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Assessing housing market pressure : a resident survey of South Bethlehem, Pennsylvania

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Assessing Housing
Market Pressure: A
Resident Survey of
South Bethlehem,
Pennsylvania

May 2007

**Assessing Housing Market Pressure:
A Resident Survey of South Bethlehem, Pennsylvania**

by

Zane Kratzer

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ABSTRACT

The following research paper is an attempt to define the issue of gentrification and its relevance to development policy for South Bethlehem, Pennsylvania. A door-to-door survey of randomly sampled residents of South Bethlehem was conducted during a 6 month period from late-2006 to early-2007. The findings suggest that gentrification may be an inappropriate term to describe the current revitalization efforts in South Bethlehem. Although widespread issues of residential displacement due to an influx of higher socioeconomic residents are not apparent, there seem to be specific characteristics within the sample that indicate whether a household is likely to be experiencing high levels of financial pressure. The strongest determinant to financial pressure appears to be location in the core section of the South Bethlehem neighborhood. Residents who live near the central business district and/or along the eastern boundary of Lehigh University show the highest scores on a pressure level scale. Other factors that are significantly related to pressure level are length of residence, housing tenure and race. The segment that tends to be experiencing higher levels of pressure is a more transient population, less likely to own, and therefore, more subjected to the lower standards of living that high levels of residential mobility often add. These groups also tend to be newer arrivals to the neighborhood, non-White residents, and younger households, with higher numbers living in their households. Policy recommendations are focused on providing resources for these residents in the core section of the neighborhood. Suggestions are also given to use this research as a baseline indicator for future studies of the same parcel sample, in order to track demographic changes over a period of time.

INTRODUCTION

The Lehigh Valley is one of the fastest growing regions in Pennsylvania. From 1990 to 2000, the region's population growth ranked fourth in the state among fourteen metropolitan statistical areas¹. Located in close proximity to both Philadelphia and New York City, and claiming lower housing prices than both of these metropolitan housing markets, which include Northern and Southern New Jersey, the Lehigh Valley has continued to show potential for residential and commercial growth. Although development trends still mirror the national trends for suburban sprawl, at least one of the Valley's more urban neighborhoods, South Bethlehem, has recently been the center of public attention for its future development potential.

The Lehigh Valley is typically defined as the Allentown/Bethlehem/Easton metropolitan statistical area. The population for the total metropolitan area was 637,958 in 2000. The City of Bethlehem accounted for 71,329 of the total population as the second largest city in the Lehigh Valley, behind Allentown, Pennsylvania. Just south of the Lehigh River, nestled into the side of South Mountain, is the South Bethlehem section of the city – a small, urban neighborhood of approximately 31,000 residents, compared to the 71,329 for the entire Bethlehem area. South Bethlehem is currently most well-known in a regional context as the home of Lehigh University. This small city, though, has a storied history surrounding the key role it once played in the nation's economic history during the steel boom of the 1900's.

Even though the steel industry has long since faded from the region, recent focus on South Bethlehem has shifted to the redevelopment of the former Bethlehem Steel land.

¹ "Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania". The Brookings Institution Center on Urban and Metropolitan Policy. 2003

On the 160-acre site adjacent to the Lehigh River, the Sands BethWorks Corporation was granted a license, in December 2006, from the State of Pennsylvania to develop a casino and retail development on the now vacant steel production facility². The BethWorks Now development is expected to improve the local tourism market by immediately increasing the visitation to the area. The job creation created through the construction process and ongoing operations of the casino also has the potential to stimulate the local housing market.³

Prior to the BethWorks casino proposal, and certainly following its initial stages, the Southside has experienced an increase in private investment in both commercial and residential markets. The business districts along East Third and Fourth Streets have continued to experience an increase in newer businesses over the past decade. The Banana Factory, at Third and New, marks the region's first fully designated artist studio workspace, including a storefront gallery that is used for many purposes. The renovation of a former steel building, adjacent to the Banana Factory, into loft apartments and the home of the new "Starters Riverport Restaurant and Bar" has also hinted at the areas renewed commercial potential. Various pockets of private real estate development, including new townhouses going for four times the price of adjacent, dilapidated buildings, have caught the attention of many local politicians, community advocates, faculty and students of area schools, and small business owners on the Southside. *We've seen this some where before, haven't we? What is it called? Oh, yes – gentrification, right?*

² For full documentation on the Sands BethWorks plan visit '<http://www.saveoursteel.org>' for an image gallery of the proposed model and a news archive covering the entire planning process.

³ For full impact report on the Sands BethWorks plan visit 'http://www.pgeb.state.pa.us/lir_Sands.htm'

Gentrification is a buzz word that various groups have recently linked to the Southside. Whether the private developer, who stands to gain from the increased spending power of a higher socioeconomic resident base, or the community advocate, who warns against potential displacement of long-time Southside residents, gentrification has caught the attention of local policy makers and residents alike.

In brief, gentrification is a dramatic shift in a neighborhood's demographic composition toward better educated and more affluent residents (Freeman, 2004). The term itself has been connected to many issues of social equity in urban space, and it carries with it certain undertones of racial and cultural tension, especially since the urban class of gentrifiers has long been recognized as a mostly white, middle-class demographic and those who continually face the threat of residential displacement in the face of gentrification have long been defined as a low-income, minority population - the most affected has historically been low-income, inner-city, African-American households.

The South Bethlehem neighborhood's demographic, in a regional context, shows a higher concentration of low-income, minority populations than surrounding suburban areas. Recent demographic shifts have brought in newer residents of Hispanic origin. It is no surprise that new townhouses selling in the upper-200's across the street from the future BethWorks site and next door to dilapidated working class dwellings, have sounded the alarms of gentrification and the looming threat of displacement. However, it is important not to get carried away with the hype of gentrification before carefully understanding what it is.

The fact about gentrification is that there has been very little empirical research done on this subject. What is even more problematic, in the context of South Bethlehem, is that gentrification, up until very recently, has been considered solely a symptom of demographic trends in large metropolitan areas. The empirical research documenting the effects of gentrification in small cities, such as Bethlehem, is next to impossible to track down, and it is still unclear whether gentrification is the appropriate term to describe the future revitalization process of South Bethlehem and other urban centers in the Lehigh Valley.

Recent studies on gentrification from a local perspective, conducted by Lehigh Economics Professor Todd Watkins and one of his students, Katherine von Seekamm, have concluded that an economic analysis of the recent trends in housing prices⁴ and rental rates⁵ does not provide clear evidence for indicators of gentrification. The general findings suggest that prices are appreciating all over the Lehigh Valley, and that South Bethlehem has not necessarily been the recipient of an influx of higher income residents seeking the amenities of more compact, urban neighborhoods. In fact, the general trend in the Valley is still for sprawl development and the rapidly appreciating prices of suburban homes.

As mentioned before, the Lehigh Valley was ranked fourth in the state with a 7.2% population growth. Interestingly, though, 2nd-Class Townships, or suburban areas,

⁴ "An Economic Analysis of Gentrification: South Bethlehem, Pennsylvania", Katherine von Seekamm, Lehigh University Undergraduate Thesis.

⁵ "On the Existence of Gentrification in Southside Bethlehem as Expressed in Rents". Todd A. Watkins and M. Garrett Roth, The Martindale Center, Economic Notebook, August 2005.

experienced 17.4% population growth from 1990 to 2000⁶. Cities in the Lehigh Valley, including the South Bethlehem area, only grew in population by 0.7%. Even more revealing is that the region lost young adults but added seniors during the 1990s. The recent population trends, according to the 2005 American Community Survey, done by the Census Bureau, suggest that the City of Bethlehem has experienced a 4% decrease in population, from the 2000 figures of 71,329 to the current population level of 68,144. Gentrification does not necessarily mean population growth at a regional level, but we would expect to see more growth in the cities compared to the suburbs where this social phenomenon is most likely to be occurring. Such findings suggest that more research is needed before we can make any assumptions about the nature of gentrification in South Bethlehem. Therefore, a full review of previous literature on gentrification may shed more light on this social phenomenon and may help us to decide upon its relevance as a future public policy issue.

LITERATURE REVIEW

Gentrification is a relatively new social phenomenon that has caught the attention of geographers, sociologists, urban planners and policymakers in recent decades. Spurred on by a changing demographic shift back to urban reinvestment from the suburban sprawl that began in the 1950's, gentrification has become a major force shaping urban neighborhoods since the 1970's, even in the midst of the continuing trend for sprawl. This demographic shift has been argued by the proponents of gentrification as a possible solution to problems facing older central-cities, mainly the plight of concentrated

⁶ "Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania". The Brookings Institution Center on Urban and Metropolitan Policy, 2003

poverty. Some watchdogs of the gentrification process, however, argue that the displacement of disadvantaged households is inevitable (Kennedy and Leonard, 2001).

For the purpose of this research it is important to identify specifically what we are looking for when we use the term gentrification. There are many competing definitions, and thus the word has become quite misunderstood over the years. In a 2001 Brookings Institute Report on gentrification, Maureen Kennedy and Paul Leonard claim that “gentrification is a politically loaded concept that generally has not been useful in resolving growth and community change debates because its meaning is unclear” (Kennedy and Leonard, 2001). I will attempt to clarify some of this misconception behind the terminology, and attempt to find the most appropriate application of the gentrification debate for South Bethlehem.

Defining the Gentrification Debate:

As mentioned above, gentrification can be defined as a dramatic shift in a neighborhood’s demographic composition toward better educated and more affluent residents (Freeman et al., 2004). As its name suggests, the term gentrification was originally used to describe the residential movement of middle-class people, or the urban gentry, into low-income areas of London in the mid-1900’s (Zukin, 1981). At its core, gentrification is primarily a social phenomenon that deals with demographic shifts in urban environments (Vigdor, 2001; Freeman, 2004). Some researchers have focused on the social and economic causes that create these demographic shifts (Smith, 1987; Zukin, 1991; Hamnett, 1991), while others have been more concerned with identifying the

characteristics of this “new urban class” that chooses to move back into urban neighborhoods (Ley, 1986; Rose, 1984).

More comprehensive approaches define gentrification as not just a social change, but also a physical change in the housing stock and an economic change in the land and housing markets (Smith, 1987). This orientation allows us to see a far more reaching effect that the gentrification process can have on an urban environment. From this perspective, “any adequate explanation of gentrification must cover both aspects of housing and residents” (Hamnett, 1984). Gentrification brings a change in social composition of an area, while also changing the nature of the housing stock in terms of housing tenure, real estate prices and quality of condition in the existing buildings and land.

More recent definitions have expanded the debate to include residential displacement as a key element of gentrification. Kennedy and Leonard consider gentrification as “the process by which higher income households displace lower income residents of a neighborhood, changing the essential character and flavor of that neighborhood” (Kennedy and Leonard, 2001). They define three key features of their definition in that gentrification *requires the involuntary displacement of lower income residents*. Involuntary displacement is considered the movement of any households due to any non-just-cause evictions, rapidly rising rents, or increases in property tax. The second feature to their definition is that their must be a *physical, as well as a socioeconomic, change*. Thus, an upgrade in housing stock serves as a visible form of gentrification. The third feature of their definition is that it *changes the character and flavor of the neighborhood*. This aspect of gentrification introduces questions about the

racial and cultural tensions that exist when new residents move into a neighborhood and alter the nature of goods and services that had once been provided.

There are others still who use the term gentrification synonymously with the term inner-city revitalization (Ley, 1986). This, however, assumes that most forms of urban redevelopment are by nature a form of gentrification, neglecting the specific demographic and cultural changes that were used to define the term gentrification to begin with.

Recent studies have tried to clarify some of these misconceptions, and Kennedy and Leonard spend some time defining *what gentrification is not*. It does not automatically occur when higher income residents move into a lower income neighborhood (Kennedy and Leonard, 2001). If the middle-class in-movers are of too small a scale then there will be no major effects on the low-income population. Also, if there are plenty of vacant buildings and land, then redevelopment may be able to occur without the process of gentrification. Likewise, economic development does not imply gentrification. Certainly the nature of the economic development is a major factor. We will look at this more closely when we get to the theoretical explanations for gentrification. Before deciding on what aspects of gentrification to focus on for the purposes of this study, we must look closer at its key elements.

Potential Outcomes:

Defenders of gentrification have argued for the positive social and economic benefits of bringing middle-class residents back into impoverished inner-city neighborhoods. An influx of higher income residents into an area will increase the local tax base (Vigdor, 2001; Hampson, 2005; Kennedy and Leonard, 2001) which provides

the opportunity for neighborhoods to obtain better public services (Freeman, 2004). Safer streets, better trash pick-up, and increased law enforcement (Hampson, 2005) are just a few of the advantages of this shift in tax revenues. Increased tax revenues may also provide local governments with the ability to lower tax burdens for poor residents (Vigdor, 2001). Gentrification, by nature, increases real estate values and equity for homeowners (Kennedy and Leonard, 2001), which may provide low-income and minority homeowners with the potential for social and economic mobility.

The changing demographics of a neighborhood will provide new investment capital in housing, retail and cultural services (Freeman, 2004). The increased spending power of a higher socioeconomic resident base creates new incentives for commercial and retail services which ultimately provide jobs for neighborhoods lacking sufficient employment opportunities for its indigenous population (Vigdor, 2001). While housing costs may increase along with this shift, the proponents of gentrification argue that increased job opportunities and reduced tax burdens counteract the effects of rising housing expenses (Vigdor, 2001).

Gentrification has also been proposed as a solution to racial segregation (Hampson, 2005). If gentrification occurs without the threat of displacement there is an opportunity to increase socioeconomic, racial, and ethnic integration in urban neighborhoods (Freeman, 2004). Even more importantly, this process of integration has been considered essential in order to decrease the urban concentration of poverty (Vigdor, 2001; Kennedy and Leonard, 2001). The evolution of more heterogeneous neighborhoods may potentially eliminate the concentrated poverty that is thought to diminish the life chances of the poor in depressed neighborhoods (Wilson, 1987). Some

also suggest that poor households are more likely to exit poverty themselves than to be replaced by a nonpoor household (Vigdor, 2001). The assumed benefits of gentrification have led some policymakers and government officials to actively support this demographic shift by making the attraction of middle and upper-middle income residents back to their cities a leading priority, to revitalize the tax base.

Concerns about the negative side effects of gentrification have typically been centered on the debate of residential displacement. Although some researchers have suggested that the demographic shifts of changing neighborhoods are due to natural succession within the housing market (Freeman, 2004; Vigdor, 2001), it is hard to ignore that the threat of displacement casts a large shadow of suspicion and fear over the gentrification debate. Some argue that the very nature of gentrification is involuntary displacement of renters, homeowners, and local businesses, along with increasing rents for renters and business owners (Kennedy and Leonard, 2001).

Another potential negative outcome can be seen in terms of class and racial resentments between in-movers and the indigenous population of a neighborhood. In many aspects of our historical economic development, residential segregation occurs with the support of public and private sector institutions (Kennedy and Leonard, 2001). Gentrification has been argued by some opponents as a continued form of institutional racism which breeds new forms of residential segregation, in the same way that urban sprawl and the resulting 'white flight' created a history of segregated neighborhoods that peaked in the mid-1900's.

As previously mentioned, gentrification can change the flavor and character of a neighborhood (Kennedy and Leonard, 2001). A loss of original residents, and the

locally-owned, small businesses that provided their goods and services, has an impact on the unique cultural and ethnic institutions once provided by that neighborhood. Many times these are the aspects of urban neighborhoods which attract certain middle-class residents into neighborhoods to begin with. Some oppose gentrification from the perspective of anti-corporate, anti-consumption activism. Since developing neighborhoods have historically seen small, independent businesses replaced by larger chain stores and regionally dominant business enterprises, the gentrification process has been linked to a process of economic and social inequality. Some local advocates claim that we will see a similar trend with the BethWorks development, where chain stores and non-locally owned franchises will eventually create a strain on the small businesses along the East Third and Fourth Street business districts.

The gentrification process, in equilibrium, may be able to provide enough benefits to residents to counter increased costs and other financial burdens. However, problems arise when low-status households experience increased housing costs “without sufficient compensation in terms of increased income, and without discernible changes in self-assessed housing unit quality, public service quality, or neighborhood quality” (Vigdor, 2001). Gentrification can impose great financial and social costs for residents in any neighborhood. If development is to be equitable then decision-makers must anticipate these potentially harmful effects. What seems to be certain is that rapid gentrification brings more problems than does slow but steady revitalization (Kennedy and Leonard, 2001). Therefore, it is important to develop preventative measures and policy that can provide equitable development for all residents and businesses in a gentrifying neighborhood.

Indicators of Gentrification:

There has been extensive research over the past few decades to identify potential indicators of gentrification. Past research has found significant income differentials between gentrifiers and the displaced (LeGates and Hartman, 1981). Some measure of housing prices and/or rental levels is also an important indicator (Marcuse, 1986). The combination of income and rent indicators appears to be much more satisfactory though, in that census tracts with significant increases in both measures are clearly targets of gentrification (Schaffer and Smith, 1986).

Other studies have suggested that education and occupation serve as better indicators of gentrification. The use of rents alone may miss new arrivals who are homeowners, apartment owners, or condo owners. In terms of monitoring changes in socioeconomic status in a neighborhood, the three major indicators of social status - education, occupation and income - are highly correlated and arguably serve as appropriate indicators for gentrification. However, empirical studies done in Canadian cities indicate that income is not as sensitive to demographic changes as education and occupational distinctions in separating out social classes (Ley and Mercer, 1980). There are certain situations where empty nesters, young artists and college students, may not immediately show up as an increase in income although they change other aspects of the social environment. Education is an important variable because it represents the changing cultural capital of the new class of in-movers.

Preconditions for Gentrification:

Beyond the potential indicators of the gentrification process, the literature suggests that there are certain preconditions that must be present in order for this social phenomenon to be likely to take place in a geographic area. Gentrification has typically been studied in large metropolitan areas. There is little evidence that this process looks the same, or if it is even relevant, in smaller metropolitan areas. A neighborhood that is dilapidated, depopulated, yet still essentially attractive (Hampson, 2005), may provide a breeding ground for gentrification, but there must also be the presence of gentrifiers to begin with. As sociologist Chris Hamnett explains it, “a pool of new middle class potential gentrifiers is a necessary pre-requisite for gentrification to take place. So is the existence of a stock of potentially gentrifiable areas and houses” (Hamnett, 1991).

We can see gentrification wherever there are key social and economic phenomena such as changing demographics towards a higher socioeconomic resident base and shifts in consumer preferences towards urban lifestyles (Ley, 1986), professional clustering in cities to provide services for the gentrifiers (Freeman, 2004), and a history of disinvestments that creates ripe opportunities for reinvestment, such as suburban sprawl and the impact of ‘white flight’ that leaves inner-city neighborhoods full of potential for redevelopment (Smith, 1987).

Another important precondition is the presence of a tight housing market. Tight housing markets are considered areas where “housing prices are high, housing is in short supply compared to job growth, and housing appropriate for the needs of workers is not located near jobs” (Kennedy and Leonard, 2001). Another aspect of limited supply is where there is not enough space for redevelopment, which can be determined by

examining the vacancy rate in an area. Neighborhoods with high vacancy rates will lower the effects of displacement (Vigdor, 2001). Lower vacancy rates will reduce the supply for developable properties and thus, make the competition for affordable housing in attractive neighborhoods even tighter, increasing the potential for gentrification.

Theoretical Explanations:

Assuming the conditions for gentrification are ripe, there are many competing causes and explanations for why gentrification occurs. Much of the theoretical work on the topic has focused on two opposing fields of theory, a production-side approach and a consumption-side approach. The work of Neil Smith has been most closely related to the production-side approach and his theory on the rent gap, “the gap between the actual capitalized ground rent (land value) of a plot of land given its present use and the potential ground rent that might be gleaned under a ‘higher and better’ use” (Smith, 1987). In other words, gentrification is most likely to occur in areas experiencing a large gap between actual and potential land values. According to a production-side approach, gentrification is the product of a history of disinvestments that creates ripe opportunities for reinvestment. The movement of capital to the suburbs along with the continual depreciation of inner city capital eventually produces the rent gap (Smith, 1979).

Critics of the production-side approach claim that it overemphasizes the production of gentrifiable properties, or properties where Smith’s rent gap exists, while underemphasizing the consumer preferences of an urban class of gentrifiers. David Ley’s work has focused mostly on the consumption-based approach, as an alternative to Smith’s rent gap theory. Ley focuses on the role of gentrifiers, or the ‘class in

emergence' as he terms it, as an important determinant of where and when gentrification is likely to occur. From a consumption-based approach, gentrifiers are not just attracted to areas that have a significant amount of gentrifiable properties, but are also attracted by certain cultural and architectural amenities that urban neighborhoods must provide in order to be targeted for gentrification. Many gentrifying neighborhoods have a historical significance to them, and still consist of attractive and architecturally interesting properties.

Also, the form of economic development that happens in a city, mentioned previously, is an important part of producing this class of gentrifiers. Job growth in the white-collar service sectors of urban downtowns leads to the production of professionals, managers and other white-collar workers who then provide the demand base for housing re-investment in the inner city (Ley, 1986). For the most part, this is why gentrification has been limited to certain large metropolitan areas, and even within these cities, only certain types of neighborhoods have experienced gentrification.

Chris Hamnett argues that a more comprehensive explanation of the causes of gentrification must consider both sides of production and consumption. On one hand, the disinvestments of the inner city have produced the possibility of capital reinvestment. The role of builders, developers, landlords, mortgage lenders, government agencies, and real estate agents all play a crucial role in producing a gentrifiable market. However, Hamnett argues that Smith, and other production-side theorists, underemphasize the role of the gentrifiers. "Gentrification without gentrifiers does not exist" (Hamnett, 1991). Hamnett's integrated theory of gentrification considers both the existence of a rent gap and the supply of potential gentrifiers. Referring to Table 1, where there is no rent gap,

gentrification is not likely to occur. Where there is a rent gap, but no potential gentrifiers, gentrification once again is not likely to occur. When there is a supply of potential gentrifiers, there must be inner-city demand by a section of the “new class” of gentrifiers. When the two elements, a rent gap and a supply of potential gentrifiers with a demand for the inner-city, are present the process of gentrification is most likely to occur (Hamnett, 1991). Hamnett leaves it up for debate on whether or not the presence of a class of gentrifiers with inner city preferences is enough of a condition to produce gentrification even without the presence of a rent gap in any available neighborhoods.

Table 1: Integrated Theory of Gentrification⁷

	<i>Rent gap exists</i>	<i>No Rent gap exists</i>
<i>No potential gentrifiers</i>	No gentrification	No gentrification
<i>Supply of potential gentrifiers exists</i>		
No inner city demand	No gentrification	No gentrification
Inner city preference by a section of the 'new class'	Gentrification	Gentrification?

A Problem with the Language:

Regarding the situation in South Bethlehem, it appears that some of the literature on gentrification would suggest that this area does not necessarily exhibit some of the conditions that are common to this social phenomenon. This leads us to believe that there might be a problem with the language, in that we are using gentrification to discuss other issues of urban revitalization.

⁷ Recreation of Hamnett’s “Conditions for gentrification schema”, Hamnett, 1991.

The consumption-based approach emphasizes the role that gentrifiers plays in this process. By nature, the urban amenities that gentrifiers usually seek are typically located in large metropolitan areas. It is questionable to assume that a smaller city like Bethlehem could compete with the cultural amenities in large urban centers like New York and Philadelphia, in order to attract a significant number of this 'new class' to the region. Lower housing prices alone may not be enough to attract significant residential and commercial development to the area.

As suggested earlier, a certain type of economic development is usually needed to support this type of demographic shift. Large metropolitan areas with downtown, white collar service-sector development are most likely to experience some form of gentrification. What we are experiencing in South Bethlehem is definitely commercial development, but it is an entertainment-based development which is not likely to support the type of jobs that would attract middle-income residents to reside in South Bethlehem.

Likewise, gentrifiers are typically attracted to neighborhoods with historical significance and a supply of attractive, architecturally appealing houses. It is arguable that South Bethlehem fulfills the historical needs, with its industrial heritage, but most of the housing stock was built to house the workers of Bethlehem Steel. There is a limited supply of architecturally significant housing that is mostly found in large urban centers. It is also important to keep in mind the current demographic trends mentioned above: the cities of the Lehigh Valley continue to experience an increase in low-income, minority households, the region is losing its younger population, and development in suburban areas exceeds inner-city revitalization efforts.

The theoretical analysis up to this point suggests that gentrification, or at least a rapid influx of higher socioeconomic residents, may not be the most likely social phenomenon that will face South Bethlehem in the years to come. This does not limit, however, the fact that South Bethlehem is still in the midst of some form of urban revitalization that deserves our full attention in the form of continued research and policy agendas. From this point on we will attempt to focus on various issues of revitalization that pertain to South Bethlehem, with attention to the fact that gentrification may not be the best term to describe the current redevelopment of the Southside.

Studying the Impact of Revitalization in South Bethlehem:

What aspects of neighborhood revitalization are relevant to the research in South Bethlehem? Is displacement the key issue here? Displacement appears to be the main concern of local community activists – as is common in most neighborhoods where this issue becomes a ‘hot topic’. Recent literature on displacement studies (Freeman, 2004; Vigdor, 2001) suggests that there are inconclusive results on whether or not changing demographics are the main cause of residential displacement. The claim is that low-income families move just as much in gentrifying areas as they do in non-gentrifying areas. Freeman claims that low-income households are 15% less likely to move in gentrifying neighborhoods than in non-gentrifying neighborhoods. The reasons given to account for this are that older neighborhoods typically have a high turnover rate anyway. What we are seeing is the natural succession of the housing market, not displacement (Freeman, 2004; Vigdor, 2001). These assumptions, however, tend to underestimate the impact of appreciating housing markets, since low-income households tend to move a lot

anyway. The goal should not be to maintain the general trends, but to improve upon them.

If rising costs are connected to neighborhoods that are experiencing revitalization, then we must ask the question of why displacement would not occur in some redeveloping areas while it proliferates in other areas. There is documentation that suggests certain policy interventions such as homeownership programs, rent regulations and other government subsidies limit the rate of displacement (Hampson, 2005), but there are also various individual responses to increased burdens. Some residents may begin inviting friends and family to move in to their houses to help cover increased expenses. This is sometimes known as doubling or tripling up. Other residents may be willing to make agreements with their landlord that they will do extra work on their homes in order to maintain an affordable rent. Another reason could be that people are forced to devote more of their income to housing expenses, or take on extra jobs to cover increased costs.

Whatever the individual response is, these adjustments suggest a decreased standard of living for low-income households that are attempting to 'hold on' in the face of rising housing costs. Even Freeman's study suggested that increased rent burdens, total proportion of household income that goes to paying monthly rent, were still problematic in gentrifying neighborhoods. The average rent burden for poor households living in gentrifying neighborhoods, where rental increase was significant, was 61% during the study period, in contrast to a lower 52% for poor households living outside of gentrifying neighborhoods (Freeman et al., 2004).

If the ultimate question we are asking is – *do some forms of urban revitalization harm the poor?* - we must also broaden our understanding that displacement may only be

a side effect of other neighborhood changes that cause households to adjust for increasing housing costs. In the event that residential displacement is not occurring at an alarming rate, various revitalization efforts still have the ability to decrease the living standards of poor households due to increased housing costs, where families lose out on expendable income as a larger percentage of household income goes towards rent, taxes and local goods and services which begin to cater to a higher-class clientele.

Therefore, for the purposes of this study, *the key phenomenon we are looking for can be represented by financial burdens, or market pressures, on homeowners and renters, regardless of whether the potential for displacement is present.* Most of the literature that has been reviewed thus far is concerned with the displacement issue, but they study the impact of displacement after the fact. This study attempts to define the financial characteristics of households before displacement is inevitable and, therefore, is concerned with identifying the characteristics of the local population that are most vulnerable to increasing financial pressures.

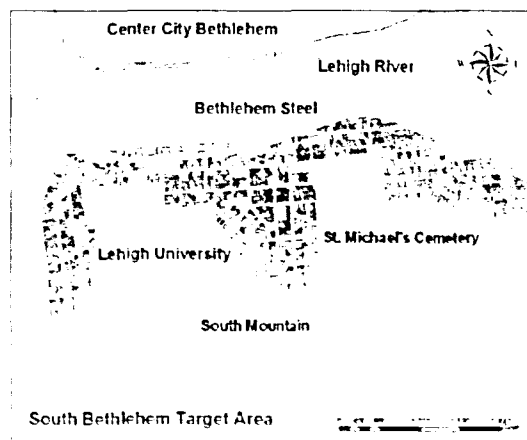
On one hand, policy intervention, in the form of rent regulation and other government subsidies, appears to have an impact on displacement rates during periods of revitalization. On the other hand, residents may be willing to trade in for a lower standard of living in order to stay put in their neighborhood. *Isn't this just as problematic to the health and vitality of a community as displacement is?* Regardless of whether or not the economic data shows anything relevant in the near future, the "street-level" anecdotes that can be collected from the residents themselves may be sufficiently compelling in order to gain support for a proactive policy agenda that not only addresses the issue of displacement but also a standard of living issue for Southside residents.

Therefore, the major goals of this research are: 1) to develop baseline indicators of local household characteristics which can be used in future studies, known as housing succession studies, to determine whether displacement is happening, and 2) to assess the perceived standard of living and whether market pressures are creating increased financial problems for residents.

THE SOUTH BETHLEHEM RESIDENT SURVEY

A door-to-door survey of randomly sampled parcel addresses in South Bethlehem was conducted during a 6 month period from September 2006 to February 2007. The survey instrument is meant to find out whether neighborhood residents are experiencing the financial pressures that typically indicate the early stages of the revitalization process. A comprehensive database of parcel addresses in South Bethlehem was acquired from the Lehigh Valley Planning Commission. The target area to be studied is displayed below in Map 1⁸. Any addresses owned by Lehigh University, the City of Bethlehem, or other publicly-owned properties were removed from the sampling frame.

Map 1: South Bethlehem Target Area



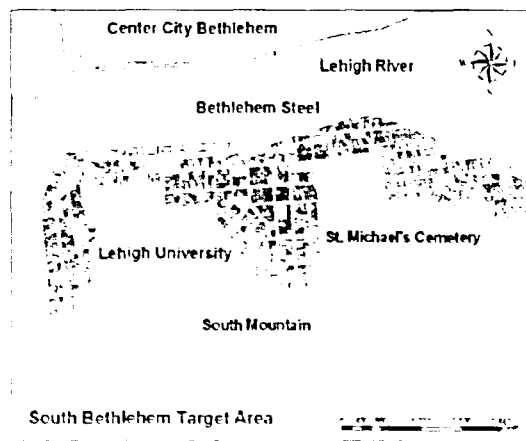
⁸ The South Bethlehem Target Area was determined by the input of respondents during pilot surveys.

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Out of an estimated 3,000 parcels, two random samples of 150 units each were taken. These 300 addresses were added to 4 previous pilot surveys to create a final database of 304 parcels. This sample included a range of residential, commercial, mixed-use and vacant land. Although the survey was developed for a residential sample, information on other land uses, such as commercial property and vacant or abandoned structures, is also considered important for continuing studies on how the parcel sample is changing over time.

The surveys were conducted during two separate data collection periods. The first wave of surveys was taken from an original sample of 150 addresses. These were conducted in the fall semester of 2006. A group of eleven graduate students, from a research methods course within the Sociology Department at Lehigh University, were selected to assist me with the first wave of the data collection process. The group was trained on survey procedures by Lehigh faculty. Groups of two were created, and each group was given a sub-sample of parcel addresses to survey. After this period, another 150 addresses were sampled and additional funds were obtained to hire four of the original eleven graduate students to assist with another round of surveys.

Each surveyor was required to wear a badge that showed the logo of the Community Action Committee of the Lehigh Valley. This was used as a point of entry into the neighborhood so that respondents who were at least familiar with this local organization would be more likely to talk to us. The surveyors were instructed to confirm that all potential respondents were at least 18 years of age. When answering the door, potential respondents were asked whether or not they lived there and, if so, whether they were familiar with the mortgage or rent situation for their household and if they could

answer questions about these topics. For the first round of surveys, postcards were sent out to each address in the sample to provide them information about the surveys that we were collecting. Postcards were not sent out for the second round of surveys due to funding limitations. A Spanish version of the survey was translated by a staff member at CACLV. Two of the graduate students on the survey team were bilingual and were assigned sections most likely to have the highest rate of Spanish speakers. In the end, 70 interviews were completed from within the entire 304 parcel sample, including the 4 pilot interviews that were conducted by me in August 2006⁹.

The South Bethlehem Resident Survey¹⁰, an 8 page questionnaire which takes approximately fifteen to thirty minutes to complete, was used as the main data collection tool for this research. The survey consists of six different sections which attempt to describe the sample with both quantitative and qualitative measures, from attitudes and opinions about self-assessed neighborhood quality, to measures of current financial problems, to land use observations about the physical conditions and structures that are visited in the parcel sample.

The first section deals mostly with an assessment of neighborhood quality, in which the respondents answered questions about their length of residence in South Bethlehem, their opinions about whether their neighborhood has improved or worsened since they have lived there, and specific questions reflecting their attitudes about how the BethWorks casino development will affect the neighborhood.

⁹ A map of the spatial layout of the completed surveys can be found on page 28 in the "Results and Analysis" section.

¹⁰ See Appendix 1 for an official copy of the survey form.

The second section starts off by asking the respondents about their knowledge on specific terms related to financial literacy (budgeting, credit, loans, investing, saving, home equity, refinancing, predatory lending, gentrification and property flipping) and whether or not they would be interested in attending community educational workshops about these topics. Then it moves on to a series of original scales that are meant to assess the level of financial pressure that the household is currently facing. The first part asks the respondent about specific financial problems that the household may have dealt with in the past year. The second part asks the respondent to identify what they perceive to be the potential causes of those financial problems. The third component of this section asks the respondent to identify specific adjustments that they have had to make in order to compensate for rising housing costs. These three parts within section two will be referred to later as: Problem Points, Perception of Causes, and Compensation Points. Problem Points and Compensation Points will be used to develop the overall Pressure Level Scale.

The third section of the survey is specifically for homeowners. It asks each homeowner whether they have received any offers to sell their house in the past year, and provides space for any details that the respondent can remember about the most recent offer including: how the offer was received, what exactly was offered, any contact information they still have available, what their response was to the offer, how much they think their house is actually worth, and whether these offers have increased over the past year. They are also asked whether they know anyone in the neighborhood who has received offers to sell their house. There is a similar set of questions about whether the homeowner has received any offers to refinance their mortgage in the past year.

The fourth section of the survey is specifically for renters. It asks each renter whether their monthly rent has increased in the past year and provides space for details including: how much the increase was in dollar amounts, whether the increase was problematic, how they adjusted to this increase, what they think the reason was for this increase and whether they think that the current rent is fair for their housing unit. They are then asked whether they know anyone in the neighborhood that has had financial problems due to increasing rents. After that, the renters are asked about residential displacement and whether they have had to move as the result of increasing rents in the past year, with space provided for details. They are also asked whether they know anyone in the neighborhood that has had to move due to increasing rents. Finally, they are asked whether they are concerned they may have to move out of the neighborhood within the next three years due to increasing housing costs.

The final two sections deal with demographics and land use observations. Section five asks for information on the number of people living in the house, and how many are below 18 years of age. There are also questions about the primary language spoken, what they consider to be their race and ethnicity, and questions regarding highest level of education completed, and estimate household income before taxes. Age, sex and housing tenure (own or rent) are recorded at the beginning of the survey. The land use section was completed by the surveyor after the interview was either successfully completed or unsuccessfully attempted at least twice. The surveyor recorded information on the current land use of the parcel (residential, commercial, mixed-use, vacant land, etc.), occupancy status, building type, number of stories, unit number that was surveyed, number of vacancies on the block, any names or affiliations of commercial

establishments, and any other comments that would provide qualitative information about the housing characteristics. This information will be valuable for tracking changes with successive studies of the same parcel sample.

RESULTS AND ANALYSIS

Out of 304 parcels taken from the random sample of addresses from within the 18015 zip code of South Bethlehem, including the 4 pilot interviews, the survey team collected a total of 302 land use observations, with 2 missing observations. Out of the 302 land use observations, 273 parcels were considered residential or mixed-use units where a potential respondent could be found¹¹. Table 2 shows the result of these 273 parcels where an interview was attempted.

Table 2 – Summary of Attempted Resident Surveys

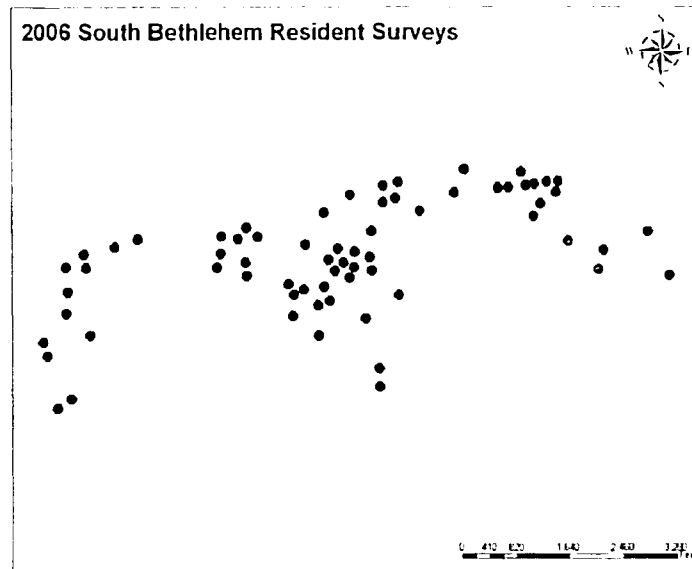
<i>Completed Surveys</i>	70	25.6%
<i>No Survey Completed</i>	203	74.4%
No one home	84	30.8%
Refusal	70	25.6%
Vacant House	27	9.9%
Other Reasons	22	8.1%
Residential and Mixed-Use Parcels	273	

From Table 2, we can see that there was only a 25.6% response rate for successful surveys. However, from these 273 parcels, only 80.2% were found to be occupied, which gave us 219 total parcels where interviews could be completed. The 70 surveys completed from a valid 219 parcels create a 32% response rate. If we factor in other reasons why interviews could not be completed at these 219 addresses (no one home, no one at least 18 years old present, language barriers between respondents and surveyor,

¹¹ For a detailed description of land use observations see Appendix 2.

etc.) we ended up with 140 addresses where surveys technically could be completed, creating a 50% response rate. Map 2 below shows the distribution of completed surveys throughout the target area.

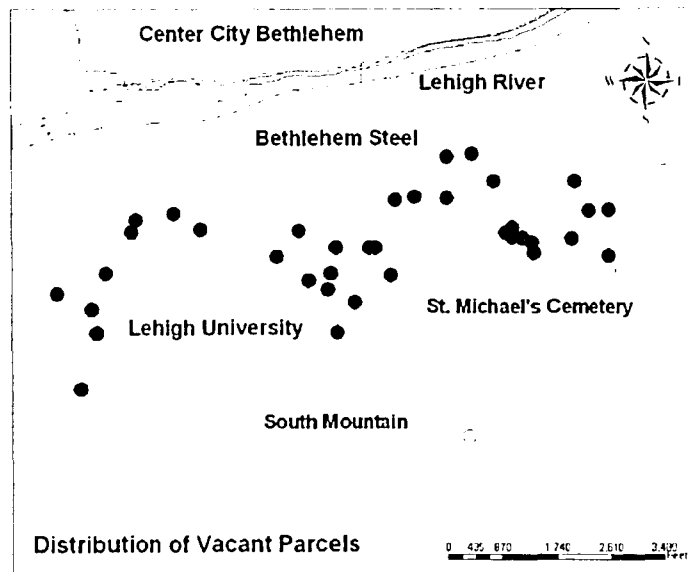
Map 2 – Completed Surveys



Vacancy Rates:

From the 273 residential units, our sample had a vacancy rate of nearly 10%, as displayed in Table 2 above. This corresponds to a vacancy rate of 7% from the Census 2000 data on the 18015 zip code area. If we include the parcels from our sample that were labeled as either vacant land or other non-residential, undeveloped space, the rate for potential development goes up to nearly 13% of the total parcel stock in the sample. Map 3 below shows the spatial distribution of all vacant parcels recorded in the sample.

Map 3 – Distribution of Vacant Parcels



The high vacancy rate is a notable finding because it alludes to the fact that revitalization in this area may not immediately lead to displacement tension, since the vacancy rate is still relatively high. There seems to be enough property available for redevelopment that would keep the housing market from becoming tight. New York City typically removes enforcement of rent regulations for neighborhoods whose vacancy rates rise above 5% of the total housing stock¹². Some recent articles on gentrification, such as Hampson's article on the Harlem neighborhood in New York City, have seen the effects of gentrification in the midst of a lower vacancy rate of only 2% (Hampson, 2005).

Demographic characteristics:

From the summary statistics of the sample demographics, it seems that our sample is fairly close to the population residing in the 18015 zip code according to

¹² On-line source: <http://gothamgazette.com/article/Demographics/20031209/5/799>

Census 2000 data. Various categories of race, education, income and housing tenure show similar proportions between sample and census categories. The census category for race is a hard statistic to compare to our sample since our interviewees consider categories such as Hispanic, Latino or Spanish as their race, while the census considers Hispanic and Latino origins under a separate variable. However, we can compare a more simplified variable for race, the ratio of Hispanic or Latino residents to that of Non-Hispanic or Non-Latino residents. In 2000, 23.9% of the population was considered Hispanic or Latino, and 76.1% was considered Not Hispanic or Latino. Our sample is close to these estimates, in that we have 25.8% Hispanic or Latino, and 74.2% Non-Hispanic or Non-Latino. Table 3 shows the p-value scores for a test of significance on the difference between the proportions for a few key demographic categories.

Table 3 – Comparison of Proportions for Census and Sample Demographics

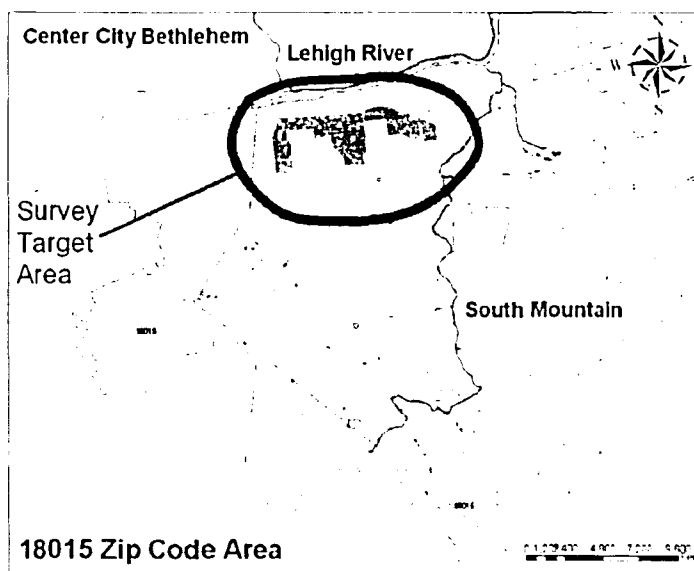
<i>Categories</i>	<i>Census</i>	<i>Sample</i>	<i>P-value</i>
Hispanic or Latino origin	23.9%	25.8%	.406
Language spoken at home, English only	72.9%	78.6%	.176
High school diploma or higher	74.6%	78.8%	.274
Bachelor's degree or higher	22.1%	21.1%	.516
Household income of less than \$15,000	22.5%	34.3%	.007**
Male	50.5%	48.6%	.419
Female	49.5%	51.4%	.419
Households with children under 18	34.5%	41.4%	.174
Owner-occupied housing	60.3%	57.1%	.336
Renter-occupied housing	39.7%	42.9%	.336

*Significance of differences: *p<.10, **p<.05, ***p<.01, binomial tests for comparison of proportions.*

Our sample shows a relatively lower income level than the census data. 34.3% of the sample makes \$14,999 or less, compared to only 22.5% from the census, which is the only statistically significant difference found in Table 3. Only 17.1% of the sample

makes \$50,000 or more, compared to 34.8% from the census¹³. The significant disparity in income is likely attributable to the fact that our survey target area does not perfectly match the 18015 zip code area. As displayed in Map 4, the survey area is focused on the more centralized, denser neighborhoods, where lower-income households are more likely to be found, compared to less dense, more dispersed sections of the zip code area. The difference in income level could also be due to the fact that Census 2000 figures may already be outdated. If South Bethlehem has actually experienced an increase in lower-income households then this could account for why our income measures are different.

Map 4 – Survey Target Area and Zip Code 18015



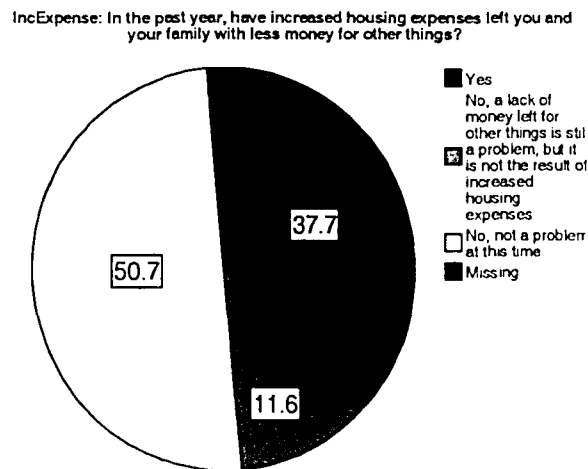
Summary of Survey Results:

An initial look at the survey results suggests that there is some ambiguity about whether or not the residents from the sample are currently experiencing a significant level of financial pressure. One of the key questions from the survey asked the respondents

¹³ See Appendix 3 for more detailed information on census and sample demographics.

about increased housing expenses. *“In the past year, have increased housing expenses left you and your family with less money for other things?”* As Figure 1 shows, there is a significant percentage of households that answered ‘Yes’ to this question, 37.7%. If we also count those who responded ‘No, a lack of money left for other things is still a problem, but it is not the result of increased housing expenses’, 11.6%, we find that nearly 50% of the sample is experiencing some form of financial pressure.

Figure 1: Increased Housing Expenses



A closer look at a few other key variables, however, tends to show us that financial pressure may not be a very prevalent issue. One of the first sections of the surveys asks the respondents to answer a number of questions about whether they have experienced financial problems in the past year, referred to as Problem Points. Table 4 shows the percentages for each item in this section.

Table 4: Problem Points - For each one, can you tell me if it was no problem, a small problem, or a big problem for you and your family in the past year?

	No Problem	Small Problem	Big Problem
Paying your mortgage	83.8%	10.8%	5.4%
Paying your rent	72.4%	10.3%	17.2%
Paying your car payment	87.9%	7.6%	4.5%
Paying your utility bills	67.7%	23.1%	9.2%
Paying for groceries or other essential items	74.6%	19.4%	6.0%
Paying for entertainment activities	72.7%	13.6%	13.6%
Paying for non-essential items (clothing, toys, etc.)	73.1%	14.9%	11.9%
Paying for gas, or other transportation costs	63.1%	24.6%	12.3%

The percentages from Table 4 show that the majority of our respondents were not facing an overwhelming number of financial problems in the past year. ‘No Problem’ was the most popular answer for all eight items in this section, with “paying your utility bills” and “paying for gas, or other transportation costs” as the most prominent ‘Small Problem’, and “paying your rent” as the most identified ‘Big Problem’.

We find somewhat similar results when we asked the respondents to consider how they would compensate for rising costs. Table 5 below displays the results for the Compensation Points section. Once again, we find that the most popular answer for eight out of nine questions in this section is ‘No’, meaning that they have not yet had to do many of these things to compensate for rising costs, nor do they foresee that they will have to do these things to compensate in the near future.

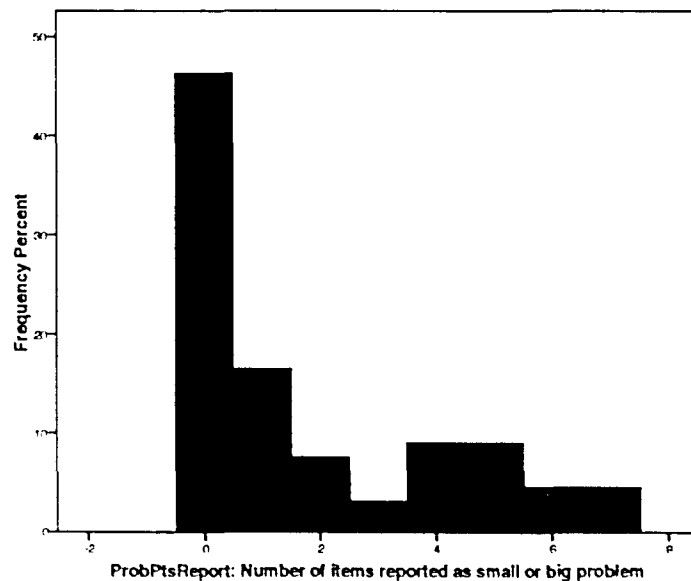
Table 5: Compensation Points - Please indicate if any of the following items are things that you have done, or think you might have to do in the future in order to compensate for rising costs.

	Yes	No	Might Have To
Refinanced your mortgage in order to have cash to pay for debts or other purchases	9.7%	77.4%	12.9%
Sold your house in order to pay off other expenses	0.0%	90.9%	9.1%
Made agreements with landlord to do extra work on house in order to maintain affordable rent	3.6%	78.6%	17.9%
Looked for another house or apartment with cheaper rent and/or utility costs	44.8%	37.9%	17.2%
Invited friends or family to move into your house in order to help cover expenses	17.5%	73.0%	9.5%
Sought out the help of a local community agency to get financial assistance for utility bills	18.0%	75.4%	6.6%
Used a credit card to make purchases that you normally would have paid for with cash	27.4%	67.7%	4.8%
Taken out temporary loans to help cover expenses	13.1%	80.3%	6.6%
Devoted more of your income to housing expenses, which has left you with less expendable income	44.3%	50.8%	4.9%
Taken on an extra job in order to cover expenses	24.6%	63.9%	11.5%

The only question where ‘Yes’ was the majority answer was for renters, where 44.8% answered that they “looked for another house or apartment with cheaper rent and/or utilities” and another 17.2% said they ‘Might Have To’. This figure corresponds to the previous section where the highest response of ‘Big Problem’ dealt with renters – “paying your rent”. The item “devoted more of your income to housing expenses, which

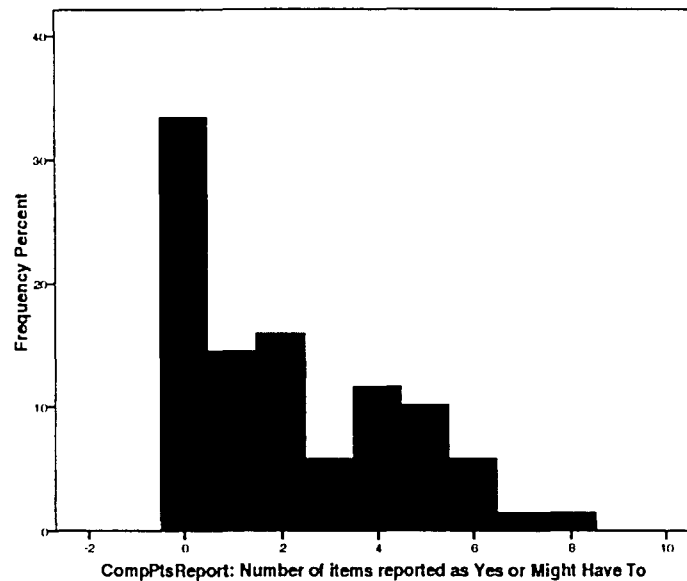
has left you with less expendable income” is essentially the same question that we saw earlier about increased housing expenses. Once again, nearly 50% of the residents expressed some concern with 44.3% answering ‘Yes’, and another 4.9% answering ‘Might Have To’. Although the majority of respondents are still mostly answering ‘No’ to these questions there seems to be some significant cause for alarm. Nearly 25% of the sample has had to take on an extra job in order to cover rising costs. 27% admit that they regularly have to make purchases with their credit card when they would rather use cash. 44% of the sample said that they have less disposable income than in the past. These numbers, although perhaps not overwhelming, lead us to believe that financial pressures may be a growing concern. Another way to view this data is to look at what proportion of the sample is experiencing multiple items for the Problem Points and Compensation Points. Figure 2 shows the percentages for respondents by the number of items that they consider problematic.

Figure 2: Percentage of Sample Reporting Multiple Financial Problems



As expected, 46% of the sample reports no problems at all. Another 27% fall into the 1 to 3 problems category. Interestingly another 27% of the sample is experiencing 4 or more of these financial problems. Nearly 5% (3 respondents) claim that all of these issues were problematic for them in the past year.

Figure 3: Percentage of Sample Reporting Multiple Compensation Techniques



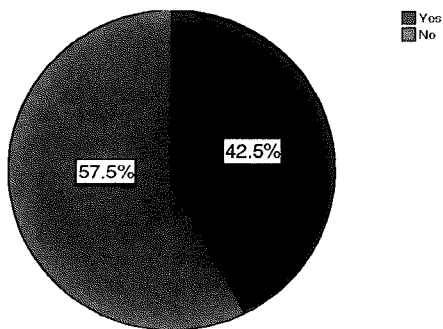
The same things can be done for the Compensation Points, shown in Figure 3. Only about 33% of the sample answered 'No' to all the compensation questions. 36% fall in the 1 to 3 compensation techniques range, and another 30% have 4 or more compensation problems. When we look at the data this way, it leads us to believe that there is a significant percentage of the sample that is feeling some form of financial pressure at this point.

There were also a number of questions pertaining to homeowners that we asked to find out what kinds of financial pressures can be found in the housing market. The following, shown in Figure 4 below, are percentages from the 40 homeowners that were surveyed. Although a majority of the offers to sell were considered to be solicitations in

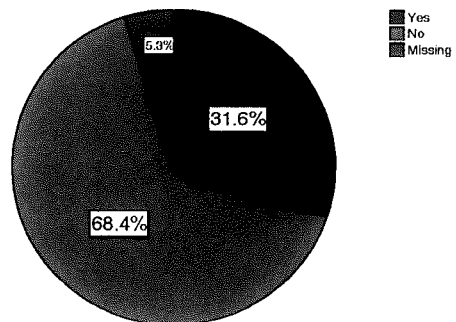
the mail from real estate and other local brokers, the 42.5% that answered 'yes' still suggests a high level of activity going on in the real estate market. However, without a comparison group from another community it is not clear whether these numbers should be considered high or not. A number of residents commented on the fact that they appreciate getting offers to sell their homes because they intend to move out of the Southside, due to dissatisfaction with changes in neighborhood quality.

Figure 4: Financial Issues for Homeowners

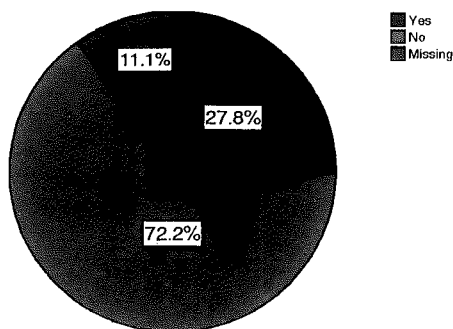
OfferSell: Have you received any offers to sell your house in the past year?



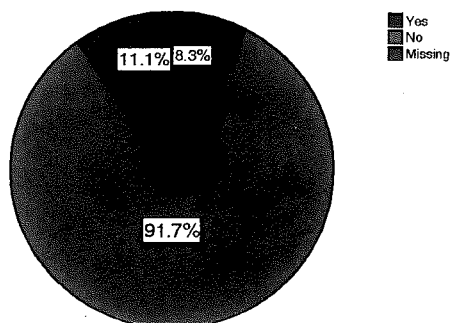
OtherSell: Has anyone else you know in this neighborhood received offers to sell their house in the past year?



OfferRefi: Have you received any offers to refinance your mortgage in the past year?

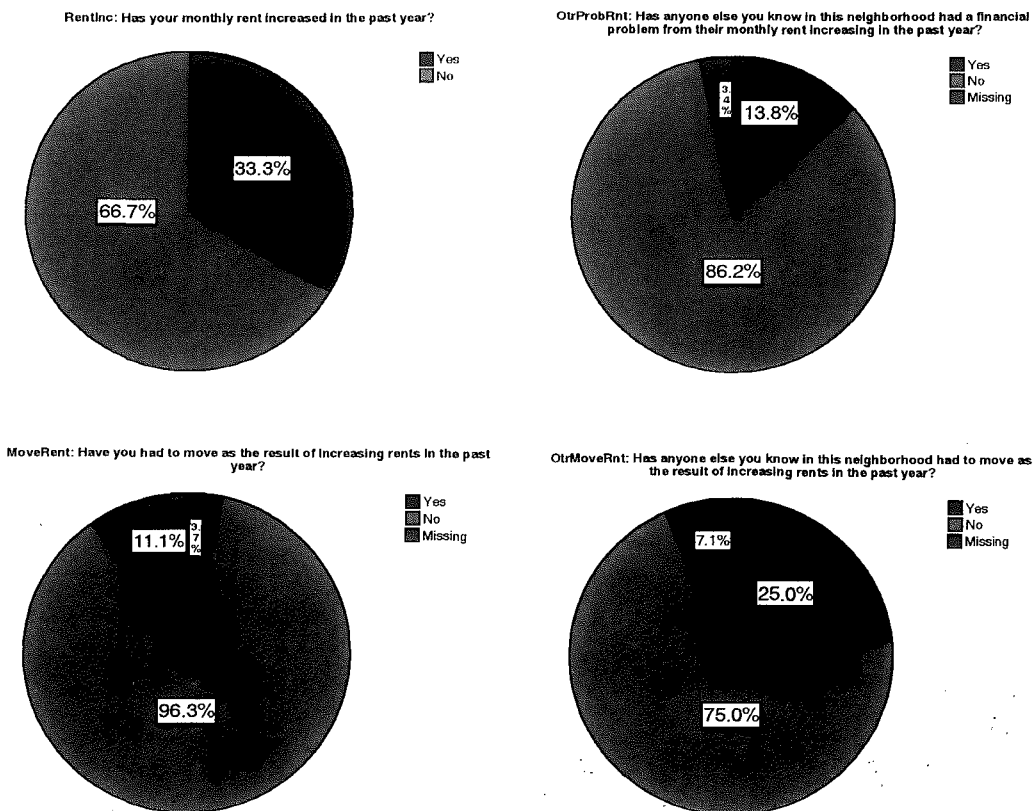


OtherRefi: Has anyone else you know in this neighborhood received offers to refinance their mortgage in the past year?

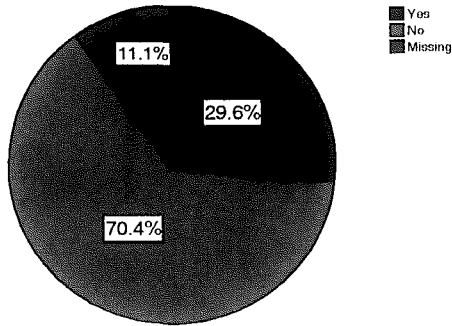


There was another section pertaining only to renters. The following, displayed in Figure 5 below, shows percentages of responses among the 30 renters surveyed. The highest percentage of ‘Yes’ responses in this section pertain to ‘has your monthly rent increased in the past year’. It is unclear whether 33.3% is a problematic rate, or if this is indicative of a healthy rental market. It is also important to note that the displacement question, ‘have you had to move as the result of increasing rents in the past year’, only shows 3.7% percent, which was actually only 1 out of the 30 renters that were surveyed. These findings do not suggest a clear cause for alarm among the rental population.

Figure 5: Financial Issues for Renters



AfraidMove: Are you concerned you might have to move out of this neighborhood within the next three years, due to increasing housing costs?



The initial findings suggest that there is no reason to believe that widespread displacement is a major threat to the resident base at this time. The sample residents do not appear to be facing an overwhelming number of financial problems. In general, questions about key financial problems that are typically linked to the gentrification debate are not being readily seen in our housing sample. However, there is still evidence that a significant segment of the population is experiencing some form of pressure. Nearly 50% seem to express some concerns with regards to increasing expenses, especially heating costs and gasoline prices. The analysis must now shift to look at specifically what type of factors may be related to whether a resident is experiencing financial pressures at this point.

Pressure Scales

The key dependent variable to be used in this analysis will be a scaled measure for financial pressure. The first step before beginning bivariate analysis was to create some scales to measure what I will refer to as 'pressure level'. As mentioned earlier,

there are two sections on the survey that deal specifically with different elements of financial pressure. The first one asks respondents about financial problems they have experienced in the past year, Problem Points, and the second section asks them about ways they have had to compensate for rising costs, Compensation Points.

For the Problem Points Scale, I assigned points for each item: 0 for “No Problem”, 1 for “Small Problem”, 2 for “Big Problem”. Since there are a total of 7 items for each respondents - considering that one question is for homeowners only (HO), and one question is renters only (RO) - the total possible range of points was 0 to 14. In a similar fashion, the Compensation Points Scale was created by assigning points to each item: 0 for “No”, 1 for “Might Have To”, 2 for “Yes”. There are nine total items for homeowners and renters each, with a total range of possible points from 0 to 18. The two were then combined to create a third and comprehensive pressure level scale, referred to as Pressure Level, which includes all 16 items, with a possible point total of 0 to 32. For the purposes of this research, the Pressure Level scale will be used as the key dependent variable for both bivariate and multivariate statistical analysis.

A test for scale reliability was necessary for all three scales in order to show that the items that make up both of these measures are related in a way that makes our final scales an accurate and valid construct of financial pressure. Table 6 shows the final Cronbach’s Alpha scores for scale reliability for both homeowners and renters. Homeowners and renters must be treated as separate groups since they are asked slightly different questions.

Table 6: Reliability Tests for Financial Pressure Scales

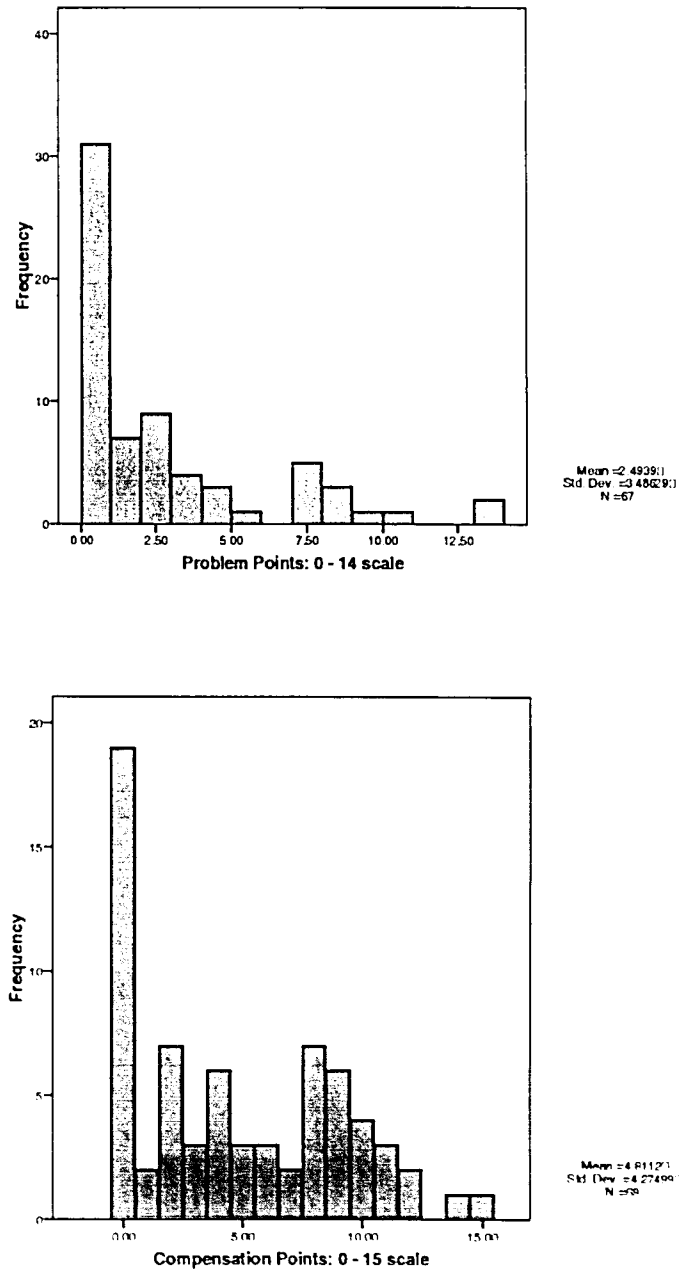
	<i>Homeowners</i>	<i>Renters</i>
Problem Points	.923	.856
Compensation Points	.846	.535
Pressure Level	.911	.794
<i>Average Scores</i>	.893	.728

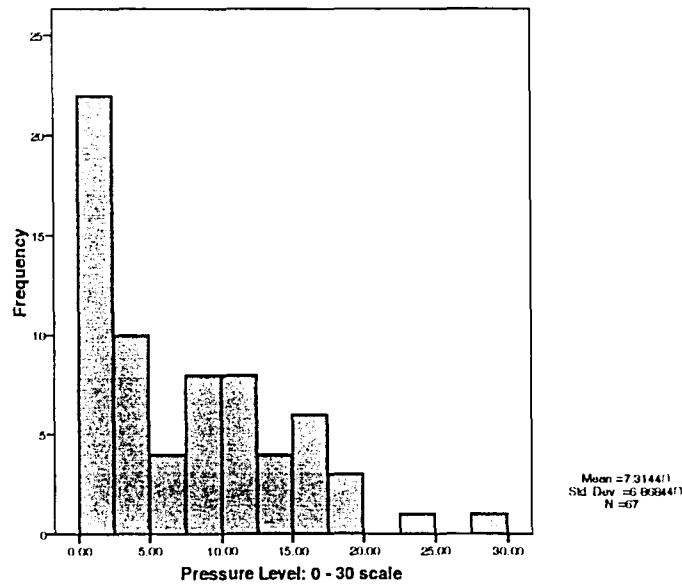
A Cronbach's score of 1 represents a scale where all the items are perfectly correlated to one another. Standard statistical practices usually assume scores over .700 as a significant measure that scales are constructed well. For the 6 possible Cronbach Alpha scores below, 5 out of 6 show surprisingly good results, with the Compensation Points Scale slightly lower than ideal for renters. However, since the overall Pressure Level scale shows acceptable scores, and the average scores for all three scales combined fall into our desired range, this will serve as justification that all three pressure scales are appropriate measures for what we intend to find in the data.

The following page shows histograms for each scale which show the distribution of scores. As expected, the majority of the sample is on the lower end of the scale for all three measures, with a score of 0 as the most common score for each. There tend to be higher scores on the compensation points scale where more people seem to be likely to have either used or considered one of the many compensation techniques. The pressure level scale, our key dependent variable for the remainder of the analysis, shows a significant amount of respondents in the middle range of the scale, but very few scores on the high end, with only 1 respondent scoring a 25, and 1 respondent scoring a 29. The

rest of the scores were below 20. (Means Scores, Problem Points = 2.57, Compensation Points = 4.81, Pressure Level = 7.39).

Figure 6: Distribution of Scores for Pressure Scales





Analysis of the Pressure Level Scale:

The following analysis uses the Pressure Level Scale as a continuous dependent variable. The goal was to determine which demographic characteristics showed a significant relationship with pressure level. After that, we looked closer at each key demographic variable. Three independent variables that show a statistically significant relationship to pressure level are 1) length of residence, 2) housing tenure, and 3) race.

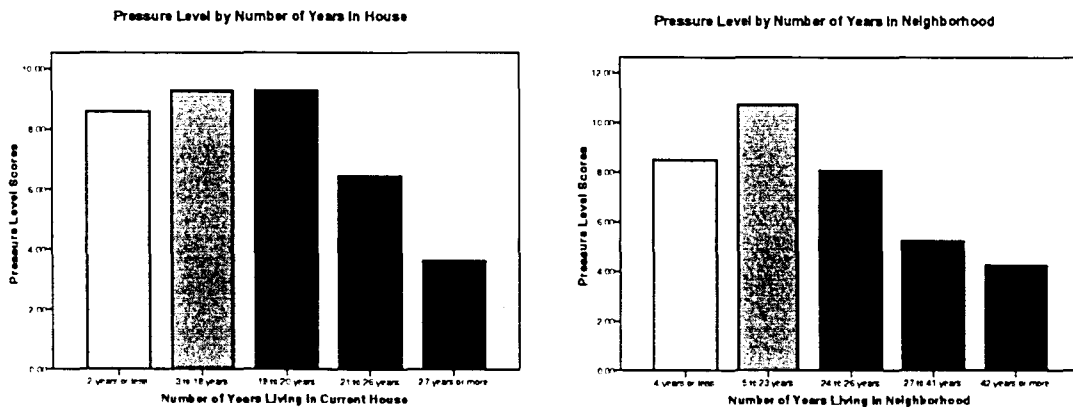
Length of residence: The segment of the sample that seems to be most likely to experience higher levels of pressure is newer residents in the neighborhood¹⁴. As displayed in Figure 7, lower pressure level scores seem to be found with residents who have either lived in their house for longer periods of time, or have lived in the neighborhood for a longer period of time than other residents. People who were either

¹⁴ For notes on statistical analysis of pressure level scale, see Appendix 5.

shorter term residents, or newer arrivals to the neighborhood, seem to be more likely to experience high levels of financial pressure.

Number of Years in House (YearsHouse) and Number of Years in Neighborhood (YearsNeigh) were recoded into categories of 5 equal groups of respondents. For both variables, residents living in their houses for 27 years or longer, or residing in the neighborhood for 42 years or more, have an average pressure level score around 4.00. Residents with a shorter length of residence in both variables approach average scores of 8.00 and 10.00, respectively.

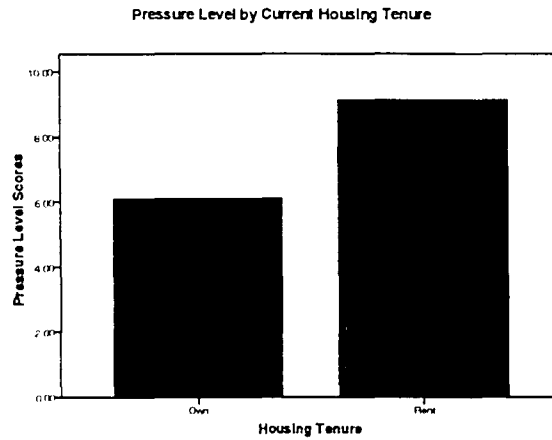
Figure 7: Pressure Level by Length of Residence



Housing Tenure: The second relationship that we find is between pressure level and housing tenure. Figure 8 shows the average pressure level scores for both homeowners and renters in our sample. Renters are significantly more at-risk to financial pressures than homeowners. The average pressure level score for homeowners was around 6.08, while a significantly higher 9.10 for renters. These findings support the

general literature on housing tenure which considers renters as more vulnerable to financial pressure and changes in the housing market than homeowners.

Figure 8: Pressure Level by Housing Tenure



Race: Race is also statistically related to pressure level. When we take a closer look at race we continue to find some similar themes in the data. Whites are less likely to have high pressure levels. Looking at Figure 9 below, the African-American population seems to be experiencing the highest average pressure level scores, with an average above 15.00. Hispanics and Mixed-Ethnicity residents are second highest with a score around 10.00. The average scores for Whites is slightly higher than 5.00.

Figure 9: Pressure Level by Race

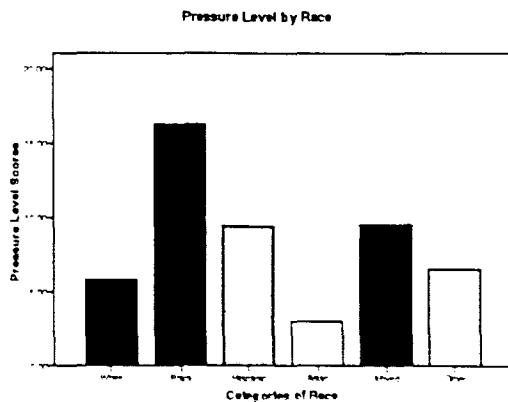
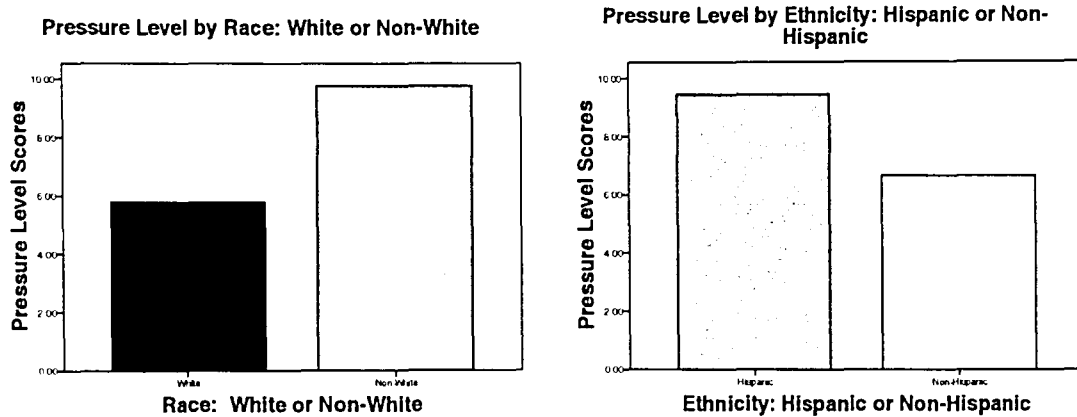


Figure 10: Pressure Level by White/Non-White & Hispanic/Non-Hispanic



Characteristics by Length of Residence, Housing Tenure & Race

We can describe the sample even more fully by looking at the demographic characteristics by our three key independent variables of length of residence, housing tenure, and race. If we examine length of residence further, we can make a few observations about the characteristics of residents who have longer or shorter terms of residence. The findings suggest that homeowners are longer term residents, compared to renters. As Table 7 below shows with a comparison of means, length of residence clearly differs by housing tenure, race, and age.

Table 7: Demographic Characteristics by Length of Residence

<i>YearsHouse Mean = 19.77</i>			<i>YearsNeigh Mean = 25.52</i>		
Homeowners	Renters	Sig.	Homeowners	Renters	Sig.
25.19	<i>12.53</i>	.002	33.15	<i>15.34</i>	.000
White	Non-White		White	Non-White	
23.85	<i>13.26</i>	.013	30.30	<i>17.89</i>	.013
Non-Hispanic	Hispanic		Non-Hispanic	Hispanic	
21.74	<i>14.05</i>	.030	27.68	<i>15.26</i>	.135
Population 50 yrs and older	Population 49 yrs and under		Population 50 yrs and older	Population 49 yrs and under	
35.45	<i>12.58</i>	.000	42.82	<i>17.58</i>	.000

In Table 7, the bold numbers indicate group means that are above the sample mean, 19.77 for YearsHouse and 25.52 for YearsNeigh, and the italics show where group means fall below the sample mean. The significance column indicates p-value scores for each after running independent samples t-test calculations on a comparison of means. The only one that does not show statistical significance is the relationship between Hispanic and non-Hispanic residents. From this we can see a clear relationship where homeowners, White residents, and respondents who are 50 years or older are on average longer term residents; renters, non-White residents, and people who are 49 years or younger are on average shorter term residents, or newer arrivals to the neighborhood.

If we run correlations with our length of residence variables and the number of children under 18 in a household, and the overall household size, we also find significant relationships¹⁵. As expected, longer term residents have fewer children in their homes and have smaller household sizes. In general, length of residence tends to show us what demographic is more or less likely to be experiencing financial pressures at this point. Renters, Non-White residents, younger families, with higher numbers of children, and larger household sizes tend to represent a shorter term, more transient population which is likely to be more at-risk for higher pressure levels.

If we take a closer look at the demographic characteristics by housing tenure we also find that homeowners have a higher age range, tend to be longer term residents, and have slightly higher household incomes than renters. Table 8 shows a comparison of means for renters and owners for these categories. All scores in bold show means that

¹⁵ Year in House correlated with Number in Household (R = -.437, sig. at .000 level)

Years in Neighborhood correlated with Number in Household (R = -.423, Sig. at .000 level)

Years in Neighborhood correlated with Number of Children under 18 years old (R = -.255, Sig. at .05 level)

are higher for the group than the overall sample means for that category. Likewise, all scores in italics show group means that are lower than the overall means. For all variables below, owners have higher means than the sample, while renters have a lower mean than the sample. This is more justification for the clear differences between owners and renters by age, length of residence, and income¹⁶.

Table 8: Demographic Characteristics by Housing Tenure

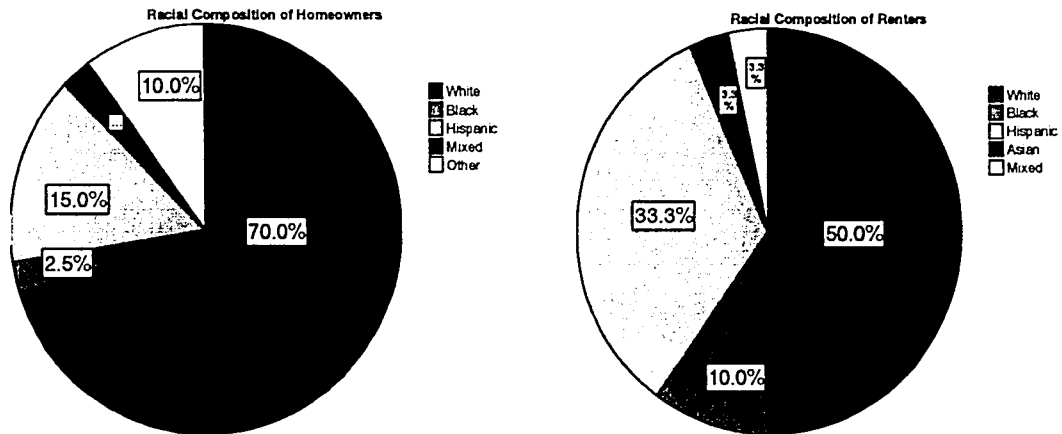
	Owners	Renters	Sample Mean	Sig.
Age	52.28	<i>30.33</i>	42.87	.000
YearsHouse	25.19	<i>12.53</i>	19.77	.002
YearsNeigh	33.15	<i>15.34</i>	25.52	.000
Income	3.98	<i>2.54</i>	3.37	.001

The findings above suggest that housing tenure has a direct relationship with length of residence, but we can also make a connection between tenure and race. Figure 11 below displays the racial composition of both owners and renters. Chi-Square relationships show significant differences between owners and renters, where homeowners are more likely to be White and Non-Hispanic, and renters are more likely to be non-White and/or Hispanic residents¹⁷.

¹⁶ For Table 8, the assumption is made that income can be treated as a continuous variable, therefore, a mean score on income levels is relevant for this example. Renters, 2.54 > 3 = \$15,000 to just under \$25,000. Homeowners, 3.98 > 4 = \$25,000 to just under \$35,000.

¹⁷ Chi-squares: Housing Tenure by White/Non-White (2.894, Sig. = .089)
Housing Tenure by Hispanic/Non-Hispanic (3.297, Sig. = .069)

Figure 11: Racial Composition by Housing Tenure



Education: Education does not yield results that are as clear. When correlated with pressure level, the relationship is not statistically significant. Yet, when looked at in relation to housing tenure and length of residence, homeowners and longer term residents are more likely to have no higher than a high school diploma. Whereas renters, and the corresponding groups that have a shorter length of residence, are more likely to have some college experience, even though they have lower income levels and are experiencing higher pressure levels. This adds an interesting twist to the findings that we have not come across until now.

The analysis so far suggests that longer term residents are less likely to be facing financial pressure. This demographic is mostly homeowners, which supports the literature that renters are the most susceptible to gentrification. This demographic is also more likely to be elderly residents, which contradicts some of the literature that finds the elderly most susceptible to gentrification. This demographic has smaller household sizes, and lower numbers of children which makes sense because housing expenses are less without others to provide for. They are also more likely to be White and speak English as

a primary language, but they are not really a higher social class in terms of education because they generally have lower levels of education. This leads me to believe that this segment that seems to be impervious to recent pressures are the remnants from the Bethlehem Steel era, either ex-workers or descendents of past workers.

The segment that tends to be experiencing higher levels of pressure is a more transient population. More likely to move from house to house, less likely to own, and therefore, more subjected to the lower standards of living that high levels of residential mobility often add. These groups also tend to be newer arrivals to the neighborhood, Hispanic, non-White residents, and younger households, with higher numbers living in their households. We have identified some key features of residents who are most likely to be experiencing financial pressure. The question still remains, however, what specifically is causing these financial problems.

Identifying Causes for Financial Problems

All respondents who answered 'Small Problem' or 'Major Problem' to any of the items from the Problem Points Scale were asked a separate series of questions giving them the opportunity to identify the potential causes for these financial problems, referred to as Perception of Causes. We find some variation when we look at these specific causes. The question asks the following: *For each one, indicate if you consider it to be no cause, a minor cause, or a major cause of any financial problems that your family is experiencing?* The respondent then replies No Cause, Minor Cause, or Major Cause to a list of items. Table 9 shows the percentage of responses for each item. There were only

33 respondents from the 70 surveys where this section was applicable. N=16 for homeowners, and N=17 for renters.

Table 9: Perception of Causes - For each one, indicate if you consider it to be no cause, a minor cause, or a major cause of any financial problems that your family is experiencing?

	No Cause	Minor Cause	Major Cause
Increased mortgage payment due to refinancing (or other reasons for mortgage payment increases)	87.5%	6.3%	6.3%
Increased real estate taxes due to tax re-assessment	60.0%	6.7%	33.3%
Increased rent	58.8%	23.5%	17.6%
Increased cost of local goods and services as newer, more expensive businesses are moving into the neighborhood	42.4%	42.4%	15.2%
Higher costs for commuting to work	34.4%	28.1%	37.5%
Decrease in household income due to a loss of job, demotion in pay, or other reasons for unemployment	54.5%	12.1%	33.3%
Sickness or injury which has limited the ability of any household members to work	55.9%	5.9%	38.2%
Increases in utility bills	21.2%	33.3%	45.5%
Increases in other household expenses	54.5%	27.3%	18.2%

The first 3 items (MortCause, TaxesCause, RentCause) deal with causes that are directly related to the housing market and, therefore, should be more sensitive to housing markets experiencing rapidly appreciating prices, such as can be found in gentrifying markets. The final 6 items (GoodsCause, CmuteCause, UnempCause, SickCause, BillsCause, OtherCause) pertain to other causes that are not directly-related to the housing market, but may still play a large role in effecting household pressure levels.

When we look at the various cause variables in connection to pressure level, at first glance it seems that causes that are not directly related to housing seem to be more

related to whether or not a person is experiencing higher levels of financial pressure. When we treat the perception of cause items as ordinal variables we can run ANOVA comparison of means between each item and the pressure level scale. If we find the number of significant relationships between each cause variable and the pressure level scale we can start to make some generalizations about the strength of housing and non-housing factors¹⁸.

Our three cause variables related to housing markets (MortCause, TaxesCause, RentCause) show only 1 out of 3 that are significantly related to pressure level at the .05 level. Our six cause variables not directly related to housing markets (GoodsCause, CmuteCause, UnempCause, SickCause, BillsCause, OtherCause) show 4 out of 6 that are significantly related to pressure level at the .05 level. The average level of significance from these relationships also favors non-housing factors. These results suggest that non-housing factors may play a larger role in creating higher pressure levels.

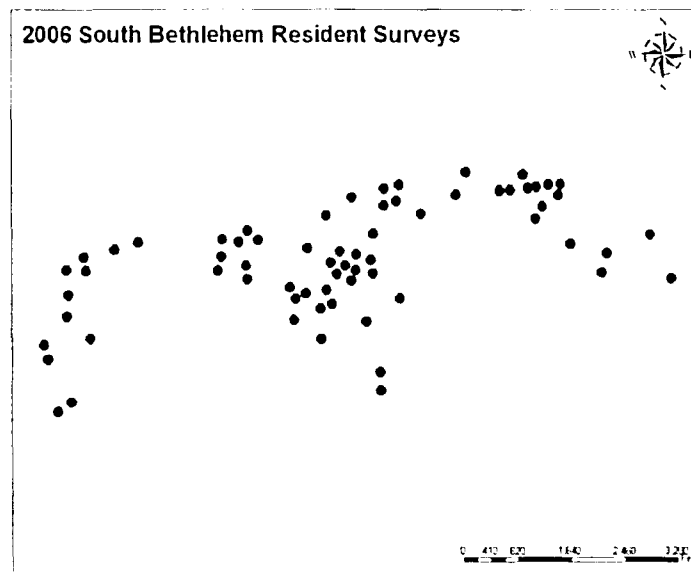
So far the themes in the findings have been pretty consistent. The sample as a whole, with some noted exceptions, does not appear to be facing high levels of financial pressure as was suspected. Those who are experiencing financial pressure tend to be a more transient, non-White, renter population. Causes for pressure also are not clearly related to changes in the housing market, with gas prices and utility bills as common causes for pressure. We can still add another layer to the analysis by looking at the geographical context within our target area. By using GIS technology, we can take a closer look at how location within the South Bethlehem neighborhood affects people.

¹⁸ See Appendix 5 for ANOVA results of pressure level by perception of causes.

GIS Analysis

From our 70 interviews, there are 67 households that can be linked to a geographical location in the neighborhood¹⁹. As displayed earlier, Map 2 shows the dispersion of completed surveys throughout the neighborhood. From a visual perspective, the surveys are spread out evenly, with a few clusters near the center and northeastern section of the sample area.

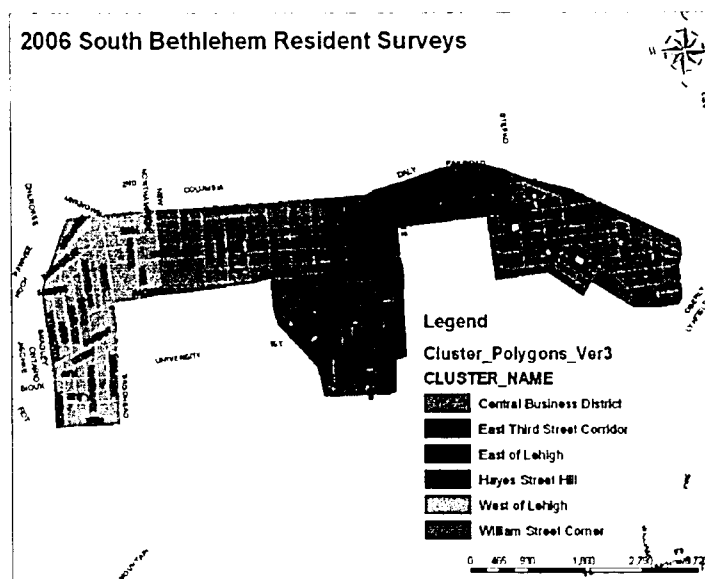
Map 2: Completed Surveys



In order to decide whether pressure level is connected to specific locations within the neighborhood, the target area was divided into 6 equal groups of respondents. Out of the total 67 mapped surveys, there are 5 groups of 11, with one group of 12. Map 5 below displays the 6 neighborhood subdivisions created for comparison purposes. They are labeled as West of Lehigh, Central Business District, East of Lehigh, Hayes Street Hill, East Third Street Corridor, and William Street Corner.

¹⁹ N=67 for the GIS analysis. 1 survey is lost because the respondent asked for their address to be removed for privacy reasons. The other 2 are pilot surveys that are not located directly in the target area.

Map 5: Neighborhood Subdivisions

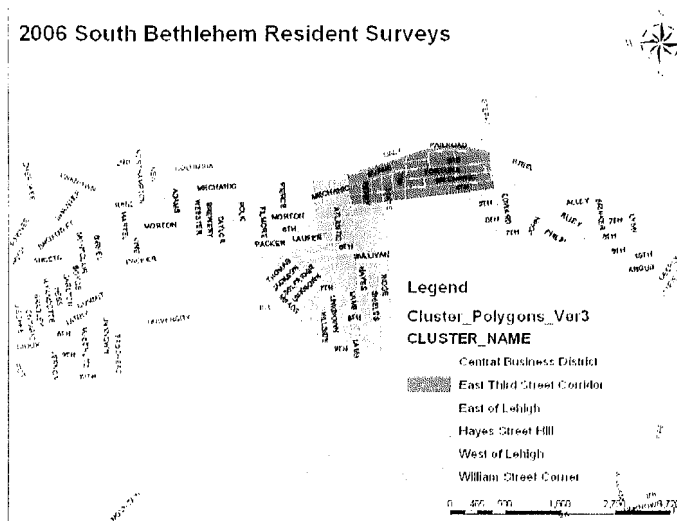


After constructing the geography layer, I then looked for relationships between the neighborhood subdivisions and other variables under study. The findings from crosstabular analysis suggest that there are a few key variables that seem to have a relationship with geography including: Pressure Level, Length of Residence, Age, Housing Tenure, Rent Increases, Race and Education²⁰.

Pressure Level: Our key dependent variable, the Pressure Level Scale, shows a statistically significant relationship to our geographic subdivisions. The pressure level was recoded into an ordinal variable with four categories (No Pressure, Level 1, Level 2, Level 3 Pressure Group). Displayed in Map 6 below, the Central Business District seems to show the highest level of financial pressure, with 90% of the residents in that section in either the Level 2 or Level 3 Pressure Group. East of Lehigh also seems to show a significant relationship to financial pressure with 63.4% of the residents also in Level 2 or Level 3 Pressure Groups. Both the West of Lehigh and William Street Corner sections

²⁰ See Appendix 6 for notes on GIS analysis.

Map 5: Neighborhood Subdivisions



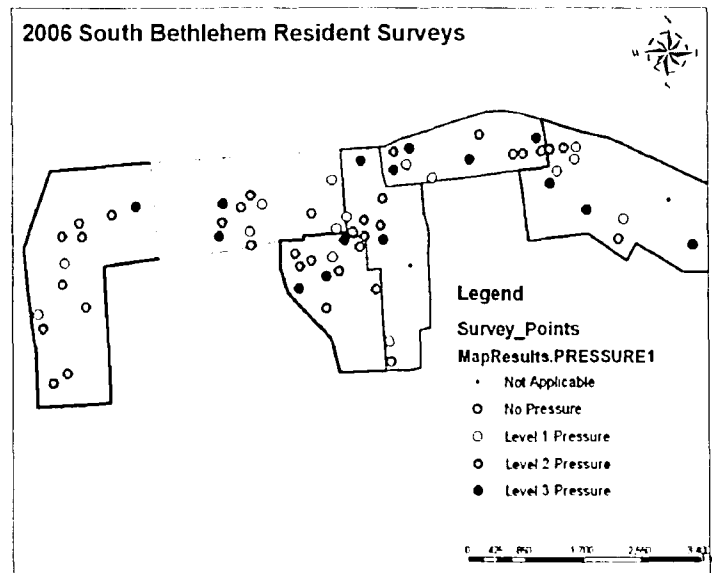
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²⁰ See Appendix 6 for notes on GIS analysis.

seemed to be least likely to be experiencing pressure, with the majority of residents in those sections scoring either No Pressure or only Level 1 Pressure.

Map 6: Pressure Level by Geography

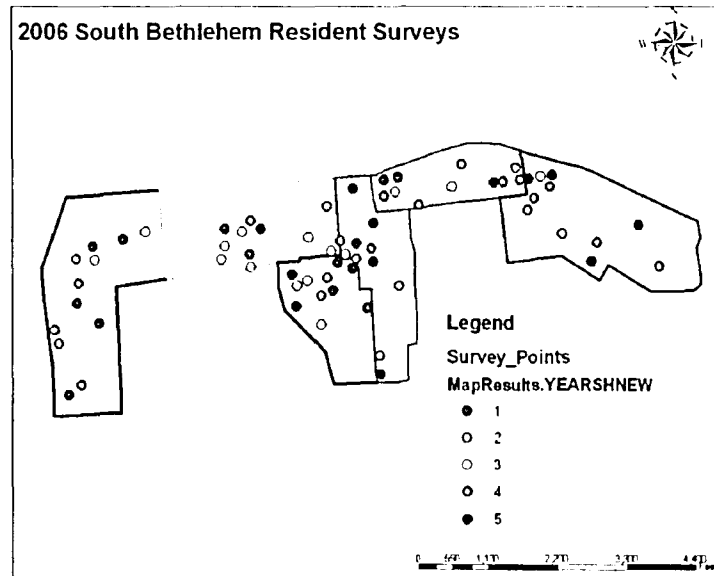


Length of Residence: One of the strongest factors related to Pressure Level was length of residence. Number of years in house and number of years in neighborhood both show strong correlations to the pressure level scale. Here we find Years in House, in particular, showing a significant relationship with geography. If we recode Years in House into categories that create 5 equal groups of respondents in each category, we get an ordinal variable that shows a relationship with our six subdivisions, displayed by Map 7 below.

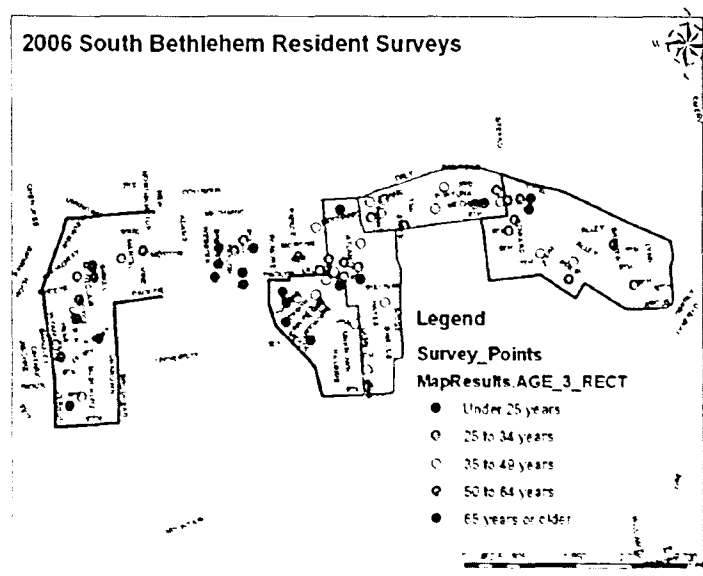
The findings suggest that the Eastern-most neighborhoods of East Third Street Corridor and William Street tend to have residents with longer terms of residence in their homes. The Hayes Street Hill tends to show a diverse group of residents from Level 2 to Level 5 length of residence. The Western-most neighborhoods seem to have residents

with a shorter length of residence. Both the West and East of Lehigh sections have a significant amount of residents who have lived in their house for only 2 years or less, 41.7% and 36.4%, respectively. The Central Business District has a majority of residents at a Level 3 residence, 19 to 20 years.

Map 7: Years in House by Geography



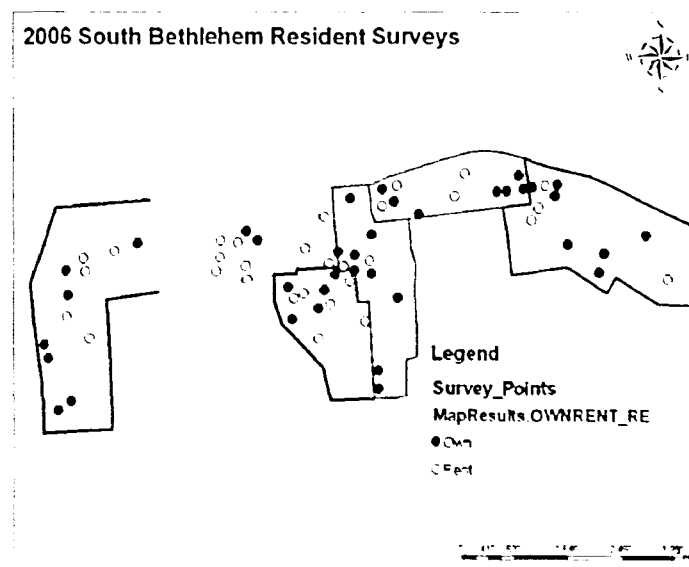
Map 8: Age by Geography



Age: There appears to be a relationship between age and geography in our sample. Looking at Map 8 above, our age variable is categorized into 5 equal groups. The interesting thing to note is that there are no people under 25 years in the three Eastern-most sections of the sample. In general, West of Lehigh and the Central Business District are most likely to have younger people in the sample, whereas, East of Lehigh, Hayes Street Hill, East Third Street Corridor, and William Street Corner tend to have an older population.

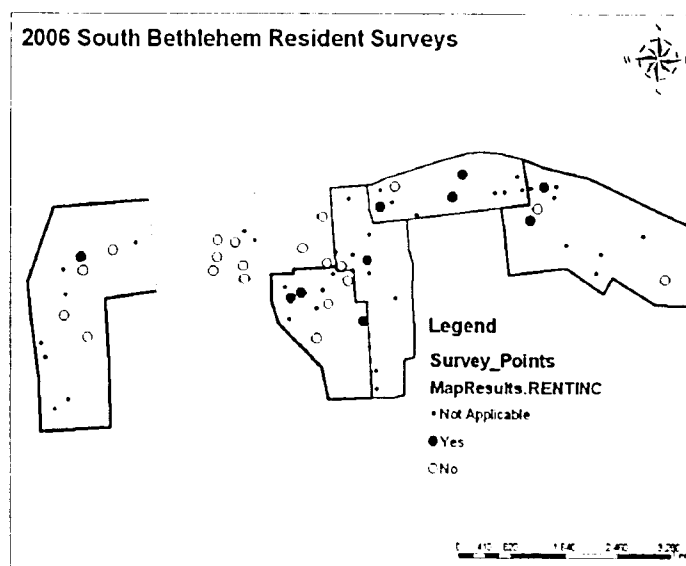
Housing Tenure: There is also a clear relationship between housing tenure and geography. Looking at Map 9, there are only two subdivisions in which renters make up the majority of residents in the sample, Central Business District and East of Lehigh. The Central Business District shows the largest group of renters at 81.8% of the interviewed people in that section. The other four sections have a majority of homeowners, with the largest percentage of homeowners in the Hayes Street Hill neighborhood, making up 81.8% of that section.

Map 9: Housing Tenure by Geography



Rent Increases: Although rent increases did not seem to be a large factor in the bivariate analysis, this is another variable that seems to gain new insight when looking at it in geographical context. Displayed by Map 10, the neighborhood most likely to have a resident who has experienced rent increases is in the East Third Street Corridor. East of Lehigh, Hayes Street Hill, and William Street Corner show an even split between ‘Yes’ and ‘No’ responses to rent increases. The West of Lehigh and Central Business District neighborhoods show a majority of ‘No’ responses to rent increases.

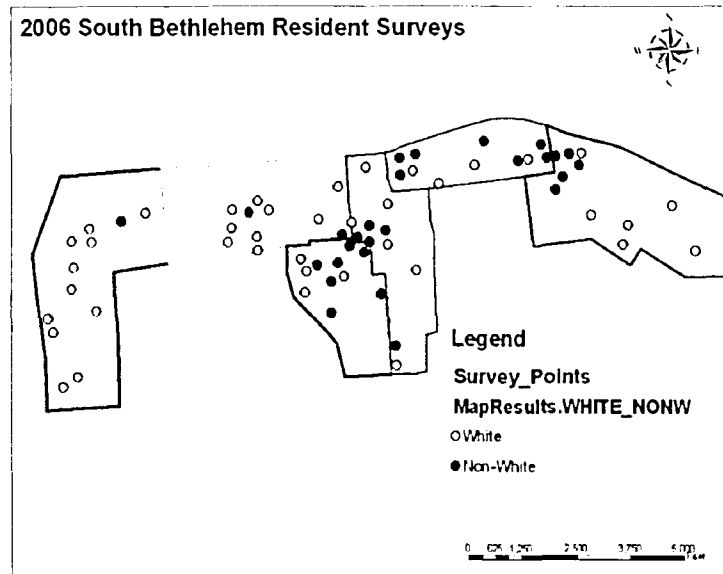
Map 10: Rent Increases by Geography



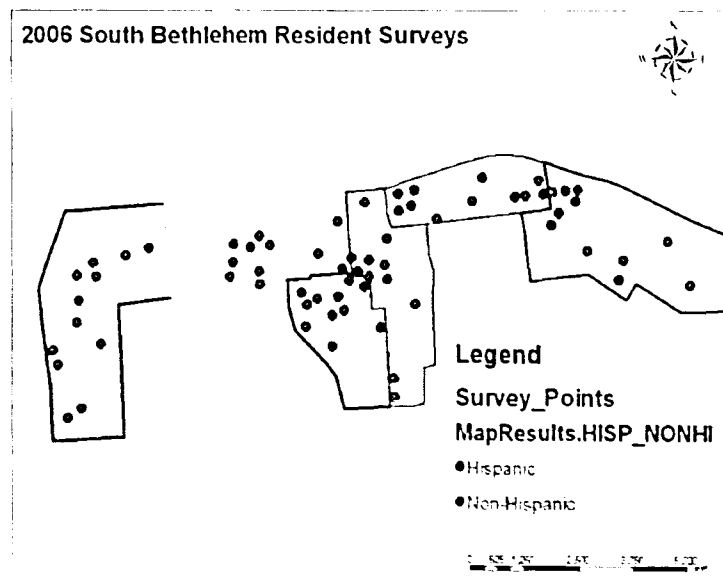
Race: Throughout it seems that our most useful variables for documenting the effects of race are the two recoded variables of White or non-White, and Hispanic or non-Hispanic. Both of these variables continue to show a strong relationship to most of the dependent variables in our analysis so far, so it is no surprise to see that they both have a significant relationship to geography here. Looking at Maps 11 and 12 below, the West of Lehigh and the Central Business District both had a large majority of white residents in the sample, 91.7% and 81.8%, respectively, for both sections. The East of Lehigh and

East Third Street Corridor sections show the largest sample of Non-White residents at 63.6% for both sections. Similarly, the East Third section shows the largest percentage of Hispanic residents at 54.5%. All other sections have a majority of Non-Hispanic residents.

Map 11: White and Non-White by Geography

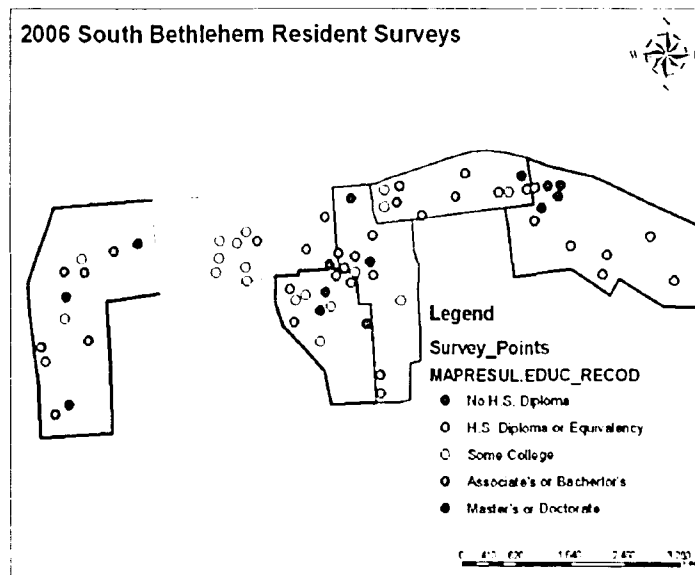


Map 12: Hispanic and Non-Hispanic by Geography



Education: Education is also significantly related to geography. Looking at Map 13, the West of Lehigh neighborhood shows a much higher level of education. The William Street section seems to have the lowest levels of education, with no one having more than a high school diploma. Residents in the Hayes Street Hill and Third Street neighborhoods on average have a high school education, with a few residents with some college or bachelor's degree. The Central Business District and East of Lehigh neighborhoods show an average of at least some college education.

Map 13: Education by Geography



From these results we can make a few generalizations about the characteristics of each of these neighborhood subdivisions and which sections are most likely to be at-risk of future changes in both the housing stock and other economic factors in South Bethlehem. We are looking for key themes in the geographic data that will help us to understand the data at the next level, the multivariate stage.

West of Lehigh: The neighborhood located just west of Lehigh University tends to be mostly student housing for the university. This section of the neighborhood tends to be the least likely to be experiencing financial pressures at the moment. This also seems to be a younger age group, and mostly white population, which are other factors that allude to the presence of student housing in this section. Although there are slightly more homeowners than renters, those who are renters seem to be less likely to have had rent increases in the past year, and none of these renters say they knew someone who had rent problems or had to move due to rent increases. This section also seems to have a higher level of education compared to other sections of the neighborhood.

Central Business District: This section also tends to be a younger population with a majority of white residents, which seems to indicate another segment of the student housing population. However, unlike the West of Lehigh section, this segment seems to be more prone to experiencing increased housing expenses in the past year. This section also seems to have a higher pressure level than the West of Lehigh section, with the highest percentage of residents at a Level 2 or 3 pressure level, 90%. The majority of residents are renters, and there are more of them who seem to know someone else who has had rent problems in the past year. Although length of residence appears to be somewhat higher than the West of Lehigh section, where students often move in and out every year, it still is lower than the Eastern sections of the neighborhoods.

East of Lehigh: This section seems to be more of a middle-aged segment of the population with an average age group of 35 to 49 years old. Slightly over half are renters, but unlike the two Western-most sections, this population is more racially diverse with a majority of Non-White residents, 63.6%, and most of the African-American

respondents in the sample. This demographic seems to have a High School diploma or some college education, but very few have higher than that. This section also seems to be the most likely to have someone who has experienced increased housing expenses in the past year, with 54.5% of the residents answering 'Yes' to this question. Overall, the pressure level seems to be relatively high with 63.7% of the residents in Level 2 or 3 pressure levels, which is a significantly lower percentage than the Central Business District with 90% in this category, but somewhat higher than other sections. This group also tends to have a shorter term of residence, with 36.4% living in their house only 2 years or less.

Hayes Street Hill: This section seems to be a varied group of individuals in many different categories. The residents from this section in our sample were mostly homeowners, 81.8%, and almost half of them have no more than a High School diploma. Like the East of Lehigh section, this seems to be a middle-aged group, with the majority of residents ranging between 25 and 49 years old. Over half of this group, answered 'No' to increased housing expenses in the past year, and even though the largest segment falls into the 'No Pressure' range, 36.4%, there is still more half the section, 55.5%, that falls into the Level 2 and 3 pressure range when scores are combined. This is a fairly mixed neighborhood racially, with a 55% to 45% ratio of White to Non-White residents, but it is mostly Non-Hispanic, with 81.8%. Length of residence is harder to pinpoint for this section because there are an equal number of respondents at a Level 2 residence, 3 to 18 years, as there are at a Level 5 residence, 27 years or more.

East Third Street Corridor: This section is the only neighborhood that has a majority of Hispanic residents in the sample, at 54.5%. Much like the last two sections it

is mostly a middle-aged group, with most of the residents falling in the 35 to 49 years category. This neighborhood seems to be at a moderate pressure level for the moment. Only 36.4% of the residents responded 'Yes' to having increased housing expenses in the past year, but another 36.4% also answered 'No, still a lack of money for other things is a problem, but it is not the result of increased housing expenses.' This makes it look like the majority of the residents are claiming at least some level of financial pressure. We can also see this with pressure level, where 54.5% of the residents in the section fall into the Level 2 pressure group. However, there is also 27.3% which fall into the Level 1 pressure group. This section also had 75% of its renters who claimed their rent had increased in the past year, this is the only section that showed a large percentage for this occurrence. 64% percent of the people in this section are homeowners, and almost half have lived in their house for at least 21 years, which means this section has a longer term resident base than the previous four neighborhoods we have looked at so far.

William Street Corner: There definitely seems to be some general trends as we move across the neighborhood from the West side to the East side. As we move towards the middle of the neighborhood we tend to find groups that are more likely to be experiencing financial pressure, where the edge neighborhoods score the lowest on average pressure level. Like the West of Lehigh section, the William Street section seems to be the least likely to be experiencing financial pressure. Almost half of the residents in this section fall into the No Pressure category and 64% answered 'No' to increased housing expenses in the past year. Like the West of Lehigh section, this section tends to be a majority White, Non-Hispanic population. 64% of the residents in this section are homeowners.

Where this section differs, however, is in age, length of residence and education. This population seems to be older with over half the population of 50 years or more, 54.6%. This section also has the highest length of residence with 72.8% of the sample living in their house for 21 years or more. Unlike the West of Lehigh section which had the highest education levels for the entire sample, this section seems to have the lowest education levels. Not one single person from this section has an education of more than a High School diploma. As suggested before, whereas the Western section seems to represent staff, faculty and student housing for Lehigh University, this segment, in the corner pocket of the neighborhood, seems to have the highest percentage of remnants from the Bethlehem Steel era, ex-workers or relatives of ex-workers at the Steel plant. Both of these populations seem to be least likely to be experiencing financial pressure at the moment even though one is a more transient, younger, more educated population and the other is a more stable, older, and less educated population.

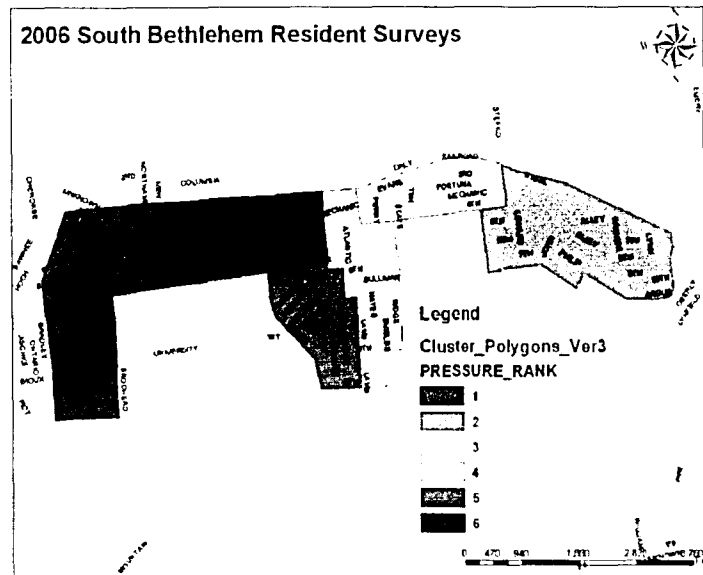
If we return our attention to the pressure level scores for each section of the neighborhood we can create a ranking of sections that are most at-risk. Combining all residents for each section with a Level 2 or Level 3 pressure level score we can rank the six neighborhood subdivisions by overall pressure level ranks in Table 10.

Table 10: Pressure Level Ranks by Neighborhood Subdivisions

Pressure Level Rank	Subdivision Name	Percent with Level 2 or 3 Pressure Group
1	Central Business District	90.0%
2	East of Lehigh	63.7%
3	East Third Street Corridor	63.6%
4	Hayes Street Hill	45.5%
5	William Street Corner	44.4%
6	West of Lehigh	16.7%

The pressure level ranks by neighborhood subdivision are displayed visually in Map 14. The green sections represent the lower pressure levels, the yellowish sections represent the mid-range groups, and the red sections represent the higher pressure level sections.

Map 14: Pressure Level Ranks for Neighborhood Subdivisions

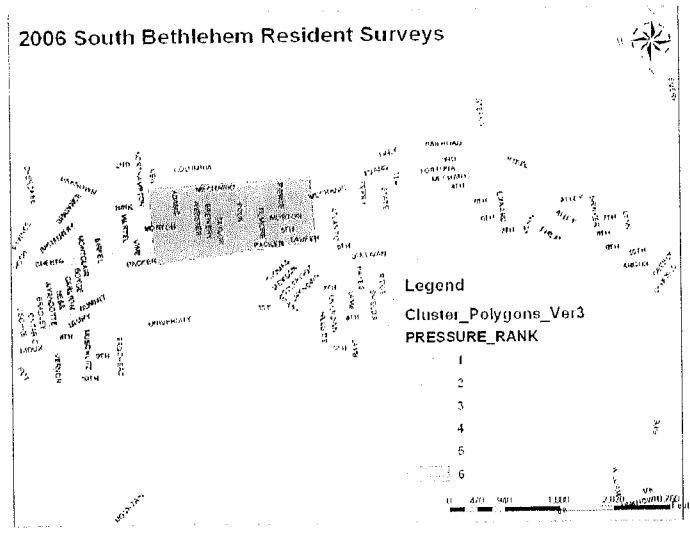


From the analysis so far it appears that location within the sampling frame has an impact on whether someone is experiencing financial pressure. The analysis of the 6 neighborhood subdivisions above leads us to believe that residents located near the center of the neighborhood, in particular those in the Central Business District and East of Lehigh sections, are facing higher financial pressures than those living on the periphery, the West of Lehigh and William Street Corner neighborhoods.

We can take the analysis one step further by creating a dummy variable for location in the core or periphery. Map 15 below shows the division of survey points based on whether they are located in the core or the periphery of the neighborhood. An

The pressure level ranks by neighborhood subdivision are displayed visually in Map 14. The green sections represent the lower pressure levels, the yellowish sections represent the mid-range groups, and the red sections represent the higher pressure level sections.

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independent samples t-test, Table 11, shows that the relationship between core and periphery and pressure level is significant at the .05 level. By adding GIS to the analysis we were able to find this significant variable that otherwise would have been hard to find in the bivariate analysis. It seems that location in the core or the periphery is as important to indicating pressure level as our other key independent variables of length of residence, housing tenure and race.

Map 15: Core vs. Periphery

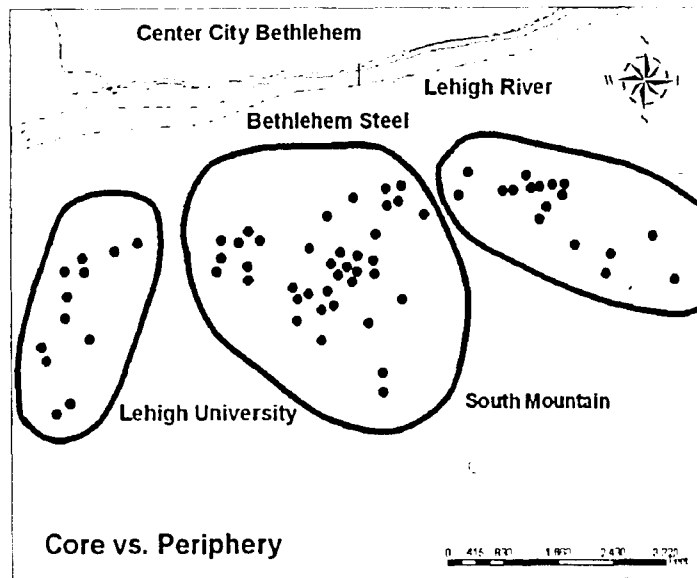


Table 11: Pressure Level by Core/Periphery

	<i>Core</i>	<i>Periphery</i>	<i>Sample Mean</i>	<i>t-value</i>	<i>df</i>	<i>Sig.</i>
<i>Pressure Level</i>	9.24	5.10	7.39	2.52	61.19	.014**

Multivariate Analysis

The final step in our data analysis is to look for relationships on the multivariate level. So far we have found a few key independent variables that are significantly related to pressure level. On a multivariate level, we may be able to identify which of these

variables may actually be the most significant, and thus would help direct our policy recommendations for future steps to help out with those who are experiencing financial pressures.

A number of different multiple regression models were examined in order to find the best-fit model to explain the relationship between our independent variables and the pressure level scale. Table 12 shows the most significant model out of all of these attempts to find conclusive results. When we run Years in Neighborhood, White or Non-White, Own or Rent and Core or Periphery in a multiple linear regression against Pressure Level, the results from this model are significant ($F = 3.583$, $p = .009^{***}$). When holding all things constant, our multivariate regression model shows that the location of core vs. periphery appears to be the most significant determinant of pressure level. When looking at all key independent variables together, the other three variables are no longer statistically significant. This leads us to a final conclusion that location to core vs. periphery is the key feature that we have been looking for in our quest to find the most important factors in pressure level²¹.

Table 12: Multiple Linear Regression Model

Regression Model	Beta	t-scores	Sig.
YearsNeigh	-.220	-1.668	.101
White or Non-White	-1.57	-1.284	.204
Own or Rent	.072	.564	.575
Core or Periphery	.292	2.477	.016**

significant at the .05 level. *significant at the .01 level

²¹ See Appendix 7 for notes on multivariate analysis.

CONCLUSION

As previously suggested from the literature on gentrification, South Bethlehem is not likely to experience the type of demographic shift that urban neighborhoods in large metropolitan areas face due to a lack of white collar, service-sector employment opportunities and other cultural and aesthetic tastes of urban middle-class gentrifiers. From our sample, we have a 10% vacancy rate and 13% of all parcels are considered developable land, which suggests that even if the demographic shift was possible, revitalization would likely be able to occur without widespread displacement.

From this new perspective on the literature, I have tried to pull the debate away from the gentrification and displacement issues and focused my survey research on an assessment of standard of living and neighborhood and housing quality. This research is unique in that it provides an opportunity for us to view the perceptions of residents in terms of their housing, finances and neighborhood changes. From this survey, we have not only provided a baseline data for documenting future neighborhood changes in both demographic characteristics and changes in land use, but we have also provided some initial data on what are most likely to be at-risk households and the geographical context where these pressures are most likely to be happening now and, even more so, in the near future.

Some of our findings are not necessarily new revelations in and of themselves. We would already expect to find that renters are more prone to housing pressures than homeowners, and that, demographically, whites and non-Hispanics are less pressured than non-white and Hispanic residents. It also makes sense that residents who have lived in their houses longer are less pressured because they are more likely to be stable

households who have had the opportunity to become homeowners and develop ties to the neighborhood in the form of social and human capital.

What the data does suggest, however, is that it is not just length of residence, but these long term residents tend to represent a specific social niche in the neighborhood. White, elderly, long term residents, with lower levels of education suggest the remnants of ex-steel workers and descendents of former steel workers that still live in the neighborhood. These households are most likely to no longer have a mortgage, and to have decent pension plans and show signs of lower financial pressure.

Contrarily, newer residents, who are more likely to be of Hispanic or Latino origin, non-White, younger in age, living in larger households with greater numbers of children under the age of 18, and renters, not only represent a more transient group, but a group that is most at-risk. As mentioned briefly before, studies of displacement tend to underestimate the impact of appreciating household expenses since low-income households tend to move a lot anyway. This is not necessarily a by-product of gentrification forces but of a regional growth in the consumer inflation rate which causes financial pressures in both housing and non-housing markets.

To support this, the causes that residents gave for the financial problems they were experiencing seemed to vary and slightly favor various non-housing factors. Unemployment was a major cause in some households, whereas, the costs of heating, gasoline prices, and other widespread cost increases seemed to be more prevalent as major causes than mortgage problems, tax and rent increases, or concerns about residential displacement due to changes in the housing market. Yet, these are issues that even suburban residents face, let alone residents in both gentrifying and non-gentrifying

housing neighborhoods. It is important to keep in mind that during the time period that these surveys were being collected, the entire region was experiencing unnaturally high gas prices, which could be a factor in why commuting and heating costs were such prevalent issues from the survey results. Regardless of these factors, we do not need to prove the existence of gentrification in order to realize that we still have some needs in the South Bethlehem community that need to be addressed.

Another interesting finding from this research is that GIS technology allows us to view an important part of the data that otherwise might be harder to catch. The assumption going in was that the Eastern-most sections along the Bethlehem Steel land would be the most at-risk sections within South Bethlehem. What we found, however, is that the neighborhoods more central to the target area, the area adjacent to the central business district and the Eastern edge of Lehigh University, seem to be experiencing the most financial pressure at this point. These neighborhoods show a very racially and economically diverse group of people. The location of these pressured groups suggest that revitalization along the Third and Fourth Street business corridor, as well as the institutional presence of a community asset such as Lehigh University tend to be at the forefront of neighborhood change, more so than the speculation of the waterfront casino development. This leads us to believe that development on the former Bethlehem Steel site may not immediately create the financial pressure that it is expected to.

On a side note, however, much of the real estate development activity that I came across during my surveys was located in the Eastern sections of the target area. From new townhouses up on South Mountain overlooking future BethWorks land to newly constructed townhouses adjacent to the Steel land along Third Street selling for four

times more than the neighboring dilapidated properties – the visual signs are all there. It is no wonder that gentrification has recently become a topic of public concern. Yet, gentrification cannot be forced upon an area just by producing gentrifiable properties, as was discussed in the literature on Smith’s production-side approach, and Ley’s consumer-based approach. From a theoretical perspective, and from the survey findings thus far, it is arguable that gentrification is either a non-factor, or at least a premature concept at this point.

Policy Recommendations:

The important thing, from a policy perspective, is to stay vigilant and to develop proactive agendas that initiate plans for equitable development. South Bethlehem will need a lot more job production than BethWorks alone can provide. If this happens, then it is reasonable to believe that housing production will follow where there is demand. The survey findings suggest that there are certain types of groups that need financial assistance in order to remain a respectable standard of living in the face of a changing neighborhood.

As the findings suggest, the key area to focus on needs to be the core residential areas located adjacent to the business district and Lehigh University. More analysis needs to be done on this core group, to explain why this area is facing significantly more amounts of financial pressure than other areas of the neighborhood. Much focus has been given to the Eastern Gateway section of the Southside due its closeness to the future BethWorks redevelopment site. For now, the more pressing issue seems to be this

centralized area. The attention of community advocates and policymakers should focus on providing resources and financial assistance to the households within this section.

From a more speculative approach, other recommendations can be given that are not tied in directly to the findings from the survey research. There are a variety of other resources that are certainly needed for residents on the Southside. Homeownership programs are only one piece of the puzzle. The capital is still necessary to create homeownership opportunities. The City of Bethlehem stands to gain from the BethWorks development, yet it remains to be seen what the South Bethlehem neighborhood will receive in return. A proactive plan for equitable development calls for a reasonable give and take between all parties involved. A certain percentage of the revenue that the City produces off of Sands BethWorks should go into an opportunity fund for Southside residents. This fund can be used as start-up investment money for various programs targeted towards South Bethlehem residents and business owners.

For residents, certain funds need to be available for the demographic that has been considered most at-risk according to this survey: core neighborhood residents, low-income, renters, minorities, younger households with children, people with high levels of residential mobility. For the business owners, small, privately-owned businesses with owners who live in the neighborhood need to be supported. This helps to develop the capacity of local skills and talent, in the face of outside investment such as the less-sustainable development plans, like BethWorks and other private investments that have increased in the area.

Although homeownership programs continue to be a dominant necessity, there are also needs for home improvement grants for repairing existing housing conditions for

homeowners, and façade grants for small business owners. Also, the residential mobility is not so much the problem of high levels of renters, but as to high levels of absentee landlords. The impact of absentee landlords seems to be a common theme from the residents I spoke with while conducting my surveys. The City needs to address the issue of absentee landlords. Local community agencies could be funded to work with residents on rental contracts, mediation/conflict negotiation with absentee landlords, etc.

Another pressing issue seems to be the needs of Lehigh University, as a growing school and its needs for land and buildings for expansion purposes. This will only create a tighter housing market, thus making displacement more likely for certain households. Lehigh may want to use some space at BethWorks, new buildings, facilities, or residences, in order to reduce the limited supply in the neighborhood housing stock for the needs of Lehigh and its students.

The above analysis is only meant as an introductory and explanatory analysis of the various forms of revitalization facing South Bethlehem and the entire Lehigh Valley region now and in the near future. A commitment needs to be made for funding for continued research of various local development issues that can potentially impact the quality of life for all residents of the region. South Bethlehem is full of potential, but there is definitely reason to believe that a slow, methodical, well-thought out approach to urban development goes a much longer way in producing a sustainable future, than rapid development and unnecessary speculation. Perhaps, some of what we have witnessed so far is just speculation, or perhaps there really is much more on the way. The bottom line is that local policymakers and community advocates can encourage growth while also

working to keep families and households intact and to provide affordable housing for all segments of the residential population.

Limitations and Future Research:

One of the key limitations of the survey instrument is that all scales used to measure financial pressures are original and have not been tested by other researchers. Therefore, there are no comparative scores to measure against our sample. Also, it is important to note that there were only two bilingual surveyors on the data collection team so there may have been some instances of problems with language barriers between the surveyors and the respondents. In my experience, only twice was I not able to complete a survey because the potential respondent did not speak English. There may have been many other situations where a respondent did not know how to answer correctly because of specific language problems, especially with the technical financial terms being used in the survey. Besides this, there are many other languages spoken in the neighborhood besides English and Spanish, and even among Spanish speakers there are differences in slang that represent a diverse group of Hispanic and Latino ethnic backgrounds.

Although it was not necessary for the respondent to have prior background knowledge on the issues they were asked about, we can assume that the validity of our measures may be limited by the cultural differences between the creators of the survey and the actual respondents. The technicality of the language, specifically when dealing with financial and economic terms seems to be a major limitation. It is likely that we would have found more specific financial problems had these limitations been accounted

for properly. There are also basic trust issues between student surveyor and community resident that may have kept people from speaking openly about their financial problems.

Another limitation with this research is that the 18015 zip code area was chosen for comparing survey results to Census data. Although the majority of the population that lives in the 18015 is covered by the sampling frame, it is not a perfect match in geographic context. Also, census data from 2000 is the most recent data that can be found at the zip code level. Although updates to the census data were completed in 2005, this data is only accessible at the city and county levels. Due to the uniqueness of the Southside area, city-wide data is not helpful for comparison purposes. Therefore, Census 2000 data is used even though it is somewhat problematic to know whether differences between the sample and the census are caused by changes in the demographic characteristics of the neighborhood since 2000, or whether my sample over- or under-compensates for certain demographic characteristics. Despite these limitations, the sample demographics seemed fairly representative of the entire zip code area according to Census 2000 data.

The updated Census 2010 creates an opportunity to revisit this sample not only to track changes but also to improve upon generalization of the sample. Although the literature leads us to believe that gentrification may be an inappropriate term to use to define the situation in South Bethlehem, the only way to completely document a social phenomenon like this is to continue demographic studies over long periods of time. The results from this survey help us to understand what groups are most at-risk to financial pressures, but the key for this data collection is to provide baseline data for future studies that can document more specific demographic changes to come.

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- "On the Existence of Gentrification in Southside Bethlehem as Expressed in Rents", Todd A. Watkins and M. Garrett Roth, The Martindale Center, Economic Notebook, August 2005.

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<http://gothamgazette.com/article/Demographics/20031209/5/799>
- Save Our Steel. A local non-profit organization provides a website with full documentation on the BethWorks Now plan, including an image gallery of the proposed model, and a news archive covering the entire planning process.
<http://www.saveoursteel.org>
- Philadelphia Gaming Control Board: Sand BethWorks Gaming Impact Report
www.pgcb.state.pa.us/lir_Sands.htm

Appendices

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CODE _____ DATE _____ SURVEYOR'S NAME _____

Hello, we are with CACLV, the Community Action Committee of the Lehigh Valley, located at the Forte Building on 5th and Williams Street. We would like to ask you a few questions today. CACLV is concerned about the residents in South Bethlehem and are interested in whether changes in housing prices and rents are creating financial problems for the homeowners and renters in this neighborhood. CACLV hopes to use this information to provide improved financial services and to create more opportunities for South Bethlehem residents.

Do you live here? (If yes, then continue. If no, then ask to speak with someone else.) We are interested in speaking with someone who is familiar with the mortgage or rent situation for this household. Are you able to answer questions about this?

The survey will only take 15 minutes of your time. Before we begin, we must provide you with a form that guarantees we have agreed to keep your identity anonymous and your responses confidential. (Hand R an informed consent form. Offer to summarize it for them or give them a chance to read through it on their own. Make sure they understand it clearly and have no further questions regarding the survey. Tell them to keep the consent form for their records. Continue with the survey.)

SECTION ONE - INTRODUCTION

1. Type of Interview

- Regular – Occupied (Begin with Question 3)
- Non-interview (Begin with Question 2)

2. Reason for Non-interview

a. Type A (STOP)

- No one home
- Temporarily absent (i.e. – neighbor says they are on vacation, etc.)
- Refused
- Unable to locate
- Other occupied (specify) _____

b. Type B (Proceed to Section 6)

- Unit for nonresidential use
- Under construction – not ready
- Vacant or abandoned structure
- Other unoccupied (specify) _____

3. What is your age? (R must be at least 18 years old in order to continue)

4. Sex (Surveyor should observe this without asking directly)

- Male
- Female

5. Do you (or your family) own or rent this unit?

- Own or buying (**HO** questions)
- Rent by you or someone else (**RO** questions)
- Rent-to-Own / Lease-Purchase (**RO** questions)

6. How long have you lived in this house? (Write actual # of years if provided)

- Less than 1 year (remember to ask Q23!)
- 1 year to less than 2 years
- 2 years to less than 5 years
- 5 years to less than 10 years
- 10 years or longer # years _____

7. How long have you lived in this neighborhood? (Write actual # of years)

- Less than 1 year
- 1 year to less than 2 years
- 2 years to less than 5 years
- 5 years to less than 10 years
- 10 years or longer # years _____

8. In your opinion, has your neighborhood gotten better, gotten worse or stayed about the same since you have been here?

- Gotten better
- Gotten worse
- Stayed about the same
- Don't know

8a. Would you like to explain your answer? (Unless they answered "don't know")

9. Before I ask the next question I would like to make it clear that this survey has no connection to the Sands BethWorks casino development.

If the BethWorks casino proposal is accepted, how do you think that will change the neighborhood?

- It will improve
- It will get worse
- It will stay the same
- Don't know
- I'm not familiar with the BethWorks casino proposal

9a. Would you like to explain your answer?

(Skip this question if they answer "don't know" or "I'm not familiar with the BethWorks casino proposal")

10. If the BethWorks casino proposal is accepted, what effect do you think it will have on you and your family financially?

- It will improve my situation financially
- It will worsen my situation financially
- It will have no effect on my financial situation
- Don't know
- I'm not familiar with the BethWorks casino proposal

10a. Would you like to explain your answer?

(Skip this question if they answer "don't know" or "I'm not familiar with the BethWorks casino proposal")

SECTION TWO – HOMEOWNERS & RENTERS*

It is important for us to understand what effect the real estate market is having on both homeowners and renters in this neighborhood. Please answer the following questions to the best of your ability.

(Circle HO or RO, based on Question #5, page 1)

- * **HO** = Questions for Homeowners Only
- RO** = Questions for Renters Only

11. The following is a list of topics that are related to financial education. Please indicate how familiar you are with each of these topics from very familiar, to somewhat familiar, to not familiar at all:

	Very familiar	Somewhat familiar	Not familiar at all
Budgeting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Home Equity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Refinancing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Predatory Lending	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gentrification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Flipping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. (If R answers "Very familiar" to every item in Q11, then skip this question. If they answer "Somewhat familiar" or "Not familiar at all" to any item in Q11, then re-read only those particular items)

I will go over some of those topics again. If the Community Action Committee of the Lehigh Valley were to offer educational workshops on any of these topics, would you be interested in attending?

	Interested in attending workshop?
Budgeting	<input type="checkbox"/>
Credit	<input type="checkbox"/>
Loans	<input type="checkbox"/>
Investing	<input type="checkbox"/>

Saving	<input type="checkbox"/>
Home Equity	<input type="checkbox"/>
Refinancing	<input type="checkbox"/>
Predatory Lending	<input type="checkbox"/>
Gentrification	<input type="checkbox"/>
Property Flipping	<input type="checkbox"/>

13. I am going to read a list of financial problems that people might have. For each one, can you tell me if it was no problem, a small problem, or a big problem for you and your family in the past year?

	No Problem	Small Problem	Big Problem
(HO) Paying your mortgage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(RO) Paying your rent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying your car payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying your utility bills (electricity, gas, oil, water, garbage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying for groceries or other essential items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying for entertainment activities (movies, dining, fun)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying for non-essential items (clothing, toys, household items)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying for gas, or other transportation costs (including car repairs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. (If R answered "No Problem" to all of the items in Q13, then skip this question and proceed to Q15)

The following is a list of potential causes for any of the financial problems mentioned above. For each one, indicate if you consider it to be no cause, a minor cause, or a major cause of any financial problems that your family is experiencing?

	No Cause	Minor Cause	Major Cause
(HO) Increased mortgage payment due to refinancing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(HO) Increased real estate taxes due to tax re-assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(RO) Increased rent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased cost of local goods and services as newer, more expensive businesses are moving into the neighborhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Higher costs for commuting to work (gas prices, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrease in household income due to a loss of job, demotion in pay, or other reasons for unemployment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sickness or injury which has limited the ability of any household members to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increases in utility bills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increases in other household expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. In the past year, have increased housing expenses left you and your family with less money for other things?

- Yes
- No, a lack of money left for other things is still a problem, but it is not the result of increased housing expenses
- No, not a problem at this time

15a. Would you like to explain your answer?

(Give R the chance to discuss exactly what is at the root of increased expenses, i.e. – is it their oil bill, is it their taxes, is it day care expenses, etc.)

16. The following is a list of potential things one might do in order to compensate for an increase in housing expenses. Please indicate if any of the following items are things that you have done, or think you might have to do in the future in order to compensate for rising costs.

	Yes	No	Might Have To
(HO) Refinanced your mortgage in order to have cash to pay for debts or other purchases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(HO) Sold your house in order to pay off other expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(RO) Made agreements with your landlord to do extra work on your house/apt in order to maintain an affordable rent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(RO) Looked for another house or apartment with cheaper rent and/or utility costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Invited friends or family to move into your house in order to help cover expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sought out the help of local community agencies in order to get financial assistance to help cover utility bills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used a credit card to make purchases that you normally would have paid for with cash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taken out temporary loans to help cover expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Devoted more of your income to housing expenses, which has left you with less expendable income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taken on an extra job in order to cover expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16a. COMMENTS (Explain any other detailed information that R provides from Q16)

(HO) SECTION THREE – HOMEOWNERS

It is important for us to understand other financial issues that homeowners may be experiencing. Please answer the following questions to the best of your ability.

17. Have you received any offers to sell your house in the past year?

- Yes
- No (Proceed to Question 18)

Could you tell me more about the most recent offer?

- 17a. How did you receive this offer?** _____
- 17b. What was being offered?** _____
- 17c. Contact information? Who was it?** _____
- 17d. How did you respond to this offer?** _____
- 17e. How much do you think the house is worth today?** _____
- 17f. Have these offers increased over the past year?** _____

18. Has anyone else you know in this neighborhood received offers to sell their house in the past year?

- Yes
- No

19. Have you received any offers to refinance your mortgage in the past year?

- Yes
- No (Proceed to Question 20)

Could you tell me more about the most recent offer?

- 19a. How did you receive this offer?** _____
- 19b. What was being offered?** _____
- 19c. Contact information? Who was it?** _____
- 19d. How did you respond to this offer?** _____
- 19e.** (Do not repeat this question if Q17e was already asked)
How much do you think the house is worth today? _____
- 19f. Have these offers increased over the past year?** _____

20. Has anyone else you know in this neighborhood received offers to refinance their mortgage in the past year?

- Yes
- No

(RO) SECTION FOUR – RENTERS

It is important for us to understand what type of effect the real estate market is having on renters. Please answer the following questions to the best of your ability.

21. Has your monthly rent increased in the past year?

- Yes
- No (Proceed to Question 22)

- 21a. How much?** (Get actual dollar amounts before and after increase, if possible) _____
- 21b. Is this is a problem?** _____
- 21c. How have you adjusted to this increase?** _____
- 21d. What was the reason for the increase?** _____
- 21e. Do you think this is a fair rent for this apt/house?** _____

22. Has anyone else you know in this neighborhood had a financial problem from their monthly rent increasing in the past year?

- Yes
- No

23. (Unless R answered "less than 1 year" to Q6, skip this question)
Have you had to move as the result of increasing rents in the past year?

- Yes
- No (Proceed to Question 24)

- 23a. How many times did this occur in the past year?** _____
- 23b. Where did you move from before living at this location?** _____
- 23c. Where would you consider moving to if this happens again?** _____

24. Has anyone else you know in this neighborhood had to move as the result of increasing rents in the past year?

- Yes
- No

25. Are you concerned you might have to move out of this neighborhood within the next three years, due to increasing housing costs?

- Yes
- No

25a. Would you like to explain your answer?

SECTION FIVE - DEMOGRAPHICS

Ok, we are almost finished. I just have a few more questions so that we can know a little bit about the people participating in our survey.

26. How many people live in your household? _____

27. If you have children in your household, how many are under 18? _____

28. What is the primary language spoken in your home?

- English
- Language other than English (please specify) _____

29. What do you consider to be your race? _____

(Surveyor should note this without asking if R's racial category is apparent)

30. What is your ethnicity? _____

31. Please indicate which letter best describes the highest level of education you have completed?

- A - Did not complete high school _____
- B - High School diploma
- C - GED
- D - Some college education
- E - Associate's Degree
- F - Bachelor's Degree
- G - Master's Degree
- H - Doctorate Degree or above

32. Please indicate which letter best describes your estimated household income before taxes?

- A - Under \$7,500 _____
- B - \$7,500 to just under \$15,000
- C - \$15,000 to just under \$25,000
- D - \$25,000 to just under \$35,000
- E - \$35,000 to just under \$50,000
- F - \$50,000 to just under \$75,000
- G - \$75,000 to just under \$100,000
- H - \$100,000 or more

Closing Comments:

Is there anything you would like to know about this survey?

(Offer R any additional information that is needed for them to feel comfortable with their participation in the survey. Thank them for their time. Exit interview and proceed to Section 6, Observations Section, to be filled out after you leave the interview)

SECTION SIX

Interviewer Observations

LAND USE

- Residential
- Commercial
- Industrial
- Mixed-Use
- Recreational
- Vacant Land

OCCUPANY STATUS

- Occupied
- Vacant
- Abandoned
- Not For Occupancy
- Unknown

BLDG TYPE

- Detached home
- Twin or Semi-detached
- Rowhome
- Apartment/Multi-Family
- Commercial Bldg
- Industrial Whse
- No Bldg Structure

#STORIES _____

#UNITS _____

VACANCIES ON BLOCK

- Yes (Est. Amt. _____)
- No

NAME/AFFILIATION (for Commercial/Industrial Parcels)

OTHER COMMENTS

Appendix 2: Characteristics of Land Use

Housing Occupancy:

Census (HOUSING OCCUPANCY)

Total housing units:	11,315	<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Occupied:	10,507	92.9%	89%	-3.9
Vacant:	808	7.1%*	11%*	3.9

*Sample statistics based off of 246 parcels where occupancy or vacancy status was recorded. 11% vacancy rate of sample; gentrifying areas are typically connected to a vacancy rate of 5% or less.

Housing Tenure:

Census (HOUSING TENURE)

Occupied housing units:	10,507	<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Owner-occupied housing units:	6,331	60.3%	57.1%	-3.2
Renter-occupied housing units:	4,176	39.7%	42.9%	3.2

Land use observations:

12.9% vacancy rate = high rate of potential development*

<u>Sample</u>	<u>N</u>	<u>Valid Percent</u>
Occupied parcels	234	77.5%
Residential	212	70.2%
Commercial	10	3.3%
Mixed-Use	7	2.3%
Vacant Land	2	0.7%
Other/Garage	3	1.0%
Vacant or Abandoned parcels	39	12.9%
Residential	26	8.6%
Commercial	3	1.0%
Mixed-Use	1	0.3%
Vacant Land	9	3.0%
Not For Occupancy	6	2.0%
Unknown Status	23	7.6%
<i>Completed land use surveys</i>	302	
<i>Missing land use surveys</i>	2	
<i>Total parcels surveyed</i>	304	

Residential parcels:

Occupied	219	80.2%
Vacant or Abandoned	27	9.9%
Not For Occupancy	6	2.2%
Unknown Status	21	7.7%
Total parcels	273	

Appendix 3: Demographics of Sample

Race Demographics:

<u>Census: (RACE)</u>		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
White	23,993	77.4%	61.4%	-16*
Black or African American	1,299	4.2%	5.7%	1.5
Asian	787	2.5%	1.4%	-1.1
Some other race	3,874	12.5%	28.6%	16.1*
Two or more races	928	3.0%	2.9%	-0.1

* Problems with comparing the census data to our sample data since “Hispanic or Latino” is not treated as a category of race by the census, and our respondents do consider it to be their race. Those who responded Hispanic, Latino, Spanish, etc. for Race are listed in our sample data under “Some other race”, which explains the % difference of 16.1.

Percentage of Hispanic to Non-Hispanic:

<u>Census: (HISPANIC OR LATINO AND RACE)</u>		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Hispanic or Latino	7,424	23.9%	25.8%	1.9
Not Hispanic or Latino	23,584	76.1%	74.2%	-1.9

Language:

<u>Census: (LANGUAGE SPOKEN AT HOME)</u>		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
English only	21,264	72.9%	78.6%	5.7
Language other than English	7,899	27.1%	27.3%	0.2
Spanish	5,654	19.4%	17.1%	-2.3
Other Indo-European	1,296	4.4%	2.9%	-1.5
Asian and Pacific	635	2.2%	1.4%	-0.8

Education:

<u>Census: (EDUCATIONAL ATTAINMENT)</u>		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Population 25 years and over:	17,276			
Did not complete high school	4,386	25.4%	21.2	-4.2
High school graduate (equivalency)	5,577	32.3%	44.0	11.7
Some college, no degree	2,448	14.2%	15.8	1.6
Associate degree	1,044	6.0%	1.8	-4.2
Bachelor’s degree	2,110	12.2%	10.5	-1.7
Graduate or professional degree	1,711	9.9%	8.8	-1.1
Percent high school graduate or higher		74.6%	78.8	4.2
Percent bachelor’s degree or higher		22.1%	21.1	-1.0

Income:

Census: (INCOME IN 1999)

Households		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
\$14,999 and under	2,354	22.5%	34.3%	11.8
15,000 to 24,999	1,387	13.3%	22.7	9.4
25,000 to 34,999	1,421	13.6%	15.6	2
35,000 to 49,999	1,648	15.8%	10.0	-5.8
50,000 to 74,999	1,940	18.5%	11.4	-7.1
75,000 to 99,999	737	7.0%	5.7	-1.3
100,000 and over	975	9.3%	0	-9.3

Sex:

Census: (SEX AND AGE)

		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Male	15,670	50.5%	48.6%	-1.9
Female	15,338	49.5%	51.4%	1.9

Age:

Census: (SEX AND AGE)

Population over 18 years:		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
20 to 24 years	4,091	19.0%	17.4	-1.6
25 to 34 years	3,780	17.6%	18.8	1.2
35 to 44 years	4,253	19.8%	20.3	0.5
45 to 54 years	3,475	16.2%	18.8	2.6
55 to 59 years	1,278	5.9%	4.3	-1.6
60 to 64 years	979	4.6%	8.7	4.1
65 to 74 years	1,767	8.2%	5.8	-2.4
75 to 84 years	1,497	6.9%	4.3	-2.6
85 years and over	388	1.8%	1.4	-0.4
<u>Census:</u>		<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
18 years and over	23,800	100%	100%	0
21 years and over	20,207	84.9%	92.9%	8
62 years and over	4,208	17.7%	18.6%	0.9
65 years and over	3,652	15.3%	11.4%	-3.9

Average Household Size:

Census

Average household size 2.62

Sample

Average household size 3.43

Households with individuals under 18 years:

Census

Total households	10,507	<u>CENSUS</u>	<u>SAMPLE</u>	<u>%DIF</u>
Households with individuals under 18 years	3,621	34.5%	41.4%	6.9

Appendix 4: List of Variable Labels

Sex:	Male or Female
OwnRent:	Owner or Renter
OfferSell:	Have you received any offers to sell your house in the past year?
OtherSell:	Has anyone else you know in this neighborhood received offers to sell their house in the past year?
OfferRefi:	Have you received any offers to refinance in the past year?
OtherRefi:	Has anyone else you know in this neighborhood received offers to refinance their house in the past year?
RentInc:	Has your monthly rent increased in the past year?
OtrProbRent:	Has anyone else you know in this neighborhood had financial problem from their monthly rent increasing in the past year?
MoveRent:	Have you had to move as the result of increasing rents in the past year?
OtrMoveRnt:	Has anyone else you know in this neighborhood had to move as the result of increasing rents in the past year?
AfraidMove:	Are you concerned you might have to move out of this neighborhood within the next three years, dues to increasing housing costs?
Language:	What is the primary language spoken in your home?
White_NonWhite:	White or Non-White
Hispanic_NonHisp:	Hispanic or Non-Hispanic
CorePeriphery:	Household located in the Core or Periphery of the Target Area
Race_Recode:	Recoded categories for Race
Ethnicity_Recode:	Recoded categories for Ethnicity
Education:	Highest level of education completed
Income:	Estimated household income before taxes
Age:	Age
YearsHouse:	How long have you lived in this house?
YearsNeigh:	How long have you lived in this neighborhood?
NumHouse:	How many people live in your household?
Children:	If you have children in your household, how many are under 18?
MortCause:	Increased mortgage payment due to refinancing?
TaxesCause:	Increased real estate taxes due to tax re-assessment?
RentCause:	Increased rent?
GoodsCause:	Increased cost of local goods and services as newer, more expensive businesses are moving into the neighborhood?
CmuteCause:	Higher costs for commuting to work (gas prices, etc.)
UnempCause:	Decrease in household income due to a loss of job, demotion in pay, or other reasons for unemployment?
SickCause:	Sickness or injury which has limited the ability of any household members to work?
BillsCause:	Increases in utility bills?
OtherCause:	Increases in household expenses?

Appendix 5: Statistical Analysis of Pressure Level Scale

Dependent variable: Pressure Level, used as a continuous, interval variable

Descriptive stats for Pressure Level:

N	70
Valid	67
Missing	3
Mean	7.389
Median	6.996
Mode	0
Std. Deviation	6.837
Actual Range	0-29
Possible Range	0-32

Independent variables: Three different statistical analysis procedures were used based on the nature of the independent variables being examined.

- 1) Independent Samples T-test – independent variable with two levels (pg. 91)
- 2) ANOVA – independent variable with more than two levels (pg. 92 & 94)
- 3) Correlations – independent variables that are continuous and interval (pg. 93)

Significant findings are noted as follows:

- * Sig. at the .10 level
- ** Sig. at the .05 level
- ***Sig. at the .01 level
- ****Sig. at the .001 level

Independent Samples T-test Results:

Pressure Level by:		N	Mean	t-score	Deg. of	Sig. (2-
Sex	Male	31	7.67	.312	64.535	.756
	Female	36	7.15			
OwnRent	Own	38	6.08	-1.852	63.274	.069*
	Rent	29	9.10			
OfferSell	Yes	16	6.56	.343	27.568	.734
	No	22	5.73			
OtherSell	Yes	12	4.75	-.943	25.216	.355
	No	25	6.96			
OfferRefi	Yes	10	10.80	2.418	33	.021**
	No	25	4.74			
OtherRefi	Yes	3	2.67	-1.837	4.679	.130
	No	32	6.69			
RentInc	Yes	10	9.90	.488	27	.630
	No	19	8.68			
OtrProbRent	Yes	4	13.75	2.928	9.969	.015**
	No	24	8.17			
MoveRent	Yes	1	10.00	.269	24	.790
	No	25	8.40			
OtrMoveRnt	Yes	6	14.67	3.968	19.578	.001****
	No	21	7.76			
AfraidMove	Yes	7	8.43	-.605	12.208	.556
	No	19	10.00			
Language	English	52	7.68	.752	29.405	.458
	Other	15	6.38			
White_NonWhite	White	40	5.79	-2.324	47.767	.024**
	Non_White	27	9.77			
Hispanic_NonHisp	Hispanic	18	9.43	1.672	38.691	.103
	Non-	49	6.64			
CorePeriphery	Core	37	9.24	2.522	61.188	.014**
	Periphery	27	5.10			

ANOVA Comparison of Means:

Pressure Level by:		N	Mean	F-score	Sig.
Race_Recode	White	40	5.79	2.440	.044**
	Black	4	16.25		
	Hispanic	16	9.42		
	Asian	1	3.00		
	Mixed	2	9.50		
	Other	4	6.50		
Ethnicity_Recode	White American	28	5.68	2.354	.013**
	African-American	2	27.00		
	Puerto Rican	10	7.67		
	Dominican	1	11.00		
	Non-specified Hispanic	3	9.34		
	Portuguese	4	8.50		
	Spanish	1	17.00		
	Other Western European	5	4.80		
	Eastern European	4	5.75		
	British Caribbean	1	10.00		
	Chinese	1	3.00		
	Jewish	1	15.00		
	African/Liberian	1	10.00		
	Mixed	3	9.33		
	Other	2	1.20		
Education	Did not complete high school	11	5.76	1.636	.143
	High school diploma	17	7.59		
	GED	6	6.61		
	Some College	18	10.94		
	Associate's Degree	1	0		
	Bachelor's Degree	9	5.89		
	Master's Degree	4	2.00		
	Doctorate's Degree	1	0		
Income	Under \$7,500	15	6.23	1.634	.154
	\$7,500 to \$15,000	9	11.78		
	\$15,000 to \$25,000	14	8.43		
	\$25,000 to \$35,000	10	2.97		
	\$35,000 to \$50,000	7	8.43		
	\$50,000 to \$75,000	8	8.00		
	\$75,000 to \$100,000	4	5.00		

Pearson Correlations: Pressure Level by Interval Independent Variables

	Pressure Level	Age	YearsHouse	YearsNeigh	NumHouse	Children	Education	Income
Pressure Level	1	-.149	-.273	-.285	.159	.197	-.092	-.066
Sig. (2-tailed)		.230	.025**	.019**	.199	.110	.457	.597
N	67	67	67	67	67	67	67	67
Age	-.149	1	.694	.691	-.553	-.174	-.293	.129
Sig. (2-tailed)	.230		.000***	.000****	.000****	.150	.014**	.289
N	67	70	70	70	70	70	70	70
YearsHouse	-.273	.694	1	.882	-.437	-.230	-.274	-.097
Sig. (2-tailed)	.025**	.000****		.000****	.000****	.055*	.022**	.422
N	67	70	70	70	70	70	70	70
YearsNeigh	-.285	.691	.882	1	-.423	-.255	-.167	-.035
Sig. (2-tailed)	.019**	.000****	.000****		.000****	.033**	.168	.777
N	67	70	70	70	70	70	70	70
NumHouse	.159	-.553	-.437	-.423	1	.694	.060	.121
Sig. (2-tailed)	.199	.000****	.000****	.000****		.000****	.623	.316
N	67	70	70	70	70	70	70	70
Children	.197	-.174	-.230	-.255	.694	1	-.137	.224
Sig. (2-tailed)	.110	.150	.035**	.033**	.000****		.258	.063*
N	67	70	70	70	70	70	70	70
Education	-.092	-.293	-.274	-.167	.060	-.137	1	.296
Sig. (2-tailed)	.457	.014**	.022**	.168	.623	.258		.013**
N	67	70	70	70	70	70	70	70
Income	-.066	.129	-.097	-.035	.121	.224	.296	1
Sig. (2-tailed)	.597	.289	.422	.777	.316	.063*	.013**	
N	67	70	70	70	70	70	70	70

Note: Education and Income are ordinal variables that are treated here as continuous/intervals for correlation purposes.

ANOVA results for Pressure Level by Perception of Causes:

Pressure Level by:		N	Mean	F	Sig.
MortCause	No Cause	14	10.60	5.764	.016**
	Minor Cause	1	8.00		
	Major Cause	1	29.00		
TaxesCause	No Cause	9	12.49	.175	.842
	Minor Cause	1	8.00		
	Major Cause	5	11.40		
RentCause	No Cause	10	8.80	2.829	.093*
	Minor Cause	4	15.50		
	Major Cause	3	15.67		
GoodsCause	No Cause	14	8.32	4.032	.028**
	Minor Cause	14	13.29		
	Major Cause	5	16.00		
CmuteCause	No Cause	11	10.31	.875	.428
	Minor Cause	9	11.22		
	Major Cause	12	13.75		
UnempCause	No Cause	18	9.24	4.922	.014**
	Minor Cause	4	9.75		
	Major Cause	11	16.09		
SickCause	No Cause	19	8.81	4.237	.024**
	Minor Cause	2	12.00		
	Major Cause	13	15.05		
BillsCause	No Cause	7	6.72	2.782	.078*
	Minor Cause	11	13.18		
	Major Cause	15	12.69		
OtherCause	No Cause	18	8.86	4.777	.016**
	Minor Cause	9	13.67		
	Major Cause	6	16.67		

Appendix 6: Notes on GIS Analysis

A variable for the 6 neighborhood subdivisions (referred to as “Geography”) is treated as a nominal dependent variable. Pearson Chi-Squares were run against all key independent variables. The scores below show all significant findings by Geography.

Geography by:	Chi-Squares	df	Sig. (2-sided)
Age	28.986	20	.088*
OwnRent	10.351	5	.066*
UnempCause	16.500	10	.086*
OtherCause	17.012	10	.074*
RentInc	9.525	5	.090*
Education	78.043	55	.022**
PressureLevel	22.349	15	.099*
White_NonWhite	12.556	5	.028**
Hispanic_NonHisp	11.477	5	.043**
YearsHouse	32.688	20	.036**

Appendix 7: Notes on Multivariate Analysis

Various regression models were looked at in order to find the ‘best-fit’ relationship that would show the strongest determinant of financial pressure. The respondents location in the core or periphery appears to be the strongest factor when used in a linear regression model with other key independent variables against Pressure Level. An ANOVA score for the model shows that it is significant at the .01 level (Sig. = .009).

Regression Model	Beta	t-scores	Sig.
YearsNeigh	-.220	-1.668	.101
White or Non-White	-1.57	-1.284	.204
Own or Rent	.072	.564	.575
Core or Periphery	.292	2.477	.016**

ANOVA:
 F = 3.583
 Sig. = .009***

Model Summary:
 R = .450
 R² = .202
 Adjusted R² = .148

p-values: **significant at the .05 level, ***significant at the .01 level

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CURRICULUM VITAE

RESEARCH INTERESTS

The effects of urban development on community life and social networks; the human ecology of space and social arrangements; the impact of planning techniques for dealing with suburban sprawl, gentrification, urban renewal and other important issues; alternative transportation methods; American cultural studies; Media and the formation of public opinion and mainstream value systems; comparative studies.

BACKGROUND INFORMATION

Date of Birth: October 10, 1978
Place of Birth: Falls Church, Virginia
Father: Lowell R. Kratzer
Mother: Rebecca L. Kratzer (Maiden Name: Ferry)

EDUCATION

M.A., **Lehigh University**, Bethlehem, PA
Sociology (Expected Graduation: May 2007)
Current GPA: 4.0

B.A., **Temple University**, Philadelphia, PA
Sociology, May 2001
Graduating GPA: 3.72, Magna Cum Laude Honors

Certificate of Achievement, **Penn State World Campus**
Geographic Information Systems (GIS), December 2003

TEACHING EXPERIENCE

Adjunct Instructor, Humanities and Social Sciences, Northampton Community College
Principles of Sociology
Summer II 2006 and Spring 2007

I am currently teaching my second semester as an adjunct instructor for “Principles of Sociology”. I prepare the course curriculum to fit the special needs and interests of my student body. A focus is given to writing skills and the ability for critical thinking and open discussion on current social issues. Students are provided with in-class writing exercises as an attempt to practice their ability to articulate arguments on difficult sociological issues.

Teaching Assistant, Sociology Department, Lehigh University
Introduction to Sociology and Social Psychology – Fall 2005, Spring 2006, Fall 2006
Doing Archaeology – Spring 2007

I taught weekly recitation sessions for “Introduction to Sociology and Social Psychology” for three semesters under the guidance of Dr. Judith Lasker (Fall '05) and Dr. Heather Johnson (Spring and Fall '06). I graded all papers and exams and maintained attendance and participation records for a range of 30 to 60 students per semester. I currently run various labs, grade papers and maintain all scheduling functions for Dr. David Small's Anthropology elective “Doing Archeology”.

RESEARCH EXPERIENCE

Principal Investigator, Sociology Department, Lehigh University, in conjunction with the Community Action Committee of the Lehigh Valley (CACLV)
Head Advisor: Dr. Judith Lasker

For the past year I have been studying the existence of indicators of gentrification in South Bethlehem, Pennsylvania. The research involves a resident survey of Southside residents to determine how changes in market pressure are affecting individual homeowners and renters. GIS technologies will be used in this research in order to create a random sample of households within the South Bethlehem geographic area to be surveyed. Survey results will be entered into a database and linked to a spatial analysis of the neighborhood. Some sections of the surveys will be scored according to the level of financial pressure particular households are facing, which will then be used to determine which sections of the neighborhood are most at-risk to the forces of gentrification. The resulting work will be published as a Master's Thesis for Lehigh University, 2007.

Research Participant, Sociology Department, Lehigh University, in conjunction with the Community Exchange Network of the Lehigh Valley
Head Professor: Dr. Judith Lasker

A team of nine graduate students, along with Dr. Lasker, conducted a participatory action research program with the Community Exchange Network of the Lehigh Valley. The research goals were to establish the effects of the Community Exchange Network on the

actual health outcomes of its members. The final study was published as an article, "Building Communities Ties and Individual Well Being: A Case Study of the Community Exchange Organization", and was presented at the Society for the Study of Social Problems Conference, Montreal, August 2006.

Research Assistant, Sociology Department, Temple University

Involved in various research projects for department faculty members:

Dr. Julie Press, Urban Poverty Research Practicum: studied neighborhood transition patterns during a semester-long research practicum, 2001.

Dr. Annette Lareau, Temple Undergraduate Research: designed a coding procedure to transfer qualitative data from personal interviews into a quantitative database (2001), resulting published work: "Unequal Childhoods: Class, Race, and Family Life", Dr. Annette Lareau, University of California Press, 2003.

Dr. David Elesh, Temple Undergraduate Research: assisted with research for a project studying how Metropolitan Statistical Areas have been redefined from 1950 to 2000 (2000-2001), resulting published work still in progress.

OTHER WORK & VOLUNTEER EXPERIENCE

Economic Development Associate, New Kensington Community Development Corporation, Philadelphia, PA. November 2003 – August 2005.

AmeriCorps*VISTA, Community for National and Community Service, Philadelphia, PA. November 2002 – November 2003.

NeighborWorks Training Institute: enrolled in a professional certificate program for Community Economic Development (2004-2005)

Community Education Project: volunteered for local church during their annual Bike Day event, repairing bikes for local teens and educating them about bicycle safety (2004)

The Water Team: founding member of the Circle Venture Water Team, a community-based non-profit focusing on disseminating information about global water issues (2003-2005)

Positive Space Arts Association: contributed music for a compilation CD to benefit a community-based arts organization (2003)

Circle Venture Computer Training: volunteered as a mentor for low-income residents taking basic computer training classes (2001)

HONORS AND MEMBERSHIPS

National Key Honor Society (2001 – present)

Member of the American Sociological Association (2005 – present)

Member of the Association for Applied and Clinical Sociology (2005 – present)

PUBLICATIONS, PAPERS AND PRESENTATIONS

“You Are Here: Scholarship and Geographical Information Systems.”

Presentation: November 9, 2006. Lehigh University.

For more information visit: <http://www.ei.lehigh.edu/conferences/youarehere/>

Lasker, Judith N. et al. “Building Community Ties and Individual Well Being: A Case Study of the Community Exchange Organization”. August 2006.

Kratzer, Zane. (2005). “The Quality and Character of a Sustainable Lehigh Valley.” *The Irregular Community Newspaper*. Easton, PA. Dec.2005-Jan.2006 issue.

Graduate Student Research Symposium, March 15, 2006. Lehigh University.

AREAS OF INTEREST IN SOCIOLOGY AND RELATED FIELDS

Community & Urban Sociology

City Planning

Human Ecology

Comparative & Historical Sociology

Culture

Media Studies

Environment & Technology

Political Economy

Wealth Inequality & Social Stratification

Geographic Information Systems (GIS)

END OF TITLE