Washington DC's Transitional Housing Plan:

An Analysis of Externalities and Sources of Neighborhood Opposition

by David Meni

In 2016, DC Mayor Muriel Bowser's administration unveiled a plan to close the DC General homeless shelter and replace it with eight smaller sites throughout the city. Almost immediately, some residents located near the proposed shelter sites expressed disapproval, citing concerns over safety and decreasing property values. We can interpret such reservations as perceived negative externalities of shelters. This paper first takes those claims at face value and finds mixed evidence of whether the proposed DC shelters would produce negative externalities for neighborhoods. The paper then explores other economic rationale for neighborhood opposition to the plan—risk-averse behavior on the part of homeowners. The paper concludes with a proposal for home equity insurance that could potentially balance homeowners' risk aversion and vested interests in neighborhood outcomes.

BACKGROUND

In February 2016, Mayor Muriel Bowser's administration unveiled a plan to close the DC General homeless shelter (DMHHS 2016). DC General was a former hospital that was converted into a shelter for homeless families in 2001 (Jouvenal Samuels and Brown 2014). The facility can hold around 800 individuals, but suffers from unsafe conditions (Jouvenal, Samuels, and Brown 2014). Furthermore, residents of this site are separated from transportation and social services.

Mayor Bowser's plan calls for eight smaller supportive family shelters—one in each ward of the city—with no more than 50 units per building (ICH 2015; Austermuhle 2016).[1] Following best practices of shelter design and programming, the plan establishes small, dispersed sites situated in residential neighborhoods, paired with supportive services for families, like study spaces to aid education and employment (ICH 2015). These supportive housing facilities have little in common with either DC General or the typical images "homeless shelters" often conjure—individuals lining up around the block waiting for a bed for the night. Replacing the larger shelter with more dispersed and supportive facilities is part of a larger effort in Bowser's administration to make homelessness in DC "rare, brief, and non-recurring" (DMHHS 2016).

NEIGHBORHOOD OPPOSITION

Almost immediately after the plan's announcement, some residents located near the proposed shelter sites expressed disapproval. A flyer that circulated near the proposed Ward 1 site referenced "loitering, safety, [and] decreased property values" (Sadon 2016). From an economic standpoint, this disapproval can be characterized as a case of negative externalities. Those who put forth such arguments are often called "NIMBYs"—an acronym for "Not In My Backyard," a term that has since become a common fixture at community meetings.

Racial attitudes may influence such criticisms of public projects. Martin Gilens (1996) found that—among ideology and other personal characteristics—racial attitudes were the most salient explanation of whites' positions on welfare policy. Through this lens, the reasoning behind some residents' opposition to the Mayor's plan, such as increased crime or loitering around the proposed shelter sites, can be viewed as coded statements that reflect longstanding racial stereotypes. This intersection of public attitudes toward race and homelessness is documented by researchers such as Whaley and Link (1998, 200), who found that "[w]hite respondents who considered Blacks to be highly represented in the homeless population were also more likely to perceive the homeless population as more dangerous." Nevertheless, it is difficult to disentangle racial attitudes of residents and economic self-interest. Indeed, for some they are one and the same.[2]

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1   One facility, in Ward 2, is a women's shelter rather than a facility for full families.

2   It should be noted that in the months since the plan's announcement non-locational criticisms of the plan have surfaced, including questions of cost effectiveness and the process with which the sites were chosen. This paper is neither a cost benefit analysis of the particulars of DC's shelter plan nor an exploration of the political process of site selection. Rather, this paper is an exploration of the economic causes of the plans' localized neighborhood opposition. Many residents who originally only opposed the shelters on negative externality

This paper will discuss two different types of externalities that result from both homelessness itself and attempts to solve homelessness. First, there are third-party costs to taxpayers that result from homelessness in the form of increased spending on social services, such as visits to the emergency room. Second, the construction of a new shelter may impose costs on the neighborhood through an increase in crime or parking demand.

A great deal of empirical research exploring the externalities—positive and negative—of proposed and operational homeless shelters has been conducted. Though some studies on shelters similar to those in the DC plan show little to no impact, the surrounding literature on the neighborhood effects resulting from homeless facilities is nonetheless incredibly mixed. Although these perceived negative externalities may fail to materialize, the economic explanation behind them— namely risk aversion on the part of homeowners—can provide useful insight into the political effect of policies with a locational impact. Acknowledging risk aversion as a cause of "NIMBY" behavior also suggests a missing insurance market for home equity valuation. The District may want to explore policies creating guarantee markets for home equity that both moderate NIMBY behavior and acknowledges the concerns of residents.

EXPLORING THE EXTERNALITIES AND NEIGHBORHOOD EFFECTS OF HOMELESSNESS AND SUPPORTIVE HOUSING

Growing literature indicates that the persistence of homelessness itself creates negative externalities on taxpayers in the form of increased spending on social services. A study of homelessness in Seattle showed that homeless persons that were not provided with supportive shelter imposed a median external cost in public spending of $48,792 per person per year (2009 dollars) (Larimer et al 2009). By comparison, one cost estimate of permanent supportive housing services in DC is just over $15,000 per individual (HUD 2010). Furthermore, one cost analysis of permanent supportive housing initiatives in Maine found that greater investment in shelter and services for the homeless is more than offset by cost reductions in healthcare provision, carceral services, and elsewhere (Mondello et. al 2007; Hirsch and Glasser 2008). Similar studies in San Francisco, Seattle, and elsewhere support this claim (Martinez and Burt 2006; KCDCHS 2007; Proscio 2000).

Separate to the externalities of homelessness itself, there exists the externalities that a building—like a shelter—may impose on a surrounding neighborhood. In analyzing the possible external neighborhood effects of DC's shelters, however, it is important to ensure proper comparison with other studies. Mayor Bowser's proposed small-scale, family-style shelters will most likely have a different neighborhood impact than a large shelter like DC General. Moreover, traditional urban homeless

grounds have since shifted messaging toward those broader financial and procedural criticisms.

shelters differ from both DC General and the proposed shelters, as they house more single residents and only provide overnight stays—meaning a line of people requesting shelter often forms outside. The buildings proposed under DC's new plan have more in common with supportive housing services, such as facilities that care for mentally disabled or drug-addicted populations (populations that often overlap with homelessness).

Galster et al.'s (2002) study on supportive housing's impacts on neighborhood crime found that only facilities larger than 53 units create any statistically significant increase in neighborhood crime. As Mayor Bowser's plan is for each site to have no more than 50 units, this finding suggests that replacing DC General with smaller shelters would not increase the negative externality of crime. Research on the existence of other negative externalities of supportive housing is more limited as it is difficult to systematically measure the effects of a facility's non-crime factors. However, property values can be used as a proxy; externalities are capitalized in property values and home sale prices, such that we can approximate the impact of a shelter by looking at the change in home values within a certain catchment area (Greison and White 1989).

The empirical research on property value effects of shelters is mixed, but it does not clearly point to significant third-party costs like those claimed by advocates opposing construction. As Galster et al (2004, 34) report, by the end of the 1980s there was a consensus that "there was no sizeable or statistically significant impact" on property values. However, a handful of studies published in the 1990s threatened this orthodoxy. Colwell, Dehring,

and Lash (2000), for example, studied seven locations in Chicago and found a 10.5-percent reduction in sales prices for homes within view of the sites. Galster and Williams (1994) found a 40-percent decrease in home sales prices within a two-block radius of two supportive housing facilities. However, the same study found that seven other shelters had no net impact on neighborhood property values. The adverse effects of one of the shelters is theorized to have more to do with the specific population in question; though all sites were housing mentally disabled populations, this particular site had tenants with the most disruptive behaviors. Galster and Williams (1994, 476) also point out that the particulars of building design and management have more to do with neighborhood externality effects than the mere presence of a shelter. "Siting, building type, and…tenant allocation procedures," when optimized help ensure that a facility does not impose negative effects on the neighborhood.

More complex models that introduce controls provide a more robust conclusion. For example, Galster et al. (2004) employ a difference-in-difference estimator—which incorporates citywide trends in property values—in their analysis of eleven supportive housing facilities in Denver and find convincing evidence of positive externalities. While the authors do not specifically study facilities for the homeless, the studied facilities support similar populations (e.g., the chronically mentally ill and the developmentally and physically disabled), and are smaller in scale like the proposed DC shelters.

Indeed, three and a half years after announcement, they found that property values were 3.5 percent higher within 1,001

and 2,000 feet of a facility than they would have been in a facility's absence. The authors theorize that this finding most likely results from the fact that the supportive housing facilities were new buildings constructed on formerly empty or poorly maintained lots. Indeed, from a distance of more than 1,000 feet, the new supportive housing facilities could not be distinguished from the rest of the neighborhood. In turn, the reduction in neighborhood blight increased property values. At a closer proximity to a facility, the study found no statistically significant changes in property values. They deduce this finding to be the result of an interaction between both positive and negative externalities associated with the facilities: "At certain distances where both positive and negative externalities are operating they can, in effect, cancel each other out, yielding no net effects on observed sales prices at that range." Thus, the observed negative externalities, such as increased parking demand or the shelter-residents' behavior, decayed quickly with distance from a facility. While positive externalities, such as the appearance of a new building (often on a blighted or vacant property), increasing investor confidence in the neighborhood, and the maintenance provided to supportive shelters may have a "more gradual distance-decay function" (Galster et al. 2004, 48).

Importantly, Galster et al. (2004) performs robustness checks on prior models using the same data and found that an incorrectly specified econometric model could result in a decrease in property values, implying the existence of negative externalities. Thus, though some studies threatened the general consensus that shelters had no net impact on property values, these studies failed to control for important variables that could have affected overall trends in property values.

A clear consensus on the effects of the proposed DC facilities cannot be drawn from the literature. It seems that the effects of a facility rely on a complex intersection of factors, and that studies differ depending on their model specifications and time periods and distances analyzed. Given Galster et al.'s (2004) findings, smaller, well-designed buildings with supportive programming may have little to no impact and perhaps a positive impact depending on neighborhood context. This bodes well for the shelters proposed by DC, which are intended to blend into their respective neighborhoods. Regardless, it is important to explore the origins of the cases where strong neighborhood opposition exists to DC's proposed plan.

THE RISK AVERSION EXPLANATION FOR "NIMBY" BEHAVIOR

Given the mixed literature, the intensity of neighborhood opposition may seem severe. However, part of the opposition may be due to issues of perception – many may apply their conception of a classic "homeless shelter" to these very different facilities. A suitable economic explanation stems from the political economy of the neighborhoods that stand in opposition— some residents who oppose the sites are homeowners, meaning they have a large financial stake in the success their neighborhood.

Fischel (2001, 145-146) points out that high rates of homeownership can fuel opposition to a neighborhood change. For a homeowner, their home comprises "nearly all of [their] nonretirement assets."

Homeownership itself is a peculiar type of product: it is "a high-return, high-risk asset that is held by people who have little ability to diversify that risk." This investment of most of their savings and assets leads homeowners to be highly risk-averse (Fischel 2001). Indeed, one can insure a home against fire or theft but cannot insure against adverse neighborhood effects even though the likelihood of property value decline is more feasible than a fire or any other disaster (Shiller and Weiss 1999). This lack of insurance leads homeowners to be especially wary.

In some ways, this vested interest in neighborhood outcomes can be a good thing; Fischel (2004, 317) points out that homeownership "helps overcome the free-rider problem in public affairs." However, this risk aversion can also create excessive resistance to development (Fischel 2001). Behavioral economics describes the presence of loss aversion where losses are felt about twice as much as a gain of equal magnitude (Laibson and List 2015). Thus, framing a new development—such as a homeless shelter—in terms of loss-inducing negative externalities can create disproportionate backlash against a proposal. This opposition, while preventing negative impacts on homeowners, can impose them instead upon other residents, like renters or in this case, the homeless population in DC. The free rider problem that results from individual neighborhoods rejecting projects like supportive housing shelters has far-reaching costs, from the aforementioned public expenditures that result from a homeless population to the difficult reality faced by homeless residents themselves.

Albert Breton (1973) identified this characteristic of homeownership and uses it to explain the existence of zoning— particularly the utilization of exclusionary zoning codes to limit development (cited by Fischel 2001). Breton sees such heavy-handed zoning as a result of an incomplete insurance market. Since residents cannot insure their home value against declines caused by neighborhood changes, they turn to zoning as "a kind of second-best institution" (Fischel 2001, 145). Given what we know about homeowners, zoning and other kinds of protective behaviors can be seen as an attempt to prevent a large social welfare loss in the absence of a more formalized insurance market.

Risk aversion may cause neighborhood opposition even when the expected value of a proposal is neutral, especially if the literature on project impacts is mixed, as they are with shelters. As Fischel (2001) observes, it is not simply the expected externalities of a proposal that drive homeowner behavior, it is also the potential variance in that outcome. Indeed, Fischel (145) states, "NIMBYism is weird only if you think solely about the first moment, the rationally expected outcomes from development. NIMBYism makes perfectly good sense if you think about the second moment, the variance in expected outcomes, and the fact that there isn't any way to insure against neighborhood or community-wide decline." Therefore, one potential solution to intense neighborhood opposition is to realize this missing insurance market for declines in home equity. Such a market could create a scenario where homeowners are more risk-neutral, which predicts a reasonable amount of opposition to projects with a negative expected value.

HOME EQUITY INSURANCE AS A SOLUTION TO NEIGHBORHOOD OPPOSITION

Land use economists have long discussed the missing home equity insurance market. Though Jason Zweig (2011) termed it "The Greatest Idea Never Sold," there are some difficulties with the implementation of such an insurance policy that have served as barriers to its realization. Unlike other insured products, there is no obvious baseline to trigger a claim. When one's house floods, one can file a claim for flood insurance. However, this distinction is not as clear with home equity. A policy would also have to disassociate changes in price caused by neighborhood or market effects and those caused by a homeowner's maintenance of a property—a kind of moral hazard problem (Shiller and Weiss 1999).

Shiller and Weiss (1999) outline in detail the particulars of a potential home equity insurance market. The central premise of their proposal relies on accurate property value indices for small geographic areas, which limits the aforementioned moral hazard problem. However, this reliance on property value indices necessitates accurate tracking of small boundaries over time, which may create considerable transaction costs.

The Home Value Insurance Corporation (HVIC) is one real-world example of home equity insurance offered by a private company (Smith and Harper 2014). HVIC was founded in 2011 in Ohio and sold equity insurance in three states (Smith and Harper 2014). HVIC failed to remain solvent for more than a year for multiple reasons—chief among them being

the extreme increase in breakeven costs as a result of the crash in housing prices in the 2007-2009 recession (Smith and Harper 2014).

A more relevant example in relation to DC's shelter plan is a public equivalent to home value insurance, with real-world examples in Chicago, IL and Oak Park, IL (Smith and Harper 2014). Oak Park's program is branded as an assurance rather than insurance program:

> Participating homeowners who have been enrolled for at least five years are reimbursed when they sell their home for 80% of the loss incurred if the home was sold for less than the appraised value and if the loss was not due to an extended decline in the metropolitan area. The participating homeowner is not charged any insurance premium and must pay only a $90 fee for the initial appraisal; the program is financed by a small tax levy on all property owners in the village. (Shiller and Weiss 1999, 32)

The program in Oak Park was crafted as an attempt to prevent residential segregation at a time of demographic shifts. Specifically, to prevent re-segregation of neighborhoods that reached a "tipping point" of integration (McKenzie and Ruby 2002).

Understanding why a public project, like a homeless shelter, can create a larger level of opposition than expected is beneficial for policymakers. Though legitimate home equity insurance markets would be difficult to set up and may not be sustainable, municipalities might consider experimenting with publicly run home equity assurance programs. Home equity assurance programs, similar to Oak Park, can be applied more strategically than a private insurance market. A municipality

might assure properties within a reasonable catchment area around a proposed development for a certain number of years and only pay property owners if, controlling for regional and national trends, property values declined. In a way, such a program can be viewed as an inversion of Tax Increment Financing—a public financing mechanism authorized in 48 states (Dye and Merriman 2006).

By understanding the sources of neighborhood opposition, jurisdictions may use home equity assurance as a way of leveraging the neighborhood political economy and thus grease the wheels of their project proposal. Creating greater efficiency in the neighborhood approval process is especially desirable, as solving homelessness requires large-scale solutions, which often generate neighborhood opposition. Incorporating the potential risk of changes in home equity through an assurance program allows city officials to bypass the free rider problem that exists between neighborhoods—where individual neighborhoods reject

certain projects under the assumption that they can be placed elsewhere in the city (Hankinson 2016)—which often results in city-wide inaction on issues like homelessness.

CONCLUSION
The simple act of neighborhood opposition to DC's proposed shelter plan raises a number of interesting economic questions, especially pertaining to negative externalities and the risk-averse behavior of homeowners. Empirical research does not definitively prove that the feared negative externalities, reflected in a decline in property values, actually materialize. However, the expected variance in those outcomes, and the peculiarities of homeownership as an asset suggest an untapped market for home equity insurance. Absent a private sector solution, DC may seek to give some assurance against home value loss as a way of easing some of the neighborhood opposition to their plan.

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