

# A Study of Mixed Income Housing Projects in New York City

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## The Effects of Inclusionary Housing Program on Residents Living in Affordable Units and Neighbors' Interaction

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**Abstract**

Developing mixed income housing is becoming more widespread in U.S over recent years. However, the answer--whether or not mixed income development can achieve its policy goals--is still uncertain. There are two general goals behind mixed income housing policy: improving the living conditions of urban poor and promoting socioeconomic integration among people with different income. In this research, by conducting questionnaires to residents living in six selected Mixed Income Housing Projects in New York City, the question whether or not Mixed Income Housing Projects can achieve its policy goals will be explored.

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## **Introduction**

Mixed income housing means a physical intervention that has social implications to a neighborhood—whether deliberate or unintended (Steffel Johnson, Jennifer Elaine, 2006). In mixed income neighborhoods, due to such physical arrangement (putting households of different income together), households of different income live and influence each other in the same neighborhood. Such physical arrangement not only changes people’s living environment but also changes social fabric of the neighborhood. “Shelter (is) the single most significant mediator between each household and the larger society, putting each into touch with the other, is never a simple matter in a complex society, determining as it does, access to many other necessities” (Perin, 1977).

The continued problem of racism, discrimination development policy like “red-lining”, the pressure from economic structure change (the loss of middle class), and the lack of supportive housing policy for lower income group have created many social crisis in United States. As reported in U.S. Department of Housing and Urban Development (HUD), “Neighborhoods of concentrated poverty isolate their residents from the resources and networks they need to reach and deprive the larger community of the neighborhood’s human capital” (U.S. Department of Housing and Urban Development, 2011). In 1993, Henry Cisneros, the Secretary of the U.S. Department of Housing and Urban Development, argued that “We risk a societal collapse by the first decade of the next century if we tolerate racism and the economic isolation of millions of people” (Smith, 2002).

In the last two decades, many housing programs and policies have been launched to address the problem of “racism and the economic isolation of millions of people”. Programs like Moving to Opportunity, the HOPE VI program, and housing policies like housing vouchers, Low-Income Housing Tax Credits, Inclusionary Zoning all aimed at creating mixed income housing neighborhoods. What’s more, terms from social science that are related with the effect of mixed-income housing. For example, there are many social science terms related with this topic, like social capital, neighborhood effects, and collective efficiency.

In general, two forms of efforts have been taken toward the economic integration of people in U.S: one is the dispersal of low-income households into more affluent neighborhoods, and the other is the development of mixed-income housing (Steffel Johnson, Jennifer Elaine, 2006). In my research, I will specially focus on the second effort—the development of mixed-income housing. By studying the mixed income housing (MIH) projects developed in New York City (NYC), the effects of inclusionary housing program on residents living in affordable units and the neighbors’ interaction in selected MIH projects will be examined.

## **Purpose Statement**

New York City has a long history of government intervention in residential housing markets, resulting in more than 175 affordable housing programs, which reflect a wide range of goals and strategies to develop mixed income housing projects and to provide housing choices for lower income group (NYU Furman Center). Programs like Inclusionary zoning, section 8 (Housing Choice Voucher Program), Low-Income Affordable Marketplace Program (LAMP) and etc. are all applied in NYC. There are two general aims of developing mixed income housing: one is offering affordable housing choices for lower income population, and the other is promoting socio-economic integration among people with different income. However, whether or not such physical arrangement--intentionally putting people with different incomes together--can achieve its political and social goal of socio-economic integration is still questionable. Some academic researchers assert that “income mixing is politically and financially appealing but socially unnecessary” (Vale, 1998).

In this paper, by using questionnaires as a methodology, the answer of whether or not developing mixed income housing project can achieve its social and policy goals will be explored. For the first research question, whether or not residents living in affordable units of inclusionary housing projects experience a significant improvement on their living conditions will be answered and measured. Their experiences will be used as an indicator to tell if inclusionary housing program (as a specific strategy of developing MIH) can achieve its goal of providing affordable housing choices for lower income group. Second, neighbors’ interaction among residents living in six selected mixed income housing projects will be examined to see if MIH can achieve its social goal of promoting socio-economic integration.

The broad objective in this research is studying whether MIH can achieve its policy goals—1) providing affordable housing choices for lower income group and 2) promoting socioeconomic integration.

The specific aims of this research are:

1) Figure out whether living in inclusionary housing projects will improve lower-income residents' satisfaction level with their living conditions and neighborhood.

2) Figure out whether social-economic integration happens in MIH projects. And figure out whether residents experience a qualitative difference in their interaction with neighbors if they living in Mixed Income Housing projects without separation actions (made by developers) verses living in MIH projects with the separation practices.

## **Research Question**

In this paper, the geographic study area will be specifically focused on New York City (NYC). I will study the effects of inclusionary housing program on residents living in affordable units and examine neighbors' interaction among residents living in various kinds of mixed income housing projects in NYC.

The paper will focus on two research questions:

1) Whether living in the affordable units of inclusionary housing projects (one of mixed income housing strategies) will improve lower-income residents' satisfaction level toward living conditions and neighborhood;

2) Whether residents experience a qualitative difference in their interaction with neighbors if they living in a MIH project without separation actions verses living in a MIH project with separation actions. Separation actions are applied by developers to create different amenities, open space, entrances for residents living in market-rate and affordable housing units. The researcher will explore whether such separation actions will influence neighbors' interaction with each other. Also, the researcher will use neighbors' interaction as an indicator to see whether social-economic integration happen in these MIH projects.

Two types of comparisons will be conducted in this research. The first comparison is exclusively for residents living in affordable housing units. This comparison is about renters' satisfaction level with living conditions before they moved to affordable unites versus the renters' satisfaction level with living conditions after they moved to affordable unites. The goal of this comparison is to see whether inclusionary housing project (as a specific strategy of developing MIH) can improve lower-income residents' satisfaction level about living condition. The researcher will examine this comparison by asking residents their past and current life experiences in the questionnaire.

The second comparison is for residents living in both affordable units and market-rate units of MIH projects. In order to figure out the second research question, residents' interaction with neighbors will be measured. This comparison is between two groups of people. One group is residents who live in MIH projects without separation practices in the buildings. And the other group is residents who live in MIH projects with separation practices in the buildings.

Questionnaires will be conducted in four specific sites with separate entrances for residents living in affordable units and market-rate units, and in two sites where residents share same entrances, amenities and open space.

The four sites with separation action are:

Site1: 40 Riverside Boulevard, Manhattan

Site2: The Edge, 22 N 6th St, Brooklyn

Site3: Northside Piers, 1 Northside Piers #4, Brooklyn

Site4: Silver Towers, 620 W 42nd St, Manhattan

The two sites without separation actions are:

Site5: 89 Murray Street, Manhattan

Site6: 200 East 94<sup>th</sup> Street in Manhattan.

### **Importance and Implication**

Building MIH projects as a method to provide affordable housing for lower income group is a big issue in NYC—where income gap is extremely huge, and the rent burden is almost heavy for everyone from working class to even middle class. Over the past two decades, private developers have developed over 100 MIH buildings, mostly in Manhattan and Brooklyn. What's more, the administration of Mayor Bill de Blasio has set a goal to finance the construction or preservation of 200,000 affordable housing over the next ten years (NYU Furman Center). In many districts of NYC, inclusionary zoning has been made as a mandatory requirement. It is a trend that MIH will become more common and widespread in NYC in the future.

In terms of importance, when so much investment and effort have already been made into the development of MIH, whether or not MIH can achieve its policy goal is a crucial question at this moment. Additionally, due to the fact that many MIH programs and policies are relatively new, not many researches have been done in this field, especially about the influence and evaluation of mixed income housing. Whether or not various kinds of MIH policies can achieve its political goal of socio-economic integration or even racial integration is still controversial. Accordingly, by doing this study, the blank area of this field can be filled hopefully in some degree.

When it comes to implication, I hope this study can be used as a reference for the evaluation of current MIH policy and can also be used as a reference for future policy making about whether the city should require developers provide same entrances, amenities, open space for affordable units and market-rate units in order to promote socio-economic integration in MIH projects.

## Literature Review

### Definition

The first challenge in reviewing literature about mixed-income housing is determining what “mixed-income” is. When reviewing the existing literature review about MIH, it is easy to find that there is no formal definition of the term “mixed-income”. Also, it is interesting to realize that authors disagree with each other in terms of definition.

The definition of MIH is defined completely by researchers for their research purposes or own political agenda (Steffel Johnson, Jennifer Elaine, 2006). Some researchers define MIH based on specific percentages of people with different income, and some other researchers focus on the presence of working families and/or market-rate units as an indicator for MIH (Smith 2002). Rather than defining mixed-income housing by the mix of incomes or the mix of working families and/or market-rate units, some definitions are quite broad. For example, in Suchman’s article “Developing Infill Housing in Inner-City Neighborhoods”, the author defines mixed income housing as developments which simply “include both subsidized and market-rate units”. Similar definition can be found in Khadduri and Martin’s article “Mixed-Income Housing in the HUD Multifamily Housing Stock”. In that article, HUD unofficially defines mixed-income projects as developments including some units that are not subsidized (Khadduri, Jill, and Marge Martin, 1997).

Besides, another way to define MIH is based on the intention of projects. For example, Brophy and Smith (1997) who believe that truly mixed-income housing is “a deliberate effort to construct and/or own a multifamily development that has the mixing of income groups as a fundamental part of its financial and operating plans” (Brophy, Paul C., and Rhonda N. Smith, 1997).

Other researchers like Khadduri and Martin (1997), pay special attention to a certain age group—children. They argue that families with children are a necessary factor of mixed-income housing. According to Rosenbaum, Stroh, and Flynn (1996), children is the primarily group benefiting from living in a mixed-income environment. In addition, Wilkins insists that a significant number of working families with incomes above the poverty level is also important to mixed income projects (Wilkins, 2001).

In the article “the Theoretical Basis for Addressing Poverty Through Mixed-income Development” (2007), Mark L. Joseph stated that

“Mixed-income is a term that covers a broad spectrum of levels of economic integration. At one end of the spectrum are private-sector, market-rate developments that include a small percentage of affordable housing, often to qualify for municipal



subsidies. At the other end of the spectrum are developments built exclusively for moderate- and low-income families”

By reviewing various kinds of definition of MIH by different researchers, it is clear to see that mixed income housing, as a term, has multiple meanings in different situations and from different perspectives.

## **Policy Goal**

Developing mixed-income communities is used as an approach by policymakers and researchers to address a number of problems, like the lack of affordable housing, spatial mismatch between labor and jobs, the need for urban redevelopment.

The goals of mixed-income housing strategies can be classified as several categories: poverty alleviation (benefiting low-income families through providing affordable housing), desegregation (deconcentrating poverty), social goals (creating the environment to spur upward mobility, eliminating social isolation, promoting role-modeling), and economic goals like urban revitalization (bringing investment to disinvested communities and increasing property value) (Joseph 2006; Joseph and Chaskin 2010; Joseph et al. 2007).

## **History**

When it comes to the history of mixed-income housing policy, the policy began at the 1960s (Wikipedia). At that time, policy makers were searching for alternatives to public housing. From 1960s, different kinds of mixed-income housing policies were shown and evolved (Wikipedia). The information (collected and organized from Wikipedia) below listed the significant events about mixed income housing policies in chronological order.

- In 1965, local housing authorities were authorized by Federal to lease specific units in private rental buildings thanks to the enactment of federal leased housing program called Section 23.
- In the 1970s, a certain number of wealthy suburbs adopted the first inclusionary zoning ordinances. These ordinances required housing developers to sell or rent 10 to 20 percent of a project’s units to targeted households at the prices which below market rate.
- In 1986, the Low-Income Housing Tax Credit (LIHTC) program was authorized by Congress. If a developer sets aside at least 20 percent of project units as low-rent dwellings for thirty years or more, the developer can get tax credits offered by LIHTC program.
- In 1987, NYC approved its Inclusionary Zoning Program (also known as R10 program) in response to the increasing cost and the displacement of working class families from Manhattan and Brooklyn (U.S. Department of Housing and Urban Development, 2013).

- In 1992, HOPE VI was enacted by Congress. This program aimed at demolishing public housing projects and replacing public housing with mixed-income developments.
- In 1998, there was a 1998 federal statute. This statute aimed at deconcentrating poverty by requiring local housing authorities to rent more public housing units to extremely low income households.
- In 1999, the Bipartisan Millennial Housing Commission was established by Congress.
- In 2003, Chicago adopted its inclusionary ordinance, also known as the Affordable Requirements Ordinance (ARO).
- In 2005, NYC expanded its inclusionary housing program to include certain medium- and high-density areas which are rezoned as part of Mayor Michael Bloomberg's New Housing Marketplace Plan (Marketplace Plan).
- In 2008, the Housing and Economic Recovery Act of 2008 was enacted. This Act was in response to the rising rate of home foreclosures, and there was a National Housing Trust Fund created at that time.
- In 2009, NYC adopted further amendments to the inclusionary housing program to promote participation and the production of affordable units.

### **Arguments about Mixed-Income Housing Project**

In general, academic researchers' attitudes about mixed-income housing projects can be divided into two camps: one camp supports that mixed-income housing could bring positive effects and achieve its policy goal of socio-economic integration; the other camp supports that mixed-income housing strategies cannot solve the key problems rooted in the community and cannot achieve its policy goals especially in terms of the social relations among residents.

### Positive Effects and Policy Goals of Mixed-income Housing Projects

When it comes to positive effects of MIH projects, there are four main aspects: providing affordable housing choices for lower income group, addressing the problem of urban poverty, revitalizing city and its economy, and promoting social benefits

#### 1. Providing Affordable Housing Choices for Lower Income Group

The first positive effect of mixed income housing is creating units of affordable housing. Due to the fact that the mechanism of market alone cannot meet the demand for affordable housing, especially housing for extremely low, low- and moderate-income households, housing affordability is a problem in U.S now. Although the federal government provides direct housing

assistance to about 5 million households, only one in three are eligible receive the assistance (Smith 2002, 12).

Actually, many communities' attitudes toward subsidized housing are very tricky. As Smith (2002) argues, "being poor is a proxy for being minority and vice versa, and being either is a proxy for not wanting them in your neighborhood". Either affluent neighborhoods or lower-income neighborhoods are hesitant to affordable housing developments (Steffel Johnson, Jennifer Elaine, 2006). Affluent neighborhoods are concerned about the issue that adding affordable housing will decrease their property value and increase crime rate (Steffel Johnson, Jennifer Elaine, 2006). And for lower-income neighborhoods, they argue that they already have a large number of housing for low and moderate income people, and adding more affordable unites in already low income neighborhoods may cause concentration of poverty and social-economic isolation (Steffel Johnson, Jennifer Elaine, 2006). Accordingly, affordable housing is kind of politically unpopular. What's more, adding the factor that housing subsidies are expensive for governments, and where to locate the needed housing units is controversial, affordable housing is not so easy to be conducted in practice (Steffel Johnson, Jennifer Elaine, 2006).

## 2. Address the Problem of "Urban Poverty"

One of the main positive effects of mixed-income housing is deconcentrating poverty effectively and addressing the problem of urban poverty. "Deconcentrating poverty is a central component of the policy of mixed income housing" (James C. Fraser, Robert J. Chaskin, Joshua Theodore Bazuin, 2013). By living in mixed income housing projects, for low income residents, rather than isolating in poor neighborhoods and facing the social problems resulting from urban poverty, lower income residents now can live in a safer neighborhood and access to more resources.

In the Book "The Truly Disadvantaged" (1987), William Julius Wilson demonstrated an analysis of a new urban poverty, which was characterized by the geographic concentration in certain neighborhoods of high rates of joblessness and welfare dependency; high proportions of female-headed households, out of wedlock birth, and teen pregnancy; and high levels of social disorganization, violence, and crime (Mark L. Joseph, Robert J. Chaskin, Henry S. Webber, 2007). By using MIH projects as a way to address the concentration of urban poverty, a large number of social problems in poverty concentrated neighborhoods can be avoided in some degree.

## 3. A Strategy for Revitalization

Developing mixed income housing projects can be applied by city to increase tax base, revitalize the economy, and promote the stability of city. As described in Smith's article "Mixed Income Housing Development Promise and Reality", the author points out that a variety of objectives have been attributed to mixed-income development including providing better-quality housing

for low-income families, increasing the tax base and stability of the inner city by attracting more affluent families, creating an environment to spur greater upward mobility among low-income families, and catalyzing broader physical and economic revitalization”(smith, 2002). Mixed income housing development also is regarded as a strategy for city revitalization which is “economically lucrative and politically viable” (Mark L. Joseph, Robert J. Chaskin, Henry S. Webber, 2007).

Besides the revitalization of city, mixed income housing can be applied as a strategy to promote neighborhood change in both physical and social aspects. In the article “Building Community in Mixed Income Development: Assumptions, Approaches and Early Experiences”, Robert J. Chaskin and Mark L. Joseph argue that

“As a redevelopment strategy, mixed income development is fundamentally about transforming urban neighborhoods formerly characterized by high levels of deprivation, isolation, and the concentration of social problems—poverty, crime, deteriorating housing, poor services, weak institutional infrastructures—into safer, more sustainable, better functioning neighborhoods that are meant to provide access to a better quality of life for low-income families and the opportunity for people with a variety of levels of income and wealth to benefit from living there” (Robert J. Chaskin, Mark L. Joseph, 2010)

Accordingly, it is obvious that developing mixed income housing projects can be used as a method to change the physical and social fabric of neighborhoods and to revitalize inner city.

#### 4. Social Benefits

There are many social benefits behind the mixed income developments. In the article “Mixed Outcome Developments” Erin M. Graves (2014) points out that mixed income developments can be used to achieve the social goals of reducing negative behavior, improving social services, enhancing social control, and developing social capital, although all of these will be likely limited.

The most popular argument about social benefits of mixed income development is about eliminating social and economic isolation in poverty concentrated area. “Social interaction among neighbors will help to reduce social and economic isolation among poor people that some have documented in troubled public housing communities” (Graves, 2014).

Similar argument can be found in article “‘Positive’ Gentrification, Social Control and the ‘Right to the City’ in Mixed-Income Communities: Uses and Expectations of Space and Place”, in this article Robert J. Chaskin and Mark L. Joseph stated that

”Integration represents access to resources and benefits the city provides that were denied in the context of social isolation and concentrated poverty. These include access to more diverse social networks of higher-income neighbors (weak ties or bridging or social capital) that can connect them to information and opportunity as well as increase responsiveness of political and market actors that can lead to greater access to improve services, amenities and organizations (Granovetter, 1973; Logan and Molotch, 1987; Putman, 1995; Sampson et al., 1997; Khadduri, 2001; Freeman, 2006)

The underlying assumption behind mixed income projects is that when lower income people move to a mixed income neighborhood from poverty concentrated one, they will build social networks with higher income residents and enjoy the benefit of increased attention from political and market actors. All these social benefits will promote social mobility upward for lower income people.

What’s more, besides the benefits of social networking and political economy resources, mixed income housing also has social benefits in terms of advocating the diversity of communities. As Joanna Duke (2009: 115) stated “through encouraging diversity, a respect for different cultures can be fostered. And through appropriation, residents can feel meaningful connections to their communities, and through participation, residents can help shape outcomes for their communities”.

According to Mark Joseph, residents living in mixed-income housing projects can get benefits through greater informal social control and accessing to higher-quality goods and services. Higher-income residents, particularly homeowners will likely be more stringent about upholding rules, regulations, and promoting informal social control (Joseph 2013). What’s more, with a mixed-income constituency, the market and external institutions will respond differently to demands for higher-quality goods and services (Joseph 2013). Accordingly, based on the political economy theory and the effects of social control, low income people who move to the mixed-income community will benefit from the services and goods delivered to the neighborhood, and also they will enjoy a safer, more ordered, and normative environment.

#### Contrary Argument--“Mixed-income Housing is not a solution”

Although many researchers support the argument that mixed income developments have social benefits, there is still a great amount of critiques about mixed income developments. Critiques can be categorized into three types: the influence of gentrification, the untouched macro economy structure change, and the limitation of social benefits. Many researchers even argue that mixed-income development is not a solution to housing problems, or an effective tool to solve the key problem of poverty. The role of mixed-income development in the provision of affordable housing is controversial. Some authors assert that “income mixing is politically and financially appealing but socially unnecessary” (Vale 1998, 749). Rather than supporting for new mixed income developments, they prefer to revitalize the existing poor neighborhoods. “if you

provide very low-income people with good management, a good living environment, good maintenance, and housing that blends in, mixed income may not be necessary” (Smith 2002, 21).

Some researchers hold the opinion that mixed income development will bring the negative effects of gentrification to the city. “Rather than achieving balanced development that effectively address the problems of concentrated urban poverty, mixed-income development schemes are more properly seen as veiled efforts at gentrification, appropriating inner-city neighborhood with renewed market value for development that disproportionately benefits capital interests and the middle class” (James C. Fraser, Robert J. Chaskin, Joshua Theodore Bazuin, 2013). Rather than getting social benefits to lower income people, these critiques state that mixed income developments are in fact benefit capital interests and the middle class. The effects of mixed income developments are more modest than either the gentrification-oriented critics or poverty-deconcentration champions suggest (James Fraser, James DeFilippis, Joshua Bazuin, 2012)

Some researchers point out that the efforts made by developing mixed income projects will generate a set of fundamental tensions—between integration and exclusion, use value and exchange value, appropriation and control poverty and development (Khadduri, Jill, and Marge Martin, 1997) (Robert J. Chaskin , Mark L. Joseph, 2013). What’s more, the effects of mixed income development are not only about positive effects but also about negative ones as well. In the book “There goes the ‘hood: views of gentrification from the ground up” , Lance Freeman (2006) states that different people within gentrifying context have different perspectives on its benefits and harms, and in some cases residents see both positive and negative aspects at once.

## **Research Framework**

In the article “The Theoretical Basis for Addressing Poverty Through Mixed-Income Development” written by Mark Joseph, Robert Chaskin and Henry Webber, researchers apply four theories to test if mixed-income development could address the problem of urban poverty. The four theories are: Social Network Theory, Social Control Theory, Cultural and Behavior Theory, and Political Economy Theory. In this research paper, three of the four theories--social network theory, social control theory and the political economy theory--will be used as research framework.

For social network theory, its argument asserts that mixed-income development can facilitate the re-establishment of effective social networks and social capital for low-income residents (Mark L. Joseph, Robert J. Chaskin, Henry S. Webber, 2007). Effective social networks and social capital are distinguished advantages that low income residents will benefit after they move to mixed income neighborhoods. In my study, I will ask residents questions like “whether or not they exchange information with their neighbors, how often residents speak with their neighbors in the same MIH building, whether someone living in the same building provided referrals, counselling

to you” to see whether social networks among residents have been built and to see whether there is any difference in terms of social networking between residents living in MIH projects with separation action and residents living in MIH projects without separation action.

When it comes to the social control theory, it posits that “the presence of higher-income residents—in particular, homeowners—will lead to higher levels of accountability to norms and rules through increased informal social control and thus to increased order and safety for all residents”(Joseph, 2013). In this aspect, I will ask renters living in affordable units that whether or not they feel safer after moving to the mixed income community.

And finally for the political economy theory, it suggests that with the influence of higher-income residents, new market demand will be generated. And due to the fact that external political and economic actors are more likely to respond to the political pressure made by higher-income residents, thereby higher-quality goods and services will be made available to a cross-section of residents in the community (Joseph 2013). In this aspect, I will ask renters who live in affordable units to compare the neighborhood they used to live and the neighborhood they currently live.

Specific questions related with political economy theory in the questionnaire are: whether or not residents witness more improvements on community facilities after they move to MIH projects, whether or not residents enjoy more convenient commercial stores after they move to MIH project, whether or not residents access to more convenient transportation and more social events.

In terms of cultural and behavior theory, it argues that “the presence of higher-income residents in mixed-income developments will lead other families to adapt more socially acceptable and constructive behavior, including seeking regular work, showing respect for property, and abiding by other social norms” (Joseph, 2013). What’s more, many researchers stated that the action of moving from poverty concentrated neighborhood to mixed income development will greatly benefit children through the process of “role-modeling” (Mark L. Joseph, Robert J. Chaskin, Henry S. Webber, 2007). This theory will not be used as research frame in this study for two reasons. First, changes about value and social norms are more imperceptible to test by using questionnaire as the research method. Second, the most influential population of the role-modeling process is children. However, children are not included in the subject population of this research. Accordingly, the researcher applies three of the four theories as research framework in this study.

## **Methodology**

### **Using Questionnaires as Methodology and Subject Population**

This is a quantitative research. Questionnaires used as methodology to measure residents' satisfaction level with their living conditions and to ask residents how they interact with their neighbors.

The focused subject population in this research is residents who live in both affordable and market-rate units of six targeted MIH projects. No specific Gender, Race, Ethnicity characteristics are required. Subject populations are healthy, English-speaking adults. Children, adults with disabilities, non-English speaking adults, and illiterate adults are excluded. Subject population is selected completely random. Considering the fact that this is a thesis for Master's degree and the limited time available, the researcher collected 104 questionnaires from residents living in the target sites. 56 questionnaires are collected from four sites with separation action by developers, and 48 questionnaires are collected from two sites without separation action.

### **Site Information**

Questionnaires are conducted in six MIH sites in total: four specific sites with separate entrances for residents living in affordable units and market-rate units, and two sites where residents share same entrances, amenities and open space. In terms of site selecting, because few MIH projects with deliberately and completely separation actions exist in NYC, the four MIH sites with separation actions are selected intentionally by the researcher. The researcher selected the four sites by reviewing the related “Poor Door” news online. The other two sites without separation actions are selected completely random from the website “NYC Housing Connect”—a website open to public and facilitate people searching and applying for affordable housing units in MIH projects. (The website address of NYC Housing Connect is <https://a806-housingconnect.nyc.gov/nyclottery/lottery.html#home>).

The four sites of housing projects with separation actions are:

Site1: 40 Riverside Boulevard, Manhattan

Site2: The Edge, 22 N 6th St, Brooklyn

Site3: Northside Piers, 1 Northside Piers #4, Brooklyn

Site4: Silver Towers, 620 W 42nd St, Manhattan

The two sites of housing projects without separation actions are:

Site 5:89 Murray Street, Manhattan

Site 6:200 East 94th Street in Manhattan



Site 1: 40 Riverside Boulevard, Manhattan

Site1 is a luxury condo with 33 stories including 219 market-rate units and 55 affordable units (Dailey, 2015). The building has two entrances, one for the 219 luxury condos, with the address of 50 Riverside Boulevard and name “One Riverside Park”, and the other entrance for the below-market-rate rentals, with the address 40 Riverside Boulevard (Dailey, 2015). The rents for affordable units are ranging from \$833 for a studio to \$1082 for two bedrooms (Dailey, 2015). Applicants’ income is ranging from \$30,240 annual household income to \$50,340 (NYC Housing Connect, 2015). “The rental amenities, which will be separate from the condo amenities, include a community room, a laundry room, bike storage, and parking; The condo owners, who will be paying between \$1.175 million and \$25.75 million, will have a swimming pool, squash court, bowling alley, and more” (Dailey, 2015). All of the amenities, open space and entrances for affordable units and market-rate units are separated in this building. The separation actions are complete.

Site2: The Edge, 22 N 6th St, Brooklyn

The Edge is a 15-story luxury waterfront condo built at 2008 and located in Williamsburg, Brooklyn. There are 347 subsidized rentals located in this building. The affordable portion of this building is also called as Williamsburg Community Apartment. Affordable rentals have their own leasing office and website for uploading application information. The affordable rents are ranging from \$886 for one studio to \$1098 for two bedrooms. Amenities and entrances are separated for affordable units and luxury condo units. Separation actions are complete. Balconies, decks and pools are exclusively open to market-rate units.

Site3: One Northside Piers, 1 Northside Piers #4, Brooklyn

One Northside Piers is also a luxury waterfront condominium complex built at 2010 and located in Williamsburg, Brooklyn. This MIH project is the first affordable housing project developed as part of the City’s rezoning of the Williamsburg/Greenpoint waterfront. This is a 29-story building with 180 market-rate units and 134 affordable units. The developer takes the advantage of 421a program, which rewarded developers with 10 to 25 years of tax abatements for the inclusion of affordable rental units. Condo residents enter from North Fourth Street, while the affordable building, which is farther from the water, opens onto North Fifth. The rent for affordable units is starting from \$398/month. Residents from affordable units and market-rate units use different amenities and entrances. Separation actions are complete.

Site 4: Silver Towers, 620 W 42nd St, Manhattan

Silver Towers are luxury rental buildings completed in 2010. It is a 1.2 million-square foot, 1,359-unit rental apartment community that includes two 60-story towers connected by a six-story base and a 12-story inclusionary rental building. There are 1359 units in total, among which twenty percent of them are affordable units (317 units). Residents living in affordable

units share different amenities from residents living in market-rate units and use a separate entrance on 41th Street. Rents for affordable units are ranging from \$562 for one studio to \$733 for two bedrooms. Separation actions are complete.

Site5: 89 Murray Street, Manhattan

This is a mixed income rental building, with 163 units in total. The percentage of units assigned for low income, middle income and high income are 20/30/50. 33 units in this building are set for low income units. This building is categories as LAMP and Low Income Housing Tax Credit (LIHTC) type of affordable housing (Manhattan Community Board 1, 2011). All the residents shared the same entrance. Separation actions are absent.

Site6: 200 East 94th Street in Manhattan

The building is called as Carnegie Park and located in 200 East 94th Street in Manhattan. This is a luxurious condominium with over 300 units for sale. This building was launched at 1986 and can be categorized as 80/20 affordable housing. All the residents shared the two entrances that open to both renters and owners. Separation actions are absent.

**Table 1 Summary Information of Four Target MIH Sites with Separation Actions**

<b># of Site</b>	<b>Site1</b>	<b>Site2</b>	<b>Site 3</b>	<b>Site4</b>
<b>Location</b>	40 Riverside Boulevard, Manhattan	The Edge, 22 N 6th St, Brooklyn	One Northside Piers, 1 Northside Piers #4, Brooklyn	Silver Towers, 620 W 42nd St, Manhattan
<b>Separation Action</b>	Y	Y	Y	Y
<b>Rent</b>	\$833-\$1082	\$886-\$1098	From \$398	\$562-\$733
<b>Built Year</b>	2015	2008	2010	2010
<b>Number of Market-rate Units</b>	219	205	180	1359
<b>Number of Affordable Housing Units</b>	55	347	134	317
<b>Affordable Housing Type</b>	Inclusionary Housing Project	Inclusionary Housing Project	Inclusionary Housing Project	Inclusionary Housing Project

**Table 2 Summary Information of Two Target MIH Sites without Separation Actions**

# of Site	Site 5	Site 6
<b>Location</b>	89 Murray Street, Manhattan	200 East 94th Street in Manhattan
<b>Separation Action</b>	N	N
<b>Rent</b>	N/A	N/A
<b>Built Year</b>	2006	1986
<b>Number of Market-rate Units</b>	82	Over 300
<b>Number of Affordable Housing Units</b>	81 (33 for Low Income, 48 for Middle Income)	Over 60
<b>Affordable Housing Type</b>	LAMP, LIHTC	80/20 Program, Section 8

### **Questionnaire Procedure and Analysis Method:**

After signing consent forms in printed sheets, subjects are voluntary to do questionnaires about their opinions toward the living condition and their interactions with neighbors. There are twenty-one questions in the questionnaire. The questionnaire takes approximately 10-15 minutes to complete. The researcher went to the sites on random days, on both day and night, weekends and weekdays in order to be objective. The researcher talked to people who just came out of the MIH building or were going to enter the buildings, then after getting their consent to conduct the questionnaire.

The data obtained from questionnaires is descriptive data and will be analyzed in Excel. First, the researcher coded them in Excel. For Example, one question is whether or not residents participate more or less community activities after they move to the current living environment compared to the neighborhood they used to live. Residents can select choices from “More Participation, No Difference, and Less Participation”. These choices will be coded in numbers 1, 0, -1. After calculating the frequencies, median, average, the researcher can know in general whether or not there is any change in residents’ participation in community activities after they move to the current buildings. The detailed survey questions will be included in the appendix I.

### **Limitation**

In this study, I will use quantitative method by distributing questionnaires to residents who live in affordable units and market-rate units of six selected MIH projects. For my first research question, whether or not living in the affordable units of an inclusionary housing project will improve lower income residents’, I admit that there is a limitation on my research design. Ideally, the best way to approach this question is doing a longitudinal research, in which I will trace the life experiences of a certain group of people living in the same original neighborhood and moving to a same inclusionary housing project. Or rather than doing a longitudinal study, I can also conduct another kind of cross sectional research. In that cross sectional study, I will need two groups of people: one for control group who stay living in the poverty concentrated community, and the other group is treatment group who used to live in the same community with the control group but now move to inclusionary housing projects. I agree that the two above approaches are logical and the best ways to conduct a scientific research.

However, there are some practical limitations that make me not choose these two methods for this research. In terms of longitudinal research, it’s almost impossible to conduct such research within five months. And in terms of the method of control and treatment groups, because renters who move to MIH projects are mostly chosen by lottery, these renters used to live in different neighborhoods. Or in another case, maybe a certain amount of people who have lower income and used to live in the same community now move to inclusionary housing projects. However, due to lottery, it is very possible that they move to different inclusionary housing projects. Accordingly, I agree that the method of control and treatment is the most scientific way to conduct this research, but in practice, I must admit that it is difficult to control the variables all the same in reality.

Based on such limitation, in this research, I will use the experiences of renters themselves to conduct research. I will ask whether or not renters who move to the affordable units in inclusionary projects witness any change between the original neighborhood they used to live and this new neighborhood (where inclusionary housing project located). After the researcher’s oral explanation of this research to interviewees and getting their consent to take questionnaires, the researcher asked renters to answer questions about cultural value, lifestyle, interactions with neighbors, participation in community organizations and many other aspects. There is a potential problem in this methodology—how the researcher frame the question may influence the responses from participants. What’s more, this study only collected 104 questionnaires. The sample size of this study is small.

## Findings

### Part 1: General Information

In total, 104 questionnaires are collected from six selected MIH projects. 6 questionnaires are collected from Site1 (40 Riverside Boulevard, Manhattan). Among the 6 questionnaires, 3 questionnaires are collected from affordable units, and 3 other questionnaires are collected from market-rate units. 20 questionnaires are collected from Site2 (The Edge, 22 N 6th St, Brooklyn). Among the 20 questionnaires, 12 questionnaires are collected from residents living in affordable units, and 8 questionnaires are collected from market-rate units. For Site3 (Northside Piers, 1 Northside Piers #4, Brooklyn), 18 questionnaires are collected totally, among which 8 questionnaires from affordable units and 10 questionnaires from market-rate units. There are 12 questionnaires from Site4 (Silver Towers, 620 W 42nd St, Manhattan), among which 5 questionnaires from affordable units and 7 questionnaires from market-rate units. For Site5 (89 Murray Street, Manhattan), 19 residents participate in this survey. 8 questionnaires are from residents living in affordable units, and 11 questionnaires are from residents living in market-rate units. For Site6 (200 East 94th Street in Manhattan), 29 questionnaires are collected in total, among which 5 questionnaires from affordable units and 24 questionnaires from market-rate units. Details of the questionnaires collected from each site are shown in Table 3 “Summary of Questionnaires Collected from Six Selected MIH Sites”.

**Table 3 Summary of Questionnaires Collected from Six Selected MIH Sites**

Sites	Number of Participants from Affordable Units	Number of Participants from Market-Rate Units	Total
Site1	3	3	6
Site2	12	8	20
Site3	8	10	18
Site4	5	7	12
Site5	8	11	19
Site6	5	24	29
Total	41	63	104

Date collected by researcher.

In terms of separation actions, 56 questionnaires are collected from four MIH sites (Site1, 2, 3,4) with separation actions, and 48 questionnaires are collected from two MIH sites (Site5, 6) without separation actions. Details can be seen in Table 4 “Summary of Questionnaires Categorized by Separation Action”.

**Table 4 Summary of Questionnaires Categorized by Separation Action**

<b>Categories of Separation Actions</b>	<b>Number of Questionnaires</b>
<b>Separate</b>	56
<b>Mixed</b>	48
<b>Total</b>	104

Data Collected by Researcher

### **Gender Distribution**

When it comes to the gender distribution of participants, 60 questionnaires are collected from female residents, and 44 questionnaires are collected from male residents. Among the female participant, 17 residents live in affordable units, and 43 residents live in market-rate units. Among the male residents, 24 residents are living in affordable units, and 20 residents are living in market-rate units. Female participants account for 58% of the total participants, and male participants account for 42% of the total. Details about gender distribution can be seen in Table 5 “Gender Distribution of Participants”.

**Table 5 Gender Distribution of Participants**

	<b>Affordable Units</b>	<b>Market-rate Units</b>	<b>Number of Total</b>	<b>Percentage of Total</b>
<b>Female</b>	17	43	60	58%
<b>Male</b>	24	20	44	42%
<b>Total</b>	41	63	104	100%

Data Collected by Researcher

### **Age Distribution**

In terms of age distribution, among the 104 questionnaires, 9 questionnaires are collected from residents age 20-29. 49 questionnaires are collected from residents age 30-39. And 29 questionnaires are collected from resident’s age from 40-49. And 11 questionnaires are from residents over 50 years old. Six participants did not tell their age in the questionnaires. Details of age distribution can be seen from Table 6 “Age Distribution of Participants”.

**Table 6 Age Distribution of Participants**

<b>Categories Age</b>	<b>Number of Questionnaires Collected from Affordable Units</b>	<b>Number of Questionnaires Collected from Market-rate Units</b>	<b>Total</b>	<b>Percentage of Total Participants</b>
<b>20-29</b>	6	3	9	9%
<b>30-39</b>	19	30	49	47%
<b>40-49</b>	11	18	29	28%
<b>50+</b>	3	8	11	11%
<b>N/A</b>	2	4	6	6%
<b>Total</b>	41	63	104	100%

Data Collected by Researcher

### Household Information

Referring to the question “How many people live with you in this apartment now”, participants may choose options from “One (yourself), Two, Three, Four and More”. Based on the data of 104 questionnaires, 22% of the participants live alone, with the 23 questionnaires. 38% of the participants live in two people household, with 40 questionnaires. 34% of participants live in three people household, with 35 questionnaires. And 6% participants live in four people and more household, with 6 questionnaires. Details about household information are shown in Table 7 “Household Information of Participants”.

**Table 7 Household Information of Participants**

<b>Number of People Living in the Household</b>	<b>Number of Questionnaires Collected from Affordable Units</b>	<b>Number of Questionnaires Collected from Market-Rate Units</b>	<b>Total</b>	<b>Percentage of Total Participants</b>
<b>1</b>	8	15	23	22%
<b>2</b>	17	23	40	38%
<b>3</b>	15	20	35	34%
<b>4</b>	1	5	6	6%

Date Collected by Researcher



## **Part 2: Residents' Satisfaction Level toward Living Condition**

The first research question is whether living in the affordable units of inclusionary housing projects (one of mixed income strategies) will improve lower-income residents' satisfaction level toward living conditions and neighborhood. In order to answer this question, data collected from residents living in affordable units will be analyzed. In total, there are 41 questionnaires collected from six selected MIH projects. In order to measure if residents living in the affordable units of MIH improve their satisfaction level about living conditions and neighborhood, three aspects will be examined: 1) satisfaction toward specific aspects (transportation, neighborhood safety, rent affordability, etc.), 2) overall satisfaction about the neighborhood and living conditions, 3) community participation.

In the questionnaire, five questions are designed to answer the first research question. The five designed questions are:

Q5. How would you rate your satisfaction with each of the following items where you used to live? (Rate each item, with 1 being very dissatisfied to 5 being very satisfied) Choices are:

- a. Affordability of Rent
- b. Neighborhood Safety
- c. Physical condition of Home
- d. Convenience of Location to Transportation
- e. Community Facilities
- f. Access to grocery stores
- g. Social Events

Q6. How would you rate your overall satisfaction toward where you used to live? Rate 1 to 5, from very dissatisfied to very satisfied

Q15. (Similar to Q5, but ask residents their satisfaction level toward current living conditions)

Q16. (Similar to Q6, but ask residents their overall satisfaction level toward current living conditions)

Q19. Compare the neighborhood you (residents) used to live with the neighborhood you live now, in term of community participation, survey participants may choose answers from "Less Community Activities", "More Community Activities", and "No Difference"

**Satisfaction Level toward Specific Aspects**

For the seven specific aspects describing living conditions and neighborhoods, it is surprising to see that residents who living in affordable units of six selected MIH projects experience an improvement on their living condition in all seven specific areas (rent affordability, neighborhood safety, physical condition of the home, access to transportation, community facilities, access to grocery store, and social events).

**Table 8 Satisfaction Level toward Specific Aspects**

<b>Specific Aspects</b>	<b>Average Satisfaction Level Before Moving to MIH Projects</b>	<b>Average Satisfaction Level After Moving to MIH Projects</b>	<b>Percentage of Change</b>
<b>Rent Affordability</b>	2.68	3.34	25%
<b>Neighborhood Safety</b>	2.76	3.8	38%
<b>Physical condition of the home</b>	2.61	3.21	23%
<b>Access to Transportation</b>	2.58	3.97	54%
<b>Community facilities</b>	2.36	2.58	9%
<b>Access to Grocery Stores</b>	2.6	3.12	20%
<b>Social Events</b>	2.56	2.65	4%
<b>Total Satisfaction</b>	2.41	3.7	54%

Data Collected by Researcher

Although there are improvements on all seven aspects, the level of improvement is different for each aspect. Residents living in affordable units of six MIH projects experience least amount of improvement on the following two aspects: Community Facilities and Social Events, with corresponding percentage of change 9% and 4% respectively. The top three aspects lower income residents witness significant improvements are: Access to Transportation (with an increased percentage change of 54%), Neighborhood Safety (with an increased percentage change of 38%), and Rent Affordability (with an increased percentage change of 25%).

When it comes to examining each aspect separately, for rent affordability, before move to the MIH projects, the average satisfaction rate of residents who live in affordable units of MIH projects is 2.68. After moved to the MIH projects, the average satisfaction level about this item has increased from 2.68 to 3.34, with an increase of 25%. In terms of neighborhood safety, before move to MIH projects, residents’ average satisfaction level toward this item is 2.76. After moving to the MIH projects, the average satisfaction level now is 3.8, with an increase of 38%. For physical condition of the home, the average satisfaction level has increased from 2.61 to 3.21

by moving to the MIH projects, with an increase of 23%. For access to convenient transportation, the average satisfaction level has changed from 2.58 to 3.97, with an increase of 54%. For community facilities, the average satisfaction level has increased from 2.36 to 2.58. The average satisfaction level for this item only increases 9%. For access to affordable grocery stores, the average satisfaction level has moved from 2.6 to 3.12, with an increase of 20%. For social events, the average satisfaction level before and after moving to MIH projects hasn't changed much, with a slightly 4% increase. Details about satisfaction level toward specific aspects can be found in Table 8.

The researcher uses dependent t-test to test the statistical significance. For the first aspect "Rent Affordability", null hypothesis is that there is no difference on the satisfaction level toward rent affordability before and after moving to MIH projects. Degree of freedom is 40. T-value is -5.11, which is less than -2.0211 (two tailed,  $p=0.05$ ). Based on the result of t-test, the researcher rejects the null hypothesis and concludes that moving to MIH projects significantly affects lower income people's satisfaction level toward rent affordability. For the second aspect "Neighborhood Safety", null hypothesis is that there is no difference on the satisfaction level about neighborhood safety before and after moving to MIH projects. T-value is -6.9, which is less than -2.0211 (two tailed,  $p=0.05$ ). So the researcher rejects the null hypothesis and concludes that moving to MIH projects significantly affects lower income people's satisfaction level about neighborhood safety.

For the third aspect,  $H_0$ : there is no difference on lower income people's satisfaction level about physical condition of home before and after moving to MIH projects. T-value is -2.96 ( $<-2.021$ ,  $p=0.05$ ). The researcher rejects the null hypothesis and concludes that moving to MIH projects significantly affects lower income people's satisfaction level about physical condition of home. For the fourth aspect "Convenient Access to Transportation),  $H_0$ : there is no difference on lower income people's satisfaction level before and after moving to MIH projects. T-value is -6.5 ( $<2.021$ ,  $p=0.05$ ). We can conclude that moving to MIH project significantly affects lower income people's satisfaction level toward convenient access to transportation.

For the fifth aspect,  $H_0$ : there is no difference on lower income people's satisfaction level toward community facilities before and after moving to MIH projects. T-value is -1.2696 ( $>-1.3031$ , two tailed,  $p=0.2$ ). We fail to reject that there is no difference on lower income people's satisfaction level toward community facilities before and after moving to MIH projects. For the sixth aspect,  $H_0$ : there is no difference on lower income people's satisfaction level toward "Access to grocery stores". T-value is -5.94 ( $<-2.0211$ ,  $p=0.05$ ). The researcher rejects the null hypothesis and concludes that moving to MIH projects significantly affects lower income people's satisfaction level toward the aspect "Access to Grocery Stores".

For the seventh aspect "Social Events", null hypothesis is there is no difference on lower income people's satisfaction level toward social events before and after moving to MIH projects. T-value is -0.05 ( $-1.3031 < -0.05 < 1.31031$ ). The researcher fails to reject the null hypothesis.

In Summary, after analyzing the statistical significance, now we can conclude that the satisfaction level of five aspects will be significantly affected by moving to MIH projects. The five aspects are: rent affordability, neighborhood safety, physical condition of home, convenient access to transportation, and access to grocery stores.

### Overall Satisfaction Level

As you can see in Table 8, according to 41 questionnaires collected from residents living in affordable units of MIH projects including buildings with separation actions and buildings without separation actions, comparing the average overall satisfaction level before they move to MIH projects to that after they moved to MIH projects, the overall satisfaction level of residents living in affordable units has increased from 2.41 to 3.7, with a significant increase of 54%.

We use dependent t-test to test the statistical significant. Null hypothesis is there is no difference on overall satisfaction level before and after moving to MIH projects. T-value is -6.17 ( $< -2.021$ ,  $p=0.05$ ). Accordingly, we can reject the null hypothesis and conclude that moving to MIH project significantly affects lower income people's overall satisfaction level.

### Community Participation

When it comes to the question whether or not there is any change about residents' (who living in affordable units) participation in community activities. No significant change has been found comparing the level of community activities participated by residents before and after. 12% of the residents participate less community activities after they moved to MIH projects. 5% of residents participate more community activities after they moved to MIH projects. As you can see in Table 9, the majority of residents (83%) think there is no difference in terms of community activity participation before and after they moved to MIH projects.

**Table 9 the Comparison of Level of Community Participation for Residents Living in Affordable Units of Six Selected MIH Sites**

<b>Levels of Community Participation</b>	<b>Number of Residents Select the Choice</b>	<b>Percentage of the Total</b>
<b>Less Community Participation</b>	5	12%
<b>More Community Participation</b>	2	5%
<b>No Difference</b>	34	83%

Data Collected by Researcher

### **Part 3: An Analysis of Neighbors' Interaction**

By using questionnaires to measure neighbors' interaction with each other in MIH projects, there are three major findings in this section: 1) For residents living in both affordable units and market-rate units, no significant difference has been found in neighbors' interaction between residents living in MIH projects with separation actions and residents living in MIH projects without separation action; 2) residents living in MIH projects are more likely to exchange information about local resources, social events, school and food; 3) In terms of how comfortable neighbors interact with each other, people who recognized themselves as having same/higher/much higher income in comparison to their neighbors have the highest comfortable rate with their neighbors. Details and explanations of each finding will be illustrated below.

#### **Finding1: No significant difference has been found in neighbors' interaction between residents living in MIH projects with separation actions and residents living in MIH projects without separation action**

The second research question of this study is whether or not residents experience a qualitative difference in their interaction with neighbors if they living in a MIH project without separation actions verses living in a MIH project with the separation actions. In order to explore this research question, three specific questions are designed in questionnaire. The three questions are:

Q9. How often do you (residents living in selected MIH projects) speak with your neighbors in your building?

Q10. How often do you exchange information with these neighbors?

Q12. How well do you know these neighbors?

In terms of the results of questionnaires, as you can see in Table 10 "Summary of Question 9—how often speak with neighbors", for residents living in MIH projects with separation action, 25 of the 56 participants state that they never speak with their neighbors at all. Among all of the residents participating in this survey and living in MIH projects with separation action, 44.6% of them never speak with their neighbors. In addition, there are 18 participants who live in MIH with separation action and choose the choice that they speak with their neighbors once a week. 32.1% participants living in MIH projects with separation action reported that they speak with their neighbors once a week. 10.7% participants of MIH projects with separation action speak with their neighbors 2-3 times a week, and 10.7% participants speak with their neighbors 4-5 times a week. And only 1.8% of participants speak with their neighbors over six times a week.

For participants living in MIH projects without separation action, 31.1% of participants never speak with their neighbors. 39.6% participants speak with their neighbors once a week. 18.8% participants speak with their neighbors 2-3 times a week, and 6.3% participants speak with their

neighbors 4-5 times a week. Only 4.2% of participants speak with their neighbors over six times a week.

Comparing neighbor's interaction between residents living in MIH projects with separation action and residents living in MIH projects without separation action, it is hard to conclude that there is any significant difference between these two groups in terms of how often neighbors speak with each other. However, it is obvious that for residents living in MIH without separation action (SA), the percentage of neighbors speak with each other is slightly higher than that for residents living in MIH with separation action. For MIH with SA, the percentage of participants never speak with their neighbor is 44.6%. By contrast, only 31.3% participants living in MIH without SA never speak to their neighbors. In term of residents who speak with neighbors 4-5 times a week, the percentage of participants living in MIH with SA and choosing this option is higher than that of participants living in MIH without SA (10.7% versus 6.3%).

In this section, the researcher use "independent two-sample T-test" (Equal or unequal sample sizes, unequal variances) to test statistically significance. First, the researcher coded different types of frequency of communication as numbers: 0 for "Not at all", 1 for "Once a Week", 2 for "2-3 times a week", 3 for "4-5 times a week", 4 for "Often, 6+ times a week". Sample 1 is the communication data of participants living with SA. Sample 2 is the communication data of participants living without SA. The null hypothesis is that there is no difference in terms of frequency of communication between residents living with SA and residents living without SA.

After calculation, Degree of freedom is 99. T-value is -0.9316 ( $-1.6604 < -0.9316 < 1.6604$ , when  $p=0.1$ , two tailed,  $t=1.6604$ )

Sample 1  $\neq$  Sample 2: P-Value = 0.3538

Sample 1 < Sample 2: P-Value = 0.8231

Sample 1 > Sample 2: P-Value = 0.1769

Accordingly, the researcher fails to reject the null hypothesis. We cannot conclude that there is a significant difference on the aspect of neighbor's communication between two groups of people.

**Table 10 Summary of Participants’ Answers about “How often they speak with Neighbors”**

<b>Frequency of Communication</b>	<b>Number of Participants living with Separation Action</b>	<b>Percentage of Separate Total</b>	<b>Number of Participants living without Separation Action</b>	<b>Percentage of Same Total</b>
<b>Not at all</b>	25	44.6%	15	31.3%
<b>Once a week</b>	18	32.1%	19	39.6%
<b>2-3 times a week</b>	6	10.7%	9	18.8%
<b>4-5 times a week</b>	6	10.7%	3	6.3%
<b>Often, 6+ times a week</b>	1	1.8%	2	4.2%
<b>Total</b>	56	100%	48	100%

When it comes to how often residents exchange information with their neighbors, no obvious difference can be found between residents living with SA and without SA. 46.4% participants living in MIH with SA never exchange information with neighbors. By contrast, 43.8% participants living in MIH without SA never exchange information with neighbors. In terms of residents who exchange information 1-2 times per month, the percentage for residents living in MIH with SA is slightly higher than that for residents living in MIH without SA, with 41.1% and 35.4% respectively. For residents who exchange information 1-2 times per week, the percentage for residents living in MIH with SA is lower than that for residents living in MIH without SA, with 7.1% and 10.4% respectively. What’s more, in terms of the percentage of people who speak with neighbors frequently, the percentage for people living in MIH without SA is higher than that percentage for people living in MIH with SA (10.4% versus 5.4%). More details are shown in Table 11.

**Table 11 Summary of Questionnaire Results about how often Neighbors Exchange Information**

<b>Frequency of Communication</b>	<b>Number of Participants Choosing this Option and Living with Separation</b>	<b>Percentage of Total Participants Living in MIH with SA</b>	<b>Number of Participants Choosing this option and Living without Separation</b>	<b>Percentage of Total Participants Living in MIH without SA</b>
<b>Not at All</b>	26	46.4%	21	43.8%
<b>1-2 per moth</b>	23	41.1%	17	35.4%
<b>1-2 per week</b>	4	7.1%	5	10.4%
<b>Frequently</b>	3	5.4%	5	10.4%

Date collected by Researcher

In this section, the researcher use “independent two–sample T-test” (Equal or unequal sample sizes, unequal variances) to test statistically significance. First, the researcher coded each answers as numbers. 0 for “Not at all”, 1 for “1-2 per month”, 2 for “ 1-2 per week”, and 3 for “frequently”. The null hypothesis is that there is no difference in terms of how frequency neighbors exchange information with each other between residents living with SA and residents living without SA. Degree of freedom is 92. T-value is -0.8969 ( $-1.6616 < -0.8969 < 1.6616$ , when  $p=0.1$ , two tailed,  $t=1.6616$ ). Accordingly, the researcher fails to reject the null hypothesis. There is no significant difference between residents live with SA and without SA in terms of how frequency neighbors exchange information with each other.

Another indicator to measure neighbor’s interaction is asking neighbors how well they know each other. For both residents living in MIH with SA and in MIH without SA, the majority of participants state that they know their neighbors either “Not at all” or only “Somewhat”. The percentage of participant who know their neighbors “Somewhat” for residents living in MIH without SA is higher than that for residents living in MIH with SA, with 47.9% and 39.3% respectively. However, participants living in MIH with SA have a higher percentage of residents who know their neighbors “Very Well” than that for residents living in MIH without SA (14.3% versus 8.3%). More details are illustrated in Table 12 “Summary of Results about how well Neighbors know Each Other”.

**Table 12 Summary of Results about How Neighbors know Each Other**

<b>Levels of Knowing Neighbors</b>	<b>Number of Participants Choosing this Option and Living with Separation</b>	<b>Percentage of Total Participants Living in MIH with SA</b>	<b>Number of Participants Choosing this option and Living without Separation</b>	<b>Percentage of Total Participants Living in MIH without SA</b>
<b>Not at all</b>	24	42.9%	20	41.7%
<b>Somewhat</b>	22	39.3%	23	47.9%
<b>Well</b>	2	3.6%	1	2.1%
<b>Very Well</b>	8	14.3%	4	8.3%

Data Collected by Researcher

In this section, the researcher uses same t-test to measure the statistical significance. The null hypothesis here is that there is no difference in terms of how neighbors know each other between residents living with SA and residents living without SA. Degree of Freedom is 101. T-value is 0.6627 (when  $p=0.1$ ,  $t=1.6601$ ). Accordingly, the researcher fails to reject the null hypothesis. We can conclude that there is no significant different between residents living with SA and residents living without SA in terms of how well neighbors know each other.



**Finding 2: residents living in MIH projects are more likely to exchange information about local resources, social events, school and food**

According to the data collected from participants, the most popular topics when residents exchange information with each other are: 1. Local Resource (with a vote of 65), 2. Social Events (42), 3. Food (26). What’s more, there are 60 votes in total for the choice--“Other”. Among these 60 votes, 41 votes are for “never exchange information with neighbors”, and 6 votes for “Pets”, and 8 votes for “Used Items” or similar words. Details about topics neighbors exchange information with each other are shown in Table 13.

**Table 13 Questionnaire Results about Information Exchange among Neighbors**

<b>Kinds of Information</b>	<b>Number of Votes</b>
<b>Local Resource</b>	65
<b>Social events</b>	42
<b>Other (Never Exchange Information)</b>	41
<b>Food</b>	26
<b>School</b>	25
<b>Child care</b>	19
<b>Job</b>	14
<b>Other (Used Item)</b>	8
<b>Free things</b>	7
<b>Other (Pet)</b>	6
<b>Other</b>	5

Date Collected by Researcher

**Finding3: Residents who recognized themselves as having same/higher/much higher income in comparison to their neighbors have the highest comfortable rate with their neighbors.**

In the questionnaire, the researcher ask residents where they see themselves in comparison to their neighbors in terms of income. Participants may choose answers from “much lower income, lower income, same income, more income, much more income, and I don’t know”. According to the data collected from questionnaires, 14.4% of all participants recognize themselves as having much lower income than their neighbors, and 25% participants think they have lower income than neighbors. Participants who think they have same income with their neighbors account for 23.1%. And 12.5% participants think they have higher income than their neighbors, and 4.8% participants think they have much higher income than neighbors. About 20% of participants don’t know the answer of this question (Table 14).

**Table 14 Self-Recognized Income Distribution among Participants**

Income Levels	Number of Participants	Percentage of Total
much lower	15	14.4%
lower	26	25.0%
same	24	23.1%
higher	13	12.5%
much higher	5	4.8%
don't know	21	20.2%
Total	104	100%

Date Collected from Researchers

In the questionnaire, the researcher also ask participants in which degree they feel comfortable with neighbors, ranging from 1 very uncomfortable to 5 very comfortable. When we compare the data about comfortable levels with neighbors and the data about self-recognized income distribution, except participants who choose “I don’t know” in the income question, it is clear to find that residents whose income are same/higher/much higher than their neighbors have higher comfortable rate with neighbors. For each income category, Comfortable Rate is calculate by the number of participants who choose comfortable level (comfortable, more comfortable, and very comfortable) divided by the total number of participants in that income category.

As you can see in Table 15 “Self-recognized Income Distribution and the Comfortable Level with Neighbors”, participants whose self-recognized income are same/higher/much higher than their neighbors have obviously higher comfortable rate compared with participants whose self-recognized income are lower and much lower.

In order to test the relationship between two variables “self-recognized income level” and “comfortable level with neighbors”, the researcher uses Chi-square to test the data in Table 15 for statistical significance. The null hypothesis is that there is no relationship between “self – recognized income level” and “comfortable level with neighbors”. The test significant level is 0.05. Degree of Freedom is 1. The Chi-square statistic is 8.4926. The P value is 0.003566. This result is significant at  $p < 0.05$ . Accordingly, it is 95% that there is a relationship between participants’ “self-recognized income level” and the degree how comfortable they interact with their neighbors.

**Table 15 Self-recognized Income Distribution and the Comfortable Level with Neighbors**

<b>Income Level</b> <b>Comfortable Level</b>	<b>Much Lower and Lower Income</b>	<b>Same, Higher and Much Higher</b>
<b>Very Uncomfortable and Kind of Uncomfortable</b>	19	7
<b>Comfortable, More Comfortable, and Very Comfortable</b>	22	35
<b>Comfortable Rate (Number of Participants of that Income Category Choosing the Degree Comfortable or Higher/Total Participants of that Income Category)</b>	$22/(19+22)*100\%=53.7\%$	$35/(7+35)*100\%=83.3\%$

Data Collected by Researcher

### Discussion

As we mentioned before, the goals of mixed income developments are: 1) providing affordable housing for lower income group and 2) promoting socio-economic integration. After examining the data collected from questionnaires, it is clear that participants who move to the affordable units of MIH do enjoy the benefits of MIH in terms of improved living conditions and neighborhood. Referring to the social control theory, based on our data, participants living in affordable units witness a significant improvement (an increase of 38% on satisfaction level) in the aspect of neighborhood safety. Accordingly, we conclude that MIH projects do provide the benefits of increasing social order and neighborhood safety. Besides, referring to the political economy theory and our data, we find that participants living in affordable units witness a slightly increase on the satisfaction level of “Community Facilities” and a significant increase on the satisfaction level about “Access to Convenient Stores”. Such improvements on community facilities and more access to commercial stores show that MIH projects have the impacts of attracting commercial developments and providing neighborhood with good resources. In summary, for the first research question, the researcher conclude that MIH does achieve its policy goal in terms of providing affordable housing units and providing neighborhoods that offering better resources and safety to lower income group.

When it comes to the second research question, through the analysis of our data about neighbors’ interaction, although neighbors’ interaction among MIH without separation action is slightly higher than that of MIH with separation action, we still cannot conclude that the socio-economic integration happen in these MIH projects, nor do we conclude that the neighbors’ socio-economic integration among MIH projects without SA is higher than that among MIH with SA. There are two reasons why we cannot conclude this argument. First, neighbors’ interaction

among MIH without SA is only slightly higher than that of MIH with SA rather than significantly higher. Second, it is possible that these interactions happen exclusively among residents living in affordable units or market units rather than across class lines. We can find similar argument from the article “Mixed Outcomes Developments”, in which Erin W. Graves argue that the interactions among residents living in MIH projects are not confined to “cross-class relationship”.

For the findings that “residents who self-recognized as same/higher/much higher income have the highest rate of comfortable level with neighbors”, it is possible that income as a social character is used by residents living in the market-rate units of MIH projects as a shared common characters. Similar finding can be found in article “effects from living in mixed income communities for low-income families” written by Diane K. Levy, Zach McDade, Kassie Dumlao Bertumen (2011). In this article, researchers argue that “multiple studies find that residents tend to interact with their neighbors based on perceived characteristics in common”. In this study, the common characteristics can be “income level” for residents who recognize themselves as having same/higher/much higher income.

For MIH projects with separation actions, it is possible that such physical separation will not only influence neighbors’ interaction (within the same class or cross class lines), but it is also possible to have other impacts by limiting residents access to certain areas. For lots of luxury condominium MIH projects, certain areas like (gym, garden in rooftop, little movie theaters) are only open to residents living in market-rate units. What’s more, by such physical segregation, it is possible that lower income residents who live in affordable housing may experience stigma by living in buildings with strictly physical separation. If the author has a chance to redo this study again, the author will add more objective background questions in the questionnaires in order to add more objective evidence for this study. Background questions such as income levels, previous living zip code are helpful to understand the previous living environment of the participants. Furthermore, the researcher may also add more questions about interactions related with class to see whether neighbors’ interaction happens more often with the same class or cross class lines.

### **Future Study and Implication**

In terms of future study, whether or not Management Company would play a role in socializing residents from both market-units and affordable units will be an interesting topic for future studies. In addition, there is another interesting study area. For residents living in MIH projects with separation actions, how much level of neighbors' interaction do they interact within the class line, and how much level of neighbors' interaction do residents interact cross the class line are also questions need to be explored in the future. When it comes to implication, rather the physical arrangement of people with different income, I would suggest policy that require MIH buildings facilitating more social activities about "local resources, social events, food, and school information" to facilitate the integration among neighbors, especially neighbors having different income.

### **Conclusion**

By using questionnaires as a method, the researcher finds that Mixed Income Developments do improve lower income group's living condition and provide affordable units with accessible resources. For residents living in mixed income housing projects with separation action and residents living in mixed income housing projects without separation actions, no significant difference has been found between these two groups in terms of neighbors' interaction.

## Bibliography

- Brophy, Paul C., and Rhonda N. Smith. (1997). Mixed-Income Housing: Factors for Success. *Cityscape: A Journal of Policy Development Research* 3, 3-31.
- Dailey, J. (2015, February 18). *Upper West Side 'Poor Door' Rentals Start At \$833/Month*. Retrieved from Curbed:  
[http://ny.curbed.com/archives/2015/02/18/upper\\_west\\_side\\_poor\\_door\\_rentals\\_start\\_at\\_833\\_month.php#more](http://ny.curbed.com/archives/2015/02/18/upper_west_side_poor_door_rentals_start_at_833_month.php#more)
- Diane K. Levy, Zach McDade, Kassie Dumlao Bertumen. (2011, January 28). *Urban Organization*. Retrieved from Effects from Living in Mixed Income Communities for Low-income Families:  
<http://www.urban.org/publications/412292.html>
- Duke, J. (2009). Mixed income housing policy and public housing residents 'right to the city'. *Critical Social Policy*, 100-120.
- Freeman, L. (2006). *There Goes the Hood: Views of Gentrification from the Ground Up*. Philadelphia, PA: Temple University Press.
- Graves, E. W. (2014). Mixed Outcome Developments. *Journal of the American Planning Association*, 143-153.
- James C. Fraser, Robert J. Chaskin, Joshua Theodore Bazuin. (2013). Making Mixed-Income Neighborhoods Work for Low-Income Households. *Cityscape: A Journal of Policy Development and Research*, Volume 15, Number 2, 83-100. Retrieved from  
<http://www.huduser.org/portal/periodicals/cityscape/vol15num2/ch6.pdf>
- James E. Rosenbaum, Linda K. Stroh, and Cathy A. Flynn. (1998). Lake Parc Place: A study of mixed-income housing. *Housing Policy Debate*, 703-740.
- James Fraser, James DeFilippis, Joshua Bazuin. (2012). HOPE vi: Calling for Modesty in Its Claims. *In Mixed Communities: Gentrification by Stealth?*, 209-229.
- Khadduri, Jill, and Marge Martin. (1997). Mixed-income Housing in the HUD Multifamily Housing Stock. *Cityscape: A Journal of Policy Development Research* 3, No.2, 33-69.
- Manhattan Community Board 1. (2011, July). *Affordable Housing in Lower Manhattan*. Retrieved from NYC Government:  
[http://www.nyc.gov/html/mancb1/downloads/pdf/About\\_District/AH\\_REPORT.pdf](http://www.nyc.gov/html/mancb1/downloads/pdf/About_District/AH_REPORT.pdf)
- Mark L. Joseph, Robert J. Chaskin, Henry S. Webber. (2007). The Theoretical Basis for Addressing Poverty Through Mixed Income Development. *Urban Affairs Review*, Volume 42, No 3, 369-409.
- NYC Housing Connect. (2015). *Affordable Housing for Rent*. Retrieved from NYC Housing Connect:  
<https://a806-housingconnect.nyc.gov/nyclottery/AdvertisementPdf/136.pdf>

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NYU Furman Center. (n.d.). *Directory of New York City Affordable Housing Programs*. Retrieved from NYU Furman Center: <http://furmancenter.org/institute/directory>

Perin, C. (1977). *Everything in Its Place: Social Order and Land Use in America*. Princeton, N.J: Princeton University Press.

Rober J. Chaskin, Mark L. Joseph. (2010). Building Community in Mixed Income Development: Assumptions, Approaches and Early Experiences. *Urban Affairs Review*, Volume 45, No 3, 299-335.

Robert J. Chaskin , Mark L. Joseph. (2013). 'Positive' Gentrification, Social control and the 'Right to the City' in Mixed-Income Communities: Uses and Expectations of Space and Place. *International Journal of Urban and Regional Research*, 480-502.

Smith, A. (2002). *Mixed-Income Housing Developments: Promise and Reality*. Cambridge, MA: Joint Center for Housing Studies, Graduate School of Design John F. Kennedy School of Government, Harvard University.

Steffel Johnson, Jennifer Elaine. (2006). *Mixed-income housing: A conceptual model and critical discourse analysis*. Retrieved from Columbia University Library: <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/304947802?pq-origsite=summon>

U.S. Department of Housing and Urban Development. (2011). *Understanding Neighborhood Effects of Concentrated Poverty*. Retrieved from U.S. Department of Housing and Urban Development: <http://www.huduser.org/portal/periodicals/em/winter11/highlight2.html>

U.S. Department of Housing and Urban Development. (2013). *Inclusionary Zoning and Mixed-Income Communities*. Retrieved from U.S. Department of Housing and Urban Development: <http://www.huduser.org/portal/periodicals/em/spring13/highlight3.html>

Vale, L. J. (1998). Comment on James E. Rosenbaum, Linda K. Stroh, and Cathy A. Flynn's 'Lake Parc Place: A Study of Mixed-Income Housing. *Housing Policy Debate* 9, no. 4 (1998): 749-56.

Wikipedia. (n.d.). *Mixed Income Housing*. Retrieved from Wikiedia: [http://en.wikipedia.org/wiki/Mixed-income\\_housing](http://en.wikipedia.org/wiki/Mixed-income_housing)

Wilkins, C. S. (2001). *Concept Paper: Mixed-Income Rental Housing*. Retrieved from Millennial Housing Commission Preservation and Production Task Forces: [www.mhc.gov/papers/cpmirh.doc](http://www.mhc.gov/papers/cpmirh.doc)

Wilson, W. J. (1987). *The truly disadvantaged: the inner city, the underclass, and public policy*. Chicago: University of Chicago Press.

# Appendix: Survey Questions

**First, we'd like to ask general questions about where you live now.**

1. How many years have you lived in this apartment?
2. How many people live with you in this apartment?
  - a) One (yourself)
  - b) Two
  - c) Three
  - d) Four +
3. Do you live in the affordable units or market-rate units?  
Affordable Unites                      Market-Rate Units

**We'd like to ask a few questions about where you used to live.**

4. Where did you previously live?
  - a. Nowhere; I was without a home (If you circle this, please skip to question 9)
  - b. With a friend / relative in their residence
  - c. In my own apartment
  - d. In my own house
5. How would you rate your satisfaction with each of the following items where you used to live? (Rate each item, with 1 being very dissatisfied to 5 being very satisfied)
  - a. Affordability of rent \_\_\_\_
  - b. Neighborhood safety \_\_\_\_
  - c. Physical condition of the home \_\_\_\_
  - d. Convenience of location to transportation \_\_\_\_
  - e. Community Facilities \_\_\_\_
  - f. Affordable and convenient access to grocery stores \_\_\_\_
  - g. Social events \_\_\_\_

6. How would you rate your overall satisfaction where you used to live?

Very dissatisfied		Satisfied		Very satisfied
1	2	3	4	5



7. How often did you speak with your neighbors within the building where you used to live? (Choose one)
  - a. Not at all
  - b. Once a week
  - c. 2 – 3 times a week
  - d. 4 – 5 times a week
  - e. Often, 6 + times a week
  
8. For the neighborhood you used to live, where do you see yourself in comparison to your neighbors in terms of income?
  - a. I see myself as having much lower income
  - b. I have lower income
  - c. I have about the same income
  - d. I have more income
  - e. I have much more income
  - f. I don't know

**We'd like to ask you questions about where you live now and your relationship with the people in your building.**

9. How often do you speak with your neighbors in your building?
  - a. Not at all
  - b. Once a week
  - c. 2 – 3 times a week
  - d. 4 – 5 times a week
  - e. Often, 6 + times a week
  
10. How often do you exchange information with these neighbors?
  - a. Not at all
  - b. One to two times per month
  - c. One to two times a week
  - d. Frequently

11. About which kinds of information have you exchanged in the past? (Circle all that apply)

- a. Schools
- b. Jobs
- c. Affordable food
- d. Free things / bargains / deals
- e. Local resources (transportation, stores, services)
- f. Child care
- g. Social events
- h. Other: (Specify: \_\_\_\_\_)

12. How well do you know these neighbors?

- a. Not at all
- b. Somewhat
- c. Well
- d. Very well

13. How comfortable are you living with your neighbors?

Not comfortable		moderately comfortable		Very comfortable
1	2	3	4	5

14. Where do you see yourself in comparison to your neighbors in terms of income?

- a. I see myself as having much lower income
- b. I have lower income
- c. I have about the same income
- d. I have more income
- e. I have much more income
- f. I don't know

15. How satisfied are you living in your neighborhood with regard to the below items?

(Rate each item, with 1 being very dissatisfied to 5 being very satisfied)

- a. Affordability of rent \_\_\_\_\_
- b. Neighborhood safety \_\_\_\_\_
- c. Physical condition of the home \_\_\_\_\_
- d. Convenience of location to transportation \_\_\_\_\_
- e. Community Facilities \_\_\_\_\_
- f. Affordable and convenient access to grocery stores \_\_\_\_\_
- g. Social events \_\_\_\_\_

16. How would you rate your overall satisfaction where you live now?

Very dissatisfied

Satisfied

Very satisfied

1

2

3

4

5

17. Is there someone who works regularly at the building who can provide resources, referrals, and/or counseling? Circle one: Yes / No

18. Does your management company provide opportunities for socializing with your neighbors? Circle all that apply:

- a. Holiday parties / Social gatherings
- b. Workshops
- c. Bulletin boards with posted community events
- d. Other (Please specify \_\_\_\_\_)

19. Compare the neighborhood you used to live with the neighborhood you live now, in terms of community activities, you participate \_\_\_\_\_

Less Community Activities

No Difference

More Community Activities

20. Please indicate your gender: a) Male      b) Female      c) Other

21. What is your age?

**You have answered ALL questions. Thank you so much for your time and willingness to do this questionnaire!**