

THE PARADOX OF AFFORDABLE HOUSING DEVELOPMENT IN MANHATTAN

A grounded theory and correlational research approach to
Manhattan's affordable housing crisis

Student: Daniel Samaniego Diaz (4900456)

Chair of Complex Projects, "Complex Projects"

Thesis: "Affordable Housing Development in Manhattan"

I INTRODUCTION

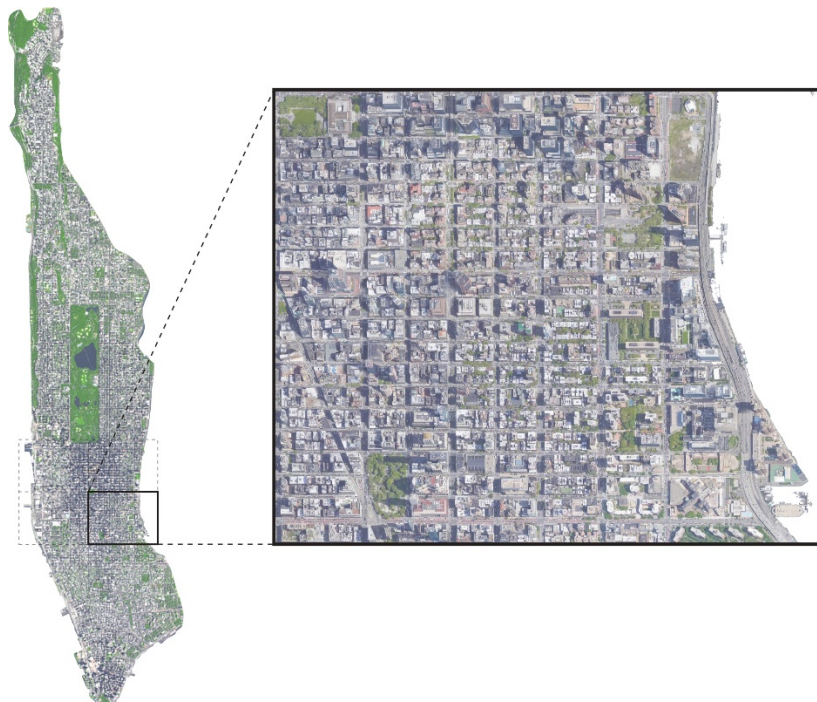
I.I. RESEARCH AS A BASIC HUMAN THINKING PROCESS

I believe that the basic human process of thinking is part of the action of research. Based on any event or problem that we encounter, we think to know how to react to them, whichever magnitude or grade of accuracy there is. In this process we observe, collect information, study it, make hypotheses, and test it. In this way, I consider the recurring action of this process to be a form of gaining knowledge and, thus, of learning. Similarly, any discipline, like architecture, would fall into this principle. In this manner, the Lecture Series of Research Methods has helped me expand on this thought, relate it to the practice of heuristics, and ultimately connect this school of thought to the design approaches that I have employed not only in this current instance but in previous projects. This is why I consider that it is important for any designer to consciously base his/her design approaches, or theories, in a thoughtful research, which I believe is the closest we can get to learn about reality.

Learning about the linked process of research and design from a heuristic perspective not only made me aware of the reasoning that should go behind any design action but also provided me a good insight for establishing a clear framework for the research and subsequent design that I would undertake. For this, I found it essential to comprehend the distinctions between methodology and method to properly know the correct procedure for my type of research strategy and then, based on that, choose appropriate methods for researching my topic of interest.

I.II. GRADUATION STUDIO APPROACH

My research is part of the Complex Projects studio, which now concentrates in Midtown Manhattan. The studio's approach is to critically examine all the "complex" forces in urban conditions that ultimately manifest into the built environment, investigating settlements around the world that are ambiguous in their development and embedded in the process of change. Likewise, the interest of this year's studio is to study the changes in urban, political, economic, and environmental aspects of Midtown Manhattan, which currently faces changing market demands in retail/housing and an aging building and transport infrastructure.



Area of research, the southeastern portion of Midtown Manhattan

I.III. PERSONAL FASCINATION AND THESIS

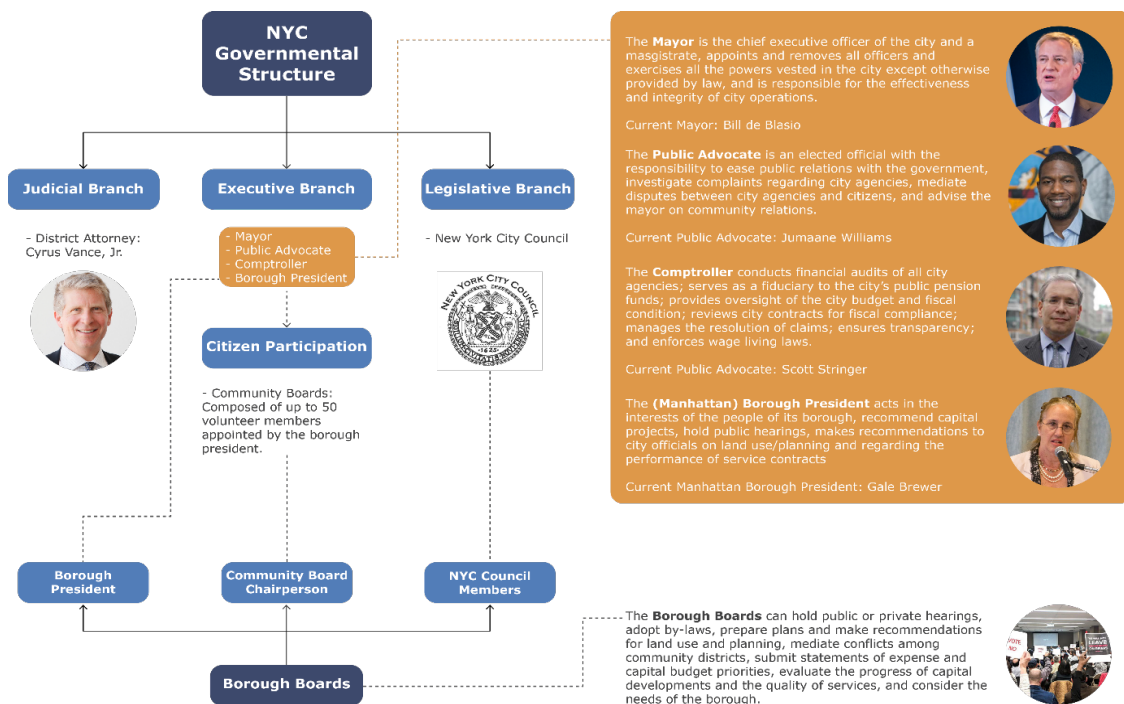
Along these lines, I became fascinated by the status of affordable housing on expensive land in Manhattan. As finance and real estate have continuously been the primary forces of New York's rapid development, today Midtown Manhattan is home to some of the most expensive real estate in the world (Nunez, 2001). As a result, expensive rent has become a burden for many of the city's lower income residents, who continuously struggle to find affordable options to live (NYC Housing Preservation & Development [NYC HP&D], 2014). Also, the housing affordability crisis has created additional social problems, such as homelessness. However, the City government has launched plans to tackle this problem with legal incentives that could influence development strategies from architects and developers alike (NYC HP&D, 2014). Thus, my thesis topic is centered on how to find ways to effectively work with affordable housing from a developer's and architect's perspective, within the current model of the New York housing market that is being constantly shaped by the existing high-priced real estate model and the City government's aid policies.

II A DISCUSSION ON GROUNDED THEORY AND CORRELATIONAL STUDIES APPROACH

II.I. COMPLEX PROJECTS RESEARCH STRATEGY

The first step of the approach of Complex Projects studio consisted in carrying out a general group research of aspects that the students find relevant for their site's context. Each student then undertook a subject that sparked some personal interest – for me, politics. Each student was to find therein a specific topic of personal fascination that he/she would conduct further research on with the intent of finding a problem. This would rise a research question and thesis topic to guide the student towards a design development as a response to the problem posed on his/her personal research.

II.II. A QUALITATIVE GROUNDED THEORY RESEARCH STRATEGY



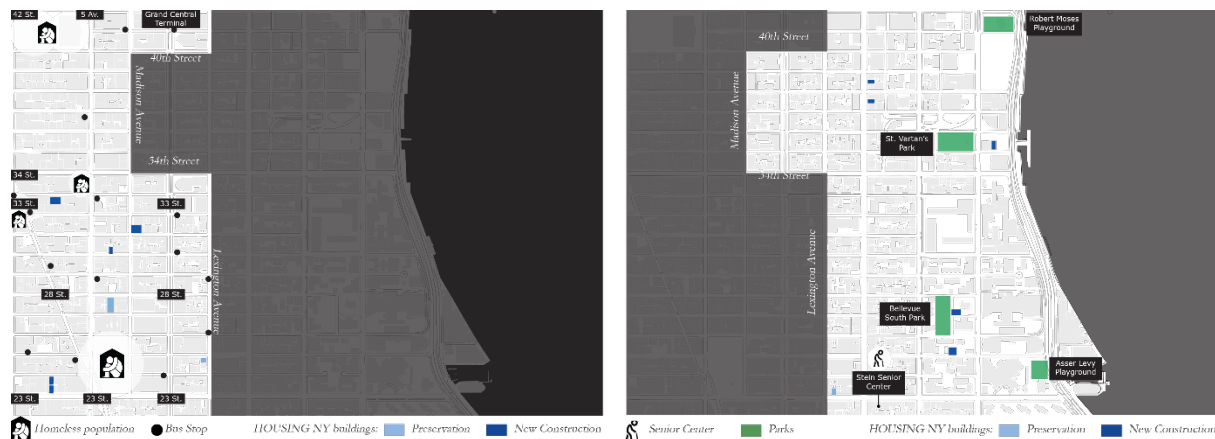
Political organization of the New York City government: This diagram synthesizes qualitative aspects of the initial research and analyzes relations among the main stakeholders in the governing process. City of New York, (2019).

THE PARADOX OF AFFORDABLE HOUSING DEVELOPMENT IN MANHATTAN

Therefore, I found the grounded theory qualitative approach from Architectural Research Methods by Groat et al. (2013) the most appropriate for my research, as the aim of the course and my own was to generate a relevant conclusion or theory from the research. The methods I employed consisted in collecting data on the city's political organization from the archives of the NYC government; its subsequent personal analysis through mapping of variables of political districts, zoning, air rights, and land value per city block; and diagrams (city budget/management process and political organization), and ultimately drawing conclusions. In addition, working on a 1:1000 scale model of Midtown Manhattan provided me deeper insight in understanding the physical context where my research findings take place. Finally, one of the key findings of this initial research was the role of citizen's participation in the management of the city by expressing their community concerns to City officials.

II.III. SELECTION OF PERSONAL THESIS

My thesis motivation, thus, came from the main concern of the communities of our assigned site – lack of housing affordability – a real-world problem that also extends to many global cities worldwide (Marom & Carmon, 2015). Therefore, the research I undertook aimed to find a way to work with the City regulations and the New York housing market to explore the feasibility of an affordable housing project in Manhattan and determine how architectural design can help achieve this.



The maps show the site's division into community districts (#5 and #6) and their respective latest community concerns (as of 2018): homelessness, lack of housing affordability, lack of senior services, outdated transport infrastructure and lack of green spaces. NYC Planning, (2019).

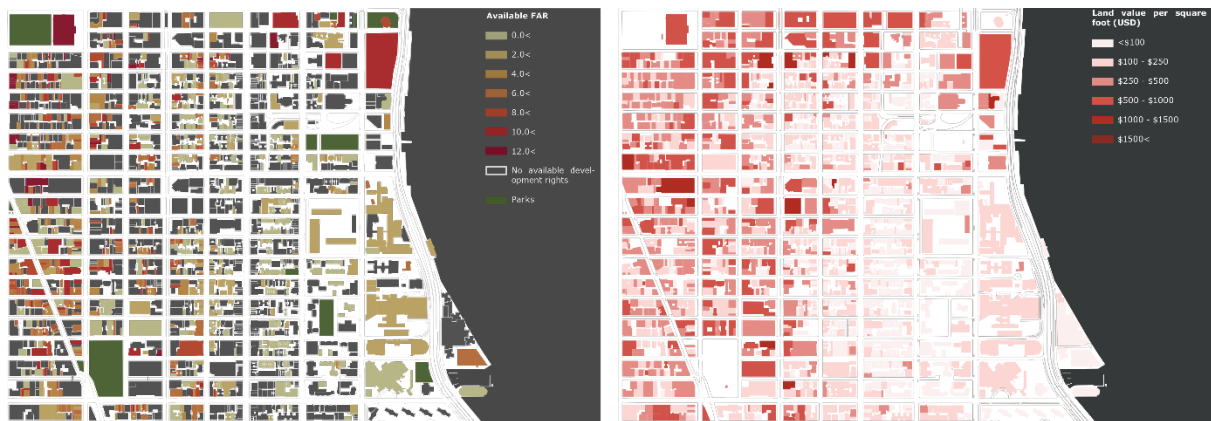
II.IV. A CORRELATIONAL STUDY WITHIN A GROUNDED THEORY FRAMEWORK

The study of affordable housing is very complex and interdisciplinary, as it takes into account several variables of economic, political, social, and architectural factors. Without a significant amount of quantifiable data and statistics on demographics, income, rent, and land value, it would not be possible to understand the system wherein the housing market works. These variables provided insightful information and their interrelations could generate patterns of study that were relevant to support my thesis, which explores the feasibility of an affordable housing project in Manhattan. So, it was essential to support this conjecture by providing arguments based on objective data.

Considering that this research had to encompass not only qualitative but also quantitative data (Lucas, 2015), I found my most appropriate research strategy to be correlational research (Groat & Wang, 2013). In this case, it focused on the relationship among the complex set of the variables that play a role in the housing situation in Manhattan. Moreover, the strategy of correlational research that I adopted was relationship studies (Groat & Wang, 2013), which focused on the nature of these studied relationships to come up with predictions on appropriate ways to work with affordable housing.

THE PARADOX OF AFFORDABLE HOUSING DEVELOPMENT IN MANHATTAN

For this, I compiled more specific data from the archives of the City departments of Finance, City Planning, Housing Preservation and Development, and Homeless Services. This data includes statistics on both measurable variables, such as density, income, rent, land value, development costs, and qualitative ones, mainly regarding expressed community concerns, cultural aspects of the target populations, case studies, and zoning law regulations; adding all up to the existing research. With this data in mind, I collected further information from bibliographical sources that explored strategies to achieve financial feasibility of affordable housing projects, which analyzed the background of tax and government assistance policies in the United States (Luque, Ikromov, & Noseworthy, 2019).



Examples of mapping of quantitative data: air rights (developable space above a building/site) and land values. These maps become essential indicators of where to develop affordable housing. NYC Planning, (2019).

The research, however, would not have been outright if it was not for the site visit, which became a very important staple in the conduct of my research. In addition of being able to sketch and photograph my researched affordable housing case studies, the site visit allowed me to conduct personal interviews about the living patterns of a lower-income New York resident, going along the lines of praxeology in the study of the real rather than assumed human conduct.

III. RESEARCH-METHODOLOGICAL REFLECTION

III.I. REFLECTION ON GROUNDED THEORY

Grounded theory started to be associated with the work of sociologists Barney Glaser and Anselm Strauss, who articulated this approach in the late 1960s (Glaser & Strauss, 1967). Their aim was to move from the purely descriptive studies of qualitative research into studies with theoretical frameworks (Charmaz, 2006). However, both sociologists had different backgrounds that influenced their epistemological assumptions of grounded theory. Glaser's background in quantitative empiricism led to codified methods while Strauss's background in interpretative traditions of sociology led to a focus on the dynamic processes by which people interpret meaning and enact change (Charmaz, 2006). However, after several refinements of this approach, grounded theory came to be later defined by Strauss himself and Juliette Corbin. In it, a researcher does not begin with a preset theory in its mind but rather an area of study allowing the theory emerge from the data (Strauss & Corbin, 1998). Its process consists in an open-ended iterative process that starts with data recollection, coding (data analysis), and "memoing" (theory building) (Groat & Wang, 2013).

I found this approach more suitable for my research in politics than just a traditional qualitative one, as I expected to draw conclusions and formulate pertaining theories that would manifest in a vision for the site. Grounded theory also helped me in establishing a clear and organized framework

for the early stages of my research, and what kind of analysis was to be expected from the collected data.

III.II. REFLECTION ON CORRELATIONAL STUDIES

The same methodological approach of correlational research with a relationship strategy was employed by Oscar Newman in a research study of public housing in New York in 1973 (Groat & Wang, 2013). Whereas my thesis topic focuses on exploring design guidelines that help create an effective business model for affordable housing, Newman's study sought to come up with design guidelines that would counter crime. On a side note, it is alluring to note that this difference shows a shift of public housing problematic in New York from the 1970s to today.

In his study, Newman sought to clarify relationships of all variables that influence public housing and predict design guidelines for this housing type (Newman, 1972). There are some similarities in the study of variables between Newman's study and mine, which include user demographics (like income and the other socioeconomic factors) and the physical variables of the design of housing typology and site. However, Newman's team also investigated the incidence of crime and linked it with the rest of the researched topics to clarify all their relationships. Newman's data was obtained from 169 public housing projects, which, combined with the immense variety of building types and site plans, made it possible to determine where the most dangerous areas of buildings were. Hence, Newman came to identify consistent relationships and propose a theory of "defensible space" – a model for residential environments which inhibits crime by creating the physical expression of a social fabric that defends itself (Newman, 1972). According to Groat et al., this theory effectively defined a relationship between environmental variables and behavioral consequences (a decrease in crime) and had a predictive capacity of design guidelines for low-income housing.

I discovered this research strategy in Architectural Research Methods by the time I was finishing the qualitative research on politics and choosing to incline into the research of my current topic. From my preconception on the topic of housing, I knew that its research would use a significant amount of quantifiable data on demographics, income, rent, land value, and housing development costs. Accordingly, I inclined for a methodology that would give meaning to these values and make me investigate if there were any correlations with the rest of the factors involved, hence establishing tangible relationships that would enable me to draw conclusions. At the same time, these conclusions become predictions, as are the "answers" to my research question of how to create an effective model for affordable housing. Also, discovering Newman's example gave me a stronger assurance in employing the same methodology while influencing how I have conducted my research for having employed some of the same methods that his research team did.

IV. POSITIONS ON AFFORDABLE HOUSING DEVELOPMENT

IV.I. RESEARCH PURPOSE IN LINES OF PRAXEOLOGY

The goals of my research are to show how an affordable housing project can effectively work from a developer's point of view and to give design guidelines to architects to facilitate this process. However, thanks to the lecture on social and spatial practices by M. Berkers, I learnt that these design guidelines cannot go separate from the study of the users themselves whom these projects are meant to. Even though the strategy of my research does not fully embrace the practice of praxeology, I situate my research in relation to the problems that praxeology aims to solve, that is to design for actual users rather than imagined ones. My research would lack consistency and to a large extent, purpose, if an adequate study of the behavioral aspects of the prospective users were not taken into account.

IV.II. CURRENT DISCOURSE OF AFFORDABLE HOUSING DEVELOPMENT IN NEW YORK

Currently, there is a general public housing design discourse in New York that is being led by the New York City Public Design Commission, which has also worked with the City government's plans (NYC Public Design Commission, 2018). This discourse derives mainly from the lessons learnt from previous effective and ineffective housing plans and projects in a clear praxeological approach, aiming to present the general public new conceptions of public living, and architects and developers a guide to design. For any project, these design standards mainly center on aesthetics reconsideration, technological innovation, and provision of services for the project's neighborhood. Likewise, my research utilizes a similar praxeological strategy to arise theories that complement with those of this discourse.

IV.III. POSITIONS DERIVED FROM A COMBINED GROUNDED THEORY AND CORRELATIONAL RESEARCH STRATEGY

My research methodology adopts certain aspects of grounded theory and correlational research, so I did not find necessary to faithfully adopt each of them as presented in Architectural Research Methods. As a matter of fact, my overall research methodology can be considered of grounded theory, as the second part of my research also adopts its main procedure, differing in that this part of the research makes use of extensive quantifiable data and establishes relationships from the collected data. However, it was from these relationships that a predictive theory emerged, in a grounded theory fashion.

For my grounded theory approach to politics I adopted the main process of data collection, analysis, and resulting theory. However, Groat et al. added that this was a highly iterative process, a position that I am not able to take due to limitations in time and resources for continuous experimenting and testing. Second, Groat et al. explain that correlational research has two major subtypes: relationship and causal comparative. My research relies on a relationship studies strategy of correlational research rather than a causal comparative studies, as this strategy makes use of causality that characterizes experimental research (Groat & Wang, 2013). Besides, it was not a purpose of my research to determine the causes of the housing affordability crisis, since other research studies, such as that from the NYC Department of Housing Preservation and Development, have already determined.

IV.IV. ARCHITECTURAL POSITIONING

The first position that I embrace is that any project of housing affordability in Manhattan is feasible only if it makes sense for the developer or client – i.e., that the project in question should generate profit and regain the investment. The research on financial feasibility and the conclusions drawn from the statistics showed that New York's development has been completely run by the capitalist market of finance and real estate, and it is highly improbable that this trend would change in the future (Marom & Carmon, 2015). Therefore, it is essential as a developer to adapt and work within this system to make an affordable housing project run. However, as Luque et al. argue in Affordable Housing Development, government assistance not only provides tools to develop but becomes necessary in making an affordable housing project financially feasible. Favorably, this is the case for New York as the City government is providing tax incentives for affordable housing developers and investing millions of dollars for the provision of new and maintenance of existing affordable housing (NYC HP&D, 2014). This condition, along with the selection of a subsidized site can serve as a starting point for the development of a project of this nature.

My second and third position regard the contributing parameters of the site's context and design guidelines for an affordable housing project in Manhattan. Accordingly, these positions emerge as conclusions from the first position and the research as a whole. My second position states that the sustenance of an affordable housing development depends on a variety of commercial functions and

THE PARADOX OF AFFORDABLE HOUSING DEVELOPMENT IN MANHATTAN

services, such as transport and leisure, in its immediate context, and a location in a densified area. The relationships drawn from this data along with the statistics on the mentioned variables from the users show that these aspects provide ground for economic diversity in businesses and residents alike, necessary for the subsistence of the lower income groups.

Lastly, my third position holds that densification is integral to the resolution of the first position – to develop the maximum possible allowed floor area, dictated by the zone regulations, to gain the maximum possible revenue so that it makes financial sense for the developer. The resulting design guidelines will, thus, aim to balance the latter position of developing a higher quantity with the praxeological purpose of providing quality spaces for the residents. For instance, being creative with the massing while providing smaller units with high ceilings directed towards the outside in connection with spaces for social cohesion units could provide a better quality of living space while maximizing developable space.

THE PARADOX OF AFFORDABLE HOUSING DEVELOPMENT IN MANHATTAN

NOTES

All figures made by the author from recollected data.

REFERENCES

- Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Thousand Oaks, CA: SAGE.
- City of New York. (2019). *Your Elected Officials*. Retrieved September 16, 2019 from <https://www1.nyc.gov/>
- Glaser, B. & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine.
- Groat, L. & Wang, D. (2013). *Architectural Research Methods (Second Edition)*. Hoboken, NJ: Wiley.
- Lucas, R. (2015). *Research Methods for Architecture*. London, UK: Laurence King Publishing.
- Luque, J. P., Ikromov, N., & Noseworthy, W. B. (2019). *Affordable Housing Development: Financial Feasibility, Tax Increment Financing and Tax Credits*. Cham, Switzerland: Springer
- Marom, N. & Carmon, N. (2015). Affordable Housing Plans in London and New York: Between Marketplace and Social Mix. *Housing Studies*, 30(7), 993-1015. doi: 10.1080/02673037.2014.1000832
- Newman, O. (1972). *Defensible Space: Crime Prevention through Urban Design*. New York, NY: Macmillan.
- NYC Housing Preservation & Development. (2014). *Housing New York: A Five-Borough, Ten-Year Plan*. Retrieved October 14, 2019, from <https://www1.nyc.gov/site/hpd/about/the-housing-plan.page>
- NYC Planning. (2019). *Community District Profiles*. Retrieved October 16, 2019, from <https://communityprofiles.planning.nyc.gov/>
- NYC Public Design Commission. (2018). *Designing New York: Quality Affordable Housing*. Retrieved October 14, 2019, from https://www1.nyc.gov/assets/designcommission/downloads/pdf/5-8-2018_PDC_Designing_NY_Quality_Affordable_Housing_lowres.pdf?utm_medium=website&utm_source=archdaily.com
- Nunez, R. (2001). Family Homelessness in New York City: A Case Study. *Political Science Quarterly*, 116.
- Strauss, A. & Corbin, J. (1998). *Basics of Qualitative Research*. Thousand Oaks, CA: SAGE.