

Solid Foundations:
Evaluating Subsidized Housing Design Claims Made by the
U.S. Department of Housing and Urban Development

Katherine Little

A.B. Candidate in Growth and Structure of Cities, May 2025

Bryn Mawr College

Written in partial completion of the Growth and Structure of Cities Major

15 December 2024

Table of Contents

Table of Figures.....	5
Abstract.....	6
Acknowledgements.....	7
Introduction.....	8
<i>Chapter Overview.....</i>	<i>9</i>
<i>Terminology: “Design” and “Subsidized Housing”.....</i>	<i>10</i>
Chapter 1: Literature review.....	13
<i>Introduction.....</i>	<i>13</i>
<i>Literature on Subsidized Housing Policy.....</i>	<i>13</i>
<i>Neighborhood Effects.....</i>	<i>16</i>
<i>Subsidized Housing Design.....</i>	<i>18</i>
<i>Conclusion.....</i>	<i>21</i>
Chapter 2: History.....	22
<i>Introduction.....</i>	<i>22</i>
<i>1933 - 1950s: Housing the Working Class.....</i>	<i>23</i>
<i>1960s - 1990s: Housing the Poorest.....</i>	<i>28</i>
<i>1970s - Present: Finding Market Solutions.....</i>	<i>34</i>
<i>1990s - Present: A Return to the Working-Class.....</i>	<i>37</i>

<i>Conclusion</i>	42
Chapter 3: Methods	48
<i>Introduction</i>	48
<i>Limits of Design</i>	49
<i>Standards of "Empirical Evidence"</i>	49
<i>Organization of Evaluations</i>	53
<i>Conclusion</i>	54
Chapter 4: Identifying HUD Claims	55
<i>Introduction</i>	55
<i>Claim One: Make Subsidized Housing Acceptable</i>	55
<i>Claim Two: Improve Safety and Reduce Crime</i>	59
<i>Claim Three: Build Resident Pride and Self-Esteem</i>	62
<i>Claim Four: Strengthen Social Ties</i>	64
<i>Claim Five: Improve Socioeconomic Outcomes</i>	66
<i>Conclusion</i>	68
Chapter 5: Evaluating HUD Claims	70
<i>Introduction</i>	70
<i>Evaluation of Claim One: Make Subsidized Housing Acceptable</i>	70
<i>Evaluation of Claim Two: Reduce Crime</i>	77

<i>Evaluation of Claim Three: Build Resident Pride and Self-Esteem.....</i>	81
<i>Evaluation of Claim Four: Strengthen Social Ties.....</i>	84
<i>Evaluation of Claim Five: Improve Socioeconomic Outcomes.....</i>	89
<i>Conclusion.....</i>	93
Conclusion.....	97
References.....	101

Table of Figures

<i>Figure 2.1: MOMA Exhibition View</i>	26
<i>Figure 2.2: Williamsburg Houses, Brooklyn</i>	27
<i>Figure 2.3: Robert Taylor Homes, Chicago</i>	32
<i>Figure 2.4: Pruitt-Igoe Hallway</i>	34
<i>Figure 2.5: NCSDPH Final Report Cover</i>	39
<i>Figure 2.6: Cabrini-Green Before and After</i>	44
<i>Figure 4.1: High Point, Seattle</i>	58
<i>Figure 4.2: Walkup Defensible Space Diagram</i>	61
<i>Figure 4.3: Public Open Space in Pleasant View Gardens, Baltimore</i>	66
<i>Figure 5.1: Defensible Space Sketches</i>	81

Abstract

The design of modern-day U.S. subsidized housing is the physical manifestation of more than a century's worth of changing ideas about which portions of the American population should be supported by government-funded housing efforts and how to best go about supporting them. By making specific choices about various aspects of the physical design of subsidized housing, designers, developers, and public officials all seek to make a tangible impact on the behavior and outcomes of residents. The U.S. Department of Housing and Urban Development (HUD) guides design choices about subsidized housing nationally by outlining design best practices. In this paper, I identify and evaluate prominent claims made by HUD regarding subsidized housing design measures that it espouses as best practice in order to clarify whether or not such measures make the impacts they intend to, the extent of any impacts, and any lingering questions regarding their evidence bases. By doing so, I attempt to advance evidence-based design practice by contributing to the body of existing actionable knowledge on subsidized housing design.

Acknowledgements

First and foremost, I am incredibly grateful for and deeply indebted to my thesis advisors, Professor Jennifer Hurley and Professor Min Kyung Lee, for their tireless support and guidance through every stage of the research and writing process. I would also like to extend my thanks to my fellow Cities seniors for the endless feedback, inspiration, and knowledge that they provided. I am also grateful to my family for always helping me get back on my feet. Finally, I want to thank all of my friends, who have taught me that the best work is done out of love.

Introduction

A unit of U.S. subsidized housing is never passive. As a service directed toward disadvantaged populations, every aspect of the physical design of subsidized housing is intensely politicized as a way to affect the behavior and outcomes of the households it serves based on shifting national ideas about poverty, welfare, and government participation in the private economy. The federal arm of the U.S. subsidized housing system—the Department of Housing and Urban Development (HUD)—serves as an important arbiter of what design interventions are considered standard practice in achieving these ideas. HUD diffuses ideas about standard design practice through design guidelines and recommendations to state and local government administrations that supervise subsidized housing as well as private companies who develop and manage it. However, said ideas about standard practice are frequently based on unfalsifiable sources like anecdotes, tropes about subsidized housing, and the personal opinions of designers. This presents a problem: within a public service so hemmed in on what it can offer by shoestring budgets, heavy regulation, and a base of political support that's shaky at best, no amount of money or time should be wasted on a physical design effort that is supported by shorthand and plausible myth instead of empirical evidence. Though the successes or failures of subsidized housing cannot be attributed to design alone, it is a piece of a larger socioeconomic puzzle that should not be overlooked. Much more than image is at stake. The homes of millions of people, which provide for and enhance human dignity, quality of life, and long-term outcomes of both residents and neighborhoods, are owed a commitment to evidence-based design.

In order to make sure that the claims made by HUD and partner institutions regarding the design of subsidized housing in the U.S. hold up to scrutiny, it is important that they be evaluated by robust empirical data. My thesis seeks to address this by identifying the claims made most

consistently by HUD about what certain architectural features or design choices do for subsidized housing residents and neighbors, evaluating those claims using empirical evidence from existing social science literature on the topic, and pointing out gaps in this literature for future study. I am approaching HUD claims from a purely analytical perspective—checking whether or not the claims I identify are supported by robust evidence—and will not be arguing for or against the use of any particular design features in subsidized housing.

Chapter Overview

The first chapter of my paper consists of a literature review that contextualizes the current state of subsidized housing research and the background of neighborhood effects before moving into a discussion of design analyses. I then detail scholarship on my particular focus of subsidized housing design.

My second chapter lays out the context and history of subsidized housing in the U.S., identifying the changing demographics of resident populations as well as shifts in policy directions over time in order to contextualize the environments in which different design interventions developed, as well as the background of literature regarding American subsidized housing and its physical design.

The third chapter covers the methodology I use to evaluate HUD claims in chapter five. In it, I discuss the criteria I set for robust evidence and intellectual frameworks within which each group of claims I identified in chapter four operate. Additionally, I outline how the fourth chapter evaluations will be organized.

In my fourth chapter, I identify the particular claims HUD and partner institutions have made most consistently regarding the design of subsidized housing and explores the historical basis of each claim. Primary sources in the form of government documents pertaining to

recommendations for those designing, developing, and managing subsidized housing provide the foundation for my argument surrounding the nature and durability of each claim.

Chapter five evaluates each claim in turn by examining the scholarly consensus regarding the type of design intervention in question and existing evidence for or against the claim: whether or not the claim is accurate to reality and, if it does, the specifics of the design intervention's impacts. In this chapter, I rely on scholarly analyses of the impacts of the design intervention espoused by the claim, with the analyses' nature as econometric, psychological, or sociological studies varying depending on the claim being evaluated. I also use this chapter to note gaps in the existing body of research on these particular aspects of subsidized housing design and makes recommendations for how they can be clarified, drawing on the design of existing research utilized in the chapter to identify what particular aspects of subsidized housing design have not been studied adequately or at all.

In my conclusion, I summarize my findings and their significance, discuss their policy implications, and make closing remarks on directions for further research.

Terminology: “Design” and “Subsidized Housing”

Two key terms appear throughout my paper: “design” and “subsidized housing”. Because these are extremely general and are used in different ways by different scholars, it is important to discuss how they will be used in this text.

When I refer to “design” in this paper, I am referring in the most general terms to the way built forms are physically defined. Lawrence and Low (1990) define built forms as “building types (such as dwellings, temples, or meeting houses) created by humans to shelter, define, and protect activity”, which “also include...spaces that are defined and bounded, but not necessarily enclosed, such as the uncovered areas in a compound, a plaza, or a street” (p. 454). Subsidized

housing design, then, can be defined within my analysis as the setup of built forms that exist as part of a subsidized housing development, from the arrangement of paths outside of a building to the amenities existing inside or the architectural style in which the building was built.

Correspondingly, when I refer to “design interventions”, I am referring to particular design choices that were made with the intention of impacting or influencing a building user or viewer in a certain way—for example, a design intervention might be intended to discourage people in a building from committing acts of crime. Any particular design choices I want to draw attention to are described specifically.

“Subsidized housing” is only one of a number of terms that are used to describe the variety of government housing interventions that have been staged over the course of U.S. history, as they exist on a “public-private” gradient ranging from almost entirely government-overseen to almost entirely private, with only minimal government assistance (Vale and Freemark, 2012). All have varying levels of specificity. “Public housing” is the most common term in the literature and is most often used to describe housing specifically owned and operated by the government; however, it has been used as an umbrella term to describe any housing that is discounted or funded by the government in some way, such as LIHTC-funded constructions or private units acquired using vouchers. “Affordable housing” has been used as a general term for housing outside of the private market, non-private housing that has been discounted or funded by the government but is owned and operated by a private entity, or price-accessible private housing. “Assisted housing” is used to describe alternatively government-discounted or -funded housing or housing for the elderly or disabled that incorporates assistive services (more commonly referred to as assisted living). “subsidized housing” is used in some countries as an umbrella term for housing that does not exist

exclusively within the private market, but rarely used in U.S. discourse. As a result, I note that I will be using the term “subsidized housing” to as an umbrella term to describe the broad range of U.S. housing that exists in some way using financial assistance from the government.

Chapter 1: Literature review

Introduction

A great deal has been written about the political and economic aspects of American subsidized housing. With a history of decades-long battles in Congress, destructive urban renewal initiatives, and the restructuring of American geography as we know it, this multi-billion-dollar operation has invited almost a century of scholarship dedicated to analyzing the purposes of subsidized homes as well as where and how to build them, creating a strong base of empirical evidence suggesting best practices in subsidized housing *policy*. However, very few empirical studies of best practices in subsidized housing *design* exist. In this chapter, I explore the existing literature, which has with few exceptions long focused on these non-design aspects, and note the need for a more substantial discussion of subsidized housing design. In particular, I focus on the importance of evidence-based design.

Literature on Subsidized Housing Policy

U.S. subsidized housing has undergone a number of policy reversals. However, it should be kept in mind that most of the overhauls of the subsidized housing system were not undertaken with the intention to completely, if at all, dismantle each new program's predecessors. As a result, these predecessors hang around long after HUD has more or less moved on to other projects, creating a varied landscape of aging programs that all continue to live under the umbrella of "subsidized housing". Millions of Americans live in subsidized housing from the 1960s and 70s kept on life support by HUD maintenance until the buildings reach the natural end of their life cycles, after which they will not be rebuilt. Housing Choice Vouchers are still a household name with several years-long waitlists (Acosta and Gartland, 2021) despite more recent emphasis on privatized mixed-income housing, which in turn may become a predecessor

to other programs. Indeed, it may be better to discuss this landscape as operating under multiple U.S. subsidized housing *systems* rather than a single coherent effort.

Conversations about “what could be” beyond these programs—i.e. how different assisted or social housing systems entirely (whether they have been utilized abroad or are yet to be tested) might be attempted in the U.S. or critical re-interpretations of the intentions behind existing subsidized housing programs (such as McFarlane’s (2019) analysis of mixed-income housing and Dawkins’ (2021) framing of the ethical assumptions that lie behind American housing policy)—exist in more theoretically-oriented branches of literature examining these systems and provide new perspectives on aspects of U.S. subsidized housing that can be taken for granted as unchangeable. However, the bulk of literature that deals explicitly with the implementation of subsidized housing in the U.S. exists in the more concrete realm of evaluating and making recommendations to improve upon “what is”. These are discussions about which interventions work in helping those in need of subsidized housing, the extent to which they help, the exact mechanisms through which they help, and who benefits from them. Those working within this area of the literature, apart from cases of historical analysis like that of Vale and Freemark (2012) that cover the roster of U.S. subsidized housing programs (and to whom I, as stated earlier, credit the lens through which I use to view the succession of American subsidized housing programs from the beginning of the twentieth century to the present as a series of experiments intended to provide aid for households in different levels of economic distress), will usually approach a specific implementation of subsidized housing and assess it. As I will discuss later in this review of existing literature, the nature of my analysis allows me to study U.S. subsidized housing broadly; however, the ideas expressed in more implementation-specific research are relevant to my work for the analysis and experimental design frameworks they provide.

Though an implementation can be a particular program (such as HOPE VI), it is more often a particular cluster of multiple U.S. subsidized housing programs. I argue that the research available can be broadly divided into two contrasting primary clusters that evaluate the mechanisms of the programs they investigate in similar ways: research of “concentration” methods and research of what Popkin et al. (2000) describe as “dispersal” methods.

The large-scale, typically geographically isolated PHA-managed housing projects of the 1960s and 70s compose the focus of the first “concentration” cluster. These analyses tend to center around either their policy failures in terms of their concentration of socioeconomic disadvantage that made them the subject of later revitalization programs or the narratives generated about such projects from both outside media sources or neighbors (Fuerst and Hunt, 2005; Vale, 2002). The approach of more recent analyses in extricating what went well from what went wrong was instructive as I undertook my own analysis of such spaces. Of these analyses, the Final Report of the National Commission on Severely Distressed Public Housing (1992) has had the most wide-ranging consequences due to its role in the development of HOPE VI as a subsidized housing renewal program, whether intended by the Commission or not, and by nature of the resources it was able to receive to conduct its research provides some of the most in-depth data available on struggling units at the time.

As time—at least in the U.S.—has more or less passed PHA-managed subsidized housing by, the main body of implementation-specific research has shifted focus toward neighborhood effects, which serves as the evidence basis for proponents of dispersal methods and within which the second primary cluster should be described.

Neighborhood Effects

Research within the neighborhood effects field relies heavily on economic assumptions influenced by Coleman's (1988) isolation of the concept of social capital—which accounts for the influence of social bonds on economic exchanges by describing said bonds as a form of capital in and of themselves—and Granovetter's (1985) theory of social embeddedness—the idea that economic structures are embedded in the social networks that form societies and thus cannot be analyzed in isolation from them. As theoretical economic frameworks, both attempt, to some extent, to quantify the unquantifiable and are helpful insofar as they give us language with which to describe phenomena we observe in experimental data from studies on programs attempting to influence individuals' and households' socioeconomic situations. Interest in these frameworks coincided in the 1980s with a growing body of criminological studies seeking to test Shaw and McKay's (1942) model of social disorganization, which suggests that the level of crime in a neighborhood is associated with the neighborhood itself and not necessarily any particular individuals. Sampson and Groves' 1989 study, which expanded this model by positing that mechanisms of social disorganization may include macro-level characteristics of the neighborhood such as socioeconomic well-being, which in turn influence the ability of the community to unite around common goals and regulate its members, and tested it with supportive results in the UK. A number of studies examining “neighborhood effects” lent support to the idea that the neighborhoods people live in have an influence on their outcomes (Leventhal and Brooks-Gunn, 2000; Otero et al., 2017; Sampson et al., 2002; Tiesdell, 2004) and that communities can reduce the impact of concentrated disadvantage through collective efficacy (Sampson et al., 1997), though, as Sharkey and Faber (2014) point out, more investigation is needed on the particular mechanisms by which neighborhoods actually affect residents.

The results of this wave of research gave credence to shifting housing policy of the time, which had firmly moved away from developing housing exclusively for the poor and toward dispersal methods that sought to “dilute the concentration of poverty” in disadvantaged neighborhoods by moving households into wealthier areas using vouchers or, as has become a primary strategy, integrating households from different socioeconomic backgrounds in mixed-income buildings and communities. Analyses of these methods compose the second primary cluster of implementation-specific research. The results of these dispersals are still debated and data continues to be refined as the longer-term impacts of these projects become clearer in the U.S. (Foell et al., 2024; Harding et al., 2021), though studies of similar programs in the Netherlands (Troost et al., 2021), Sweden (Galster et al., 2016), and Norway (Nordvik et al., 2019) have found generally positive outcomes. Goring and Feins’ touchstone 2003 review of the MTO dataset—a text recommended by Henry Cisneros—finds mixed results for certain program success measures like adult employment and resoundingly positive ones for others, such as the educational outcomes of young children. Rosen (2020) similarly makes the case that the benefits of Section 8 vouchers outweigh their downsides and ultimately serve as an important mechanism of housing security for low-income Americans who participate in the program. A significant portion of the literature has also pointed out glaring issues present in dispersal programs, primarily in their disruption of existing social networks for low-income households who participate in them as well as their failure to socially integrate mixed-income neighborhoods. Ruiz-Tagle (2016) finds that a new mixed-income community in the Cabrini-Green area of Chicago, while fostering better building maintenance and contributing to lower rates of crime, did not improve socioeconomic outcomes of residents and actively destabilized local public school systems and longtime, predominantly Black residents’ social networks. Bucerius et al.

(2017) echoes these findings in evidence from a formerly subsidized housing turned mixed-income community in Regent Park, Canada, where social divisions remained firm between newer, wealthier residents and longtime residents. These are important findings in the context of building evidence that cross-social class interaction may not even be a significant mechanism of wealth transfer (Custers, 2018; Miltenburg, 2015), with the social networks that already exist within disadvantaged communities potentially being much more influential (Farwick et al., 2019). Efforts to socially and economically integrate wealthier communities by increasing the supply of subsidized housing have also generated significant NIMBY (Not In My Backyard) pushback—Nguyen et al. (2013) offer an important window into NIMBY framing techniques and the ways developers and local officials respond to such opposition, while Einstein et al. (2020) explore the ways these local movements utilize land use regulations.

Because subsidized housing literature (unless intended to criticize the concept of subsidized housing itself) is generally written with the extremely broad goal of helping low-income households through said housing, each debate to be found in it can be viewed as arising from competing ideas of how to best accomplish the latter and to what end. This leaves space for a variety of different research foci. However, most research concentrates on analyzing the outcomes of housing policy interventions, and a significant gap in the literature appears when exploring the area of subsidized housing design.

Subsidized Housing Design

Discussion of the relationship between subsidized housing design and human activity, outcomes, and well-being has been for the most part composed of theory. *America Can't Have Housing*, a series of essays edited by Carol Anovici for the MOMA's 1934 housing exhibition, points to functional, modernist architecture as a potential solution for housing the masses using

as little space and money as possible, reflecting energy channeled into the type of modernism that would construct many of the modernist high-rise subsidized housing projects of following decades. Other influential theories generated in the 1970s and 1980s centered subsidized housing projects as examples of how design can encourage or discourage crime, though Jacobs' (1961) proposal of "eyes on the street" working to prevent crime through collective efficacy serves as an even earlier example of such analysis that also drew attention to the design of subsidized housing. Kelling and Wilson (1982) introduced the "broken windows" theory of crime: that, regardless of the actual amount of crime in a neighborhood, residents will nonetheless feel safer and criminals become discouraged if, among other preventative measures against generally disorderly behavior, physical property in the area is visibly cared for and respected. Newman's (1996) concept of "defensible space" (the idea that residents will feel obligated to monitor "semi-private" spaces that they feel more ownership over) has had impacts felt to this day as a result of his influence on contemporary HUD-financed constructions, which prioritized lower-density designs in order to create such spaces (Cisneros, 1996; Reynald and Elffers, 2009).

However, this has the potential to change in light of the growing body of research on the relationship between cognition, behavior, and the built environment has demonstrated that physical design has significant impacts on mental health, movement through spaces, group identification, and quality of life, among others (Bonnes and Sechiarolli, 1995; Ellard and Montgomery; Grieves and Jeffery, 2017; Jorgensen and Stedman, 2011; Lederbogen et al., 2011; Minam and Tanaka, 1995; Plas and Lewis, 1996; Russell and Ward, 1982; Shah and Kesan, 2007; Stedman, 2002; Whyte, 1980). The designed spaces of subsidized housing are not exceptions to these findings; residents and neighbors are subject not only to the construction and

visual characteristics of a subsidized housing project, but of aspects such as the amenities they offer residents, how they are spaced within a community, and the ways in which they are integrated with or isolated from their surroundings. Calls have been made for the bridging of empirical research with professional design practice into what Hamilton (2003; 2020) calls an “evidence-based design practice”, akin to evidence-based medicine. Ahrentzen (2006; 2008) applies Hamilton’s proposition to subsidized housing, noting the dearth of evidence available in this particular sphere and calling for the construction of a body of “actionable knowledge” related to subsidized housing design from which practitioners can draw.

Though attempts to condense U.S. subsidized housing-related actionable knowledge based on study or systematic interview exist, they tend to be few and far between. More than a decade after the MOMA housing exhibition, the Federal Public Housing Authority released its 1946 booklet, *Review of Experience in Low-Rent Housing*, which offers an early example of design research and recommendations for subsidized housing developers gathered from mistakes of earlier subsidized housing constructions. More than thirty years separate this review from Francescato et al.’s (1979) research, which provides a dataset on the relationship between subsidized housing design and resident satisfaction gathered on behalf of HUD after the establishment of the Section 8 voucher program. Tiesdell’s (2004) approach of design from the point of view of subsidized housing developers in the UK offers a window into the calculations of government contractors. Price’s (2017) discussion of the visual integration of affordable housing within a larger neighborhood, Bollo’s (2023) study of the role unit-level features have in the development of resident turnover in response to Ahrentzen, and Lindeback’s (2024) research into the health and quality of life impacts of different design interventions within affordable housing all provide more recent scholarship on the topic that help shine a light on contemporary

design interventions. The above works build actionable knowledge and form the foundation of an evidence-based subsidized housing design practice; however, there is a pressing need within the literature to not only an evidence base, but also take a critical look at what ideas subsidized housing design practice has rested on in the absence of such an evidence base.

Conclusion

This chapter reviewed the current body of literature surrounding subsidized housing, which generally concentrates on the economics and politics of the funding, development, and recipient selection processes. I noted the substantial gap present in the topic of subsidized housing design and highlighted the works of several researchers attempting to remedy it. Many of these researchers seek to develop a body of empirical evidence regarding the human impacts of design. This paper attempts to expand this body of evidence-based subsidized housing design literature by specifically pointing out and evaluating the most consistent design recommendations made by HUD using the empirical evidence available regarding the design intervention in question as well as identifying areas that lack substantial study.

Chapter 2: History

Introduction

In the history of American subsidized housing, policy, economics, and design move together. The economic situations and political concerns of the public influence government, where both design budgets and design ideas collide to shape the funding and development process. Results of the funding and development process—new buildings—in turn influence the public. These shifts, which I in this chapter categorize into four main phases occurring over the course of the 20th century, are essential to understanding the rise to prominence of modern day ideas about subsidized housing design.

I first describe the origins of the initial push for government-provided housing in the housing reform and modernist movements, which influenced the designs of housing constructed for a highly-vetted section of working-class households suffering during the Great Depression. As the construction of the highway system and the rise of the suburbs shifted working-class families out of urban centers and into the private market, subsidized housing became home to the poorest and most disadvantaged of the country, drawing criticism from the public and causing issues with funding sorely needed for building maintenance and operation as they created a popular image of subsidized housing as isolated, deteriorating modernist high-rises full of impoverished families. Economic crises in the 1970s and coinciding popularization of neoliberal attitudes shifted focus away from government-managed subsidized housing, increasingly decrying such housing as a dangerous, mismanaged drain on government resources, and toward privatized alternatives like vouchers that “deconcentrated poverty” out of subsidized projects. Finally, I describe the way the HOPE VI program and other policies of the 1990s continued this reaction by setting sights on the culling of government-managed housing in favor of privatized

projects that attempted to re-center a working-class clientele and integrate subsidized units within their development and larger neighborhood. These policy shifts toward privatization reacted to the public attachment of the stigma of subsidized housing to its physical design, and in turn made the designs of more recent programs part of that reaction: a drive to make subsidized housing acceptable and integrated.

1933 - 1950s: Housing the Working Class

The movement for subsidized housing in the U.S. has its roots in the housing reform movement of the late 19th and early 20th centuries. Reformers like Catherine Bauer, railing against the conditions of urban slums, argued that housing, just like sanitation and zoning, was among the services the government could render when the private market could not do so adequately. However, true subsidized housing did not emerge in earnest until the Great Depression, when millions of Americans suddenly found themselves jobless and housing insecure (Bloom et al., 2015). This period, though it defined a number of norms related to subsidized housing's purpose and management, was brief and fairly anomalous in the populations it served compared to the roughly forty years that followed it.

Vale and Freemark (2012) argue that subsidized housing built during this era reflected a collective interest in providing for a very particular subsection of the poor deemed "deserving" of assistance: the working poor who Friedman (1968) describes as "submerged and potential middle class" framed by a popular idea that there existed "[cultural] members of the middle class...who [had] been prevented by unfortunate circumstances from taking their proper place in the social order or who [had], through no fault of their own, dropped down a notch in society" (p. 21). The ideal of this subsection was the employed, two-parent white family (Roistacher, 1987; van Weesep and Priemus, 1999). Though constructions open to Black households faced

especially long waiting lists due to the discrimination Black Americans faced on the job and private housing markets—Hunt (2018) notes that the Ida B. Wells Homes in Chicago fell more than 16,000 units short of demand upon opening—only one-third of housing constructed by the PWA was open to Black residents (Robinson et al., 1985). Program structures reflected a public policy attitude that “the very poor and those at the lowest levels of the economic ladder were simply... beyond the reach of such housing programs [and]... would remain the responsibility of charity and social workers, the police, and the courts” (Robinson et al., 1985, p. 57):

In Chicago, for example, the Chicago Housing Authority (CHA) screened 28,000 families to select 2,424 for its first three projects. The CHA's “steps in investigating applicants” included an “office interview by a qualified social worker”; “verification of employment, clearance with Social Service Exchange, and police record”; a home visit “by an investigator experienced in home interviews”; and a careful “scoring” of the applicant's overall desirability as a tenant by a “person well-qualified to weigh the accumulated facts.” Above all, the CHA sought assurance that, while suitably low-income, “the family will be able to carry the rent in the project.” Eschewing “childless couples, except aged couples on pensions,” the CHA gave preference to families with children who could provide “evidence of thrift, good credit risk and [a] good employment record” (CHA, 1940, pp. 26–28). Faced with thousands of poor people to choose from, the gatekeepers rebuffed those who came from the wrong race, had the wrong size family (either too big or too small), lacked proper U.S. citizenship, or seemed financially too unstable to be reliable rent-payers. (Vale and Freemark, 2012, pp. 382-384)

Even after moving in, households were monitored to ensure they met certain standards for residence in the project—housing managers “conducted home visits to most applicants to see whether their households were sufficiently orderly to qualify for public housing” and “were also not shy about evicting unruly tenants or tenants who failed to keep their homes up to an acceptable standard of tidiness” (Schwartz, 2015, p. 167). Funding methods corresponded to customer bases: most subsidized housing projects were financed by long-term, interest-free or low-interest mortgages to a PHA for construction, which were then paid back using municipal bonds, and then operated using rental income (Heathcott, 2015; Schwartz, 2015).

In terms of both ideology and architecture, the housing reform movement was deeply aligned with modernism. This colored the intentions behind and physical design of subsidized housing of the time with a utopian idealism that viewed housing as “the vanguard of the sanitary city, organized in such a fashion as to create healthy and happy communities of working-class inhabitants regardless of the wider social forces acting upon it” (Bloom et al., 2015, p. 7)—subsidized housing would not just provide a basic floor for Americans’ standard of living, but actively instruct residents on proper behavior and community living. This vision was set forth most notably in the Museum of Modern Art’s Housing Exhibition (see Fig. 2.1), accompanied by a series of essays by notable modernist housing advocates like Walter Gropius and Carol Aronovici collected in the 1934 booklet *America Can’t Have Housing*. The modernist vision of subsidized housing was later constrained by standards set by the 1937 Housing Act, which limited spending to \$5,000 per unit in cities with over 500,000 residents and \$4,000 per unit in all other areas (Schwartz, 2015). The lower cost of land outside of central city areas with spending limits in mind as well as a drive to set subsidized housing apart from the overcrowded slums it replaced heavily informed site selection and building design: units were placed in highly

visible open spaces to “[introduce] fresh air and light into urban landscapes that had lacked both” (Goetz, 2012, p. 5), organized into “modernist superblocks” (Bloom et al., 2015, p. 8) of “relatively featureless buildings in barracks formations with minimal landscape or amenities” (Heathcott, 2015, p. 34) (see Fig. 2.2). Despite the more sparing construction of post-1937 units, residents still expressed satisfaction with their new living spaces, which many regarded as significant improvements over the places (typically slums) they used to live in terms of amenities, space, and cleanliness (Heathcott, 2015; Hunt, 2018).

Figure 2.1*MOMA Exhibition View*

An installation view of the MOMA exhibition "Housing Exhibition of the City of New York", which envisioned modernist solutions to existing urban conditions. (MOMA, 1934)

Figure 2.2

Williamsburg Houses, Brooklyn



Built by the Public Works Administration, the Williamsburg Houses were among the earliest subsidized housing developments built during the Great Depression. (Unknown, 1941)

Though, as Goetz (2012) points out, "public housing's political support had never been widespread or entirely secure" (p. 7), the construction and popularization of these new residences was not initially described in the stigmatizing terms that would later come to define their coverage in the media: Bloom et al. (2015, pp. 13-18) find in their analysis of media portrayals of subsidized housing that words signaling a narrative shift like "notorious", "violence", and "rundown" would only become dominant in the 70s and 80s, with words like "modern"—bearing

neutral to positive connotations—being much more frequent in descriptions of subsidized housing during the pre-war period.

1960s - 1990s: Housing the Poorest

The postwar period of the 1950s and 60s marked a demographic transition for subsidized housing from a residence primarily targeted toward working class white families to one that offered shelter for the country's most vulnerable populations. This transition, deeply intertwined with national urban renewal policies, tensions around racial integration, and the rise of the suburbs, sparked a shift in popular narratives around subsidized housing that would come to shape how the institution is viewed by the public to this day. Such narratives also influenced how federal and local governments came to manage and fund subsidized housing around the country.

Private developers, who had always been interested in opportunities offered by slum clearance and wary the public sector as a potential competitor, became increasingly alarmed by the prospect of government housing biting off a significant portion of their customer base, especially in light of the pressure put on the housing market from returning veterans, and initiated a number of lobbying campaigns to attack subsidized housing as socialist (Hunt, 2018; Marcuse, 1995). These efforts met with some success in the form of the 1949 Housing Act. No longer did demolished slum units have to be replaced with subsidized housing, allowing for private real estate to be developed on the sites of cleared neighborhoods. Additionally, strict income ceilings were implemented to enforce the sovereignty of developers over housing for the working class market (Roistacher, 1987). In fact, Hunt (2018) argues, “public housing survived in large part because it played an important supporting role to the federal urban renewal program (initiated in 1949 and expanded in 1954) by taking in low-income dwellers to make way for private redevelopment” (p. 8). Opportunities for private construction were compounded by the

construction of the interstate highway system, an enterprise that launched in 1956 and would continue for more than a decade afterward, displacing hundreds of thousands of poor, mostly black households in an intentional effort to clear "blighted" neighborhoods:

In metropolitan areas, the coming of urban expressways led very quickly to a reorganization of urban and suburban space. The Interstates linked central cities with sprawling postwar suburbs, facilitating automobile commuting while undermining what was left of inner-city mass transit. They stimulated new downtown physical development and spurred the growth of suburban shopping malls, office parks, and residential subdivisions. Oriented toward center cities, urban expressways also tore through long-established inner-city residential communities, destroying low-income housing on a vast and unprecedented scale. (Mohl, 2000, pp. 226-227)

The new interstate system also began a sweeping migration of whites out of cities and into the suburbs, drawn by job opportunities that had shifted outward with the construction of highways and facilitated by rising post-Depression wages as well as a wave of low-cost postwar mortgages offered by the FHA as part of the 1944 GI Bill (Goetz, 2012; Mohl, 2000). The households that were able to leave subsidized housing on FHA loans were almost exclusively white due to rampant racial discrimination by government officials, banks, and mortgage agencies (Katznelson, 2023; van Weesep and Priemus, 1999). Heathcott (2015) notes that "as white middle-class families fled cities in search of better employment and housing opportunities, they took their wages and taxes with them", leaving "cities [that] found themselves struggling to support an increasingly poor and elderly population with fewer and fewer resources" (p. 38).

Through the 50s and 60s, as the suburbs swelled with new homeowners, subsidized housing "quietly shifted into a social experiment in housing the elderly and disabled", a

"[portion] of the poor judged to have particular worth" (Vale and Freemark, 2012, p. 385) over nonwhite and deeply impoverished families that were also in a position to be served by subsidized housing. Elderly and disabled white people, policymakers reasoned, would not be found objectionable by neighbors or taxpayers, especially in light of white concerns about racial integration (Hunt, 2018). This shift was encouraged by policies like the Housing Act of 1956, which allowed single elderly people to live in subsidized housing; the Housing Act of 1959, which expanded assisted rental opportunities for the elderly; and the Housing Act of 1961, which encouraged PHAs to build subsidized housing for the elderly using premiums (HUD, 2014; Vale and Freemark, 2012).

The family housing that was available, however, continued to undergo a demographic transition. White families continued to turn over in favor of other housing options. Continuing to face displacement by urban renewal, many impoverished nonwhite households that could not afford previously inaccessible private markets that had opened up to the nonwhite working class in the wake of white flight turned to subsidized housing (Heathcott, 2015). This transition coincided with riots in major cities in the 1960s, which created further "strains between urban blacks and the largely white union movement that had once seen a commonality of interests in public housing" (Goetz, 2012, p. 8). Subsidized housing became increasingly and starkly impoverished: the median income of public housing residents, which was 57% of the national median in 1950, fell to less than 20% by the mid 1990s.

Money started to become a concern. Inflation in the 1970s and an aging housing stock that required ever-more maintenance coincided with falling resident incomes, disrupting a funding model that had originally been designed to provide for a customer base of the working poor. A 1965 requirement to construct relocation housing for communities cleared by urban

renewal operations added the costs of additional units (Mohl, 2000). Financing needs for an enterprise that had never been particularly well-funded continued to increase, requiring the federal government—now managing housing in the form of the new Department of Housing and Urban Development, founded in 1965 to manage an increasingly large subsidized housing stock—to drastically increase subsidies (Schwartz, 2015). HUD would come to be the entity through which later subsidized housing reforms and regulations were distributed by the federal government to state and local governments.

Funding concerns found their way into the designs of new constructions and maintenance of existing units. Amenities, already tired from a “[demographically unprecedented] youth density [that had] exacerbated wear and tear” (Hunt, 2018, p. 11), reached the ends of their lifespans and required replacement. Modernist high rises, which, in addition to having a strong precedent in earlier building designs, could be built cheaply and quickly while maintaining access to fresh air and green space for outdoor activities, became a favorite (see Fig 2.3) among cash-strapped PHAs in cities like Chicago and maintained their dominance in New York City (a city already dominated by constructions of the sort) (Bloom, 2015; Heathcott, 2015). Quality of new constructions, owing to the same budget issues that had necessitated their particular designs, suffered, in turn further increasing maintenance costs. And, of course, cost concerns and the opposition of potential neighbors meant subsidized housing continued to be built in the poorest parts of town (Schwartz, 2015). Interior issues combined with the external visibility of tower blocks isolated within already struggling neighborhoods to further stigmatize subsidized housing in the imaginations of onlookers.

Figure 2.3

Robert Taylor Homes, Chicago



Chicago's Robert Taylor Homes were a highly visible modernist subsidized housing complex.

(White, 1973)

In response to a changing clientele and a deteriorating physical stock, public reception of subsidized housing—and, correspondingly, its residents—soured. Increasingly utilizing language that decried the isolation, violence, and desperation that subsidized housing was believed to draw to itself began to appear in news articles, public discourse, and conversations within the halls of government that still closely resembles the vocabulary of today:

Reporters in the United States have developed a series of persistently demeaning and dehumanizing public housing memes and tropes. Mostly middle-class reporters find public housing as convenient shorthand for all urban poverty, government malfeasance,

rampant criminality, and dependence. Overwhelmingly negative images and stories have been devoured for decades by middle- and upper-income readers... Beyond living in one particular [public] housing development, residents are often described as living in 'the projects'. In so doing, they are identified (and often self-identify) not simply with a specific neighborhood but with a type of place, one presumed to house a specific type of person. Worst of all, the term *projects* suggests not only a bounded place, like the original meaning of the word *ghetto*, but a category of place whose image to outsiders is perpetually degraded by the media portraits of the disasters that lurk within, both actual and latent. (Bloom et al., 2015, pp. 11-18)

Perception of subsidized housing continued to deteriorate until "the projects were, by the early 1990s, seemingly useful only as a means of evoking memorable metaphors of disaster" with "public housing complexes [being], according to national leaders, 'monuments of hopelessness' and 'as close to the approaches to hell' as one could find in America" (Goetz, 2012, p. 8) (see Fig. 2.4).

Figure 2.4

Pruitt-Igoe Hallway



The Pruitt-Igoe subsidized housing project was highly visible in public discourse for social issues and physical deterioration of its interior spaces. (Unknown, n.d.)

1970s - Present: Finding Market Solutions

Rising neoliberal sentiment in the 1970s and 80s joined with the disillusionment of concerned officials and activists, housing scholars, and overwhelmed management to generate interest in alternatives to the publicly-managed subsidized housing projects that many viewed as having become problematic over the previous two decades, even while budgeting and maintenance issues on the ground continued to crystallize. Research and policy interventions of this period facilitated later, more radical transformations of subsidized housing that would occur in the 1990s and early 2000s.

Increasing attention on the problems that came to be seen as plaguing subsidized housing—crime and related safety issues, social fragmentation, reliance on welfare, and a deteriorating physical environment—facilitated an increase in subsidized housing’s use as an object of study (Bloom et al., 2015). Two types of research predominated. Interest in the impacts of the built environment on resident behavior, in particular the ways that it might influence crime and safety, was expressed in the works of writers like Jane Jacobs (1961), George Kelling and James Wilson (1982), and Oscar Newman (1996), who pathologized the modernist construction as alienating and difficult for residents to surveil for or defend from potential criminals. Others concentrated on the effects of concentrating poverty into a single project or neighborhood, identifying an association between poverty, social disorganization, and crime as well as, vice versa, a potential remedying effect “diluting” poverty across wealthier areas had on such indicators (Goetz and Chapple, 2010; Leventhal and Brooks-Gunn, 2000; Sampson and Groves, 1989; Sampson et al., 2002; Sharkey and Faber, 2014). Such research strengthened the prospects of alternative programs being eyed by a dissatisfied public and government eager for something to change, suggesting a conclusion that had more or less been reached already: “dispersal of the incumbent low-income population coupled with a radical physical redevelopment of the area” (Goetz, 2012, p. 8).

The federal government had experimented with giving the private market a bigger hand in the management of subsidized housing prior to the 70s, most notably with the mortgage subsidy programs of the 1960s—Section 221(d)3 in 1961; its replacement, Section 236, in 1968; and the rural housing-focused Section 515 in 1961, which is the only program of the three to have survived to the present day—that offered low-interest mortgages and subsidies to developers for the construction of affordable housing. However, after these efforts foundered on

a spike in developer defaults due to inflation in the 1970s, policymakers, still disconcerted by the issues with PHA-owned subsidized housing and pleased with the success of turnkey units bought from private developers starting in 1967 (which had heavily contributed to the doubling of the housing stock that occurred between 1968 and 1975), sought other private-market solutions (Roistacher, 1987; Schwartz, 2015). The conservative Nixon administration, with its head arguing that “the Federal Government [had] become the biggest slumlord in history” (1973), created additional pressure to do so with a 1973 moratorium on federal funding for most subsidized housing. Though this moratorium turned out to be temporary, subsidized housing was already well on its way toward privatization, with the culmination of this move arriving in the form of the 1974 Section 8 program (Freemark, 2015). The program was two-pronged: New Construction and Rehabilitation allowed a private developer to build affordable units by paying them the difference between what was deemed a fair market rent for the area and the resident’s income, while Existing Housing paid a participating private landlord the difference between a renter’s income and the fair market rent. A variant Freestanding Voucher program, which gave PHAs more flexibility in setting rent standards and tenants the option to live in more expensive units by covering the rent their voucher didn’t, later expanded Section 8 offerings. Both of the latter programs survived to be combined into a single Housing Choice Voucher (HCV) program in 1998. Private involvement in the industry was further encouraged by the 1986 Low Income Housing Tax Credit (LIHTC), which offered tax credits to developers—or investors, if a developer decided to sell them—to build low- and mixed-income projects. While the extent to which both voucher- and LIHTC-funded units were successful in improving resident outcomes and quality of life is still hotly debated, their longevity and facilitation of landmark programs like Gautreaux and Moving to Opportunity (MTO) speak to their popularity among those who

manage, fund, and write policies on American subsidized housing (Edson, 2011; Marcuse, 1995; Robinson et al., 1985; Schwartz, 2015).

Though privatizing programs took several decades to reach the point of superceding PHA-managed housing, their perceived success solidified a new vision for subsidized housing in the U.S. that authorities started making way for even before the demolition efforts of HOPE VI and adjacent programs became official HUD policy:

By the time the new model of public housing emerged, disinvestment by HUD and by local housing authorities in the existing stock of public housing was already fairly widespread. PHAs in many cities had simply begun to abandon some of their properties by neglecting to make repairs, allowing units to become and remain vacant, and by not spending repair funds they had received from the federal government, a process that came to be known as de facto demolition. (Goetz, 2012, p. 10)

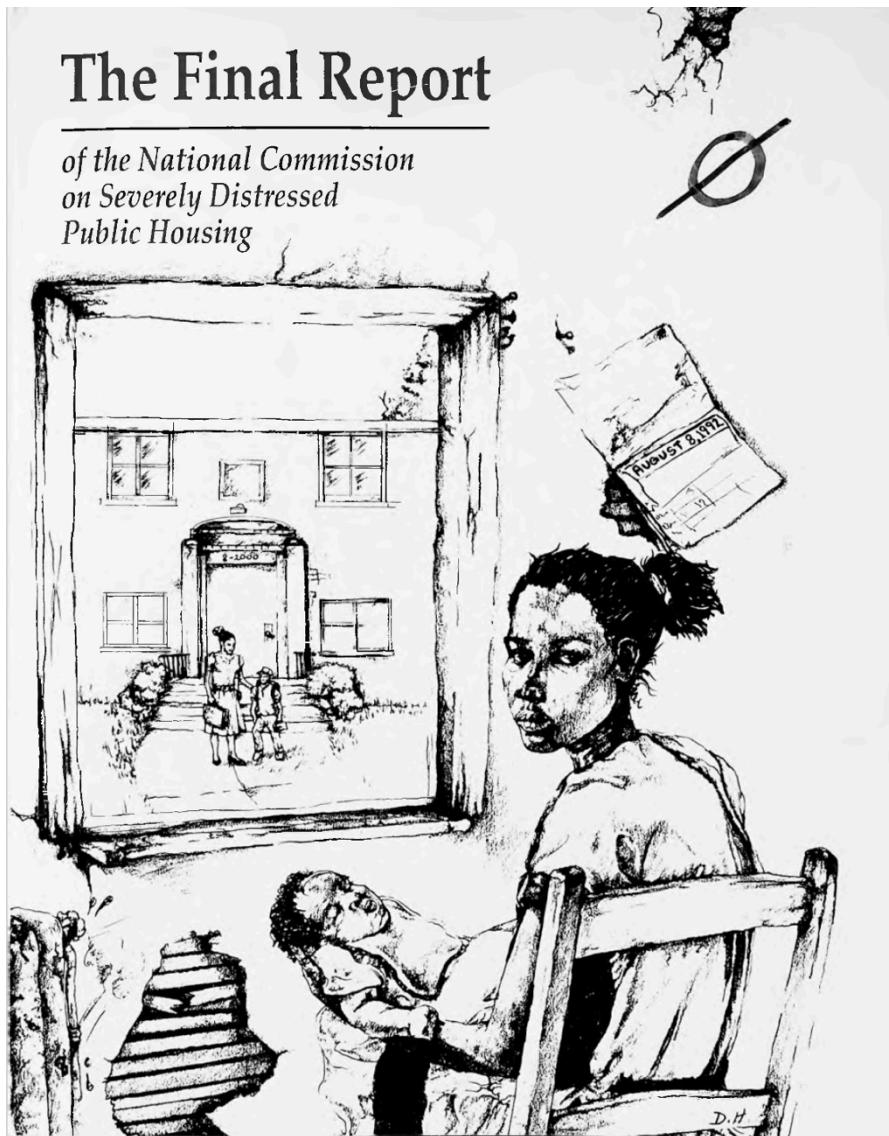
1990s - Present: A Return to the Working-Class

In 1992, the Clinton administration assembled the National Commission on Severely Distressed Public Housing to survey the condition of “severely distressed” subsidized housing (see Fig. 2.5)—qualified by profound physical, social, and economic issues on the grounds and among residents—and report back with recommendations on next steps to “realize [a] goal of providing decent, safe, and sanitary public housing by the year 2000” (p. XII). Though the Commission identified that 6% of the public housing stock in question met the threshold for severe distress and urged immediate action to make sure the share did not increase, it noted that “approximately 94% of the units are not in such a state; thus, the public housing program continues to provide an important rental housing resource for many low-income families and others” (p. 2). Demolition of buildings too degraded to possibly rehabilitate was only one of a

number of interventions proposed by the Commission to address the conditions observed in these severely distressed units. However, in light of the widespread frustration on all levels of government with the situation of subsidized housing and resulting neglect that sprang from it, demolition quickly became the primary intervention, beginning the largest campaign of the sort in the history of American subsidized housing: the HOPE VI program. The communities constructed in the wake of HOPE VI have since formed the basis for contemporary subsidized housing projects, which in structure more closely resemble New Deal and postwar-era housing programs targeted toward the working poor than their immediate forebears of the 1960s, 70s, and 80s.

Figure 2.5

NCSDPH Final Report Cover



Descriptions of subsidized housing most in need of additional support marked later responses to the entire U.S. subsidized housing stock. Illustrations like the Final Report's cover also reflect prevailing ideas about who lived in subsidized housing. (Horton, 1992)

The HOPE VI, championed by then-HUD secretary Henry Cisneros as a way to rescue the country's ailing subsidized housing system and build safe, healthy communities that no longer stood apart from their market-price neighbors, entailed the demolition of what was seen as

the worst of the subsidized housing stock—most notably the tower block constructions that loomed large over the public imagination in relation to the words “subsidized housing”—and the transfer of residents to new constructions, the voucher system, existing privately-managed affordable housing, or higher-quality PHA-managed housing. New constructions, which frequently took on private management in the same vein as practices popularized in the 70s and 80s, formed the centerpieces of promotional material for the program. Acclaimed for their quality in comparison to not only the units they replaced, but also that of their neighbors, these new units—sold to a mixed-income customer base to prevent the concentration of impoverished residents that had made their predecessors so infamous—boasted star-studded designs developed by architects of the Council for New Urbanism (CNU), which HUD had partnered with for a number of redevelopment efforts (van Weesep and Priemus, 1999). Of new units, screening requirements sought to ensure quality of residents matched the quality of their surroundings: Goetz (2012, p. 12) notes that “newly redeveloped mixed-income communities are generally governed by private management companies that impose screening criteria, which disqualify large numbers of previous public housing residents, and work requirements aiming at disciplining the poor”. This was bolstered by new regulations for admitted residents like the Clinton administration’s 1996 “One Strike and You’re Out” policy, which “allowed the eviction of public housing families if anyone in the household was convicted of a crime” (Goetz, 2012, p. 13). Residents who were able to return to redeveloped communities reported satisfaction with the new spaces, a sentiment echoed by neighbors, local officials, and adjacent businesses. However, only roughly $\frac{1}{3}$ of households that were displaced by definitions numbered among those able to return, as the requirement for one-to-one replacement of demolished units was repealed in 1998; among the $\frac{2}{3}$ that were forced to get vouchers or move into other subsidized housing in the area,

results are much more mixed, exacerbated by the experience of being uprooted from communities in which some residents had lived for decades (Bloom et al., 2015; Schwartz, 2015). Though PHA-managed subsidized housing struggled on for a few more years following HOPE VI, no funds were appropriated for the construction of such developments starting in the fiscal year 1996—a resounding death knell for the old system of subsidized housing (van Weesep and Priemus, 1999). Though 2009 was the last fiscal year for which the HOPE VI program received funds, the Choice Neighborhoods Initiative—its spiritual successor, which does enforce one-to-one replacement—has continued the policy and design principles it espoused since its start in 2010 (HUD, 2024; U.S. House of Representatives, 2010). The impacts of these policy changes, though generally satisfactory for still able to live within and adjacent to new mixed-income constructions, have disproportionately fallen on nonwhite households in subsidized housing, who still compose the majority of residents: Goetz (2012, p. 8) points out that “though race may be ignored in the statements made by HUD and PHA officials engaged in the dismantling of public housing, it is nevertheless central to the process”.

A common refrain that can be found in documents produced by HUD and partner organizations regarding the design of HOPE VI constructions is that they “don’t even look like subsidized housing”. This is the driving force behind current design standards for subsidized housing, which seek to overturn popular perceptions of subsidized housing by solidifying new developments as clean, safe, up-to-date, and, most importantly, not concentrations of poverty. While the long-term impacts of this attempt on popular perceptions are yet to be fully seen, Bloom et al.’s (2015) analysis of language used in recent years surrounding subsidized housing suggests that ideas of such developments as dilapidated, crime-ridden, and “notorious” may be slowly fading from the public discourse.

U.S. subsidized housing, constantly shifting in political sentiment over time, has also exhibited corresponding shifts in its physical design to facilitate the particular implementations of each time period, ranging from the utopian modernism of its early, firmly public constructions to its current emphasis on public-private partnerships and a larger neighborhood context. All the while, as emphasized by the longevity of discourse identified by Vale and Freemark (2012) surrounding the identity of the “deserving” resident, both political and design interventions have and continue to respond to the inherent stigma of subsidized housing as housing for those who exist—in various gradations—at the lowest rung of American society.

Conclusion

The history of subsidized housing in the U.S. is a story of political turnarounds: owing to changing ideas about the role of government in the economy and reactions to the changing demographics of subsidized housing users, the number and type of households served by the system has shifted from a small section of the working poor to many of the country’s poorest and, increasingly, back to a shrinking section of the working poor. The public perception of subsidized housing popularized as a result of these demographic and political shifts is crucial to the way design changed over time since the system’s inception to the present. After all, many of the present-day design ideas that have roots in the privatization of the 1970s and 80s respond to the large-scale, isolated high rises in urban areas that made up the country’s most visible subsidized housing from the eras before vouchers and mixed-income builds—and are often explicitly noted as such in numerous remarks throughout guideline and recommendation documents, especially those printed during the systematic demolition of distressed subsidized housing projects that marked the beginnings of the HOPE VI program. A HUD pamphlet from 1995 entitled *Transforming Public Housing: Building Community Pride* encapsulates the tone of

agency documents from the time in the introduction to its collection of subsidized housing project before-and-afters (see Fig. 2.6), which show blocky, dense, typically apartment buildings in various stages of decay transformed into realities or at least mock-ups of townhouses or single-family suburban homes along tree-lined avenues in a mission to “[demolish] the worst examples of public housing” (p. 5):

No other image shapes people[‘]s view of public housing more than that of a dilapidated high-rise in a large city. Many are vacant shells which scar the urban landscape. Others are beset by crime, drugs and gang activity. The truly unconscionable aspect of this is that families and children are forced to live in many of these complexes. HUD is committed to tearing down these relics of a bygone era and replacing them with housing that is less dense and safer, or providing families with housing certificates so they may choose private housing that best meets their needs. (p. 7)

Figure 2.6

Cabrini-Green Before and After



Demolition begins July, 1995. New construction begins October, 1995.

Before-and-after photographs of the Cabrini-Green homes in Chicago, which were demolished and renovated under the HOPE VI program. (HUD, 1995, p. 19)

Documents born from the HUD-CNU collaboration, still cited as additional resources in HUD's 2024 handbook *Best Practices: Design of Choice Neighborhoods Housing Projects*, make similar statements. *Principles for Inner City Neighborhood Design* is introduced with remarks on the origins of the subsidized housing HOPE VI sought to demolish:

Public housing was intended to be clean and decent, it wasn't intended to be a permanent home. Little details, like using curtains instead of closet doors, and numbers instead of names for buildings, reinforced that impression. Nobody reflected that up-and-out was a recipe for community instability. The result was that cities were loaded with housing projects that were headed for implosion. Compare the old policies with those of HOPE VI.

Instead of designing a group of buildings to be temporary way-stations on a family's climb out of poverty, today, a whole mixed-income neighborhood is designed so that people can live there permanently if they choose. The building types-houses, rowhouses, and small apartment buildings-have been designed to be suitable for family living without the need for large operating and maintenance staffs required by high-rise construction.

Slum clearance has given way to historic preservation, repair, and restoration. The emphasis is on designing new development as a seamless part of larger existing neighborhoods and communities. (HUD and CNU, 2000, p. 34)

The HUD and CNU *New Face of American Public Housing Award* document (n.d.) includes a note from architect and CNU member Daniel Solomon giving further reasoning as to why previous subsidized housing projects were demolished and thus pointing out what should be corrected:

What went wrong is now clear. The recipe for public housing was first to tear down a piece of the city, and then build something totally different. Because this was a public investment intended to serve the largest number of people for the fewest dollars, this new and different piece of city had to be built as cheaply as possible. What was different about these new, cheap buildings is that they followed a dogma that did not allow them to define space in the way that traditional city fabric always has. The buildings might have been rational to produce, and their rooms might have had sunlight and ventilation. But there no longer was any street life, because there no longer were any streets defined by buildings, and there were no private gardens or courtyards that people could identify as their own. There was only a great undifferentiated mass of space between buildings, sometimes planted with grass and trees, sometimes filled with parked cars. Into this strange and cheaply made place were put only the poorest people in town. In most cases these poorest people who lived in the new and different kinds of houses also were of a different race from most of the people in the rest of town. So it is not surprising that public housing became a trap, a burning stigma for its inhabitants, and that those undifferentiated spaces between buildings that were nobody's home, nobody's garden, and nobody's park became the most dangerous places in America. (HUD and CNU, n.d., p. 3)

The experiences of government officials, designers, and planners across the country who had witnessed and were deeply dissatisfied with the existing system of subsidized housing became embedded in later attempts to remake assisted housing in the country. Though the above passages provide some of the most overt and striking examples of subsidized housing being cited

as the point from which new subsidized housing constructions were to depart, sentiments like these are present in most HUD documents that offer guidelines for “good design”.

Sound knowledge about a practice does not always entirely subsume untrue assumptions, beliefs, or intuitions about it, especially when they have been transmitted among practitioners over long periods of time and at scale. As a result, it is incredibly important to, while building a base of actionable knowledge, review the veracity of ideas already in circulation about a practice. Is there evidence that what is deemed “good design” is, in fact, good design? My discussion of affordable housing seeks to provide an overview-level identification of claims in the circulation of HUD and HUD-affiliated documentation like the above directed toward professionals, evaluation of those claims using what qualitative and quantitative studies are available on each topic, point out “blind spots” of research that underlie the claims, and make recommendations for the future investigation of such blind spots. Through this discussion, I attempt to gain a deeper understanding of what current street-level subsidized housing design practice in the U.S. is actually based on and map out what room for improvement in our modern knowledge base exists.

Chapter 3: Methods

Introduction

Now that I have explained the scholarly and historical context of subsidized housing design in previous chapters, I will move on to outlining how I examine that design by analyzing the particular design choices that HUD qualifies as best practice in subsidized housing, evaluate the empirical foundation for such design choices, and areas that demand further research. In the first part of this chapter, I lay out how I will identify what HUD claims about design choices to evaluate. I then explain the limits of design in determining resident outcomes. Afterward, I describe the framework I use to judge evidence as empirical and fit to use for the evaluation of each claims. Finally, I talk about how the evaluations will be organized.

Identifying Claim

HUD, as explored in previous chapters, has been subject to a variety of changes that affected its work, from the amount of attention its mission received to the policy directions it was steered in by different political administrations. However, certain ideas about the design of subsidized housing have been rendered "official" through the substantial number of endorsements of them by HUD officials on all levels and recommendations or guidelines centering or citing them outlined to developers, state and local officials, and other HUD stakeholders in the construction and maintenance processes from these ideas' inceptions to the present day to the point that they amount to claims made by the agency itself. These particular recommendations carry additional importance as survivors of guideline and regulation trimming in the 1990s that sought to make the building process easier: the guidelines I cite in this chapter are specifically intended to get to the core of what HUD "wants" out of subsidized housing design. They are also more explicitly defined in the instructions and winners of the annual HUD

Innovation in Affordable Housing competition, which has been held since 2014. In this chapter, I attempt to catalog the various ideas about affordable housing design that have solidified over time into what can be reasonably identified as agency claims by the purposes they serve, lay out the evidence basis on which each claim is made, and explore the implications of that evidence basis. By cataloging these ideas in such a way, I seek to format them as coherent claims that can be evaluated and clarified in later chapters.

Limits of Design

When things go wrong in a subsidized housing development, it can be easy to blame the architect when they aren't the only one at fault. There is only so much we can ask of architecture in the larger quest to address social problems, and the design of a built environment is only one of a wide variety of different factors that can affect the behavior, outcomes, and quality of life of the residents of a subsidized housing development. However, acknowledging that it is not the sole determining factor of a subsidized housing development's success, design does still have some influence on its users. The evaluations I undertake in this paper seek to evaluate design's impact within that sphere of influence.

Standards of "Empirical Evidence"

It is important to, before outlining how I will approach each claim, discuss the nature of empirical evidence for the purposes of evaluating building design the existing bodies of literature I will be drawing on for each particular group of claims.

By evaluating the evidence foundation of each HUD claim, I attempt to put into practice Hamilton (2003; 2020) and Ahrentzen's (2006; 2008) theories of evidence-based design and actionable knowledge by applying them to the above identified claims. Rather than forming an entirely new framework, these theories apply methods that have long been followed in other

disciplines. As Hamilton redirects the basic idea behind evidence-based medicine toward evidence-based design, Ahrentzen focuses Hamilton's theory on to subsidized housing. Hamilton's evidence-based design framework is not necessarily at odds with the profit-seeking behavior of HUD contractors and private developers benefiting from interventions like the LIHTC; while such entities might not necessarily hold themselves up to such standards in private or risk attracting scrutiny by publishing data on design aspects of their project (especially in a competitive market, in which disclosing such information would be antithetical to a firm's business model) if they didn't benefit them on the market, Hamilton points out that such behavior has not been observed in the health design field, where evidence-based practice offers firms not only monetary benefit, but an opportunity to improve their reputation. Evidence-based design is foundational to my evaluations, which rely on evidence provided by outside academic sources holding a light to HUD interventions themselves or similar development efforts.

I use Ahrentzen's (2008) descriptions to define "legitimate and empirical evidence". She points out how easy it is for the stated design goals of a project to become vague, in contrast to the success practitioners in other social science fields have had in defining evaluation criteria for a studied intervention (whether sociological, economic, or otherwise). These fields are where we find a baseline for measurement: the impacts of architecture *can* be formally examined using quantitative data—in the form of identifiable variables and instruments that fill in for variables that can't necessarily be quantified—as well as qualitative data like interviews, oral histories, and other observations of human sentiment. Whether a particular form of data is better suited for the evaluation of a particular design intervention depends on the intended outcome of the intervention and is left to the discretion of the researcher, who should also use their best judgement in determining whether or not studies and other evidence sources adequately fulfill

basic standards of statistical rigor, in the case of those that offer quantitative data, or standards of historical value, in the case of those providing qualitative data. An example of this burden of proof may go as follows: in evaluating the extent to which a development builds community among its residents, we must first identify variables or provide observations of sentiment that “community” consists of. The above standards define the way I choose evidence for chapter five's evaluations (or, in turn, identify an absence of adequate evidence). It should also be noted that while these standards seek to ensure a basic standard of *legitimacy* for the evidence utilized in my evaluations, they do not prevent inconsistency or lack of clarity in the results of studies they deem valid. Because social science research seeks to identify potential relationships in extremely complicated phenomena, this is not unusual; results are very rarely black-and-white.

Because each group of claims cover a wide variety of intellectual ground, ranging from topics of environmental psychology to sociology, criminology, econometrics, and a variety of other concentrations, it is important to consider the specifics of the field or fields each group of claims is concerned with when choosing a proper evidence base with which to evaluate each claim:

- Claims related to reducing neighborhood opposition through design can be evaluated through the measurements of community-level opinion about a potential or existing subsidized development. As data attempting to capture human sentiment, the most useful of such measurements are often qualitative in nature (with the closest to quantitative being something like a Likert scale survey): interviews of residents on how they feel they themselves and their development are received by the community and neighbors on how they view the subsidized housing in their neighborhood, descriptions of the neighborhood's

subsidized development in local news and social media posts, and transcripts of meetings or town halls held by interest groups and local government.

- A large body of criminological literature exists related to different design interventions that attempt to tackle crime, with clear desired outcomes to be measured: the level and type of crime in an area or different parts of an area over time (measured using a number of crimes, something that can be formally reported to the police or informally reported through surveys) as well as a sense of safety among neighborhood residents (measured through surveys, interviews, and analysis of local news, social media posts, and civic meetings).
- Pride and self-esteem within residents of subsidized housing is examined in psychological literature alongside other indicators of mental health using surveys and interviews, with the latter being helpful in providing supplemental information about the way residents conceive of the relationship between their own pride, self-esteem, and mental well-being and the state or design of their built environment: for example, whether or not an individual points to physical aspects of their residence as points of satisfaction or distress.
- Social ties are one of the fundamental objects of study supporting the umbrella field of social network and communications research. Ureña-Carrion et al. (2020) describe two general aspects of the measurement of social connections between individuals and communities: direct investigation into the nature and strength of the social tie itself and inquiry into changes that occur in relationships over time and space, such as the formation, maintenance, and decay of social ties between individuals. While the earliest methods of investigating social ties involved

self-reported information like surveys and interviews, newer research since the rise of the Internet has supplemented these methods with data on individuals' geographic movements and online activity. All of the above types of data can provide information on the ways individuals in a community like a subsidized development interact with one another.

- Because specific data about socioeconomic outcomes on the household or block group level is difficult to obtain in some cases or actively regulated in others, research on socioeconomic outcomes of a particular neighborhood generally focuses on signifiers of neighborhood socioeconomic well-being that are removed from the personal outcomes of residents, including property values and the short- and long-term outcomes of businesses in the area. However, information about resident income and employment on a regional account can be taken into account in some cases. It should also be kept in mind that since HUD claims about socioeconomic improvement associated with transit-oriented and mixed-use development specifically pertain to the “objective” socioeconomic status of residents and neighbors, more qualitative observations are not relevant for the purposes of this particular evaluation (with personal feelings about SES not necessarily reflecting a household’s socioeconomic position with the accuracy of a disclosed income).

Organization of Evaluations

Now that I have established my approaches toward the nature of empirical evidence when it comes to building design and the types of evidence most applicable to each claim by the field or fields they pertain to, I will briefly discuss how the evaluations will be organized.

Claims will be numbered and sorted based on the order of their introduction in chapter four. Moving claim by claim, I will overview existing evidence on the topic corresponding to the frameworks defined above. The accuracy of the claims will then be judged based on the support lent to them by the results of existing research. Some bodies of evidence, even in cases where a topic has been intensively researched, may not lend themselves to decisive conclusions about the accuracy of a claim simply due to yielding mixed results; after all, cause and effect in the real world is messy. Additionally, because there may be certain claims about which there is simply not enough investigation into a certain relationship or key aspect of a relationship important to the basis of a claim. This is not necessarily an issue and, in fact, helps us identify opportunities for further study. These opportunities will be explored after each claim evaluation through a series of proposals to resolve gaps in the literature surrounding that claim.

Conclusion

In this chapter, I explained the methodology by which I put practice the principles of evidence-based design as introduced in the works of Hamilton (2003; 2020) and Ahrentzen (2006; 2008) in later chapters, focusing on design choices endorsed by the federal center of the American affordable housing system: HUD. In assessing HUD's most consistent claims related to design using the empirical evidence available and pointing out scholarly blind spots regarding what we know about these designs, I seek to further the scope of what aspects of subsidized housing design can be integrated into an evidence-based framework.

Chapter 4: Identifying HUD Claims

Introduction

In this chapter, I identify the claims HUD consistently makes about subsidized housing design in order to evaluate them using empirical evidence. I found that each claim can be described as primarily serving one of five purposes: navigating NIMBY opposition to affordable project construction in a neighborhood, improving safety and reducing crime within the project, building resident pride and self-esteem, strengthening neighborhood social ties, and improving project residents' long-term socioeconomic outcomes. While claims are grouped by the associations made consistently in the documentation for the sake of focusing my analysis on the most prominent ones, the associations I identify are not necessarily the only ones touched on. For example, while high-quality subsidized housing is frequently associated by the documents with reduced neighborhood opposition to a development as well as resident pride and self-esteem, it is also described as reducing long-term maintenance costs; however, the latter is not mentioned frequently enough or in enough detail by the primary sources I examined to be considered a consistent claim.

Claim One: Make Subsidized Housing Acceptable

NIMBY opposition to the development of new subsidized housing, whether part of a mixed-income construction or not, in an area is among the most significant barriers to seeing a project through to completion (HUD, 2005; Nguyen et al., 2012). This is an issue referenced in almost every single recommendation text directed toward developers, designers, and other similar construction stakeholders, as well as managers of voucher programs otherwise based entirely in private housing (HUD, 2002). The compilation of opposition with other barriers to construction can make for a lengthy, difficult development process. Design has been identified as

one of the aspects of new constructions that may be able to help mitigate some of these difficulties, as noted in HUD's 2001 *Affordable Housing Design Advisor* workbook:

Providing affordable housing is different from most other forms of real estate development. The process typically involves community and resident participation in ways that for-profit developments do not. It can also be highly politicized, especially if NIMBY ("not in my back yard") attitudes are present. Sites can also be problematic. Regulations can be tortuous. And budgets are always too low. To deal with all these factors and still hold on to and deliver design quality requires a special type of design team[.] (p. 74)

A document commissioned by the National Center for Real Estate Research identifies two different design approaches that I found appear throughout HUD documentation mentioning design for the sake of combating NIMBYism: designing units that are "invisible" within a neighborhood or units that seen as beautiful and high-quality, pointing out that "[the] invisibility approach hides the structure and its users to the extent possible while a high-quality design approach makes the structure highly visible but not recognizable as affordable housing" (2004, p. 42). Most HUD and HUD-affiliated documentation touches on the latter high-quality approach, arguing that a subsidized housing project that blends seamlessly into its environment by utilizing the typical building densities, architectural styles, and materials of neighboring housing will reduce opposition from neighbors before and during the construction process and hostility toward the project and its residents after construction's completion (see Fig 4.1). *Principles for Inner City Neighborhood Design* (HUD and CNU, 2000) describes successful neighborhoods as being "indistinguishable from (or possibly better than) private development" (p. 2) and "not [taking] the form of an isolated project" (p. 4), echoed by praise in the HUD and CNU's

Innovation in Affordable Housing Award document for “high quality housing that is indistinguishable from market-rate neighbors” (n.d., p. 2). HUD’s *Affordable Housing Design Advisor* workbook opens a description of its Step 6—“analyze the surrounding neighborhood and establish community-related design goals for the project” (2000, p. 37)—with a call to ground the design of any new project in its surroundings:

An affordable housing development which understands and responds well to its context has a much better chance of avoiding community resistance and winning acceptance. The better you understand the physical characteristics of the community in which you are building, the easier it will be to define design goals that will help your development fit in to its context and enhance its neighborhood. Of course, political, socioeconomic, legal and regulatory contexts are also important for any development. But none of them ensure good *design*. Analyzing and understanding the project’s *physical* context – the surrounding buildings, streets, parks, etc. – does. Undertaking this analysis of physical context can be an extremely useful part of the participatory planning effort, building support for the development not only among the project team members, but also in the immediate neighborhood, and beyond to the surrounding community as a whole. (p. 37)

Figure 4.1

High Point, Seattle



High Point was developed under HOPE VI as a mixed-income community. (Bach et al., 2007, p. V)

Ten Principles for Developing Affordable Housing, a document by the Urban Land Institute (ULI)—a Washington, D.C.-based think tank that collaborates with HUD—states that members of the public jaded by previous failures of assisted housing can be unfamiliar with “the attractive, lower-density, mixed-income communities where much of today’s subsidized housing development is taking place; in these communities, most residents cannot tell the difference between the market-rate units and the affordable ones” (Bach et al., 2007, p. 22). The implication is that residents living in surrounding market-rate housing would be pleased with such developments, making later recommendations to “create curb appeal”, “recognize the context of

the surrounding neighborhood”, and “scale projects to respect the neighborhood” in order to “promote a healthy connection between the development and its surrounding neighborhood” (p. 22) as ways to earn the acceptance of neighbors (Bach et al., 2007). HUD continues to make such recommendations to developers of its modern Choice Neighborhoods program, advising developers to blend subsidized housing into its surrounding neighborhood and noting that building high rises if intended users are composed of families with children is not allowed “unless it is demonstrated to HUD that there is no practical alternative” (2024, p. 2).

Regardless of the approach, the strategy of “blending in” relies on the idea that *public opposition to subsidized housing is at least partially rooted in its visibility as such within a neighborhood*—that neighbors living in market-rate units do not want to see subsidized housing that they recognize as such. The integration of a new construction within the community such that someone would be able to walk past it without being reminded of the “public housing developments and their associated social problems” that created such a “lingering negative perception of affordable housing” (Bach et al., 2007, p. 22) among members of the public should, these documents conclude, make it easier to appeal to potentially combative residents of a project site’s neighborhood. Much like Koebel et al. (2004) conclude on the matter of blending in, HUD and affiliates argue that “the path to community acceptance is to create affordable housing that does not look like affordable housing” (p. 42).

Claim Two: Improve Safety and Reduce Crime

Project safety is another major concern associated with subsidized housing. HUD's *Tools and Strategies for Improving Community Relations in the Housing Choice Voucher Program* document remarks that "...people often look to crime rates as a measure of community well being" and that "in many people's minds, crime and assisted housing are inextricably linked"

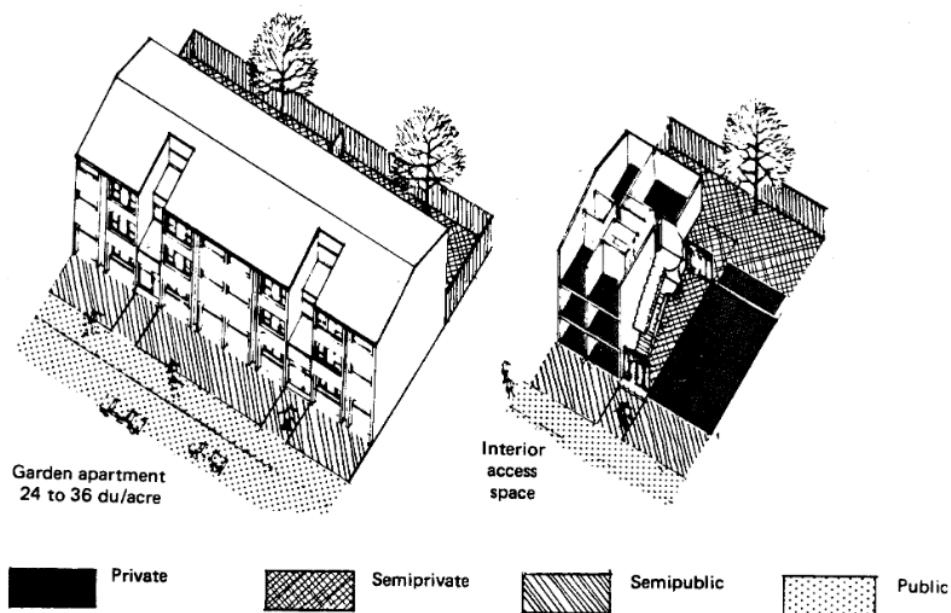
(2002, p. 27). Official guide documents discussing a variety of aspects of subsidized housing still frequently mention crime and safety as major concerns to be addressed. Design-related documents from HUD and related resources are no exception and point to several different design interventions can be used to address issues of safety and crime in subsidized housing developments. Of crime-related design interventions proposed, two appear consistently across a significant number of documents: adherence to principles of defensible space and eyes on the street.

Oscar Newman's concept of defensible space, which was popularized following the publication of his 1973 book of the same name, became officially attached to HUD constructions in his 1996 collaboration with the agency, *Creating Defensible Space*, which proposed the construction of lower-density projects with a division of spaces that encouraged residents to feel responsible for the maintenance and defense of "semi-private" spaces they shared with only a handful of others (Reynald and Elffers, 2009; Wekerle, 2000) (see Fig. 4.2). The pamphlet argued that the defensible space concept provided residents with the "self-help" tools to reduce crime without the resources of middle-class families able to hire maintenance, security, and other services for the support of a life in a high-rise residential building even in the event of "[government] withdrawal of support" (p. 9). Defensible space, if not specifically referenced by name, is implied by advice surrounding building scale, hallway lengths, entry visibility, and fencing in the recommendations of HUD and HUD affiliate documents (Bach et al., 2007; HUD, 2024). A more explicit discussion of "controlled spaces" is included in the *Affordable Housing Design Advisor* workbook (HUD, 2001), which advises practitioners to "provide clear boundaries between publicly controlled spaces (streets), community controlled spaces (shared open space) and privately controlled spaces (dwellings and private open space). Consider

enclosing or partially enclosing open space with project building(s) to provide clear boundaries" (p. 84).

Figure 4.2

Walkup Defensible Space Diagram



- Private space is within the apartment unit only.
- The interior lobby, stairs, and corridor are semiprivate.
- Grounds can be designated for one family but are usually shared by all the families in the building.
- Only a small number of families (three to six) share the interior circulation areas and grounds.
- The street is within the sphere of influence of the dwellings.

A diagram of interior and exterior spaces ranging from public to private in a walkup-type housing development for the purposes of illustrating defensible space. (Newman, 1996, p. 16)

Jane Jacobs' concept of "eyes on the street", which essentially argues that an empty street is an unsafe street while a busy one is safe, contrasts Newman's ideas of defensible space in that Jacobs instead views outsiders within a development as potential agents to stop crime more than those looking to commit it (Reynald and Elffers, 2009; Wekerle, 2000). Every single guideline document I found noted the importance of street and public space visibility to neighbors through

building and window placement, design features like internal paths and open spaces that encouraged residents to come into contact with one another during their daily activities, and connection with the surrounding neighborhood such that non-residents could pass through with as much ease as residents (Bach et al., 2007; HUD and CNU, 2000; HUD, 2001; HUD, 2024; HUD and CNU, n.d.).

Both sub-strategies of the claim rest on the basis of theories that used the subsidized housing projects of their day as the negative image of what happens when their theorized designs were *not* present (Newman, 1996; Jacobs, 1961). Additionally, both place the onus of defense on residents, implicitly assuming that in the absence of private resources like security guards, residents must act as their own security.

Claim Three: Build Resident Pride and Self-Esteem

Subsidized development resident pride and self-esteem is another concern that HUD documents imply can be addressed with design. At the core of these arguments is the idea that a person's sense of self is tied to the place in which they live.

One design choice that these documents argue improves resident pride and self-esteem is clear division of units using addresses, broken up or separate structures, and personalizable unit exteriors. The HUD and CNU collaboration document *Principles for Inner-City Neighborhood Design* (2000) includes a principle entitled "Dwelling as Mirror of Self", which argues that "the dwelling...[is] the key to self-esteem and community pride" (p. 5). This principle is centered around "the clear definition of outdoor space for each dwelling" (p. 26) and uses the Eaglecreek HOPE VI development as an example, arguing that porches allowed residents to "display a natural sense of ownership" (p. 27) projected to the street as an extension of their household identity. HUD's *Affordable Housing Design Advisor* workbook provides similar advice:

To the extent possible, provide individual identities and addresses for each dwelling unit. Consider ways to break large, repetitive structures into smaller, individually identifiable clusters. Ensure that all dwelling units have clear, individual addresses. Consider design strategies that allow residents to enhance and individualize the exterior appearance of their own units. (HUD, 2001, p. 90)

Since it was initiated in 2014, the annual HUD Innovation in Affordable Housing competition has maintained “sense of control and comfort” as one of its planning and design criteria for submissions: that winning developments will “[engender] individual ownership of place”, which “[promotes the] physical and emotional well-being” of residents (HUD, 2014, p. 1; 2024, p. 1). The individuality of the dwelling, these documents argue, is connected to the sense of individuality of its inhabitants. Enhancing the individuality of the resident through design signals will in turn improve their sense of self-esteem and pride as a resident of that dwelling.

Another endorsed design choice to build resident pride and self-esteem is housing quality and beauty. HUD and the CNU’s *New Face of American Public Housing Award* document addresses resident pride and self-esteem with a different design intervention, framing HOPE VI constructions as “[giving] public housing residents a sense of pride by building high quality housing that is indistinguishable from market-rate neighbors” (p. 2). Throughout the *Affordable Housing Design Advisor* workbook (2001), recommendations are made for aspects of project design, from doors to roof shapes, to be modeled off of those of “good quality” homes in the surrounding neighborhood (pp. 82-93). Bach et al., writing for ULI’s *Ten Principles for Affordable Housing Design* (2007), note that “attractive housing fosters resident pride”, advising designers to “create curb appeal” and ask themselves whether or not the community looks like a

place they themselves would want to live in (p. 22). The language is straightforward: people attach a sense of personal pride and self-esteem to the beauty and quality of their dwelling.

Claim Four: Strengthen Social Ties

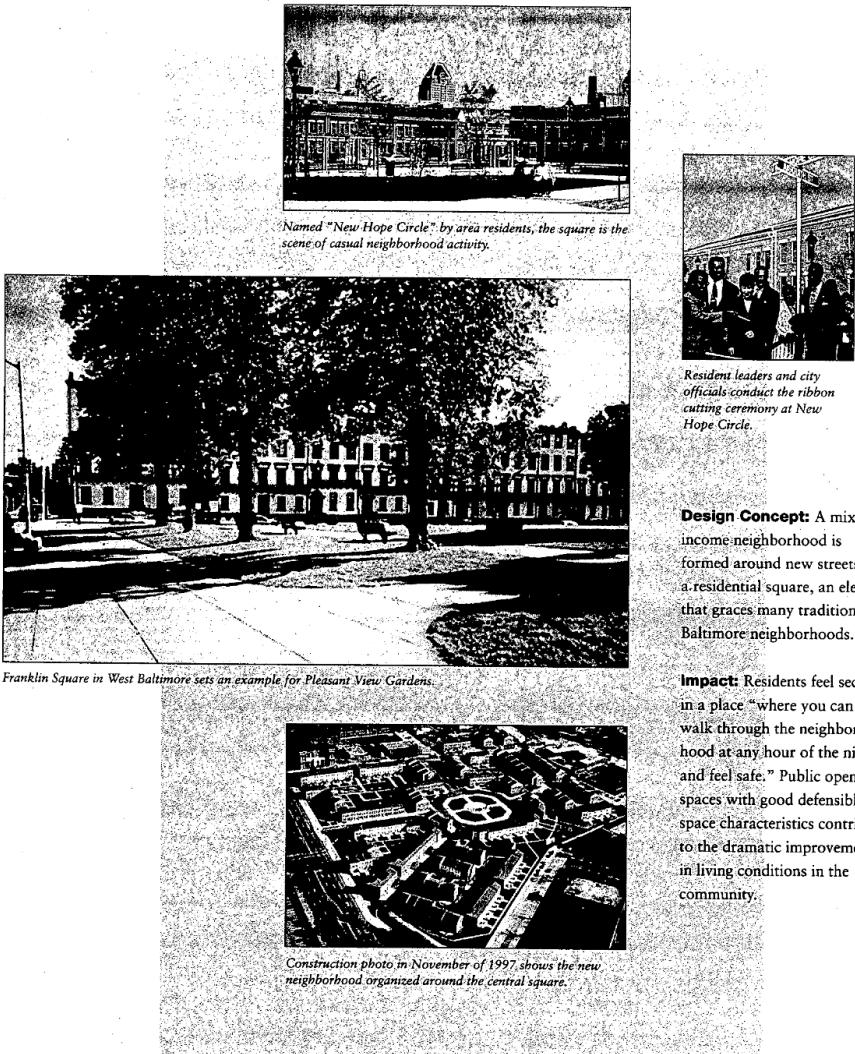
A number of encouraged design interventions are intended to strengthen the social ties of development residents. All of these interventions emphasize the idea that physical proximity and access—i.e. the option to travel somewhere—increase opportunities for social interaction, with one of the consequences of this being improved bonds between residents and neighbors. These bonds are implied to facilitate a sense of “neighborliness”, mutual support, and belonging that makes residents of the neighborhood feel that they belong and thus increases satisfaction their environment.

One encouraged intervention is the development of pedestrian friendliness and overall walkability within the development. The *New Face of American Public Housing Award* document points out the success of a development in which “former alleyways [were] transformed into interior lanes immediately accessible to adjacent units”, contributing to “increasing the overall density of the project and creating a village-like atmosphere at the site” (p. 7). *Principles for Inner City Neighborhood Design* proposes “neighborhoods [that] are compact, pedestrian-friendly, and mixed use with many activities of daily life available within walking distance”, arguing that “new development should help repair existing neighborhoods or create new ones...” (p. 12). *Principles for Inner City Neighborhood Design* advocates for “neighborhoods [having] an interconnected network of streets and public open space” (p. 20) as part of its “Streets” principle. Such design advice carries the implication that an important facilitator of the “neighborhood” as a social structure is the ability of its residents to travel through it on foot, presumably interacting with neighbors as they go about their daily lives.

Defined open spaces on the grounds of the development are also encouraged (see Fig. 4.3). The *New Face of American Public Housing Award* document highlights a community for having “more than 20 percent of the plan’s area [devoted] to open space, including parks and a playfield” (p. 5). *Principles for Inner City Neighborhood Design* lists as one of its principles the need for “the interconnected network of streets and public open space [providing] opportunities for recreation...” (HUD and CNU, 2000, p. 22), using Pleasant View Gardens in Baltimore as an example for its organization around a public square. It also endorses “controlled open space” like gardens and courtyards (p. 25). HUD’s 2024 “Best Practices” document on design for Choice Neighborhoods Initiative developments points out the need for public open space on site for children in particular, telling readers that “thought should be given to where young children can play or where older children congregate”, with “areas [being] accessible, safe and integrated into the site, not isolated” (p. 7). The Affordable Housing Design Advisor workbook strongly emphasizes the importance of public space:

Think of public open space—shared outdoor areas intended for use by all residents—as “outdoor rooms,” and design them as carefully as any other rooms in the project. Avoid undifferentiated, empty spaces. Consider the types of activities that will occur in the “rooms,” including cultural or social activities unique to specific user groups, and design the shared open space accommodate these activities...Provide direct access to open space from the dwelling units that the open space is intended to serve. (HUD, 2001, p. 84).

These “outdoor rooms”, while serving needs as various as there are residents and neighbors of the subsidized development, are simultaneously intended to allow for users to interact with each other and strengthen bonds within the neighborhood.

Figure 4.3*Public Open Space in Pleasant View Gardens, Baltimore*

The central square of the Pleasant View Gardens development in Baltimore, Maryland used as an example of public open space. (HUD and CNU, 2000, p. 23)

Claim Five: Improve Socioeconomic Outcomes

Additional statements have been made in HUD documentation regarding the effect subsidized housing design may have on not just residents' daily lives and comfort, but also their socioeconomic outcomes. Particular interventions discussed as being conducive to the economic

prosperity of residents include transit-oriented development (TOD) and mixed-use development (MUD).

Transit-oriented development interventions that connect the community to larger regional transportation networks are encouraged as a way to, among other things, “support the economic future of the surrounding community” (HUD and CNU, 2000, p. 2). The *New Face of American Public Housing Award* document notes subsidized housing projects that “connect with the surrounding communities, transforming isolated enclaves into vibrant neighborhoods” (p. 1), praising out a particular development that uses “streets [to] connect to the adjoining neighborhood streets, the existing commercial center, and the site of a future light rail station” (p. 11). *Principles for Inner City Neighborhood Design* highlights the benefit of “transit service to regional jobs [being] a convenient walk from home” (p. 3) and argues that “neighborhoods should be connected to regional patterns of transportation and land use” (18) as part of its “City-Wide and Regional Connections” principle. Design criteria specific in the Innovation in Affordable Housing Award that appeared with first competition in 2014 and has continued to be featured in competition criteria through 2020, also encourages projects that “provide or make use of existing transportation networks to link the site with commercial centers” as part of the “access to employment and services” category (p. 1).

Mixed-use development is also promoted in documentation as a way to facilitate economic development. Bach et al. (2007) praise mixed-use developments and note that “the availability of decent housing that is close to work and affordable for the jobholders upon which the proper functioning of the local economy depends is essential to the community’s economic health” (p. V). *Principles for Inner City Neighborhood Design* (2000) features a “Mixed Use” principle, which is stated to “promote the creation of mixed use neighborhoods that support the

functions of daily life” (p. 4) by “[combining] complementary uses to bring everyday tasks and needs closer together” (p. 17). The “Neighborhoods” principle also advises mixed-use neighborhoods “with many activities of daily life available within walking distance”, “[helping] repair existing neighborhoods or [creating] new ones” (p. 4). The *New Face of American Public Housing Award* document describes mixed-use developments as “[enabling] more residents to work” and “[winning] the confidence of residents, public officials, lenders, developers, and builders” (p. 2), attaching MUD in a community to the success of retail in the area and noting that the “mixed-use components” of another HOPE VI construction was “[found by a jury]...to be excellent” (p. 17).

Conclusion

Several groups of claims about design were examined in this chapter, including those claiming to:

1. reduce local opposition to the construction of a subsidized development through the aesthetic integration of a subsidized development within a larger neighborhood;
2. reduce crime and promote safety on the grounds of the development and within the larger neighborhood through principles of defensible space, broken windows, and eyes on the street;
3. promote resident pride and self esteem through the individualization of dwellings and high quality of unit design;
4. strengthen neighborhood social ties by encouraging walkability and constructing open public spaces such as parks and squares;

5. and improve the socioeconomic outcomes of development residents through transit-oriented and mixed-use development.

These claims, in guiding the design approaches of developers working in the intensely budget-constrained environment of U.S. subsidized housing, where one feature must more often than not be cut out of a plan in order to make room for another, have an impact that will be felt on the millions of Americans that currently and will continue to rely on the subsidized housing market. It is in the best interests of all parties involved to spend what little money is available on design interventions that are backed not just by the personal experiences of officials, designers, developers, and others involved, but by substantial research—the type of research that Ahrentzen (2008) explains as providing “empirical evidence [and] explanation of what makes [“best practices”] ‘best’” and clarifying “the criteria for defining and measuring ‘success’” (p. 27). There is very little to be gained from the surface-level appeal of design features that look and intuitively seem effective at first glance, but do not actually have any kind of impact on the habits, social connections, daily lives, and outcomes of the people who come into contact with them. By taking a critical look at what evidence exists to justify designing subsidized housing the way we do, as I attempt to do in the following chapter, those working in the field can take the first step toward grounding their practices in a body of actionable knowledge.

Chapter 5: Evaluating HUD Claims

Introduction

The core of evidence-based design is constant inquiry. Because such a practice does not take at face value claimed relationships between certain design choices and human behavior that may intuitively make sense, it allows researchers to either confirm accepted practices or re-evaluate the mechanisms behind that intuition. This allows the design profession to be directed toward tested interventions that may better facilitate human health, happiness, and dignity than their predecessors. This chapter, applying standards for empirical evidence and evaluation that I outlined in chapter three, seeks to hold claims made by HUD, as the entity from which national norms about subsidized housing and its design proceed, against the empirical evidence available on the topic. By doing so, I seek to contribute to the body of actionable knowledge available to designers of subsidized housing.

Evaluation of Claim One: Make Subsidized Housing Acceptable

Designers and adjacent professions are regularly advised in HUD documentation to visibly integrate new subsidized housing into a community by designing it in the style of high-quality market-rate constructions in the neighborhood. This, the documents argue, will have the effect of reducing neighborhood opposition to the development and increase its chances of being approved. The argument relies on two central ideas: that residents of a neighborhood are pleased by a built environment that does not vary significantly in architectural style, and that they are likewise interested in living in a neighborhood containing housing that is of a high quality. As a result, it follows that a proposal for a high-quality subsidized development that visually fits in with the rest of the neighborhood would meet resident criteria for that aspect of its design and reduce opposition to its construction.

Several key studies that examined how residents respond to the physical design of their neighborhoods met the standards for review outlined in chapter three.

Of the studies, Hackman et al. (2019) and Lee et al. (2016) broadly examine what design characteristics of a neighborhood individuals perceive and respond to as positive or negative. Hackman et al. (2019) found that neighborhood pedestrian safety, safety from crime, aesthetic attractiveness, land use mix, and access to a park had a significant positive effect on satisfaction in survey participants, while perceived density had a negative effect; they also noted a gap between participant perception of the environment and the objective environment. Lee et al. (2016) found that exposure to a simulated disadvantaged environment elicited negative emotional and physiological reactions (with reactions being stronger in those with lower parental education) in survey participants and exposure to a simulated affluent environment elicited positive emotional and physiological reactions (with reactions being stronger in those with higher parental education), suggesting that prior history may exacerbate reactions to disadvantage or advantage instead of habituating individuals.

Price (2017) touches on the use of subsidized housing design specifically in influencing a viewer's perception of the housing in a survey that asked participants whether or not they thought homes of different architectural styles and design characteristics were likely to be affordable housing. In the study, it was found that certain architectural styles, densities, and other design characteristics were strongly associated with affordable housing compared to others, providing support for the idea that individuals may be more likely to assume buildings of certain typologies and styles are affordable housing: in particular, simply-built, low-quality apartments. Participants also incorrectly identified affordable housing the majority of the time, indicating a gulf between what is seen as affordable housing and what actually is.

Collectively, the studies provided support for the idea that individuals react negatively to high-density designs that they personally perceive as markers of socioeconomic disadvantage and positively to low-density designs associated with wealth and neighborhood investment. They also emphasized that individuals are subjective judges of neighborhood design characteristics, with personal assumptions of the neighborhood not necessarily lining up with what is actually true of that neighborhood.

Because the HUD claim proposes that NIMBY opposition to subsidized housing is associated with design on some level and there is a significant lack of studies directly looking at the relationship between neighborhood design and individual perception or preference, it became important to examine research on the reasons behind NIMBY opposition to subsidized housing to see if design figured among them.

Several studies outlined the arguments NIMBYs use to oppose locally unwanted land uses (LULUs) in general and subsidized housing as a particular LULU. Though public participation has been encouraged in order to make sure community members are aware of and in agreement with local land uses, those who participate in NIMBY activism are typically residents with the time, education, money, and influence to do so, making them a very vocal minority that may not necessarily represent the interests of the larger community (Dear, 1992; Schively, 2007; Tighe, 2010). Despite a cultural shift toward discussions about equity and inclusion as well as a general consensus that more affordable housing is needed (Nguyen et al., 2012; Thomas et al., 2013), members of the public are—at least, in their own neighborhoods—still resistant to the presence of policies that attempt to further such principles, evident in the persistence of battles over local subsidized housing development (Basolo and Hastings, 2013; CAH and BR&S, 2004; Tighe, 2010). Public opinion and stigma about

subsidized housing residents themselves plays a central role, being heavily colored by racial and class-based stereotypes (Douglas et al., 2024; Jacobs and Flanagan, 2013; Motley and Perry, 2013; Tighe, 2012; Tiwari, 2009)—Tighe (2010) notes that “the introduction of poor and minority households into otherwise homogenous neighborhoods often produces concern that the urban problems associated with concentrated poverty and racial minorities will be transferred to middle-class and affluent communities” (p. 6). Nguyen et al. (2012) note that such associations of “urban problems” with the poor ethnic minorities, perceived as deviant, and immigrants, perceived as alien and unassimilated, that are imagined to live in proposed developments may not necessarily be voiced by NIMBYs, but frequently drive arguments that more acceptably voiced about said urban problems or building design. Urban problems, most notably crime, are frequently cited as fears associated with the development of subsidized housing in a neighborhood and contribute to adjacent concerns about a resulting decline in property values (Schively, 2007; Tighe, 2010; Thomas et al., 2013). Fears of subsidized housing being poorly designed, dense, and hurting the aesthetics of the community are also voiced (Nguyen et al., 2012; Schively, 2007). NIMBY resistance also pertains to disagreement with the subsidized housing system itself on the basis of its being a welfare program, with some members of the public distrustful of government ability to properly manage it or direct funds to appropriate uses, some objecting to the recipients of subsidized housing as being undeserving, and others largely disinterested in public assistance programs (Schively, 2007; Tighe, 2012; Tiwari, 2009). Regardless of previous opposition, however, market-rate neighbors typically regard new residents who rely on subsidized housing positively after they have already moved into the neighborhood (Tighe, 2010).

The studies paint a picture of the reasoning behind NIMBY attitudes toward subsidized housing that does not on the whole feature objections to design apart from concerns about poor or cheap building quality and upkeep. Instead, it appears that the most influential drivers of NIMBY opposition to subsidized housing are 1) objections to the residents of subsidized units, 2) concerns about the effects a subsidized development may have on the neighborhood, and 3) ideological issues with government-assisted housing as a welfare policy. All three are often tied up together: NIMBY arguments may attribute neighborhood effects to the behavior of subsidized housing residents, who may in turn also be viewed as undeserving of government assistance—for example, a resident may oppose a subsidized development because they consider poor people to be lazy, making them “free riders” on a public good they do not deserve, and violent, increasing the potential for neighborhood crime were they to move in nearby. Objections to residents themselves appear to be associated with preconceived ideas about the “type of person” who lives in subsidized housing, constructed as someone incompatible in lifestyle and undesirable to live nearby due to racial and class-based stereotypes. The primary concerns about neighborhood effects associated with subsidized housing are that the housing will negatively affect property values in the surrounding neighborhood and that it will lead to an increase in crime; though there is evidence that subsidized housing has a neutral to positive impact on its surrounding community’s property values (A-Mark Foundation, 2023; Center for Housing Policy, 2009) and little to no impact on rates of crime (Agnew, 2010; Lens, 2013; Woo and Joh, 2015), negative tropes persist. People may support NIMBY movements combating subsidized housing on an ideological basis, being opposed to subsidized housing or welfare policies in general out of such beliefs as those that subsidized housing is a poor use of public funds, that welfare programs help people who do not deserve it, or that the government should not provide public services at all,

among a variety of others. This is not to say, however, that NIMBY opposition is completely divorced from design: several of the studies make note of community interest in subsidized housing that is well-maintained and of a high quality of construction. The studies also make an interesting note: opposition facing a subsidized development largely dissipates after the development is completed.

Looking back on the central HUD claim that designing high-quality subsidized developments that are visually integrated into their surrounding neighborhood reduces NIMBY opposition, we find that it is partially supported by the existing literature: people react positively to constructions they perceive as high-quality and NIMBY objections to subsidized housing may be associated with its quality. However, little support is found in any of the studies for the claim that subsidized housing will be any better received if it looks like the other buildings in the neighborhood. Overall, any NIMBY interest in design appears to be eclipsed by greater concerns about the palatability of subsidized housing residents, the effect such a project might have on socioeconomic characteristics of the neighborhood, and the viability of subsidized housing as an institution. These concerns are heavily influenced by preconceived notions of race, class, and the operation of welfare programs at large.

Though the existing evidence suggests that, while design may not directly combat the most important NIMBY concerns about subsidized housing, design does exist among secondary NIMBY concerns. This indicates that additional study of the topic is still relevant. Apart from encouraging replication of topics researched in the above studies to see if they can be generalized to wider or different sections of the population, I identify several gaps in the literature that represent ground of additional study that has yet to be covered:

- While both HUD guidelines and the above studies have treated architectural style and quality as separate entities, a potential overlap between the two must be clarified in order to make sure that they are, indeed, separate. Where does architectural style end and building quality begin? If they are different from one another, how do viewers discern between the two? Are certain styles perceived as being higher-quality than others?
- Because I did not note the existence of a study that directly answers the question, there is still value in the investigation of whether or not observers would be more likely to approve of subsidized housing in their neighborhood depending on its resemblance to other housing in the neighborhood. A more generalized version of such a study might look at whether or not people prefer neighborhoods with housing of homogeneous design. Both investigations could increase complexity by addressing different levels of design homogeneity in terms of architectural style and/or density—for example, whether or not observers might prefer a neighborhood in which every home looked exactly alike, one in which minor differences existed, or one of extremely heterogeneous design. A real-life analog might look like the difference between a planned suburban community and an unplanned mixed-density one.
- There is room for investigation into the nature of subsidized housing quality as a potential mediating factor in community resistance to the subsidized development. How much does a high-quality proposed subsidized housing development mitigate community opposition, if at all? If quality is found to be a mediating factor, it may be of interest to check which aspects of a development are most

important in signifying quality to a viewer in order to identify where intensive investment is most needed to deflect opposition.

Evaluation of Claim Two: Reduce Crime

Safety and incidences of crime in a development were posited to be affected by design that could dissuade or encourage criminal activity. Two primary design strategies were espoused by HUD documents, more often than not being mentioned in combination: defensible space and eyes on the street. Defensible space relies on two core concepts about the agency of the resident and the individual considering misbehavior. First, it posits that residents of a development can be motivated and empowered to monitor their community and potentially intervene in any undesirable or criminal behavior that occurs within it by spaces designed to be perceived as “semi-private”, like landings or interior courtyards, because they feel ownership and thus responsibility over it. Second, it assumes that those in a built space will be dissuaded from acting undesirably or committing a crime if they do not feel that the space is completely public. Interventions that encourage “eyes on the street” rest on principles directly opposing those that underlie Newman’s defensible space theory: that people passing through a public place will intervene to curb undesirable behavior or stop a crime in progress and that, correspondingly, people are less likely to act undesirably or commit a crime in a place that they feel is widely surveilled (Reynald and Elffers, 2009).

While the theoretical approaches of defensible space and eyes on the street are generally at odds, with the former positing that low density and measures to separate and compartmentalize households into sub-groups within a larger community discourage crime and the latter encouraging density of places and people in order to prevent crime, the studies on the relationship between building or community design and crime that met standards for review

frequently approached the two as facets of general environmental design intended to discourage crime. People's perception or fear of crime was evaluated by a significant number of the studies alongside or instead of actual incidence of crime. Studies of the relationship between environmental design and actual incidences of crime yield incredibly mixed results: while a number of them support a relationship between environmental design intended to reduce crime and the reduction of crime (Adzande, 2024; Deniz, 2007; Grohe, 2011; Johnson and Bowers, 2010; Kitchen, 2005; MacDonald, 2015; Shaw, 1996), a similar number of comparable scale do *not* find a significant link between crime and environmental design, pointing to the socioeconomic context of a location as an important complicating factor in the level of crime present (Atlas, 1982; Douglas, 2024; Fowler, 1987; Joy, 1994; Kim and Hipp, 2020; Kim et al., 2013; Mohammadi et al., 2022; Robinson, 1998; Serpas, 1998; von Ferber, 2022). Though environmental design interventions intended to reduce crime may have a mixed evidence basis, a number of studies looking at the relationship between density and crime may clarify the role of eyes on the street in particular. Because population density and high use of a location imply a greater number of potential witnesses to a crime, such variables may serve as instruments by which a relationship between crime and resident surveillance of an area can be measured. As a result, the substantial evidence for a positive relationship between population density or general use of the area by people passing through (on major transportation routes, in stores, or in public spaces like parks) and crime indicates that if there are any benefits to surveillance, they are outweighed by the strong link between the number of people in or moving through an area and crime in that area (Adzande, 2024; Chang, 2017; Duffala, 1976; Ghosh, 2023; Hamza, 2021; Humphrey et al., 2019; Johnson and Bowers, 2010; Kooi, 2004; Liu et al., 2024a; Saraiva and Teixeira, 2023; Schertz et al., 2021; Wilcox et al., 2004; Yue et al., 2022). However, there were a

number of studies that found a positive relationship between environmental design interventions designed to reduce crime and *perceived* safety from crime (Cozens, 2000; Cozens and Davies, 2013; Deniz, 2007; Grohe, 2006; Kerner, 2023; Kim and Seidel, 2012; Lee, 2013; Zeng et al., 2023), with comparatively few not establishing such a relationship (Kim et al., 2013; Serpas, 1998).

Overall, the studies provided extremely mixed evidence for a relationship between environmental design interventions intended to discourage crime and the actual occurrence of crime, with some identifying a reduction and others not finding a link at all. Population density and use of a location, which could serve as an instrument for eyes on the street—something that is difficult to measure directly—were generally found to have a positive correlation with crime in an area. However, there *was* substantial evidence for a positive relationship between designs intended to reduce crime in a space and fear of crime reported by users of the space, regardless of the intervention's actual effect on documented crime.

Returning to the original HUD claims of design interventions related to defensible space and eyes on the street reducing crime in an area, it can be concluded that neither have a strong basis in empirical evidence: the body of evidence for defensible space is disputed by a body of other evidence that indicates it may be ineffective, while eyes on the street may be contradicted by research finding a correlation between more people in an area and more crime. However, evidence for the relationship between defensible space and fear of crime may hold promise as something that may be related to crime through the mechanism of investment: individuals and businesses appear to be more willing to invest in neighborhoods that they feel are safe (Garland, 1997; Skogan, 1986), and existing research indicates that increased investment in a

neighborhood is associated with a reduction in crime (Matsuda, 2009; Ramey and Shrider, 2014; Walter et al., 2023).

In order to discuss the state of the literature, it must be noted that there are a number of serious issues with much of the existing research into crime and design that must be addressed in order to establish a reliable body of working knowledge. Definitions are a major one: because there has never been a coherent definition for what does or doesn't count as defensible space—even one set by original proponents of defensible space theory like Oscar Newman (Knoblauch, 2020)—any one study of the subject is made almost impossible to compare to any other due to inconsistent boundaries of what it is and isn't studying in the first place (Johnson et al., 2014; Lin, 2024; Mawby, 1977; Reynald and Elffers, 2009) (see Fig. 5.1). Transparency is another issue. Salas Strus (2023) points out that the secrecy within law enforcement surrounding many security-related design interventions, especially those related to larger-scale crime like terrorism, is an obstacle to proper understanding, noting that “when we don't have specifics, we cannot audit and verify that things actually work” (p. 137). Additionally, it is important to acknowledge the complications presented by socioeconomic context and *who* is being defended against: neighborhoods pathologized by race and class are frequently charged to utilize design-based crime solutions directed inward (Rosa, 2023), while communities attempting to wall themselves off against neighbors for fear of external crime typically direct such solutions outward (Low, 2001). Without addressing such issues, proper investigation of the relationship between design and crime can become extremely difficult to generalize beyond its specific neighborhood context. This is the main issue present in the literature; while there are no glaring gaps regarding any particular topic, because each study has to set its own definitions of what design interventions count as manifestations of defensible space or eyes on the street in order to

stake out a topic specific enough to test empirically, each study is essentially about an entirely unique set of design principles.

Figure 5.1

Defensible Space Sketches

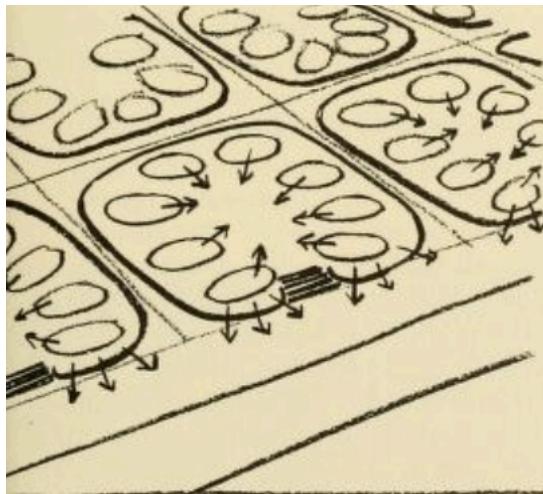
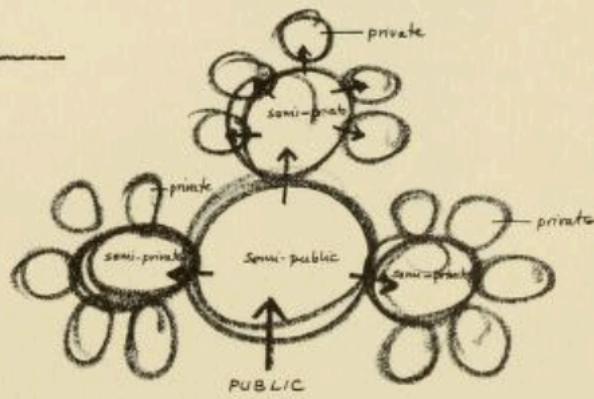


FIG. 7. Defensible Space. Schematic sketch illustrating territorial definition reinforced with surveillance opportunities (arrows).

FIG. 8. Hierarchy of Defensible Space. Schematic diagram illustrating evolving hierarchy of defensible space from public to private. Arrows indicate entries at different levels of the hierarchy.



Defensible space diagrams featured in Oscar Newman's original book on the topic. Unclear design definitions, such as what counts as what level of public or private space and what marks a boundary between spaces, can make it difficult to compare different studies that define them differently. (Newman, 1973, p. 9)

Evaluation of Claim Three: Build Resident Pride and Self-Esteem

The pride and self-esteem of residents living in a subsidized housing development is discussed at length in HUD documentation as being associated with the design of their particular units. In particular, this association is described as a connection the resident feels between their

own image as a household in the neighborhood and the image of their unit in terms of its individuality and beauty or quality.

Of studies that met standards for review, none directly assessed the relationship between housing design and resident pride. Several, however, measured self-esteem, either on its own or as one of several mental health outcomes, in relation to place attachment and homeownership. Studies by Scannell and Gifford (2016) and Korpela (1989) suggest that strong attachment to a particular place may assist in self-regulation and self-esteem, with Korpela (1989) noting the ability of an individual to control a particular environment being a hallmark of it being a “favorite place” in the individual’s memory. There is also evidence that self-esteem may be improved by homeownership, except in cases of homeownership in neighborhoods with “dilapidated housing, social problems[,] and poor reputations” (Rohe et al., 2001, p. 22). Because more general measurements of mental health or illness, general mental well-being, and stress were associated with self-esteem by studies that did measure it, they were also included in qualifying literature as potential instruments for self-esteem. Williams and Kitchen (2012) provide evidence for a relationship between a strong sense of place and mental health, with housing and homeownership being associated with a particularly strong sense of place that specifically contributed to positive mental health. Several studies identify a positive relationship between housing quality and mental health (Lassiter, 2021; Lindeback, 2024; Pevalin et al., 2017).

Generally, existing evidence suggests that self-esteem and mental health are positively impacted by exposure to a place that stands out as particular and beloved to an individual. Housing quality and status of homeownership also appear to play a role.

The evidence basis for the original HUD claim of high-quality subsidized housing design that enhances the individuality of the home improving resident pride and self-esteem is substantial in terms of research that examines housing quality and resident self-esteem, but lacking in others. There is evidence that physical housing quality improves mental health outcomes, with which self-esteem is associated, and that homes to which people are attached can help improve self-esteem. This suggests that focusing on housing quality may be in the best interest of those seeking to improve resident mental health at large and thus potentially self-esteem through the way subsidized housing is built. Apart from evidence indicating that homeownership promotes place attachment, the literature is lacking in terms of research on influences of resident pride and the impacts of individualized housing design on its residents.

Further study of relationships for which there is evidence, such as the relationship between housing quality and mental health, is important to confirm the generalizability of findings from previous studies. Additionally, there exist a number of gaps in existing literature on the topic to be clarified.

- What is the impact of housing design and/or quality on resident pride? Because of the potential overlap between feelings of pride and self-esteem, it is important to clarify the distinction between the two in the process (if any exists).
- Similar questions to the ones I posed in response to gaps in the literature surrounding the relationship between subsidized housing design and community opposition are also relevant to this topic. What is the difference between housing quality and design? In the studies reviewed above, housing quality appears to be associated with the longevity and function of a home's construction: for example, a lack of leaks in roofing, adequate heating and cooling, and protection from

drafts. This is a promising starting point for the development of a coherent definition of housing quality alongside which a definition for housing design could be formed. However, as I discussed in my evaluation of the earlier HUD claim, it is important to keep in mind that the way people discern the difference—if they perceive a difference at all—between housing quality and design may not be captured by such definitions. Thus, viewer perception of quality versus design also offers opportunity for further investigation.

- Because existing studies only identify an association between housing quality and mental health, a link between housing quality and self-esteem in particular has yet to be clarified.
- The nature of subsidized housing presents a potential complication in relationships between housing and pride and self-esteem outcomes residents. Does housing being subsidized or market-rate have any moderating effect on these relationships?

Evaluation of Claim Four: Strengthen Social Ties

Design is described in these documents as having an impact on the social ties of residents and neighbors, being capable of both weakening and strengthening them depending on the particular design choices made. Such design choices are frequently associated with mobility and opportunities for interaction as part of that mobility, i.e. the ability of residents to access spaces and likelihood that they will be able to meet others in their area on the way to or in the space. Two interventions are consistently recommended as a means of strengthening social ties for the sake of creating and strengthening the neighborhood social unit—generally regarded in the

documentation as a positive development that increases resident satisfaction through a sense of belonging and comfort in one's environment and the larger social sphere of the neighborhood.

The first intervention—construction of walkable paths and necessities within a walkable distance inside of a development and neighborhood—relies on the assumption that the encouragement of foot travel increases opportunities for people to meet and thus build social ties with one another while going about the activities of their daily lives, as opposed to, for example, being separated by the use of a personal vehicle.

A number of studies examining the effect of walkability and neighborhood walking—a behavior encouraged by communities designed for walkability (Clevenger et al., 2023)—met standards for review. Evidence has been found for walkable design in a neighborhood and strengthened social ties among neighbors (Leyden, 2003) and improved community participation (Stroope, 2023). Several studies specifying the nature of these walkability-induced relationships found that while the social ties generated by walking were generally weak, this was enough to form the foundation for a feeling of mutual support and belonging within a neighborhood that encouraged acts of support between neighbors (Glover et al., 2022; Sukolratanametee, 2006). Research by Sonta and Jiang (2023) specifies that the benefit to social ties lent by walkability in neighborhoods may actually decline at a certain level of density as the number of people encountered on a daily basis simply reaches a saturation point and “meaningful interaction may not be feasible” (p. 8).

Overall, a solid body of existing evidence on walkable design interventions encouraging the development finds that designs that encourage neighborhood walking can help develop social ties within a neighborhood; however, it should be kept in mind that this may only be relevant up to a certain level of density, as social ties may be negatively affected by the extreme density of

highly developed urban spaces. While the social ties encouraged by neighborhood walking may not necessarily be particularly strong, they appear to be enough to promote a general feeling of neighborliness among community members.

The argument of the second intervention—provision of open spaces for resident use—is based on the idea that users of an open space will interact with one another in the process of their activity within the space. Thus, social ties will be formed between development and neighborhood residents, who presumably compose the bulk of regular users of the open space due to its proximity.

Research that met standards for evaluation defined a wide variety of public open spaces generally defined by their intended use as a space for play, exercise, and socialization. While not necessarily specified as being such, examined spaces were typically located outdoors. Green spaces like public parks and greenways were found to promote social interaction and the development of both weak and strong social ties, with people primarily using them for the explicit purpose of socialization and the hosting of social events (Pippi, 2013; Yang, 2023). The construction of social ties was found to occur between public park users of a variety of social backgrounds (Adedayo, 2023). Dog parks in particular were also found to have similar impacts, facilitating relationships that go beyond a basic foundation of surface-level small talk (Lee, 2020). However, there is also some evidence that the nature of parks as recreational spaces may facilitate self selection, with subsidized housing residents reporting that they do not frequently or at all visit community parks—even when said parks are accessible nearby—due to being busy with work and other daily activities (Feizi, 2018). Additionally, residents of a neighborhood with a public park may be resistant to use of the space by those living outside of the neighborhood (Podobnik, 2002). Moving beyond public park and other green spaces, there is also evidence for

public game-playing spaces, such as pickleball and basketball courts, facilitating the development and maintenance of individual and community bonds among a variety of age groups (Fogle, 2014; Gryfe, 2024); however, there is also evidence that game spaces located further away from the entrance to a public space containing them were less effective in doing so (Sun et al., 2022). Studies of urban public spaces in particular echo other findings, noting their importance in generally promoting social interaction (Askarizad et al., 2024), developing a sense of community in an area among a diverse body of users (Barrie et al., 2023), and encouraging intergenerational social bonds among users (Layne, 2009).

Ultimately, the findings on the relationship between public open spaces and intra-community social ties appear extremely promising. Existing research points to a wide variety of open spaces facilitating the development of social ties between users of diverse ages and backgrounds, with such ties not being limited to weak, surface-level connections. Networks of such bonds can help form a larger sense of community in an area. However, individuals of certain backgrounds may nonetheless be over- or under-represented in the user base of public open spaces due to personal schedules that constrain leisure time. Additionally, there is some evidence that social ties facilitated by public open spaces may be limited to social ties between residents of the immediate area in which a public space is located, with local users potentially regarding neighborhood outsiders with hostility.

When looking at the original HUD claims alongside the findings of existing research, we find a substantial amount of empirical evidence supporting it: open spaces and design interventions that encourage walkability do appear to facilitate social ties within a community. Neighborhoods designed for walkability appear to put residents in contact with one another through regular walking as a form of transportation, encouraging them to participate in their

community and develop the network of weak social ties that form a sense of a coherent neighborhood social unit. Open spaces also positively impact social interaction within a community, allowing users of a recreational space to meet and strengthen bonds with one another within that space. However, there appear to be limits to the facilitation of social interaction in walkable neighborhoods and public open spaces: walkability appears only encourage social connection up to a certain point of density, while social ties built in public open spaces may be limited to local users deemed appropriate by the community surrounding the space.

Several questions spring from the evidence found on this topic, creating a number of opportunities for further research.

- Very few of the studies specified the geographic nature of studied social connections. Are the opportunities for social connection offered by walkability and open spaces within a neighborhood limited to those who live in the immediate neighborhood, or can these design measures also encourage inter-community bonds?
- More research is needed to specify the different strengths of social ties encouraged by these design interventions, especially those generated by public open spaces. Does walkability have any significant effect on strong social ties, or is it limited to facilitating weak ones? Are open spaces more conducive to stronger social ties as a design intervention than walkable neighborhood design?
- Because the distinction between indoor and outdoor public open spaces was not clarified by most of the studies examined above, the effect of different types of open spaces has yet to be clarified: for example, the difference between an open

space offered by an indoor basketball court and an outdoor one. Do indoor public spaces facilitate social connection in the same way outdoor ones do?

- How effective are public open spaces, especially recreational spaces such as parks and those designed for the playing of sports, for people in situations of disadvantage, such as those qualifying for residence in subsidized housing? How might other design choices intended to encourage social bonding compare; for example, is general walkability of a neighborhood preferable to the presence of open spaces for residents of subsidized housing, as they may help people meet one another in the process of doing daily activities instead of requiring them to go out of their way to use a specifically recreational space?

Evaluation of Claim Five: Improve Socioeconomic Outcomes

Guidelines also make a connection between the design of subsidized housing and socioeconomic outcomes of its residents through design interventions that seek to encourage business in the area of the development or connect the development to outside centers of commerce. These connections are described in HUD documentation as increasing job opportunities, resting on the idea that businesses in or accessible to a community may hire members of that community. Of these interventions, two are noted most prominently: transport-oriented development (TOD) and mixed-use development (MUD).

Transport-oriented development describes a form of development centered around access to public transportation options like a bus, metro, or train system: for example, a community built within easy walking distance of a stop on a metro line. The reasoning behind the potential for TOD to improve resident socioeconomic outcomes is that residents of a community will be

able to use the transit around which said community is centered in order to access other areas and the economic opportunities they have to offer, whether as sources of new business clients or jobs.

Transit-oriented development has been observed by studies that met evaluation requirements to have mixed impacts on the economic outcomes of areas that implement it. Initial construction can be financially risky and require a high degree of public-private collaboration (Transit Cooperative Research Program, 2002), which can be intimidating even to private developers interested in TOD (Alasmari and Alarabi, 2024). TOD efforts can encourage urban development in terms of businesses and diversify land use in the immediate area of a transit route access point like a train stop (Chen et al., 2024; Transit Cooperative Research Program, 2002; Yu et al., 2018), especially in the cases of TOD centered around light rail (Calimente, 2012; Topalovic et al., 2012) and high-speed rail (Liu et al., 2024b), but the development of businesses in a community only recently introduced to a transit network can take several years or more to fully benefit the local economy (Lee and Sener, 2017). There is also evidence that TOD is beneficial in terms of expanding access to jobs, especially for low-income individuals and those from minority groups (Blumenberg et al., 2015; Fan et al., 2012; Yeganeh et al., 2018); however, the range of job opportunities opened by access to public transit is still smaller than that opened by access to a private vehicle (Blumenberg et al., 2015). There is also evidence that TOD can contribute to an increase in property values in areas immediately surrounding a transit access point (Calimente, 2012; Drennan and Breecher, 2012). The impacts of TOD-driven economic development may not be equally distributed: evidence from Liu et al.'s (2024b) study of high speed rail in China indicates that while areas connected to a transit network experienced economic benefits like increased incomes, transit had an economic siphoning effect on surrounding areas not connected to the rail system by concentrating development in cities and

adjacent developed areas, echoed by a lack of notable economic change observed in areas outside the transit system by other studies (Iamtrakul et al., 2018; Drennan and Brecher, 2012).

Altogether, current research indicates that transit-oriented development, if approached with a strong commitment to public-private partnership and a long-term outlook rather than a focus on short-term benefit, has the potential to contribute to the economic development of areas that it connects by improving job access and increasing property values. However, the benefits conferred by TOD are geographically limited to areas that participate in it, potentially acting to economically drain periphery areas that “lag behind” in terms of joining growing regional transportation networks.

Mixed-use zoning organizes commercial developments alongside other building and land uses like housing. Such zoning is thought to facilitate investment in a neighborhood from businesses, attract consumers from outside of the community, and increase job opportunities accessible to residents of the neighborhood.

Among studies that met evaluation requirements, evidence for the benefits of mixed-use development is scattered. The most consistent finding among studies on the topic is that it increases property values, indicating desirability among consumers and making MUD an attractive option for those looking to rent property, but also hurting affordability (Moos et al., 2018; Olanrewaju et al., 2023; Polic, 2005; Talen, 2013). There is also some evidence that MUD may improve job opportunities (Zagow, 2016). Tesso (2013) notes that while the density that comes with MUD negatively impacts affordability, mixed-use communities are typically better able to cope with density in terms of affordability, job opportunities, and economic equality than similarly-dense single-use communities. Other studies report mixed economic findings depending on the particular community studied (Delisle and Grissom, 2011; Wang et al., 2024).

In sum, there is evidence that mixed-use development is helpful for a community's economic development in terms of increasing property values—at the cost of decreased affordability—and improving access to jobs. However, these outcomes can be highly variable based on the community.

In light of the mixed evidence presented by the research above, the HUD claim that mixed-use development and the connection of neighborhoods via transit can be described as somewhat accurate to what is known on the topics, but misleading. Both TOD and MUD may offer improved access to job opportunities, especially for those from disadvantaged backgrounds who may qualify for subsidized housing. However, the net benefit of this is called into question by the fact that the studies also consistently point to an association between TOD, MUD, and decreased affordability of an area. Communities intensively developed by the presence of transit and mixed-use zoning may become increasingly inaccessible to both developers attempting to balance the costs of affordable units and households that rely on subsidy programs like vouchers to assist them on the private market, potentially presenting an obstacle to the feasibility of subsidized housing in such an area. As a result, there is reason to proceed with caution.

However, there is still a significant amount of evidence that interventions facilitating TOD and MUD promote economic development in an area; as a result, it is still important to clarify the relationships of that economic development and the mechanisms by which that economic development occurs. Further research of the potential issues cited above may offer guidance into how to make sure that economic benefits associated with TOD and MUD are not limited to already-developed areas and privileged sectors of the population.

- More study is needed into the particular effects of mixed-use development and transit-oriented development on the socioeconomic outcomes of the poor in an

area. Specific inquiry into the effect on those living in subsidized housing is in the interest of those interested in TOD and MUD as part of HUD-sponsored programs. If socioeconomic indicators are improved, which ones? Are they impacted in the short- or long-term?

- Though existing research indicates that job opportunities for individuals from socioeconomically disadvantaged backgrounds may be improved by TOD and MUD, clarification is needed on the nature of those job opportunities. What kinds of jobs are made available by these design interventions? Are they conducive to long-term socioeconomic improvement for disadvantaged households? What about those from disadvantaged backgrounds living in peripheral areas not connected to the transit network?
- Overall larger-scale, more comprehensive research, such as longitudinal studies of a variety of different communities, is needed to answer questions about the specific effects of TOD and MUD on communities and provide potential solutions to the economic disadvantage that may result from them: while some kind of economic development does occur, does it raise all boats or only benefit those already in positions of economic advantage? What is the exact nature of the relationship between TOD, MUD, and the economic development of peripheral areas?

Conclusion

This chapter, centered around evaluating HUD claims about subsidized housing design interventions and identifying gaps in knowledge about those interventions, was organized into five sections based on the HUD claims I identified in chapter four. Within each section, I:

- I: briefly

re-introduced the particular claim and, if any existed, sub-claims; summarized the existing social science literature on the topic, with studies being chosen based on standards for empiricism outlined in chapter three; evaluated the accuracy of the claim based on the consensus of existing literature; and pointed out gaps in the literature and directions for future research. By doing so, I sought to expand the body of available actionable design knowledge pertaining to subsidized housing in particular.

Of the claims evaluated, one—claim number four, which posited that design interventions like pedestrian paths and density that enhanced walkability and the presence of public open spaces in a neighborhood encourage social interaction among community members—had strong base of evidence supporting its accuracy.

Three claims—claim number one, which stated that subsidized housing design that blends into its surrounding community can reduce opposition to its development; claim number three, which amounted to the idea that housing quality and individuality in design improved resident pride and self-esteem; and claim number five, which was centered around the value of transit-oriented development and mixed-use development for the socioeconomic outcomes of subsidized housing residents—were mildly supported by the bodies of research that existed on their topics. It was found that subsidized housing quality, though a relatively minor concern compared to primary ones voiced by NIMBY advocates, may be relevant. Additionally, housing quality may positively impact mental health outcomes related to self-esteem and that both TOD and MUD are associated with increased economic opportunities and higher local property values. However, all three suffered from gaps in the literature regarding crucial aspects of the claims that made it difficult to draw confident conclusions about their accuracy. There has not been substantial study of whether or not subsidized housing resemblance to surroundings impacts

opposition, while research into the impacts of housing individuality and the relationship between housing and pride was lacking. Additionally, the particular relationship of TOD- or MUD-driven property value rise with the feasibility or socioeconomic success of subsidized housing in particular remained unclear.

The body of research surrounding the remaining claim—claim number two, which advocated for principles of defensible space and eyes on the street as ways to reduce crime and improve resident safety in and around subsidized housing developments—was extremely mixed in terms of consensus on the effects of defensible space on objective crime, though it indicated a positive association with perceptions of safety (which were found to be positively impacted and may be associated with crime-reducing investment behaviors). Additionally, findings potentially contradicted the crime-stopping benefits attributed to design interventions intended to increase eyes on the street. In particular, research directly related to the built environment’s impact on the occurrence of crime was riddled with issues regarding definitions of what design choices counted as crime-deterring interventions, transparency about how certain designs work, and the larger socioeconomic context of design intended to reduce crime creating such an inconsistent and noisy body of data that drawing any generalizable conclusions was rendered nearly impossible.

In sum, apart from research about the impact of walkable communities, open spaces, and social ties, most of the literature regarding each of the topics touched on by HUD claims did not lend itself to any single “yes” or “no” conclusion about whether or not a claim was accurate. On some topics, incomplete or noisy data meant it was impossible to tell what mechanisms facilitated a relationship or even whether or not a relationship existed at all. Some topics had not yet been studied at all. Regarding yet other topics, as with a great deal of social science, studies found that “it depends”: in the case of subsidized housing design, causative relationships that

likely exist in a built space are often dependent on other aspects of the community surrounding that built space. All of the above aspects of social science data can make it difficult to assemble a coherent body of working knowledge and thus facilitate an evidence-based design practice, which would be best suited to data that can clearly say whether or not a certain design intervention has a certain effect. However, designers can still use the indications of more ambiguous evidence to guide their practice toward interventions that, as far as current research suggests, are more likely to provide the most benefit to their users. The above evaluations improve the existing understanding of what design interventions may be more or less beneficial to the users of subsidized housing in particular.

Conclusion

There is a good deal of existing literature that explores the social, economic, and political aspects of U.S. subsidized housing. However, apart from brief references to the way the highly stigmatized modernist constructions of the mid-twentieth century live on in the American memory as stereotypes of infamous, poverty-stricken, and isolated “projects”, very few analyses have taken the time to examine the role of design. This overlooks an essential aspect of the program: subsidized housing is, in large part, about buildings. The design of these buildings, whether serving a mixed-income population or one entirely composed of households benefiting from a housing subsidy, has been an integral part of the implementation of subsidized housing since its inception in the 1930s—where it served as a vision of societal reform until external stigmas gave rise to an interest in making subsidized housing “blend in”—and eventually became a pillar of modern programs like HOPE VI and the Choice Neighborhoods Initiative that seek to transform residents’ outcomes through design. Several scholars have pointed out that, while a number of claims are made about the ability of the built environment to impact individuals’ behavior and lives, choices made in the design practice are not typically based on empirical evidence and emphasized the necessity of building a body of evidence that can guide the choices of designers toward studied design interventions that are proven to have the intended effect on users. In order to contribute to such a body of evidence surrounding the design of U.S. subsidized housing, I identified prominent claims made by the U.S. Department of Housing and Urban Development—an entity that sets national norms about subsidized housing design—about the effects of different design interventions in subsidized developments based on their longevity as ideas and consistency of endorsement by official guidelines in order to evaluate them based on existing empirical research. Five prominent claims were isolated: 1) that design and quality

reduce opposition from NIMBYs, 2) that defensible space and eyes on the street principles reduce crime and promote safety, 3) that housing individuality and quality improve resident pride and self-esteem, 4) that walkability interventions and open space in a community build social ties, and 5) that transit-oriented and mixed-use development improve resident socioeconomic outcomes. I then evaluated the accuracy of these claims using the evidence I identified on each topic and pointed out gaps in research or directions for future study on the topic. Though a robust body of evidence was found to support the fourth claim, existing research offered mildly inconsistent support for the first, third, and fifth claims and unclear-to-potentially-contradictory evidence for the second claim. The inconsistency of data on most of the examined topics was due to a combination of a lack of research into a relationship or particular aspect of a relationship, unclear results for studies, or studies that pointed to complex relationships that depended on a variety of other factors. Nonetheless, the implications of reviewed research may still serve to inform future decision-making on subsidized housing design.

It must be acknowledged that though the design of a built environment isn't the sole determinant of human behavior and livelihood and operates within a much larger context, it undoubtedly plays a role in the general well-being of the people who live, work, and play in and around it and is worth focused study. Because subsidized housing in the U.S. tends to be constrained by extremely limited resources, comprehensive study of the ways its design may impact those living in and around subsidized developments can provide valuable guidance to practitioners on what design choices to prioritize or discard. In this way, the practice of evidence-based design in subsidized housing can direct finite resources toward interventions that best support the present well-being and long-term outcomes of residents and neighbors.

My findings imply a need for public entities at all levels of U.S. government dedicated to the management of subsidized housing to re-evaluate the evidentiary basis for the design choices that they make themselves or encourage in developers regarding subsidized housing: longstanding ideas about subsidized housing design, such as the effectiveness of defensible space or eyes on the street, that have previously been accepted as true and persisted for decades may not be entirely accurate to reality and, in fact, be associated with harmful tropes about the behavior of subsidized housing residents. The presence of such discrepancies signals a need to look with a critical eye at what is considered standard practice, how it entered standard practice, and what basis it rests on. The gaps in existing research and relationships that have yet to be fully investigated, which made confident conclusions on whether or not design claims were backed by empirical evidence difficult to draw, also emphasize the need for government support of research into subsidized housing design at large.

A wide variety of options for future research on this topic exist. A larger discussion of a theoretical framework for empirical design research, which I defined for my own purposes in chapter three, could be helpful in establishing norms that make it easier to compare the findings of different studies. There is also room for further identification of subsidized housing-related design claims that I did not identify in chapter four, including those made by HUD as well as other public or private entities involved in the development and management of subsidized housing. Additionally, though I identified in chapter five a number of pathways for future inquiry into several different HUD design claims, they by no means represent a comprehensive list of all possible questions to be answered or relationships to be clarified regarding the claims. Though design isn't everything, there exists a real need to find out what design *can* do, and there is enormous potential for substantial investigation of the ways design—in particular, the design of

buildings that serve households whose needs are not met by what they are able to afford on the private housing market—might help ensure its users live healthy, safe, and happy lives.

References

- Acosta, S., & Gartland, E. (2021, July 22). *Families Wait Years for Housing Vouchers Due to Inadequate Funding*. Center on Budget and Policy Priorities.
- <https://www.cbpp.org/sites/default/files/7-22-21hous.pdf>
- Adedayo, O. F., Akingbohungbe, D. O., Ale, A. T., Abdullahi, A. P., & Adegoke, M. A. (2023). Assessment of Community Park As Social Interaction Place for Rural Communities: A Case Study of Peyi Community Bwari Abuja. *City, Territory and Architecture*, 10(1), 24. <https://doi.org/10.1186/s40410-023-00208-2>
- Adzande, P. (2024). Socio-Spatial Structure of Urban Communities and the Distribution of Crime in Makurdi, Nigeria. *Security Journal*, 37(3), 835–853. Research Library; Social Science Premium Collection. <https://doi.org/10.1057/s41284-023-00397-y>
- Agnew, S. (n.d.). *The Impact of Affordable Housing on Communities and Households*. Minnesota Housing Finance Agency Research and Evaluation Unit.
- Ahrentzen, S. (2006). *Actionable Knowledge: A Research Synthesis Project for Affordable Housing Design Practice*.
- <https://static.sustainability.asu.edu/docs/stardust/housing-research-synthesis/full-report.pdf>
- Ahrentzen, S. (2008). *More than Just Looking Good: Toward an Evidence-Based Design Practice in Affordable Housing*.
- <https://static.sustainability.asu.edu/docs/stardust/more-than-looking-good/full-report.pdf>
- Alasmari, F., & Alarabi, S. (2023). Navigating the Delivery of Transit-Oriented Development: A Case Study of Private Developers in Riyadh. *Sustainability*, 16(1), 237. <https://doi.org/10.3390/su16010237>

A-Mark Foundation. (2023, July 25). *What Is the Impact of Low-Income Housing on Property*

Values?

<https://amarkfoundation.org/reports/what-is-the-impact-of-low-income-housing-on-property-values/>

Askarizad, R., Lamíquiz Daudén, P. J., & Garau, C. (2024). The Application of Space Syntax to Enhance Sociability in Public Urban Spaces: A Systematic Review. *ISPRS International Journal of Geo-Information*, 13(7), 227. <https://doi.org/10.3390/ijgi13070227>

Atlas, R. I. (1982). Violence in Prison: Architectural Determinism [Ph.D., The Florida State University]. In *ProQuest Dissertations and Theses* (303231345). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/violence-prison-architectural-determinism/docview/303231345/se-2?accountid=9772>

Bach, A., Katari Gupta, P., Haughey, R., Kelly, G., Pawlukiewicz, M., & Pitchford, M. (2007). *Ten Principles for Developing Affordable Housing*. Urban Land Institute.

https://uli.org/wp-content/uploads/2012/07/TP_AffordableHousing.ashx_.pdf

Barrie, H., McDougall, K., Miller, K., & Faulkner, D. (2023). The Social Value of Public Spaces in Mixed-Use High-Rise Buildings. *Buildings and Cities*, 4(1), 669–689.

<https://doi.org/10.5334/bc.339>

Basolo, V., & Hastings, D. (2003). Obstacles to Regional Housing Solutions: A Comparison of Four Metropolitan Areas. *Journal of Urban Affairs*, 25(4), 449–472.

<https://doi.org/10.1111/1467-9906.00172>

- Bauman, J. F., Biles, R., & Szylvian, K. M. (Eds.). (2000). *From Tenements to the Taylor Homes: In Search of an Urban Housing Policy in Twentieth-Century America*. Pennsylvania State University Press.
- Bloom, N. D., Umbach, G. H., Vale, L. J., & Heathcott, J. (Eds.). (2015). *Public Housing Myths: Perception, Reality, and Social Policy*. Cornell University.
- Blumenberg, E., Pierce, G., & Smart, M. (2015). Transportation Access, Residential Location, and Economic Opportunity. *Cityscape*, 17(2), 89–112. JSTOR.
- Bollo, C. (2023). Countering the “Troublesome Unit”: Compensatory Design to Create Equity in Social Housing. *The Plan Journal*, 7(2). <https://doi.org/10.15274/tpj.2022.07.02.14>
- Bonnes, M., & Secchiaroli, G. (1995). Environmental Psychology: A Psycho-social Introduction. *Environmental Psychology: A Psycho-Social Introduction.*, vii, 230–vii, 230.
- Bucerius, S. M., Thompson, S. K., & Berardi, L. (2017). “They’re Colonizing My Neighborhood”: (Perceptions of) Social Mix in Canada. *City & Community*. <https://doi.org/10.1111/cico.12263>
- Calimente, J. (2012). Rail Integrated Communities in Tokyo. *Journal of Transport and Land Use*, 5(1), 19–32. JSTOR.
- Center for Housing Policy. (2009, February). *Insights from Housing Policy Research: Don’t Put It Here! Does Affordable Housing Cause Nearby Property Values to Decline?* <https://www.policyarchive.org/handle/10207/95792>
- Chang, J. (2017). Spatial Relationships between Block Parks and Crime in Baltimore City [M.S., University of Maryland, Baltimore County]. In *ProQuest Dissertations and Theses* (2019906647). ProQuest Dissertations & Theses Global; Social Science Premium Collection.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/spatial-relationships-between-block-parks-crime/docview/2019906647/se-2?accountid=9772>

Chen, Z., Wu, T., Gao, L., & Zhou, Y. (2024). Comparative Analysis of Transit-Oriented Development (TOD) Types in the Metropolitan Region Along the Middle Reaches of the Yangtze River. *Sustainability*, 16(22), 9884. <https://doi.org/10.3390/su16229884>

Chicago Housing Authority. (1940). *The Chicago Housing Authority, manager and builder of low-rent communities*. <https://catalog.hathitrust.org/Record/102582739>

Cisneros, H. (1996). *A Report on the State of America's Communities*. U.S. Dept. of Housing and Urban Development.

Clevenger, K. A., Berrigan, D., Patel, S., Saint-Maurice, P. F., & Matthews, C. E. (2023). Relationship Between Neighborhood Walkability and the Prevalence, Type, Timing, and Temporal Characteristics of Walking. *Health & Place*, 80, 102983.

<https://doi.org/10.1016/j.healthplace.2023.102983>

Coleman, J. W. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*. <https://doi.org/10.1086/228943>

Cozens, P., & Davies, T. (2013). Crime and residential security shutters in an Australian suburb: Exploring perceptions of 'Eyes on the Street', social interaction and personal safety. *Crime Prevention and Community Safety*, 15(3), 175–191.

<https://doi.org/10.1057/cpcs.2013.5>

Cozens, P. M. (2000). Investigating Defensible Space and the Criminogenic Capacity of Characteristic British Housing Designs [Ph.D., University of South Wales (United Kingdom)]. In *PQDT - UK & Ireland* (301631637). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/investigating-defensible-space-criminogenic/docview/301631637/se-2?accountid=9772>

Custers, G. (2018). Neighbourhood Ties and Employment: A Test of Different Hypotheses Across Neighbourhoods. *Housing Studies*.

<https://doi.org/10.1080/02673037.2018.1527020>

Dawkins, C. J. (2021). Just Housing: The Moral Foundations of American Housing Policy. In *Just housing: The moral foundations of American housing policy*. The MIT Press.

Dear, M. (1992). Understanding and Overcoming the NIMBY Syndrome. *Journal of the American Planning Association*, 58(3), 288–300.

<https://doi.org/10.1080/01944369208975808>

DeLisle, J., & Grissom, T. (2013). An Empirical Study of the Efficacy of Mixed-Use Development: The Seattle Experience. *Journal of Real Estate Literature*, 21(1), 25–57.

<https://doi.org/10.1080/10835547.2013.12090352>

Deniz, D. (2007). Secure Urban Environments by Design: Analysis of Konak Square Design Through Crime Prevention Through Environmental Design (CPTED) Principles [Ph.D., Izmir Institute of Technology (Turkey)]. In *PQDT - Global* (2572591467). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/security-urban-environments-design-analysis-konak/docview/2572591467/se-2?accountid=9772>

Douglas, I. P., Skillicorn, A. T., Chan, D., Bencharit, L. Z., & Billington, S. L. (2024). In Their Own Words: A Mixed-Methods Exploration of Public Perceptions of Affordable Housing

and Their Connections to Support. *Cities*, 154, 105383.

<https://doi.org/10.1016/j.cities.2024.105383>

Douglas, S. D. (2024). Understanding Problem Places: Risky Facilities, Criminal Opportunities,

and Persistent Crime Hot Spots [Ph.D., Northeastern University]. In *ProQuest*

Dissertations and Theses (3053859092). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/understanding-problem-places-risky-facilities/docview/3053859092/se-2?accountid=9772>

Drennan, M. P., & Brecher, C. (2012). Does Public Transit Use Enhance the Economic Efficiency of Urban Areas? *Journal of Transport and Land Use*, 5(3), 53–67. JSTOR.

Duffala, D. C. (1976). Convenience Stores, Armed Robbery, and Physical Environmental Features. *The American Behavioral Scientist (Pre-1986)*, 20(2), 227. Social Science Premium Collection.

Einstein, K. L., Glick, D. M., & Palmer, M. (2020). Neighborhood Defenders: Participatory Politics and America's Housing Crisis. In *Neighborhood defenders: Participatory politics and America's housing crisis*. Cambridge University Press.

Fan, Y., Guthrie, A., & Levinson, D. (2012). Impact of Light-Rail Implementation on Labor Market Accessibility. *Journal of Transport and Land Use*, 5(3), 28–39. JSTOR.

Farwick, A., Hanhörster, H., Lobato, I. R., & Striemer, W. (2019). Neighbourhood-Based Social integration: The Importance of the Local Context for Different Forms of Resource Transfer. *Raumforschung Und Raumordnung*. <https://doi.org/10.2478/rara-2019-0046>

Feizi, F. (2018). Affordable Housing and It's Connection Between Parks, Health and Communities In Rancho Cordova, California [M.S., University of California, Davis]. In *ProQuest Dissertations and Theses* (2279321001). ProQuest Dissertations & Theses

Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/affordable-housing-s-connection-between-parks/docview/2279321001/se-2?accountid=9772>

Foell, A., Fowler, P. J., Purnell, J. Q., Nebbitt, V., Jabbari, J., & Chun, Y. (2024). Choice and Opportunity: Housing Relocation, Neighborhood Change, and Family Well-Being in the South City Choice Neighborhoods Initiative (CNI) in Memphis, TN. *Housing Policy Debate*, 1–27. <https://doi.org/10.1080/10511482.2023.2291347>

Fogle, E. A. (n.d.). *Community at the Courts: Social and Community Interactions at Public Basketball Courts* [University of Arkansas, Fayetteville].

<https://scholarworks.uark.edu/cgi/viewcontent.cgi?article=3701&context=etd>

Fowler, E. P. (1987). Street Management and City Design. *Social Forces*, 66(2), 365. <https://doi.org/10.2307/2578745>

Francescato, G., University of Illinois at Urbana-Champaign. Housing Research and Development Program, & United States. Department of Housing and Urban Development. Office of Policy Development and Research. (1979). *Residents' Satisfaction in HUD-assisted Housing: Design and Management Factors: Prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development*. The Office. <https://books.google.com/books?id=GKBtnl23lxAC>

Friedman, L. M. (1968). *Government and Slum Housing: A Century of Frustration*. Rand McNally & Co.

Fuerst, J. S., & Hunt, D. B. (2005). When Public Housing was Paradise: Building Community in Chicago. In *When public housing was paradise: Building community in Chicago* (Pbk. ed.). University of Illinois Press.

Galster, G., Andersson, R., & Musterd, S. (2016). Neighborhood Social Mix and Adults' Income Trajectories: Longitudinal Evidence from Stockholm. *Geografiska Annaler Series B, Human Geography*. <https://doi.org/10.1111/geob.12096>

Garland, C. A. (1997). The 'Context of Fear' as an Indication of Healthy Community Investment: 80 Low-Income Neighborhoods in Los Angeles [Ph.D., University of California, Irvine]. In *ProQuest Dissertations and Theses* (304324498). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/context-fear-as-indication-healthy-community/docview/304324498/se-2?accountid=9772>

Ghosh, A. (2023). The Cumulative Effect of Criminogenic Facilities on Crime on Street Segments: A Replication of Groff & Lockwood's (2014) Study [Ph.D., Texas State University - San Marcos]. In *ProQuest Dissertations and Theses* (2912997530). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/cumulative-effect-criminogenic-facilities-on/docview/2912997530/se-2?accountid=9772>

Glover, T. D., Todd, J., & Moyer, L. (2022). Neighborhood Walking and Social Connectedness. *Frontiers in Sports and Active Living*, 4, 825224.

<https://doi.org/10.3389/fspor.2022.825224>

Goetz, E. G. (2012). The Transformation of Public Housing Policy, 1985–2011. *Journal of the American Planning Association*, 78(4), 452–463.

<https://doi.org/10.1080/01944363.2012.737983>

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481–510. <https://doi.org/10.1086/228311>

- Grieves, R. M., & Jeffery, K. J. (2017). The Representation of Space in the Brain. *Behavioural Processes*, 135, 113–131. <https://doi.org/10.1016/j.beproc.2016.12.012>
- Grohe, B. (2011). Measuring Residents' Perceptions of Defensible Space Compared to Incidence of Crime. *Risk Management*, 13(1/2), 43–61. JSTOR.
- Grohe, B. R. (2006). Perceptions of Crime, Fear of Crime, and Defensible Space in Fort Worth Neighborhoods [Ph.D., The University of Texas at Arlington]. In *ProQuest Dissertations and Theses* (304904569). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/perceptions-crime-fear-defensible-space-fort/docview/304904569/se-2?accountid=9772>
- Gryfe, M. (2024). Oh, the PLAYces You'll go: A Comparative Analysis of Public and Private Older Adult Play Spaces [M.U.P., Queen's University (Canada)]. In *ProQuest Dissertations and Theses* (3110419261). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/oh-playces-you-ll-go-comparative-analysis-public/docview/3110419261/se-2?accountid=9772>
- Hackman, D. A., Robert, S. A., Grübel, J., Weibel, R. P., Anagnostou, E., Hölscher, C., & Schinazi, V. R. (2019). Neighborhood Environments Influence Emotion and Physiological Reactivity. *Scientific Reports*, 9(1), 9498.
<https://doi.org/10.1038/s41598-019-45876-8>
- Hamilton, D. K. (2003). The Four Levels of Evidence-Based Practice. *Healthcare Design Magazine*, 11(3), 19–26.

- Hamilton, D. K. (2020). Evidence-Based Practice: Four Levels Revisited. *HERD: Health Environments Research & Design Journal*, 13(3), 26–29.
<https://doi.org/10.1177/1937586720931064>
- Hamza, S., Khan, I., Lu, L., Liu, H., Burke, F., Nawaz-ul-Huda, S., Baqa, M. F., & Tariq, A. (2021). The Relationship between Neighborhood Characteristics and Homicide in Karachi, Pakistan. *Sustainability*, 13(10), 5520. <https://doi.org/10.3390/su13105520>
- Harding, D. J., Sanbonmatsu, L., Duncan, G. J., Gennetian, L. A., Katz, L. F., Kessler, R. C., Kling, J. R., Sciandra, M., & Ludwig, J. (2021). Evaluating Contradictory Experimental and Nonexperimental Estimates of Neighborhood Effects on Economic Outcomes for Adults. *Housing Policy Debate*. <https://doi.org/10.1080/10511482.2021.1881985>
- Horton, D. (1992). *NCSDPH Final Report Cover* [Illustration].
<https://www.huduser.gov/portal//portal/sites/default/files/pdf/The-Final-Report-of-the-National-Commission-on-Severely-Distressed-Public-Housing-.pdf>
- Humphrey, C., Jensen, S. T., Small, D. S., & Thurston, R. (2020). Urban Vibrancy and Safety in Philadelphia. *Environment and Planning B: Urban Analytics and City Science*, 47(9), 1573–1587. <https://doi.org/10.1177/2399808319830403>
- Hunt, D. B. (2018). Public Housing in Urban America. In D. B. Hunt, *Oxford Research Encyclopedia of American History*. Oxford University Press.
<https://doi.org/10.1093/acrefore/9780199329175.013.61>
- Iamtrakul, P., & Chayphong, S. (2024). Exploring Spatial Accessibility to Urban Activities Based on the Transit-Oriented Development Concept in Pathum Thani, Thailand. *Sustainability*, 16(5), 2195. <https://doi.org/10.3390/su16052195>

Jacobs, J. (1992). *The Death and Life of Great American Cities* (Vintage Books ed). Vintage Books.

Jacobs, K., & Flanagan, K. (2013). Public Housing and the Politics of Stigma. *Australian Journal of Social Issues*, 48(3), 319–337.

<https://doi.org/10.1002/j.1839-4655.2013.tb00285.x>

Johnson, D., Gibson, V., & McCabe, M. (2014). Designing in crime prevention, designing out ambiguity: Practice issues with the CPTED knowledge framework available to professionals in the field and its potentially ambiguous nature. *Crime Prevention and Community Safety*, 16(3), 147–168. <https://doi.org/10.1057/cpcs.2014.3>

Johnson, S. D., & Bowers, K. J. (2010). Permeability and Burglary Risk: Are Cul-de-Sacs Safer? *Journal of Quantitative Criminology*, 26(1), 89–111. JSTOR.

Jorgensen, B. S., & Stedman, R. C. (2011). Measuring the Spatial Component of Sense of Place: A Methodology for Research on the Spatial Dynamics of Psychological Experiences of Places. *Environment and Planning B: Planning and Design*, 38(5), 795–813.

<https://doi.org/10.1068/b37054>

Joy, E. (1994). Design and Social Malaise: A Reevaluation [M.Phil., University of London, University College London (United Kingdom)]. In *PQDT - Global* (1778915111). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/design-social-malaise-reevaluation/docview/1778915111/se-2?accountid=9772>

Katzenbach, I. (2023). *When Affirmative Action was White: An Untold History of Racial Inequality in Twentieth-Century America*. W.W. Norton & Company.

Kelling, G. L., & Wilson, J. Q. (1982, March). Broken Windows. *The Atlantic*.

<https://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465/>

Kerner, P. (2023). Use of Crime Prevention Through Environmental Design on College Campuses: A Case Study on Improving the Perception of Fear [D.P.A., Valdosta State University]. In *ProQuest Dissertations and Theses* (2802646229). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/use-crime-prevention-through-environmental-design/docview/2802646229/se-2?accountid=9772>

Kim, S.-K., Lee, Y. M., & Lee, E. (2013). The Defensible Space Theory for Creating Safe Urban Neighborhoods: Perceptions and Design Implications in the United States and South Korea. *Journal of Architectural and Planning Research*, 30(3), 181–196. JSTOR.

Kim, S.-K., & Seidel, A. D. (2012). Safe Communities for Urban Renters. *Journal of Architectural and Planning Research*, 29(2), 133–148. JSTOR.

Kim, Y.-A., & Hipp, J. R. (2020). Pathways: Examining Street Network Configurations, Structural Characteristics and Spatial Crime Patterns in Street Segments. *Journal of Quantitative Criminology*, 36(4), 725–752. JSTOR.

Kitchen, T. (2005). New Urbanism and CPTED in the British Planning System: Some Critical Reflections. *Journal of Architectural and Planning Research*, 22(4), 342–357. JSTOR.

Knoblauch, J. (2020). *The Architecture of Good Behavior: Psychology and Modern Institutional Design in Postwar America*. University of Pittsburgh Press.

<https://doi.org/10.2307/j.ctvzgb8dq>

Koebel, C., Lang, R., & Danielsen, K. (2004). *Community Acceptance of Affordable Housing*.

- Kooi, B. R. (2004). Environmental Criminology and Mapping Hot Spot Bus Stop Locations: A Social Ecological Approach for Conducting a Quasi -Experimental Design and Testing Defensible Space Concepts [Ph.D., Michigan State University]. In *ProQuest Dissertations and Theses* (305157040). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/environmental-criminology-mapping-hot-spot-bus/docview/305157040/se-2?accountid=9772>
- Korpela, K. M. (1989). Place-Identity as a Product of Environmental Self-Regulation. *Journal of Environmental Psychology*, 9(3), 241–256.
[https://doi.org/10.1016/S0272-4944\(89\)80038-6](https://doi.org/10.1016/S0272-4944(89)80038-6)
- Lassiter, D. (2021). Associations between Social Determinants of Health and Net Stress [Ph.D., Augusta University]. In *ProQuest Dissertations and Theses* (2570403616). ProQuest Dissertations & Theses Global; Publicly Available Content Database.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/associations-between-social-determinants-health/docview/2570403616/se-2?accountid=9772>
- Lawrence, D. L., & Low, S. M. (1990). The Built Environment and Spatial Form. *Annual Review of Anthropology*, 19, 453–505. JSTOR.
- Layne, M. R. (2009). Supporting Intergenerational Interaction: Affordance of Urban Public Space [Ph.D., North Carolina State University]. In *ProQuest Dissertations and Theses* (304958537). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/supporting-intergenerational-interaction/docview/304958537/se-2?accountid=9772>

- Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., Wüst, S., Pruessner, J. C., Rietschel, M., Deuschle, M., & Meyer-Lindenberg, A. (2011). City Living and Urban Upbringing Affect Neural Social Stress Processing in Humans. *Nature*, 474(7352), 498–501. <https://doi.org/10.1038/nature10190>
- Lee, G. (2013). Perceptions about Crime and Safety in the Region of Peel [M.A., University of Toronto (Canada)]. In *ProQuest Dissertations and Theses* (1635086997). ProQuest Dissertations & Theses Global; Social Science Premium Collection.
- <https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/perceptions-about-crime-safety-region-peel/docview/1635086997/se-2?accountid=9772>
- Lee, L. D. (2020). The Charismatic Dog and Public Space: Are Dog Parks a Third Place? [Ph.D., The University of Texas at Arlington]. In *ProQuest Dissertations and Theses* (2471744525). ProQuest Dissertations & Theses Global.
- <https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/charismatic-dog-public-space-are-parks-third/docview/2471744525/se-2?accountid=9772>
- Lee, R. J., & Sener, I. N. (2017). The Effect of Light Rail Transit on Land Use in a City Without Zoning. *Journal of Transport and Land Use*, 10(1), 541–556. JSTOR.
- Lee, S. M., Conway, T. L., Frank, L. D., Saelens, B. E., Cain, K. L., & Sallis, J. F. (2017). The Relation of Perceived and Objective Environment Attributes to Neighborhood Satisfaction. *Environment and Behavior*, 49(2), 136–160.
- <https://doi.org/10.1177/0013916515623823>
- Lens, M. C. (2013). Subsidized Housing and Crime: Theory, Mechanisms, and Evidence. *Journal of Planning Literature*, 28(4), 352–363.
- <https://doi.org/10.1177/0885412213500992>

Leventhal, T., & Brooks-Gunn, J. (2000). The Neighborhoods They Live In: The Effects of Neighborhood Residence on Child and Adolescent Outcomes. *Psychological Bulletin*, 126(2), 309–337. <https://doi.org/10.1037/0033-2909.126.2.309>

Leyden, K. M. (2003). Social Capital and the Built Environment: The Importance of Walkable Neighborhoods. *American Journal of Public Health*, 93(9), 1546–1551. <https://doi.org/10.2105/AJPH.93.9.1546>

Lin, H. (2024). Unraveling Crime Dynamics: A Spatiotemporal Analysis of Crime Hotspots [Ph.D., Kent State University]. In *ProQuest Dissertations and Theses* (3050056182). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/unraveling-crime-dynamics-spatiotemporal-analysis/docview/3050056182/se-2?accountid=9772>

Lindeback, P. (2024). Affordable Housing Communities' Attendance to Resident Well-Being Through Holistic Design [M.F.A., The Florida State University]. In *ProQuest Dissertations and Theses* (3100639174). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/affordable-housing-communities-attendance/docview/3100639174/se-2?accountid=9772>

Liu, K., Zhang, L., Tsou, S., Wang, L., Hu, Y., & Yang, K. (2024). Exploring the Complex Association Between Urban Built Environment, Sociodemographic Characteristics and Crime: Evidence from Washington, D.C. *Land*, 13(11), 1886. <https://doi.org/10.3390/land13111886>

- Liu, Y., Tang, D., & Wang, F. (2024). Research on the Spatial Spillover Effect of High-Speed Railway on the Income of Urban Residents in China. *Humanities and Social Sciences Communications*, 11(1), 236. <https://doi.org/10.1057/s41599-024-02764-5>
- Low, S. M. (2001). The Edge and the Center: Gated Communities and the Discourse of Urban Fear. *American Anthropologist*, 103(1), 45–58. JSTOR.
- MacDonald, J. (2015). Community Design and Crime: The Impact of Housing and the Built Environment. *Crime and Justice*, 44(1), 333–383. <https://doi.org/10.1086/681558>
- Marcuse, P. (1995). Interpreting “Public Housing” History. *Journal of Architectural and Planning Research*, 12(3), 240–258. JSTOR.
- Matsuda, M. (2009). *Local Economic Investment and Crime: Neighborhood Change in Washington, DC* [University of Maryland, Baltimore County].
<http://hdl.handle.net/1903/10025>
- Mawby, R. I. (1977). Defensible Space: A Theoretical and Empirical Appraisal. *Urban Studies*, 14(2), 169–179. JSTOR.
- McFarlane, A. (2019). The Properties of Integration: Mixed-Income Housing as Discrimination Management. *U.C.L.A. Law Review*, 66, 1140.
- Miltenburg, E. (2015). The Conditionality of Neighbourhood Effects upon Social Neighbourhood Embeddedness: A Critical Examination of the Resources and Socialisation Mechanisms. *Housing Studies*.
<https://doi.org/10.1080/02673037.2014.995071>
- Minam, H., & Tanaka, K. (1995). Social and Environmental Psychology: Transaction between Physical Space and Group-Dynamic Processes. *Environment and Behavior*, 27(1), 43–55.
<https://doi.org/10.1177/001391659502700104>

Mohammadi, A., Bergquist, R., Fathi, G., Pishgar, E., De Melo, S. N., Sharifi, A., & Kiani, B.

(2022). Homicide Rates Are Spatially Associated With Built Environment and Socio-Economic Factors: A Study in the Neighbourhoods of Toronto, Canada. *BMC Public Health*, 22(1), 1482. <https://doi.org/10.1186/s12889-022-13807-4>

Moos, M., Vinodrai, T., Revington, N., & Seasons, M. (2018). Planning for Mixed Use: Affordable for Whom? *Journal of the American Planning Association*, 84(1), 7–20. <https://doi.org/10.1080/01944363.2017.1406315>

Museum of Modern Art. (1934). *MOMA Exhibition View* [Photograph].

<https://www.moma.org/interactives/exhibitions/2016/spelunker/exhibitions/3015/>

National Commission on Severely Distressed Public Housing. (1992). *Final Report*. Dept. of Housing and Urban Development.

Newman, O. (1973). *Defensible Space: Crime Prevention Through Urban Design* (3. print). Collier Books [u.a.].

Newman, Oscar. (1996). Creating Defensible Space. In *Creating defensible space*. U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research.

Nguyen, M. T., Basolo, V., & Tiwari, A. (2012). Opposition to Affordable Housing in the USA: Debate Framing and the Responses of Local Actors. *Housing, Theory and Society*, 30(2), 107–130. <https://doi.org/10.1080/14036096.2012.667833>

Nixon, R. (1973, September 19). *Special Message to the Congress Proposing Legislation and Outlining Administration Actions To Deal With Federal Housing Policy*.

Nordvik, V., Turner, L. M., & Friedrichs, J. (2019). Neighbourhood Poverty and Individual Earnings: Tales of Two (Norwegian) Cities. *Tijdschrift Voor Economische En Sociale Geografie*. <https://doi.org/10.1111/tesg.12370>

- Olanrewaju, A., Shia, P. H., & Chu, H. C. (2023). Residential Occupants' Service Quality in Mixed Developments. *International Journal of Housing Markets and Analysis*, 16(2), 236–254. <https://doi.org/10.1108/IJHMA-01-2022-0001>
- Otero, G., Carranza, R., & Contreras, D. (2017). 'Neighbourhood effects' on Children's Educational Achievement in Chile: The Effects of Inequality and Polarization. *Environment and Planning A: Economy and Space*.
<https://doi.org/10.1177/0308518x17731780>
- Pevalin, D. J., Reeves, A., Baker, E., & Bentley, R. (2017). The Impact of Persistent Poor Housing Conditions on Mental Health: A Longitudinal Population-Based Study. *Preventive Medicine*, 105, 304–310. <https://doi.org/10.1016/j.ypmed.2017.09.020>
- Pippi, L. G. (2013). Social Network Interaction and Behaviors on Recreational Greenways and Their Role in Enhancing Greenway Potential [Ph.D., North Carolina State University]. In *ProQuest Dissertations and Theses* (1513591821). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/social-network-interaction-behaviors-on/docview/1513591821/se-2?accountid=9772>
- Plas, J. M., & Lewis, S. E. (1996). Environmental Factors and Sense of Community in a Planned Town. *American Journal of Community Psychology*, 24(1), 109–143.
<https://doi.org/10.1007/BF02511884>
- Podobnik, B. (2002). New Urbanism and the Generation of Social Capital: Evidence from Orenco Station. *National Civic Review*, 91(3), 245–255.
<https://doi.org/10.1002/ncr.91304>

- Polic, D. (2005). Designing Mixed Use Urban Environments: The Social and Environmental Benefits [M.Sc., University of London, University College London (United Kingdom)]. In *PQDT - Global* (1430591541). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/designing-mixed-use-urban-environments-social/docview/1430591541/se-2?accountid=9772>
- Popkin, S. J., Buron, L. F., Levy, D. K., & Cunningham, M. K. (2000). The Gautreaux Legacy: What Might Mixed-Income and Dispersal Strategies Mean for the Poorest Public Housing Tenants? *Housing Policy Debate*, 11(4), 911–942.
<https://doi.org/10.1080/10511482.2000.9521392>
- Price, C. R. (2017). Alleviating Affordable Housing Stigma by Design [Ph.D., The Ohio State University]. In *ProQuest Dissertations and Theses* (2717671865). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/alleviating-affordable-housing-stigma-design/docview/2717671865/se-2?accountid=9772>
- Ramey, D. M., & Shrider, E. A. (2014). New Parochialism, Sources of Community Investment, and the Control of Street Crime. *Criminology & Public Policy*, 13(2), 193–216.
<https://doi.org/10.1111/1745-9133.12074>
- Reynald, D. M., & Elffers, H. (2009). The Future of Newman's Defensible Space Theory: Linking Defensible Space and the Routine Activities of Place. *European Journal of Criminology*, 6(1), 25–46. <https://doi.org/10.1177/1477370808098103>
- Robinson, D. M. (1998). A Comparative Analysis of Environmental Characteristics Related to Criminal Victimization in Activity Areas on Interstate Highway Interchanges and Local

Highway Intersections. *Journal of Security Administration*, 21(1), 45–57. Social Science Premium Collection.

Robinson, J., Bobczko, L., Lusignan, P., & Shrimpton, J. (1985). *Public Housing in the United States, 1933-1949; A Historic Context—Volume II*. U.S. Dept. of Housing and Urban Development.

Rohe, W. M., Van Zadt, S., & McCarthy, G. (2001, October). *The Social Benefits and Costs of Homeownership: A Critical Assessment of the Research*. Harvard University Joint Center for Housing Studies. <https://www.jchs.harvard.edu/sites/default/files/liho01-12.pdf>

Roistacher, E. A. (1987). Housing and the Welfare State in the U.S. and Western Europe. *The Netherlands Journal of Housing and Environmental Research*, 2(2), 143–175. JSTOR.

Rosa, V. A. (2023). Neoliberal Surveillance and Eyes on the Street. In *Precarious Constructions* (pp. 55–76). University of North Carolina Press; JSTOR.

http://www.jstor.org/stable/10.5149/9781469675787_rosa.7

Rosen, E. (2020). The voucher promise: “Section 8” and the fate of an American neighborhood. In *The voucher promise: “Section 8” and the fate of an American neighborhood*. Princeton University Press.

Ruiz-Tagle, J. (2016). The Broken Promises of Social Mix: The Case of the Cabrini Green/Near North Area in Chicago. *Urban Geography*, 37(3), 352–372.

<https://doi.org/10.1080/02723638.2015.1060697>

Russell, J. A., & Ward, L. M. (1982). Environmental Psychology. *Annual Review of Psychology*, 33(1), 651–689. <https://doi.org/10.1146/annurev.ps.33.020182.003251>

Salas Strus, A. (2023). Wolves Devour the Sun: Counter-Terrorism Design in Cities [Ph.D., Universitaet Hamburg (Germany)]. In *PQDT - Global* (2852651467). ProQuest

Dissertations & Theses Global; Publicly Available Content Database.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/wolves-devour-sun-counter-terrorism-design-cities/docview/2852651467/se-2?accountid=9772>

Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing "Neighborhood Effects": Social Processes and New Directions in Research. *Annual Review of Sociology*.
<https://doi.org/10.1146/annurev.soc.28.110601.141114>

Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science*, 277(5328), 918–924.

<https://doi.org/10.1126/science.277.5328.918>

Saraiva, M., & Teixeira, B. (2023). Exploring the Spatial Relationship between Street Crime Events and the Distribution of Urban Greenspace: The Case of Porto, Portugal. *ISPRS International Journal of Geo-Information*, 12(12), 492.

<https://doi.org/10.3390/ijgi12120492>

Scannell, L., & Gifford, R. (2017). Place Attachment Enhances Psychological Need Satisfaction. *Environment and Behavior*, 49(4), 359–389. <https://doi.org/10.1177/0013916516637648>

Schertz, K. E., Saxon, J., Cardenas-Iniguez, C., Bettencourt, L. M. A., Ding, Y., Hoffmann, H., & Berman, M. G. (2021). Neighborhood Street Activity and Greenspace Usage Uniquely Contribute to Predicting Crime. *Npj Urban Sustainability*, 1(1), 19.

<https://doi.org/10.1038/s42949-020-00005-7>

Schively, C. (2007). Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research. *Journal of Planning Literature*, 21(3), 255–266. <https://doi.org/10.1177/0885412206295845>

- Schwartz, A. F. (2021). *Housing Policy in the United States* (Fourth edition). Routledge Books.
- Serpas, R. W. (1998). Common-Sense Approaches With Contradictory Results: Does Defensible Space Curb Crime? [Ph.D., University of New Orleans]. In *ProQuest Dissertations and Theses* (304426725). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/common-sense-approaches-with-contradictory/docview/304426725/se-2?accountid=9772>
- Shah, R. C., & Kesan, J. P. (2007). How Architecture Regulates. *Journal of Architectural and Planning Research*, 24(4), 350–359.
- Sharkey, P., & Faber, J. (2014). Where, When, Why, and For Whom Do Residential Contexts Matter? Moving Away from the Dichotomous Understanding of Neighborhood Effects. *Annual Review of Sociology*. <https://doi.org/10.1146/annurev-soc-071913-043350>
- Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas*. (pp. xxxii, 451). University of Chicago Press.
- Shaw, K. T. (1996). Burglars' Assessments of Territoriality and Burglary Risk From Defensible Space Cues [M.Sc., University of Victoria (Canada)]. In *ProQuest Dissertations and Theses* (304306903). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/burglars-assessments-territoriality-burglary-risk/docview/304306903/se-2?accountid=9772>
- Skogan, W. (1986). Fear of Crime and Neighborhood Change. *Crime and Justice*, 8, 203–229.
<https://doi.org/10.1086/449123>
- Sonta, A., & Jiang, X. (2023). Rethinking Walkability: Exploring the Relationship Between Urban Form and Neighborhood Social Cohesion. *Sustainable Cities and Society*, 99, 104903. <https://doi.org/10.1016/j.scs.2023.104903>

- Stedman, R. C. (2002). Toward a Social Psychology of Place: Predicting Behavior from Place-Based Cognitions, Attitude, and Identity. *Environment and Behavior*, 34(5), 561–581. <https://doi.org/10.1177/0013916502034005001>
- Stroope, J. (2023). Active Transportation, Context, And Community Participation: Engaged Citizens and Destination-Based Walking and Biking [Ph.D., Louisiana State University and Agricultural & Mechanical College]. In *ProQuest Dissertations and Theses* (3122641352). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/active-transportation-context-community/docview/3122641352/se-2?accountid=9772>
- Sukolratanaametee, S. (2006). Pedestrian-Oriented Design and Sense of Community: A Comparative Study [Ph.D., Texas A&M University]. In *ProQuest Dissertations and Theses* (304931950). ProQuest Dissertations & Theses Global.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/pedestrian-oriented-design-sense-community/docview/304931950/se-2?accountid=9772>
- Sun, Y., Tan, S., He, Q., & Shen, J. (2022). Influence Mechanisms of Community Sports Parks to Enhance Social Interaction: A Bayesian Belief Network Analysis. *International Journal of Environmental Research and Public Health*, 19(3), 1466.
<https://doi.org/10.3390/ijerph19031466>
- Talen, E. (2013). Prospects for Walkable, Mixed-Income Neighborhoods: Insights From U.S. Developers. *Journal of Housing and the Built Environment*, 28(1), 79–94.
<https://doi.org/10.1007/s10901-012-9290-9>
- Tesso, G. T. (2013). Challenges of Mixed-Use Developments: An Analysis of Current Mixed-Use Developments in U.S.A [Ph.D., The University of Texas at Arlington]. In

ProQuest Dissertations and Theses (1458632517). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/challenges-mixed-use-developments-analysis/docview/1458632517/se-2?accountid=9772>

The Campaign for Affordable Housing, & Belden Russonello & Stewart. (2004, May). *What We Know About Public Attitudes on affordable Housing: A Review of Existing Public Opinion Research.*

https://www.novoco.com/public-media/documents/tcah_opinion_042104.pdf

Thomas, V. L., Karande, K., & Airani, R. (2024a). Exploring Consumer Sentiment toward Affordable Housing. *Journal of Macromarketing*, 02761467241290795.

<https://doi.org/10.1177/02761467241290795>

Thomas, V. L., Karande, K., & Airani, R. (2024b). Exploring Consumer Sentiment toward Affordable Housing. *Journal of Macromarketing*, 02761467241290795.

<https://doi.org/10.1177/02761467241290795>

Tiesdell, S. (2004). Integrating Affordable Housing Within Market-Rate Developments: The Design Dimension. *Environment and Planning B: Planning and Design*, 31(2), 195–212.

<https://doi.org/10.1068/b2998>

Tighe, J. R. (2010). Public Opinion and Affordable Housing: A Review of the Literature. *Journal of Planning Literature*, 25(1), 3–17. <https://doi.org/10.1177/0885412210379974>

Tighe, J. R. (2012). How Race and Class Stereotyping Shapes Attitudes Toward Affordable Housing. *Housing Studies*, 27(7), 962–983.

<https://doi.org/10.1080/02673037.2012.725831>

- Tiwari, A. (2009). The Politics of Space and NIMBY: The Construction of the Poor and Local Resistance to Affordable Housing [Ph.D., University of California, Irvine]. In *ProQuest Dissertations and Theses* (304857483). ProQuest Dissertations & Theses Global.
- <https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/politics-space-nimby-construction-poor-local/docview/304857483/se-2?accountid=9772>
- Topalovic, P., Carter, J., Topalovic, M., & Krantzberg, G. (2012). Light Rail Transit in Hamilton: Health, Environmental and Economic Impact Analysis. *Social Indicators Research*, 108(2), 329–350. JSTOR.
- Transit Cooperative Research Program. (2002, October). *Transit-Oriented Development and Joint Development in the United States: A Literature Review*. Federal Transit Administration. https://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_52.pdf
- Troost, A. A., Ham, M. van, & Janssen, H. J. (2021). Modelling Neighbourhood Effects in Three Dutch Cities Controlling for Selection. *Applied Spatial Analysis and Policy*.
- <https://doi.org/10.1007/s12061-021-09411-5>
- Unknown. (n.d.). *Pruitt-Igoe Hallway* [Graphic].
- <https://upload.wikimedia.org/wikipedia/commons/6/61/Pruitt-Igoe-corridor-actual.jpg>
- Unknown. (1941). *Williamsburg Houses, Brooklyn* [Photograph]. Gottscho-Schleisner Collection. <https://hdl.loc.gov/loc.pnp/gsc.5a07484>
- Ureña-Carrion, J., Saramäki, J., & Kivelä, M. (2020). Estimating Tie Strength in Social Networks Using Temporal Communication Data. *EPJ Data Science*, 9(1), 37.
- <https://doi.org/10.1140/epjds/s13688-020-00256-5>
- U.S. Department of Housing and Urban Development. (1995). *Transforming Public Housing: Building Community Pride*.

U.S. Department of Housing and Urban Development. (2001a). *A Design-Focused Workbook to Accompany the Affordable Housing Design Advisor.*

<https://www.huduser.gov/Publications/PDF/finalall.pdf>

U.S. Department of Housing and Urban Development. (2001b). *Tools and Strategies for Improving Community Relations in the Housing Choice Voucher Program.* U.S. Department of Housing and Urban Development, Office of Policy Development and Research. <https://books.google.com/books?id=E14TOKYs0nMC>

U.S. Department of Housing and Urban Development. (2005, February). “*Why Not In Our Community?*”: *Removing Barriers to Affordable Housing.*

<https://www.huduser.gov/portal/publications/wnioc.pdf>

U.S. Department of Housing and Urban Development. (2014). *HUD Affordable Housing Student Design and Planning Competition: Planning and Design Criteria.*

https://www.huduser.gov/portal/pdf/IAHCompetition/Planning_and_Design_Criteria_v3.pdf

U.S. Department of Housing and Urban Development. (2020). *2020 Innovation in Affordable Housing Student Design and Planning Competition: Camino de Jacobo in Santa Fe, New Mexico.* <https://www.huduser.gov/portal/periodicals/cityscpe/vol22num3/ch13.pdf>

U.S. Department of Housing and Urban Development. (2024, February 16). *Best Practices: Design of Choice Neighborhoods Housing Projects.*

https://www.hud.gov/sites/dfiles/PIH/documents/ChoiceDesignBestPracticesUpdated2_1_6_24FINAL.pdf

U.S. Department of Housing and Urban Development, & Congress for the New Urbanism. (n.d.).

The New Face of America's Public Housing Award.

https://www.cnu.org/sites/default/files/NewFaceOfAmericanPublicHousing_1.pdf

U.S. Department of Housing and Urban Development, & Congress for the New Urbanism.

(2000). *Principles for Inner City Neighborhood Design.*

<https://www.huduser.gov/Publications/pdf/principles.pdf>

U.S. House of Representatives. (2010). *The administration's proposal to revitalize severely distressed public and assisted housing: The Choice Neighborhoods Initiative: Hearing before the Committee on Financial Services, U.S. House of Representatives, One Hundred Eleventh Congress, second session, March 17, 2010.*

Vale, L. J. (2002). Reclaiming Public Housing: A Half Century of Struggle in Three Public Neighborhoods. In *Reclaiming public housing: A half century of struggle in three public neighborhoods*. Harvard University Press.

Vale, L. J., & Freemark, Y. (2012). From Public Housing to Public-Private Housing: 75 Years of American Social Experimentation. *Journal of the American Planning Association*, 78(4), 379–402. <https://doi.org/10.1080/01944363.2012.737985>

van Weesep, J., & Priemus, H. (1999). THE DISMANTLING OF PUBLIC HOUSING IN THE USA. *Netherlands Journal of Housing and the Built Environment*, 14(1), 3–12. JSTOR.

von Ferber, J. (2022). CPTED and the City: The Impact of Privately Owned Public Spaces on Crime in Manhattan [Ph.D., City University of New York]. In *ProQuest Dissertations and Theses* (2720416475). ProQuest Dissertations & Theses Global.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/cpt>

ed-city-impact-privately-owned-public-spaces/docview/2720416475/se-2?accountid=977

2

Walter, R. J., Acolin, A., & Tillyer, M. S. (2023). Association Between Property Investments and Crime on Commercial and Residential Streets: Implications for Maximizing Public Safety Benefits. *SSM - Population Health*, 25, 101537.

<https://doi.org/10.1016/j.ssmph.2023.101537>

Wang, P., Li, K., & Zhang, W. (2024). China's New Housing Security Model: Evaluation of the Job–Housing Balance in Affordable Rental Housing, Shanghai. *Land*, 13(7), 1034.

<https://doi.org/10.3390/land13071034>

Wekerle, G. (2000). From Eyes on the Street to Safe Cities. *Places*, 13, 44–49.

White, J. H. (1973). *Robert Taylor Homes, Chicago* [Photograph]. National Archives at College Park.

https://upload.wikimedia.org/wikipedia/commons/5/54/ROBERT_TAYLOR_HOMES%20C_A_LOW_INCOME_HIGHRISE_APARTMENT_COMPLEX_INHABITED_BY_BLACKS_ON_CHICAGO%27S_SOUTH_SIDE._THERE_ARE..._-_NARA_-_556179.jpg

Whyte, W. H. (1980). *The Social Life of Small Urban Spaces*. The Conservation Foundation.

Wilcox, P., Neil Quisenberry, Debra T. Cabrera, & Shayne Jones. (2004). Busy Places and Broken Windows? Toward Defining the Role of Physical Structure and Process in Community Crime Models. *The Sociological Quarterly*, 45(2), 185–207. JSTOR.

Williams, A., & Kitchen, P. (2012). Sense of Place and Health in Hamilton, Ontario: A Case Study. *Social Indicators Research*, 108(2), 257–276.

<https://doi.org/10.1007/s11205-012-0065-1>

- Woo, A., & Joh, K. (2015). Beyond Anecdotal Evidence: Do Subsidized Housing Developments Increase Neighborhood Crime? *Applied Geography*, 64, 87–96.
<https://doi.org/10.1016/j.apgeog.2015.09.004>
- Yang, C. (2023). Community Parks, Social Interaction and Place Attachment in Master Planned Estates in Sydney, Australia [Ph.D., University of Technology Sydney (Australia)]. In *PQDT - Global* (3098795628). ProQuest Dissertations & Theses Global; Publicly Available Content Database.
<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/community-parks-social-interaction-place/docview/3098795628/se-2?accountid=9772>
- Yeganeh, A. J., Hall, R. P., Pearce, A. R., & Hankey, S. (2018). A Social Equity Analysis of the U.S. Public Transportation System Based on Job Accessibility. *Journal of Transport and Land Use*, 11(1), 1039–1056. JSTOR.
- Yu, X., Zhong, H., Zhou, T., & Zhou, Y. (2018). Rail Transit Development in Lagging Regions. *Journal of Transport and Land Use*, 11(1), 1003–1024. JSTOR.
- Yue, H., Xie, H., Liu, L., & Chen, J. (2022). Detecting People on the Street and the Streetscape Physical Environment from Baidu Street View Images and Their Effects on Community-Level Street Crime in a Chinese City. *ISPRS International Journal of Geo-Information*, 11(3), 151. <https://doi.org/10.3390/ijgi11030151>
- Zagow, M. (2016). Hybrid to Social Condenser: Competing Approaches to Mixed-Use Development [Ph.D., Illinois Institute of Technology]. In *ProQuest Dissertations and Theses* (1876534524). ProQuest Dissertations & Theses Global; Social Science Premium Collection.

<https://proxy.brynmawr.edu/login?url=https://www.proquest.com/dissertations-theses/hybrid-social-condenser-competing-approaches/docview/1876534524/se-2?accountid=9772>

Zeng, E., Dong, Y., Yan, L., & Lin, A. (2022). Perceived Safety in the Neighborhood: Exploring the Role of Built Environment, Social Factors, Physical Activity and Multiple Pathways of Influence. *Buildings*, 13(1), 2. <https://doi.org/10.3390/buildings13010002>