltimore-Columbia-Towson metropolitan area for 2017. Note that rents depicted by the various curves are maintained below the 30-percent-of-income line set by Congress in 1981. Based on the needs of an individual organization and tenant demographics, a PHA can “bend” the curve upwards on the left-hand side, adjusting rents by percentage of income, to adhere to the 30 percent line more closely for lower income tenants, or it can bend the curve down on the right-hand side closer to the FMRs to better attract higher-income tenants. Also, note that, as upwardly mobile tenants increase their income, rents become a progressively

smaller percentage of income after reaching “affordability” with market rates. At the same time, rents become less competitive with the private market. This provides incentives for both upward mobility as well as a smooth, “market-based” transition out of public housing for the highest earners—a “graduation to the middle class.”

As mentioned earlier, under the new model, rents would increase with income. However, rather than being tied to a single income percentage rate—the 30 percent rule—the *income percentage itself* would increase until it approached FMR for the unit type and location. For example, in the same location as the earlier example, HUD’s 2017 fair-market calculation for an efficiency unit is \$903 per month (U.S. Department of Housing and Urban Development, 2017). For a family to spend no more than 30 percent of income and afford that unit, they would have to make \$36,000 per year. Two people working full-time at the federal minimum wage of \$7.25 per hour would make only \$15,080 per year each, or \$30,160 combined family income. Maryland has a state minimum wage of \$8.75 per hour (2017), which would earn that same family a combined \$36,400 per year, putting fair market rent about 29 percent of their income. Their rent would be affordable, but by no means would it make them financially carefree. Those families who make less than \$36,000 per year, under the progressive model, would pay a smaller percentage of income towards their rent, with the rest being subsidized.

Income Eligibility Caps and Rent Ceilings

To generate sufficient revenues to cover costs, PHAs must be able to do two things: accept higher-income earners and charge rents above fair market rates. To do this, it is necessary to eliminate the eligibility limitations for public housing, essentially making a genuinely public good available to all Americans. While unlikely, if a millionaire chose to live in public housing

over a comfortable home in the suburbs, s/he should have the same right as anyone to do so; the rent would likely be enough to subsidize the remainder of the tenants in that development.

To be sustainable, public housing does not need millionaire tenants. Still, it does require a return to its original purpose by attracting working families with moderate incomes—the type of families who were incentivized to abandon public housing for single-family houses in the suburbs in the 1950s with FHA and VA loans—to take up residency. In 1992, however, the National Commission on Severely Distressed Public Housing issued its final report, which stated, “Current rent determination and income eligibility regulations create gross disincentives for working families to live in public housing”(1992). These “gross disincentives” directly cut into PHAs bottom line, as the rents from working families are the lifeblood of the housing authority. The resulting cuts in maintenance and repairs to save money led to units becoming “severely distressed,” creating a downward spiral. If working families chose not to live in public housing, that left only those who had no other choice: the elderly, the disabled, and the “poorest of the poor.” The new model aims to disrupt this dynamic.

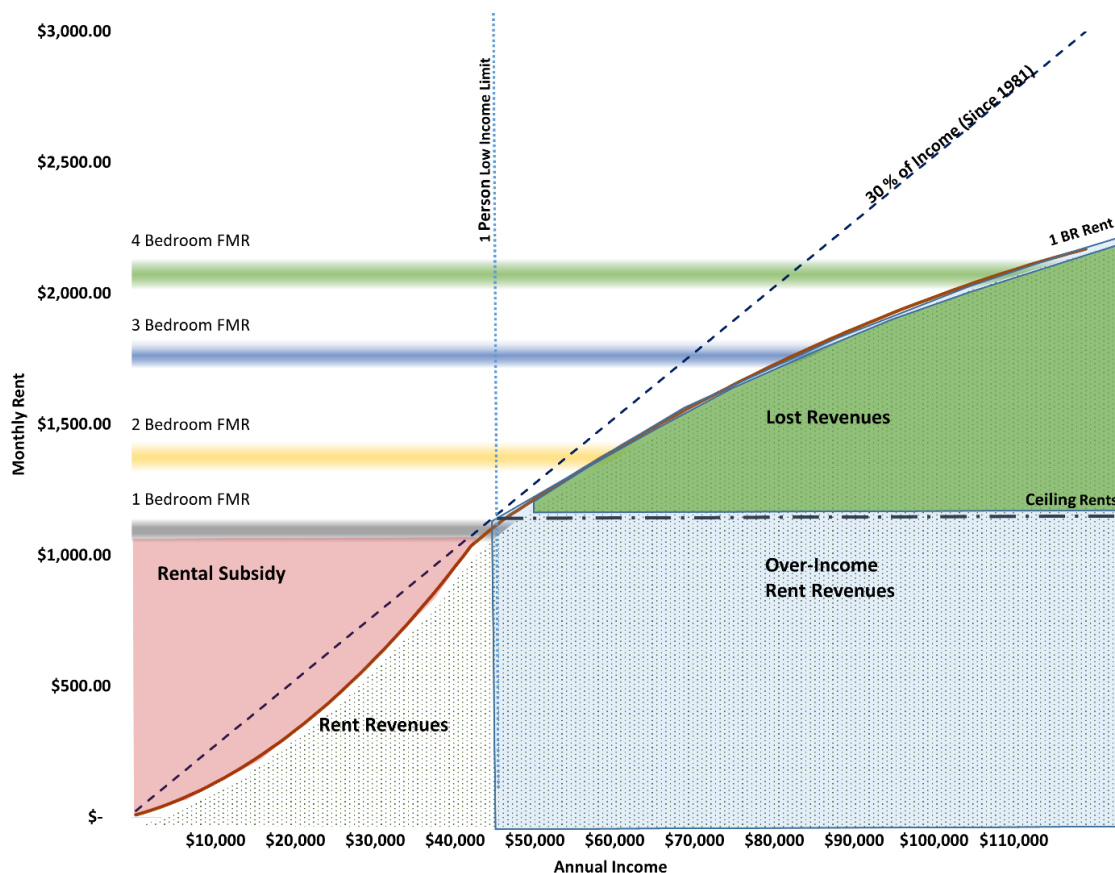
Figure 10*Rental Subsidy and Revenue Curve*

Figure 10 shows the curve of a 1-bedroom unit, like that seen in Figure 9. The vertical line represents the “Low-Income” eligibility limit of \$47,600, or 80 percent of the HUD Median Family Income Area (HMFI) of \$91,100 for the Baltimore-Columbia-Towson metropolitan area for 2017. While regulations do not prohibit PHAs from allowing low-income residents who eventually earn more, so-called “over-income” residents, from staying in public housing, the limit generally excludes new tenants on the right of the line from applying for public housing waiting lists. Eliminating the income limit would effectively “widen” the pool of waiting list applicants while removing ceiling rents, which are generally set below FMR, would “deepen” the pool, potentially capturing currently lost revenues. These new revenues would expand the

subsidy for the low-income tenants, filling the gap between the 30 percent line presently used and the proposed progressive rent line.

Elimination of the eligibility limit has additional benefits as well. The quality must be comparable to attract people to public housing, if not better than similar rental units in the locality. PHAs must invest in upgrades to existing housing stock and become more creative to make their housing an attractive option. This is especially true, as the rental prices for higher-income earners—those who can afford FMR units at or below 30 percent of their income—would be higher than surrounding fair market rates. Price is not necessarily the sole determinant by which families choose rental housing. The incentives for families to choose a higher-priced public rental unit over a cheaper private one could be the location of the public housing, commuting times to work, family and community connections, or the quality of the development itself relative to those in the surrounding area.

Repealing Faircloth

The proposed funding model only works to address one half of the low-income housing problem. The progressive funding curve and the elimination of income limits and ceiling rents only make maintaining the current housing stock financially sustainable. They do not directly address the demand for more affordable housing. To meet this demand and improve the quality of their existing inventory to attract higher-income renters, PHAs must be permitted to build more public housing units. To do this would require a repeal of the Faircloth Amendment.

America's affordable housing stock has not kept pace with the increase in population. Despite the increased demand for affordable housing, in nearly the past two decades since the passage of the Faircloth Amendment, the total supply of America's public housing units has *fallen*. A repeal would allow public housing authorities to once again use federal funding, in

combination with new rents and other public and private funding sources, for the construction of new affordable housing that would add to the existing number of units.

Housing Allowances

Since 1983, the United States has operated the Housing Choice Voucher program, which subsidizes the cost of rental housing for households in the private market rather than public housing. The program structure is similar to public housing, where families pay a portion of their rent to a landlord or property owner. The government, through a local PHA, subsidizes the remainder. Housing Choice Vouchers imply the recipients have greater choice in where they wish to live, unlike their limited options through public housing. Still, the choice is dependent on a landlord's willingness to participate in the program. Research has shown that, despite the purchasing power a voucher affords in the rental market, Black recipient households live in poorer quality neighborhoods than White households (Newman & Holupka, 2017), which is partially attributed to discrimination by landlords (DeLuca et al., 2013; Garboden et al., 2018), among other reasons. The most common reason for not accepting vouchers is the administrative burden imposed by the local housing authority that issues the voucher (Cunningham et al., 2018). Some landlords refuse outright to accept vouchers as a means of discrimination based on a negative perception of Section 8 recipients (Badger, 2015b).

If discrimination from landlords is a roadblock for voucher holders to move into quality housing, one possibility would be to remove the landlord from the equation. As it stands, the HCV program is a three-way agreement between the PHA, the tenant, and the landlord in which the tenant agrees to pay a portion of the rent equivalent to 30 percent of adjusted income and the housing authority would provide the landlord with a voucher to cover the difference up to the fair market rent. Suppose the housing authority were to instead pay the tenant directly, thereby

concealing the source of income from potential landlords. In that case, it could potentially open up new housing opportunities to low-income families. This type of direct subsidy would amount to a negative income tax (NIT). Studies have shown that NITs can effectively reduce income inequality (Angyridis & Thompson, 2016; Friedman, 1968; Preiss, 2015).

The best example of a housing allowance program in the United States today is the Basic Allowance for Housing (BAH) paid to members of the military to subsidize the housing costs in the private market. The military provides BAH to service members who do not live in government-provided barracks or bachelor quarters (i.e., public housing). Service members are free to use this supplemental income for either rent or put it toward a mortgage on a purchased home. In the 1970s, HUD launched the Experimental Housing Allowance Program (EHAP), which tested housing allowances for households in several cities nationwide. Two key findings from the “demand experiment” were that allowances were cheaper to administer than constructing new housing and reduced segregation. The Final Report stated:

...allowances compare favorably with new construction programs. It is estimated that allowances can provide similar housing to that provided by new construction at roughly one half to three-fourths the cost, with greater recipient satisfaction and equal or lower levels of racial and economic segregation (Kennedy, 1980).

The report also found that the housing allowance payments offered program participants greater choice in finding housing meeting their specific needs, stating:

Allowances might be more effective from a recipient’s point of view because, within the limits set by the program’s housing requirements, recipients would have considerable freedom of choice in selecting units that best meet their needs. In addition, individual households might be both more likely and more able than government agencies to select

units throughout a metropolitan area, promoting greater racial and economic integration (Kennedy, 1980)

Congress, however, had other plans and decided on another payment scheme before these findings became available. Todd Richardson, General Deputy Assistant Secretary for HUD's Office of Policy Development and Research once recounted, "As sometimes happens, before the research was complete, Congress moved ahead with legislation in 1974 to create the housing allowance program that we know today as the Housing Choice Voucher (HCV) program..."(n.d.) This suggests that further research into the effectiveness of direct transfer allowance programs is warranted.

Procedural Fairness

Resident Input

Any program redesign should include the input of the people most directly affected by the policy change. Elmore's "backward mapping" approach to policy design suggests that change begins at "the point at which administrative actions intersect private choices"(2006). As stated earlier, HUD has forgone the opportunity to collect substantive feedback from its program participants for at least a decade. So this would be a plausible place to start.

Outcomes

Connecting with "Leavers"

HUD's lack of participant feedback is not limited to those currently receiving housing assistance; it also makes little effort to gather information from those who no longer receive benefits. A HUD-funded study conducted by the Urban Institute highlighted this challenge, saying:

To test whether housing assistance can encourage asset building and self-sufficiency, it would help if policymakers knew whether housing assistance leavers were actually better off, in order to judge the success of the program as a springboard to better outcomes. To date, there has been little systematic research on the effects of these efforts on families after they leave housing assistance, particularly whether these programs help recipients successfully transition off housing assistance and build long-term assets (Smith et al., 2014).

Other studies have shown the long-term effects on children whose parents used vouchers to move to higher opportunity neighborhoods (Chetty et al., 2016; Gennetian et al., 2012), but the much is left to be uncovered about the long-term effectiveness of federal housing programs.

Conclusion

What is most significant about this study is not what it indicates about the inability of the independent variables to predict performance variation, but what it says about the insufficiency of the PHAS itself to serve as a performance indicator, particularly when examined through a social equity lens. Despite the labels given to PHAs like “high performer” and “standard performer,” PHAS has shown itself to be more of an asset management tool than a performance measurement tool. This is because it is generally divorced from internal and external social influences. PHAS does a good job at measuring the stability of the physical and financial resources available to maintain a collection of assets: public housing properties. However, it is not the purpose of the public housing program to maintain a well-managed collection of assets; it is to ensure that even people of very and often extremely modest means have an equal opportunity to have a clean, safe home. In short, the goal of public housing is social equity, and

in measuring performance toward achieving that goal, the Public Housing Assessment System falls short.

Works Cited

- Anechiarico, F. (2007). The New Public Management at middle age: Critiques of the performance movement. *Public Administration Review*, 67(4), 783–786.
<https://doi.org/10.1111/j.1540-6210.2007.00761.x>
- Angyridis, C., & Thompson, B. S. (2016). Negative income taxes, inequality, and poverty. *Canadian Journal of Economics*, 49(3), 1016–1034. <https://doi.org/10.1111/caje.12223>
- Badger, E. (2015a, April 7). The double-standard of making the poor prove they're worthy of government benefits. *The Washington Post*.
<https://www.washingtonpost.com/news/wonk/wp/2015/04/07/the-double-standard-of-making-poor-people-prove-theyre-worthy-of-government-benefits/>
- Badger, E. (2015b). How Section 8 became a “racial slur.” In *The Washington Post*.
- Behn, R. D. (2003). Why measure performance? Different purposes require different measures. *Public Administration Review*, 63(5), 586–606.
- Behn, R. D. (2006). The varieties of CitiStat. *Public Administration Review*, 66(3), 332–340.
<https://doi.org/10.1111/j.1540-6210.2006.00592.x>
- Behn, R. D. (2008). The psychological barriers to performance management: Or why isn't everyone jumping on the performance-management bandwagon? *Public Performance & Management Review*, 26(1), 5. <https://doi.org/10.2307/3381295>
- Blom, D. (2018). *Repositioning Public Housing*. U.S. Department of Housing and Urban Development. <https://content.govdelivery.com/accounts/USHUDPIH/bulletins/21b4342>
- Burke, P. (1981). *Equality in Subsidized Housing*.

- Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the Moving To Opportunity experiment. *American Economic Review*, 106(4), 855–902. <https://doi.org/10.1257/aer.20150572>
- Coe, B. A. (1997). How structural conflicts stymie reinvention. *Public Administration Review*, 57(2), 168. <https://doi.org/10.2307/977065>
- Cunningham, M., Galvez, M., Aranda, C. L., Santos, R., Wissoker, D., Oneto, A., Pitingolo, R., & Crawford, J. (2018). *A pilot study of landlord acceptance of Housing Choice Vouchers*.
- Czerwinski, S. J. (2000). *Management challenges: Testimony before the Subcommittee on Housing and Transportation, Committee on Banking, Housing, and Urban Affairs, U.S. Senate*.
- Davis, J., & Radford, T. (1999). *Observations on the Department of Housing and Urban Development's performance plan for Fiscal Year 2000*.
- de Lancer Julnes, P., & Holzer, M. (2003). Promoting the utilization of performance measures in public organizations: An empirical study of factors affecting adoption and implementation. *Public Administration Review*, 61(6), 693–708. <https://doi.org/10.1111/0033-3352.00140>
- DeLuca, S., Garboden, P. M. E., & Rosenblatt, P. (2013). Segregating shelter: How housing policies shape the residential locations of low-income minority families. *Annals of the American Academy of Political and Social Science*, 647(1), 268–299. <https://doi.org/10.1177/0002716213479310>
- Elmore, R. F. (2006). Backward mapping: Implementation research and policy decisions. *Political Science Quarterly*, 94(4), 601. <https://doi.org/10.2307/2149628>
- Federal Reserve Bank of St. Louis. (2020). *Racial Dissimilarity Index*. <https://fred.stlouisfed.org/release?rid=419&t=racial+dissimilarity&ob=pv&od=desc>

- Frederickson, H. G. (2010). *Social equity and public administration*. Taylor & Francis, Ltd.
- Frederickson, H. G., Smith, K. B., Larimer, C. W., & Licari, M. J. (2012). *The public administration theory primer*. Westview Press.
- Friedman, M. (1968). The case for the negative income tax. *Republican Papers*, 220.
- Garboden, P., Rosen, E., Greif, M., DeLuca, S., & Edin, K. (2018). *Urban landlords and the Housing Choice Voucher program: A research report*.
<https://www.huduser.gov/portal/sites/default/files/pdf/Urban-Landlords-HCV-Program.pdf>
- Gennetian, L. A., Sanbonmatsu, L., Katz, L. F., Kling, J. R., Sciandra, M., Ludwig, J., Duncan, G. J., & Kessler, R. C. (2012). The long-term effects of Moving To Opportunity on youth outcomes. *Cityscape: A Journal of Policy Development and Research*, 14(2), 137–168.
- Goetz, E. G. (2012). Obsolescence and the transformation of public housing communities in the US. *International Journal of Housing Policy*, 12(3), 331–345.
<https://doi.org/10.1080/14616718.2012.709671>
- Goffman, E. (1963). *Stigma: Notes on a spoiled identity*. Penguin.
- Gowan, P., & Cooper, R. (2018). *Social housing in the United States*.
- Hair, J. Jr., Wolfenbarger, M., Bush, R., & Orinau, D. (2009). *Essentials of marketing research* (2nd ed.). McGraw-Hill Education.
- Hatry, H. P. (2002). Performance measurement: Fashions and fallacies. *Public Performance & Management Review*, 25(4), 352–358.
- Hatry, H. P. (2006). *Performance measurement: Getting results* (2nd ed.). Urban Institute Press.
- Heathcote, J., Perri, F., & Violante, G. L. (2009). Unequal we stand: An empirical analysis of economic inequality in the United States, 1967-2006. In *NBER Working Paper Series*.

- Henkel, M. (1991). The new “evaluative state.” *Public Administration*, 69(1), 121–136.
<https://doi.org/Article>
- Holder, S. (2019, June 19). *Minimum wage workers can’t afford 2-bedroom home*. Citylab.
<https://www.bloomberg.com/news/articles/2019-06-19/minimum-wage-workers-can-t-afford-2-bedroom-home>
- Huffington Post / YouGov. (2018). *HuffPost: Government programs*. Huffington Post / YouGov.
<http://big.assets.huffingtonpost.com/toplinesHPGovernmentprograms20180116.pdf>
- Huttman, E. D. (1970). Stigma in housing: International comparisons. *Annual Meeting of the American Sociological Association*.
- Ingram, H. M., Schneider, A. L., & DeLeon, P. (2007). Social construction and policy design. In P. A. Sabatier (Ed.), *Theories of the Policy Process* (pp. 93–126). Westview Press.
- Kasperowicz, D. E. (2015). *Overincome families residing in public housing units*.
<https://www.hudoig.gov/sites/default/files/documents/2015-PH-0002.pdf>
- Kemp, P. A. (1995). Researching housing management performance. *Urban Studies*, 32(4–5), 779–790. <https://doi.org/10.1080/00420989550012889>
- Kennedy, S. D. (1980). Housing allowance demand experiment: Final report of the housing allowance demand experiment. In *U.S. Department of Housing and Urban Development*.
<http://www.huduser.org/portal/publications/affhsg/hadefinalreport.html>
- Kingdon, J. W. (1995). *Agendas, alternatives, and public policies* (2nd ed.). Longman.
- Kleit, R. G., & Page, S. B. (2008). Public housing authorities under devolution. *Journal of the American Planning Association*, 74(1), 34–44. <https://doi.org/10.1080/01944360701825924>
- Krivo, L. J., & Kaufman, R. L. (2004). Housing and wealth inequality: Racial-ethnic differences in home equity in the United States. *Demography*, 41(3), 585–605.

- Lasswell, H. (1936). *Politics: Who gets what, when, how*. Whittlesey House, McGraw-Hill Book Co.
- Livingston, M., & Porter, S. (2014, October 18). The great Chicago migration myth. *Journal & Courier*. <https://www.jconline.com/story/news/2014/10/17/truth-black-white/17293817/>
- Morçöl, G. (2005). Positivist perspectives in policy analysis. In *Encyclopedia of Public Administration and Public Policy* (pp. 217–220).
- National Commission on Severely Distressed Public Housing. (1992). *The final report*.
- Newman, S. J., & Holupka, C. S. (2017). Race and assisted housing. *Housing Policy Debate*, 27(5), 751–771. <https://doi.org/10.1080/10511482.2017.1311275>
- Nielsen, P. A. (2014). Learning from performance feedback: Performance information, aspiration levels, and managerial priorities. *Public Administration*, 92(1), 142–160. <https://doi.org/10.1111/padm.12050>
- Norman-Major, K. (2011). Balancing the Four Es; or can we achieve equity for social equity in public administration? *Journal of Public Affairs Education*, 17(2), 233–252. <https://doi.org/10.1080/15236803.2011.12001640>
- Nyhan, R. C., & Marlowe Jr., H. A. (1995). Performance measurement in the public sector: Challenges and opportunities. In *Public Productivity & Management Review* (Vol. 18, pp. 333–348). Taylor & Francis, Ltd. <https://doi.org/10.2307/3663056>
- Olsen, E. (2006). Whither public housing? In *Testimony before Congress. Hearing entitled: Living in America: Is Our Public Housing System Up to the Challenges of the 21st Century*.
- Opportunity Nation. (2020). *Data & Scoring*. The Opportunity Index. <https://opportunityindex.org/methods-sources/>

- Osborne, D., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. Penguin Books.
- Patrick, B. A., & French, P. E. (2012). Assessing New Public Management's focus on performance measurement in the public sector. *Public Performance & Management Review*, 35(2), 340–369. <https://doi.org/10.2753/pmr1530-9576350205>
- Popkin, S. J. (2008). Race and public housing transformation in the United States. In *Neighbourhood Renewal and Housing Markets: Community Engagement in the US and UK* (pp. 138–162). Blackwell Publishing Inc.
- Preiss, J. (2015). Milton Friedman on freedom and the Negative Income Tax. *Basic Income Studies*, 10(2), 169–191. <https://doi.org/10.1515/bis-2015-0008>
- Public Housing Authority Directors Association. (2019). *Executive/deputy director compensation survey*.
- Qiao, Y., & Thai, K. v. (2002). Reinventing government at the federal level: The implementations and the prospects. *Public Administration Quarterly*, Spring, 89–116.
- Radin, B. A. (2006). *Challenging the performance movement: Accountability, complexity, and democratic values*. Georgetown University Press.
- Reid, M. (2017). Social Policy, “Deservingness,” and sociotemporal marginalization: Katrina survivors and FEMA. *Sociological Forum*, 28(4), 742–763.
- Richardson, T. (n.d.). *Blast from the past: How the Experimental Housing Allowance Program of the 1970s can inform the Moving To Work expansion today*. The Edge. Retrieved July 3, 2021, from <https://www.huduser.gov/portal/pdredge/pdr-edge-frm-asst-sec-032017.html>
- Rothstein, R. (2012). Race and public housing: Revisiting the federal role. *Poverty & Race*, 21(6), 1–16.

- Rothstein, R. (2017, May 3). A “forgotten history” of how the U.S. government segregated America. *Fresh Air with Terry Gross*. <https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america>
- Rowe, H. A. (2011). The rise and fall of modernist architecture. *Inquiries*, 3(2011), 11–14. <http://www.studentpulse.com/a?id=515>
- Schill, M. H., & Wachter, S. M. (2001). Principles to guide housing policy at the beginning of the millennium. *Cityscape: A Journal of Policy Development and Research*, 5(2), 5–20. <http://www.jstor.org/stable/10.2307/20868512>
- Schneider, A., & Ingram, H. (1993). Social construction of target populations: Implications for politics and policy. In *Source: The American Political Science Review* (Vol. 87, Issue 2).
- Schneider, A. L., & Ingram, H. M. (1997). *Policy design for democracy*. University Press of Kansas.
- Smeeding, T. M. (2005). Public policy, economic inequality, and poverty: The United States in comparative perspective. *Social Science Quarterly*, 86, 955–983.
- Smith, R. E., Popkin, S., George, T., & Comey, J. (2014). *What happens to housing assistance leavers?* www.huduser.gov
- Stegman, M. A. (2002). The fall and rise of public housing. *Regulation*, 25, 64–70.
- Stone, D. (2002). *Policy paradox: The art of political decision making* (Revised Ed). W.W. Norton & Company.
- Straight, R. L. (2000). Performance metrics: Avoiding the pitfalls. *Public Administration Quarterly*, 23(4), 493.
- Taylor, F. W. (1919). *Principles of scientific management*. Harper & Brothers.

- Topinka, J. (2011). *Does management capacity increase organizational performance? An empirical analysis of public housing agencies*. <https://doi.org/10.25148/etd.FI11072509>
- Turner, M. A., & Kingsley, G. T. (2008). *Federal programs for addressing low-income housing needs: A policy primer*.
- United Nations Department of Economic and Social Affairs. (2018). *68% of the world population projected to live in urban areas by 2050, says UN | UN DESA | United Nations Department of Economic and Social Affairs*.
<https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>
- U.S. Census Bureau. (2020a). *Quick Facts: United States*.
<https://www.census.gov/quickfacts/fact/table/US/PST045219>
- U.S. Census Bureau. (2020b). *QuickFacts: Wicomico County, Maryland*.
<https://www.census.gov/quickfacts/fact/table/wicomicocountymaryland/PST045219>
- U.S. Department of Agriculture-Economic Research Service. (2020). *Rural-Urban Continuum Codes*. <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>
- U.S. Department of Housing and Urban Development. (n.d.). *Mission*. Retrieved July 1, 2021, from <https://www.hud.gov/about/mission>
- U.S. Department of Housing and Urban Development. (1993). *Public Housing Management Assessment Program (PHMAP) Handbook (7460.5)*.
https://www.hud.gov/program_offices/administration/hudclips/handbooks/pihh/74605
- U.S. Department of Housing and Urban Development. (2011). 24 CFR Parts 901, 902, and 907 public housing evaluation and oversight: Changes to the Public Housing Assessment

System (PHAS) and determining and remedying substantial default. In *Federal Register* (Vol. 76). <http://www.hud.gov/>

U.S. Department of Housing and Urban Development. (2013). Confronting concentrated poverty with a mixed-income strategy. *Evidence Matters, Spring*.

<https://www.huduser.gov/portal/periodicals/em/spring13/highlight1.html#title>

U.S. Department of Housing and Urban Development. (2017). *HUDUser: Fair Market Rents*.

<https://www.huduser.gov/portal/datasets/fmr.html#2017>

U.S. Department of Housing and Urban Development. (2020a). *FY2020 Income Limits Documentation System*.

<https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn>

U.S. Department of Housing and Urban Development. (2020b). *Resident Characteristics Report*.

<https://pic.hud.gov/pic/RCRPublic/rcrmain.asp>

U.S. Department of Justice. (2019). *State-by-state and national crime estimates by year(s)*.

Uniform Crime Reporting Statistics. <https://www.ucrdatatool.gov/>

U.S. General Accounting Office. (2003). Public housing: Small and larger agencies have similar views on many recent housing reforms. In *Report to the Ranking Minority Member, Subcommittee on Housing and Transportation, Committee on Banking, Housing, and Urban Affairs, U.S. Senate: Vol. GAO-04-19*.

U.S. Government Accountability Office. (2001). Department of Housing and Urban Development: Status of achieving key outcomes and addressing major management challenges. In *Report to the Ranking Minority Member, Committee on Governmental Affairs, U.S. Senate: Vol. GAO-01-833* (Issue July).

Williamson, J. B. (1974). The stigma of public dependency: A comparative of alternative forms of public aid to the poor. *Social Problems*, 22(2), 213–228.

Wilson, W. (1887). The study of administration. *Political Science Quarterly*.

<https://doi.org/10.2307/2139277>

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