The relationship between the social integration of elderly people and gentrification

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ABSTRACT

The American population is aging and it is projected that the consequences of this trend will felt for many decades. A particular difficulty associated with an aging population is that elderly people tend to be more isolated than their younger peers, especially in cities, where they tend to have less social support than in suburban or rural areas. While the isolation of the elderly has been studied before, in this paper we seek to analyze how it can interact with other widespread social changes; in particular, gentrification which is also common in cities across the USA. With our project, we hope to understand the relationship between the size and structure of the social networks of aging populations and the extent of gentrification. We report findings from pilot interviews of elderly people in three New York neighborhoods with different level of gentrification: 123rd street Broadway which is old and relatively wealthy, 106th street between Amsterdam Avenue and Columbus Avenue which has a median income close to the city wide median and an average age of 63.7, and 88th street between West End Avenue and Riverside Drive which is old but wealthy. We also propose a combined survey and survey experimental design, which could be
extended to other neighborhoods, to analyze in full the relationship between the isolation of the elderly and gentrification.

BACKGROUND AND SIGNIFICANCE

An Aging Society

The US has an aging society and demographers believe this is one of the most significant trends in the country’s young history (Mather et al, 2015)\(^1\). This aging of the population is due to the large baby boomer cohort, born between the years of 1946 and 1964, becoming older without an equally sized cohort to replace them. Between 2000 and 2050, “the proportion of the population that is over the age of 65 will increase from 12.7% in 2000 to 20.3% in 2050; the proportion of the population that is age 85 and older will increase from 1.6% in 2000 to 4.8% in 2050.”( Joshua M Wiener and Jane Tilly 2002)\(^2\) Similarly, data from US Bureau of the Census indicates that the change in population that is over 65 between those same years will be 135.4%, and in population that is over 85, 349.8%. These changes have far reaching implications for the structure and nature of American society, and could produce various problems such as a need for senior housing and potentially increasing social isolation overall.

Housing problems are particularly severe for elderly people in comparison to other age groups. “As one third of elderlies in the age group of 50-64 have been

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spending on housing in a way that is unaffordable in long term, millions of people over the age of 65 will face continuously increasing burden of qualified housing because their income will fall along with the increase of age. More severely, “the younger baby boomers who are now in their 50s and less financially secure than previous generations in the aftermath of the Great Recession.” (Joint Center for Housing Studies of Harvard University 2014)

What’s more, aging also magnifies the risk of isolation. “According to the US Census Bureau, 11 million, or 28% of people aged 65 and older, lived alone in 2010.” (Sarah Stevenson 2014)³ Researchers have already indicated that isolation could lead to increased risk of mortality (2012 study of Proceedings of the National Academy of Science), the deterioration of one’s physical and mental health (2009 study of National Social life, Health, and Aging Project), cognitive decline and higher risk of dementia (Dr. John Cacioppo, a neuroscientist and psychologist at the University of Chicago), to name a few.

**Gentrification and Aging**

Gentrification, according to the US Department of Housing and Urban Development, is defined as “the process by which a neighborhood occupied by lower-income households undergoes revitalization or reinvestment through the arrival of upper-income households” (US HUD 1979). While research has shown that the aging population tends to be more socially isolated than other age groups, little research has explored whether the propensity for an elderly person to become isolated varies

according to socio-economic status or whether neighborhood change, such as due to gentrification, as an impact. We hypothesized that the aged residents of Harlem are impacted during the process of gentrification most out of all age groups. There are several reasons for this hypothesis.

First, aged people are less mobile than younger people, according to recent research carried out by Forbes (Richard Green, 2013)⁴. In Figure 1 is a plot from the Forbes report just cited. On the X-axis is age and on the Y-axis is propensity of moving. Propensity to move is highest in one’s 20s to 30s, and drops precipitously from 30 to 50, reaching its lowest levels from age 50 to 100.

Figure 1: Elderly people have a lower propensity of moving

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Using these simple statistics, we can draw inference that aged groups are least able to escape gentrification, which means that they are the group most sensitive to and the most affected by gentrification.

Last but not the least, the senior housing policies in New York City is ongoing in recent years, in order to protect the aged population of the city, who are threatened by increasing rent city-wide. “The percentage of seniors living in poverty in the City is almost 20 percent, more than double the national average” (New York City Comptroller, 2013). While investigating how the displacement of neighborhoods due to gentrification is affecting senior citizens we will also be able to measure the effectiveness of those government and to determine in what areas they can improve the livelihood of senior citizens.

While we have given evidence that gentrification negatively affects the social integration and livelihood of senior citizens, there is evidence in the other direction. For instance, according to an article in Smithsonian Magazine written by Joseph Stromberg, living alone has some “surprising benefits” in areas such as socializing with friends, assuming that those friends are nearby and are not forced to move away due to increase in rent. Further, it is possible that gentrification improves the livability and accessibility of neighborhoods, which could improve the lives of senior citizens, assuming the social and environmental benefits outweigh the economic downsides.

Our research on the social network of aging populations in neighborhoods with
varying degrees of gentrification will provide the necessary empirical evidence to contribute to this debate.

**DESIGN**

In an effort to better understand the situation, we decided to take a closer look at the social networks of aging populations, since analyzing the size and structure of their social networks will allow us to operationalize the concept of “social integration”. Due to limitations on time, budget and human resources, we will focus first on the senior residents in various neighborhoods of Harlem, an area of New York City that has a mix of gentrifying and non-gentrifying neighborhoods. We believe that our design could be scaled up to include the entire city, or a larger set of randomly selected neighborhoods.

In our research, the independent variable is the extent of gentrification, and the dependent variable is the size and structure of the social network of elderly people. We utilized publicly-available data from the website, [http://www.city-data.com](http://www.city-data.com), to help us classify which neighborhoods are gentrifying and which aren’t. To do so, use information on residents’ median household income, median house or condo value, median resident age and distributions for race and sex for all of the census tracts in New York City.
According to our design, the measurement of the extent of gentrification is the change of median resident household income and median house or condo income over time. In particular, we use the same criteria as that applied by New York City Gentrification Maps and Data of Governing Data to measure the extent of gentrification in each neighborhood. On that website, a tract was considered to be eligible to gentrify at the beginning of the window of observation if it met the following criteria: First, the tract had a population of at least 500 residents at the beginning and end of a decade and was located within a central city. Second, the tract’s median household income was in the bottom 40th percentile when compared to all tracts within its metro area at the beginning of the decade. And third, the tract’s median home value was in the bottom 40th percentile when compared to all tracts within its metro area at the beginning of the decade. Gentrification-eligible tracts were
determined to have gentrified over a time period if they met the following criteria:

First, the increase in a tract's level of educational attainment, as measured by the percentage of residents age 25 and over holding bachelor's degrees, was in the top third percentile of all tracts within a metro area. A tract's median home value increased when adjusted for inflation. The percentage increase in a tract's inflation-adjusted median home value was in the top third percentile of all tracts within a metro area.⁵

The primary dependent variables are the size and structure of the social networks of elderly residents. There is no easily accessible data with such information, so the primary goal of this paper then is to design a study in such a way that we could capture this data. In order to do so, we propose to administer a survey with two parts. The first part would ask a battery of demographic questions and typical network questions. We would ask them to name five people they are friends with, five people they talk to regularly, five people they see on a daily basis, etc. We would also have them give us the phone numbers of these people, so that the information could be used to snowball sample. We would also ask them questions about their ego network, mainly whether their friends are also friends, so that if the snowball sample is too costly or difficult, the ego network data could be used to measure social integration. In addition to network questions, we would ask them whether they are part of any social or religious clubs or organizations. The inspiration for this set of questions is the 2004

GSS, which had a similar survey instrument and was used to measure Social Isolation in America in general.

In addition, we plan to do a small world experiment, as made famous by Travers and Milgram in their seminal paper, at the end of the survey. Before we survey the participants, we would generate a list of members of their local community. Each respondent would be assigned one member of the community and asked the following question: We need to get a letter to [ASSIGNED COMMUNITY MEMBER NAME HERE] and we were wondering if you either: knew them personally OR had an idea of someone in your community that you know personally who might be able to get the letter to them. If the latter, what is the name and contact information of that person? We would also list the person’s occupation and hobbies to help them in this task.

We would then contact the named person. If they are elderly and hadn’t yet taken the survey, we would administer the entire survey to them, thus using the experiment as an additional snowball sample. Otherwise, we would administer only this question (with the same target name as before) and a few important demographic questions, such as age, gender and race. They would then name another community member, or else the intended target and this process would continue until the target is reached. The number of steps it took would be recorded.

The assumption underlying this experiment is that elderly people who can more quickly get a letter to a random other person are better integrated in the local community, they either know more people or know the important hubs. An individual
result isn’t informative, since the target is randomly varied by respondent, but an 
average can be taken for all people who took the survey in a local, elderly community 
and if the number of respondents is sufficient, it can give us an unbiased 
approximation of the average path length (the small world number) for a subgroup of 
the social network of that community, without enumerating all of the ties. We can use 
this to measure how isolated the elderly community is in a particular neighborhood. 

Considering that elderly people use the internet at a lower rate than the rest of the 
population, we plan to deliver our survey by foot in the form of questionnaires in the 
selected areas.

**PILOT STUDY RESULTS:**

We administered our survey orally at 123rd street and Manhattan Avenue to six 
elderly people that we met on the street. We found that two of them (33%) live entirely 
alone, and the average number of family members living those interviewees is 1.7. 
The average years of living in the neighborhood is 19.7 years, as 2 of them had been 
living in the same area for more than 30 years. Among the 6 people, one interviewee 
who has lived alone for 30 years in a relatively low-income but gentrifying 
neighborhood (the area around Hancock Park) said that he has no friends in the 
neighborhood. The oldest interviewee said that she lives with her grandson, but 
doesn’t really know the neighborhood. Without a control group, it is hard to say 
whether this more or less prevalent than other age groups, however, we predict that
residents who are aging and living in gentrifying neighborhoods tend to live alone and have less connection with the rest of the neighborhood.

**DISCUSSION AND CONCLUSION**

Overall, we predict that as gentrification occurs, the social networks of aged people will become smaller and elderly people will become isolated from each other and from the larger community, which is to say that expect neighborhood stability to be good for elderly social networks.

Also, according to the data that we collected in the pilot study, we can readily distinguish the trend that elderlies who live in a gentrifying areas for relatively long periods of time are less likely to have social connection to the neighborhood. Although the size of the sample in the pilot study is limited, the data collected from the sample is still able to provide evidence for our prediction to some extent.

To conclude, we would like to address the many limitations of our design. It might take a lot of time and resources to completely capture the network structure of communities. In particular, isolated elderly people will be hard to track down and survey, even with snowball sampling, or rather, especially with snowball sampling. The elders may not be willing to talk to us about their personal social network or daily lives because if they feel that information is too personal or sensitive. There may be hidden, unmeasured factors such as social status, property difference and cultural differences that could affect the validity of our results. However, we think the novel
design of our survey experiment could have an impact on survey design and reveal interesting findings about the relationship between gentrification and ageing.

References:

“Gentrification Report Methodology”,


Appendix A: Survey Without Network Questions and Experiment

1. What year did you graduate from high school?
2. Are you retired/ what do you do for a job?
3. How long have you been living in this community?
4. How do you feel living in the community?
5. Do you live with your family or any family members?
6. How many people are there in your household?
7. How many people do you know in your neighborhood or building?
8. How often do you see your friends?
9. What do you do in your free time?
10. Do you have any hobbies or any recreational activities?

Appendix B: Data for Areas Covered in Pilot Study

123rd street Broadway
Median household income: $90,321
Median house or condo value: $437,190
Median contract rent: $1,815
Unemployment: 4.28%
Residents below the poverty level: 2.56%
Median resident age: 52.1

123rd street Saint Nicolas Avenue
Median household income: $18,958
Median house or condo value: $114,795
Median contract rent: $854
Unemployment: 8.9%
Residents below the poverty level: 41.2%
Median resident age: 56.1

106th street between Amsterdam Avenue and Columbus Avenue
Median household income: $54,250
Median house or condo value: $57,400
Median contract rent: $882
Unemployment: 17%
Residents below the poverty level: 21.7%
Median resident age: 63.7

88th street between West End Avenue and Riverside Drive
Median household income: $102,375
Median house or condo value: $796,530
Median contract rent: $1,775
Unemployment: 7.2%
Residents below the poverty level: 6.26%
Median resident age: 60.5

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