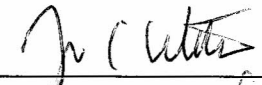


PREDICTORS OF HOMELESSNESS AMONG FAMILIES WITH CHILDREN

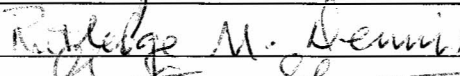
by

Rachel Mathieu
A Thesis
Submitted to the
Graduate Faculty
of
George Mason University
in Partial Fulfillment of
The Requirements for the Degree
of
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Sociology

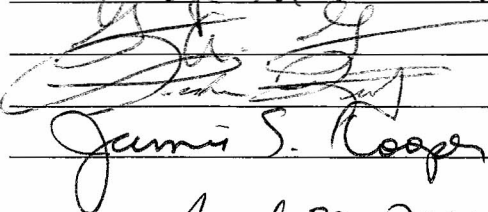
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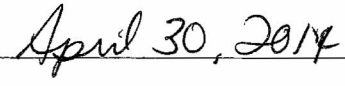
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Spring Semester 2014
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Predictors of Homelessness among Families with Children

A Thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts at George Mason University

by

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Bachelor of Arts
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Spring Semester 2014
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DEDICATION

This thesis is dedicated to my husband Jimmy for all his support and encouragement during the writing of this thesis and to my dear daughter Sophia.

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ABSTRACT

PREDICTORS OF HOMELESSNESS AMONG FAMILIES WITH CHILDREN

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George Mason University, 2014

Thesis Director: Dr. James Witte

This thesis describes characteristics and predictors of entry into homelessness and becoming doubled-up among families with children. The data used for this analysis is from the Fragile Families and Child Wellbeing Study which interviewed a cohort of approximately 5,000 families that gave birth to children in the United States between 1998 and 2000. Characteristics of both homeless and doubled-up families were compared to families that were housed. Univariate analyses were performed on data that was collected one year, three years, five years, and nine years after the child's birth to determine which factors were statistically correlated to being homeless, doubled-up or housed. In addition, a multinomial logistic regression was performed to determine within a multivariate framework which factors predicted becoming homeless or doubled up at each of the interview waves.

INTRODUCTION

Homelessness has been a topic of interest in the United States since the 1980's, when it entered the public arena and policy agenda as a social problem. Academics, the medical community, and society-at-large took notice of the problem of homelessness. Whereas prior to the 1980's homelessness primarily affected adult men living on the streets, a surge of homelessness occurred in the 1980's. At this time homelessness affected people of all ages, races, and educational levels. Its reach touched singles, families, and children alike who were living on the streets, shelters, and transitional housing.

The surge in homelessness in the early 1980's was primarily blamed on the deinstitutionalization of mental hospitals and on the downturn in the economy. A number of policies were put into place to decrease the number of patients in state mental hospitals, and often times these patients ended up on the streets. High unemployment rates in the 1980's and the downturn in the economy were also seen as causes of homelessness. Homelessness was also attributed to the decline of marriage rates and higher numbers of unmarried women having and raising children on their own. The crack epidemic of the late 1980's, other drug abuse, and alcoholism were pointed to as other causes of homelessness (Jencks, 1994).

Although homelessness can be described as one lacking a home, this definition masks the complexities surrounding its underlying causes and effects. Homelessness can/has been said to occur due to a number of individual factors such as mental health issues and substance abuse, and structural factors, such as lack of affordable housing and a poor labor market. In particular, low-income housed families and those who are doubled-up (precariously housed with friends or family) are often times one step away from homelessness.

Homeless families have become of interest because of their increasing numbers, especially among female-headed households with young children. The Department of Housing and Urban Development states that homelessness among families has increased by 20% between 2007 and 2010 and that the majority of homeless families are comprised of mothers with young children (U.S. Department of Housing and Urban Development, 2010). A survey conducted by the U.S. Conference of Mayors said that in 2013, homelessness among families increased 4% among the cities surveyed (U.S. Conference of Mayors, 2013).

The recent foreclosure and economic crisis has brought the issue of doubled-up households to the forefront of national discussion (National Coalition for the Homeless, 2009). A National Alliance to End Homelessness report stated that on a national level, there was a 9.4% increase in doubled-up households between 2010 and 2011 (National Alliance to End Homelessness, 2013). A Census Bureau report indicated that the number of doubled-up households and adults living in the same household increased during the recession. These doubled-up households were comprised of primarily households with

adult children returning to live with their families, presumably due to the state of the economy. Doubled-up households were also comprised of multi-generational family members (Department of Housing and Urban Development, 2012).

LITERATURE REVIEW

The following section provides an overview of the literature that addresses both homelessness and those who are doubled-up. The literature on homelessness is expansive and describes in great detail the characteristics, entries and exits from homelessness, and different populations. In contrast, the literature surrounding those who are doubled-up is not as robust in describing the causes and effects. This literature will first focus primarily on the homelessness literature, and then describe the literature on those who are doubled-up, especially in the context of the recent economic crisis.

Literature on Homelessness

The literature surrounding entries into homelessness and causes of homelessness varies in geographic areas targeted, methodologies used, and types of populations examined. The studies examined ranged from city-level analyses such as New York City (Nunez, 2001, Shinn et al., 1991; Caton et al, 2005, Weitzman et al, 1992) or Worcester, MA (Bassuk et al, 1996) to nationwide studies (Elliot and Krivo, 1991; Nunez, 1999). Other studies consisted of state-wide analyses such as California (Quigley et al., 2001) or Massachusetts (Bassuk et al., 1986) whereas other studies examined a mix of jurisdictions including Philadelphia, New York City, Columbus, and Massachusetts (Culhane et al., 2007) or Sacramento, CA and Lehigh Valley, PA (Lehmann et al, 2007).

In terms of the populations examined, research has focused on the first-time homeless (Caton et al, 2005; Culhane et al, 2007) and chronically homeless (Piliavin, 1993), while other studies have specifically examined single homeless mothers and their families (Bassuk et al, 1996; Shinn et al, 1998). Methodologies employed in these studies regarding homelessness have included descriptive studies outlining characteristics of the homeless population (Burt et al, 2001) and longitudinal studies (Fertig and Reingold, 2008; Caton et al., 2005). Other studies have been qualitative in nature, exploring both individual and structural factors of homelessness (Hinton and Cassel, 2013).

A number of studies have explored different typologies of the homeless. McAllister et al. identified ten temporally-based typologies of the homeless, organized into four subsets based upon similarities of shelter use. They include the temporary homeless (people who have a brief shelter stay in a 30-day period and do not reenter homelessness); structured-continuous (people who have a brief shelter stay in a 30-day period and do reenter homelessness); structured-intermittent (people who have periods of homelessness and non-homelessness); and unstructured-intermittent (people who have high variability of shelter use) (McAllister et al., 2012).

Despite the variation in the types of studies on homelessness, the academic literature tends to attribute entry into homelessness to individual factors, structural factors, and at times a combination of both. The use of individual and structural factors as an explanation for entry homelessness feeds into the concepts of structure and agency, which "revolve around the relationship between individuals and the social systems in which they participate" (Johnson, 2000).

In the context of homelessness, agency revolves around the attributes of the individual such as educational attainment, health or substance abuse. This perspective focuses on the faults of individuals, such as a person being a substance abuser. In essence, this approach places the blame on the individual for becoming homeless, and ignores any structural factors that may have propelled them into homelessness. Structural factors, on the other hand, tend to focus on larger societal issues that extend beyond the individual, such as job markets, the availability of affordable housing, and poverty. "Among the particular causes advanced by structuralist researchers are: trends in unemployment and poverty, the housing market, the economy generally, and the sometimes large-scale social policies" (Main,1998).

Homelessness has at times been explained as being triggered by a combination of individual and structural factors. Tolomiczenko and Goering (1998) have suggested that high levels of mental illness and substance abuse amongst the homeless are the result of structural factors, such as the economy and the lack of affordable housing that may cause entry into homelessness." Tolomiczenko and Goering (1998) (Canadian Council on Social Development, 2001). The notion that homelessness has not been consistently explained by either individual or structural factors, highlights the debate over "how much individuals exhibit capacity for agency by acting independently of the constraints imposed by social systems." (Johnson, 2000).

Individual Factors

Among individual factors, substance abuse has been repeatedly cited in the literature as a predictor of entry into homelessness among both individuals and families (Weitzman et al., 1992; Breakey et al., 1989; Bassuk et al., 1997; Bassuk and Rosenberg, 1988). One study found that low-income families with substance abuse problems were 5 times more likely to be shelter users than families that did not report these substance abuse problems (Weitzman et al., 1992). The study, "Characteristics and Needs of Sheltered Homeless and Low-Income Housed Mothers" found that the rate of substance abuse among homeless mothers interviewed was much higher compared to the general population (Bassuk et al., 1996). Another study found homelessness to be related to relapse into drug use and injection-related behavior (Linton et al, 2013).

A number of studies noted a prevalence of psychiatric, mental, and physical health issues as characteristics of homeless individuals. For example, a history of prior mental hospitalization has been found to be a characteristic of female heads of households in low-income families and has been shown to lead to an increased risk of homelessness (Weitzman et al., 1992). The study "Prevalence of Mental Health and Substance Use Disorders among Low-Income Housed Mothers" determined that homeless and low-income housed mothers had higher rates of psychiatric disorders compared to all women surveyed in the National Comorbidity Study (Bassuk et al, 1998). In addition, another study found a prevalence of psychiatric problems among homeless female-headed families compared to housed female-headed families (Bassuk et al., 1996). Individuals with health issues have been found to be at risk of homelessness.

Mothers, in particular, who had health issues, were at risk of becoming homeless (Park et al, 1999).

Race has been shown to be a predictor of homelessness, indicating specifically that the homeless are more likely to be members of minority groups (Lowin et al., 2001). The study, "Homelessness in Female-Headed Families: Childhood and Adult Risk and Protective Factors," identified minority status as a risk factor for homelessness among families (Bassuk et al., 1997). A number of studies found that among minorities, African-Americans are at higher risk of becoming homeless and are overrepresented in the homeless population (Department of Housing and Urban Development, 2010, Burt, 1992, and Rossi, 1992).

Homeless individuals and families have been found to be less educated than the general population, according to 1996 statistics obtained from the National Survey of Homeless Assistance Providers and Clients (Burt et al., 1999). Single homeless mothers with children in particular were determined to have low educational attainment (Lowin et al., 2001).

There was no consensus in the literature regarding the effect of the quality of social relationships on homelessness among families. One study found that homeless mothers, compared to housed mothers, had less contact with their friends and relatives, had fewer people they could rely on for help during difficult times in terms of childcare needs (Letiecq et al, 1996; Letiecq et al., 1998). Studies have shown that homeless mothers were more likely to have minimal social support systems compared to their housed counterparts (Bassuk et al., 1988; Bassuk et al., 1986). Other studies indicated

that homeless families had wide social networks, but were unable to use these contacts in times of need prior to becoming homeless (Shin et al., 1991; Toohey et al, 2004).

Residential instability has often been described as a precursor to homelessness among both individuals and families (Bassuk et al., 1996; Bassuk et al., 1996). A number of studies have found that families were likely to have become homeless because of eviction (Hagen, 1987; Bassuk et al., 1997). In particular, a study by The Institute for Children, Poverty & Homelessness found that 49% of survey respondents became homeless due to eviction or the inability to pay their rent (Institute for Children, Poverty & Homelessness, 2009).

Experiencing violence has been shown to be a predictor and characteristic of homelessness among families. The exploratory study by Jan Hagen, "Gender and Homelessness" found that women and their children were likely to have become homeless because of domestic violence (Hagen, 1987). The study, "Why Does Family Homelessness Occur? A Case Control Study" indicated that homeless mothers were more likely to have been abused as children and battered as adults compared to housed female-headed families. And finally, the study "Characteristics and Needs of Sheltered Homeless and Low-Income Housed Mothers" compares characteristics of homeless and low-income housed mothers, and found that the homeless mothers reported more incidents of sexual assault and physical assault over the course of their lives (Bassuk et al., 1996).

Structural Factors

In addition to the previously mentioned individual factors, the academic literature supports that homelessness can also be attributed to structural factors such as lack of affordable housing, poverty, and a poor labor market. The study, "Structural Determinants of Homelessness in the U.S." found that the lack of low-income housing and mental health care are the strongest predictors of homelessness (Elliot and Krivo, 1991). The study, "Homeless in America, Homeless in California" suggests that economic principles determining the availability and pricing of housing as well as the increase in demand for the low-income housing explains the variation in homelessness across U.S. housing markets (Quigley et al., 2001).

Publications and policy briefs from various advocacy groups and nonprofit organizations have also cited a number of structural factors as being contributors towards homelessness. The December 2010 U.S. Conference of Mayors Hunger and Homelessness Survey identified that among surveyed families with children, the main causes of homelessness were unemployment, lack of affordable housing, poverty, and low-paying jobs (U.S. Conference of Mayors, 2010). The National Coalition for the Homeless in turn cites a growing shortage of affordable rental housing and an increase in poverty as reasons for the rise in homelessness in the past 20 to 25 years. The report, "Why Are People Homeless", states the following:

"Homelessness and poverty are inextricably linked. Poor people are frequently unable to pay for housing, food, childcare, health care, and education. Difficult choices must be made when limited resources cover only some of these necessities. Often it is housing, which absorbs a high proportion of income that

must be dropped. If you are poor, you are essentially an illness, an accident, or a paycheck away from living on the streets” (National Coalition for the Homeless, 2009).

The National Center on Family Homelessness cites poverty and the lack of affordable housing as the core causes of homelessness. According to their research, approximately six million units are needed to bridge the gap in affordable housing for low-income households, and additionally 17% of U.S. families lived below the poverty line in 2009. This policy brief concludes that the discrepancy between housing costs and low incomes increases the risk of families of becoming homeless (National Center on Family Homelessness, 2009).

Literature on Doubled-up Households

The literature surrounding those individuals or families who are doubled-up is not as expansive as the literature surrounding homelessness, and in recent years seems to focus primarily on the recession of the 2000’s and being doubled-up. Being doubled-up has sometimes been referred to in academic and public policy literature as a form of housing instability. The report, “Housing Instability and health: Findings from the Michigan recession and recovery study” found that doubling-up was not associated with poor health (Burgard et al, 2012). The study, “The Great Recession and Health: People, Populations, and Disparities” looked at both individual and structural factors when assessing the effects of the recent recession on health and being doubled-up (Burgard and Ailshire, 2013).

A number of organizations have issued recent reports on the topic of doubled-up households. A report from the Department of Housing and Urban Development came to a number of conclusions on the demographics of doubled-up households. Households with older inhabitants were more likely to be doubled-up. Households comprised of minorities were also more likely to be doubled-up, compared to households with White members. Immigrants tended to be doubled-up in greater proportions than households with U.S. born members (HUD, 2012).

Literature on Homeless and Doubled-up

A limited number of studies have examined the combined effects of individual and structural factors on becoming homeless or doubled-up. For example, the study “Homelessness Among At-risk Families with Children in Twenty American Cities” examined factors predicting the likelihood of becoming homeless or doubled-up, while using a comparison group of housed families at or below the fifty percent poverty level. The study indicated that homeless families were less likely than those in the comparison group to be immigrants (of all backgrounds), which may be due to immigrants possibly having more social support networks. They were also less likely to be living with the child's father at the time of the interview. These homeless respondents were more likely to have a drug problem, to be in poor health, to have been victims of domestic violence, and were more likely to be diagnosed with depression. This subsample also reported minimal family support, as measured by their families' ability to provide assistance with babysitting, loans, or housing. The characteristics of homeless mothers at the 3-year-mark were similar to the findings from the 1-year-mark, except that homeless respondents from

the 3-year-subsample had greater family support. Those respondents who were doubled-up at the one-year mark and at the three-year mark were more likely to be Hispanic, to be employed, and to have family support compared to mothers who were homeless or at the 50 percent poverty line or lower. Those who were doubled-up were less likely to be high school dropouts, to be Black, or to report poor health. In addition, doubled-up respondents were less likely to live in public housing or to receive welfare.

Among individual-level variables, the results of the study indicated that the risk of homelessness increased with the age of the mother and for those who experienced domestic violence. The risk of homelessness decreased for those mothers who were immigrants, for those living with the child's father, and with the number of children. In addition, health status, living in a neighborhood more than five years, and family support were negatively associated with becoming homeless. The findings of the study showed that White mothers were more likely to be doubled-up than respondents who were Black or Hispanic. Those mothers with family support or had lived in a neighborhood for five years or more were also more likely to be doubled-up. Factors such as living with the child's father, number of children, receipt of public housing and welfare were negatively associated with doubling-up.

Predictors of homelessness for structural-level characteristics included increases in fair market rent, the lack of affordable housing, and the rental rate vacancies (Fertig and Reingold, 2008). Structural-level predictors such as the percentage of affordable housing available and the percentage of shelter beds available are positively associated with becoming doubled-up (Fertig and Reingold, 2008).

Research Questions

Although individual and structural factors may affect entry into homelessness, this thesis project will focus on the individual-level characteristics of homeless and at-risk families and predictors of becoming homeless or doubled-up. Through the use of longitudinal data from the Fragile Families and Child Wellbeing Study, this analysis will determine if there are characteristics and predictors of becoming homeless or doubled-up that are prevalent and repeated over time. Below are the research questions for this thesis project:

1. What are the characteristics of homeless families with children, and doubled-up families with children, and how do those characteristics compare to housed families with children?
2. What are the effects of individual factors in explaining a family's likelihood to becoming homeless or doubled up?
3. Are there any changes over time in the effect of individual risk factors on becoming homeless or doubled up?

METHODOLOGY

This thesis explores individual characteristics and determinants of homelessness and becoming doubled-up among families with children. This thesis analyzes the characteristics and predictors of homeless and doubled-up families at the baseline interview, the 1-year interview, the 3-year interview, the 5-year interview, and the 9-year interview, using longitudinal data from the Fragile Families and Child Wellbeing Study. Homeless families are defined as those who are living in a shelter, in a temporary housing program, or in a place not meant for human habitation, such as the streets or in a car. Doubled-up families are defined as those living with family or friends but not paying rent. Doubled-up families are included in this analysis as a form of homelessness because this demographic is precariously housed and at risk of being homeless.

This thesis is a re-analysis of the study, “Homelessness Among At-Risk Families with Children in Twenty American Cities” (Fertig and Reingold, 2008), which examined the characteristics of homeless and doubled-up families as well as the individual and structural variables predicting the likelihood of being homeless or doubled-up at the child's birth, when the child was 1-year-old and when the child was 3-years-old. For each variable, the homeless and doubled-up samples were compared to those families who reported their income being at or below 50 percent of the poverty level. To predict the likelihood of becoming homeless or doubled up versus being in the poverty category, a

multinomial logistic regression was conducted for year one, year three, and year five of the study.

The study, “Homelessness Among At-Risk Families with Children in Twenty American Cities” (Fertig and Reingold, 2008) conducted a secondary data analysis utilizing data from the Fragile Families and Child Wellbeing Study, which followed a cohort of approximately 4,700 children born in the United States between 1998 and 2000, 3,600 of these children were born to unmarried parents and 1,100 were born to married parents (Reichman et al, 2001). Interviews were conducted with the parents when the child was born, at 1-year-old, at 3-years-old, at 5-years-old, and at 9-years-old - February 1998 through September 2000, June 1999 through March 2002, April 2001 through December 2003, July 2003 through February 2006 (Princeton University, 2008), and August 2007 through April 2010 respectively (Princeton University, 2010). It is important to note that at the time the Fertig and Reingold study was conducted, only the one-year and the three-year interviews were available.

The Fragile Families and Child and Wellbeing Study used a stratified random sample of the 77 cities in the United States with populations of 200,000 or more - a stratification that occurred based on welfare levels, the child support system, and the labor market, as opposed to geography. Welfare levels were measured by the welfare payment disbursed to a family of four as well as the welfare payment divided by the median monthly rent in the particular city. The strength of the child support system was determined by the paternity establishment rate, by the proportion of Aid to Families with Dependent Children (AFDC) cases with a child support award, and the proportion of

AFDC cases with a payment. The labor market was measured by the unemployment and job growth rates. Each of the three categories for stratification - welfare levels, the child support system, and the labor market - were divided into quartiles and categorized from strong to moderate to weak levels (Reichman et al, 2001).

The 16 cities that were initially selected for the national sample were Austin, TX; Baltimore, MD; Boston, MA; Chicago, IL; Corpus Christi, TX; Indianapolis, IN; Jacksonville, FL; Milwaukee, WI; Nashville, TN; New York, NY; Norfolk, VA; Philadelphia, PA; Pittsburgh, PA; Richmond, VA; San Antonio, TX; and Toledo, OH. Four additional cities including Newark, NJ; Oakland, CA; Detroit, MI; and San Jose, CA were added to the list of cities used in the sample because they were of interest to the funders of the study (Reichman et al, 2001).

Once the selection of cities had occurred for the national sample, hospitals were sampled to be representative of non-marital births in each city. In each hospital, births from both married and unmarried parents were sampled until the quota for unmarried births was reached for each respective city. National-level weights were constructed to make the sample representative of the 77 cities in the United States with populations of 200,000 or more. City-level weights were constructed to be representative of the births in each particular city (Princeton University, 2008).

All of the cities, except for New York and Chicago, had few hospitals and therefore interviews were conducted in almost all of the selected hospitals. Hospitals were selected randomly for New York and Chicago since they had many hospitals. Once this process had been completed, a total of 75 hospitals were selected (Reichman et al,

2001). Births were then selected randomly until quotas based on the percentage on non-marital births for the particular city and for the particular hospital, were reached based on the most recent year for which statistics are available. Data was available either in 1996 or 1997, depending on the city examined (Reichman et al, 2001).

The initial interviews were conducted with the new mothers at the 75 hospitals that had been chosen. Mothers who were ineligible to participate in the study included: 1) mothers who planned to give up the child for adoption; 2) instances where the child's father was not alive at the time of the birth; 3) those interviewees who were fluent neither in English nor Spanish; 4) mothers who were too sick to participate in the study; 5) mother's whose child had died before the interview; and 6) parents who were under the age of 18. At baseline, eligible mothers were asked to identify the father of the child, and fathers were interviewed in person during hospital visits or by telephone. The baseline interviews for the mothers and the fathers included sections covering topics such as prenatal care, mother-father relationships, expectations about fathers' rights and responsibilities, attitudes towards marriage, parents' health, social support and extended kin, knowledge about local policies and community resources, education, employment, and income.

This thesis focuses on individual-level characteristics of families and their children who were either homeless or doubled-up at the 1-year, 3-year, 5-year, and 9-year interview mark. Independent variables for this analysis race, immigrant status, educational level, mother's age and marital status at the child's birth, living with the child's father, age of youngest child, number of children, employment history, living in

public housing, receiving a housing subsidy, receiving welfare money, social support system, residential history, probability of a depression diagnosis, health, substance abuse history, domestic violence history, and poverty level. The dependent variables are the homelessness status and the doubled-up status at the 1-year interview, the 3-year interview, the 5-year interview, and the 9-year interview. A comparison group of housed families is used in this analysis instead of the comparison group of those at or below the fifty percent poverty level that was used in the Fertig and Reingold study. Those mothers at or below the fifty percent poverty level is used as an independent variable.

This thesis uses the definition of homelessness from the Fertig and Reingold study in the construction of the homelessness dependent variable. Homelessness is defined as being on the streets, in a shelter, in temporary housing or in a place not meant for human habitation. The homelessness variable is constructed for years one, three, five, and nine, using a combination of two survey questions. The first question shows that a person is considered homeless if at the time of the interview they live in a shelter, temporary housing or on the street. The second question indicates that the respondent is homeless if they lived in a shelter, abandoned building, a car, or any other place not meant for human habitation in the twelve months prior to the interview. Through the combination of these two questions, the resulting dichotomous variables indicate whether or not the person was homeless at each of the four interview waves.

The dependent doubled-up variable is constructed using the doubled-up definition in the Fertig and Reingold study, along with additional criteria for the doubled-up definition after having contacted authors of the study. The authors of the study were

contacted since the doubled-up variable counts could not be duplicated using the study's doubled-up definition. The authors indicated that in their study, the doubled-up variable is defined as living with either a family member or friend, but not paying rent. The authors clarified that what was not stated in their study's doubled-up definition was the exclusion of cases where the father of the child had died, the exclusion of cases with no city-level information, and the exclusion of cases that were at or below the 50% poverty level.

In this thesis project, the doubled-up variable is constructed for years one, three, five, and nine of the study. Being doubled-up is defined as those who lived with a family member or a friend, but did not pay rent. In addition, those respondents who indicated that the father of the child had died and who did not have city-level reported were excluded from the sample. Those reported to be at or below the fifty percent poverty mark are not excluded from the doubled-up sample, since this thesis uses a housed category instead of the poverty category as a comparison group. There is a small number of cases where there is overlap between the homeless and doubled-up samples. In these cases, the doubled-up cases are subtracted from the homeless cases since being homeless is considered the more precarious housing situation and the focus of this thesis.

The homeless and doubled-up variables are not constructed for the baseline interview because questions that would indicate homelessness or doubled-up status were not asked at the baseline interview of the Fragile Families Child Wellbeing Study. The only question regarding housing at the baseline interview asks the respondent if the home or apartment where they currently reside is owned or being bought by someone in your

family or if it is rented. This question would not be sufficient to construct either the homeless or the doubled-up variables and indicates that at baseline, all families were housed.

This thesis only includes those families who live with their children most or all of time, since the analysis focuses on homeless and doubled-up families. In addition, the definition of family includes both single mothers as well as mothers who are living with the father or married to the father of the child at the time of the interview.

The independent variables for this thesis project draw on various questions from the Fragile Families and Child Wellbeing Study. The demographic variables, including race, immigrant status, education, marital status, living situation, and mother's age were obtained from the baseline interview. The survey question about the mother's race asks if she is White (non-Hispanic) Black, (non-Hispanic), Hispanic, or another race. The respondent's immigrant status was obtained from a survey question asking whether or not the respondent was born in the United States. The respondent's educational level was determined using a survey question that asks the respondent what is the highest grade or year of regular school that they have completed. Educational achievement is only asked at the baseline interview, so information on respondents getting more schooling during subsequent years of the study could not be captured. The education variable is constructed as those with less than a high school degree, those with a high school degree, and those with at least some college. The respondent is asked whether or not they are married at the child's birth in order to determine their marital status. The respondent is

also asked if they are living with the father of the child at the time of the child's birth.

The respondent is also asked their age at the time of the child's birth.

A variety of questions were asked about the respondent's family situation, employment, and health. The respondent was asked if they were living with the father of the child at each of the waves. The respondent was also asked about their employment status during the various waves of the study. Although the father's employment status is asked in the survey, it is not included as a variable in this thesis due to the relatively small sample size of fathers. At baseline, the respondent was asked if they worked while pregnant. In subsequent waves, the respondent was asked about their current work status by asking them if they had worked for regular pay in the past week. Whether or not the mother had a drug problem was determined from the survey question that asked if in the past year if drugs and/or alcohol had interfered with relationships and/or work. The mother's self-reported was determined from a question that asks them to rate their health. The health variable was constructed to show if the respondent had fair or poor health versus excellent or good health. The respondents were also asked whether or not they had been hurt by the child's father, which captures exposure to domestic violence. Depression is captured through a variable that was constructed indicating if the respondent meets the criteria for a depression diagnosis using the depression composite international diagnostic interview (CIDI).

There are a number of questions covered in this thesis that involve public assistance, including if the respondent lives in public housing, receives a housing subsidy, and if they receive cash welfare. Questions relating to their social support

networks are measured by whether the respondent's family would loan them \$200, if their family would house them, and if their family would be able to babysit. Other questions include if the respondent had lived in the neighborhood for more than five years and the number of moves made by the mother. These last two questions were not included in this thesis project because they were asked in years 1 and 3, but not in years 5 and 9, and therefore cannot be compared. In addition, there is a question indicating in what percentage of the federal poverty level the mother's household income falls under.

For each independent variable, a chi square analysis is conducted for the homeless and doubled-up variables to determine if they are statistically correlated. In addition, the chi square analysis determines if the samples differ across the 1-year, 3-year, 5-year, and 9-year interview waves. Specifically, the analysis compared the 1-year sample to the 3-year sample, the 1-year sample to the 5-year sample, and the 1-year sample to the 9-year sample. A multivariate, multinomial logistic regression is performed in order to predict the likelihood of becoming homeless or doubled-up to determine the effect of each independent variable on doubling-up or being homeless at the one-year-interview. The results for the one year interview will capture the impact of characteristics reported at the baseline interview. The three-year interview in turn will capture the impact on characteristics from the baseline interview and one-year interview. The five-year interview will capture the impact characteristics from baseline, the one-year and three-year interview. The results from the nine-year interview will capture the impact on characteristics from the baseline, one-year, three-year and five-year interviews.

As noted, there are a number of methodological differences between the study, "Homelessness among At-Risk Families with Children in Twenty American Cities"(Fertig and Reingold, 2008) and this thesis project. The doubled-up variable is defined differently to accommodate the fact that this thesis project uses those who are housed as a comparison group as opposed to those who are at or below the fifty percent poverty level. In addition, this thesis project conducts a chi square analysis as opposed to comparing the means between the poverty sample versus the homeless sample and the poverty sample versus the doubled-up sample. Due to these methodological changes, it is important to note that there are variations in results between the two studies.

RESULTS

The first part of the results section shows the stability and transitions between each interview wave for the homeless, doubled-up, and housed samples. Table 1 shows the overall counts of the housed, doubled-up, and homeless samples. Tables 2 through 5 show the transitions between the homeless, doubled-up, and housed samples between years one and three, years three and five, years five and nine, and years one and nine. The intent is to show if the respondents are remaining in each category, transitioning between categories, and when these changes are occurring.

The second part of the results section describes the characteristics of homeless families, doubled-up families, and housed families for each interview wave. In addition, a chi square analysis was performed to determine which independent variables were statistically significant for the homeless and doubled-up samples during each interview wave.

The third part of the results section outlines the results of a multinomial logistic regression measuring the effect of being homeless versus being housed, and the effect of being doubled-up versus being housed. In that process, it is determined which variables are statistically significant predictors of becoming homeless or doubled-up.

Transitions for Homeless and Doubled-up Subsamples Versus Housed Subsamples

Table 1 below shows the counts of housed, doubled-up, and homeless samples for years one, three, five and nine of the study. The numbers indicated that the sample size grew smaller between years one and nine, due to attrition in the study (Princeton, 2008). Among the three groups, the doubled-up sample saw the largest decrease, from 383 to 59 respondents.

Table 1: Counts of Housed, Doubled-up, and Homeless

		Year 1	Year 3	Year 5	Year 9
Housed	Count	3750	3791	3812	3141
	% of Total	88.0%	92.1%	96.2%	96.0%
Doubled-up	Count	383	228	73	59
	% of Total	9.0%	5.5%	1.8%	1.8%
Homeless	Count	128	97	77	72
	% of Total	3.0%	2.4%	1.9%	2.2%
Total	Count	4261	4116	3962	3272
	% of Total	100.0%	100.0%	100.0%	100.0%

The data displayed in Tables 2 through 5 below indicate that for both shorter-term transitions between the interview waves and the longer-term transition between year one and year nine, housed families predominantly remained stably housed. In contrast, doubled-up families transitioned to being housed in the largest numbers both over the short-term and long-term. However, there was evidence that some doubled-up families

remained doubled-up throughout the interview waves. Very few doubled-up families became homeless, both over the short-term and long-term. Homeless families mostly transitioned to being housed in the largest numbers. Next, homeless families were likely to remain homeless over the short-term and long-term. Homeless families were the least likely to become doubled-up. In fact, between year one and year nine, there were no homeless families that became doubled-up.

Table 2: Transitions between Year One and Year Three

		Year 3			Total
		Doubled-up	Housed	Homeless	
Year 1	Doubled-up Count	102	280	6	388
	% within Doubled-up	26.3%	72.2%	1.5%	100.0%
	% of Total	2.3%	6.2%	0.1%	8.6%
Housed	Count	127	3789	81	3997
	% within Housed	3.2%	94.8%	2.0%	100.0%
	% of Total	2.8%	83.9%	1.8%	88.5%
Homeless	Count	4	110	17	131
	% within Homeless	3.1%	84.0%	13.0%	100.0%
	% of Total	0.1%	2.4%	0.4%	2.9%
Total	Count	233	4179	104	4516
	% within Total	5.2%	92.5%	2.3%	100.0%
	% of Total	5.2%	92.5%	2.3%	100.0%

Table 3: Transitions between Year Three and Year Five

		Year 5			Total		
		Doubled-up	Housed	Homeless			
Year 3	Doubled-up	Count	13	188	4	205	
		% within Doubled-up	6.3%	91.7%	2.0%	100.0%	
		% of Total	0.4%	5.1%	0.1%	5.6%	
	Housed	Count	48	3272	53	3373	
			% within Housed	1.4%	97.0%	1.6%	100.0%
			% of Total	1.3%	89.4%	1.4%	92.2%
	Homeless	Count	5	61	16	82	
			% within Homeless	6.1%	74.4%	19.5%	100.0%
			% of Total	0.1%	1.7%	0.4%	2.2%
Total	Count	66	3521	73	3660		
		% within Total	1.8%	96.2%	2.0%	100.0%	
		% of Total	1.8%	96.2%	2.0%	100.0%	

Table 4: Transitions between Year Five and Year Nine

		Year 9			Total		
		Doubled-up	Housed	Homeless			
Year 5	Doubled-up	Count	2	54	0	56	
		% within Doubled-up	3.6%	96.4%	0.0%	100.0%	
		% of Total	0.1%	1.8%	0.0%	1.8%	
	Housed	Count	63	2861	0	2924	
			% within Housed	2.2%	97.8%	0.0%	100.0%
			% of Total	2.1%	94.3%	0.0%	96.3%
	Homeless	Count	0	0	55	55	
			% within Homeless	0.0%	0.0%	100.0%	100.0%
			% of Total	0.0%	0.0%	1.8%	1.8%
Total	Count	65	2915	55	3035		
		% within Total	2.1%	96.0%	1.8%	100.0%	
		% of Total	2.1%	96.0%	1.8%	100.0%	

Table 5: Transitions between Year One and Year Nine

		Year 9			Total		
		Doubled-up	Housed	Homeless			
Year 1	Doubled-up	Count	15	247	3	265	
		% within Doubled-up	5.7%	93.2%	1.1%	100.0%	
		% of Total	0.5%	8.1%	0.1%	8.7%	
	Housed	Count	53	2596	44	2693	
			% within Housed	2.0%	96.4%	1.6%	100.0%
			% of Total	1.7%	85.3%	1.4%	88.5%
	Homeless	Count	0	77	9	86	
			% within Homeless	0.0%	89.5%	10.5%	100.0%
			% of Total	0.0%	2.5%	0.3%	2.8%
Total	Count	68	2920	56	3044		
		% within Total	2.2%	95.9%	1.8%	100.0%	
		% of Total	2.2%	95.9%	1.8%	100.0%	

Characteristics of Homeless and Doubled-up Families

The following section summarizes results of chi square analyses for the homeless and doubled-up samples. Table 6 and Table 7 show for each wave of the study, the relationships between the individual factors and being homeless or doubled-up. The “+” sign indicates that the dependent and independent variables are positively correlated at the $p < .05$ level. The “-” sign shows a negative correlation at the $p < .05$ level, and a 0 means that there is no statistically significant relationship between the dependent and independent variables at the $p < .05$ level. More detailed tables with the counts of the homeless, doubled-up, and housed samples and the corresponding statistical significance for each wave are available in the Appendix section.

Characteristics of Homeless Families

The effects of a majority of the demographic variables were statistically significant and remained consistent through all interview waves. The mother's age at the child's birth indicated an impact on being homeless. A year after the child's birth, the mother's age at the child's birth did not significantly affect the mother's entry into homelessness. However, in years three, five, and nine, the older a mother was at the child's birth, the less likely she was to become homeless.

Findings on race were consistent across the waves. Black mothers were the most likely to become homeless, compared to Whites and Hispanic/Other respondents. In fact, White mothers were the least likely to become homeless among the three racial groups. The number of children a mother had no effect on being homeless.

Immigrants were less likely to become homeless at year one; however at year three were more likely to become homeless. This finding may be due to that close to the birth, immigrants may have more support and resources to avoid homelessness. Three years from the birth, those safety nets may be less likely in place.

Education was found to be statistically correlated to homelessness. Those mothers who had not graduated from high school were the most likely to become homeless compared to their counterparts with high school degrees or at least some college education. Those mothers with at least some college education were the least likely to become homeless.

The mother's living situation and marital status were both statistically significant. Mothers who were unmarried at the child's birth were more likely to be homeless than married mothers. This effect was evident and remained consistent through all interview

waves. Mothers who lived with the baby's father at the time of the child's birth were less likely to become homeless. This effect was also evident through all waves of the study.

Employed mothers were less likely to become homeless, although there was some variability in terms of short-term versus long-term effects of employment. Mothers who were working while pregnant were neither more nor less likely to become homeless in the short-term at the one-year interview. However, the fact that the mother was working while pregnant showed more effects over the longer term. Those who were employed while pregnant were less likely to become homeless at years three, five, and nine of the study.

The effects of health-related factors, including drug use, self-reported health, and the probability of having a depression diagnosis showed an overall positive correlation with entry into homelessness. Those who used drugs, reported fair or poor health, or were likely to be diagnosed with depression were all more likely to become homeless. For years one and nine, the mother's drug use at baseline was statistically significant. Nine years from the birth of the child, drug use at the baseline interview had an effect on entry into homelessness.

Those mothers whose self-reported health was fair or poor at the child's birth, were more likely to be homeless than those with good or excellent health both one year and three years later. However, there were also long-term effects of being in poor health. The mother's poor health at the nine-year interview was a predictor of becoming homeless at the nine-year interview. The probability of having a depression diagnosis was found to be positively correlated to being homeless. Homelessness in years three,

five, and nine was found to be more likely to occur with a depression diagnosis in the previous interview year.

The effects of public assistance on entry into homelessness were examined, and included variables such as living in public housing, receiving a housing subsidy, or receiving cash welfare. The findings of the analysis indicated that receiving cash welfare at the birth of the child was positively correlated to homelessness for all interview waves. Receiving a housing subsidy at baseline meant an increased likelihood of becoming homeless at years one, three, and five. Living in public housing at baseline was also positively correlated to homelessness at year one and year three. These results suggest that those families requiring public assistance represent a more vulnerable segment of the sample, and at risk of becoming homeless. If public assistance were to cease, their safety net would be eliminated and would make them more likely to become homeless.

Those who have stronger family ties were shown to be less likely to become homeless over all waves of the study. Those mothers whose families would lend \$200 or babysit for them were less likely to become homeless for all interview waves. The effect of having a family member who would house the mother at baseline was positively correlated for years one and three.

Mothers who were at or below the fifty percent poverty level at baseline were more likely to be homeless and years one and three, suggesting that poverty is more of a short-term effect on becoming homeless. For years three, five, and nine, poverty status at the previous year indicated a higher likelihood of becoming homeless than those above

the 50% poverty threshold. These findings also support the notion that poverty affects the likelihood of becoming homeless on the short-term rather than the long-term.

Table 6: Relationships between Individual Factors and Being Homeless

YEAR OF FOLLOW-UP INTERVIEW				
	Year 1	Year 3	Year 5	Year 9
Mother's age at child's birth	0	-	-	-
Mother is White (non-Hispanic)	-	-	-	-
Mother is Black (non-Hispanic)	+	+	+	+
Mother is Hispanic/Other race	-	-	-	-
Mother is immigrant	-	+	0	0
Mother did not complete school	+	+	+	+
Mother is a high school graduate	-	-	-	-
Mother completed some college or more	-	-	-	-
Mother was unmarried at child's birth	+	+	+	+
Mother living with father of child	-	-	-	-
Age of youngest child	0	0	0	0
Status at Baseline interview:				
Number of children	0	0	0	0
Mother worked while pregnant	0	-	-	-
Mother has a drug problem	+	0	0	+
Mother's self-reported health is fair or poor	+	+	0	0
Mother has been hurt by father	0	0	0	0
Mother lives in public housing	+	+	0	0
Mother receives housing subsidy	+	+	+	0
Mother received cash welfare	+	+	+	+
Mother's family would loan \$200	-	-	-	-
Mother's family would house	-	-	0	0
Mother's family would babysit	-	-	-	-
Mother's income is below the 50% poverty level	+	+	0	0
Status at Previous Interview:				
Number of children	X	0	0	0
Mother was employed	X	-	-	0
Mother has a drug problem	X	0	0	+

YEAR OF FOLLOW-UP INTERVIEW				
	Year 1	Year 3	Year 5	Year 9
Mother's self-reported health is fair or poor	X	0	0	+
Mother's probability of a depression diagnosis	X	+	+	+
Mother has been hurt by father	X	0	0	0
Mother lives in public housing	X	0	0	+
Mother receives housing subsidy	X	0	+	+
Mother received cash welfare	X	0	+	+
Mother's family would loan \$200	X	-	-	-
Mother's family would house	X	-	-	-
Mother's family would babysit	X	-	-	-
Mother's income is below the 50% poverty level	X	+	+	+

Characteristics of the Doubled-up Families

Demographic characteristics from the doubled-up sample indicated some trends throughout the interview waves for the mother's age at the child's birth and living with the father of the child. For example, the mother's age at the child's birth showed that the older mothers were less likely to become doubled-up than younger mothers. This effect of mother's age at baseline was observed for years one, three, five, and nine. Those who were living with the father of the child were less likely to become doubled-up than those mothers not living with the father of the child for all interview waves.

Mothers who were Hispanic/Others were more likely to become doubled-up than White or Black mothers; however this effect was only seen for years one and three.

Mothers who were unmarried at the child's birth were more likely to become doubled-up than their married counterparts; however there is a gap in year five where marital status

has no effect. In terms of education, those without high school degrees were less likely to become doubled-up than those with at least a high school degree – this effect was seen for years one and nine. However, the results for year three indicate that those with high school diplomas were slightly more likely to become doubled-up than their counterparts. The number of children the mother had at baseline was negatively correlated to becoming doubled-up. The more children a mother had, the less likely these families were to be doubled-up. Employment was shown to be negatively correlated to being doubled-up – in other words, those who were employed were less likely to become doubled-up. Those who were employed while pregnant were less likely to be doubled-up a year after the child’s birth; however no effect was seen in years three, five, and nine. The effect of the prior interview year was only seen in year five, in terms of employment. Health related variables, such as drug abuse, poor health and domestic violence were not found to be statistically significant. Mothers who received public assistance at baseline were more likely to be doubled-up than those who didn’t receive public assistance. Family support, including the mother’s family would loan them \$200, or would house them, or would babysit was positively correlated to being doubled-up. In particular, those who would be housed at baseline were less likely to be doubled-up for years one, three, and nine. Being at the poverty line was not found to be statistically correlated to being doubled-up

Table 7: Relationships between Individual Factors and Being Doubled-up

	YEAR OF FOLLOW-UP INTERVIEW			
	Year 1	Year 3	Year 5	Year 9
Mother’s age at child’s birth	-	-	-	-

YEAR OF FOLLOW-UP INTERVIEW				
	Year 1	Year 3	Year 5	Year 9
Mother is White (non-Hispanic)	-	-	0	0
Mother is Black (non-Hispanic)	-	-	0	0
Mother is Hispanic/Other race	+	+	0	0
Mother is immigrant	0	0	0	0
Mother did not complete school	+	-	0	+
Mother is a high school graduate	-	+	0	-
Mother completed some college or more	-	-	0	-
Mother was unmarried at child's birth	+	+	0	+
Living with father of child	-	-	-	-
Age of the youngest child	-	0	0	0
Status at Baseline interview:				
Number of children	-	0	0	0
Mother worked while pregnant	-	0	0	0
Mother has a drug problem	0	0	0	0
Mother's self-reported health is fair or poor	0	0	0	0
Mother has been hurt by father	0	0	0	0
Mother lives in public housing	-	-	0	0
Mother receives housing subsidy	-	-	0	0
Mother received cash welfare	0	0	+	0
Mother's family would loan \$200	+	0	-	0
Mother's family would house	+	+	-	+
Mother's family would babysit	+	0	0	0
Mother's income is below the 50% poverty level	0	0	0	0
Status at Previous Interview:				
Number of children	X	-	-	0
Mother was employed	X	0	-	0
Mother has a drug problem	X	0	0	0
Mother's self-reported health is fair or poor	X	0	0	0
Mother's probability of a depression diagnosis	X	0	0	0
Mother has been hurt by father	X	0	0	0
Mother lives in public housing	X	-	0	0
Mother receives housing subsidy	X	0	-	0
Mother received cash welfare	X	0	0	0
Mother's family would loan \$200	X	0	0	0
Mother's family would house	X	+	0	0

YEAR OF FOLLOW-UP INTERVIEW				
	Year 1	Year 3	Year 5	Year 9
Mother's family would babysit	X	0	0	0
Mother's income is below the 50% poverty level	X	0	0	0

Predictors of Becoming Homeless or Doubled-up

A multinomial logistic regression was performed to determine which independent variables were predictors of homelessness and becoming doubled-up at the 1-year, 3-year, and 5-year interviews. Based on the results of the chi square analysis, it was determined that the short-term effects are much more significant than the long-term effects. Therefore the focus was centered on the analysis of the homeless and independent variables for years one, three, and five.

Table 8 below outlines the results of the multinomial logistic regression for year one. Coefficients and standard errors are reported. An asterisk denotes those variables that were determined to be statistically significant at the $p < .05$ level.

Predictors of Becoming Homeless at Year One

The model for the multinomial logistic regression was designed with a dummy variable that was constructed with -1 being doubled-up (N=383), 1 being homeless (N=128), and 0 being housed (N=3,750). The housed families were designated as the reference category for this analysis. When creating the model for the one-year analysis, descriptive analyses were conducted and it was determined that three variables had a significant number of cases missing. These include living with the baby's father at year one, number of children, and history of domestic violence. Due to the large number of

missing variables, those three variables were omitted from the final model. The independent variables included mother's age at child's birth, race, immigrant status, education, marital status, employment status, drug abuse, health, living in public housing, receiving housing subsidy, receiving cash welfare, family would loan \$200, family would house, family would babysit and mother's household income is at or below the 50% poverty line. The results of the regression indicated that there were 4,132 valid cases and 129 missing cases out of a total of 4,261 cases for year one.

The analysis for the year one interview indicated that indicated a number of variables that were statistically significant and predictors of homelessness. Those mothers born in the United States were more likely to be homeless than those who were housed. Mothers who had not graduated from high school were more likely to be homeless than those who had graduate from high school or at least had attended some college. Drug abuse was also a statistically significant predictor of homelessness. Those had abused drug and/or alcohol were more likely to be homeless than housed. Mothers who reported health status was reported as fair or poor was determined to be a predictor of homelessness. Among the family support variables, only mothers whose family who would lend them \$200 were less likely to be homeless than housed. All other variables in the model were not found to be statistically significant.

Predictors of Becoming Doubled-up at Year One

The findings for the multinomial logistic regression for year one showed that Black mothers were less likely to be doubled-up than housed compared to White and

Hispanic/Other mothers. The younger the mother was, the more likely she was to be doubled-up than housed. In addition, those mothers with younger children were less likely to be doubled-up than those mothers with older children. Employment status was also found to be statistically significant in that employed mothers were less likely to be doubled-up. All measures of public assistance, including being in public housing, receiving a housing subsidy, and receiving cash welfare pointed toward mothers who were less likely to be doubled-up.

Table 8: Predicting Homelessness and Being Doubled-up at Year One

	Doubled-up		Homeless	
	Coefficient	SE	Coefficient	SE
Mother's age at child's birth	1.067*	0.159	-0.031	0.21
Mother is White	-0.321	0.178	-0.467	0.355
Mother is Black	-0.37*	0.14	0.027	0.238
Mother is Hispanic/Other Race	0	.	0	.
Mother is immigrant	0.411	0.191	0.856*	0.396
Mother did not complete school	0.245	0.16	0.835*	0.293
Mother is a high school graduate	0.177	0.155	0.556	0.29
Mother completed some college or more	0	.	0	.
Mother was unmarried at child's birth	-1.444	0.235	-0.515	0.35
Mother worked while pregnant	-0.556*	0.125	0.053	0.204
Mother has a drug problem	0.174	0.338	0.76*	0.378
Mother's self-reported health is fair or poor	-0.064	0.226	0.658*	0.26
Mother lives in public housing	-0.509*	0.234	-0.085	0.266
Mother receives housing subsidy	-0.658*	0.23	0.447	0.242
Mother received cash welfare	-0.542*	0.129	0.147	0.211
Mother's family would loan \$200	0.185	0.267	-0.738*	0.281
Mother's family would house	0.608	0.355	-0.39	0.329
Mother's family would babysit	0.206	0.313	0.333	0.352
Mother's income below 50%	0.142	0.149	0.308	0.218

	Doubled-up	Homeless
poverty level		

Table 9 below outlines the results of the multinomial logistic regression for year three. Coefficients and standard errors are reported. An asterisk denotes those variables that were determined to be statistically significant at the $p < .05$ level.

Predictors of Becoming Homeless at Year Three

The model for the multinomial logistic regression for year three was designed with a dummy variable that was constructed with -1 being doubled-up (N=228), 1 being homeless (N=97), and 0 being housed (N=3,791). The housed families were designated as the reference category for this analysis. When creating the model for the three-year analysis, descriptive analyses were conducted and a number of variables had a significant number of cases missing. These include living with the baby's father at year one, number of children, history of domestic violence, and the variables measuring financial assistance. Due to the large number of missing cases, the aforementioned variables were omitted from the final model. The independent variables included mother's age at child's birth, age of the youngest child, the number of children, race, immigrant status, education, marital status, employment status, health, mother's probability of a depression diagnosis, family would loan \$200, family would house, family would babysit, and mother's household income is at or below the 50% poverty line. The results of the regression indicated that there were 3,731 valid cases and 385 missing cases out of a total of 4,116 cases for year three.

The analysis for the interview at year three showed that White mothers were less likely to become homeless compared to Black and Hispanic/other mothers. All other variables were not found to be significant in terms of predicting becoming homeless at the year three interview. Hispanics/Other mothers and mothers who had completed at least some college had coefficients of zero because they were redundant.

Predictors of Becoming Doubled-up at Year Three

The analysis for the year three interview indicated that the younger the mother, the mother likely she was to be doubled-up than housed. Black mothers were less likely to be doubled-up than housed compared to White and Hispanic/Other mothers. In addition, mothers who were unmarried at the child's birth were less likely to be doubled-up than housed. Mothers who had a family member who would loan \$200 were less likely to be doubled-up than housed. The results of the poverty variable indicated that those mothers below the poverty line were less likely to be doubled-up than housed.

Table 9: Predicting Homelessness and Being Doubled-up at Year Three

	Doubled-up		Homeless	
	Coefficient	SE	Coefficient	SE
Mother's age at child's birth	.698*	.187	.079	.298
Mother is White	-.373	.215	-1.351*	.576
Mother is Black	-.752*	.180	-.295	.312
Mother is Hispanic/Other Race	0	.	0	.
Mother is immigrant	.460	.251	.981	.527
Mother did not complete high school	-.179	.209	.056	.395
Mother is a high school graduate	.173	.190	.350	.364
Mother completed some college or more	0	.	0	.

	Doubled-up		Homeless	
Mother was unmarried at child's birth	-.794*	.256	-.682	.507
Age of youngest child	.160	.153	.137	.266
Number of children	-.223	.165	-.339	.279
Mother is employed	-.168	.155	-.437	.279
Mother's self-reported health is fair or poor	-.280	.211	-.466	.322
Mother's probability of a depression diagnosis	.235	.245	-.397	.331
Mother's family would loan \$200	-.575*	.215	-.593	.346
Mother's family would house	.305	.281	-.175	.391
Mother's family would babysit	.596	.232	-.221	.409
Mother's income below 50% poverty level	-.001*	.179	.371	.287

Predictors of Becoming Homeless at Year Five

The model for the multinomial logistic regression for year five was designed with a dummy variable that was constructed with -1 being doubled-up (N=73), 1 being homeless (N=77), and 0 being housed (N=3,812). The housed families were designated as the reference category for this analysis. Descriptive analyses were conducted to identify variables with a significant number of cases missing. The variables with a significant number of missing cases include living with the baby's father at year one, number of children, history of domestic violence, receiving a housing subsidy, and receiving public assistance. Due to the large number of missing cases, these variables were omitted from the final model. The independent variables included in the model were mother's age at child's birth, age of the youngest child, number of children, race, immigrant status, education, marital status, employment status, health, probability of a

depression diagnosis, family would loan \$200, family would house, family would babysit and mother's household income is at or below the 50% poverty line. The results of the regression indicated that there were 3,532 valid cases and 430 missing cases out of a total of 3,962 cases for year five.

The results of the multinomial logistic regression show that mothers who receive cash welfare were more likely to be homeless. In contrast, those mothers who had a family member who would loan them \$200 were less likely to become homeless. The data also indicated that mothers who were below the poverty threshold were more likely to become homeless.

Predictors of Becoming Doubled-up at Year Five

The results for the doubled-up sample at year five indicated that the younger the mother was, the more likely she was to be doubled-up than housed. Employment was also determined to be statistically significant and a predictor of becoming doubled-up. Those mothers who were employed were less likely to become doubled-up.

Table 10: Predicting Homelessness and Being Doubled-up at Year Five

	Doubled-up		Homeless	
	Coefficient	SE	Coefficient	SE
Mother's age at child's birth	.848*	.807	.301	.313
Mother is White	-.692	.429	-.073	.564
Mother is Black	-.219	.306	.527	.353
Mother is Hispanic/Other Race	0	.	0	.
Mother is immigrant	.496	.477	-.448	.464
Mother did not complete high school	-.587	.349	.527	.409
Mother is a high school graduate	-.370	.320	.342	.407
Mother completed some college or	0	.	0	.

	Doubled-up		Homeless	
more				
Mother was unmarried at child's birth	-.371	.394	-.173	.481
Age of youngest child	-.097	.259	-.268	.256
Number of children	.376	.278	.022	.261
Mother is employed	-.733*	.269	.099	.281
Mother's self-reported health is fair or poor	-.390	.347	.412	.385
Mother's probability of a depression diagnosis	.025	.377	-.337	.320
Mother received cash welfare	.043	.333	1.103*	.299
Mother's family would loan \$200	-.532	.382	-.974*	.318
Mother's family would house	.961	.519	-.237	.352
Mother's family would babysit	-.250	.382	.007	.361
Mother's income below 50% poverty level	.610	.382	.618*	.284

DISCUSSION AND CONCLUSION

The results of the analyses have highlighted individual-level characteristics and predictors of becoming homeless and doubled-up among families with children. The various analyses in this thesis have indicated some significant differences between the two groups.

Transitions between Homeless, Doubled-up, and Housed

The data on the transitions between the homeless, doubled-up, and housed samples have shown that there is very little overlap between the homeless and doubled-up samples. The analysis showed that the homeless either remained homeless or became housed. Conversely, doubled-up families either remained doubled-up or became housed. There were few instances where homeless families transitioned to being doubled-up and where doubled-up families became homeless. Homeless families who are living in shelters and transitional programs are very well likely receiving assistance from social workers and counselors in order to transition into independent housing. Although in a precarious situation, these homeless families may be accessing resources such as housing vouchers and employment counseling to transition out of homelessness into their own housing. Precariously housed doubled-up families have the important family support factor to avoid becoming homeless. The short-term transitions, which are denoted by transitions between interview waves, did indicate some movement between becoming

homeless to becoming doubled-up and vice-versa. However, the long-term transitions, indicated by transitions between year one and year nine showed little or no movement between becoming homeless and doubled-up. The data indicated that there were no homeless families that became doubled-up between years one and nine.

Characteristics of Homeless and Doubled-up Families

The characteristics of the homeless and doubled-up samples provided insight on which variables were indicators of becoming homeless or doubled-up. In terms of age, the older the mother was at the birth of the child the less likely she would become either homeless or doubled-up. Older mothers may have more resources, such as higher educational attainment and employment, which may make them less likely to become either homeless or doubled-up. The number of children a mother had had no effect on becoming homeless. In contrast, mothers were more likely to be doubled-up the fewer children they had. This speaks to the types of families that are becoming doubled-up – perhaps young mothers with children are going to live with family members during difficult personal and economic times. This profile is consistent with the literature about doubled-up families, especially in recent years. Often times adult children are moving back home with parents or other relatives during economic times where finding full-time employment may be difficult. In addition, an event like having a child may exacerbate economic and financial issues by making finding employment even more difficult.

The demographic variables of race and education were consistent across the waves and highlighted the similarities and differences between homeless and doubled-up families. Homeless mothers were most likely to be Black whereas doubled-up mothers

were most likely to be Hispanic. Of note is that White mothers were the least likely to be either doubled-up or homeless. Mothers with less than a high school education were more likely to be homeless or doubled-up. Mothers with less than a high school education as a consequence may have been more likely to work minimum-wage or low skilled jobs.

However, when being at or below the 50% poverty level was used as an independent variable the results were different between homeless and doubled-up families. Those who were below the poverty level were more likely to become homeless, whereas this variable was not statistically significant for doubled-up families. The poverty findings point to the idea that poverty compounded with many other factors make a family more likely to become homeless, whereas for doubled-up families factors such as social and family support may be more defining factors in indicating the likelihood of becoming doubled-up.

The findings on living with the child's father and marital status were consistent for both homeless and doubled-up families. Among both groups those mothers who lived with the child's father were less likely to become either homeless or doubled-up. In addition, mothers who were unmarried were more likely to be either homeless or doubled-up. These findings may speak to the benefits of extended social networks from the father, which may inoculate them from becoming homeless or doubled-up. In addition, the benefit of being in a dual-income household may reduce the likelihood of becoming either homeless or doubled-up.

Health related-factors highlighted the difference between homeless and doubled-up families. Those mothers with poor health, who could have a depression diagnosis, and

who had abused drugs were more likely to become homeless. In contrast, these health-related factors were not determined to be statistically significant for doubled-up families. This indicates that a variety of combined factors such as low educational attainment, poor health, and being at the poverty level could propel a family into homelessness.

Those who received public assistance, such as cash welfare and housing subsidies were more likely to become homeless. This finding may show that those families at the lower end of the economic ladder and in need of public assistance are in a vulnerable position and steps away from homelessness. If these families were to lose public assistance, they would become that much more vulnerable to becoming homeless. The data on transitions between being housed and homeless indicated that many transitions occurred from being housed to being homeless, and not doubled-up. In contrast, mothers who received public assistance such as living in public housing or housing subsidies were less likely to become doubled-up.

Mothers with strong family support were less likely to become homeless. This speaks to the importance of these social ties, whether it comes in the form of financial assistance, having a family member who would house them, or having a family member who would babysit for them. Family support increased the likelihood of becoming doubled-up especially when referring to having a family member who would be willing to house the family.

Predictors of Becoming Homeless or Doubled-up

There were a number of variables that were determined to be predictors of becoming homeless or doubled-up at year one of the study. Having lower educational

attainment, abusing drugs, and having poor health were all predictors of becoming homeless. In addition, having family support made a family less likely to become homeless. For homeless families, these variables indicate the effect of health-related issues on predicting entry into homelessness. Both health and low educational attainment may be destabilizing factors that make a family more vulnerable and more likely to become homeless. Over time, the results from the three-year and five-year interviews showed that race, being below the poverty threshold, receiving financial and social support were all predictors of becoming homeless.

The results of the analysis for the doubled-up sample indicated a number of predictors of becoming doubled-up. Over the course of years one, three, and five of the study, being a younger mother was a predictor of becoming doubled-up. Over time, the results pointed toward employment as being a factor reducing the likelihood of becoming doubled-up. Mothers who received public assistance and who were employed were less likely to become doubled-up at year one.

Future Direction for Research

There are a number of directions for future research on both the homeless and doubled-up populations. An examination of structural factors using longitudinal data over large time span would be insightful in indicating what variables, aside from individual-level variables would be predictors of becoming homeless or doubled-up. This thesis analyzed data on families with young children, so a more expansive and more representative analysis would assess different forms of homelessness, such as chronic homelessness and youth homelessness. Due to the lack of peer-reviewed research on

doubled-up families, a more thorough examination of the doubled-up population would be warranted. And finally, research on the transitions between being homeless, housed, and doubled-up would provide more insight to the academic community and policy makers and exits and entries in and from these groups.

APPENDIX

The following four tables outline the characteristics of housed, homeless, and doubled-up samples for years for years one, three, five, and nine of the study. Unless otherwise noted, the numbers represent percentages. The asterisk represents those variables that were determined to be statistically significant at the $p < .05$ for the chi square analysis.

Table 11: Characteristics of Housed, Homeless, and Doubled-up at Year One

ONE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
No. of Observations	3746	383	128
Mother's age at child's birth	25.0*	21.4*	24.6
Mother is White (non-Hispanic)	23*	17*	10*
Mother is Black (non-Hispanic)	47*	45*	62*
Mother is Hispanic/Other race	30*	38*	28*
Mother is immigrant	16*	13	7*
Mother did not complete school	32*	44*	52*
Mother is a high school graduate	30*	33*	32*
Mother completed some college or more	38*	23*	16*
Mother was unmarried at child's birth	73*	60*	91*
Living with father of child at 1-year interview	87*	55*	63*
Age of the youngest child at 1-year interview	15.0	14.6	15.5
Baseline interview:			
Number of children	1.3*	1.1	1.1
Mother worked while pregnant	71*	59*	63
Mother has a drug problem	26*	3	7*

ONE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
Mother's self-reported health is fair or poor	7*	7	18*
Mother has been hurt by father	49	5	40
Mother lives in public housing	11	7*	20*
Mother receives housing subsidy	13	7*	30*
Mother received cash welfare	36	31*	72*
Mother's family would loan \$200	90	94*	73*
Mother's family would house	92	97*	80*
Mother's family would babysit	92	96*	87*
Mother's income is below the 50% poverty level	24*	27	55*

Table 12: Characteristics of Housed, Homeless, and Doubled-up at Year Three

THREE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
No. of Observations	3791	228	97
Mother's age at child's birth	25.3*	23.1*	24.1*
Mother is White	22	20*	7*
Mother is black	48	40*	61*
Mother is Hispanic/Other Race	30	39*	32*
Mother is immigrant	16	13	6*
Mother did not complete school	33	35*	47*
Mother is a high school graduate	30	36*	33*
Mother completed some college or more	37	29*	19*
Mother was unmarried at child's birth	74*	89*	93*
Living with father of child at year 3	90*	26*	22*
Age of the youngest child (in months) at 3-year interview	35.8	35.5	36.5*
Baseline interview:			
Number of children	1.2	1.1	1.3
Mother worked while pregnant	70	66	57*
Mother has a drug problem	3	4	4
Mother's self-reported health is fair or poor	6	6	13*
Mother has been hurt by father	50	35	54

THREE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
Mother lives in public housing	11*	5*	17*
Mother receives housing subsidy	13*	7*	21*
Mother received cash welfare	36	36	56*
Mother's family would loan \$200	90	89	82*
Mother's family would house	92*	96*	87*
Mother's family would babysit	92	95	87*
Mother's income is below the 50% poverty level	18	21	26*
1-year interview			
Number of children	1.6	1.7	1.7
Mother currently working	55	50	33*
Mother has a drug problem	1	1	1
Mother's self-reported health is fair or poor	13	16	26*
Mother has been hurt by father	59	75	69
Mother's probability of a depression diagnosis	12	11	24*
Mother lives in public housing	18*	11*	19
Mother received housing subsidy	17	13	20
Mother received cash welfare	62	53	67
Mother's family would loan \$200	85	81	65*
Mother's family would house	86	90	71*
Mother's family would babysit	89	93*	74*
Mother's income is below the 50% poverty level	25	27	46*

Table 13: Characteristics of Housed, Homeless, and Doubled-up at Year Five

FIVE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
No. of Observations	3812	73	77
Mother's age at child's birth	25.2*	23.0*	24.2*
Mother is White	21*	14	6*
Mother is black	48*	48	70*
Mother is Hispanic/Other race	30*	38	23*
Mother is immigrant	16	10	12
Mother is a high school dropout	32*	34	51*

FIVE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
Mother is a high school graduate	31*	32	33*
Mother completed some college or more	37*	34	16*
Mother was unmarried at child's birth	22*	84	91*
Living with father of child at 5-year interview	92*	37*	30*
Age of the youngest child (in months) at 5-year interview	62.1	62.1	62.5
Baseline interview:			
Number of children	1.2	1.1	1.2
Mother worked while pregnant	70	78	49*
Mother has a drug problem	2	4	5
Mother's self-reported health is fair or poor	7	8	6
Mother has been hurt by father	49	60	66
Mother lives in public housing	11	4	12
Mother receives housing subsidy	13	7	22*
Mother received cash welfare	36*	48*	53*
Mother's family would loan \$200	91*	82*	81*
Mother's family would house	92	93	90
Mother's family would babysit	93	95	86*
Mother's income is below the 50% poverty line	18	14	26
1-year interview:			
Number of children	1.6*	.91	1.8*
Mother currently working	54	66	36*
Mother has a drug problem	1*	3*	0
Mother's self-reported health is fair or poor	1*	3*	20
Mother has been hurt by father	59	50	56
Mother's probability of a depression diagnosis	11*	16	23*
Mother lives in public housing	17	7*	25
Mother received housing subsidy	21	2*	24
Mother received cash welfare	61*	64	83*
Mother's family would loan \$200	85*	82	69*
Mother's family would house	87*	91	68*
Mother's family would babysit	90	90	81*
Mother's income is below the 50% poverty line	24	16	41*
3-year interview:			

FIVE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
Number of children	1.5	1.0	1.3
Mother currently working	58*	46*	42*
Mother has a drug problem	8	8	0
Mother's self-reported health is fair or poor	87	18	15
Mother's probability of a depression diagnosis	14	13	24*
Mother has been hurt by father	21	9	33
Mother lives in public housing	18	24	19
Mother received housing subsidy	17	11	32*
Mother's family would loan \$200	85*	82	58*
Mother's family would house	85*	91	64*
Mother's family would babysit	88*	87	74*
Mother's income is below the 50% poverty level	21*	19	50*

Table 14: Characteristics of Housed, Homeless, and Doubled-up at Year Nine

NINE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
No. of Observations	3141	72	59
Mother is White	72	28	7*
Mother is Black	49	35	80*
Mother is Hispanic/Other race	30	38	14*
Mother is immigrant	15*	7	8
Mother is high school drop out	31*	43*	45*
Mother is a high school graduate	31*	32*	40*
Mother completed some college or more	39*	25*	16*
Mother was unmarried at child's birth	74*	86*	86*
Living with father of child at 9-year interview	41*	29*	18*
Age of the youngest child (in months) at 9-year interview	112.7	113.6	84.3
Baseline interview:			

NINE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
Number of children	1.2	1.3	1.2
Mother worked while pregnant	72*	69	48*
Mother has a drug problem	2*	6	7*
Mother's self-reported health is fair or poor	7	6	8
Mother has been hurt by father			
Mother lives in public housing	10	8	10
Mother receives housing subsidy	12	10	17
Mother received cash welfare	35	31	56*
Mother's family would loan \$200	90	96	76*
Mother's family would house	92	99*	88
Mother's family would babysit	93	95	81*
Mother's income is below the 50% poverty level	17*	24	25
1-year interview:			
Number of children	.9	1.0	.7
Mother currently working	57*	55	37*
Mother has a drug problem	1	0	0
Mother's self-reported health is fair or poor	13	12	18
Mother's probability of a depression diagnosis	12*	19	19
Mother has been hurt by father	37	56	57
Mother lives in public housing	17	20	23
Mother received housing subsidy	16	15	17
Mother received cash welfare	60	38	81*
Mother's family would loan \$200	86*	74	64*
Mother's family would house	87*	90	70*
Mother's family would babysit	90	93	77*
Mother's income is below the 50% poverty level	23*	26	42*

NINE-YEAR INTERVIEW	Housed	Doubled-up	Homeless
3-year interview:			
Number of children	1.0	.9	.7
Mother currently working	59*	59	43*
Mother has a drug problem	6	0	0
Mother's self-reported health is fair or poor	87	89	13
Mother's probability of a depression diagnosis	14	15	25*
Mother has been hurt by father	20	17	21
Mother lives in public housing	18	26	17
Mother received cash welfare	20*	58*	54*
Mother's family would loan \$200	86*	91	63*
Mother's family would house	85*	91	62*
Mother's family would babysit	89	95	76*
Mother's income is below the 50% poverty level	21*	32*	50*
5-year interview:			
Number of children	1.9	1.5	3.3
Mother currently working	62*	52	36*
Mother has a drug problem	6	0	29*
Mother's self-reported health is fair or poor	13	12	24*
Mother's probability of a depression diagnosis	11	10	24*
Mother has been hurt by father	2	3	5
Mother lives in public housing	11*	12	33*
Mother received cash welfare	18*	15	59*
Mother's family would loan \$200	86	91	69*
Mother's family would house	86*	91	64*
Mother's family would babysit	89*	91	64*
Mother's income is below the 50% poverty level	19*	22	59*

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CURRICULUM VITAE

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