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Defining Success: A Distinction between Inputs and Outputs of Successful Public Housing Projects

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Defining Success: A Distinction between Inputs and Outputs of Successful Public Housing Projects

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Public housing across the United States differs greatly in physical form, construction quality, and reception by the community, among myriad other variables. This reports examines what successful public housing looks like, and what characteristics make certain public housing projects more successful than others. There is a great deal of thought and literature predicting this success. However, it is rarely accompanied by a corresponding picture of the "outputs" of successful public housing. Assessment measures presented in existing literature and the U.S. Department of Housing and Urban Development's publications do not provide a thorough metric by which to measure public housing success on a project-by-project basis. This report examines the existing metrics—both explicit and inferred—and assesses their suitability for this purpose. Finally, it compiles indicators of success from various sources and lobbies for a comprehensive success metric at an individual public housing project level.

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Introduction

My interest in public housing began as a bystander. I lived in Washington, D.C. for two years, and became very interested in the city's affordable housing projects while there. In Washington, D.C., a majority of public housing projects are not held in high esteem by the public or by their residents. They are viewed as dangerous and unattractive, and are often in undesirable locations. Throughout my time in the nation's capital, it was readily apparent that non-residents went out of their way to avoid public housing, making efforts not to walk, bike, or even drive by projects. In 2011 I worked with public housing residents served by the D.C. Housing Authority, and the overwhelming theme in their comments was a deep dissatisfaction with their places of residence. Although this pervasive negativity encircles the concept of public housing in Washington, D.C., certain projects have a better-than-average reputation. This begs the question why particular projects are viewed as more successful than others, and whether there is consistency in this hierarchy.

It is interesting to consider the concept of success through a public housing lens. From a bystander's observation, it was unclear what, exactly, promotes certain developments as hallmarks of successful public housing, while others are dismissed as failures. With multiple variables at play, I became curious about the metrics used in the assessment of public housing. Do housing projects that are considered successful share characteristics that those viewed as failures are lacking? To what extent is this subjective? What types of measurements exist to determine success? Is there a metric in

place—federal or otherwise—that can be applied to all public housing to create a comprehensive picture of which projects are more successful than others and why?

These questions are important to the future of public housing in the United States. Understanding how public housing success is defined allows us to understand what is most important to various stakeholder groups. Examining why certain developments achieve greater success—whether measured against others or in public opinion only—will inform which strategies to replicate in future developments. Considering which long-term practices contribute to successful projects is informative for public housing authorities as they create management and financial structures.

My preliminary hypothesis was that a standard, agreed upon definition of public housing success does not exist. However, I expected that from literature and case studies, a ready picture would emerge based on various elements of different public housing projects that are considered successful. In actuality, I have found something less cohesive and definitive. A great deal of data exists about the "inputs" that are predicted to contribute to successful public housing. Much policy and academic thought anticipate what factors will coalesce into a strong public housing development. However, these are not accompanied by a definition of success—a description of what a strong project actually looks like—nor are they associated with "outputs" measuring this success.

This report examines the history of U.S. public housing to provide context for the analysis. Literature surrounding the topic is then reviewed, of which a great deal centers on what has not been successful in past U.S. housing policy and at an individual project level. Two case studies of widely acclaimed public housing projects are then considered,

and indicators of success drawn from these cases are discussed. Finally, initiatives from the U.S. Department of Housing and Urban Development (HUD)—the entity responsible for public housing management and policy—are examined, including existing assessment metrics and a relatively new program focused on recording innovative public housing practices.

There are bright spots in academic and U.S. government publications from which success indicators for individual public housing projects can be inferred. However, these are not measured consistently or in a federally-regulated manner. Rather, HUD focuses its enforcement powers at the public housing authority level, which is problematic as individual projects under the same public housing authority's oversight vary greatly.

This report intends to examine how public housing success is defined and to synthesize success indicators where possible. While there is a good deal of divergence there are also areas in which stakeholders' opinions on success overlap. This overlap allows us a real opportunity to define public housing success. Although a cohesive picture and supporting measurements of success do not exist currently, a definition of public housing success is attainable.

Chapter 1: A Brief History of Public Housing in the United States

The U.S. government was not formally involved in the provision of affordable housing until President Franklin Delano Roosevelt's New Deal initiative in the 1930s. Prior to this—throughout the nineteenth and early twentieth century—the government was chiefly involved in low-income housing through building code regulations and enforcement. The movement toward housing regulations catalyzed around tenements and urban slums of the late nineteenth century. Living conditions were inarguably dangerous, both mentally and physically. After early tenement acts proved unsanitary—as an example, legally mandated open spaces became garbage receptacles—it was clear that more concerted action would be required to exact meaningful change. Jacob Riis published the groundbreaking book How the Other Half Lives in 1890, documenting the oppression of New York City's slums and the illness commonly arising in such overcrowded conditions. Riis' book had a catalyzing impact on public opinion and the housing reform movement. A growing awareness of slum conditions led to the New York Tenement Act of 1901, which set forth required light and fresh air standards for the state's tenement buildings.

Although tenements built after the Tenement Act of 1901 were required to include courtyards providing open space and light and were arguably more architecturally pleasing, there remained a great disparity between living conditions for those in tenements and otherwise. In the 1920s an unofficial partnership arose between various organizations promoting more equitable housing conditions, such as the National Public Housing Conference, the Labor Housing Council of the American Federation of Labor,

and the Regional Plan Association (RPA) (Heathcott 2012). The Executive Secretary of the RPA, Catherine Bauer, emerged as an effective leader and stood at the forefront of a cooperative movement promoting two influential ideals: first, the government is required to provide for basic human needs where the market has come up short, and second, this governmental intervention will be most effective and beneficial in the form of publicly subsidized, safe, sanitary, and attractive housing for the working class. (Heathcott 2012).

The housing reform movement resonated with Roosevelt. He spoke about the housing issues facing the United States in his second presidential inaugural address on March 4, 1933:

> I see one-third of a nation ill-housed, ill-clad, ill-nourished. But it is not in despair that I paint you that picture. I paint it for you in hope—because the nation, seeing and understanding the injustice in it, proposes to paint it out. We are determined to make every American citizen the subject of his country's interest and concern…The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little (The American Presidency Project 2014).

His famous words ushered in a new era for the nation.

The economic devastation of the Great Depression opened the door for major restructuring of the U.S. government's role in public programming, and public housing activists capitalized on this opportunity. The housing movement successfully advocated for support from the Roosevelt administration. In 1933 Roosevelt's New Deal introduced the National Industrial Recovery Act (NIRA), which established the Administration's focus on rebuilding the middle class and providing opportunity for low-income persons. NIRA tasked the Public Works Administration (PWA) with handling the funding of housing for the nation's low-income residents. The PWA's Housing Division was

charged with providing low-interest loans to developers in exchange for maintaining the affordability of new housing construction targeting the middle class. The PWA funded several large-scale housing projects through this funding mechanism, many of which were designed by leading architects of the time (Heathcott 2012). In spite of this, these initial projects—of which there were only seven—were not viewed as successfully meeting the PWA's mission, as the low-interest loans were largely negated by construction costs. The rent levels necessary to offset developers' costs were notably higher than what was financially feasible for the low-income families whom public housing intended to serve. In 1934 the Roosevelt administration authorized the PWA to shift from interest rate subsidization to direct project development. The 52 projects that were created under this PWA initiative across the U.S. were meticulously developed and appropriately addressed the needs of residents. Today, these are still considered some of the most successful public housing projects in existence (Heathcott 2012). However, these projects ran into the same issue as their predecessors—development and maintenance costs needed to be offset by rental costs that were unattainable for low-income households. The cost of these projects, compounded by the fact that the PWA was barely able to put a dent in the need for affordable housing nationwide, caused the government to consider new solutions. The PWA initiative under the NIRA was replaced when the U.S. Housing Act of 1937 established the U.S. Housing Authority, a quasi-autonomous agency, to administer public housing projects across the country.

The U.S. Housing Authority existed to provide capital and technical assistance to entities creating public housing. However, the onus was on individual states to participate

in the program. For their part, states were responsible for granting cities the power to create housing authorities—entities with tax exemption privileges and eminent domain powers. Cities then chose to participate in their state's program by requesting a charter to create a housing authority, if desired. However, a handful of cities across the U.S. began providing publicly funded housing before the introduction of the U.S. Housing Act of 1937, New York City being the most notable example (the New York City Housing Authority was created in 1934) (New York City Housing Authority 2014).

Initially, public housing site selection was entirely under the local jurisdiction's control. In many cities, this led to purposeful racial segregation perpetuated by the local housing authority (Stoloff 2004). Furthermore, public housing was often targeted to neighborhoods experiencing slum clearance and "urban renewal" initiatives. New construction on these sites often did not result in the desired renewal, but rather concentrated public housing in areas that continued to struggle. As Michael Lens (2013) from the University of California at Los Angeles writes, "During the mid-20th century, when the vast majority of public housing units were created, these developments were frequently sited in undesirable areas that offered few amenities and contained high proportions of low-income and minority households" (Lens, 1). In spite of what these projects intended, they often served to deepen racial segregation. The civil rights movement of the 1960s spawned federal government involvement to counteract discriminatory practices, and new regulations were applied to federal funds. Construction went through phases of productivity throughout the 1960s and 1970s, shifting with the federal administration. However, large scale funding for public housing construction was

halted in 1981 and HUD's focus has largely moved to scattered site and tenant-based housing vouchers (Stoloff 2004).

A sector of historians and housing experts argue that the failings of the U.S. public housing system are the direct result of compromise of the program from its onset (Heathcott 2012). Reduced funding during 1938-1939 and the trepidation with which many major political players viewed public housing all contributed to its rocky start. Additionally, World War II production costs took precedence over public housing construction. The approach of the war created a need for housing units for defense workers, along with the associated services such as schools and health care facilities. The U.S. Housing Authority shifted under the umbrella of the Federal Works Administration (FWA), and housing initiatives—more prolific than in years prior—primarily served defense workers and their families. The Defense Housing and Community Facilities and Services Act of 1940 consolidated federal housing programs into the National Housing Agency (NHA), which, along with the FWA, built 700,000 units between 1940 and 1945. (Heathcott 2012). A majority of these were easily dismantled modular housing, with the remainder of units spread across 200 permanent projects. After the war, the modular housing was deconstructed and sold and the permanent housing projects were repurposed to serve returning military members. They were eventually handed over to the U.S. Department of Veterans Affairs to facilitate individual unit purchase by veterans and their families. The NHA converted only approximately two percent into public housing units, which did not put a dent in the increasing need for housing for low-income Americans. Due to the shortage, active housing authorities placed emphasis on building the highest

possible number of units on a particular site throughout this time, often sacrificing design considerations and room size, as well as gathering places and landscaping (Heathcott 2012).

The political climate shifted in the post-war years, as opposition to New Deal policies gained traction. This culminated in the passage of the Housing Act of 1949, which expanded the government's role, but did so by funneling federal funding into private housing initiatives. From this grew the federal underwriting that is associated with FHA today. As federal involvement shifted to the private sector, housing authorities suffered. The federal funding they received was strictly capped, but housing authorities continued to restrict rents to one-fifth of a family's income (Heathcott 2012). With limited incoming capital, housing authorities faced difficulty in meeting projects' operating costs.

Public housing was initially built at a much smaller scale than what people associate with housing developments today. The majority of public housing shifted from the two-story walk-up and garden apartment style of the 1930s and 1940s to high rise apartment buildings in the 1950s. Housing authorities' financial concerns were a large contributor to the movement towards high rise buildings as a cost-saving mechanism, which were often notably out of place in neighborhoods made up of single-family homes. The Housing Act of 1954 signified the nation's emerging focus on urban renewal and slum removal, and new public housing construction slowed. However, President Kennedy's administration focused on elderly housing and granted non-profit

organizations the opportunity to receive federal funding to construct low-income housing for the elderly.

In 1965, the U.S. Department of Housing and Urban Development (HUD) became the newest umbrella organization under which the federal government consolidated its housing programs. Shortly after its inception, the federal government, under President Lyndon B. Johnson, began focusing heavily on non-physical investments to create opportunity for the low-income population—emphasis moved from housing projects to job creation. This caused many years of experimentation by HUD, as the agency struggled to determine how it would be most impactful under limited funding conditions, a practice that continues today. Many cities lost significant population numbers as the suburban lifestyle attracted former city residents. Remaining inner-city residents were disadvantaged by a decreased tax base and increased crime rates. With this, public housing project conditions worsened, a deterioration that continued across several decades.

As public housing faced challenges consistent with those felt by inner cities, its unpopularity increased. Schwartz (2010) writes in his book, "Housing Policy in the United States", "The concentration of very low-income families in public housing is widely considered a source of many of public housing's most dire problems, including its difficulty meeting operating costs and the myriad issues associated with concentrated poverty." At its inception, public housing was intended to house low-income households. It was designed for working families who had happened on hard times, who largely did not receive public assistance aside from housing subsidies. Housing management policies

were strict, with managers visiting applicant homes prior to acceptance into public housing, to determine if they were "orderly" enough to relocate to public housing (Schwartz 2010). The post-World War II boom, coupled with the accessibility of FHA mortgage insurance, made the dream of affordable homeownership attainable for millions of families who may have otherwise turned to public housing. With public housing's tenant base largely moving to the suburbs, the median household income of public housing tenants fell dramatically. In 1950 the median income of a public housing resident was 57% that of the national median income. In 1960 it dropped to 41% national median income, 29% in 1970, and by the mid-1990s it had fallen to less than 20% (Schwartz 2010).

As public housing's focus increasingly shifted to serving extremely low-income families and individuals, its already shaky popularity among the public fell further. The federal government waivered on their approach in the years that followed. When Richard Nixon came into the U.S. Presidency in 1969, he placed a moratorium on all new high-rise public housing projects aside from those built for elderly populations. Public housing remained out of favor with the public throughout the 1970s and 1980s, as existing sites were viewed as places of crime and dilapidation (Heathcott 2012). In 1974 Congress attempted to remedy the concentration of poverty by amending the U.S. Housing Act of 1937 to read, "within a reasonable period of time, [each] project will include families with a broad range of incomes and will avoid concentrations of low-income and deprived families with serious social problems" (quoted in Schwartz 2010). This intention was reversed in 1981 legislation, renewing the focus on serving the neediest of families

through public housing. This focus was again reversed through the Quality Housing and Work Responsibility Act of 1998, which shifts a percentage of extremely low-income residents from public housing units into the private market housing voucher program. The focus on deconcentrated poverty continues throughout HUD's HOPE VI program, discussed below.

Since 1980, few new public housing units have been constructed; public housing nationwide reached its highest unit count in 1994, with 1.4 million, and this figure declined by 19% by 2008. Instead of new construction, the focus nationwide has shifted to rehabilitation of existing sites and demolition of the more dilapidated structures in favor of deconsolidated housing solutions, such as Section 8 vouchers, or a shift to mixed-income housing through programs such as HOPE VI.

HUD introduced HOPE VI in 1992 and fully launched it in 1993, a revolutionary program dedicated to converting high-rise public housing buildings into mixed-income structures more appropriately matched to surrounding neighborhoods. Between 1993 and 2007, HOPE VI has funded the redevelopment of 247 public housing projects and been responsible for the demolition of 150,000 dilapidated units across the country (Schwartz 2010). HUD introduced HOPE VI with the goal of the public housing stock's physical transformation and facilitating a wider mix of income among residents. As the program gained momentum in the mid-1990s, HOPE VI expanded its goals to achieving poverty deconcentration through revamped project design following New Urbanist principles. The program has ambitiously sought to transform public housing through a shift to low rise buildings with attention given to design details and nostalgic features such as front

porches. The focus on design is not purely aesthetic. Revamped facilities and green space in new HOPE VI developments are designed to grant residents greater control over the development's public spaces—specifically, to invoke a sense of ownership over not only an individual housing unit, but also over the proximate public and open space. This is hoped to contribute to greater safety within the development, as areas that were historically plagued by crime incidents are more exposed, physically, and are naturally designed to promote resident ownership.

HOPE VI represents a departure from the historic strategy of low-cost public housing construction. As noted above, it emphasizes design—both external and through amenities greatly improved from those found in previous public housing. Quality of construction work is also emphasized. Although this raises development costs, the benefit is twofold. First, high quality construction at a project's onset should pay off over a project's lifespan through reduced maintenance and repair costs. Second, and perhaps more importantly in the evolution of public housing, high quality construction (and design) aims to attract higher income residents than those previously concentrated in public housing projects.

This income-driven shift is representative of U.S. policy's changing perspective on public housing and inner city revitalization (Schwartz 2010). By the mid-1990s, the federal government—informed by public housing authorities (PHA) and other housing experts around the country—began to recognize the importance of public housing's integration with the wider community, as opposed to its previous isolation. HUD rewarded PHAs that submitted HOPE VI proposals leveraging other housing subsidy

funds and that propose to work with market-rate housing developers to create mixed-income developments. The focus on poverty dispersal is wildly different than the popular thought that dominated public housing policy for decades. Accompanying this is a reformed management structure. In the past, PHAs were responsible for property management—often a large scale task that required prioritization of certain projects over others. In the past decade, this practice has shifted to private management firms. PHAs largely contract with private firms for property management, particularly at HOPE VI sites. The benefit of this is great—each public housing site that is privately managed has a site-specific budget, creating more accountability for operating costs and revenues. This approach is required by private lenders, further illustrating the shift in focus to mixed-income developments—PHAs are encouraged to facilitate private management to compel private sector partnership (Schwartz 2010).

With the shift from traditional public housing to HOPE VI mixed-income development, it is difficult to argue that the face of these projects has not been brightened. The vast majority of redeveloped sites are more architecturally pleasing, and many are safer and more congruent with the surrounding neighborhood after HOPE VI's impact. However, this does not mean that the shift in public housing priorities comes without its own set of challenges. Because high rise buildings are typically replaced with lower structures, often with larger unit sizes to attract higher income residents, fewer units are in place after demolition or rehabilitation. A percentage of the redeveloped units are often set aside for higher income individuals, furthering HUD's aim of mixed-income developments but further reducing the number of units available to low- and moderately

low-income households with the same public subsidies as existed prior to redevelopment. Residents displaced during the construction process often do not return to the housing site—the U.S. General Accounting Office anticipates only 44% of residents will do so (Schwartz 2010). New eligibility requirements accompanying the revamped developments deem a faction of previous residents ineligible for the new housing, most notably those with poor credit histories, criminal records, and those who are known not to maintain units to acceptable standards. Although it is logical why these criteria should contribute to greater public housing "success," it does not answer the question of housing for displaced residents. Studies show that a majority of residents move to an alternate public housing development or, where possible, use a Section 8 voucher to obtain housing in the private market. Since 1994, the number of public housing units across the U.S. has decreased by 19%, with 270,000 units demolished, primarily in large cities (Schwartz 2010).

Critics of public housing's performance across the past several decades and today often cite the legislation from 1937 that was passed under extreme compromise. Because of the limitations placed on public housing since its inception—including but not limited to severe financial caps to projects resulting in cost-cutting measures, and location in low-income areas due to the autonomy granted each jurisdiction to decide whether to host public housing—it largely appears that public housing's path has been forged by its attempts to work within the parameters of these compromises, and subsequently, remedy the negatives outcomes that have resulted. Where public housing was conceived simply to house low-income residents who would not be able to afford safe, decent housing

without subsidy, its purpose today has grown to encompass the goal of poverty deconcentration and to spark the economic renewal of distressed neighborhoods (National Low Income Housing Coalition 2013, Schwartz 2010).

Public housing funding has likewise been a widely discussed and often amended federal allocation. Funds for public housing capital improvements are no exception to this. Although Congress originally required housing authorities to manage capital funds for maintenance and repair issues through the U.S. Housing Act of 1937, this was amended in the 1950s to direct the capital reserve funds to pay debt service on public housing construction bonds. By 1968, the need for capital improvements could not be ignored any longer, and the federal government undertook the task of determining which public housing stock improvements were to be prioritized across all housing authorities. Although the roofs and heating systems that were replaced under this system were welcomed, they did not always correspond with the priorities of the individual housing authority. This centrally-driven capital improvement system remained in place for twelve years, when in 1980 the policy changed in favor of allowing housing authorities to allocate capital funds (received either on a formula or competitive basis, depending on the housing authority's size) based on their own prioritization. Today, federal capital funds for public housing lag far behind what is needed to modernize all projects. There is a substantial backlog of capital improvement needs, in addition to routine maintenance and repair (Schwartz 2010). Capital improvements are only one of many competing demands on limited public housing funding.

As the number of renters in the United States rises, it is accompanied by increased demand for affordable units. However, the rate at which housing for low-income households is built has not kept up with the increasing numbers of low-income renters. The National Low Income Housing Coalition (2013) describes this problem:

> The number of renters in the United States continues to climb steadily, rising by approximately one million from 2010 to 2011. There were 40.6 million renter households in the United States in 2011 and one out of four, or 10.1 million, had incomes that can be classified as extremely low (ELI) using U.S. Department of Housing and Urban Development's income categories. The supply of rental housing also expanded from 2010 to 2011, increasing by a little more than 700,000 units. However, the majority of the new homes (61%) were only affordable to renter households with incomes above 80% of AMI. While the number of homes affordable to ELI renter households increased slightly, the growth was not enough to keep pace with the growing numbers of ELI renters. In 2011, there were 5.6 million rental units affordable for the 10.1 million ELI renters, producing an absolute shortage of 4.6 million affordable units…In 2011, for every 100 ELI renters, there were only 55 units they could potentially live in without spending more than 30% of their income on housing and utility costs. The comparable number in 2010 was 56…Households with incomes at or below 50% of AMI face a similar predicament. There are only 57 affordable and available units per 100 renters at the VLI threshold or below as of 2011. This is down slightly from 58 in 2010. Finally, even for households with incomes at or below 80% of AMI, there is a slight deficit of affordable and available units, with 97 for every 100 renters at the Low Income threshold or below.

This widening gap indicates the continued need for affordable housing units in the United States. Today, public housing is funded and maintained by the Public and Indian Housing (PIH) branch of the U.S. Department of Housing and Urban Development. While PIH and HUD strive to continuously improve the face of public housing through initiatives such as HOPE VI, it is important to remember that they must also contest with a growing need for affordable units nationwide, and must streamline their public housing policy to meet this growing need. This report intends to examine public housing "success." How to define success in housing projects is an important question regarding

both the supply and funding of public housing in the future. As PIH attempts to manage supply and funding, they will do so more efficiently with a successful end product in mind. As illustrated throughout public housing history, missteps in policy can create further problems: in both public and federal opinion, and subsequently in terms of securing financing. Facing a demand that does not show signs of slowing in the near future, it is critical to make optimal use of limited resources by understanding why certain public housing projects are more successful than others, and ultimately attempting to replicate the policies contributing to this success.

Through this report I hope to create a comprehensive picture of the characteristics that successful public housing projects share. I first review the existing literature on public housing success and determine what the literature contributes to our understanding of measuring individual project success. I will then present two case studies. Public housing cases that have been successful are cited throughout the literature—these are identified by HUD as "poster-child" public housing sites, and also have been well received by the communities in which they are located. These case studies are discussed in an effort to understand what characteristics are indicative of successful public housing to various parties. The factors that contribute to the case studies' recognition as successful are then related to the themes of success compiled from the literature review. The report then moves on to HUD-created public housing success metrics, and other existing metrics examining public housing success. I examine these metrics for their comprehensiveness and applicability to individual projects. From this, a compilation of

characteristics will be drawn to create a picture of what a successful public housing project looks like.

Chapter 2: Literature Review

There is a great deal of literature on public housing in the United States. Much academic thought focuses on public housing's history and examines why policy has evolved as it has. There is also more recent debate on how the American mortgage crisis has and will affect the wider housing market. However, within this breadth of thought on housing, and public housing in particular, there is a lack of literature regarding public housing assessment. I first searched for public housing success metrics, evaluations, and assessments—I was interested in finding data- and opinion-driven metrics that could be applied to a variety of projects to determine how successful they have been. This method of search brought up results from the Department of Housing and Urban Development (HUD), but very little literature proposing comprehensive metrics by which success can be measured.

Instead, the literature review revealed an important distinction in how academics—and often policy-makers as well—view public housing success. While there is scarce literature discussing what measures are actually indicative of successful public housing, there is a fair bit of discussion on what measures are *predicted* to result in successful public housing. The distinction exists between public housing's goals—the characteristics of successful public housing across diverse projects, and how these characteristics actually look (the "outputs" of successful public housing)—and the theories about what will lead to the achievement of these goals (the "inputs" of successful public housing). This theme of inputs versus outputs is prevalent in the literature, and runs as a framework throughout this report.

As stated above, the result of a preliminary search for articles examining the success of public housing projects was rather bare-boned. This may be because there has been so little testing of public housing endeavors to determine whether they have been successful, as Lawrence Vale (2013) claims in the article *Purging the Poorest: Public Housing and the Design Politics of Twice-Cleared Communities*. He writes:

> There has been little formal testing of interventions on tenants or communities, and few policy shifts seem motivated by findings generated by researchers. Instead, public housing policymaking has proceeded and evolved in accordance with a much more informal sort of experimentation—expressed as the eagerness to try out something systematically. These public-sector experiments signal the revealed preferences of a society, and they remain subject to the shifting winds of national politics and broad trends in social cognition" (6-7).

Vale claims that a concerted effort to reflect upon the successes of public housing has not yet come to pass. Instead of public housing policy evolving from research on past approaches and their subsequent outcomes, policy is formed as a reaction to current thought trends. This is echoed in Erin Graves and Lawrence Vale's (2012) article, *The Chicago Housing Authority's Plan for Transformation: Assessing the First Ten Years*, which opens with, "While many U.S. cities have rehabilitated their public housing over the last two decades, the scholarly community has rarely developed comprehensive assessments of these efforts" (464). This sets the tone for the remainder of the literature review. As discussed above, literature measuring public housing's success through outputs is scarce. Far more articles focus on public housing's failures—particularly on the policy, implementation, and long-term failures of projects both in the United States and abroad. Many of the articles that do examine success consider this at the housing authority level, not on an individual project basis.

One planning initiative that been extensively reported about is the Chicago Housing Authority's Plan for Transformation. The scope of the Plan for Transformation—with a goal of rehabilitating or replacing 25,000 public housing units in Chicago—was unprecedented, and thus, provides a unique opportunity for public housing assessment. Although the literature examining the Chicago Housing Authority's (CHA) Plan does not assess a single project, it provides insight into the factors—of either success or failure—by which the CHA's redevelopment efforts are being judged. Although much is discussed across the literature, three main themes of success emerge. First, the Plan focuses on the physical state of CHA's housing stock, with a particular emphasis on transitioning several projects into mixed-income developments with the end goal of achieving greater resident self-sufficiency. Second, resident satisfaction is assessed, with a focus on residents' involvement in their neighborhood, and use of supportive services as a reflection on mental and physical health (Graves and Vale 2012). Third, resident economic status before and after the Plan's ten-year anniversary is discussed. These themes reflect the factors the designers of the Plan thought equate to greater public housing success: high levels of resident self-sufficiency, resident satisfaction and quality of life, and resident socioeconomic status and integration with the surrounding neighborhood. This is a strong example of both input and output measures woven throughout literature examining the Chicago Plan for Transformation. The first theme, for example, identifies mixed-income development as the input that is *predictive* of public housing success, with resident self-sufficiency as the output indicative of *achievement* of public housing success. The Chicago Plan for Transformation is an

unusual planning initiative in that it has produced literature identifying the end goal of public housing, or "outputs"—a practice that is scarce throughout much of the literature review.

Although this report intends to examine public housing success in the United States, literature on international public housing and development efforts also exists. Asmamaw Tadege Shiferaw and Ole Jonny Klakegg (2013) write a particularly salient article on evaluating public housing success in Ethiopia, called *Project Evaluation: Accomplishments, Shortfalls, and Lessons Learned in Housing Development Projects in Ethiopia*. Based on project development assessment criteria put forth by the Organization for Economic Cooperation and Development, Shiferaw and Klakegg's article offers several output indicators that may be pertinent to defining success in U.S. housing projects as well. Here, success is defined by resident capacity development and increased employment, which merge into the overall theme of resident self-sufficiency. Physical success is defined as improved living conditions within the public housing development, maintained over the long term as a result of strong management practices and project operational efficiency (Shiferaw and Klakegg 2013). These are indicators of the public housing development's goals—if residents achieve a greater degree of self-sufficiency and enjoy improved living conditions, the development has reached a measure of output success. In this example, specific metrics are limited—the literature states that increased employment numbers relate to the output measurement of resident self-sufficiency, but does not propose data-driven indicators. Likewise, there is no measurement linked to the output of improved living conditions. How would one measure the improvement?—

through resident satisfaction surveys or an increased score on a living conditions metric? In spite of these gaps, it is encouraging to find literature attempting to define public housing success. Even in broad terms, these outputs contribute to a picture of success on an individual public housing project basis.

Aside from exceptions such as the two cases above, a majority of literature that addresses the concept of success in public housing focuses nearly exclusively on the input side of the equation. Many articles hypothesize what factors contribute to a successful project. They predict the elements that go in to a project, but do not suggest an output measure by which to determine the extent to which the prediction has proven true. Roberto Quercia's (2010) article, *The Challenges Facing Public Housing Authorities in a Brave New World*, is a strong example of this. He writes:

> We believe that it may be possible to reach some workable operational compromise among three goals—integration of the poor, value of cross-subsidies, and private capital investments—by beginning with the model of a mixed-income development. The evidence does not permit us to suggest precisely what comprises the optimal mix, or whether market-rate housing is part of the mix; the particulars must depend on the development-specific context. Nevertheless, it is clear that substantial project diversity between tenants earning less than 50 percent of AMI and those earning between 50 and 80 percent is feasible and that it can attract private capital, assuming that it is well designed, well managed, and well located (557).

I came across this manner of assertion quite often in the literature review, although the subject matter differs by article. Within Quercia's statement, there is the claim that mixed-income development will achieve the goal set forth—integration of the poor through securing cross-subsidies and private capital investments. It also states that a mixed income project may attract private capital, so long as it achieves optimal design, location, and management. While these are strong input claims, they do not have

corresponding outputs. The literature does not suggest what success looks like if, in fact, these goals are met. Quercia's example uses mixed-income as the input, but leaves us with the question of how to measure the success of "integration of the poor." This type of question is raised often when examining public housing success. The literature reviewed through the search parameters discussed above creates a clear picture regarding theories on the inputs that lead to the achievement of public housing's goals. What these output goals are, however, is not clear. Because a comprehensive metric to measure public housing success did not present itself in the literature review, I instead focused on literature discussing the inputs to public housing success. Although these do not answer the central question of how public housing success is defined, they certainly contribute to a broader understanding of what is believed to play an integral role in this eventual success.

However, absent from the literature is an attempt to create a complete picture of inputs correlated with public housing success. The majority of articles that present inputs focus on a particular case study or a particular geographic region. This is logical, in that various circumstances and various parties define success differently. In spite of the literature's lack of a holistic approach to defining public housing success, consistent themes can be drawn from a variety of articles. These themes emerge around theories on the actions that will achieve the goals of a public housing project. These generally center on inputs that the public housing authority can, to some degree, control. It seems reasonable that literature would find commonality here, as the input success should

hypothetically result in output success. As always, the question remains how to define the output success.

The common themes that emerge in research as the inputs to public housing success include **Housing Management Policies and Financial Health; Physical Housing Stock and Quality of Craftsmanship; Safety and Characteristics of the Surrounding Neighborhood/Project Location; Physical Design; Public's Opinion of Project/Relationship with Surrounding Neighborhood;** and **Developer Mission.** Many articles suggest the importance of certain input criteria that fit into these categories. For example, Joseph Heathcott (2012) suggests that the fate of a public housing project is most closely tied to the fate of the city in which it exists—relevant to safety and characteristics of the surrounding neighborhood/project location. As noted above, Roberto Quercia (2010) writes that an income mix among residents is valuable, a factor that falls under multiple themes, although perhaps most directly relates to physical design and the relationship with the surrounding neighborhood. It is interesting to note how a majority of public housing success indicators as presented by the literature fall into these observed input themes. However, the majority of articles reviewed do not address how to determine whether output success is reached after the proposed inputs have been achieved. Further literature is discussed below in Chapter 3: Literature Review—Themes of Success.

Switching gears from academic literature, there is a wealth of information published by the Department of Housing and Urban Development. This includes reporting metrics for public housing authorities (PHAs) and other entities receiving

federal funding, as well as "lessons learned" from those PHAs that have qualified as high performers. While the existing literature valuably frames the question of defining success, it is the HUD publications that prove most relevant because they provide specific indicators and corresponding measurements. Two sets of HUD metrics in particular have proven central to the question of defining success. HUD's Public Housing Assessment System offers an assessment framework for four input elements contributing to public housing success—the PHA's financial capacity, management capabilities, the individual project's physical characteristics, and resident satisfaction. The four individual scores are aggregated into an overall score given to the PHA. While this does not define success in the output terms, it does reflect what HUD chooses to measure in determining "high performing" grantees. These can, in many cases, be directly linked to output measures. The characteristics of a housing project that HUD awards positive points—for example, a well maintained common area—present potential indicators of success. When compiled, these create a strong picture of what successful outputs look like—perhaps the most comprehensive existing public housing success metric. This is discussed in greater detail in Chapter 5: U.S. Department of Housing and Urban Development's Public Housing Assessment System.

A further HUD initiative that has proven valuable in this analysis is the Moving to Work (MTW) program. MTW allows pilot PHAs the freedom to test innovative strategies outside the parameters of HUD's current regulations in an effort to discover new initiatives that contribute to successful public housing. Each participating PHA submitted a Promising Practices Report, from which the PHA's views on projects'

success can be extrapolated. Although these vary by PHA and are based on each PHA's individual projects, they create a valuable overall picture of what MTW PHAs consider to be characteristics of public housing success. The MTW program is informative both in terms of input and output measures. It provides a wide-ranging view of the inputs PHAs are initiating in an attempt to create successful public housing projects. More critically to our central question, these inputs provide insight into what the PHA hopes to achieve through a project. These output goals contribute greatly to our understanding of successful public housing.

A number of case studies emerged through the literature review as examples of successful public housing sites. Speculation on the drivers of these projects' success is useful in informing a success metric. While the inputs are outlined clearly in these cases, they also paint a solid picture of how the project's outputs look, which is particularly helpful in defining public housing success. Two case studies in particular—Park DuValle in Louisville, Kentucky, and Maverick Landing in Boston, Massachusetts are discussed at length in Chapter 4: Case Studies.

Chapter 3: Literature Review—Themes of Success

There are a number of common themes that emerge throughout the literature regarding public housing success. As noted above, these are broadly**: Housing Management Policies and Financial Health; Physical Housing Stock and Quality of Craftsmanship; Safety and Characteristics of the Surrounding Neighborhood/Project Location; Physical Design; Public's Opinion of Project/Relationship with Surrounding Neighborhood;** and **Developer Mission.** As discussed, these are "inputs"—predictions of what factors contribute to successful public housing projects. Although a majority of the articles do not define what success looks like as an output or "final product," it is worthwhile to note what the literature believes to be critical to achieving public housing success. Portions of the literature and case studies also prove valuable for defining the outputs, through discussion of what public housing success means to various parties. However, this is rarely presented clearly—often, outputs must be inferred from the inputs' predicted goals. I have divided the literature review by theme and included discussion of literature that relates to each theme.

Housing Management Policies and Financial Health

The theme of housing management is well covered both throughout the literature and within HUD's publications. A general consensus exists that public housing projects cannot enjoy success without the support of a strong PHA (HUD; Bratt 2007; Quercia 2010). Within HUD's Public Housing Assessment System metric, 60% of the overall

score depends upon the PHA's financial capacity (at 30%) and management capabilities (at 30%) (HUD, "PHAS Made Simple").

Rachel Bratt (2007) discusses this in the article, *The Status of Nonprofit-Owned Affordable Housing: Short-Term Successes and Long-Term Challenges*, claiming that a majority of troubled properties are "commonly the products of: inadequate or poor-quality rehabilitation or construction (often the result of under-capitalization at the time of initial underwriting), b) difficult-to-manage property or portfolio configuration, or c) the inherent problems of managing inner-city properties" (44). Although Bratt's claims regarding troubled properties are relevant to several themes of input success, all can be linked to management policies. Good management is integral to nearly every aspect of a public housing project's fate. Even aspects that are seemingly beyond management's everyday control, such as site location, can only benefit from solid management. HUD echoes Bratt's sentiments. The Office of Public and Indian Housing (PIH), which oversees the Public Housing Assessment System (PHAS) very much recognizes the role that strong management practices play in helping projects avoid a "troubled" designation, and evaluates PHAs on their management capabilities. Roberto Quercia (2010) summarizes HUD's management evaluation criteria, writing, "The scoring is based on the PHA's ability to (1) perform modernization, maintenance, inspections, and other tasks to maintain the overall physical conditions of buildings; (2) collect rents; (3) turn over vacant units for occupancy; and (4) work with residents to provide programs, opportunities, and safe and drug-free environments" (539). HUD's assessment is discussed further in Chapter 4: U.S. Department of Housing and Urban Development's

Public Housing Assessment System. It is not difficult to understand why the criteria outlined above are considered when reviewing public housing success. Each factor HUD examines is an important input that may contribute to a successful public housing project. By meeting HUD's criteria, a PHA is likely predicted to have more successful projects than those without strong management practices.

Looking beyond the criteria that Quercia outlines, Bratt claims that properties can run well on a day-to-day basis, but will suffer over the long-term if the PHA is plagued by deeper financial issues. The PHA must have reserve funds that are not used for operating costs, as this is unsustainable and will prove immediately problematic if an unexpected issue occurs (Bratt 2007). HUD agrees, specifically recommending that a PHA have a minimum 20% of annual operating costs stored in a reserve fund (HUD, "Financial Assessment Subsystem Overview"). The PHA's ability to maintain healthy finances will allow it to manage properties in the most efficient and attentive manner possible. As Bratt notes, an involved and healthy PHA will manage the day-to-day aspects of a property in a manner that will contribute to the project's success—for example, rent will be collected on time, allowing for a healthy reserve fund, and the physical structures will be well maintained. If a PHA has strong management policies and is financially viable, an individual project's chance at success is greatly increased (Bratt 2007).

The above discussion presents a theory on the factors that contribute to a successful public housing project. However, the literature promulgates these input goals without clearly defining their intended output. This may be because sound housing

management policies and financial health of the managing entity seem self-explanatory. Without these, a public housing project would inevitably face difficulties. However, by not linking these inputs to solid output goals—e.g., what does it mean for a physical structure to be "well maintained"?—it is a challenge to determine if a well-managed and financially stable PHA achieves the desired public housing success.

Physical Housing Stock and Quality of Craftsmanship

Not unrelated to Housing Management Policies and Financial Health, another theme that arises throughout the literature review and in HUD's publications is that of Physical Housing Stock and Quality of Craftsmanship. Rachel Bratt (2007) explains this connection, writing, "If [a developer] brings a building "on line" with an inadequate level of rehabilitation or new construction, management inherits the problems created by the work left undone or done poorly…In contrast, if physical defects are resolved at the outset, good property management can ensure that the building's value as a living environment is maintained over the long haul" (45). Maintaining the highest possible housing quality for public properties is critical to each individual property's success. This is beneficial both for residents' standards of living and for the managing entity's long-term budget. It is essential that a PHA know the amount of construction or rehabilitation work a property requires, and maintain an adequate cushion to address current and future needs without cutting corners or neglecting quality.

It is difficult to imagine a public housing project's success without adequate building stock and quality of craftsmanship. These are fundamental inputs. However, the

literature largely stops short of defining "adequacy" in relationship to these inputs. This is understandable, as standards will vary from project to project, and across geographic locations and municipal regulations. While the specifics of quality housing stock may differ, the theory that high quality buildings and craftsmanship are the inputs to a successful public housing project applies nationwide. The corresponding outputs—the goals the PHA hopes to achieve—are not linked to these inputs. Quality public housing stock is commendable, but why is it important? Will residents' safety or quality of life increase due to this? Again, the literature does not provide a full picture of the measurable public housing success that is achieved through quality physical development.

Safety and Characteristics of the Surrounding Neighborhood/Project Location

Several articles in the literature review consider the interaction between a housing project and its surrounding neighborhood. Roberto Quercia in the article *The Challenges Facing Public Housing Authorities in a Brave New World* discusses the success, in terms of safety, associated with scattered-site communities as opposed to concentrated public housing. Dispersed housing, particularly in low-rise apartments or single-family developments, has experienced lower levels of aggregated crime than that experienced in high-rise buildings or where there are high concentrations of public housing residents in mid-rise buildings (2010). Rachel Bratt (2007) speaks to the negative effect that less than ideal conditions in surrounding neighborhoods can have on public housing. Public housing is thought to suffer if the surrounding neighborhood exhibits, in particular, the

following characteristics: high poverty and unemployment rates, poor maintenance of surrounding housing stock, inconsistent municipal services, and high levels of crime (Bratt 2007, Quercia 2010). Bratt also makes a connection between the importance of the neighborhood and the first two themes, writing that surrounding neighborhood characteristics are intricately tied to management, finances, and quality of housing stock (2007). The PHA or managing agency must be familiar with and maintain a realistic outlook on the neighborhood in which a housing project is located. As Bratt writes, "when planning development, [the PHA must] factor in neighborhood conditions, especially crime, that can make heavy-duty and/or vandalism-resistant building materials a cost-effective investment" (45). A housing project's location must be considered throughout the PHA's budgeting and management practices. This is particularly linked to resident safety if the public housing project would benefit from increased provision of security personnel or infrastructure, provided by the PHA.

However, even if a PHA is well aware of its property's surrounding conditions, it can be difficult to isolate a public housing project from its neighborhood. A parallel theme runs throughout the literature that public housing projects' fate are inseparably tied to the neighborhoods in which they are located, and overcoming this disadvantage can prove outside of the PHA's control. Quercia (2010) writes:

> The dramatic spatial transformation of America's urban landscape during the past four decades has also had an impact on PHAs. The movement of middle-class households and employment opportunities to the metropolitan periphery and beyond left many public housing tenants in inner-city areas with few opportunities for socioeconomic advancement. Moreover, public housing developments found themselves in neighborhoods with ever greater concentrations of poverty and the attendant social consequences. Thus, to a large extent, the ability to transform many PHA developments into competitive

> developments is tied to the broader fortunes of the inner-city areas where they are located—fortunes that are beyond PHAs' control (538).

There is a great deal of truth to idiom, "location, location, location." It is difficult for a development to exist within a vacuum, avoiding the influence of the surrounding neighborhood. The literature is rife with discussion on the importance of public housing location and the characteristics of the surrounding neighborhood. These inputs, somewhat uniquely, are tied directly to an output representing public housing success: resident safety. The safety of a public housing project's surroundings relates directly to resident safety—a clear goal of PHAs. Resident safety must, of course, then be measured appropriately, and attempts at designing a metric for this are discussed below.

Physical Design

Physical design is rarely the sole focus of literature discussing public housing success. However, it is an element that is raised to some degree in nearly every article on the topic. Perhaps the most consistent example of successful public housing design throughout the literature is the integration of public housing residents and their market-rate neighbors. The Park DuValle case study, discussed below, is considered successful largely because it disperses subsidized and market-rate units in a manner that makes the two types of households indistinguishable.

However, attention is also given to the architectural styles of public housing, accompanied by speculation about the design's effect on project success. A consistent theme has emerged throughout the period from public housing's inception until present—housing is more successful when it is small-scale, meticulously cared for, and does not

stand out from the surrounding, market-rate housing stock (Heathcott 2010). In the article *The Strange Career of Public Housing,* Heathcott (2010) writes of this theme standing the test of time: "With their low-rise profiles, careful landscape designs, and numerous amenities, PWA projects constitute some of the best government-backed housing ever built" (362). This sentiment is well represented throughout literature—there is nary an opinion in favor of the concentrated, high-rise public housing constructed throughout the 1960s and 1970s. Popular opinion has shifted largely to New Urbanist-type development, with single- and double-family subsidized homes scattered throughout market rate units, facilitating a sense of community and increased access to services. An exception to this is public housing run by the New York City Housing Authority, which is primarily in the form of well-maintained high rise units.

Park DuValle—again, discussed in greater detail below—serves as a strong example of the power of physical design. James Hanlon (2008), although a critic of the Louisville development overall, writes of what the project's architecture has achieved in the article *Success by Design: HOPE IV, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States*: "A key component of Park DuValle's apparent success is its embrace of New Urbanism and the stark contrast to the architecture of public housing that this planning and design paradigm presents. The physical transformation effected through HOPE VI, as exemplified by Park DuValle, both enables and legitimates the program's mixed-finance and mixed-income objectives…" (80). Hanlon drives home the point that the physical design of a project

allows it to be more successful in its other aims, such as attracting market-rate tenants and financing options.

The Maverick Landing case study in Boston, also discussed below, reiterates the importance of physical design, and specifically, what can be achieved through smart layout. The East Boston site was redeveloped in warm colors and a homey style that is inviting and open to the surrounding neighborhoods. This project is regarded as highly successful, with design cited regularly as a primary reason.

A majority of literature, as well as HUD publications, further the concept that outward appearance is an important aspect of public housing success. However, a subset of literature offers the opinion that physical design is a relatively inconsequential element of public housing revitalization that HUD chooses to focus on to draw attention from deeper, more pervasive issues faced by public housing residents and developments (Hanlon 2008). Hanlon, again a critic of the Park DuValle and other aesthetically-focused HOPE VI projects, writes:

> Outward appearances have always been central to the program [HOPE VI]. HUD explicitly affirms that "changing the physical shape of public housing" is one of its key elements…Hackworth (2005) has observed that the 'failed architecture' theme—that is, physically deterministic explanations of the failures of public housing—is frequently deployed by HUD through such means as new media portrayals, speeches by housing officials, and design workshops…The overriding focus on design, [Hackwork] writes, "has the effect of not only obscuring the regressive effect of the state's intervention, but also of allowing for a 'solution' that is relatively easy for policymakers to achieve (92).

Although there are certainly interesting elements to consider in Hanlon's argument—particularly using physical design as a scapegoat—the fact remains that design is important. Perhaps HUD places too much blame on design to account for public

housing's failures, but the appearance and upkeep of a development consistently influence neighborhood opinion and buy-in for the project. Additionally, there is something valuable in the accessibility of design as a contributor to public housing improvement. While improving the design of a development is certainly not a panacea, incremental successes such as a project face-lift may serve to improve morale, and garner public support. Public-private funding partnerships may increase when excitement builds around a development's improvements.

Physical design is a prime example of an input measure predicted to contribute to public housing success. While few would argue that good physical design could be construed as negative, the literature does not provide a clear link to its positive impact. The PHA's mission does not stop at a well-designed project—this is, instead, an input intended to contribute to the PHA's goals. Design may be used to achieve public housing project success through facilitating resident interaction with the community, increased resident safety, and access to amenities, among myriad other potential outputs. The literature, however, does not discuss at length what success through good design looks like. This is a particularly difficult input to define due to its subjective nature, and the challenge of measuring success as a result of design is equally subjective. In spite of these difficulties, the literature review returns many examples of strong physical design cited as impacting public housing success. Although a clear link is not provided, it seems reasonable to assume good project design, however that is interpreted, can only make public housing success more likely. As a caveat, physical design cannot be considered independently of project maintenance and upkeep. Public housing developments that are

today considered failures and eyesores were often lauded as highly successful immediately following their construction. The newness of a property contributes greatly to the public and residents' perception of its design. A well-designed project today will not be regarded as such in the future if it is not adequately maintained and upgraded.

Public's Opinion of Project/Relationship with Surrounding Neighborhood

The public's opinion of a project is often mentioned in literature through the lens of the public housing residents' relationship with the surrounding neighborhood. Again, the Park DuValle case study is a strong example of this, as it is viewed as a successful project largely because of the project's seamless transition to the surrounding neighborhood—Louisville residents speak highly of the project, and many are not even aware that subsidized housing remains at this site.

The Maverick Landing case study is also discussed in the literature due to the success it has achieved in the public's eye. The Boston Housing Authority seized the opportunity to redevelop the site in a manner that cultivates connections between the mixed-income development and the surrounding neighborhoods, which are currently zoned for an assortment of uses. The design of the project facilitates a relationship between public housing residents and the wider community.

The literature review and case studies make very apparent the importance of public opinion regarding a public housing project. Positive public opinion is hypothesized to be beneficial to project residents and the wider community alike. As an input measure, this is a clear indicator for project success. As an output, however, it is important to

examine how this manifests itself and how one would measure the project's success brought on by positive public opinion. Perhaps through resident involvement in the neighborhood; increased employment opportunities due to decreased stigmatization of public housing and its residents; or simply increased resident self-confidence and the subsequent positive outcomes. The literature review theorizes that positive public opinion will equate to a successful public housing project; however, this important input deserves measurable outputs to determine success.

Developer Mission

Roberto Quercia (2010) writes prolifically on what contributes to a PHA's effectiveness. As an overarching concept, he proffers the idea that the PHA's success is contingent on the strength of its mission. A PHA will be most effective when its desire to serve residents drives its day-to-day operations. While this is both logical and admirable, it is not enough on its own. Quercia and other authors go on to consider the impact of private sector developers on the affordable housing market, and tangentially, the effect of PHAs acting along the lines of the private sector—specifically keeping a close eye on the bottom line. This concept can be seen in different federal initiatives. Quercia writes of the Low Income Housing Tax Credit Program, examining both sides of its impact on public housing development.

> Because of the need to meet the rate of return required by investors, LIHTC units may be located in viable neighborhoods and managed with the efficiency common to other private sector rental units. It is also possible, however, that investors who are interested only in the tax credit benefits may assign little residual value to the property. In this case, both the quality of the location and the management may be marginal instead (Quercia, 544).

While Quercia juxtaposes the potential positive impacts of utilizing tax credits with their potential misuse, the prevailing theme throughout the literature is the benefit of a for-profit management structure. Many authors speak to the fact that Section 8 vouchers allow tenants the opportunity to choose where to live, which is theoretically within their power to change if the property or management is not satisfactory. The residents' power to take business elsewhere is hypothesized to be a powerful motivator for a management team. Quercia (2010) writes, "The for-profit sector has the economic incentive to adopt the most effective management practice, an asset management approach. To stay competitive, for-profit managers must be responsive to the needs of their tenants, who can take their business elsewhere, and to supply and demand considerations" (545). This is, however, questionable in practice. Public housing residents are limited by other landlords' acceptable of Section 8 vouchers and by their own ability to move—a factor influenced by school proximity, transit options and other amenities, prohibitive moving costs, among others. Therefore, while Quercia's claim may have more bearing in theory than in reality, it is clear throughout the literature review that many authors believe for-profit management practices—PHAs operating more along the lines of the public sector—may contribute to public housing success. The question of what this success looks like remains unaddressed.

This is similar to the theme of good management practices resulting in public housing success. With PHAs acting more like private developers and with a strong desire to serve their residents, the theory is that increased quality of management equates to project success. It is important to distinguish between the developer's mission as the

input, and the actual goals of the PHA as the output. The literature asserts that public housing projects are more successful when the operating PHA acts along the lines of a private developer. This does not specify the ways in which this success is actualized. Without a clear picture or metric regarding the outputs of success, it is difficult to ascertain if a strong developer mission has contributed to the outputs' achievement.

The themes drawn from the literature review do not exist in a bubble. They are very much tied to one another and elements of each are woven throughout nearly every article considering public housing success. Academic thought continues to focus on the input predictions of what leads to public housing success. However, throughout the literature, a handful of well-known public housing developments were consistently cited as examples of successful projects. While there is a great deal of focus on the inputs to these projects and what factors contributed to the project's high performance, there is also discussion of why each project is so widely considered successful. The case study literature covers specific output metrics as well as anecdotal evidence of success. Two public housing developments in particular are prevalent in the literature, and I chose to perform case study analyses on each, below.

Chapter 4: Case Studies

Throughout the literature, and throughout the U.S. Department of Housing and Urban Development's (HUD) publications, there are numerous success stories in the public housing world. These can be found at the public housing authority level—the New York City Housing Authority, in particular, is touted as an exceptionally well managed agency—and at the individual project level. This report aims to define what successful public housing looks like, and so focuses largely on the individual project level. However, as discussed elsewhere, the public housing authority's influence on a project's success cannot be overstated, and therefore, cannot be ignored. In the two case studies below, I examine the characteristics of each built out project that contribute to its high regard by HUD and the public. It must be remembered that the public housing authority, in large part, orchestrated the decisions that resulted in these success.

Park DuValle in Louisville, Kentucky completely revamps a previous project under HUD's HOPE VI initiative. The project's complete physical makeover compelled private funder involvement as well as public facilities improvement in the area. The new mixed-income community has drastically lower crime rates than previously. Park DuValle illustrates the power of physical design in igniting neighborhood change and community cohesion. Maverick Landing in Boston, Massachusetts echoes the power of design. The project has been noted as highly successful for its integration into Boston's historic fabric and the low rate of crime post redevelopment. Maverick Landing management—through the Boston Housing Authority—has also been praised for its attentiveness to residents' housing needs and wishes. Management was active in

facilitating temporary relocation for residents throughout construction, with the possibility of returning to Maverick Landing if so desired. The inputs to these successful projects are discussed, accompanied by output indicators of success.

Park DuValle, Louisville, Kentucky

HOPE VI, a federal housing policy initiative that is run as a competitive grant program through HUD, has been championed not only by HUD, but also by public officials and those involved in the housing industry across the country. As a public housing revitalization program, HOPE VI was initially funded with the intention to demolish the country's most blighted public housing projects and replace them with low-rise, mixed-income neighborhoods. This focus has now shifted to a wider array of projects, but the intention of dispersing residents and giving public housing units a drastic face lift remains the same. The intended deconcentration of poverty has been lauded as an innovative approach to encouraging public housing resident interaction with the wider community, leading to increased self-sufficiency. In practice, HOPE IV has raised a great deal of concern nationwide about the dislocation of former public housing residents, as the mixed-income housing rarely provides as many affordable units as the housing it replaces. In his article *The Neoliberal Transformation of Public Housing in the United States*, James Hanlon (2008) claims that:

> Case studies of HOPE VI sites, while limited to a small number of cities, have been particularly disapproving of the program. HOPE VI projects in Atlanta, the District of Columbia, New Orleans, and Chicago have been faulted for the way in which they have yielded to private urban redevelopment imperatives and gentrification pressures at the expense of low-income housing needs. Building from this line of argument, critical urban scholars have drawn upon HOPE VI to

> illuminate the dynamics of neoliberal governance and federal policy devolution, and in doing so have raised further doubts about the program's merits" (Hanlon, 81).

Hanlon goes on to discuss HOPE VI's flaws further. While he, along with many others, is deeply critical of the HOPE VI model, Hanlon offers Park DuValle, in Louisville, Kentucky as an example of "HOPE VI as it is intended to work" (Hanlon, 81). Throughout the literature surrounding public housing success, Park DuValle is regularly cited as a "best practices" example. I thought it would be worthwhile to investigate what, exactly, places the Park DuValle development among the most "successful" public housing projects in the country.

Park DuValle's site was a product of the 1950s slum clearance movement, and originally was razed in order to construct three federally-funded developments: Cotter and Lang Homes, and Algonquin Terrace. The original developments were cut off from the surrounding neighborhood, both literally—through poor street design—and figuratively—through a "bunker" architectural style that was completely incongruous with surrounding Louisville. Lackluster maintenance practices contributed to the development's decline, and crime rates increased until they were the highest in the city. Park DuValle was chosen as a HOPE VI revitalization site, and today the $200 million planned community boasts 613 rental and 450 homeownership units, with approximately 300 set aside for low-income households.

Park DuValle is known as a poster child for the New Urbanist development model. Lauded as "architecturally appealing" with "close-knit housing…designed to evoke local vernacular styles" (Hanlon, 84), Park DuValle consists of smaller single-

family detached homes and duplexes, as well as multifamily buildings where each home has an individual entrance. The housing styles were chosen to complement one another while maintaining unique character (Turbov 2005). Each unit is constructed with contemporary amenities. The new Park DuValle development replaced its wide "superblocks" with small connector streets reminiscent of those throughout Louisville's older neighborhoods. The streets are lined with trees and provide street parking throughout, as the developers chose to replace garages with front porches to facilitate a neighborhood feel. Urban parks mark the entrances to the development. Park DuValle places its largest and most expensive homes on the outermost road, presenting an affluent face to the community.

The development certainly achieves HUD's aim to, "chang[e] the physical shape of public housing" ("About HOPE VI," 2009). The "success" achieved by this is twofold. First, a physically attractive neighborhood and housing units create a sense of pride among residents, and compels the development to feel a more cohesive segment of the wider community. Second, a physically appealing development has greater potential to attract higher income residents. Hanlon argues that in the case of Park DuValle, the presence of more affluent residents in the development has increased the quality of life for all residents, as shown by socioeconomic indicators (Hanlon 2008). However, it is unclear if these indicators have seen positive growth because averages have risen due to an influx of wealthier residents, thereby having little to no impact for low-income residents, or if socioeconomic indicators have also improved for low-income residents. Notably, drug and crime rates have fallen, benefitting the entire community.

A commonly cited achievement of Park DuValle is its success in leveraging federal funds to attract private sector funding. Again, this is an "input" measure, but it is interesting to examine why private sector funding in public housing projects is widely regarded as contributing to project success. In the case of Park DuValle, this is largely because private investment enables the developer to sustain a mixed-income development. This is thought to dissolve the "culture of poverty" and provide an environment for public housing residents in which self-sufficiency is encouraged and nurtured (Hanlon, 94). Census data states that median household income has nearly tripled in the years since Park DuValle construction, and the unemployment rate has dropped below the city average (Turbov 2005).

Improvement is not limited to the development or housing stock itself. Major public facilities adjacent to Park DuValle have been renovated, and a marked increase in commercial activity is noted. Investments were made in neighborhood services, including improvements to schools and community centers, public green space, safety infrastructure, and a health center. An active Park DuValle Homeowners Association organizes activities—such as a "jazz brunch"—to facilitate neighborhood relationship building, both within Park DuValle and with community members from surrounding areas (Turbov, 12).

In a paper prepared for the Brookings Institution, Mindy Turbov and Valerie Piper (2005) write, "Census data for the surrounding neighborhoods has been extremely encouraging as well—median income in the areas around Park DuValle has increased since the development's construction, and the percentage of the population below the

poverty line has decreased. Park DuValle is considered a shining example of leveraging federal funding to attract private dollars for neighborhood revitalization" (4). Turbov summarizes Park DuValle's success as drawing upon six distinct factors. The first four occur at the PHA level—as Turbov writes: leadership, flexible financing, federal policy changes, and emphasis on public-private partnerships. The final two are useful for creating a picture of what success looks like—engaged residents and community members, and the new development existing as "a critical piece of a larger comprehensive neighborhood redevelopment…approach that engendered broad community support" (4). Local newspaper articles echo this sentiment, claiming that a great deal of Park DuValle's success can be attributed to its seamless interaction with the wider community, and the community's subsequent support of the project, avoiding the isolation that often accompanies public housing projects.

Park DuValle has been plagued by property management issues since its build-out, and academics caution assessing its success in a vacuum—outside factors must be considered for their influence on the wider neighborhood revitalization, and the concept of gentrification should not be ignored. However, it is certainly viewed, both by the Louisville community, and by HUD, as a large improvement over the public housing it replaced. The neighborhood's increased income, the development's decreased crime rates, and friendly interaction with the surrounding areas will be discussed as strong output measures of public housing success in Chapter 7: Analysis.

Maverick Landing, Boston, Massachusetts

Maverick Landing, located on the East Boston waterfront, is a Boston Housing Authority HOPE VI redevelopment project on the former Maverick Gardens public housing development site. Maverick Gardens was completed in 1941 and consisted of blocks of drab brick buildings facing inward, isolating the development from the surrounding neighborhood. Maverick Gardens was one of the Boston Housing Authority's oldest projects, and consisted of 412 severely depressed, run-down housing units. The Maverick Landing redevelopment project broke ground in 2003, and today consists of 426 units in a nine acre mixed-income community complete with colorful, three-story houses and a restored historic street pattern (Boston Housing Authority 2014).

Maverick Landing embraces the HOPE IV mixed-income concept, with 80% of units reserved for public housing residents, and 20% of units available to market rate tenants. The development offers a variety of housing models, including single-family homes and duplexes in the townhouse style, and mid-rise apartment buildings. The federal funding awarded was leveraged to attract funds from a variety of sources, including the State of Massachusetts, the City of Boston, and the Boston Housing Authority, as well as private sources.

Maverick Landing has a unique site upon which the redevelopment has capitalized. As a first step, the development restored the historic street patterns, seen throughout much of Boston, which was a drastic change from the "superblock" layout that dominated the previous development. Maverick Landing is flanked by a traditional single-family residential area to the east, industrial buildings to the north, and the

commercial waterfront district to the west. The redevelopment is designed to be a seamless transition between the vastly different neighborhoods surrounding it. The improved street layout and open design provides physical and visual connections to the surrounding neighborhoods, including easy access to Boston's waterfront. The BHA speaks of this accomplishment: "By reconnecting the streets running through Maverick to recapture the views to the waterfront as well as reconnecting the area to the commercial center and neighboring residential areas, this plan will change the relationship between Maverick and the community surrounding it to one of involvement and participation rather than isolation" ("BHA Chooses Developer for Maverick Gardens," Boston Housing Authority, 2002).

The Maverick Landing project places similar emphasis on design as the Park DuValle development—specifically, the relationship with the surrounding neighborhood that "good" urban design can facilitate. An aesthetically pleasing project can achieve many things. First, an attractive development that blends with market-rate housing wins the support of neighbors more readily. Second, a development such as Maverick Landing can provide the necessary transition between diverse neighborhoods and land uses, as in East Boston. Finally, public housing that is dispersed among market rate housing opens the development to the wider population, and decreases the sense of isolation associated with traditional projects. As an additional note, Maverick Gardens was built to Boston's green standards—a further point of pride often mentioned when discussing the project's success.

While design is important, it is not the only feature of Maverick Gardens lauded as a success by the City of Boston, public housing residents, and HUD alike. BHA, before breaking ground on Maverick Landing, made the commitment to design a system in which all its residents have the option to remain in affordable housing during the construction period and beyond. BHA provided numerous options for relocation—either temporary or permanent—to other public housing developments around Boston, or through the Section 8 voucher program. Previous residents were given priority for resettling in Maverick Landing once construction was complete. Throughout the relocation process, residents received supportive services, a hallmark of BHA's program.

When Maverick Landing opened, it was with a strong commitment to supporting residents to achieve self-sufficiency, through the Community and Supportive Services Program. This includes individual case management for every household. Community-wide skill trainings are well organized and advertised, including computer training, employment training, and adult learning programs. There are also a number of youth programs, which work in collaboration with local services providers and employers to reinforce youth's commitment to education and employment.

Alexandra Curley (2010) conducted a comprehensive research study on the conditions of Maverick Gardens/Landing before and after redevelopment to examine what factors notably contributed to the success of the "after" product. The study includes a list of the "big problems" in the old development (as reported by residents), nearly all of which have improved post redevelopment. It is interesting to note what residents

identify as important indicators of a project's failures (when high rate of occurrence) and successes (when low rate of occurrence):

Shootings	Police not coming when called
People being attacked/robbery	Graffiti
Rape/sexual attacks	Lack of outside lighting
People selling drugs	Trash in parking lots, sidewalks, and lawns
People using drugs	Unattractive common outdoor areas
Gangs	Lack of recreational space
Groups of people hanging out	

Figure 1. Resident reported problems in public housing

Curley (2010) notes that, "Analyses of the pre- and post-HOPE VI data reveal statistically significant improvements in three specific issues reported by residents: people selling drugs (57-38%), people using drugs (57-34%), and graffiti (47-24%)." In interviews with residents, the greatest improvement from Maverick Gardens to Maverick Landing is an overarching feeling of safety. This is important to note as a critical indicator of success for public housing residents. As an output, this could be measured objectively or subjectively—through crime data or resident opinion surveys.

Both case studies are useful for examining what characteristics and practices exist at public housing sites that are widely considered successful. The case study format provides clearer insight into the outcomes—the goals a project achieves that the PHA and public equate with success. In these cases, much success centers on breaking down the barriers between the public housing residents and their surrounding neighborhood. While this is the input, it is linked to clear outputs, such as measurable relationship building through shared events, like those at Park DuValle. Both developments identify increased resident self-sufficiency as an output of success, through measured goals such as increased skill improvement (computer and other training courses), increased

employment rates, and increased educational attainment. Safety was discussed above as a theme of success, and both developments presented here can cite decreased crime rates as a measurable output contributing to success. Studying the factors that HUD, the residents themselves, and neighbors of the public housing development believe contribute to the project's success is valuable. In compiling the successful outputs as determined by various parties, we begin to create a metric for public housing project success.

Chapter 5: U.S. Department of Housing and Urban Development's Public Housing Assessment System

Throughout my research, the most comprehensive assessment system I found for public housing projects is the U.S. Department of Housing and Urban Development's Public Housing Assessment System (PHAS). PHAS assesses a project's resident satisfaction and physical condition, as well as the financial health and management practices of the associated Public Housing Authority (PHA). Although these scores are aggregated to provide an overall score for each PHA, there are critical elements within the PHAS measurement metrics that apply to individual housing projects. There are limitations to this assessment, discussed below.

PHAS was fully implemented in 2002. It was created as a companion assessment system to the Public and Indian Housing Information Center database, which collects information on each PHA's funding and compliance data, among other management-level data. The two assessment systems were created to work together to provide HUD a comprehensive picture of PHAs' capacity and performance across the country, and from this, HUD may better direct its technical assistance and support efforts. For the purpose of this report, PHAS is the far more relevant assessment system, as it examines characteristics of the individual public housing projects, as opposed to the PHA's management practices exclusively. Prior to 2002, HUD graded PHAs' performance strictly on management through the Public Housing Management Assessment Program (PHMAP), which was created in 1992 and was based on PHA self-assessment. Under PHMAP, a questionably large percentage of PHAs self-assessed as "high-performers." The lack of accountability under this system, coupled with a nationwide recognition of

public housing projects' physical deterioration demanded a change. Residents were not given a voice in the assessment process through PHMAP, and advocates for residents' rights lobbied to amend the system to provide the opportunity for public housing residents to share their opinions and concerns. The previous systems that based assessment on management practices alone were replaced by the PHAS system—an assessment metric that looks more closely at the projects within a PHA's portfolio and factors in resident input.

Although many of PHAS' questions assess the PHA's capacity related to theories on what will lead to public housing success (such as management capacity) or "inputs," it also provides highly useful metrics for measuring this success. These are discussed in detail below. As described above, a PHA's final PHAS score is based on four complementary categories. It is interesting to note is the breakdown of importance HUD places on each large topic category. The categories are as follows:

- Physical Assessment Subsystem (PASS): 30%
- Financial Assessment Subsystem (FASS): 30%
- Management Assessment Subsystem (MASS): 30%
- Resident Assessment Subsystem (RASS): 10%

Each PHA is graded in the four categories and receives the designation of high performer, standard performer, or substandard/troubled performer in each. Weighted scores are then calculated for the PHA's overall score, for which it receives benefits or penalties ("PHAS Made Simple," HUD 2011). Although the category scores are aggregated to determine an overall score for the PHA, it is valuable for this analysis to consider each of the four categories and how they may measure individual project success.

Financial Assessment Subsystem Overview

The Financial Assessment is perhaps the subsystem most tied to the PHA as opposed to the individual project. However, a PHA's financial health contributes to the probability of project longevity and strong project management practices, although it is only one among many contributing factors. As the HUD document "Financial Assessment Subsystem Overview" states, "Financial health enables [the PHA] to make better investment and operating decisions and ensures that service will not be unnecessarily disrupted" (1). The PHA's consistency in strong financial practices provides a security blanket for each of its development projects. Although this does not guarantee project success, it likely increases probability that a project will remain solvent, and therefore can focus attention on day-to-day operations and resident support.

The following chart conveys what sub-indicators are measured and how each is measured, including the points available, indicating the weight of each sub-indicator.

What Is Measured?	**How Is It Measured?**	**Points Available**
How well prepared is your agency for covering its short-term obligations?	Current ratio = (cash + cash equivalent + current receivables) ——————————— current liabilities *Note: anything less than 1 is undesirable*	9
Do you have sufficient reserves to cover unexpected expenses?	Months expendable balance = EFB ——————————— (total routine balance/12) – months expendable balance *Note: at least 1 month's EFB should be kept in reserve*	9

Figure 2. Financial Assessment Subsystem Overview: 6 Key Indicators for Financial Health

Figure 2 (continued)

How well do you manage rent collections?	Tenant receivables outstanding = Tenant account receivables --- (rental income + homebuyer income)/365 Note: lower is desirable; scoring is determined against peer group	4.5
Are you maximizing your revenue through high occupancy?	Occupancy = actual days vacancy --- total *Note: lower is desirable; scoring is determined against peer group*	4.5
Are you viable in the long-term?	Net income = net income --- expendable fund balance	1.5
Do you have adequate cost controls?	Expense management = (administrative expenses x .34) + (general expenses x .33) + (tenant services x .10) + (ordinary maintenance and operations x .10) + (protective services x .10) + (utilities x .03) = total --- number of dwelling units *Note: lower is desirable; scoring is determined against peer group*	1.5

Figure 2. Financial Assessment Subsystem Overview: 6 Key Indicators for Financial Health

The sub-indicators, when taken together, speak to the PHA's ability to maintain financial health over the long-term. Assessing the PHA's solvency in the face of unexpected hurdles is of great importance to each project's success. It is critical that there

is sufficient funding to resolve potential issues as they arise at individual projects, as this will benefit the project and its residents immediately and in the long-term.

Management Operations Overview

The U.S. Housing Act of 1937 indicated the importance of assessing PHA management practices. This is set forth in section 6(j) (1): "The Secretary shall develop and publish in the Federal Register indicators to assess the management performance of public housing agencies and resident management corporations. Such indicators shall enable the Secretary to evaluate the performance of public housing agencies and resident management corporations in all major areas of management operations." Although there is a separate assessment program specifically examining public housing management practices, known as the Public Housing Management Assessment Program, there is also a management category within the PHAS, which this report will analyze.

Similar to the Financial Assessment, the Management Operations category of the PHAS is focused on each PHA's capacity. The indicators examined in the Management Operations category are a direct reflection on the PHA's performance, but, as with Financial subsystems, these will likely have a strong impact on the individual housing projects. The Management Operations indicators are as follow:

What Is Measured?	How Is It Measured?
Vacancy rate and vacant unit turnaround time	• Average vacancy and average amount of time a unit remains vacant
Capital fund process	• Unexpected funds over 3 federal fiscal years • Timeliness of fund obligation • Adequacy of contract administration • Adequacy of budget controls • Quality of physical work
Work Orders (emergency and non-emergency)	• How quickly completed o emergency: percentage completed within 24 hours o non-emergency: time period increments by day
Annual inspection of units and systems	• PHA's ability to meet inspection criteria
Security activities	• How a PHA tracks, reports, and prevents crime and drug use • How a PHA screens applications • How a PHA enforces leases *Note: based on goals set by individual PHA*
Economic self-sufficiency	• Whether a PHA has established economic self-sufficiency program goals and can document that it is meeting goals *Note: based on goals set by individual PHA*

Figure 3. Management Operations Overview: 6 Indicators for Operational Health

The six indicators above certainly contribute to the PHA's ability to manage housing projects in an effective manner. Minimizing the time it takes to fill vacant units is of great importance to the project, as vacant units contribute to a feeling of disrepair and neglect, as well as increased levels of crime (Freedman and Owens 2010). Similar to the Financial Assessment, the Management Operations category examines the PHA's financial abilities, although focuses on practice rather than capacity—the PHA's record of timely payments and budget management is critical to its future. The PHA's competency in contract administration can be viewed as indicative of its ability to properly enforce rules and regulations into the future, which is important for each project's long-term prospects. The PHA's consistency in completing timely work orders

and annual inspections are intricately tied to the project's fate—again, a PHA that responds quickly to work orders and performs thorough annual inspections (upon which they act rapidly and effectively) is likely to manage projects that are both safer and aesthetically pleasing. Finally, a PHA that is competent in understanding the patterns of crime at its project sites, and deals with this accordingly, is more likely to maintain safe projects with content residents.

Note: The final two Management Operations indicators are measured against the PHA's self-designated goals. The PHA must develop internal security and economic self-sufficiency goals, and its success is measured by its ability to meet these goals. Therefore, these two indicators are relatively dependent on the individual PHA and its desire to challenge itself with relevant and aggressive goals.

Physical Assessment Subsystem Overview

The Physical Assessment Subsystem (PASS) measures the physical condition of a PHA's properties through an inspection process that examines whether the physical structures meet HUD standards for housing that is decent, safe, sanitary, and in good repair ("Physical Assessment Subsystem," 1). The notification for PASS standards that HUD released in 2011 explains the process. "PHAs perform annual physical inspections in accordance with the Uniform Physical Condition Standards (UPCS). The inspection must include 100% of the property, not just a sampling of the units, and the deficiencies identified must be corrected. HUD Quality Assurance Reviewers/Inspectors then monitor the certified inspectors' performance, by reviewing a sample of those inspections" (2).

The UPCS provides a helpful overview of the housing quality characteristics that HUD has deemed most critical to examine in its physical assessments. These are likely the elements most linked to a project's overall physical well-being, in terms of aesthetic value, safety, and public perception. Sub-categories of physical areas within a project site are given different weights under the PHAS scoring system:

Physical Indicator	Percentage Weight
Building exterior	15%
Building systems	20%
Common areas	15%
Dwelling units	35%
Site	15%

Figure 4. Physical Assessment Indicators and Weights

Below, this report outlines the common deficiencies that inspections make note of within each sub-category to inform repair and management practices.

Physical Indicator	Inspection Criteria
Building exterior	• doors that are damaged and cannot latch or lock properly • damaged sills • all access/emergency egress exits are not blocked
Building systems	• misaligned ventilation systems • leaking water • missing interior electrical panel covers
Common areas	• holes or missing tiles • adequate size trash dispensers and dispose of trash regularly
Dwelling units	• adequate hot and cold running water • adequate supply of potable water • unsanitary facilities that are not in working condition, unusable in privacy, and have inadequate disposal of waste • inoperable smoke detectors • each unit must have at least one smoke detector on each level • if two or more smoke detectors are on the same level in visible proximity, at least one of the smoke detectors must function as it should
Site	• tripping hazards on sidewalks or parking lots • damaged fences and gates, including holes or gaps • erosion or ruts in ground
Health and Safety	• exposed wires • blocked exits and entrances • regular property fumigation to eliminate infestation of insects
Miscellaneous Miscellaneous, continued	• missing, damaged, or expired fire extinguishers • open fuse ports • interior electrical cover for the A/C unit boxes • HVAC hot water heater pressure relief valve discharge tube is no more than 18 inches to the floor • non-operable exhaust vents or damaged shingles on roof • damage, mold/mildew, holes, or the need for a few coats of paint on walls • doors damaged, dual side key locks, interior doors cannot close properly • damaged stoves or ovens that do not work • leaking pipes and damaged sinks/showers • proper ventilation to exterior from the laundry rooms

Figure 5. Physical Assessment Indicators and Inspection Criteria

It is interesting to note which sub-categories HUD grants higher weights. The highest, at 35%, is dwelling units, and the common deficiencies HUD lists on the assessment encompass basic human needs and safety. Likewise, the next category of

highest weight is building systems, which again assesses the provision of basic human needs.

It is particularly interesting that the sub-categories exclusively examine items to "put out fires" as opposed to examining aesthetically-based values. This is logical, considering basic needs and safety must be met before attention may be shifted to other site considerations. However, I found it surprising that this was so cut and dry, and wonder if a) this is merely reflective of HUD's limited resources and subsequent prioritization of assessment objectives or, b) if HUD does not attach importance to site appearance, etc. beyond safety considerations.

Resident Assessment Subsystem Overview

The Resident Assessment Subsystem Overview (RASS) assesses resident levels of satisfaction within a particular housing project. The RASS scores are consolidated into an overall score for the PHA based on resident responses from all of a PHA's properties. An outreach program facilitated by the PHA attempts to engage as many residents at each public housing site as possible. The concept of outreach and participation is, in itself, a positive element of the RASS. It opens lines of communication between the PHA management and public housing residents and grants residents a voice to identify the PHA's existing strengths as well as areas that require improvement. The RASS inquires after resident satisfaction in five broad areas:

Resident Satisfaction Indicator	Resident Satisfaction Sub-Indicators
Maintenance and repair	• emergency and non-emergency repair adequacy • response time • courtesy of staff
Communication	• information provided by management • response to questions
Safety	• resident security issues that the residents have voiced through previous surveys
Services	• PHA services and rate of response to electrical, appliance, or plumbing problems
Housing property appearance	• PHA general upkeep of property and common areas

Figure 6. Resident Satisfaction Assessment and Indicators

Any issue or concern in the RASS receiving less than a 75% satisfaction rating is worked into the PHA's follow up plan to be addressed. It is unclear whether the RASS is required to ask respondents their opinion on how well the PHA has followed up on identified past issues.

These five areas reflect the three preceding PHAS categories, examining a PHA/development's financial, management, and physical characteristics. The RASS largely examines the residents' satisfaction with repair services—the timeliness and rate of response to systems problems and emergency/non-emergency repairs. The RASS also asks residents their feelings on safety and security issues, and these are presented with a different focus than in other PHAS categories. RASS questions addressing safety span from those similar to the questions asked in the PASS (are there broken locks? Is there bad lighting?) and those asked in the MASS (do you think crime problems stem from lack of resident screening?) to questions that go beyond the scope of the PHA. For example, the RASS asks if respondents believe that the residents' lack of caring or poor police response time contributes to crime in the development. It also asks subjective

questions regarding the residents' perceptions of safety, such as how safe respondents feel in a) the home, b) the building, c) the parking area, with a four point scale from very safe to very unsafe. Resident satisfaction with the development's appearance is also recorded on a 1-4 gradated scale from very satisfied to very dissatisfied in the following categories: common areas, exterior of buildings, parking areas, recreation areas. Finally, the RASS asks how often the respondent identifies a problem with abandoned cars, broken glass, graffiti, noise, rodents and insects (indoors), trash/litter, and vacant units.

This is more in depth regarding the aesthetics of the development than any of the other three PHAS categories ventures. It is encouraging that PHAS asks residents these questions, although it should be noted again that the RASS is worth only 10% of the PHA's overall PHAS score, compared to the 30% weight given each of the other categories. While residents are given a voice, their concerns are not yet granted an equal place at the table as the PHA's financial and management practices, and a development's structural realities. Questions regarding site location are likely excluded from the RASS because the PHAS does not want to engage residents on issues beyond the PHA's control, and for which the PHA cannot easily strive to find solutions.

Overall Review of HUD's Public Housing Assessment System

The obvious stumbling block with using PHAS as a success metric for public housing developments is its focus on the PHA rather than the individual project. While the PHA's capacity is intricately tied to each of its projects, there are many more variables at play. A single PHA could have properties located in vastly different

neighborhoods of one jurisdiction, which, in turn, could have a ripple effect on a development's "success." A PHA could have adequate financial capacity, but direct a disproportionate amount to certain developments, thereby neglecting others. The same hypothetical could be used for a PHA's management abilities—even if a high scorer on HUD's PHAS scale, the PHA may not equally distribute their oversight efforts. As Bratt (2007) explains in the article, *The Status of Nonprofit-Owned Affordable Housing: Short-Term Successes and Long-Term Challenges*, the surveys performed on even the strongest housing management non-profits showed that there were individual projects with which they struggled greatly. Not reflecting the non-profit or PHA's abilities, there are particularly tough projects that struggle even while the management entity is thriving. Therefore, it is more useful to take elements from the four sub-categories that directly relate to individual projects to inform a public housing success metric. These particular elements are discussed further in Chapter 7: Analysis.

Chapter 6: Moving to Work

The Moving to Work Program (MTW) is a HUD initiative that selects pilot public housing authorities (PHAs) to serve local needs in a relatively unrestricted manner. MTW pilot PHAs are granted exemption from certain HUD rules and regulations in favor of flexibility to design and test innovative strategies to address local housing and employment issues. This freedom has allowed MTW PHAs to discover innovative techniques that they believe, in certain cases, have made their public housing projects and residents more successful.

Although a contested program from its onset, public housing in the United States reached levels of extreme controversy in the 1990s. It faced fiscal and political pressures that demanded a change. Much of this growing discontent stemmed from a belief that such a centrally-managed, top-down program was not successful because it attempted to ignore geographic and situational differences. As the Urban Institute described in an assessment of MTW, there was a "gradual shift in sentiment among policy makers and housing practitioners in favor of adopting more market-oriented strategies for providing housing assistance, as well as a growing interest in finding ways to deregulate and devolve the program to allow it to be better attuned to local market variations" (Abravanel 2004). HUD could not replace its tried and true public housing system in its entirety. However, MTW provided an opportunity to experiment with policy and practice outside historic regulations in an attempt to achieve greater public housing success. Whether this was achieved or not, the factors that MTW agencies deemed indicative of success are extremely useful in creating a metric by which to measure public housing

projects. Because these are innovative and "outside the box" of HUD's regulations, the MTW program is pertinent to examine for this report.

MTW PHAs are required to submit to HUD an annual report that outlines the strategies undertaken and their related outcomes. A Congressionally mandated evaluation of the program was completed in 2004 by The Urban Institute, based in Washington, DC. This is supplemented by the Promising Practices Report that each PHA is required to submit, which inform what MTW PHAs consider to be public housing "success," along with the initiatives that have contributed to these outcomes. Collecting individual PHA perceptions of achievement is valuable, even as HUD recognizes the difficulty of defining success on their MTW "Frequently Asked Questions" webpage. The following question and answer is posted on HUD's website:

> *How does HUD know if an MTW activity works, and what happens if it doesn't?*
> Because MTW PHAs differ in terms of size and communities served, there is no one standard measure of success for all MTW activities. Each MTW Agency outlines its own measures of success, based on local and community standards, in its Annual MTW Plans and reports on their progress in their Annual MTW Report. Because the purpose of a demonstration is to replicate successes and learn from failures, punishing agencies for unsuccessful practices would prevent agencies from implementing untested, innovative activities. MTW agencies are, however, expected to explain discrepancies between intended and actual outcomes, change or eliminate an activity if necessary, and report on challenges faced so that HUD can learn from their experience ("Moving to Work FAQ," 2014).

As HUD notes, MTW PHAs are selected across the country and serve a variety of communities. Because of this, each PHA will have a unique concept of what constitutes success. I have chosen to examine the MTW program because these individual PHA concepts of success, and the measurements that accompany them, are important to creating an overall picture of what public housing success looks like. Again, much of the

reporting centers on what makes an MTW PHA successful, rather than individual projects, but there are useful elements to be drawn from this assessment. One such element, of course, is that a strong performing PHA often contributes to an individual development's success. While the MTW program does not provide a method to measure the success of each development, it does identify certain elements of developments thought to indicate success.

The Moving to Work Report to Congress, published in 2010, has compiled the following characteristics of successful PHAs:

- Resident, Community, and Stakeholder Support
- Responsiveness to Community Needs
- Strong Leadership and Committed Staff
- Innovation and Openness to Change
- Evaluation Capacity

Conversely, it has listed the following obstacles to implementation:

- Lack of resident, community, and local stakeholder support
- Unrealistic Goals
- Deep Systemic Management Issues
- Limited Vision of Staff Capacity
- Difficulty Evaluating Activities (56)

The characteristics of successful PHAs, and obstacles to that success, offer a strong collection in input measures to consider. From these, one can paint a picture of the conditions under which a PHA will most likely manage successful public housing. The following PHAs participated in the MTW program and submitted a Promising Practices Report to HUD, detailing their specific findings:

Atlanta	Lincoln	Portage
Cambridge	Louisville	Portland
Vancouver	Massachusetts	San Antonio
Delaware	Minneapolis	San Mateo
Keene	Oakland	Seattle
King County	Philadelphia	Tulare
Lawrence Douglas	Pittsburgh	

However, the individual MTW PHA reports present highly specific input measures, from which success indicators can be directly inferred. For example, the Atlanta Housing Authority (AHA) notes that "families receiving vouchers or living in mixed-income communities had higher average household incomes compared to those living in public housing developments" ("Promising Practices Report for Atlanta Housing Authority," 2008). AHA makes note of this to indicate the success of resident dispersal through the voucher program over traditional public housing developments. However, this input indicates the success that AHA associates with the output of average household income. From this, one can draw the conclusion that a public housing development with a relatively high average household income is considered more successful than a development with lower average household income. Using this method of drawing success measures from MTW PHAs' input notes, I gathered the following indicators of success:

Indicator	MTW Housing Authorities That Have Recognized the Importance of Indicator
Charging appropriate rent levels (excluding income from assets of less than $25,000 from a household's rent calculation)	Portland
Children doing well in school	Atlanta
Cooperation between housing development in question and other housing options to find the best situation for resident/family	Portage
Ensuring that while residents of all income levels are served, the focus remains on serving low income residents	Portland
Environmental sustainability	King County
Facilitate family reunification (income disregards for absent adults that re-joined an MTW household in order to promote family reunification)	San Mateo
Good physical stock of a development project	Atlanta, Oakland
High household income relative to city average	Atlanta
High level of case management services	Massachusetts
High level of resident accountability (no fraud, misuse, duplication)	Lawrence-Douglas County
High level of supportive services (in-house preferred)	Delaware, Keene, King County, Lawrence-Douglas County, Portage, San Antonio
High levels of interaction between public housing residents and the neighborhood	Atlanta
House residents with special needs	Portland
Housing opportunities/choice	Cambridge, King County, Lawrence-Douglas County, Lincoln, Louisville, Minneapolis, Seattle
Income Mix	King County
No fraud/manipulation by residents	Seattle
Quick response time to on site management issues (strong site-based management)	Pittsburgh
Reduction in youth violence and improved youth outcomes	Pittsburgh
Resident and family self-sufficiency (in some cases indicated by participation in Family Self-Sufficiency program)	Cambridge, Vancouver, Delaware, King County, Lawrence-Douglas County, Lincoln, Louisville, Massachusetts, Minneapolis, Pittsburgh, Portland, San Mateo, Seattle, County of Tulare
Resident employment (minimum work requirement)	Lawrence-Douglas County, Pittsburgh, Portage, Seattle, County of Tulare
Resident employment wage progression	Seattle
Resident Safety Net Program	Keene

Figure 7. Public Housing Success Indicators Recognized by MTW PHAs

Figure 7 (continued)

Resident savings/escrow accounts	Delaware, Massachusetts, San Mateo, Seattle
Resident transition to homeownership	Delaware, Keene, King County, Lawrence-Douglas County, Pittsburgh, San Mateo, Seattle
Residents are able to remain in the same units for the duration of their stay in public housing	Cambridge
Residents are educated about the housing project and program	Seattle
Residents are motivated	Seattle
Residents behave in conformance with social norms, social, and economic convention	Lawrence-Douglas County, County of Tulare
Residents feel they receive fair and equal treatment	Seattle
Residents have good rent-paying records	San Antonio
Residents have no lease violations	San Antonio

Figure 7. Public Housing Success Indicators Recognized by MTW PHAs

This list constitutes outcomes inferred from MTW PHAs' self-identified goals and success stories. It is the most specific and comprehensive grouping of success indicators I have been able to collect throughout the literature and document review. It provides an overarching picture of what PHAs from across the nation consider to be indications of achievement. This listing, however, is not without its limitations. First, there are many subjective indicators—for example, what constitutes "high levels of interaction between public housing residents and the neighborhood" will naturally vary from project to project, and with personal opinion. Second, the success indicators above are inferred from a small sampling of PHAs. PHAs were selected for participation in the MTW program based on high performance and predicted capacity for innovation. Therefore, the indicators compiled from the particular grouping may not present a truly comprehensive view of PHA-defined success in communities across the country. The MTW reports do not indicate any statistical measurement by which to determine these goals are met. It is natural to assume that, without overarching guidance from HUD, standards will vary across the county, and perhaps even within the same city.

Chapter 7: Opportunity Index

Public housing does not exist in a vacuum. It is very much tied to the neighborhood in which it is built, as discussed above. But beyond this, public housing's fate is connected to its city and state. In his article *The Strange Career of Public Housing*, Heathcott (2012) writes of this concept: "Cities enjoy no sovereign rights, only dependent powers conferred by states. Therefore, the capacity of cities to limit adverse effects of remote decisions is extremely limited. The core problems that beset public housing, then, were always the same as those faced by cities generally" (373). Heathcott argues that public housing's success is tied the overall city's success, which is, in turn, tied to the state.

I have spent the majority of this report examining the indicators—both input and output—that contribute to, predict, and/or represent public housing success. I have been interested in these indicators at the individual development level, although I have also considered the utility of PHA-level indicators, as management practices largely influence public housing's success. However, if Heathcott's argument is to be considered—and it seems logical, as success cannot be defined without considering the interplay of myriad factors—the success of a housing development cannot be determined without considering the circumstances of its larger geographic area.

Public housing residents may face vastly different circumstances in different states—employment opportunities, cost of living, community engagement, and a multitude of other factors may influence the residents', and therefore the development's, opportunity to succeed. As an additional point, if a particular housing development has been successful, by whatever metric, in years past but the state in which it exists faces

severe difficulties—financial, political, or otherwise—this indicates future obstacles the development may face. When attempting to define long-term success, I believe it is worthwhile to consider Heathcott's argument.

The question, then, becomes how to measure the circumstances in a city or state. I looked to the Opportunity Index metric designed by the group Opportunity Nation: The Shared Plan to Restore Opportunity. Opportunity Nation describes itself as, "a bipartisan, cross-sector national campaign made up of more than 250 non-profits, businesses, educational institutions, faith-based organizations, community organizations, and individuals all working together to expand economic opportunity and close the opportunity gap in America" ("Who We Are," 2014). The group believes a dangerous trend exists in America today, in which zip code defines opportunity, and looks deeply at why this is the case.

The Opportunity Index is a metric designed to provide a comprehensive picture of "what opportunity looks like" at various geographic levels (The Opportunity Index 2014). Rather than measuring only traditional indicators of success, such as business rankings and unemployment rates, the metric asks questions that connect economic, academic, and civic conditions to understand where opportunity flourishes, and where barriers to opportunity exist. If one chooses to follow Heathcott's argument that public housing's fate is tied to the fate of the city in which it is built, the indicators used to determine the opportunity score may be correlated to the success of public housing projects.

I examined the metrics used to determine an area's opportunity score. The 16 broad indicators used in the Opportunity Index calculation to determine a city's aggregate score are as follow:

Indicator	How Is It Measured?
Jobs and Local Economy Dimension	
Jobs	Unemployment Rate (%)
Wages	Median Household Income ($)
Inequality	80/20 Ratio (ratio of household income at the 80th percentile to that at the 20th percentile)
Assets	Banking Institutions (commercial banks, savings institutions, and credit institutions per 10,000 residents)
Affordable Housing	Households Spending Less than 30% of Household Income on Housing (%)
Internet Access	High-Speed Internet (% of households for states, 5-level categories for counties)
Education Dimension	
Preschool Enrollment	Preschool (% ages 3 and 4 in school)
On-Time High School Graduation	On-time high school graduation (% of freshmen who graduate in 4 years)
Post-Secondary Education	Associate Degree or Higher (% of adults 25 and over)
Community Health and Civic Life Dimension	
Civic Engagement	Group Membership (% of adults 18 and over involved in social, civic, sports, and religious groups)
Volunteerism	Volunteerism (% of adults ages 18 and older who did volunteer work any time in the previous year)
Youth Economic and Academic Inclusion	Volunteerism (% of adults ages 18 and older who did volunteer work any time in the previous year)
Youth Economic and Academic Inclusion	Young People Not in School and Not Working (% ages 16-24)
Community Safety	Violent Crime (per 100,000 population)
Access to Health Care	Primary Care Providers (per 100,000 population)
Access to Healthy Food	Grocery Stores and Produce Vendors (per 10,000 population)

Figure 8. Opportunity Nation: Opportunity Index Indicators

The Opportunity Index indicators provide a solid overview of city-wide opportunity, much of which can be tied to public housing resident opportunity. Examining the factors the Opportunity Index measures can inform what success looks like. A set of indicators focus around employment. The measurement of adequately paying jobs that keep residents above the poverty line indicates that resident employment is a sign of success. Another set of indicators centers around self-sufficiency. The Opportunity Index looks at assets, such as banking facilities, as well access to high speed internet. Examining residents' ability to access such amenities prepares them for life

skills and employment, reinforcing the importance of achieving self-sufficiency as a key factor of success. Tangentially, a further indicator of self-sufficiency is the ability of residents to transition out of public housing. The Opportunity Index measures the affordability of housing units in a geographic area—namely, the percentage of households that are paying less than 30% on their income on housing costs. City-wide housing affordability may have a large impact on the opportunity for public housing residents to transition into their own units. This indicator may be linked to "success" defined as residents moving out of public housing into private, affordable units.

The next set of indicators—those dealing with education—are more directly linked to public housing resident success. The Opportunity Index looks at preschool enrollment, on-time high school graduation, and post-secondary education. The Opportunity Index believes that opportunity is greater when children are enrolled in pre-school, and adults finish high school on time, which can be correlated to public housing resident success. As seen throughout other assessment frameworks, public housing resident educational attainment is a consistent indicator of success, as it is linked to nearly every other indicator, not least of which is self-sufficiency and residents transitioning out of public housing.

The final category of indicators is that of Community Health and Civic Life. This includes civic engagement and volunteerism—the Opportunity Index measures people involved in the community as an indicator of opportunity. This can be extended to public housing—a more engaged community will likely provide more opportunity for success. Volunteers may become involved with the public housing project and residents through outreach efforts, the Boys and Girls Club, non-profit work, etc., and moreover, may

simply be more open to public housing development and engaging public housing residents in employment opportunities. The Opportunity Index also measures access to health care and to healthy food in a geographic area, both of which are linked to public housing success. Health care accessibility is paramount—public housing residents' health care access is critical to the success of a public housing project. Access is particularly important as public housing residents may not have reliable private transportation options. Conveniently located health care facilities, or health care facilities easily accessed by public transportation, are an important amenity. The same can be said for access to healthy food. Easy and reliable access can be seen as an indicator of success for public housing, as healthy food is linked to many other indicators of success—most obviously, physical health, but also to children's performance in school and workers' performance in jobs, as well as individuals' mental health and wellbeing.

A final applicable indicator is the Opportunity Index's measurement of community safety. This affects all residents of a city and state. Safety is directly related to public housing success, a theme that is consistently raised throughout the literature and in HUD's assessment materials. Public housing residents will be more successful across other avenues if they feel safe in their homes and community. Safety is arguably the most essential element contributing to public housing success, as scare other success can be realized without the assurance of resident safety. For example, educational attainment and achievement will predictably be positively impacted by residents' increased safety.

I find the Opportunity Index an interesting framework through which to consider the definition of public housing success. Although I believe there are factors involved in public housing success beyond the city's or state's opportunity score, it is helpful to

examine what Opportunity Nation considers indicators of state-wide success. These provide context for what might be reasonable goals at a city level. As I have found few indicators of "output" success, it is helpful to reflect upon a comprehensive set that—according to Heathcott's logic—is intricately linked to defining public housing success.

Chapter 8: Analysis

In this chapter, I attempt to draw from all sources discussed in the report to create a comprehensive list of public housing success indicators, as currently defined in the literature, by HUD, and by housing authorities and their residents around the country. These are intended to measure success on a project-by-project basis. However, as revealed throughout this report, there are certain elements of PHA management and operational capacity that cannot be discounted in assessing public housing project success. Those that directly affect public housing on an individual project basis are included below.

I have attempted to group the indicators by general categories. These are not intended to mirror the themes pulled out of the literature review, although they prove largely similar. Many indicators are relevant to several categories, as there is a great deal of natural crossover between elements contributing to public housing success. However, for ease of presentation, I have included each indicator only in one category below.

Resident Self-Sufficiency and Satisfaction

Economic Status and Employment

- Percentage of resident population below poverty line
- Median resident household income
- Resident unemployment rate
- Resident employment wage progression
- Resident dependence on public services

Education

- Preschool, Elementary, and Middle School enrollment
- Student attendance
- Students' achievement levels at various schooling levels
- On-time high school graduation (% of freshmen who graduate in 4 years)
- Post-Secondary Education: Associate Degree or Higher (% of adults 25 and over)

Resident satisfaction and participation

- Resident opinion on quality of life
- Percentage of residents transitioning out of public housing
- Average time frame for residents transitioning out of public housing
- Participation in a Family Self-Sufficiency Program
- Residents' conformance with social norms, social, and economic convention
- If no outside employment, resident employment within housing project—ability to maintain minimum work requirement
- Resident savings/escrow accounts
- Level of resident accountability: fraud, misuse, duplication, manipulation
- Resident rent payment record: on time, full payment
- Resident lease violations

PHA Management Practices

Financial Operations Affecting Individual Project Future

- Sufficient operating funds
- Long-term viability of budget
- Sufficient reserve funds: one month's expendable fund balance
- Percent of overall PHA funding dedicated to individual development

Management Practices

- Efficient and timely rent collection
- Timeliness of work order completion, particularly emergency work orders
- Timeliness of response to site management issues
- Vacant unit turnaround time
- PHA record of reporting and tracking crime within development
- PHA record of screening resident applications
- Enforcement of lease terms
- Thorough annual inspection performance
- Project occupancy rate
- PHA organizational efficiency
- Income-mix of tenants
- PHA's treatment of residents as clients and level of customer service
- Appropriate rent levels charged

Resident Support

- Level of communication between PHA and residents
- Residents feel they receive fair and equal treatment
- Level of supportive services (with a preference for in-house)
- Level of case management services
- Housing opportunities and resident ability to choose between opportunities
- Residents' ability to remain in same units if desired
- Level of cooperation between housing development in question and other housing options to find the best situation for resident/family
- Level of resident education about the housing project and program

Resident Support, continued

- Ability to house residents with special needs
- Level of encouragement and facilitation of family reunification

Design

- Open design of project
- Seamless transition to surrounding neighborhoods fostering inclusiveness
- Street pattern of development: historic, smaller streets
- Architectural design of development: congruous but not monotonous
- Architectural design of development: warm and homey, bright colors
- Ability to meet green building standards and environmental sustainability indicators
- Attractive and well-maintained common areas
- Handsomely landscaped with green space and trees
- Shared recreational space
- Individual entrances to multi-family buildings

Safety

- Outside lighting
- Police responsiveness
- Drug and crime rates: distinguished by violent crime, non-violent crime, gang-related activity
- Youth violence rates

Physical Building Stock

- Quality of development site
- Quality of original construction work
- Quality of rehabilitation work
- Quality and upkeep of building exterior
- Exterior cleanliness: graffiti, trash
- Quality and upkeep of building systems
- Quality and upkeep of common areas
- Quality and upkeep of dwelling units
- Contemporary amenities
- High-speed internet access

Relationship with Surrounding Neighborhood

- Active homeowners' association/neighborhood group that organizes activities inclusive of public housing development residents
- Level of interaction between public housing residents and the neighborhood
- Civic engagement: residents involved in social, civic, sports, or religious groups
- Resident volunteerism
- Access to health care: primary care providers
- Access to healthy food: grocery stores and produce vendors
- Access to banking institutions and assets: commercial banks, savings institutions, and credit institutions

While the above list is informative and, I believe, more comprehensive than exists elsewhere, there are several limitations to it. First, many of the indicators are subjective. This is particularly apparent in the Design category, although can be seen throughout other categories as well. Personal preference will compel various parties to interpret a project's response to individual indicators differently. While this is certainly the case regarding a project's architectural design and landscaping, it also affects safety and access indicators—opinion on what constitutes an appropriate police response time to crime, for example, may vary, as could the distance to a nearby banking institution that is considered to be "high" access. This leads to the second limitation.

A majority of the indicators are not accompanied by corresponding measurements. Aside from those used in HUD's PHAS evaluations, the literature does not suggest measurements. Before a list such as the one above could be useful in an assessment, each indicator would require a standard measurement similar to those presented in PHAS. For example, the indicator of public housing residents at a particular development who complete high school within four years would receive a grade based on the percentage of applicable residents who achieve this. This would have to be considered in the context of a shifting demographic—if the public housing development was integrating higher income units.

Finally, distinct weight is not assigned to each indicator. It can be argued that certain indicators deserve greater weight than others, as they are either greater contributors to success, or a fundamental human need. While there is substantial study to be done before the above list is assessment-ready, this may be a productive beginning point to create a comprehensive assessment metric.

Conclusion

The topic of defining success has proven highly interesting, particularly in that there is a great deal of literature, academic thought, and public policy so closely related to this topic without addressing it head-on. A large gap exists between what is predicted to have a positive effect on public housing, and defining what that positive effect actually looks like. A difficulty of this topic lies in the fact that it is challenging to distinguish, in many cases, the relationship between inputs and outputs related to success measurements. While there is abundant academic and political opinion surrounding public housing success, it leans heavily on the predictors of this success rather than a systematic assessment of individual project success after implementation. Much can be learned from studying the inputs predicted to positively impact public housing development. These indicate what the development hopes to achieve, and can inform what that success may look like. However, inputs alone are mere predictors—they do not determine whether the project has actually been successful.

The U.S. Department of Housing and Urban Development is the logical entity to spearhead the initiative to create a definition of public housing success that applies to all projects and addresses the concerns of all stakeholders. Through my research, it seems that HUD's PHAS evaluation is the current assessment system that most resembles this imagined product. Existing PHAS comprehensive assessments examine public housing authorities, granting aggregate scores to a PHA based on all their public housing properties, a methodology that does not adequately assess success on a project-by-project basis.

The limited individual projects that do attempt to define success through initiatives such as the Chicago Plan for Transformation and the assessment of public housing projects across Ethiopia discussed in the literature review, are valuable to study, as they contribute to the growing picture of what success looks like to various parties across a multitude of projects. However, the limited evaluations are not based on consistent predefined metrics of success. While distinct projects may be highly successful at meeting their individual goals, this remains an objective measure. Development entities challenge themselves differently, based on differing capacities and circumstances, and therefore, success is relative. I believe the lack of a readily accessible nationwide definition of success, however its measurements may need to be amended by location, is a critical missed opportunity in the U.S. public housing system.

As discussed in the above chapters, there are many assessment criteria proposed by various parties, some more comprehensive than others. The fact that these exist in some form begs the question why the U.S. Department of Housing and Urban Development has not yet proposed a set of output measurements that it requires each public housing development to address. Perhaps the evolution of federally funded public housing projects over the past decades has led to continuously redefined standards, presenting difficulty in creating a consistent success metric. Perhaps the varying conditions across states, cities, and neighborhoods render such varied circumstances that it would be difficult to create a "one size fits all" assessment of success.

In order to create a picture of which public housing projects are more successful than others, and why, the creation of a comprehensive definition of success that measures both PHA capacity and individual project characteristics is essential. It is impossible to

create evaluation criteria without a solid understanding of what constitutes success across geographies and circumstances. Therefore, I would advocate for a concerted effort among stakeholder groups to define public housing success as a first step. This definition will naturally set forth the framework for a project-based comprehensive public housing assessment. Distinct versions of this could exist to assess a project's success at implementation, and after certain increments of time (3 years, 6 years, 10 years). I believe this is an important endeavor because the question posed in this report's introduction—what leads people to consider some public housing projects more successful than others?—remains unanswered by the current literature and federal assessment structure. This question is not important to answer only in and of itself, but rather for the effect the answer could have on future housing policy and practices.

As seen in Chapter 7, there are a great number of success measures to consider in creating this definition. This is because there are myriad factors that contribute to a public housing project's success. A majority of these factors do not exist in isolation as they interact with and affect one another, making the task of creating a distinct list of measures challenging. The story of a successful public housing project will not look the same everywhere, nor will each successful project achieve every measure contained in the compilation in this report. The equation for success varies from project to project, although the list provided in Chapter 7 is, I believe, a valuable attempt at creating a comprehensive take on public housing success based on inputs from relevant literature, and outputs from case studies and existing success measurements.

It is interesting to note, in this conclusion, the overlap and divergence between the themes presented in the literature review and the categories of assessment presented in

the analysis. These represent the distinction between the concepts of inputs—the theories on what will result in public housing success—and the outputs—the factors that can be measured to determine if a public housing project is successful. There is a large degree of overlap between the two. This is not surprising, as many of the theories are driven by common sense, however lacking they are in corresponding, measurable outputs.

There is notable overlap between the themes and categories of physical design—both the buildings themselves and the public housing site; PHA management practices and financial capacity; the physical building stock and condition; and safety. Within these themes, the predictions of success are validated by reports claiming public housing success as a result of these inputs. In the categories above, the correlation is clear between public housing's goals and the theories on what will achieve these goals. However, there are other categories for which this correlation is not so neatly drawn. For example, the literature places weight on the importance of public opinion, making the assumption that a housing project held in the public's high regard will be successful. There is a lack of support for this point in the cases and reports studied here. Positive public opinion regarding a housing project is not a factor that is widely discussed as contributing to success by HUD or PHA assessments. However, the case studies and reports do emphasize the importance of the development and residents' relationship with the surrounding neighborhood. These distinctions may seem small, but they represent the space between assumptions and measurable outcomes, which is paramount to defining success.

Although my overarching belief is that the U.S. public housing system would benefit from more rigorous evaluation on a project-by-project basis, there are factors

within this assertion that give me pause. One such concern is drawn from HUD's Moving to Work program. MTW is a HUD initiative based on innovation. In order to facilitate this, HUD grants MTW PHAs a reprieve from its stringent program-specific requirements in the hope that this freedom will ultimately result in a positive impact on not only the original PHA's performance, but that new ideas on achieving public housing success may emerge. It is a shame that a focus on reaching HUD benchmarks can stifle a PHA's ability to innovate. A potential downside to the creation of an assessment system is that PHAs will be so goal-driven in meeting HUD's milestones for success that it will not allow them to make the best decisions for their specific properties.

In this vein, there is the risk that a success metric will not be relevant for public housing properties across the country. There may be too much variation among geographies, and more likely, conditions in cities, to create a uniform definition of success, and an accompanying assessment. Perhaps the best possible option is a scenario in which HUD creates parameters of success (e.g. percentage of residents to transition out of public housing in X years), with the onus on the PHA to define the specific goals for each of its properties within HUD's parameters. HUD would then approve the PHA's individual metrics of success, and require collection of the accompanying assessment data.

If we choose to follow the argument that defining public housing success on a nationwide level is impossible due to political, practical, or logistical factors, we may claim that this is why it has not yet been achieved. In this case, creating a nationwide assessment metric is likewise impossible. If we determine that success will be achieved in different forms and varied goals will be met across PHAs, perhaps HUD's most effective

policy is to develop individual PHA capacity. If the focus shifts to nurturing PHAs as they build upon their individual and context-specific strengths, HUD may excel in a support role. In this capacity, HUD may foster innovation and provide PHAs with guidance and oversight in creating their own success metrics.

This is, again, only one broad suggestion. More information about the feasibility of various strategies to move public housing into the future is certainly needed. The salient point remains that the concept of success as it relates to public housing has not been defined. Perhaps stakeholders address this issue from such different viewpoints that agreeing on a definition of public housing success is not practical. However, it seems that certain elements exist in the fragmented assessment systems that are nearly indisputable. The question remains, then, how to measure indicators in a manner that is equitable, fair, and relevant across public housing developments.

The different measures by which public housing success is defined from project to project truly surprised me. However, when reflecting upon public housing's storied history, its many iterations and policy changes may have precluded an all-encompassing definition. It is difficult to define success in the face of near constant change. Today, the lack of a consistent metric seems an impediment to public housing's future. While the potential reasons behind this omission are many, I believe that a HUD-driven stakeholder initiative to define and create measurements for success would greatly benefit public housing residents—and their communities—well into the future.

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