Document Title:	**A Theoretical Underpinning of Neighborhood Deterioration and the Onset of Long-Term Crime Problems From Foreclosures (Working Paper)**
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Introduction: Neighborhoods and the Impact of Foreclosure on These Neighborhoods

Over the past decade, many metropolitan areas went through an extensive territorial expansion through growth in new and revitalized housing. A key aspect of that expansion is that it alters settlement patterns, the location of businesses and travel behavior, all of which work toward restructuring the area. Criminal activities also change as a metropolitan area changes (Brantingham and Brantingham, 1989). Opportunities for crime emerge, disappear, or move as metropolitan areas restructure through growth, revitalization, decline and change. An emerging opportunity for restructuring that may alter crime patterns is playing out in the wake of the current housing foreclosure phenomenon. From a few vacated houses to the complete abandonment of entire neighborhoods, foreclosures have the potential to be a catalyst from which persistent crime patterns can take root. Once crime becomes entrenched in a neighborhood, and as associated social problems set in, it is difficult to reverse.

A geographic concentration of foreclosures affords an opportunity to form new and negative geographies across the landscape. It has been demonstrated that foreclosures are often not randomly scattered across a metropolitan area, nor are they solely in low income neighborhoods, as is usually thought. They are usually clustered as result of predatory lending (Immergluck and Smith, 2005; Kaplan and Sommers, 2009; Crossney, 2010) and mortgage fraud (Fulmer, 2009) that targeted specific neighborhoods. The magnitude of the problem and the long term effects of clustered foreclosed properties at the neighborhood level could have a devastating and systematic impact on nearby neighborhoods, the metropolitan area and the entire region. Our concern is that in areas of concentrated foreclosures, crime will become a primary change agent that amplifies and accelerates the decline of these neighborhoods. We begin this paper with a brief look at what evidence the discipline of criminology has provided as a foundation to build a more comprehensive understanding of the neighborhood and crime dynamic.

Criminology has a long history of looking at the neighborhoods in relation to crime. Some of the most significant studies looked at the context of neighborhoods and the dynamics between the individual and their local environment (Wilson and Kelling, 1982; Reiss and Tonry, 1986; Rosenbaum, 1987; Stark, 1987; Bursik, 1988; Taylor, 1999; Weisburd et al., 2004; Krivo and Peterson 1996; Morenoff and Sampson 1997; Sampson, Morenoff, and Gannon-Rowley, 2002; Fagan and Davies 2004; Weisburd et al., 2004). Entire books have been devoted to the topic (Reiss and Tonry, 1986; Bursik and Grasmick, 1993; Felson, 1994; Snell, 2001; Elliot et al., 2006; St. Jean, 2007; and Wilson, 2007). These works represent an attempt to identify localized geographies (i.e., “places”) to situate criminal activity within to examine the interplay of social, economic and ecological factors from which they are formed. These geographies become a framework for examining human processes. A contributing factor in many of those findings from the above works is properties, unoccupied or not, that become deteriorated and form a context for criminal activity, a context that transfers messages that the place is not safe (Skogan and Maxfield 1981; Taylor, Shumaker and Gottfredson, 1985; Lewis and Salem 1986; Perkins et al., 1990). However, those works also found that deteriorated properties were not the sole or most influential factor in the manifestation of fear of crime. Other socio-demographic factors, interactions, and neighborhood activities were usually more influential. It appears that physical deterioration is a simple indicator of the problems a neighborhood is experiencing. The limitation of these studies, though, is that the analyses were conducted with regard to residents in the neighborhood. Perceptions from outside the neighborhood about safety and fear of crime may be different. Folks living elsewhere do not see the daily occurrences of incivilities and will only have the conditions of the neighborhood and what they may see in the media to base their judgments on. Couple with the perceptions about a foreclosed property in general and a fear of crime from within and without the neighborhood may make it even more difficult to reverse the course of decline in neighborhoods with many foreclosures.

Although physical conditions were an understood correlate with crime-ridden neighborhoods, many of the early works on neighborhoods looked at the structural characteristics within the social disorganization framework of Clifford Shaw and Henry McKay (1942). This theory, and the research that followed, examined the problems associated with the demographic composition of a neighborhood through a focus on individuals. This lends itself to the premise that changing the socio-economic composition of a neighborhood is all that is required to end its chronic problems. Prompted by this long stretch of research, Rodney Stark (1987) wondered how neighborhoods could retain high crime and deviance rates despite a complete turnover in their populations. He observed a decoupling of crime from context in that there was too much focus on the individual and led that seemed to discount environment as having anything at all to do with crime. Stark's research focused on neighborhoods, but only as a sampling frame from which to study the individuals and families living within them. Stark set forth a series of 30 propositions that became the Theory of Deviant Places, the main premise being that there must be something particular about places that works to sustain crime. He identified five essential ecological factors — density, poverty, mixed use, transiency and dilapidation — that will vary and change in magnitude as a neighborhood changes. They also weave together his theory that human and environmental interactions occur in specific places that lead to criminal opportunities and subsequent changes in the levels of economic investment, quality of housing stock, types of businesses and lack of social services. Stark's theory is the basis for this paper's conclusion that areas of concentrated foreclosures, if left abandoned for an extended period of time, will have a higher probability of converting a neighborhood into a problematic "deviant place."

This paper proposes a theory of interaction between the social, economic and ecological settings that could produce long-term crime problems in neighborhoods that are suffering from concentrated foreclosures. It goes further and explores the possibility for accelerated neighborhood decline that may be difficult to suppress, and which may significantly shock the local economy. To do so, we draw on a wealth of research findings from sociology, economics, housing studies, and geography, to expand on a criminological base to make the case for our concern that concentrated foreclosures may ultimately create deviant places and severely impact the progress of the metropolitan areas within which they are set.

The Foreclosure Crisis Within a Framework: A Geographical Hierarchy and Interaction

Foreclosures can have a direct negative impact on neighborhoods which can become acute if concentrated. Several studies have shown that for every house that goes into foreclosure, the value of neighboring properties decreases in value varying between 0.9 and 8.7 percent, and that this decline persists for extended periods of time (Pennington-Cross, 2004, Immergluck and Smith, 2005, Lee, 2008 and Lin, Mae, and Yao, 2009). Other studies indicate that multiple and concentrated foreclosures have cumulative negative effects on housing values that expand in geographic range (Simmons, Quercia, and Maric, 1998; Schuetz, Been, and Ellen 2008). The range of these spatial effects is from an eighth to half a mile in distance.

The spatial effect is important because this negative-value contagion can spread across large sectors of a metropolitan area with serious financial impacts on the government's ability to provide services and maintain the quality of life (Welsch, 2008; Harding, Rosenblatt, and Yao, 2009). It is important to note that foreclosure is an event that occurs on a regular basis. Foreclosures may arise from individual life circumstances such as defaults and bankruptcy due to medical bills, job loss, divorce, or death. When foreclosures occur from events like these they are isolated and scattered about any given metropolitan area with their direct effects on a neighborhood being minimal. Our concern here is that larger national changes in lending or regulatory policy acted as a catalyst that led to an enormous amount of people purchasing houses that were beyond their financial ability and resulted in foreclosure. These foreclosures were regionally concentrated in metropolitan areas and locally in neighborhoods indicating a vertical and horizontal dynamic that must be recognized if we are to understand the effects of the foreclosure crisis.

In a presidential address article to the Association of American Geographers, Lawrence A. Brown (1999) outlined a model for understanding geographic change over time in which global-level processes produce local-level impacts. This model posits a set of global-level circumstances that push down a set of change processes onto regions that varyingly impact their metropolitan areas underneath them. The metropolitan area's social, economic, ecological and political conditions produce variations in the impact of those processes dictate the capacity to withstand or suffer the effects of those changes. This same progression filters down a geographic level and will repeat itself across each metropolitan area and work down to the neighborhood level, which ultimately leads to an uneven modification of neighborhoods and contributes to the restructuring of the metropolitan area. The restructuring that occurs depends on the inter-play between local actors, institutions, culture, economics, and politics that work in concert to mitigate effects from those larger forces over which they have little control (Wilson, 1991). Each neighborhood will react differently. Some neighborhoods will have the wealth, political activeness, education and other resources to withstand the change, while others will not. Both will initiate change, albeit at different levels. Those reactions will vary both within those neighborhoods and in the spatial effect on adjacent neighborhoods. Cumulatively, they will percolate change back up to the metropolitan level, causing it to restructure through changes in development patterns, service provision, and economic activity. If other nearby metropolitan areas experience similar change and restructuring, there may be reverberating effects throughout the region with consequences to the nation.

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Brown's model serves as a very useful framework for which to situate the effects of the current foreclosure crisis and how it impacts neighborhoods. It allows us to represent both the uneven geographic patterns of the housing boom and the subsequent foreclosure fallout across the United States. It also serves as a model for understanding the resulting local-level changes, their push-back, and local jurisdictions' ability to withstand this push back or become victim. See figure 1 for an adaption of Brown's model.

There were several global-level forces at work that led to the current foreclosure crisis. A major factor was the federal government's determination to increase homeownership rates, especially among minorities, in the belief that it presented the most reliable way for average citizens to achieve financial security and to community stability (Olson, 2005; and Bullard, 2009). Over the years, several federal agencies such as the Federal Housing Administration and the federal home loan banks have been created to make home ownership possible as well as homeowners' tax benefits (Doms and Motika, 2006; and Chambers, Garriga, and Schlagenhauf, 2007). The government's determination to increase the rate of homeownership emanates from numerous national surveys of Americans who overwhelmingly indicated that they would rather own a house than rent with many respondents stating that that they believe they should purchase a house a soon as it can be afforded (Rohe, Van Zandt, and McCarthy, 2001). This thrust led to the development of a confluence of several factors at the national-level that would ultimately end up affecting numerous neighborhoods dragging down several metropolitan economies. Factors such as the development of mortgage-backed securities, which provided lenders with massive amounts of liquidity, consumer demand, and the development of new loan products were all designed to meet homeownership goals of government policy, consumer demand and mortgage investors. These products fueled a demand for housing that took place in most metropolitan areas over the late 1990s and early 2000s (Bianco, 2008).

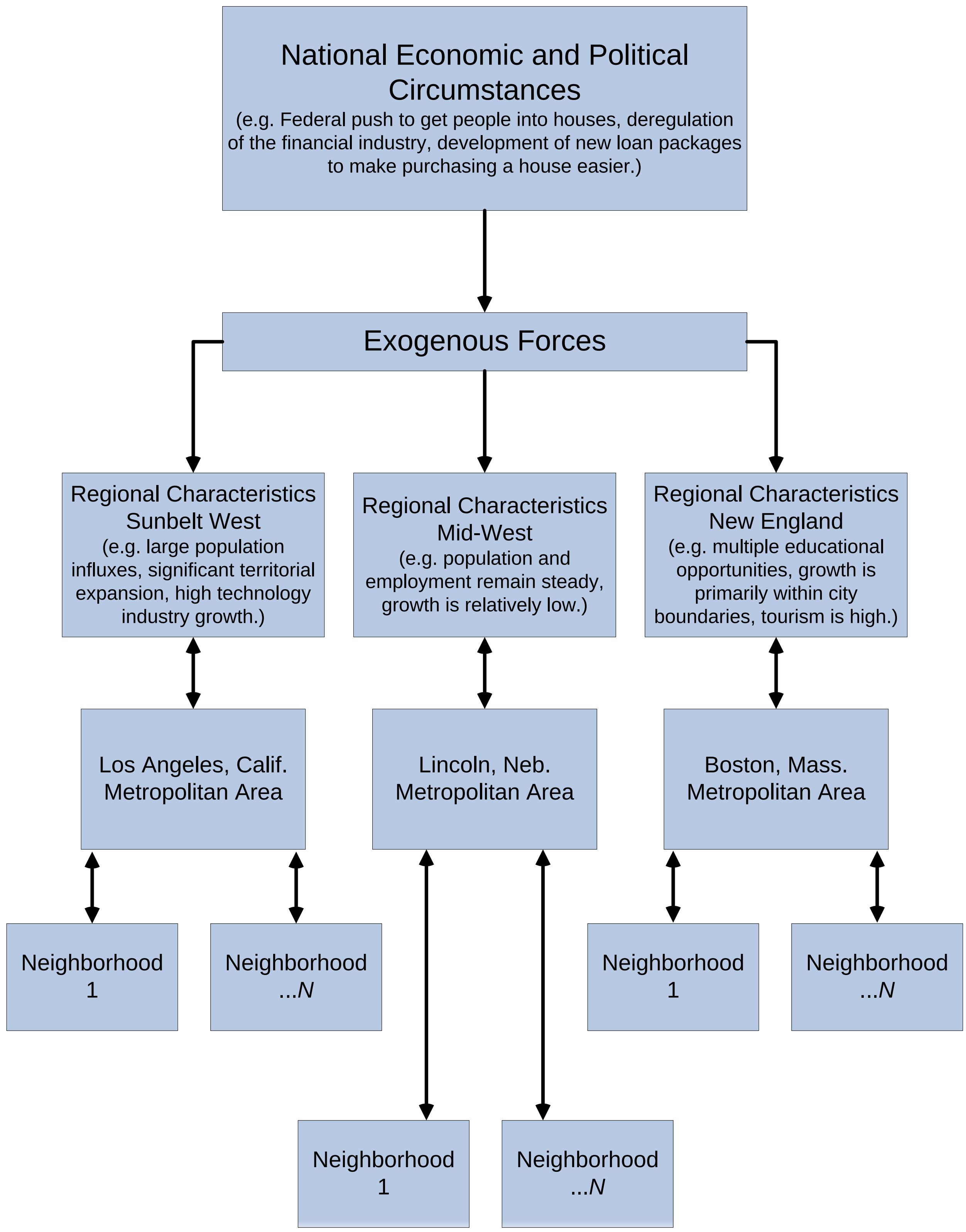

Figure 1: Adaption of Brown's Model Representing Processes Leading to Foreclosure.

Interest rates were kept low as a response to the bursting of the “dot com” bubble, leading to the nationwide availability of low interest financing for purchasing a house and increased consumer demand. As time passed, the availability of those low interest rates, coupled with creative lending packages designed to make homeownership possible for riskier borrowers with less than perfect credit, led to an inconstant and large variation in regional concentrations of new mortgages across the United States, many of which the borrowers could not afford. Some states, and even regions, experienced explosive growth in new construction with mortgages in that wake while others were relatively untouched. States like Florida, Ohio, and Michigan saw this growth within their borders but states like Arizona, California, and Nevada formed an entire region of growth. Underneath those regions and states there was yet more geographic variation across neighborhoods in the metropolitan areas. In the older industrial cities of the north, the growth appeared to have primarily occurred in older inner-city neighborhoods while in the southern sunbelt cities, it primarily occurred in new suburban developments which led to significant territorial expansion of new neighborhoods. The Midwest remained relatively untouched. When the housing bubble collapsed, the geographic patterns of the foreclosures appeared to have mirrored the development patterns during the boom. Between 2006 and 2008, delinquencies in mortgage payments across both prime and subprime loans increased 192 percent (Mallach, 2009), with the bulk of these delinquencies occurring in the areas that saw the greatest growth.

With interest rates at historic lows and flexible loan programs that let almost anyone qualify, nationwide housing policy shifts by the federal government, and deregulation of the financial industry, the stage was set for geographical practices at the local level. Locally, creative loan packages were intensively targeted toward housing submarkets that represented a demographic that was ripe for pushing people into houses (Immergluck and Wiles, 1999, Apgar and Calder, 2005; Wachter, Russo, Hershaff, 2006; Kaplan and Sommers, 2009; Pavlov and Wachter, 2009). Combinations of standard mortgages with secondary loans, lower down-payment requirements, flexible and adjustable interest rates, zero-percent financing, and an increase in the number of third party organizations to facilitate financing were worked to extend financing to more risky, less financially stable borrowers who could not qualify for prime loans (Apgar and Calder, 2005; Welsch, 2008; Fulmer, 2009). It is important to note that it has been recognized that many of the purchasers of houses under these conditions were geographically concentrated, which would later be the same neighborhoods where there were a significant amount of foreclosures (Immergluck and Smith, 2005). Recent research has also shown that mortgage fraud was a significant factor for much of the foreclosure activity that has been occurring as subprime loans were designed and initially targeted at higher-risk borrowers with damaged credit histories but mortgage brokers were incented to place even “prime” borrowers into subprime loans (Fulmer, 2009; Collins et al., 2009; Kaplan and Sommers, 2009). As a further incentive to extend financing to as many borrowers as possible, many these loans were bundled into mortgage-backed securities which theoretically reduced the risk of financial loss from defaulting borrowers. Buyers entering the market at a rapid pace created a substantial demand for housing in many markets, which caused huge price increases in submarkets across neighborhoods in many metropolitan areas. It has been shown that when rapidly escalating housing prices occur, much of the population looks to secure financing that consumes much of their monthly income and is beyond their budgets (O’Sullivan, 2003). The availability of these mortgages fueled a race to purchase a house at any cost, leading borrowers to falsify information to qualify for a loan (discarding whether or not they could afford it) in the belief that if they did not purchase now, they would never be able to afford a home (Fulmer, 2009). This belief was founded on short-sighted assumptions on the part of the borrowers that housing prices would continue to rise and they could either sell the property for a profit or they could simply refinance and get a lower rate to reduce the amount of their income that went toward the mortgage.

Foreclosure, Property Deterioration and Neighborhood Decline

Foreclosures are a regular occurrence across the housing landscape and are usually the result of various personal and individual situations. However, as outlined above, there are instances when larger circumstances cause them to be more numerous and concentrated. Foreclosure is a process, not an event, which most often culminates in the removal of residents from their house due to a default on their mortgage (Giliberto and Houston, 1989). The recognition of foreclosure as a process is key to understanding neighborhood change and the onset of crime. Although a small number of foreclosed properties may not completely disrupt the neighborhood network, their presence can still affect crime by creating opportunities for disorder. The life cycle of the degradation of properties and change that occurs in the neighborhood becomes the backdrop for other structural events taking place in a neighborhood; it is a timeline to which we may pin that change. The question immediately arises about the where the process of neighborhood degradation begins in the foreclosure process. The deterioration of a property from the foreclosure process generally occurs in two stages. Stage one stems from a resident not having enough money to maintain or upgrade their property. Stage two results from the absence of any occupants to take care of the property.

We hypothesize that stage one of the degradation process starts when the family's income starts to be outstripped by the "ballooning" of their mortgage payments. With a pending foreclosure, it is presumed that the occupants have money for little else other than keeping the property and give little thought towards maintenance and investment. The mortgage payment consumes most of the household budget leaving the residents with the diminished financial ability that delays needed home improvements due to normal wear and tear or upgrades to their homes and grounds that could increase the value of the house. Neglecting needed repairs can leave the property looking degraded, reduce its "curb appeal" and reduce its value. A lack of maintenance can lead to larger structural problems in the property making it undesirable for resale, or at least the accumulation of enough repairs the property looks appalling and degraded. These problems may be exacerbated by owners who intentionally damage the house out of spite or to exact revenge for being evicted during the foreclosure process. Once the house is repossessed and is vacant, thieves may cause further damage to the structure by stealing appliances or stripping the walls in search of valuable copper wiring and pipes.

Another factor to consider is the owners' age and income. In an interview on National Public Radio, Joel Kotkin (2010), Distinguished Presidential Fellow at Chapman University, noted that people who bought homes more recently are younger and have incomes at the lower end of the scale. To support this, a study of the effect of macro-economic forces on neighborhoods by Galster and Mincy (1993) looked at male and female youth between the ages of 10 and 25 to control for their early-life decisions on education, marriage, and labor force participation and found that this group may be the most sensitive to changes in the current economic climate. They found that the macro-economic effect of the unemployment rate had a positive effect on neighborhood poverty across all neighborhoods, which is consistent with Brown's model. With the mortgage payment already consuming a significant portion of household income, the remaining funds are likely to be used for every day basic needs such as groceries, transportation, household items and utilities. This is also the age at which many families begin having children, whose care also consumes a substantial amount of income. Foreclosures can be spread across an area for lower counts across range of median ages, however, if mortgage fraud affects both those who obtained subprime loans and those who have sufficient incomes to meet their basic needs and to maintain and improve their properties.

Stage two occurs once repossession takes place and the owner is removed from the property. There is no longer a caretaker to maintain and protect the property, which can accelerate deterioration. A vacant house provides a shelter for illicit activities. Such properties become magnets for trespassers and vagrants, thieves stealing remaining fixtures, partying teenagers, drug users and dealers, prostitutes, or simple graffiti. These activities cause extensive interior damage. Each of these activities excises further damage to the property, making it even less attractive for resale.

Existing networks of cohesion and trust are weakened, and the removal of residents from a neighborhood presents a threat to neighborhood security and stability. Fear of crime becomes a concern to the remaining residents, but the driving force that begins to eat away at social cohesion stems from perceived risk of being victimized from other incidents in the neighborhood (Rountree and Land, 1996). This indicates an increased concern for being victimized and can inflate the perception of the incidence of crime and contribute to a mounting confluence of factors that work against a neighborhood (Skogan, 1986). These effects are recursive and expansive. Perceived risk works against the neighborhood from within by instilling a desire to escape, especially when a crime is committed on a property nearby (Rountree and Land, 1996). Crime now becomes a factor in the desire to move, and many residents do so (Duggan, 1999; Hipp, Tita, and Greenbaum, 2009). Minor crimes committed against the exterior of the vacant property and/or surrounding properties will contribute to general signs of abandonment, and elevates the risk of minor crimes against other homes in the immediate vicinity (Johnson et al., 2007). Fear also works against a neighborhood from the outside. Perceptions from people living in other neighborhoods are such that they would not consider visiting the neighborhood, let alone move there. A single foreclosed property that falls into disrepair can be seen as an anomaly in areas where stable residential patterns would provide enough informal social control to inhibit increasing levels of crime. However, there are likely other factors that simultaneously occur with the change in physical appearances that lead to the perceptions of safety and levels of crime in a neighborhood.

As noted above, a single foreclosed property can have a negative impact on the values of adjacent properties. The first step in neighborhood decline from the foreclosure is from the ripple effect of a stigmatized property and/or neighborhood, a stigma that is related to the perception the neighborhood is less affluent, crime-ridden, and not a desirable place to live. This is a recursive process that begins to lower the level of satisfaction with a neighborhood, which reduces remaining homeowners' willingness to invest in their properties through maintenance and upgrading (Grigsby, 1963; Galster and Hessler, 1982). Remaining residents see no point in spending money on their property because they will likely not recoup it. The sales of these foreclosed properties can be protracted, leaving the house vulnerable and costly to other residents as well as the city (Baxter and Lauria, 2000). The presence of foreclosed houses make it much more difficult for neighbors to sell their property. The city is also adversely impacted because it must spend money and resources to deal with issues that occur on those properties, yet it does not receive any tax revenues from that property because no one is living in it. The decline in tax revenues is compounded because every foreclosure reduces the value of nearby houses (Immergluck and Smith, 2005). Couple the geographic impacts of decreases in property values with the degradation of the properties themselves, and concentrations of foreclosures within a neighborhood can, in a short period of time, have negative repercussions for adjacent neighborhoods.

Once crime has moved into a neighborhood, it becomes increasingly difficult for a neighborhood to return to a state of stability without going through a complete renewal because businesses in the area are undergoing change as well. The number, quality and types of business change in the negative, contributing to a growing picture of a less than desirable neighborhood. The effect on business from numerous and clustered abandoned and degrading properties from foreclosure does not occur through slow change that results from the usual invasion succession process where residents slowly change the demographics. Rather, there is an abrupt break that can quickly cause businesses to close leaving many of them vacant and left to deteriorate. A process that instantaneously removes entire populations within a neighborhood and downgrades property values opens the door to the less affluent; social networks bring delinquents in with them who cause problems even though the troublemakers do not physically reside there (Browning et al., 2004). Changing perspectives on housing quality, living conditions and the quality of life in a neighborhood begin to emerge that can affect actors from a wide range of organizations, weaving a very complex set of interactions that can seal the fate of a neighborhood. See figure 2. These housing submarkets arise because an interplay of owners, developers, builders, investors, brokers, lenders, insurers, public agencies, tourist companies, and even criminals, form general opinions of a neighborhood that sway decisions on what, if any, activity they should engage in within that neighborhood. A declining neighborhood can lead many of these actors to withdraw resources from the neighborhood, which can diminish maintenance, upgrading, new construction, and business startups, especially if residents and businesses abandon it as well. Other actors, such as owners of less desirable businesses associated with increased levels of criminal activity, may fill these voids, creating more opportunities for the engagement in crime that finds an equilibrium between payoff and risk.

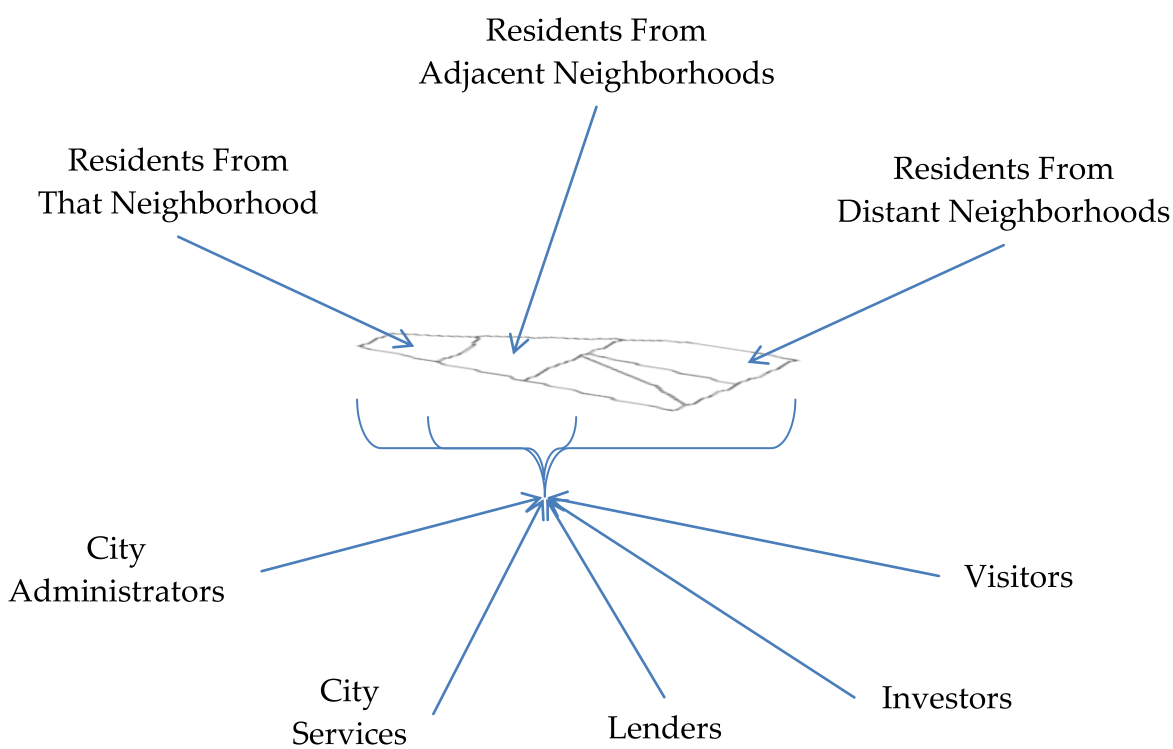

Figure 2. Spectrum of Perspectives on a Neighborhood Condition and Quality of Life

The catalyst for much of this change is the fear of crime and the perceived risk of victimization. These perceptions stem from the combination of ingrained knowledge of the quality of life and visual cues of deteriorated conditions, which are essential elements that drive decisions about whether to visit or avoid a neighborhood.

Neighborhood Decline, Fear of Crime and Perceived Risk of Victimization

Fear of crime is a complex issue that psychologically affects people in ways that likely require more than just the look of the surrounding conditions of the neighborhood. This fear can have a profound impact on neighborhoods, including driving off more affluent would-be residents, more desirable businesses, investment and government attention. Several studies have found that the relevance of the physical environment appears contingent on a range of nonphysical factors and the type of crime or crime-related outcome in question (Garofalo, 1981; Hartnagel, 1996; Rountree and Land, 1996; Taylor and Harrell, 1996; Wilcox and Jones, 2003). That is, fear of crime is dependent on a multitude of socio-demographic factors that contribute to that fear. But the condition of the physical environment plays a role in the completeness of that.

In a study on fear of crime, Rountree and Land (1996) examined individual and contextual effects on fear of crime for burglary and perceived risk. They found that a house left unoccupied for short periods of time (i.e., occupants are out attending to other things) contributes to fear of burglary in particular but also to a perceived risk of being victimized. As houses begin to be vacated and unoccupied for extended periods, the remaining residents begin to worry about their own houses being burglarized or being otherwise personally victimized. This fear prompts the resident to consider moving. While this fear is affected by other socio-demographic factors, the study found that the effect of unoccupied properties remained significant. Another finding from this work is that previous incidents of burglary had strong impacts on perceived safety. Based on this finding, two things that might prompt flight from a neighborhood that is experiencing an increasing number of foreclosures could occur. First, property crimes other than burglary at the abandoned houses can serve to as a mechanism to ratchet up fear because the neighborhood crime rate is rising through minor infractions. Second, if burglars become more aggressive and begin to target occupied houses, it increases the actual risk that another occupied residence will be next. This fear causes flight in those who are able, and distrust among those who are forced to remain. Social cohesion in the neighborhood is further diminished because residents are fewer and spaced farther apart physically, which reduces the opportunity for the casual conversations and social interactions that bind a community together.

These are elements of Wilson and Kelling's (1982) classic Broken Windows Theory which posits that minor crimes in a neighborhood will eventually give way to more significant violent crimes. Under this version of the theory, visibly neglected and damaged properties are a signal to offenders that residents in the neighborhood are apathetic and do not care to deal with even minor property crimes. It is also a signal to offenders that the people who live in the neighborhood do not care enough about their own properties and would not intervene to stop delinquency should it occur.

Although these principles still hold true, the message sent to criminal is different. In the instance of multiple and geographically concentrated abandoned properties, a different message is sent to offenders, which is that there is no one there, or very few, living in the neighborhood to care for and manage the properties. That is, neighborhoods plagued by empty, foreclosed houses send the signal that the neighborhood has been abandoned and that the properties are ripe for unrestrained and undetected criminal activity. This has significantly different implications for disorder and crime. Abandoned, neglected and obviously vandalized properties can accelerate negative neighborhood change. Neighborhoods reach their threshold of unattractiveness at an accelerated rate through decline and start to become impoverished because people who can afford to live elsewhere do so (Galster, 2005). This is because the physical signs of disorder send a signal that the neighborhood is unsafe (Galster and Hessler, 1982; Shultz and Tabanico, 2009) and higher income families that can afford to choose prefer newly built, renovated or well-maintained homes, while the less affluent have no choice but to live in whatever housing stock is left and often less desirable because of its physical condition (Ratcliff, 1949; Lowry, 1960; Fisher and Winnick, 1961; Grigsby, 1963). Grigsby et al. (1987) and Galster (1993) later recognized that larger macro-forces and micro social processes of social ills played a role in causing neighborhood change in conjunction with physical deterioration.

Although neighborhood decline is normally a slow, lengthy process that occurs over several decades, the foreclosure crisis could very well expedite this decline, bringing with it the acceleration of the onset, intensification, and supplanting of crime for some time to come. As neighborhoods fall further into disrepair, crime is only the immediate impact. Long-term trends could undo the significant progress that many metropolitan areas have made in the last few decades in terms of neighborhood quality of life and economic progress. Rountree and Land (1996) and Hartnagel (2001) both discussed how perceptions of crime impacted perception of cities. Hartnagel found that a negative relationship between perception of crime and satisfaction with a neighborhood was persistent when controlling for social activity and neighborhood cohesion variables, meaning that residents were not enthusiastic about their neighborhoods despite interactions with other residents. These negative feelings about their neighborhoods morph into negative feelings about the city as a whole as a decent place to live, particularly in women and in those who are less educated. The researchers found however that social activity and cohesion in a neighborhood was not impacted. Despite that finding, those social bonds may not be strong enough to prevent residents from leaving because their concerns lie more with safety. This finding adds support to our hypothesis that as foreclosures occur and property crimes begin to escalate residents, will be inclined to move elsewhere. And if their feelings of dissatisfaction extend to the city as a whole, the total combined effect from all neighborhoods can eventually percolate up to the entire metropolitan area and stunt progress due to outmigration, loss of revenue, and provision of social services for the problems that are left behind. Geographically concentrated neighborhoods that contain residents who are not making a lot of money to maintain their properties and lack of investment creates the potential for the development of "the bad side of town." That side of town usually comes with an increase in crime which is difficult to undo and attempts to rebuild the neighborhood are costly and time consuming.

Foreclosed Properties and Neighborhood Decline

High-crime neighborhoods do not simply sprout from the ground like a malicious weed. They are places that have evolved into being high-crime neighborhoods over time from conditions that fostered a downward trajectory. As a neighborhood works toward the downgrading stages of the life cycle, crime begins to move in and acts as a reinforcing factor, both hastening and deepening neighborhood decline which in turn leads to more violent crime, an indicator long-term crime problems. Importantly, urban geographers, sociologists, and criminologists have been studying this phenomenon for decades to understand the process as well as predict its occurrence. Two of the most well-known and best-researched theories of neighborhood change are the invasion-succession model and the neighborhood life cycle model.

The process of change occurs in every neighborhood. The process from a stable neighborhood to deteriorated one is neither normal nor geographically random. This is particularly true given the fact that in neighborhoods with larger rate of foreclosures, a slow change of demographic (i.e., invasion-succession process) does not occur; rather, there is an outright venting of the previous cohort of residents that leaves entire neighborhoods instantly abandoned. Early research on the social effects of foreclosures suggests that they can alter the course of neighborhood change, especially in the racial composition of a specific neighborhood. For example, through price deflation in New Orleans, Baxter and Lauria (2000) found that foreclosures contributed to a racial transition of neighborhoods by increasing opportunities for lower-income black households to move into formerly white-occupied homes. This is the invasion-succession model and the most well-known model of neighborhood change. This model bases neighborhood transformation on changes in racial composition ratios. Originally formulated by the Chicago school sociologists (Park, 1952; Duncan and Duncan, 1957; and Taeuber and Taeuber, 1965), the invasion-succession model was based on plant and animal ecology research, and viewed competition and conflict amongst populations as natural within neighborhoods. This fits with the earlier work that Stark (1987) indicated was decoupled from the environmental context. Under this model, members of a new population “invade” a neighborhood and slowly take over the neighborhood and the residential composition begins the process of succession into a new demographic. Importantly, this invasion-succession model is a key component in social disorganization, and works to explain how neighborhood change leads to neighborhood decline and higher levels of crime. Our concern lies with the fact that in many of the neighborhoods where foreclosure is occurring there is no invasion-succession process taking place, rather there is a venting of the previous cohort of residents that leaves entire neighborhoods instantly abandoned. Under this model, members of a new demographic “invade” a neighborhood and are either repelled or “take over” the neighborhood and begin the process of succession. This model has been a key component in social disorganization, and helps to explain how neighborhood change leads to neighborhood decline and higher crime levels. This model only captures the structural changes of neighborhoods and does not adequately address changes that occur in the physical environment. More occurs, though, than just a change in demographics from processes that steer the cycle of neighborhood change. As the demographics change so do the social, economic and physical factors that all contribute to a disruption of the social cohesion the neighborhood by breaking the network or even preventing it from occurring at all.

In the Baxter and Lauria (2000) study, the researchers document the invasion-succession process whereby neighborhood demographic changes take place because economics act as a filter for levels of affluence because the more resources a family has, the more places they can choose to or not to reside (Muth, 1969). Baxter and Lauria describe the process of how more affluent residents select newer housing because they can afford to, and that due to density and congestion in the city they seek the cheaper new construction in the suburbs. The less desirable urban housing that is left behind is divided into multiple rental units; owners of these units will reduce maintenance to maximize profit. Since the less affluent occupy these units, the businesses that served the previous, more affluent residents either go out of business or move to more profitable locations and are replaced by less desirable businesses such as check cashing services, tattoo parlors, low-end liquor stores and bars, convenience stores and title pawns, that cater to transient and lower income populations. Basic needs met by services such as hardware stores, full-service grocery stores and restaurants, child care facilities, pharmacies, and banks, become scarce or are located farther from these less affluent areas, increasing costs to get to. It is not that there is a decrease in the overall availability of businesses and services that is the problem, rather, it is a change in business types from those that are desired to those that are not (Greenbaum and Tita, 2004; Small and McDermott, 2006). This change leads to decreased land values, less political will to resolve entrenched problems, and a lack of interest in investing for revitalization.

To illustrate these simultaneous changes, figure 3 is an adaption of a neighborhood life cycle model from Megbolugbe, Hoek-Smit, and Linneman (1996) that shows the typical process of neighborhood change, but contains elements of criminal activity that are occurring as changes are taking place. It shows changes in socioeconomic factors that lead to homeowners or investors (this includes special interest groups) to make decisions about whether to maintaining and/or upgrade their property or move out of neighborhood entirely. These decisions ultimately lead to changes in the state of the houses or other buildings that are part of a neighborhood.

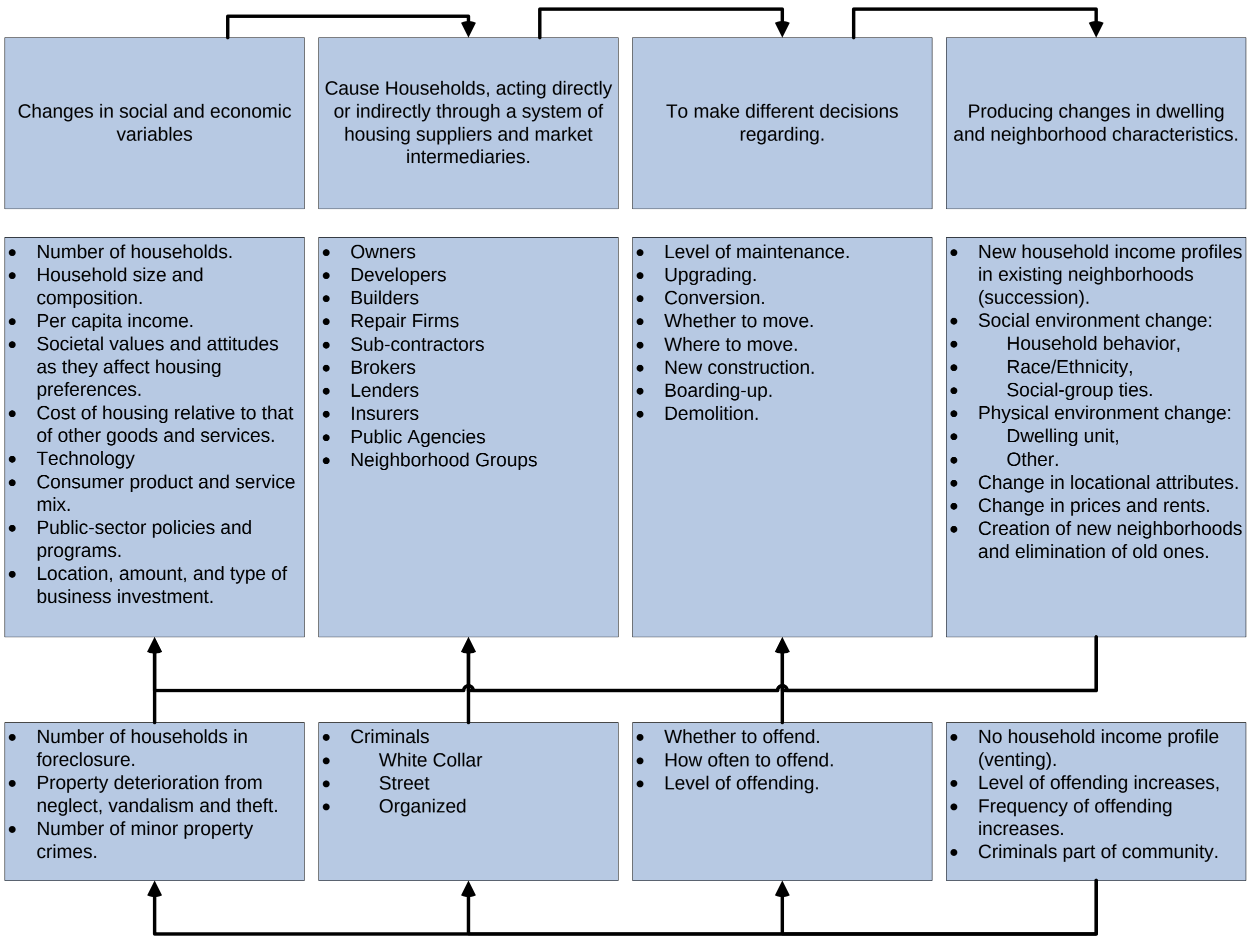

Figure 3: Adapted Framework for Neighborhood Change

This model can also be a framework for following the decisions of criminal on where to offend and what type of offense to commit. According to the Broken Windows Theory, negative changes in the property send signals to offenders that it is possible to offend with little intervention. Therefore, criminals become one of the actors who have an interest in the neighborhood. These lead to their decisions about where to offend and what types of offences they can get away with in those neighborhoods based on their stage of existence. The acts of criminality simultaneously impact the decisions of the homeowners with regards to their perception of crime and the risk of being victimized. People begin to leave and neighborhood demographic profile changes. Businesses follow suit and the economic profile changes. All the while, the physical aspects of the neighborhood deteriorate and criminals alter their perceptions of what offenses they can engage in and the frequency and severity of offending escalates and becomes entrenched. This domino effect fits within several of the propositions of Stark with regard to the development and existence of deviant places.

There are several things to note in relation to the foreclosure phenomenon currently underway across the nation. First, in many metropolitan areas, the foreclosure of houses is occurring in the suburbs and exurbs that have a different geography than the urban core, which exacerbates problems related to proximity and scale. Regardless of whether they are in urban, suburban or exurban communities, the concentrations of less educated, lower income residents and lower value degraded housing stock, lead to a range of social problems and increase the difficulty in successfully combating them. Therefore, as the number of foreclosed houses degrade as a result of abandonment, the likelihood that social issues will emerge increases. Second, unlike what has been described by other researchers, many of the foreclosed properties are new houses and developments that became available to the less affluent because of cheap credit and the availability of creative loan programs that allowed them to obtain mortgages they previously would not have qualified for. It should be noted that the availability of these mortgages was the result of a complex set of factors, including pressure by the government and consumer groups to increase residential mortgage lending to economically disadvantaged and highly risky borrowers, consumer demand for easy terms and fast approvals, unscrupulous mortgage lending professionals, and Wall Street's insatiable demand for mortgage-backed securities. It is too soon to judge whether people who lost their homes to foreclosure will be willing — or able — to purchase homes again, or whether they will remain renters who become more transient as they try to avoid or escape neighborhoods where low rent and mixed-land use combine to form less than desirable conditions and higher crime rates.

As an alternative to understanding how crime moves into a changing neighborhood, the use of a neighborhood life cycle model can be a useful for describing the simultaneous change of both social and contextual processes. This model can serves as a backdrop for stages of human, physical, and economic conditions that neighborhoods go through over time. The model postulates a series of stages that neighborhoods go through over time, but the assumption is that it occurs slowly over time. We argue that mass and clustered foreclosure can alter this model in the sense that stages are advanced through quickly because the households in the neighborhood have little or no population in them and therefore no guardian to protect and invest in them; if the initial construction quality of these houses is poor or average, it could be accelerated even more. In either case, once a neighborhood has reached the downgrading stage, crime begins to move in and acts as a reinforcing factor, both hastening and deepening neighborhood decline. Even more important, once crime has moved into a neighborhood, it becomes increasingly difficult for a neighborhood to return to a state of stability without going through some form of complete renewal. It takes years and a lot of investment of time, money, and care to reverse the entrenchment of crime and other social ills in a neighborhood. Given this potentially bleak outcome, research and policy discussions are essential to stem the tide of the foreclosure problem and plan ways to rebuild in its wake.

Conclusion: Long-Term Problems for Neighborhoods and the Metropolitan Area

This is not the first time the United States has experienced a wave of foreclosures. However, the suddenness, magnitude, and geographic concentration this time around are not like we have seen in the past (Bianco, 2008). Susan M. Wachter (2009) of the Wharton School of Business at the University of Pennsylvania testified before Congress in July, 2009 stating that "Today according to the MBA, the foreclosure rate is 400 percent, four times the historical average and the highest it has ever been since the Great Depression."

Because of the severity of the current foreclosure problem, we are compelled to put forward a theoretical foundation from which the research community can test and build upon. Our theory employs a comprehensive examination of neighborhood conditions with regards to changes in social processes, in particular, with regard to the onset of crime. It makes use of a neighborhood change (life cycle) model that accounts for both structural and physical changes as disrupters of social cohesion; cohesion that is vital to the prevention of crime. With each successive stage in the life cycle, there are commensurate changes in population, land use, population density, and condition of housing that stem from the original quality of construction (Grigsby, 1963; Galster, 2005). This is the original point for the fate of a neighborhood. With a particular housing policy that dictates type and quality of construction based on who the target population is, there could be little reason to upgrade the properties and that they could degrade at accelerated paces if not maintained due to the qualify of the materials used and the amenities initially provided. Neighborhoods are at some stage within the life cycle, exactly where they are and how fast they progress towards decline depends on numerous factors related to land use, housing type, property conditions, population demographics and economic conditions. Factors such as quality of initial home construction, residential housing type, demographic class, and residential mobility help determine the rate at which a neighborhood declines. Normally, neighborhoods with poor initial construction quality, predominance of multifamily housing, families with low income, and high residential mobility are more likely to decline quicker than neighborhoods with well built single family homes and stable populations (Grigsby, 1963; Metzger, 2000; Galster, 2005). The reason stems from local housing policy that initiated construction of housing for a demographic that would neither stay in those households very long nor have the finances to invest in upgrading the property. Therefore, the households deteriorate because they are not even maintained. It should be noted that this can occur in any quality of housing stock if there is no one living in or willing to maintain or upgrade the property. Our research will not examine changes in the broader long-term context of the neighborhood life cycle, but rather account for where the neighborhoods are in a particular stage in order to discuss the implications for the onset of crime problems.

Research by Tita, Hipp, Greenbaum and Petras (2004, 2006, 2008) has shown that crime serves as an engine of change in neighborhoods for both residents and businesses. In relation to foreclosed, abandoned and degrading properties this does not occur through the usual invasion succession process of one household at a time (Baxter and Lauria, 2000) but rather as a starting point. Instead of new houses being marketed in good condition to affluent buyers, foreclosed homes are less desirable due to deterioration from neglect, vandalism, weathering, and the stigma that seems to occur from a property that has been foreclosed and people who can afford to live elsewhere will do so. The foreclosure of numerous houses, the abandonment of entire neighborhoods, and the change of business types can have a larger effect on the metropolitan area leading to a cycle of further decline as tax revenue is lost. All the while, there is increased demand for fewer resources to provide for the maintenance and prevention of neighborhoods from declining further. For example, the reduction in zoning officers being able to visit the properties needed to evaluation or being able to board-up and secure house that have been abandoned from being vandalized. This can lead neighborhoods that are at their thresholds of attractiveness to accelerate downward becoming an impoverished neighborhood (Galster, 2005). Galster further points out that this occurs due to other changes within the metropolitan system that leads to systemic changes in these neighborhoods as a result. Changes that can lead to neighborhoods of concentrated poverty and the many problems associated with them beyond crime, such as reduced educational opportunity, increased costs for basic goods and services, weak political economy, poor employment options, and lack of good transportation options that prevent them from building any kind of wealth (Kneebone and Berube, 2008.) All of which have a drag on the aggregated metropolitan economy clearly indicating that it is best to prevent neighborhoods from sliding into a distressed state because they are the building blocks.

As other changes occur throughout a metropolitan area, those forces take advantage of clusters of foreclosed houses. This fundamentally changes the urban fabric — and usually not for the better. A new set of socially disorganized neighborhoods are created just as others have been revitalized. A main concern becomes the long-term condition of these neighborhoods. Weisburd et al. (2004) and Sharky (2008) demonstrate that some neighborhoods have long-standing trajectories of crime problems that never go away despite residential turnover. Sharky refers to this type of phenomenon as “intergenerational contextual transmission” where the racial and economical status of a neighborhood is transferred from one generation to the next. The economic status is reflective of the human and physical condition of the neighborhood. Both studies demonstrate that once a neighborhood becomes distressed, the resulting problems become long-term. These studies reflect an examination at the micro level (i.e., street blocks) that directly relates to the scales of where foreclosures hit the hardest, the neighborhoods where entire streets contain abandoned houses.[1] The mounting number of these rapidly declining areas can be geographically dispersed across the entire metropolitan area that can alter traditional patterns of crime and social disorganization that can affect suburban areas as much as the inner city. Further, crime and other social ills associated with socially disorganized neighborhoods can spillover into adjacent neighborhoods (Hakim and Rengert, 1981; Barr and Pease, 1990, Hesseling, 1994). This can lead to the potential demise of these neighborhoods as well. This new spatial structure of problem neighborhoods presents new challenges for law enforcement, social services and other government agencies that attempt to deal with the emergent problems. The impacts are seen not only through changes in crime patterns, but in housing, land use, public transportation, police practices, and other economic activity patterns that have also been altered. The long-term consequences become chronic because the time required to change this built environment is slow and people become entrenched in place. People can not simply be moved or displaced. Infrastructure changes or upgrades require careful planning, significant financing, and commitment to follow through because these changes are time consuming if they are to be done correctly. To revitalize a neighborhood, governments, businesses, and residents need to be assured of stability and require strong indicators that the neighborhood will not slide back into

[1] Ann Fulmer presented a case study in Atlanta at the NIJ meeting on Mortgage Fraud, Foreclosures, and Neighborhood Decline of a single fraudster that identified one house that systematically led to nearly all of the houses on the block being vacated from foreclosure. Within eight years, the neighborhood downgraded from a life cycle stage of stable to becoming thinned out, abandoned and vandalized to the point that no one wanted to purchase those houses.

disorganization before they invest any effort in becoming part of a neighborhood and community.

There appears, as we have laid out, a wealth of research from multiple disciplines to make us believe that the issue of foreclosures and the resulting neighborhood decline and onset of crime merits scientific attention. Research testing this theory will have real policy implications in understanding the processes that foreclosures can instigate, as well as the processes that lead up to them. It is hoped our work will garner interest to examine the impacts and generate research to prevent future social ills related to foreclosures.

There are many questions yet to be answered from processes yet to play out:

- What are the long-term outcomes from this trend?
- Will there be large-scale changes in future crime trends?
- Will adjacent neighborhoods decline to create suburban ghetto areas?
- What will the impact be on children growing up in these rapidly declining foreclosure neighborhoods?
- Will children be more likely to suffer academically and socially as they are forced to move from their established social fabric?
- Will abandoned neighborhoods be replenished with new residents anytime soon?
- If they are replenished, what sorts of demographic and social changes will the new residents bring?

Of course there are a host of other questions that will be of great importance. But, questions like these need to be answered because the damage from this wave of foreclosure crisis may do significant damage outward from neighborhoods and upward to the metropolitan area that could very well drag an entire region down. As the model from Brown shows, and foreclosures at the neighborhood level does as well, the linkages between the local and national levels operate in both directions. The push downward by the federal government to get people into homes and financial institutions deriving the mechanisms to make purchasing a house much easier, resulted in devastation at the local level. That devastation, especially concentrated, manifested itself enough to hurt the financial vitality of several metropolitan areas and percolated up to put the entire nation in a state of crisis, even when it was only a few regions of the United States that has the greatest impact. While the federal government works to shore up the process that led to this crisis, the state and local levels are grappling with far more problems that have resulted in the wake of the foreclosure crisis, one of which is crime; a problem that can be particularly costly in terms of lives, property and the economic vitality of a metropolitan area.

Gjerstad and Smith (2009) noted "...a financial crisis that originates in consumer debt, especially consumer debt concentrated at the low end of the wealth and income distribution, can be transmitted quickly and forcefully into the financial system." When concentrated in neighborhoods where households with lower levels of income are consumed by debt from their houses, houses become vulnerable to foreclosure which can undo all the progress a metropolitan area has made over the last few decades. It is best, then, to prevent homebuyers from purchasing a house that they will be unable to afford and have to abandon, setting off a downward trend of housing deterioration and increase social ills that are hard to defend against once they have become deep-rooted and become “deviant places.”

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Disclaimer

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