Associations between Financial Inclusion, Liquid Assets, Income Shocks, and Later Housing Instability in Households Headed by a Single Mother

By

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Stacia West

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Abstract

Single mothers negotiate the competing demands of family life and the formal market economy on an unequal playing field. As a result, they are disproportionately represented among households in extreme poverty and have little resources set aside to sustain their families' financial stability. Little research has explored how fragile household finances relate to material outcomes for single mothers. Specifically, the existing literature has failed to explore how financial instability is a manifestation of the feminization of poverty that may be related to housing instability. This dissertation lends insight into how financial exclusion, limited liquid assets, and income shocks are related to missing housing payments among different household types. Using a sample of households from the Survey of Income and Program Participation (N=9,620), results of logistic regression models suggest that single mothers, especially those who are financially excluded, do not have adequate liquid assets, and have experienced an income shock, are at increased risk of missing a housing payment. These findings are discussed in relationship to social work practice, policy, and future research.

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1.0 Introduction

Single mothers' lives are often characterized by precarious financial circumstances, including income insufficiency and volatility, limited opportunity to draw on social networks for financial support, lack of access to financial services, and limited liquid assets, thus contributing to their overall financial instability (Casey, 2011; Goldberg, 2014; Lusardi, Schneider, & Tufano, 2011; FINRA Foundation, 2013; (M.S. Sherraden, 2013). In fact, sixty-nine percent of single mothers in the National Financial Capability Study (NFCS) reported that they would have difficulty coming up with $2,000 in 30 days compared to 40% of the general population (FINRA Foundation, 2013). Thus, in the event of an unforeseen emergency expense or sudden drop in household income, the majority of families headed by a single mother often cannot draw on existing liquid assets and must make difficult choices to stretch already limited financial resources.

In addition to difficult financial circumstances, single mothers also experience housing instability, which includes high rent burdens, moving in with friends or family to reduce housing expenses, often referred to as "doubling up", or homelessness (US Department of Health and Human Services [HHS], 2014). With limited income, it is fairly common for single mothers to pay more than 30% of their monthly income to cover housing costs (Berger, Heintze, Naidich, & Meyers; 2008; National Low-income Housing Coalition [NLIHC], 2013). When unable to handle this rent burden, 36% of single mothers report moving in with friends or family because they were unable to afford independent housing (Fertig & Reingold, 2008). In some cases, the lack of affordable housing options has led an increasing number of families headed by single mothers to become homeless. In 2014, single mothers headed 78% of homeless families; thus, single mothers are facing high risk of losing safe, stable housing for their families (HUD, 2015).

Public safety net programs that could help single mothers maintain financial and housing stability are inadequate and scarce. Income supports including Temporary Assistance for Needy Families (TANF) and Earned Income Tax Credit (EITC) typically do not raise single mothers' incomes above the federal poverty line (HHS, 2014a; HHS, 2011). Therefore, single mothers must independently earn enough income to meet immediate household needs and set aside savings for future emergency expenses or changes in income. Moreover, income subsidy programs do not provide enough support to help single mother's cover their monthly rent payments (Finch & Schott, 2013; Ji, 2006). Housing subsidies, including Housing Choice Vouchers (formerly Section 8) and the federal public housing program have years-long waiting lists and have endured funding cuts that have left families in need of affordable housing without assistance (Bratt, 1997; Rice, 2011; Joint Center for Housing Studies [JCHS], 2014; DeBonis, 2013; Housing Authority of Kansas City [HAKC], 2016; New York City Housing Authority [NYCHA], 2016). As such, many single mothers are confronted with the real possibility of failing to make ends meet and ultimately losing housing.

The persistently high rate of housing instability experienced by single mothers requires that additional research be conducted. While the prevalence, causes and consequences of housing instability have been extensively studied, household financial conditions including asset liquidity, income shocks, and financial inclusion are rarely included this body of research. Additionally, no research to date has explored the relationship between these constructs and housing instability considering the implications for different household types.

1.1 Relevance to social work

The lack of research on the fairly commonplace realities of single motherhood is troubling, as poverty and housing instability may threaten the health and wellbeing of single

women and their children. Single mothers are at risk of falling into poverty and staying poor, as they are often unable to make a full recovery of income after losing a job or covering an unforeseen emergency expense (Acs, Loprest, & Nichols, 2009). Further, an experience of poverty negatively impacts the overall physical and mental health of mothers. Poverty may lead to and exacerbate mental illness, especially when those mothers lack social support (Crosier, Butterworth, & Rodgers, 2007; Belle, 1990; Hudson, 2005; Lund et al., 2010). Single mothers in poverty also report higher rates of physical health issues, including diabetes, high blood pressure, high body mass index, dermatological issues, and joint pain (Broussard, 2010). Housing instability has similar negative impacts on the health and wellbeing of single mothers.

For many women, homelessness and housing instability are traumatic life events characterized by victimization and alienation from sources of support. Unpredictable living environments place women in vulnerable positions at risk for victimization that can ultimately create or exacerbate mental illness (Goodman, Saxe, & Harvey, 1991). Women who are homeless experience high rates of physical and sexual victimization and those struggling with substance abuse and mental health issues report higher prevalence of victimization than their peers (Wenzel, Koegel, & Gelberg, 2000; Lee & Schreck, 2005). Moreover, mothers experiencing homelessness become isolated from family and other social networks that serve as support systems in times of distress (Henley, Danziger, & Offer; Harknett, 2006; Meadows-Oliver et al., 2007; Rafferty & Shinn, 1991). Thus, single mothers' experiences of homelessness and housing instability are marked by disaffiliation with friends and family and high risk of physical and sexual victimization, both of which are clearly detrimental to overall wellbeing.

The children of lower-income single mothers may also be negatively impacted by living in poverty. Research suggests that poverty tends to explain more variance in parenting practices

and thus, child outcomes, than does family structure (Hofferth, 2015). Children who experience poverty tend to have more social, education, and behavioral challenges when compared to children in families of adequate means (Brooks-Gunn & Duncan, 1997). Negative educational outcomes are most severe for children who live below the poverty line for several years and those children raised in households with more income volatility, less income, and fewer assets are less likely to graduate from high school than other children (Elliott, 2013; Brooks-Gunn & Duncan, 1997). A childhood spent in poverty may introduce barriers to upward social and economic mobility later in life (Duncan, Magnuson, Kalil, & Zio-Guest, 2012). Experiences of housing instability, specifically homelessness, may also have negative impacts on the wellbeing of children.

Housing instability may result in decreased school performance, poor mental and physical health, and family separation (Yu et al., 2008; Zima, Wells & Freeman, 1994; Cowal, Shinn, Weitzman, Stojanovic, & Labay, 2002; Molnar, Rath, & Klein, 1990; Leventhal & Newman, 2010). School mobility, a common outcome of frequent household moves, results in lower scores in both math and reading (Grigg, 2012; Herbers et al., 2012). Additionally, Rafferty and Shinn (1991) report that children who experience homelessness are more likely to have upper respiratory infections, skin problems, chronic physical diseases, and ear infections than those who are housed. And, Yu and colleagues (2008) suggest that homeless children have higher rates of behavioral disorders than those who are housed. Other research suggests that children who experienced homelessness or were doubled up did not exhibit significantly different mental or physical health outcomes when compared to a group of housed low-income children (Park, Fertig, & Allison, 2011). Taken together, the research indicates that children who experience housing instability may experience detriments to their wellbeing and futures.

Given these possible outcomes, researching the relationship between financial inclusion, asset liquidity, income shocks and housing instability among single mothers is relevant to social work in two ways. First, it responds to the profession's codified duty to investigate and find solutions to prevent poverty, as poverty is a clear and persistent threat to overall wellbeing (National Association of Social Workers, 2008). Social work focused on poverty prevention falls under the auspices of promoting economic justice, conceptualized by Lundy and van Wormer (2007) as the idea that "All persons ought to have opportunities for meaningful work and an income that provides them with adequate food, shelter, and a level of living the contributes to good health" (p. 728). Yet, social workers often find themselves working in organizations whose programs are directed by punitive federal policies that address poverty not from and economic justice perspective, but from an individual deficit perspective (Soss, Fording, & Schram, 2011). The same holds true for social work scholarship, as the majority our knowledgebase focuses on ways to address the consequences of living in poverty instead of ways to prevent it in the first place (Marshall et al., 2011).

Secondly, this research is relevant to social work through the emphasis on the prevention of poverty and housing instability for a population that social workers frequently serve. The focus on prevention is an important part of social work's commitment to serving vulnerable populations, but is not apparent in most contemporary social work practice or research (McCave & Rishel, 2010; McCave, Rishel, & Morris, 2013; Rapoport, 1961; Roskin, 1980; Gilbert, 1982). By investigating the connections between the financial lives of single mothers and their experiences of housing instability, this study may help identify specific points of intervention that could prevent families from falling deeper into poverty or losing housing.

2.0 Historical context

The reasons for single mothers' disproportionate rates of poverty can best be understood through situating women's experiences in a broader political and economic context. The following section provides an overview of how the American family structure changed in concert with women's increased participation in the formal labor force. It describes how income and wealth disparities, as well as discrimination in the market economy continue to define the economic lives of women, and how the retrenchment of federal support has failed to provide adequate resources to keep single mothers from falling further into poverty.

2.1 Household structure and women's employment

The prevalence of families headed by a single mother has increased three-fold since 1960, resulting in this family type now comprising 25% of all US households (Mathur, Fu, & Hansen, 2013; Vespa, Lewis, & Kreider, 2013). This change in family structure occurred in tandem with women's increased participation in the formal labor force. Toosi (2002) noted that around 34% of women participated in the paid labor force in 1950; a high of 60% of women were in the labor force in 2000 and 57% were in the formal labor force as of 2014 (U.S. Bureau of Labor Statistics [BLS], 2015). As women flooded the labor market in the 1960s, unequal access to education and gender discrimination left nay women unable to attain high status, higher paying jobs. The most common jobs for white women were "pink collar" including clerical work in an office or retail setting and the provision of beauty salon services (Costa, 2000). Bellou and Cardia (2013) analyzed Census Bureau data from 1940 to 1960 to determine how women's participation in certain occupational sectors shifted during and post-WWII. Their findings revealed that while many women were shuffled into "pink collar" occupations as men returned from WWII, some women retained their manufacturing jobs and experienced higher relative

earning power than men returning to those jobs. It is likely that the women who were pushed out of manufacturing jobs and into “pink collar” jobs in the post-War era did not have union representation or benefits as had been offered in their previous occupations. However, this commonly told history does not reflect the experiences of all working women.

Women of color were represented in the labor force far before the documented rise of white women’s employment in the 1960s (Costa, 2000). Black women were historically relegated to service-oriented jobs such as food preparation, sewing, laundry, or house cleaning (Glenn, 2000). Glenn (1985) pointed out that Census data from 1930 suggests nearly 30% of employed Black women were in agriculture, 35% were in service, excluding servants or laundresses, and 27% were domestic servants or laundresses. Census data from 1970 revealed that black women’s employment changed considerably in the post-war period. The proportions shifted away from agriculture toward service occupations (26%), clerical work (21%), and domestic work (18%). When compared to White women over the same time periods, Black women were consistently over-represented in service sector occupations.

Institutional and overt racism and sexism that defined many women’s early work and educational experiences are reflected in employment opportunities and earnings potential available to them now. In 2013, the industries where women were most commonly employed included education and health services and wholesale or retail trade. In the sector of education and health services, average weekly pay stood at $759 in 2009—about 77% of what men make in the same industries (BLS, 2015). And, though women made up around 47% of the labor force, they represent nearly 80% of workers in low-wage service sector occupations, such as beauticians, childcare workers, and home health aides. Women of color or those who were born outside of the US were more likely to be represented in these jobs than white women or those

born in the US (Albelda, 2009). While the nature of work in female-dominated sectors has changed to some extent, a large proportion of women in the workforce were occupying low-wage, low-benefit jobs just as they did 70 years ago (Povich et al., 2014). These experiences in the formal labor force have directly impacted women's ability to independently attain economic security, especially as single mothers are increasingly becoming heads of household.

2.2 Income and wealth disparities

For many family types, especially those headed by single mothers, income stagnation, annual earning power, and persistent rates of poverty have created obstacles to financial security. For single mothers, annual earning power has decreased steadily while rates of poverty have steadily increased over the past 15 years (DeNava-Walt, Proctor, & Smith, 2013; Fry, 2013). In 2000, 33% of single mothers earned income below the federal poverty level. In 2009, 38.5% of single mothers had income below the federal poverty level. By 2013, the rate reached 41.5% (Casey, 2011; Goldberg, 2014). The increased rates of poverty may in part be due to the Great Recession where both single mothers and those who worked in the service industry reported the highest rates of unemployment among women (Hartmann, English, & Hayes, 2010). Further, because jobs where working mothers were concentrated often failed to provide an adequate wage or flexible scheduling, lower-income single moms often found themselves unable to move up the economic ladder (Lambert & Henly, 2013). Additionally, single mothers of color tended to struggle with poverty at higher rates than white women (Pew Charitable Trust, 2013).

The financial balancing act that is all too common for single mothers leads to considerable wealth inequality when compared to other household types. In 2009, the median wealth for single white women was $41,500, compared to a median wealth figure of $100 for single Black women and $120 for single Latina women (Chang, 2010). When factoring in

motherhood, measures of wealth inequality were even more disparate. Chang and Mason (2010) found that overall single mothers' median wealth was around $100 compared to $25,300 held by single fathers. The median wealth of Black and Latino single mothers was zero compared to the median wealth of white single mothers stood at $6,000.

Taken together, these figures illustrate a complex and trying financial picture for single mothers. Their responsibilities as mothers and employees are often at odds, preventing opportunities to increase income to keep pace with inflation, and placing them at risk of losing their job if a child is sick or childcare arrangements fall through. Moreover, single mothers' rising and disproportionate rates of poverty indicate that they are already struggling to cover expenses for basic needs, thus making it unlikely that they are able to save for future unexpected emergencies. And, single mothers are increasingly expected to remedy their own economic situations, as public welfare programs designed to help alleviate experiences of poverty have been systematically dismantled.

2.3 Decreased public welfare benefits

As the share of households headed by a single mother increased, income supports that would help them avoid financial instability decreased. Prior to the Great Depression, charitable and religious organizations offered assistance to families and individuals who struggled with poverty at the local and regional levels. Emerging from the community-based work of Julia Lathrop and Grace Abbott of Hull House, Missouri and Illinois became the first states to implement mother's pensions in 1911—cash payments to widows to help offset the costs of childrearing without a spouse (Dickinson & Barth, 2014). The model of mother's pensions was then translated to the federal Aid to Dependent Children Act (ADC), enacted in 1935 under the Social Security Act, which also provided benefits to individuals retiring from work, and to

families upon the death of a family member (Dolgoff & Feldstein, 2007). During the time that single motherhood was conceptualized as misfortune, public benefits were somewhat generous, allowing women to maintain their families and provide for basic needs. However, as women gained greater economic independence and exercised more choice regarding marriage and divorce, income-based supports for single mothers declined (Bergman, 1986).

Reflecting the change in how broader American culture viewed single motherhood, the names and regulations of anti-poverty programs became more focused on requiring single mothers to work in the formal economy as a condition of receiving support. This is consistent with neoliberalism, as a primary maxim of this economic ideology is the maximization of individual economic freedom (Chomsky, 1999). ADC was changed to Aid to Families with Dependent Children (AFDC) in 1962 (Lawson & Lawson, 2008). And, under Johnson's War on Poverty in the 1960s, the Work Incentive Program (WIN) required some participants to work in order to receive welfare benefits. By 1971, WIN required all recipients without a young child or other special responsibilities that required them to stay at home to engage in the work requirements of the program (Blank & Blum, 1997). Single mothers who participated in WIN were often unable to find jobs that fit their aspirations, and were forced to take jobs that did not advance their financial security (Reid & Smith, 1972).

With the Reagan administration, work requirements for federal income supports became more commonplace. Devolution of federal welfare programs occurred with The Family Support Act of 1988, distributing funding to individual states, and allowing each state to determine what incentives, rewards, and sanctions should be in place to govern the receipt of AFDC funding for single mothers. AFDC implemented a new workfare model called the Job Opportunities and Basic Skills Training Program (JOBS), which required recipients to seek employment while

receiving benefits. Similar to WIN, the JOBS program was not successful in placing or training single mothers receiving welfare benefits to take jobs that would help them provide for their families or move up economically (Hagen & Davis, 1995). Despite the poor outcomes of these programs, neoliberal economic ideology permeated the political landscape and further influenced the introduction of welfare legislation focused increasingly on individual responsibility and work requirements (Abramovitz, 2012).

As the cost of cash public assistance peaked in 1994 (HHS, 2003), President Clinton called to “end welfare as we know it” (Clinton, 1994, p. 2162). The campaign signified the transition from utilizing welfare funding to provide services to those in need to appropriating funding for cost-reducing measures that put increased responsibility on welfare recipients for their own economic security. Replacing some parts of the 1935 Social Security Act and establishing TANF, The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) was passed by the United States Congress on August 22, 1996. The new welfare system provided short-term financial assistance, child care, and health benefits to children and families who meet eligibility criteria. Short-term was defined by the new policy as five years over the course of one’s adult lifetime, though some states received permission to limit lifetime benefits to a maximum of two years (Schott, 2012).

Though welfare reform reduced the number of welfare recipients, it did little to address the income insufficiency of single mothers that places them at risk of financial and housing instability. Of the families who left TANF, voluntarily or involuntarily, in 2011, 34% had an average earned income of only $838 per month. The average family size was 2.3 persons with 1.8 children. With the national poverty guideline at $14,710 for a family of two in 2011, this placed that portion of families who left TANF with earned income approximately $4,000 below

the federal poverty guideline (HHS, 2014b; HHS, 2011). In FY 2014, TANF provided monthly cash payments to an average of 3.6 million recipients (HHS, 2014b) with a requested budget of $17.3 billion (Administration for Children and Families [ACF, 2014). This represented a sharp decline both dollars and number of individuals served since welfare reform was introduced in 1996 (Center for Budget and Policy Priorities [CBPP, 2014a).

Even when single mothers received TANF, it was simply not enough to raise them above the poverty line, buffer income fluctuations, or put away money in savings to prepare for the future. Assets limits, which continue to be part of many income support programs, may prevent lower-income families from saving for emergencies. While six states have eliminated asset limits for TANF participants, most still have policies in place that prevented recipients from holding $2,000 in assets while receiving income subsidies (CFED, 2013). Such limits require that lower-income families spend all of their resources on day to day expenses and put away little to no savings for the future.

Many working single mothers also receive the Earned Income Tax Credit (EITC), which provides a lump sum of cash to lower-income working people at tax time. The EITC is refundable credit that was distributed to approximately 28 million moderate and low-income working families in 2013, making it one of the nation’s largest anti-poverty programs (CBPP, 2014b). The EITC emerged from political debates regarding the implementation of a negative income tax or a bonus paid to lower-income individuals who were willing to work (Hotz & Scholz, 2001). Ultimately, the EITC, framed as a tax refundable bonus paid to motivated workers, was chosen over the Family Assistance Program, which would have implemented a negative income tax.

The EITC supplemented the monthly incomes of working families by approximately $250 per month in 2012 (CBPP, 2014b). As Meyer (2010) pointed out, 50% of the total EITC allocation pool was disbursed to single mothers, who often had the lowest incomes. Yet, EITC as well as TANF only raised household incomes just above the poverty line for a small percentage of recipients, 10% compared to 1% respectively. Thus, current income support programs may make a small difference in the lives of single mothers who are struggling to make ends meet; however, the changes to public welfare programs over the past 70 years concomitant with the increased prevalence of households headed by single mothers has produced an economic underclass. These significant cuts to public welfare programs have not only impacted income subsidies, but also funding to address the affordable housing crisis.

2.4 Increased housing costs

The shortage of affordable housing, inadequate income, and cuts to public welfare programs have impacted single mothers' ability to avoid housing instability. In terms of affordable housing, supply has failed to keep pace with need. In 2014, for every 100 households earning 30% or below the area median income (AMI), there were only 31 available rental homes or apartments that met affordability guidelines (NLICH, 2015). Of the extremely low-income households in need of affordable housing that would take up only 30% of their monthly income, 59% were either single individual women or women with children (NLIHC, 2013). This was not a new phenomenon, as the affordable housing crisis of the 1980s caused women, especially those who were single parents to face considerable difficulty making ends meet after paying rent

(Mulroy & Lane, 1992). The percentage of renters who faced a worst case housing need[1] grew 43.5% from 2007 to 2011; though, in 2014, the rate declined by 9% to now include 8.7 million renters. Families with children made up 40.3% of households with worst case housing needs in 2014 (Steffen et al, 2015). Given that single mothers maintained a disproportionate share of households experiencing poverty, many families facing worst case needs were likely headed by single mothers.

Inadequate income exacerbated by cuts to income-based public welfare programs has made it difficult for single mothers to cover housing expenses in unsubsidized units. Bolton et al., 2015 reported that the national average hourly wage required to afford a two bedroom rental unit while only spending 30% of monthly income was $19.35. On an annual basis, a single mother with one dependent child would need to earn a gross income of approximately $40,000 in order to cover housing expenses not in excess of 30% of income. This is called the "housing wage" (NLIHC, 2014). In comparison to 2014 figures, when single mothers had median earnings of $31,161 per year, there was a gap over $8,000 between the average annual income of single mothers and the amount of annual income required to secure housing without facing a high rent burden (DeNavas-Walt & Proctor, 2015).

The amount of support offered through TANF to a family of three was not enough to raise them above the poverty level, to cover rent in a two-bedroom apartment at fair market rates in any state, or to keep a family stably housed (Floyd & Schott, 2013; Ji, 2006; Finch & Schott,

[1] Worst case housing need is defined as "very low-income renters with incomes below 50 percent of the Area Median Income (AMI) who do not receive government housing assistance and who either paid more than half of their income for rent or lived in severely inadequate conditions, or who faced both of these challenges" (Steffan et al., p.vii).

2013). As eligibility requirements continued to tighten and states rapidly spent down block-grant funds, fewer single mothers were receiving assistance from TANF that could keep them stably housed. Housing subsidies have historically been a crucial component of the social safety net for single mothers; however, restrictions in welfare spending haven also reduced the number of subsidized housing units and available vouchers.

2.5 Decreased federal housing subsidies

Implemented as part of the New Deal, public housing developments and housing subsidies were created to provide affordable rental housing to lower-income families. Under the Wagner-Steagall Act of 1937, local housing authorities were organized to provide a mechanism to create and manage federally subsidized housing. These developments grew rapidly through the 1960s, but received a fair amount of media-induced public backlash due to deplorable conditions, mismanagement, and perceived dependency of poor Blacks on public housing programs (Friedman, 1966; HUD, 2007). Ultimately, many public housing complexes were demolished.

The failure of large-scale public housing complexes spurred the introduction of federal policy that allowed private property owners to rent property to lower-income households at a federally subsidized rate. The Housing and Urban Development Act of 1962 introduced Housing Choice Vouchers (HCVs) (formerly known as Section 23 and Section 8) (HUD, 2007). Leonard, Dolbeare, and Lazere (1989) reported that federal appropriations for the Housing Choice Voucher program declined significantly in the 1970s and 80s. From 1977 to 1980, HUD provided assistance to approximately 300,000 families each year. In the 1980s, that figure dropped to only 80,000 families each year. This trend continued into the 1990s, with the failure to fund additional HCVs to keep up with growing demand (Bratt, 1997). Federal funding for

HCVs has remained the same in real dollars as a proportion of the overall HUD budget since 1998. This stagnation in funding has failed to keep pace with the growing numbers of families who are unable to afford housing (Rice, 2011). Without progressive changes to legislation on public housing units and HCVs, recent data suggest that low-income families will continue to struggle to cover housing costs.

Most growth in the rental market is being driven by multifamily housing units that are affordable for higher income households only, while lower-income families are still saddled with high rent burdens (JCHS, 2014). Most eligible families were still unable to rent a public housing unit (Steffen et al., 2015) and many cities report incomprehensibly long waiting lists, ranging from one year in Kansas City for a HCV to 39 years in Washington, D.C. for a public housing unit (DeBonis, 2013; HAKC, 2013; NYCHA, 2013). Thus, while housing stock was beginning to meet overall housing demand, families in need of affordable housing continued to be left out.

This economic and political history has directly contributed to the economic instability and housing instability experienced in households headed by a single mother. Neoliberal economic policies exploit women's histories and the societal arrangements that exacerbate economic disadvantage. Instead of addressing the structural causes of poverty that single mothers experience, neoliberal approaches to social welfare programming require that single mothers overcome these barriers independently. The history of exploitation and oppression of single mothers has been characterized as the feminization of poverty (Pearce, 1978).

3.0 Theoretical literature

A feminist theoretical orientation provides the most salient framework for this research, as it is attuned to the experiences of single mothers in a patriarchal sociopolitical, historical, and

economic context. This orientation is presented as the initial conceptual framework to ground research that explores single mothers' experiences of financial instability and housing instability. Extending from this perspective, the lifecycle hypothesis of savings, the hierarchy of savings, and assets theory are considered as possible theoretical frameworks that may help elucidate why single mothers may be struggling to build assets. This section concludes with a critique of the theoretical literature to explore the implications of adopting such theories to guide future research.

3.1 The feminization of poverty

The feminization of poverty was coined by Pearce (1978), as the author considered the rising rates of women in poverty and disproportionate earning power between male and female gender identities. Pearce considered how divorce from a male earner impacted the ability of women to be economically secure, even as transfers of income in the forms of child support payments and maintenance were becoming increasingly institutionalized. Women's work history, often sporadic due to childrearing responsibilities, caused income instability in older age and made securing unemployment benefits more difficult. Numerous empirical studies have documented that women in poverty, who are often employed in low-wage service sector occupations, do not have the same access to flex-time, quality child care, paid leave, or sick leave as higher wage earning women (Croan, Hatcher, Long, & Wertheimer, 2002; Lovell, 2004; Clemans-Cope, Perry, Kenney, Pelletier, & Pantell, 2008; Roy, Tubbs, & Burton, 2005). Thus, the dissolution of relationships and childrearing responsibilities without institutionalized subsidies or support tend to leave women with substantially less earning power. Additionally, overt sexism in lending practices has left women with reduced ability to build wealth through assets.

For example, discriminatory lending practices in place until the late 1970s prevented women from securing personal lines of credit or take out mortgages for a home, which can be considered key assets that may help low-to moderate income individuals emerge from poverty (Ladd, 1982; Sherraden, 1991). Due to the economic injustice experienced by women in the formal labor force and by financial institutions, Pearce (1978) called for action from policy makers to realize that poverty is a gendered social problem—one that cannot be attended to without first understanding the differing demands that the American economy and other social systems place on men and women. McLanahan and Kelly (2006) updated Pearce's original theory of the feminization of poverty to reflect women's recent experiences with work and family life. Specifically, women who divorce or never marry a male earner may find themselves at a financial disadvantage due to wage inequality and the ever-widening wealth gap. Of course, the feminization of poverty has impacted women of color differently than white women.

For many women of color, race, class, gender, and other identities intersect to create disparate experiences of poverty than those typically conceptualized in second wave white feminist thought (Collins, 1989). As Glenn (2000) indicated, women of colors' experiences of oppression have transcended into the current economic climate and limit their economic mobility. Cultural and political constructions of Black women, especially single mothers, have cast them as the "welfare queen", unable to attain self-sufficiency and forever reliant upon social safety nets to make ends meet (Gilliam, 1999). Today, Black single mothers experience disproportionate rates of wage and wealth inequality, likely due to persistent racism in American culture, continued emphasis on self-sufficiency in social welfare programs, and policies of employers that fail to support motherhood (Chang & Mason, 2010).

3.2 The lifecycle hypothesis of saving

Despite structural factors that limit single mothers' ability to earn enough to support their families, many still do manage to save meager amounts of their earnings in anticipation of unforeseen financial changes (Edin & Lein, 1997). The act of saving on limited income means making complex financial decisions in an environment of stress and uncertainty. Economic theorists have offered frameworks for analyzing why and how individuals and families make financial decisions, though few offer insight into how lower-income single mothers might be negotiating their financial condition.

Keynes (1936) posited that saving a portion of income occurs as the result of balancing competing desires to consume and to have cash on hand for the future. Extending this framework, Modigliani (1966) developed the life-cycle hypothesis of saving, suggesting that saving peaks in the highest earning years of the life and falls during younger and older age. These theoretical perspectives are predicated on Simon's (1955) behavioral model of rational choice, which posited that there are particular components of rational choice that are givens or constraints, namely the self and the environment. When given a particular choice, individuals must weigh possible options available and then make the rational choice within the given constraints. The rational choice, of course, is the one which provides the most optimal utility for the individual. In the case of managing finances, optimal utility may translate into setting aside savings for future use, as spending all cash on hand would ultimately leave any individual unprepared for an unexpected financial change.

Due mixed empirical evidence regarding the applicability of the lifecycle hypothesis, Shefrin and Thaler (1988) added three components to Modigliani's original lifecycle theory. The components were: self-control, mental accounting, and framing. Self-control refers to the ability of an individual to postpone consumption; mental accounting is the behavior of regarding assets

as income, future income, or wealth; and, framing refers to the way individuals give meaning to income and assets. Through this lens, the behavioral rational choice theory has more practical implications.

The behavioral lifecycle model suggested that individuals must negotiate the choice of putting income into savings for the future or spending it on a current need or temptation. This choice becomes further complicated by an individual's need to discern whether income is to be used for current consumption, future consumption, or savings for the future, i.e. framing. When applied to lower-income households, one must use sophisticated mental accounting in order to determine how to spend on what purchases and how to save for what purposes. In fact, some income may even be spent on prior consumption, i.e. debt. Mullainathan & Thaler (2000) indicated that this is difficult mental work, especially in the context of poverty, which demands continuous attention to rapidly changing resources. Thus, one wrong financial decision made in this highly stressful environment by a lower-income household can lead to dire financial consequences. On the other hand, an adequately resourced household has fewer financial stressors in their everyday lives, and also have the resources on hand to cover a financial misstep (Bertrand, Mullainathan, & Shafir, 2004).

3.3 Hierarchy of savings

An adaption of Maslow's hierarchy of needs, the hierarchy of savings theory has been used to explain savings behavior by different income groups (Xiao & Noring, 1994). The theory suggests that saving will be performed to meet physiological needs before ascending to the level of self-actualization. In practice, this means that a lower-income household headed by a single mother will first need to cover housing, food, and shelter, before ascending to longer savings horizons, such as retirement savings. Empirical applications of this theory have indicated that

younger individuals, more highly educated individuals, and those with higher incomes were more likely to advance through the savings hierarchy than other groups; risk averse households with shorter savings horizons, and households that were headed by a minority, woman, or unmarried person were unlikely to move beyond having no savings to saving only to cover basic needs (Devaney, Anong, & Whirl; 2007, Xiao & Noring, 1994).

The hierarchy of savings has also been applied to individual engagement with financial products. Lower-income families with relatively limited assets tended to concentrate all assets into checking or savings accounts. Those with more assets concentrated their resources in stocks, bonds, or trusts, which indicated a predilection toward future financial growth—a higher order of the hierarchy of savings (Xiao & Gray Anderson, 1997). Lower-income households headed by a single mother likely fall into the category of individuals who have no savings, or who may ascend the hierarchy only to save in her transaction account to meet basic needs, but may not advance much further.

3.4 Assets theory

Social work and sociology scholars have theorized that access to institutions and institutional structures may also influence saving behavior, particularly for moderate and low-income households. In his seminal work on assets theory, Sherraden (1991) stated, "…asset accumulations are primarily the result of institutionalized mechanisms involving explicit connections, rules, and subsidies" (p. 116). Here, institutionalized mechanisms are best understood not as a physical structure, but rather as Douglass North (1991) conceptualized them as "…the humanly devised constraints that structure political, economic, and social interaction" (p. 97). Thus, assets theory would suggest that saving is not only explained rational choice, but

also by how socially constructed institutions privilege and disadvantage the range of choices available.

Individuals are motivated to save when their environment supports savings incentives and has institutionalized mechanisms for building assets like financial education, attractive rates of return, saving-related subsidies, and facilitation (Beverly & Sherraden, 1999). For example, in higher income families, asset accumulation may occur through employer-matched retirement contributions or tax breaks on home purchase. Yet, in lower-income households, where an employer many not offer direct deposit for paychecks, there is no institutionalized opportunity for engagement with a financial product. There is then little incentive for the employee to open a bank account, especially as routine banking services make it unaffordable for lower-income individuals to access mainstream financial services. The result of these institutionalized norms within the financial environment that produce and maintain economic inequality. This economic inequality may be addressed through policies built on financial capability theory.

3.4.1 Financial capability. Access to mainstream financial institutions coupled with financial education or literacy is commonly referred to as financial capability. As M. S. Sherraden (2013) pointed out, financial capability refers to an individual's ability to make sound financial decisions in an institutional context that provides opportunities and constraints for making such decisions. Based on this perspective, the following are considered the "building blocks" of financial capability (M.S. Sherraden, 2013, p. 6). The first building block is financial knowledge, which includes financial socialization across the life course, financial education, and financial advice and guidance. The second building block is financial inclusion that specifically focuses on underserved households, providing them with accessible and appropriate financial products and services that are affordable, financially attractive, easy to use, secure, and reliable

(M.S. Sherraden, 2013). Some households, especially those with lower-incomes, may not use mainstream financial institutions for a number of reasons including being prohibited from opening account due to credit history, fees associated with account ownership, language and cultural barriers, or minimum balance requirements that are not realistic for households experiencing precarious financial circumstances (M.S. Sherraden, 2013).

The theoretical literature suggests that single mothers experience economic inequality and difficulty building assets due to a host of individual, behavioral, structural, and institutional factors. First, the feminization of poverty illustrates how cultural norms, federal policy, and the market economy intersect to prevent many single mothers' from earning an adequate income. Second, the behavioral lifecycle hypothesis of saving and hierarchy of saving theory indicate that lower-income single mothers likely face difficulty saving any portion of their limited resources due to frequent stress and income fluctuations. Finally, assets theory and financial capability theory provide insight into how a range of institutions provide both opportunities and obstacles for lower-income single mothers to gain financial security.

3.5 Critique, gaps, and limitations

Modigliani's (1966) and Shefrin and Thaler's (1988) iterations of the lifecycle hypothesis of savings both suggested that individuals will have disposable income to save in middle age. As Bartazini (2012) pointed out, the theory does not explain the lower savings rates in low-income families across the lifespan, the rising evidence that younger individuals in other developed countries are saving more than their grandparents at earlier ages, the high rates of savings that continue for wealthier households even in older age, or the effects of inter-generational transfers of wealth on savings behavior. Thus, it has limitations. Considering the lower rates of savings

among lower-income households, these theories are problematic when applied to the realities of life for many single mothers.

Single mothers without adequate income must make choices between current consumption and saving for future emergencies, which Bertrand, Mullainathan, and Shafir (2004) noted. Yet, according to the behavioral lifecycle hypothesis of saving, a lower-income single mother would be required to frame her paycheck as current consumption and then, negotiating the optimal utility of her resources, would have to frame some of her limited income as savings. Many characteristics common to lower-income single mothers, including lack of educational attainment and limited financial resources, will make it difficult for her to save anything. In the best case, she may be able to save only for the basic needs of her family (Xiao & Noring, 1994). If all available resources were required to meet the basic human needs of a low-income single mother and her children, there would be little opportunity to save for the future. Rational choice theories, and to some extent the related life-cycle hypotheses of savings and consumption, appear to be flawed when applied to low-income households where there are often no resources or institutional support that would encourage savings behavior either before or after spending what is necessary to maintain a family. Thus, explanations of savings behavior that rely on the lifecycle hypotheses are perhaps more applicable households of adequate means.

Conversely, Sherraden's assets theory responds to the call for social workers to attend to the needs of the most economically vulnerable. Its emphasis on both environmental changes and individual action is attuned to an ecological framework embedded in social work values. However, assets theory has not been met without criticism. Finlayson (2009) equated and traced the rise of assets theory and assets-based social welfare in the UK paralell to the proliferation of neoliberalism throughout the New Labour Party. Similarly, Langley (2007) suggested that social

welfare policy that promotes individual asset accumulation requires that poor as well as non-poor individuals become “investor subjects” who are responsible for their own economic security. This, then, would suggest that assets theory is yet another iteration of social theory undergirding federal social policy that emphasizes self-sufficiency without dismantling institutions that prevents it for some groups.

The theories presented have implications for future empirical research. First, the feminization of poverty helps provide a framework for understanding the preponderance of households headed by a single mother who are unable to establish economic security and thus, may be a risk for housing instability. Second, the behavioral lifecycle hypotheses of savings and the hierarchy of savings theory suggest that future research should account for how age, educational attainment, marital status, and racial or ethnic identity, as well as behavioral indicators of savings, ultimately impact the ability to save. Lastly, assets theory and financial capability theory indicate that institutional factors should be controlled for in research regarding asset development among lower-incomes where feasible; thus, research informed by assets theory should control for income dynamics, past financial experiences, educational attainment, and where possible, social capital, and connection to financial resources.

4.0 Policy and practice responses

Current policy and practice responses to financial and housing instability range from prevention to remediation and are informed both by federal policies and innovative approaches by community agencies. Most have targeted low-income families rather than low-income families headed by single mothers, but many frequently serve single mothers and their children.

The following section outlines key policy and practice responses including empirical evidence of their outcomes.

4.1 Financial instability

Income and wealth disparities lead to financial instability among lower-income households that may prevent such households from engaging with mainstream financial institutions or saving an adequate amount of liquid assets to cover an unforeseen expense or drop in income. Several policy and practice approaches aim to enhance the financial stability of lower-income families through the following approaches: financial education and inclusion, matched savings for emergencies, savings at tax time, and lifting asset limits for beneficiaries of public welfare programs.

4.1.1 Financial education. Financial education programs, commonly focused on improving general financial knowledge, have long been delivered to and mandated for low-income households as a means to help prevent future financial problems (Vitt et al., 2000; Fox, Bartholomae, & Lee, 2005). Such programs are gaining national attention as 17 states introduced bills in 2014 that would mandate financial education as part of high school curricula required for graduation. Four states introduced legislation that would require recipients of some public assistance benefits, such as TANF, Medicaid, or unemployment assistance, to attend financial education courses as a condition of receipt (National Conference of State Legislatures, 2014). Some of this recent upsurge in mandating financial education for lower-income householders is based on myths about lower-income householders' inability to responsibly manage finances (Vitt, et. al, 2000), instead of empirical research that suggests financial education is not effective at altering financial behavior. Most evidence to date suggests that financial education alone may not be the best way to alleviate financial instability.

A recent meta-analysis revealed that financial education explained only 0.1% of the variance in financial behaviors including: saving for an emergency, determining retirement savings needs, savings and investment behaviors on a four point scale, estimated credit score on a Likert scale, and risky financial actions such as bouncing checks or missing a credit card payment. In low-income samples, the interventions (manipulated literacy and measured literacy) accounted for 0.06% and 1.27% of behavior change, respectively. This wide variance was likely because most research that uses manipulated literacy does not control for many covariates commonly associated with financial literacy (Fernandes, Lynch, & Netemeyer, 2014). The authors concluded that educational interventions designed to improve financial behaviors of people in low-income households are somewhat futile due to frequent financial shocks, economic vulnerability, and problematic financial habits that serve as a barrier to saving for an emergency (Fernandes et al., 2014). These conclusions seem congruent with and sensitive to the fragile financial lives of lower-income single mothers, who, despite improving financial knowledge, may simply not have the material resources to access to mainstream financial products or make timely payments.

4.1.2 Financial inclusion. According to the Federal Deposit Insurance Corporation [FDIC] (2013), approximately 70% of all U.S. households had a savings account and 88% had a checking account. Yet, nearly 8% of all U.S. households were unbanked, meaning that they did not have a checking or savings account at a mainstream, insured financial institution. The most common reason cited for not being banked was not having enough money to open an account. In response to the exclusion of lower-income households from mainstream financial institutions, BankOn, a San Francisco based initiative has built a coalition of banks, credit unions, non-profit organizations, local government, and others to provide banking services to lower-income

consumers. As a result of those efforts, over 70,000 new accounts were opened at mainstream financial institutions between 2006 and 2011 (Phillips & Stuhldreher, 2011). The Bank On model has since spread across the country as a result of the Cities for Financial Empowerment Replication project, which couples banking services for lower-income consumers with financial counseling and other services (Cities for Financial Empowerment Fund [CFE], 2015).

4.1.3 Matched savings. Instead of focusing solely on improving financial literacy in lower-income households, some community-based organizations have advocated for policies and developed programs that balance the emphasis on individual action and structural change. Such programs also focus on changes to institutional barriers, such as being unbanked or lacking savings incentives, that limit lower-income-householders' opportunities to save. These savings programs are exclusively community-based instead of federally funded and tend to have varying program designs. Some programs, including Start2Save and the Matched Savings Scheme Payment allow individuals to save for future emergencies by making monthly deposits that are matched after reaching a specified goal. Another program, Get Paid to Save, periodically supplements savings with small deposits when participants reach certain benchmarks. These programs most often contain a financial education component and a relationship with a case manager or financial planner (North, 2012; Fry, Mihajilo, Russell, & Brooks, 2008). Other matched savings opportunities, including SaveUSA and SaveNYC capitalize the receipt of a tax return as a savable moment by providing an opportunity for lower-income tax filers to set aside a portion of their return to be matched after one year of maintaining a balance in an insured account. However, in the absence of a federally-funded matched savings program, some individuals are using Individual Development Accounts (IDAs) as de-facto unmatched emergency savings accounts.

Evaluations of these incentivized savings program suggested that lower-income individuals were able to reach savings goals and that financial education may play an important complimentary role in motivating savings behavior. A number of factors, including level of education and pre-program financial literacy, specifically credit and debit card knowledge, had a positive association with higher savings account balances in a majority female (92%) and single mother (63%) sample of Australia's Matched Savings Scheme Payment program (Fry et al., 2008). Qualitative findings from Start2Save and Get Paid to Save, suggested that lower-income participants found financial education to be helpful, and a key motivator to reaching their savings goals (North, 2012; Adams & West, 2015). Overall, financial education may be perceived as motivational to building savings for some individuals, yet more rigorous evidence suggests that financial education may only explain a small part of variance in financial behavior.

4.1.4 Tax-time Savings. Perhaps responding to this evidence of the limited effects of financial education on later financial behaviors, or perhaps due to the preference for a low-touch model, tax-time savings programs, including SaveUSA and SaveNYC, provide lower-income tax filers an opportunity to designate a specified portion of their income tax return to be deposited directly into a savings account. When an account is maintained over a specified amount of time, the account is matched by public and/or private funds (Beverly, Schneider, & Tufano, 2006; Tucker et al., 2014; Azurdia, Freedman, Hamilton, & Schultz, 2013; Manturuk, Dorrance, & Riley, 2012).

Evaluations of tax-time savings programs indicated a small portion of lower-income tax filers were motivated to save a portion of their return and that they were able to avoid risky financial behaviors as a result of that savings. In an early study of tax-time savings, which did not offer a matching incentive, very low-income, mostly female (53%) participants, set aside an

average of $606 in savings; the median amount saved was $203 (Beverly et al., 2006). When offered a matching incentive, such as in SaveUSA and SaveNYC, low-income, majority female participants were able to save between $288 and $477 over one year (Azurdia et al., 2013; Tucker, Key, & Grinstein-Weiss, 2014). And, while many participants tended to deplete their accounts shortly after they received the matching deposit, many intended to and did use their savings to avoid falling behind on bills (Beverly et al., 2006; Tucker et al., 2014; Azurdia et al., 2013). Moreover, the majority of those savers continued to save even after the program was complete (Beverly et al., 2006).

4.1.5 IDAs as de-facto emergency savings. In the absence of federally supported incentivized emergency savings programs, IDAs, which were designed as matched savings accounts to help low-to moderate income households build savings for future developmental purposes such as homeownership, higher education, or capitalization of small businesses, were often used as de-facto emergency savings accounts. Once reaching a specific savings goal, IDA participants' savings were typically matched at a rate of 2:1. Under the Assets for Independence Act (AFI) regulations, which provide funding for IDAs, withdrawals for some emergencies, including a housing payment or medical expense, were allowable (ACF, 2009).

An IDA participant may withdraw unmatched funds from the account and continue saving for the originally intended developmental goal if the account was replenished. Rates of unmatched withdrawal were high in IDA programs, ranging from 34 to 73% in separate program evaluations (ACF, 2009; Demarco, Mills, & Ciurea, 2008). If a substantial portion of this group's reasons for their IDA withdrawals were emergencies in the context of their lives, even though the emergencies did not meet the AFI criteria for emergency withdrawal, then many IDA participants may be using funds deposited into their IDAs as de-facto emergency savings. This

interpretation makes sense given that IDA participants lose the opportunity for matching dollars when they withdraw money for an unintended use.

From reviewing these practice responses, it appears that a small group of non-profit leaders understand the need for lower-income households to build liquid assets. The findings of their program evaluations indicate that financial education may be perceived by program participants as an important component of their motivation to save, but the effects of financial education may dissipate or be less effective than previously thought (Adams & West, 2015; North, 2012; Fernandes et al., 2014). Importantly, lower-income participants, many of whom were women, were able to save a modest amount when provided a matching incentive plus financial education, or a matched or unmatched opportunity to save at tax time. These participants tended to save in order to cover emergency expenses (Beverly, Schneider, & Tufano, 2006; Tucker et al, 2014; Azurdia et al., 2013; Manturuk et al., 2012; ACF, 2009; Demarco et al., 2008; Fry et al., 2008; North, 2012). However, some characteristics associated with success in these programs suggest that single mothers may need additional supports in order to attain financial security. Though no evaluations specifically focused on the savings outcomes of single mothers, two studies found that individuals who received the matching incentive in tax time savings program were older, had higher incomes, and were less likely to receive the EITC (Azurdia et al., 2013; Tucker et al., 2014) -- all of which are uncommon sociodemographic descriptors of single mothers.

These programmatic outcomes highlight several key implications. Participants in asset building and savings programs are able to save a modest amount and use their savings to cover emergency expenses, even when matching incentives are not provided. This suggested that these programs may provide one opportunity for lower-income single mothers to avoid financial

instability. The characteristics associated with success in these programs require that future research explore how single mothers fare in these savings program.

4.1.6 Lifting asset limits. Asset limits were included in the 1996 PRWORA legislation to ensure that lower-income individuals with certain levels liquid and illiquid assets would not be eligible to receive benefits from social welfare programs including TANF, SNAP, and Medicaid (CFED, 2013; Black, 2013); individuals with assets above the designated limit to had to "spend down" existing resources in order to be eligible for benefits. Recently, The Corporation for Economic Development (CFED) and the New America Foundation have led a national initiative to have asset limits lifted, arguing that these limits preclude lower-income families from building assets that could set them on a course of financial independence (CFED, 2015; New America Foundation, 2015). Asset limits for Medicaid recipients were eliminated with the introduction of the Affordable Care Act, yet most states still have asset limits in place for TANF recipients (CFED, 2015).

Evidence of changes in eligibility and liquid asset outcomes, as a result of eliminating or raising asset limits, were mixed. To date, no research has indicated that lifting asset limits increased caseload size, a proxy for improved eligibility (Hamilton, Alexander-Eitzman, & Royal, 2015). Pre-post analyses of asset limit legislation appeared to have no impact on the savings outcomes of TANF recipients in one study (Hurst & Ziliak, 2006); yet, another that used that same sample from Hurst & Ziliak's (2006) research found that earlier liberalization of asset limits were associated with increased asset holding and bank account ownership (Nam, 2008). A small qualitative study revealed that TANF recipients were confused about asset limits in their state, and thus, were reluctant to keep money in a bank account or build any personal savings (O'Brien, 2008). Eliminating or liberalizing asset limits for TANF recipients may be an

important way to advance opportunities to build assets; however, the effects of these policy changes may not be immediate, as some recipients may be confused or skeptical about holding assets while receiving assistance.

4.2 Homelessness and housing instability

With the pervasive affordable housing crisis, and the persistence of households headed by a single mother falling into homelessness over the past ten years (HUD, 2013a), a wealth of research has been conducted to determine the most effective ways to keep lower-income families in their homes. The following section outlines key empirical findings of housing instability prevention and intervention approaches, including federal housing subsidies, short-term rental assistance programs, emergency shelter, transitional housing, and permanent supportive housing.

4.2.1 Housing subsidies. To move families into public housing or provide HCVs, public housing authorities (PHAs) that administer the programs locally are instructed to created “local preferences” that effectively weight individual circumstances by importance and may move families up or down a waiting list (HUD, 2001). Most PHAs give preference to residents of the geographic area who were involuntarily displaced due to government action, or were survivors of domestic violence. Other characteristics that often apply to households headed by single mothers, such as presence of dependent children, severity of rent burden, insufficiency of income, or other markers of economic vulnerability, do not appear to be emphasized in local preferences (NLIHC, 2004). Without meeting local preferences of a PHA, single mothers, already at risk of higher housing cost burdens, may be unable to receive a housing subsidy that could help offset ongoing housing expenses.

There is limited empirical research on HCVs or public housing vouchers as a prevention approach for housing instability. This is likely because true prevention of housing instability would necessitate broader structural change to eradicate poverty (Parsell & Marston, 2012). As an exception to this dearth of research, Long's (2006) study of the effects of housing vouchers on welfare recipients' housing stability suggested that receiving a housing voucher was negatively associated with doubling-up, household overcrowding, and homelessness. The study was conducted in six large metro areas and included 8,573 majority female participants with an average household size of four persons. Participants were randomly assigned to treatment and control groups. In the control group, 25% of study respondents indicated that they had been homeless at some point in the past year; receipt of housing vouchers among treatment group members reduced this rate to approximately 17%. The number of families living doubled up prior to housing voucher receipt, nearly one third of the overall sample, was also reduced by receiving the voucher. Thus, there is very limited, but compelling evidence to suggest that housing vouchers may prevent households headed by a single mother from becoming homeless.

4.2.2 Short term rental assistance. The introduction of the Homeless Emergency Assistance and Rapid Transition to Housing Act (HEARTH) and Homeless Prevention and Rapid Rehousing Program (HPRP) in 2009 signaled a transformation in the way that policy makers and practitioners approach homelessness prevention and intervention (HUD, 2013). The continuum approach of redressing homelessness through emergency shelter and transitional housing prior to residence in a rental unit is still in place in many parts of the country, but the landscape has shifted (Culhane & Metraux, 2008). Between 2008 and 2010, there was a 1.3% decrease in the number of transitional housing beds available for families. In that same timeframe, there was a 24.5% increase in the number of permanent supportive housing beds for

families (Nunez, Adams, & Simonsen-Meehan, 2011). Moreover, homelessness prevention increasingly focused on short-term rental or utility assistance, perhaps because of the growing knowledge that an unforeseen emergency expense or job loss may be associated with homelessness (O'Flaherty, 2009). Thus, there is more of policy focus prevention of housing instability and swift transitions back into stable housing than ever before.

Provided to cities and local housing authorities through block grants, HPRP was implemented as one federal prevention approach to housing instability. The program allowed agencies to disburse payments for outstanding utility bills, back-rent, and moving costs, helping approximately 700,000 individuals to exit or avoid homelessness (HUD, 2011a). Of those, 55% were adults and 44% were children. Overall, 90% of those who received help were able to remain housed, and the majority of participants needed less than 60 days of assistance (HUD, 2011a).

These findings suggest that those seeking assistance through HPRP did not have long-term circumstances that threatened housing stability. Instead, there were likely shorter-term financial conditions that prevented them from paying utility bills or making rent payments on time, placing them at risk of losing housing. Perhaps due to the limited reach of funding for prevention policies and programs, some families will move from housing instability into homelessness. When this occurs, the traditional continuum of services: emergency shelter, transitional housing, and permanent supportive housing, serves as the main mechanism to move families back into stable housing.

4.2.3 Homelessness assistance. Most homelessness services are regulated under the HEARTH Act, which includes rigid guidelines for how each community may appropriate federal

funding to alleviate homelessness. Allowable expenditures within the Emergency Solutions Grant (ESG) include provisions for emergency shelter, food, and other essential services to individuals and families currently experiencing homelessness. In 2014, the federal allocation for ESG recipients was $215 million which was granted to approximately 360 local and state governments (HUD, 2014b). There is little published research on the outcomes of the federal homeless assistance program for families. As one exception, preliminary findings from the Family Options study have recently become available.

The family options study was a randomized clinical trial in twelve cities which assessed efficacy of four commonly practiced interventions for those entering emergency shelter or transitional housing programs. The four approaches were: community based rapid re-housing, which provides short term housing subsidies along with targeted services; supportive housing in public housing complexes, which includes a temporary stay in an agency-owned residential unit along with intensive supportive services; a housing subsidy, such as an HCV, without any supportive services; and usual care, which is the typical range of services available to families in emergency shelter. Just over 2,000 families were randomly assigned to one of the four interventions, and approximately 65% of the families were headed by a single mother. Analysis of the 18 month outcome data revealed that families navigating the usual care system spent on average 4 months homeless, only 28% had become housed in permanent setting, many had spent one night of the previous six months in a shelter. Comparatively, those who received housing vouchers, rapid rehousing, or transitional housing with supportive services, were significantly less likely to have stayed in a shelter in the prior 6 month and reported a host of positive outcomes related to health, self-sufficiency, and well-being (Gubits et al., 2015). Other research on the continuum of services available to families experiencing housing instability is mixed.

The transitional housing model was adapted from corrections and community mental health as social service organizations served some homeless individuals and families who need a more structured, directed transition from emergency shelter into independent housing. Some transitional housing programs are facility based, concentrating households into one residential facility, whereas others allow participants to live in independent off-site residences. Variability in services offered in transitional housing programs is similar to the living arrangements, in that some require ongoing meetings with case management staff and in-home visits while others have more flexible programs that maximize the autonomy of program participants (Burt, 2006).

Transitional housing can be a promising intervention for returning to independent living after an episode of homelessness. Most households headed by single mothers who enter transitional housing do so from an emergency shelter or after staying with friends or family. While some are homeless for the first time, others have been episodic experiences of homelessness spurred by both individual and structural issues (Burt, 2006; HUD, 2010). A majority of single mothers are able to secure housing after completing a transitional housing program—ranging from 70% in one study to 86% in another (HUD, 2010; Burt, 2006). However, the longer term outcomes are less promising, as just over 20% of single mothers lost their housing again within one year of placement. High rates of unsuccessful housing placements were attributed to stagnant and low-income, prior histories of homelessness, and not receiving a housing subsidy (Burt, 2006; HUD, 2010). Thus, characteristics of a successful housing tenure after transitional housing likely include adequate income supports and housing subsidies.

Permanent supportive housing, often used interchangeably with Housing First, was initially created to house chronically homeless individuals with complex mental health and substance abuse issues by providing subsidized housing with non-compulsory treatment options

(Tsemberis & Eisenberg, 2000). Recently, permanent supportive housing has been adapted to meet the needs of families who may benefit from supportive services to gain and retain stable housing. Some research has demonstrated that families are able to maintain housing and avoid shelter re-entry when rent subsidies are coupled with supportive services (Bassuk, Huntington, Amey, & Lampereur, 2006; Bassuk & Geller, 2006). Bassuk and colleagues (2006) also found that families who moved to permanent supportive housing often had complex needs including mental illness and substance abuse issues, as well as extensive experiences with homelessness. Thus, those programs with rigid structures tended to have both higher rates of early exit and higher rates of successful permanent housing placement than programs with more flexible policies and procedures.

In summary, alleviating housing instability among single mothers includes: prevention approaches such as housing vouchers and short-term assistance, intervention approaches like emergency shelter and transitional housing programs, and remedial approaches such as permanent supportive housing. The intensity of services escalates as families move along this continuum. The study of prevention efforts reveals that both housing vouchers and short-term assistance with rent or arrears are important components to keep single mothers in housing (Long, 2006; Fertig & Reingold, 2008; HUD, 2011a). The outcomes of early intervention and remedial efforts are more complex. On the one hand, single mothers who experience homelessness tend to move toward housing stability when provided structured services and a supportive living environment (HUD, 2010; Gubit et al., 2015). On the other, the considerable variance in women's experiences of poverty, as well as the differences in service intensity delivered by each transitional housing or permanent supportive program, make it difficult to discern overall effectiveness. As such, future research should explore how women's financial

lives, as well as the services provided in the context of housing instability, are associated with housing outcomes.

The Family Self Sufficiency (FSS) program is perhaps the only current practice response has addressed financial instability and housing instability simultaneously. The program was designed to moderate the disincentive for families to increase income when receiving an HCV. Within the FSS program, an escrow account that can accrue interest is set up for a qualifying public housing or HCV household. A five-year participation contract is executed and the household is provided with a case coordinator. Deposits are consistently made into the household's escrow account as rent increases with increased income, and the local housing authority places the funds in an interest-bearing account during the course of the program[2]. At the end of the contract, households are able to withdraw the escrowed funds—typically for developmental purposes such as buying a first home, paying for educational expenses, or establishing a small business (HUD, 2014a).

Silva, Wijewardena, Wood, and Kaul's (2011) evaluation of 181 FSS households revealed that 24% of program participants successfully completed the program by year four, though the program is designed to produce successful graduates by year five. Success, here, was simply defined as completing the program, withdrawing funds, and making a qualified purchase. Thirty-nine percent were still enrolled at the end of the four year study period, and, 37% had left the program before completing. The majority of those who completed the program within four

[2] To date, there appear to be no reports or fact sheets that disclose the interest rates of these accounts.

years had set a goal of buying a home or finishing a degree. Those who were successful in the program and realized intended goals had higher incomes, rates of employment, and educational attainment compared to those who dropped out. Those who were still on track to complete the FSS program in year five were more similar to graduates in terms of education and employment status than those who dropped out of the program. Those who were still enrolled in the program had higher incomes than those who dropped out, but lower-incomes than those who had already completed. Based on the findings of the report and consultation with case managers who administer the FSS program, the authors estimated that approximately one-half of those still enrolled in the program would successfully complete.

Taken together, practice efforts to prevent and mitigate the negative effects of financial instability and housing instability vary considerably. The ad hoc nature of financial instability practice responses, namely financial education delivered alone or along with incentivized emergency savings programs and/or access to financial products, reflects this area's relatively recent introduction into social work practice and research. The pervasiveness of housing instability and homelessness has resulted in more mature interventions that have been altered and refined to respond to different levels of need. To move closer to understanding how financial and housing instability may be related, a review of the existing empirical literature is presented in the following chapter.

5.0 Empirical literature

The following section presents empirical research regarding financial instability and housing instability among lower-income families, and where possible, those headed by a single mother. The focus is to discern what individual and structural predictors may be shared among

empirical models that predict or correlate financial exclusion, limited liquid assets, and income shocks with housing instability. This section concludes with critiques and gaps evident in the empirical literature, and points to key questions that should be addressed in future research.

5.1 Financial instability among low-income families

From a structural perspective, declining real wages and income volatility have led to increased income instability among households headed by single mothers (Fry, 2013). For example, 20% of households with children in the lowest income quintile of the Survey of Income and Program Participation (SIPP) across three waves (N=39,444) lost at least 50% of their income in a year (Acs et al., 2009). Of those, only about half were able to make a full recovery of income in the next year. Welfare reform has further exacerbated income volatility among lower-income households. Rates of income volatility among single mothers (N=94,681) increased 60% between passage of welfare reform in 1996 and follow-up measures in 2004 (Bollinger & Ziliak, 2007). Households headed by single mothers experience income shocks that require them to draw upon existing resources to cover household expenses; yet, some simply do not have the existing liquid assets, or even access to a savings account in order to cover those expenses.

While just over 8% of the total US population did not have a bank account, 19% of single mothers were unbanked. Households headed by a single mother also represented the largest proportion of the population using alternative financial services in lieu of services provided by a formal financial institution (FDIC, 2012). This financial exclusion, or lack of a savings account, has been correlated with missed housing payments (Taylor, Jenkins, & Sacker, 2009).

Households headed by a single mother were unlikely to have savings equal to two months of expenses, or the ability to draw upon other resources to cover an unexpected financial

emergency (FINRA Foundation, 2013; Lusardi, Schneider, & Tufano, 2011). Even when they were able to accumulate such liquid assets, single mothers were more likely than other groups to have to spend them down and thus re-enter asset poverty (Leonard & Di, 2014). Research has revealed that having liquid assets helps mitigate adverse economic events for lower-income families. Families in the lowest income groups were significantly more likely to experience an income shock (Mills & Amick, 2010) and, thus, were more likely than others to report food instability, trouble paying bills, and general deprivation after experiencing an income shock (McKernan et al., 2009). However, when lower-income families had savings equal to two months of expenses, they were less likely to report material hardship after an income shock (McKernan et al., 2009); and, those with savings over $1,999 reduced the likelihood of experiencing multiple hardship events by five percentage points (Mills & Amick, 2010).

In summary, the empirical literature regarding the financial instability of households headed by a single mother revealed several key findings. First, lower-income populations face high rates of income and expenditure shocks, which may be due to structural or macroeconomic factors. These families often do not have the personal savings or liquid assets to cover those shocks. Second, if lower-income families are able accrue savings and weather those emergencies, they are less likely to report future material hardship, including missing a housing payment; however, family characteristics, including households headed by single mothers, are associated with spending down emergency savings more quickly than other groups. Having adequate liquid assets would likely allow a single mother to draw upon that resource and continue to cover her housing expenses, thus preventing her family from facing housing instability.

5.2 Housing instability among single mothers

Single women with children are coping with high rent burdens, substandard housing, and unstable neighborhoods (NLIHC, 2013; Steffen et al., 2015). Even among families who participate in affordable housing programs, single mothers are at greatest risk for being late or missing a rent payment (Brisson & Covert, 2015). This housing instability appears to be predicated by the interplay of structural factors, such as the affordable housing crisis and income insufficiency, and individual experiences including domestic violence and mental illness.

While insufficient income was not the sole predictor of each type of housing instability experienced by single mothers, it is associated with several negative housing outcomes. Berger, Heintze, Naidich, and Meyers (2008) reported that households headed by single mothers tend to struggle with high rent burdens and the ability to cover monthly housing expenses, especially when they do not have a housing voucher. Moreover, the combination of economic strain and not receiving a housing voucher was associated with increased risk of doubling up (Fertig & Reingold, 2008). And, while individuals with very low-incomes were the most likely to receive a housing voucher, there simply were not enough vouchers to cover the growing need (Bratt, 1997; Rice, 2011; JCHS, 2014; Park, Fertig, & Metraux, 2014).

The experience of income insufficiency, lack of a housing subsidy, and several individual characteristics appear to push single mothers beyond missing a rent payment or having to rely on friends and family for help. For example, even when controlling for structural variables such as housing affordability and labor market conditions, recent research revealed that physical and mental health issues, experiences of domestic violence, lack of a high school education, loss of employment and frequent moves predicted episodes of homelessness for mothers (Fertig & Reingold, 2008; Phinney, Danziger, Pollack, & Seefeldt, 2007; Lehmann,

Kass, Drake, & Nichols, 2007). The relationships among interpersonal violence, physical and mental health issues, and resultant homelessness are the most common in existing literature.

Interpersonal violence was also consistently associated with single mothers becoming homeless and was cited as one of the primary reasons for family homelessness in 18% of cities represented in the Hunger and Homelessness Survey (U.S. Conference of Mayors, 2011; (Fertig & Reingold, 2008; Wood, Valdez, Hayashi, & Shen, 1990). Interviewing 110 women with children who had experienced interpersonal violence, Baker, Cook, and Norris (2003) found that 38% became homeless and 27% were threatened with eviction. Forty percent of the sample reported falling behind on rent payments. Controlling for severity of violence, systems of support, and experiences with the formal welfare system, logistic regression analysis revealed that women with lower-incomes, those who contacted fewer formal support systems, and those without positive interactions with the police were more likely to become homeless.

In addition to interpersonal violence, drug use and mental illness were associated with single mothers' homelessness. Substance abuse disorders were more prevalent among homeless women with children than those in housing (Bassuk, Buckner, Perfloff, & Bassuk, 1998; Wood et al., 1990). Mental health issues, specifically depression, were common among homeless single mothers, and reported rates of mental illness were growing among this population (Weinreb, Buckner, Williams, & Nicholson, 2006; Bassuk & Beardslee, 2014).

The preponderance of relevant research to date has demonstrated relationships among income insufficiency, lack of available housing subsidies, lower educational attainment, experiences of interpersonal violence, substance abuse, mental health issues, and households headed by a single mothers' experiences of housing instability. These individual and structural

factors are inextricably linked. For example, interpersonal violence may require a single mother to move her family in with relatives, lose the financial support of her partner, and lead to household income insufficiency. As such, future research that explores the causes of housing instability among single mothers should be attuned to each of these covariates.

The empirical literature revealed that single mothers must overcome significant financial barriers including income insufficiency, frequent income shocks, and limited access to mainstream financial services in order to accumulate adequate liquid assets that may help her weather an unforeseen financial emergency. If a household headed by a single mother is unable to acquire and maintain these liquid assets, this economic shock or drop in income could place her at risk for a missed housing payment, thus leading her family to become evicted or move in with family or friends to cut back on expenses. While some conclusions regarding the relationship between financial instability and housing instability can be drawn from this literature, there are several conceptual and methodological gaps that require further attention.

5.3 Critique, gaps and limitations

The empirical literature on household financial instability is becoming more mature as researchers appear to be increasingly curious about the causes and consequences of poverty. While reports have been published that document the prevalence of financial instability in lower-income populations, none of these publications specifically focus on financial instability among single mothers (Lusardi et al., 2011; FINRA Foundation, 2013; Brooks et al. 2014). This is troubling because single mothers have higher rates of poverty than any other family type, and nationally representative data are available that would allow for inclusion of family type in analyses.

Research on income shocks, income volatility, and rates of episodic poverty illustrate how lower-income families experience adverse financial events, but fail also to control for important variables including household composition and gender of the householder that are of particular interest to social work scholars (Acs et al., 2009; Bollinger & Ziliak, 2007; (Anderson, 2011). Mills and Amick's (2010) study and McKernan, Ratcliffe, and Vinopal's (2009) study on personal savings as a protective factor for adverse economic events have the same limitations. Thus, these studies fill an important gap in terms of "big picture" questions related to financial security. However, as social workers are tasked with advocating for the most vulnerable individuals and communities, future research should test more specifically the individual and community-level factors may be associated with financial instability and housing instability.

The empirical literature on housing instability is much more robust than that of financial inclusion, income shocks, and inadequate liquid assets. Routinely, studies are conducted by HUD and their partners to assess the prevalence of worst case housing needs and family homelessness. Typically, these studies use data sets such as the Women's Employment Survey, American Housing Survey or Fragile Families and Child Wellbeing Study (FFCWS) that allow for analyses of housing instability with specific attention to households headed by a single mother (Phinney et al., 2007; JCHS, 2014; Fertig & Reingold, 2008).

5.4 Methodological critique

The existing research provides a limited foundation for understanding single mothers' experiences with financial instability. Use of panel studies such as the SIPP allowed Acs and colleagues (2009) to offer insight into the prevalence and ability to recover from income shocks in lower-income families. Similarly, this data set provided the opportunity for Mills and Amick (2010) and McKernan et al., (2009) to determine how holding specific amounts of liquid assets

can help overcome these shocks. These studies have large sample sizes, have little missing data, are nationally weighted, longitudinal, and employ statistical techniques that move beyond simple descriptive statistics. However, the use of these findings is somewhat limited beyond estimating prevalence. None of the studies analyzed how sociodemographic covariates such as gender, educational attainment, or household size impact the severity or outcomes associated with income shocks, inadequate assets, or financial exclusion.

The maturity of research on housing instability for single mothers provides more opportunity for methodological criticism. Studies aimed at discovering the causes of housing instability suggest that low-income, poor health, lack of a housing voucher, substance abuse issues, and domestic violence may contribute to housing instability among single mothers. Quite often in this literature, the outcome variables are well-defined and include missing a rent payment, doubling-up, being evicted or becoming homeless (Phinney et al., 2007; Fertig & Reingold, 2008; Long, 2006; Brisson & Covert, 2015). Two of the studies used nationally representative samples of single mothers and were quasi-experimental. However, the study of the Women's Employment Survey (Phinney et al., 2007) did not use a representative sample or a comparison group. The use of national panel data sets have made it possible follow outcomes over a longer term, typically 5 to 8 years, and have large sample sizes that range from approximately 400 to 8,500 participants. Other studies that analyze the causes of housing instability among single mothers are somewhat dated, especially in terms of the recent financial crisis and changes to federal housing and homeless assistance regulations (Baker et al., 2003; Bassuk et al., 1998; Wood et al,, 1990; Lehmann et al., 2007).

To date, no research has been conducted to explore the relationships between financial inclusion, liquid assets, income shocks and housing instability in households headed by a single

mother. Theoretically, it would seem that single mothers' experiences of financial instability are closely related, and perhaps predictive of housing instability. Yet, based on the review of empirical and theoretical literature, a gap exists in the social work knowledgebase regarding these relationships.

6.0 Design and Methods

The purpose of this research was to determine how liquid assets, financial inclusion, and income shocks relate to missed housing payments for different household types. The first research question explored the extent of inadequate liquid assets, financial inclusion, income shocks, and housing instability among two samples: renters and homeowners. Here, financial inclusion was operationalized as having a checking or savings account. Income shocks were operationalized as having a 25% drop in income over the nine month observation period. Housing instability was operationalized as having missed a rent or mortgage payment in the last 12 months. Operationalizing adequate liquid assets was more complicated.

The existing literature characterized inadequate liquid assets in a number of different ways including a lack of savings equal to three month of expenses or the inability to come up with $2,000 in 30 days (Lusardi, Schneider & Tufano, 2011; CFED, 2015). Other literature has characterized inadequate liquid assets as a lack of emergency savings, typically reserved for unexpected expenses, or as a lack of precautionary savings, i.e. personal savings in anticipation of an unforeseen loss of income (Brobeck, 2008; Chase, Gjertson, & Collins, 2011). Popular professional advice, often aimed at moderate to higher income consumers, recommended personal savings equal to three to six months of expenses (Koning Beals, 2012; Ramsey, 2015).

Current research has indicated that one third to one half of American households, even those considered wealthy, spend all monthly income on expenses, leaving little to no liquidity (Kaplan, Violante, & Weidner, 2014; CFED, 2015). Thus, the following research questions operationalize adequate liquid assets as liquid assets equal to three months of income, a definition that lands between the work of academics, think tanks, and popular professional financial advice. The research questions and hypotheses follow below.

6.1 Research questions

1. What is the extent of inadequate liquid assets, financial inclusion, income shocks, and housing instability among the following household types: two-parent families, households headed by a single father, and households headed by a single mother?
2. Do financial inclusion, inadequate liquid assets and income shocks relate to missing a rent or mortgage payment among different household types?
    a. H1: Having a savings or checking account will be associated with reduced risk of missing a rent or mortgage payment.
    b. H2: Inadequate liquid assets will be associated with increased risk of missing a rent or mortgage payment.
    c. H3: Income shocks will be related to increased risk of missing a rent or mortgage payment.
    d. H4: Single mothers will be more at risk of missing a rent or mortgage payment, compared to two-parent families.
3. Do financial inclusion, inadequate liquid assets, and income shocks relate to missing a rent payment among different household types?

a. H1: Having a savings or checking account will be associated with reduced risk of missing a rent payment.
b. H2: Inadequate liquid assets will be associated with increased risk of missing a rent payment.
c. H3: Income shocks will be related to increased risk of missing a rent payment.
d. H4: Single mothers will be more at risk of missing a rent payment, compared to two-parent families.

6.2 Methods

The following section outlines a method for conducting research on the relationship between financial inclusion, adequate liquid assets, income shocks and housing instability for different household types including two-parent families, households headed by a single father, and households headed by a single mother. It is informed by the previously identified limitations and gaps of the current empirical and theoretical literature.

6.2.1 Data. This study used panel data from the 2008 Survey of Income and Program Participation (SIPP) to answer the proposed research questions. The data set, collected by the U.S. Census Bureau, contained information on multitude of social and economic measures including liquid and illiquid assets, measures of material hardship, and housing variables. Compared to other longitudinal data sets that capture similar variables including the FFCWW, or the Panel Survey of Income Dynamics [PSID], the SIPP was used because it was identified by the Department of Health and Human Services as an ideal data set to study family housing instability, and because it contained in-depth sections that asked detailed questions about assets, liabilities, and income (DHHS, 2007; U.S. Census Bureau, 2008). Using a stratified multistage probability sample, the 2008 SIPP collected data for a nationally representative sample of 52,031

eligible U.S. households. This sampling strategy used counties or county groups as the primary sampling unit and were stratified as non-self-representing, i.e. not largely populated, or self-representing primary sampling units, i.e. largely populated cities (U.S. Census Bureau, 2008).

All self-representing primary sampling units were included in the SIPP, while only a portion of non-self-representing primary sampling units was included. Drawing from a list of addresses used for the decennial census and the American Community Survey, addresses within each primary sampling unit were stratified into higher densities of lower-income households and lower densities of lower-income households. Thus, the 2008 SIPP contained an over-representation of lower-income households. The data included population weights for individuals and households that can be used to correct for over-sampling of lower-income groups and account for attrition across waves. Use of these weights would make the data representative of the population at the time of data collection (U.S. Census Bureau, 2008). One leading SIPP researcher has suggested conducting analyses with and without sample weights to determine if substantial differences exist in the outcomes. In longitudinal analyses, data should be weighted at the $t + 1$, or latest wave of data collection (Shaefer, 2013). Nielsen and Seay (2014) suggested that population weights should be used to account for sampling error that would result from multivariate analyses of complex unweighted samples.

SIPP data were collected by computer assisted interviewing over the telephone. The 2008 panel began in September of 2008 and concluded in December of 2013. Respondents were interviewed at four month intervals and were asked to recall the prior three months of information (U.S. Census Bureau, 2008).

6.2.2 Data preparation. Relevant core and topical modules were extracted from the data repository. Topical modules were additional special interest questions asked of a limited sample of SIPP respondents in the final month of a wave of data collection. The 2008 SIPP contained an Assets and Liabilities Topical Module that asked in-depth questions about income and assets, as well as an Adult Wellbeing Topical Module that measured housing instability, which were ideal for this study. Core modules contained questions asked at each wave. As shown in Table 1, demographic, income, and some housing and asset variables were extracted from the core files of the initial Wave 4 observation period, collected August through November of 2009. Variables related to specific amounts of asset and debts, such as amount of savings, were collected at Wave 4. Housing instability outcomes were extracted from the Wave 6 core file and, collected April through July of 2011. The population weights for Wave 6 were not extracted. Data were linked in a wide file format using a generated observation identifier.

Table 1

SIPP observation periods

Observation Period			
August 2009-July 2010			
	Demo/Household Variables	**Assets/Debt Variables**	**Housing Instability Variables**
	Wave 4 Core	Wave 4 Topic Module	Wave 6 Topic Module & Core
Rotation Group 1: Last Ref Month	Aug-09	Aug-09	Apr-10
Rotation Group 2: Last Ref Month	Sep-09	Sep-09	May-10
Rotation Group 3: Last Ref Month	Oct-09	Oct-09	Jun-10
Rotation Group 4: Last Ref Month	Nov-09	Nov-09	Jul-10

Instead of using all monthly observations of the 2008 panel, data were analyzed at specific “seams” of the waves. Seams refer to the end of an interview wave. For example, respondents in the first rotation group of Wave 4 were interviewed in August of 2009, which is referred to as the last the group’s last reference month. The respondent were asked to recall the

prior two months of information including dollar amount of monthly income, checking account balance, and savings account balance. “Seam bias”, which has been documented in the SIPP, suggests that some respondents may be more able to accurately recall the most recent month of information than when asked about the prior months (Moore, 2008; Kalton & Miller, 1990); thus, to improve accuracy, data for this study were only analyzed at the seams.

Beginning with the Wave 4 Core Module, the Wave 4 Topical Module was linked into a wide-file format based on a generated unique identifier. The Wave 6 Core Module and Wave 6 Topical Module were then linked in a wide file format onto the Wave 4 file. Only cases that completed both the Wave 4 Core, Wave 4 Topical, Wave 6 Core and Wave 6 Topical Modules were contained in the sample. No missing data were detected in the sample because all missing values in the SIPP are imputed using the hot deck imputation method before being released to the public (U.S. Census Bureau, 2008). The Wave 4 core file was filtered to include only respondents with at least one child under age 18 living in the household who indicated that they either rented or owned their home. Only those respondents who were surveyed at Wave 4 and Wave 6 and did not have a change in household type for the duration of the observation period were included in the final sample of 9,620.

6.2.3 Measures.

Interest earning checking account. This variable was coded as binary (0 = no; 1 = yes) to a combination of questions. These questions included: Do you have an interest earning checking account? Do you have an interest earning checking account owned jointly with your spouse/partner? While a variable measuring whether a respondent had any checking account, interest or non-interest earning, was available in the SIPP, lack of variance prevented its use.

Savings account. This variable was coded as binary (0 = no; 1 = yes) to the questions: Do you have a savings account? Do you have a savings account owned jointly with your spouse/partner?

Liquid assets. This variable was constructed by the U.S. Census Bureau and contained the currently monthly balance of interest-earning checking accounts, savings accounts, money market deposit accounts, and certificates of deposit. This variable was top coded at $150,000 before public release (U.S. Census Bureau, 2008)

Income shock. This variable was created by calculating whether income had dropped by 25% or more from Wave 4 to Wave 6. If the respondent's income had dropped by this amount during the 9 month observation period, this variable was coded 1 = sustained income shock. Respondents whose income stayed the same, dropped by less than 25%, or increased during the observation period were coded as 0 = no income shock.

Adequate liquid assets. Adequate liquid assets were defined from the literature as assets equal to three months of income. For each respondent, monthly earned income was multiplied by three to determine the amount of liquid assets necessary to equal three months of income. Then, this variable was compared to total liquid asset holdings reported by each respondent. The categorical variable was coded as (0 = adequate liquid assets; 1 = inadequate liquid assets).

Household type. Only those households with dependent children under 18 were included in the sample. Household relationships were traced back to the household reference person, i.e. the survey respondent. If the household included two adults where one adult was the reference person and the other indicated a partnership or marriage to respondent adult, this household was coded as 0 = two-parent family. Only one adult from two-parent households was the respondent.

Households that contained a single man with a dependent child or children were coded as 1 = household headed by a single father. Households that contained a single woman with a dependent child or children were coded as 2 = household headed by a single mother.

Type of residence. The SIPP asked each respondent if the living quarters were owned or being bought by someone in the household. If yes, this response was coded as 1 = homeowner. If the respondent indicated they rented, the response was coded 0 = renter.

Education level. Respondents were asked to indicate the highest level of education completed, ranging from less than 1st grade to a doctoral degree. These levels were condensed into the following attributes: 0 = less than high school; 1 = high school diploma or equivalent; 2 = some college; 3 = diploma, certificate or Associate's degree; 4 = college degree; and 5 = graduate or professional degree.

Race. Self-identified race was coded as 0 = White alone, 1 = Black alone, 2 = Asian, and 3 = Native Hawaiian/Pacific Islander/Other.

Ethnicity. Respondents were coded as either 0 = Non-Hispanic/Latino(a) or 1 = Hispanic/Latino(a), depending on self-identification.

Age. Age was a continuous variable collected at the time of the Wave 4 Core Module interview.

Employment. Respondents were asked the number of weeks that they were employed either part or full-time in the last month. Those employed part or full-time for one to four weeks of the month were coded as 1 = employed. Those without employment in the prior month were coded as 0 = unemployed.

Mental or physical disability. Respondents were asked whether they had a mental or physical disability that prevented them from working all or part of the time. This was coded as 0 = no and 1 = yes.

Monthly income. This continuous variable was the total amount of monthly income for all persons over 15 years old in the household. Due to considerable skewness and kurtosis, this variable was log transformed for analysis.

Number of dependent children. This variable was the number of dependent children under 18 years of age in the household.

Receipt of means-tested cash benefits. This variable was created from the question, "Did someone in the household receive means-tested cash benefits?", where 0 = no receipt of cash benefits, and 1 = receipt of cash benefits.

Missed housing payment. Respondents were asked if they had missed a rent or mortgage payment in the past year. This was coded as 0 = no; 1 = yes.

6.2.4 Data Analysis. For the initial research question, "What is the extent of adequate liquid assets, financial inclusion, income shocks, and housing instability among different household types in the sample?" descriptive statistics were generated. This included frequencies of variable distributions for categorical variables and descriptive statistics for continuous variables. Pairwise correlations for each variable were generated. All analyses were conducted in Stata Version 11.

To analyze the second research question, "Do adequate liquid assets, financial inclusion, and income shocks relate to missing a rent or mortgage payment among different household

types?”, logistic regression analysis was used. The third research question, “Do adequate liquid assets, financial inclusion, and income shocks relate to missing a rent payment among different household types?” was also analyzed using logistic regression. For this question, the sample was restricted to those who indicated they rented their home prior to analyses. While it would have been ideal to use population weights for each logistic regression model, they were not extracted. Implications of this are discussed in the limitations section. Of additional note, the covariate “monthly income” was dropped from models testing income shocks due to multicollinearity.

Logistic regression was chosen as the most appropriate statistical method given the research questions and data. Specifically, the dichotomous dependent variable and use of multiple independent variables required a multivariate approach. Both a linear probability model and logistic regression were suitable for these types of variables. However, logistic regression was chosen because the use of a binary dependent variable violates the assumption of a normally distributed error term in linear probability models. With the transformation of the dependent variable from a probability to the natural log of a probability, i.e. a logit, it was then possible assess the impact of a similarly transformed independent variable on the outcome (Knoke & Bohrnstedt, 1994).

Four estimations of fit apply to logistic regression analyses: log likelihood ratios, the Hosmer-Lemeshow goodness of fit test, classification tables, and the pseudo R^2 (Knoke & Bohrnstedt, 1994; Hosmer, Lemeshow, & Sturdivant, 2013). The log likelihood ratio evaluates the null hypothesis using nested logistic regression equations given specific parameter estimates and standardized residuals. With a statistically significant log likelihood ratio, it can be concluded that the proposed model including additional coefficients is a better fit than the comparison nested model that includes no controls. Log likelihood estimations that are closer to

1 indicate better model fit (UCLA Statistical Consulting Group, 2016; Knoke & Bohrnstedt, 1994).

Classification tables are used to determine the actual classification of cases into observed and expected group memberships based on the dependent variable. Thus, a perfect classification table in which 40% of the sample were in the positive attribute of the dependent variable group, and 60% of the sample were in the negative attribute of the dependent variable group would result in a sensitivity percentage of 40% and a specificity percentage of 100%. An ideal sensitivity percentage for these data would accurately reflect the distribution of individuals missing a rent payment with a specificity percentage of 100%. A cut point of 0.5, which is commonly used for classification tables was used for the following analyses (Hosmer et al., , 2013)

In addition to classification tables, the Hosmer-Lemeshow goodness of fit statistic provides guidance with regards to rejection or acceptance of the null hypothesis that a proposed model is a good fit. The test groups observations into deciles with the first decile representing the lowest probability and the tenth decile representing the highest. One complication of this test is the number of groups chosen; smaller sample sizes tend toward results that indicate proper model fit and larger, over-powered samples tend toward results that indicate poor model fit. However, for samples between 1,000 and 25,000, use of 10 groups was recommended. Thus, groupings of 10 were used for the Hosmer-Lemehow goodness of fit test in the following models. Models in which the probability is greater than X^2 at $p = .05$ indicate proper model fit (Hosmer et al., 2013). The pseudo R^2 is an approximation of the amount of variance in the dependent variable accounted for by the independent variables in logistic regression (Knoke & Bohrnstedt, 1994). Each of these tests were conducted for each logistic regression model.

Results of logistic regression are commonly interpreted as odds ratios. Odds are a frequency distribution, or the portion of the sample missing a rent payment compared to the portion of the sample who did not miss a rent payment. Conditional odds, a component of the odds ratio, refers to the probability of being in one category of a variable compared to all other categories of that variable based upon a second variable. Conditional odds, then, are the probability of missing a rent payment when the respondent is also a single female head of household. To compare the conditional odds of two events, an odds ratio can be produced by cross tabulation. The odds ratio then refers to the covariation of two variables whereby odds ratios above 1.00, a perfect covariation, indicate a positive association and those below 1.00 indicate a negative association (Hays, 1973; Knoke & Bohrnstedt, 1994). Though the literature on effect sizes for logistic regression is emergent, some have suggested that odds ratios equal to 1.68 or lower can be considered a small effect, 1.69 to 3.47 is considered a medium effect size, and odds ratios ranging from 3.48 to 6.71 are large effects (Chen, Cohen, & Chen, 2010).

6.2.5 Sample. This final sample resulted in 9,620 independent cases used to answer the first two research questions. A filtered subsample, including only those who rented their home was drawn resulting in 2,092 cases. This sample was used to answer the third research question. Table 2 presents the descriptive statistics of the full sample.

Table 2

Descriptive statistics and frequencies of measures (N=9,620)

Covariates	% of Total Sample (N=9,620)
Demographic control variables	
Race & ethnicity	
White alone	82
Black alone	11
Asian alone	4
Hawaiian/Pacific Islander/Other	3
Hispanic or Latino/a	9
Education level	
Less than HS	10
HS or equivalent	24
Some college	13
Diploma/certificate/Associate	22
College degree	19
Graduate or professional degree	12
Mental or physical disability	8
Age	50.73 (14.99)
Number of children	.9 (1.17)
Mean monthly income	$6,174 ($5,664)
Median monthly income	$4,802
Log monthly income	8.39 (.99)
Employment last month	
Employed	63
Unemployed	37
Type of residence	
Renter	22
Homeowner	78
Received household cash benefits	7
Dependent variable	
Missed rent payment	8
Variables of interest	
Household type	
Two-parent family	77
Male head of family household	5
Female head of family household	18
Income shock	20
Financial inclusion	
Interest earning checking account	43
Interest earning savings account	58
Mean liquid assets	$3,524 ($14,979)
Median liquid assets	$0
Inadequate liquid assets	94

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Module

Seventy-seven percent of the sample were two-parent families, 5% were households with children headed by a single father, and 18% were households with children headed by a single mother. Most heads of households identified as White (82%), followed by Black (11%), Asian (4%), and Pacific Islander, Native Hawaiian or Other (3%). Approximately 9% of the sample identified as Hispanic or Latino(a). Over one-third of the sample had completed a college degree or higher and 10% had completed less than a high school education. The average age of the sample was 50.73 (SD=14.99) years and the average number of children per household was 1 (SD= 1.17). Many families in the sample were homeowners (78%) instead of renters (22%), and few (7%) received any means-tested cash benefits. Eight percent of the sample reported having a mental or physical disability.

Though only 63% of the sample reported working for pay in the past 30 days, the average monthly income was $6,174 (SD=$5,664). Median monthly income was $4,802. Households in the sample had an average of $3,524 (SD=$14,979) in liquid assets. However, median liquid assets were $0 for the sample and 94% of households did not have adequate liquid assets. Nearly half of the sample (43%) had an interest-earning checking account, and over half had a savings account (58%). One-fifth of the sample had experienced a 25% or greater decline in income in the prior nine months. Finally, eight percent of the sample reported having missed a rent or mortgage payment in the prior twelve months.

7.0 Findings

Findings are presented in the order of the research questions. First, descriptive statistics of the full sample and subsample of renters, organized by household type, are presented for each

of the variables of interest. Next, findings from logistic regression analyses are presented for the full sample, followed by findings of the logistic regressions for the renters only subsample.

7.1 Descriptive statistics by household type

7.1.1 Full sample. The first research question asked, "What is the extent of inadequate liquid assets, financial inclusion, income shocks, and housing instability among the following household types: two-parent families, households headed by a single father, and households headed by a single mother"? As shown in Table 3, the sample included 7,471 two-parent family households, 454 households headed by a single father, and 1,695 households headed by a single mother. Unemployment across the sample was high, as 37% of heads of two-parent families, 29% of single fathers, and 40% of single mothers reported that they had not worked for pay in the last month. Average monthly income for two-parent families was $6,910 (SD = $5,935) compared to $4,817 (SD=$4,789) for single fathers and $3,296 (SD=$3,145) for single mothers. Both male heads of household (23%) and female heads of household (20%) experienced income shocks at higher rates than two-parent families (17%). Mean liquid assets for two-parent families was $3,927 (SD=$14.2K), $5,998 (SD=$20.5K) for single fathers, and $3,860 (SD=$16.3K) for single mothers. Median liquid assets for two-parent families and single mothers were zero, whereas single fathers' median liquid assets were $2.00. Inadequate liquid assets in the sample were common, as 95% of heads of two-parent families, 90% of single fathers, and 91% of single mothers did not have liquid assets equal to three months of reported monthly income. Nearly half of all two-parent families indicated having an interest earning checking account, compared to 25% of single fathers and 27% of single mothers. Savings accounts were less commonly owned than checking accounts for all household types. Many more single parent households were renters than two-parent families. Here, 48% of single mothers

were renters, 38% of single fathers were renters, and only 15% of two-parent families were renters. Additionally, single mothers more frequently reported missing a rent payment in the prior 12 months (14%) than single fathers (12%) or two-parent families (6%).

Table 3

Descriptive statistics and frequencies of measures by household type: full sample (N=9,620)

Covariates	% Two Parent Family Households (N=7,471)	% Male Heads of Family Household (N=454)	% Female Heads of Family Household (N=1,695)
Demographic control variables			
Race & ethnicity			
White alone	87	78	65
Black alone	7	15	29
Asian alone	4	4	2
Hawaiian or Pacific Islander or other	2	4	5
Hispanic or Latino/a	8	17	14
Education level			
Less than HS	8	20	17
HS or equivalent	23	27	27
Some college	13	13	15
Diploma/certificate/Associate	21	22	25
College degree	22	13	11
Graduate or professional degree	14	6	5
Mental or physical disability	7	10	12
Age	51.84 (14.66)	46.23 (15.53)	47.00 (15.50)
Number of Children	.8 (1.16)	.91 (1.02)	1.18 (1.91)
Mean monthly income	$6,910 ($5,935)	$4,817 ($4,789)	$3,296 ($3,145)
Log monthly income	8.54 (.94)	8.15 (1.00)	7.78 (.99)
Employment last month			
Employed	63	71	60
Unemployed	37	29	40
Type of residence			
Renter	15	38	48
Homeowner	84	61	52
Received household cash benefits	4	12	18
Dependent variable			
Did not pay full amount of rent/mortgage	6	12	14
Variables of interest			
Income shock	17	23	20
Mean liquid assets	$3,927 ($14.2K)	$5,998 ($20.5K)	$3,860 ($16.3K)
Median liquid assets	$0	$2	$0
Inadequate liquid assets	95	90	91
Financial inclusion			
Interest earning checking account	48	25	27
Savings account	63	46	40

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Module

7.1.2 Renter subsample. The subsample of renters included 1,106 two-parent families, 173 households headed by a single father, and 813 households headed by a single mother, as shown in Table 4. Many households reported unemployment in the prior month, including 39% of two-parent families, 25% of single fathers, and 44% of single mothers. Average monthly income for two-parent households was $4,527 (SD=$4,119) compared to $4,067 (SD= $4,275) for single fathers and $2,290 (SD=$2,035) for single mothers. Two-parent households had average liquid assets at $1,106 (SD=$9,142). Single fathers' average liquid assets were $2,300 (SD=$11,653) and single mothers reported an average of $660 (SD=$5,695). Across the entire subsample, the median amount of liquid assets was zero. Heads of two-parent families reported the highest rates of inadequate liquid assets at 96% compared to 95% of single fathers and 93% of single mothers. Few respondents had an interest earning checking account including 26% of two-parent families, 14% of single fathers, and 17% of single mothers. Households reporting having a savings account included 45% of two-parent families, 34% of single fathers, and 28% of single mothers. Nearly 20% of single mothers had missed a rent payment in the past 12 months, compared to 16% of single fathers and 11% of heads of two-parent families.

Table 4

Descriptive statistics and frequencies of measures by household type: renter sample (N=2,092)

Covariates	% Two Parent Family Households (N=1,106)	% Male Heads of Family Household (N=173)	% Female Heads of Family Household (N=813)
Demographic control variables			
Race & ethnicity			
White alone	75	72	55
Black alone	12	18	38
Asian alone	8	4	2
Hawaiian or Pacific Islander or Other	4	5	5
Hispanic or Latino/a	19	23	19
Education level			
Less than HS	17	23	23
HS or equivalent	29	33	28
Some college	12	13	15
Diploma/certificate/Associate	18	18	25
College degree	15	10	6
Graduate or professional degree	9	3	2
Mental or physical disability	10	9	15
Age	43.84 (15.02)	38.72 (13.26)	40.18 (12.51)
Number of Children	1.14 (1.29)	1.01 (.99)	1.54 (1.26)
Mean monthly income	$4,527 ($4,119)	$4,067 ($4,275)	$2,290 ($2,034)
Log monthly income	8.11 (.96)	7.97 (.95)	7.47 (.91)
Employment last month			
Employed	61	75	46
Unemployed	39	25	44
Received household cash benefits	9	20	26
Dependent Variable			
Did not pay full amount of rent	11	16	19
Variables of Interest			
Income shock (25% income decline)	22	29	23
Mean liquid assets	$1,106 ($9,142)	$2,300 ($11,653)	$660 ($5,695)
Median liquid assets	$0	$0	$0
Inadequate liquid assets	96	95	93
Financial inclusion			
Interest earning checking account	26	14	17
Savings account	45	34	28

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Modules

7.2 Logistic Regression Models

7.2.1 Missed housing payments in full sample. The second research question asked, "Do financial inclusion, inadequate liquid assets, and income shocks relate to missing a rent or mortgage payment among different household types?" Four logistic regression models tested the relationships of checking account ownership (Model 1), savings account ownership (Model 2), inadequate liquid assets (Model 3), and income shocks (Model 4) to a missed housing payment.

As shown in Tables 5.1 and 5.2, results support all hypotheses of the second research question. Having a savings or interest-earning checking account was associated with not missing a rent or mortgage payment, compared to those without an interest earning checking or savings account. Consistent with the hypotheses, inadequate liquid assets and income shocks were associated with increased risk of missing a housing payment. Additionally, single mothers faced consistent, elevated risk of missing a housing payment compared to two-parent families across the four models. Model 1 did not suggest significant explanation of the dependent variable by the covariates included (β = -1.87, *SE* = .370, *p* = .614, Nagelkerke Pseudo R^2 = .0946). However, in this model, having a checking account was associated with a 41% decreased odds of missing a housing payment (*OR* = .691, p < .001). In Model 2 also did not indicate significant explanatory power (β = -.131, *SE* = .370, *p* = .724, Nagelkerke Pseudo R^2 = .0934), though the odds of missing a housing payment were reduced by 24% in households with a savings account (*OR* = .759, .p < .01). Model 3 approached statistical significance (β = -.0822, *SE* = .463, *p* = .076, Nagelkerke Pseudo R^2 = .0932), and results indicated that inadequate liquid assets were associated with a 128% increased odds of missing a housing payment (*OR* = 2.281, p < .05). Model 4 was statistically significant (β = -1.568, *SE* = .306, *p* = .000, Nagelkerke Pseudo R^2 = .0946) and showed that having sustained an income shock was associated with a 63% increase in odds of missing a housing payment, compared to those who had stable incomes or incomes that dropped less than 25% within the observation period (*OR*=1.630, *p* < .001).

Additionally, results indicated that single mothers were 27% to 31% more likely to miss a housing payment compared to two-parent families (Model 1: *OR* = 1.288, *p* < .05; Model 2: *OR* = 1.274, *p* < .05; Model 3: *OR* = 1.305, *p* < .01; Model 4: *OR* = 1.284, *p* < .05). Single fathers were 42% to 50% more likely to miss a housing payment compared to two-parent families

(Model 1: *OR* = 1.420, $p < .05$; Model 2: *OR* = 1.429, $p < .05$; Model 4: *OR* = 1.497, $p < .05$; Model 3: *OR* = 1.426, $p < .05$). Homeowners, compared to renters were 24% to 26% less likely to miss a housing payment than homeowners (Model 1: *OR* = .762, $p < .01$; Model 2: *OR* = .758, $p < .01$; Model 4: *OR* = .743, $p < .01$; Model 3: *OR* = .760, $p < .01$). The following results summarize other covariates associated with increased and decreased odds of missing a housing payment within the sample.

Higher educational attainment, specifically a college degree or a graduate or professional degree, was associated with reduced risk of missing a housing payment across each of the four models. Older age was associated with reduced risk of missing a housing payment in all models. Families with more children and those with a reported mental or physical disability experienced greater risk of missing a housing payment in each of the models. Greater monthly income was associated with reduced risk of missing a housing payment in each of the models.

Table 5.1

Logistic regression results: Missed housing payment in full sample (N = 9,620)

Covariates	Checking Account (Model 1)			Savings Account (Model 2)		
	β	*Std. Err.*	*OR*	*β*	*Std. Err.*	*OR*
Race/Ethnicity (Ref: White non-Latino(a))						
Black	.146	(.119)	--	.152	(.119)	--
Asian	.021	(.250)	--	.012	(.250)	--
Hawaiian/Pacific Islander/Other	.298	(.201)	--	.320	(.202)	--
Latino/a	.104	(.124)	--	.095	(.124)	--
Household Type (Ref: Two parent family)						
Single father household	.351*	(.163)	1.420	.357*	(.163)	1.429
Single mother household	.253*	(.106)	1.288	.242*	(.106)	1.274
Homeowner (Ref: Renter)	-.271**	(.101)	.762	-.276**	(.101)	.758
Education (Ref: Less than HS)						
HS or equivalent	.209	(.141)	--	.211	(.141)	--
Some college	.053	(.163)	--	.048	(.164)	--
Diploma/certificate/Associate's	.258	(.146)	--	.258	(.147)	--
College degree	-.396*	(.180)	.673	-.409*	(.181)	.665
Graduate or professional degree	-1.137***	(.276)	.321	-1.183***	(.276)	.306
Age	-.020***	(.004)	.980	-.020***	(.004)	.980
Number of children	.178***	(.035)	1.194	.178***	(.034)	1.194
Log monthly income	-.182***	(.038)	.832	-.184***	(.038)	.833
Mental or physical disability	.725***	(.135)	2.064	.720***	(.135)	2.056
Employed last month (ref: unemployed)	.093	(.101)	--	.109	(.101)	--
Received government benefits (Ref: No)	-.007	(.140)	--	-.012	(.141)	--
Interest-earning checking account	-.369***	(.099)	.691	--	--	--
Savings account	--	--	--	-.275**	(.091)	.759
Inadequate liquid assets	--	--	--	--	--	--
Income shock	--	--	--	--	--	--
Constant	-.187	(.370)	*p* =.614	-.131	(.370)	*p* =.724
Psuedo (Nagelkerke) R^2	.0946			.0935		

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Modules
Notes: * p < .05; ** p < .01 ; *** p < .001

Table 5.2

Logistic regression results: Missed housing payment in full sample (N = 9,620)

Covariates	Liquid Assets (Model 3)			Income Shock (Model 4)		
	β	*Std. Err.*	*OR*	*β*	*Std. Err.*	*OR*
Race (Ref: White non-Latino(a))						
Black	0.160	(.140)	--	.141	(.135)	--
Asian	0.029	(.258)	--	.017	(.253)	--
Hawaiian/Pacific Islander/Other	0.294	(.271)	--	.325	(.270)	--
Latino/a	0.120	(.140)	--	.104	(.135)	--
Household Type (Ref: Two parent family)						
Single father household	0.403*	(.244)	1.497	.409*	(.241	1.426
Single mother household	0.266*	(.139)	1.305	.387***	(.151	1.284
Homeowner (Ref: Renter)	-0.297**	(.075)	0.743	-.324**	(.072)	.760
Education (Ref: Less than HS)						
HS or equivalent	0.203	(.173)	--	.137	(.159)	--
Some college	0.014	(.165)	--	-.071	(.149)	--
Diploma/certificate/Associate's	0.222	(.182	--	.174	(.170)	--
College degree	-0.452*	(.114)	0.636	-.547**	(.101)	.663
Graduate or professional degree	-1.213***	(.082)	0.297	-1.432***	(.065)	.307
Age	-0.020***	(.004)	0.980	-.022***	(.004)	.980
Number of children	0.177***	(.041)	1.194	.186***	(.041)	1.194
Log monthly income	-0.214***	(.031)	0.808	--	--	--
Mental or physical disability	0.733***	(.281)	2.080	.771***	(.284)	2.054
Employed last month (ref: unemployed)	0.087	(.111)	--	-.059	(.090)	--
Received government benefits (Ref: No)	-0.001	(.141)	--	-.031	(.136)	--
Interest earning checking account	--	--	--	--	--	--
Savings account	--	--	--	--	--	--
Inadequate liquid assets	0.825*	(.743)	2.281	--	--	--
Income shock				.489***	(.152)	1.630
Constant	-0.822	(.463)	*p* =.076	-1.568	(.306)	*p* =.000
Psuedo (Nagelkerke) R2			.0932			.0916

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Modules
Notes: * p < .05; ** p < .01; *** p < .001

7.2.2 Missed housing payments in renter subsample. The third research question, "Do financial inclusion, inadequate liquid assets, and income shocks relate to missing a rent payment among different household types?" was tested using the renter subsample. Four logistic regression models analyzed how having a checking account (Model 1), savings account (Model 2), being financially fragile (Model 3), and experiencing an income shock (Model 4) related to missing a rent payment. As shown in Table 6.1, Models 1 and 2, H_1 was not supported, as having a checking account or savings account were not associated with reduced risk of missing a rent payment. Models 1 and 2 also did not reach significance with regard to the fit of the independent variables explaining the variance of the dependent variable (Model 1: $\beta = -.993$, *SE* = .616, $p = .107$, Nagelkerke Pseudo $R^2 = .0459$; Model 2: $\beta = -.955$, *SE* = .609, $p = .117$, Nagelkerke Pseudo $R^2 = .0453$). H_2 was also not supported, as inadequate liquid assets were not related to missing a rent payment, though the explanatory power of the independent variables approached significance in this model ($\beta = -1.360$, *SE* = .819, $p = .097$, Nagelkerke Pseudo $R^2 = .0459$). Additionally, H_3 was supported; single mothers were consistently at risk of missing a housing payment compared to two-parent families. Specifically, single mothers who rented were 43% to 55% more likely to miss housing payment than two-parent families (Model 1: *OR* = 1.431, $p < .05$; Model 2: *OR* = 1.442, $p < .05$; Model 3: *OR* = 1.422, $p < .05$; Model 4: *OR* = 1.550, $p < .05$). H_4 was also supported as income shocks were significantly associated with missing a rent payment in a significant model ($\beta = -2.352$, *SE* = .366, $p = .000$, Nagelkerke Pseudo $R^2 = .0452$). Here, income shocks were associated with a 53% increase in odds of missing a rent payment (Model 4: *OR* = 1.525, $p < .01$). The following results summarize other covariates associated with increased and decreased odds of missing a housing payment within the sample. Fewer covariates emerged as significant predictors of missing a housing payment in

the models using the renter subsample than the full sample. However, higher educational attainment, specifically a graduate or professional degree, remained a consistent predictor of reduced risk for missing a rent payment across each of the four models. Higher monthly income was also associated with reduced risk of missing a rent payment in Models 1, 2, and 3. Having more children was significantly associated with missing a rent payment in each of the models.

Table 6.1

Logistic regression results: Missed housing payment in renter sample (N = 2,092)

Covariates	Checking Account (Model 1)			Savings Account (Model 2)		
	β	*Std. Err.*	*OR*	*β*	*Std. Err.*	*OR*
Race/Ethnicity (Ref: White non-Latino(a))						
Black	-.154	(.165)	--	-.141	(.144)	--
Asian	-.340	(.392)	--	-.345	(.278)	--
Hawaiian/Pacific Islander/Other	.169	(.286)	--	.170	(.339)	--
Latino/a	.039	(.172)	--	-.026	(.168)	--
Household Type (Ref: Two parent family)						
Single father household	.292	(.240)	--	.317	(.330)	--
Single mother household	.358*	(.152)	1.431	.366*	(.219)	1.442
Education (Ref: Less than HS)						
HS or equivalent	.228	(.186)	--	.215	(.231)	--
Some college	-.403	(.252)	--	-.452	(.161)	--
Diploma/certificate/Associate's	.178	(.202)	--	.132	(.232)	--
College degree	-.446	(.304)	--	-.550	(.178)	--
Graduate or professional degree	-.152*	(.134)	.271	-.163**	(.121)	.196
Age	.003	(.006)	--	.004	(.006)	--
Number of children	.134*	(.054)	1.44	.140**	(.062)	1.003
Log monthly income	-.170*	(.071)	.844	-.184**	(.059)	.832
Mental or physical disability	.368	(.200)	--	.376	(.292)	--
Employed last month (ref: unemployed)	.203	(.161)	--	.184	(.194)	--
Received government benefits (Ref: No)	.017	(.182)	--	.018	(.185)	--
Interest-earning checking account	-.236	(.186)	--	--	--	--
Savings account	--	--	--	.124	(.167)	--
Inadequate liquid assets	--	--	--	--	--	--
Income shock	--	--	--	--	--	--
Constant	-.993	(.616)	*p* = .107	-.955	(.609)	*p* = .117
Psuedo (Nagelkerke) R^2	.0459				.0453	

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Modules

Notes: * p < .05; ** p < .01; *** p < .001

Table 6.2

Logistic regression results: Missed housing payment in renter sample (N = 2,092)

Covariates	Liquid Assets (Model 3)			Income Shocks (Model 4)		
	β	*Std. Err.*	*OR*	*β*	*Std. Err.*	*OR*
Race/Ethnicity (Ref: White non-Latino(a))						
Black	-.149	(.167)	--	-.157	(.162)	--
Asian	-.330	(.293)	--	-.390	(.390)	--
Hawaiian/Pacific Islander/Other	.172	(.286)	--	.191	(.280)	--
Latino/a	-.039	(.172)	--	-.033	(.168)	--
Household Type (Ref: Two parent family)						
Single father household	.307	(.240)	--	.311	(.237)	--
Single mother household	.352*	(.152)	1.422	.433*	(.144)	1.550
Education (Ref: Less than HS)						
HS or equivalent	.223	(.186)	--	.221	(.183)	--
Some college	-.428	(.252)	--	-.382	(.248)	--
Diploma/certificate/Associate's	.162	(.201)	--	.201	(.198)	--
College degree	-.479	(.302)	--	-.426	(.289)	--
Graduate or professional degree	-1.57*	(.616)	.207	-1.72**	(.613)	.179
Age	.003	(.006)		.002	(.006)	--
Number of children	.136*	(.054)	1.145	.133*	(.053)	1.142
Log monthly income	-.189**	(.072)	1.450	--	--	
Mental or physical disability	.372	(.200)	--	.370	(.194)	--
Employed last month (ref: unemployed)	.198	(.161)	--	.030	(.145)	--
Received government benefits (Ref: No)	.018	(.118)	--	-.006	(.178)	--
Checking account	--	--	--	--	--	--
Savings account	--	--	--	--	--	--
Inadequate liquid assets	.490	(.644)	--	--	--	--
Income shock	--	--	--	.422**	(.142)	1.525
Constant	-1.360	(.819)	*p* = .097	-2.352	(.366)	*p = .000*
Psuedo (Nagelkerke) R^2	.0459			.0452		

Source: Survey of Income and Program Participation: 2008; Wave 4 Core and Topical Module, Wave 6 Core and Topical Modules
Notes: * p < .05; ** p < .01; *** p < .001

7.3 Goodness of fit statistics

In Tables 5.1 and 5.2, the log likelihood for Model 1 was statistically significant (-2 Log Likelihood = -2162.30, $\chi 2$ (19) = 455.32, p = .000). The Nagelkerke R^2 was .0946. In this model, 91.5% of cases were correctly classified, though the Hosmer-Lemeshow test statistic indicated poor model fit (χ^2 (8) = 24.49, *p* = .001). Model 2's log likelihood ratio testing was statistically significant (-2 Log Likelihood =-2166.32, $\chi 2$ (19) = 447.27, p = .000), and the Nagelkerke R^2 was .0935. The correct classification percentage of this model was also 91.9% and the Hosmer-Lemeshow test indicated poor fit ($\chi 2$ (8) = 36.58, p = .000) Model 3 was statistically significant (-2 Log Likelihood = -2167.14, $\chi 2$ (19) = 445.64, p = .000), and the Nagelkerke R^2 was .0932. The correct classification percentage of Model 3 was 91.9% and the Hosmer-Lemeshow test indicated poor model fit ($\chi 2$ (8) = 40.76, p = .000). The log likelihood ratio of Model 4 was also statistically significant (-2 Log Likelihood = -2232.37, $\chi 2$ (19) = 450.22, p = .000), and the Nagelkerke R^2 was .0916. Here, 91.7% of cases were correctly classified and the Hosmer-Lemeshow statistic was significant ($\chi 2$ (8) = 21.45, p = .006).

In Tables 6.1 and 6.2, the log likelihood ratio of Model 1 was statistically significant (-2 Log Likelihood =-777.426, $\chi 2$ (18) =74.75, p = .000), and the Nagelkerke R^2 was .0459. The correct classification percentage was 85% and the Hosmer-Lemeshow test approached significance, indicating appropriate model fit ($\chi 2$ (8) = 13.98, p = .082). The log likelihood ratio for Model 2 was statistically significant (-2 Log Likelihood =777.902, X^2 (18) = 73.79, p = .000), and the Nagelkerke R^2 was .0453. The correct classification percentage was 85% and the Hosmer-Lemeshow test was not significant, suggesting that the independent variables explained some variance of the dependent variable ($\chi 2$ (8) = 8.69, p = .369). The log likelihood test for Model 3 was statistically significant (-2 Log Likelihood =-777.93, X^2 (18) = 73.73, p = .000)

with a Nagelkerke R^2 of .0452. Again, 85% of cases were correctly classified and the Hosmer-Lemeshow test was not significant ($\chi2$ (8) = 11.64, p = .168). The log likelihood test for Model 4 was also statistically significant (-2 Log Likelihood =-810.910, $\chi2$ (18) = 73.97, p = .000) and the Nagelkerke R^2 was .0436. Here, 84.8% of cases were correctly classified and the Hosmer-Lemeshow test statistic was not significant ($\chi2$ (8) = 10.25, p = .246).

8.0 Discussion

The purpose of this research was to determine how inadequate liquid assets, financial inclusion, and income shocks may relate to missing rent or mortgage payment in different household types. Households that have set aside liquid assets equivalent to three months of income may be better prepared for unforeseen drop in income or unexpected emergency expenditure. These families may also be less likely to jeopardize their housing stability by missing a monthly housing payment whenever their financial conditions change. However, many households are unable to set aside an adequate amount liquid assets, perhaps due to income shortfalls that are exacerbated by severe housing cost burdens. Some households are at greater risk for missing a housing payment than others, particularly, single mothers who are disproportionately impacted by the confluence low-income, income shocks, limited liquid assets, and financial exclusion.

A portion of the relationship between housing and financial instability may be related to the micro and macroeconomic impacts of the Great Recession. The observation period for this study spanned from August 2009 to July 2010, or within the recovery period following the recession (Elsby et al., 2011). During the recession, homeowners tended to lose a greater overall percentage of net worth than renters (Grinstein-Weiss, Key, & Carrillo, 2015). Though, any loss

of overall net worth is important to consider, especially among renters, who were more likely to have fewer financial resources even before the financial crisis. In addition to the loss of overall net worth, many individuals were unemployed and by 2011, well into what has been considered the recovery period, some still had not regained employment (Elsby et al., 2011). Thus, it may be the case that the some portion of housing instability observed in the sample was due to these exogenous factors that impacted households' earning power, liquid assets on hand, and ability to handle housing payments.

In the following section, the relationships between housing and financial instability are discussed, with specific focus on single mothers. This is followed by a discussion of limitations present in the data, methods, and measurement within the study. This section concludes with implications for social work research, policy, and practice.

8.1 The feminization of poverty and housing instability

Single mothers and single fathers missed housing payments twice as frequently as those in two-parent households. Among the sample restricted to renters only, again, single mothers and fathers reported higher rates of missed rent payments than two-parent families. Specifically, 19% of single mothers reported a missed rent payment compared to only 11% of two-parent families. While single fathers missed housing payments at similar rates to single mothers, their prevalence in this sample and in the overall general population was small—around 8% of all U.S. households with children, whereas single mothers made up approximately 25% of all U.S. households with children (Livingston, 2013). From the lens of the feminization of poverty, the increased likelihood of single mothers' missed housing payments may be explained by oppression in social and economic life that places women, particularly those who are not married or partnered and who have children, at a nontrivial economic disadvantage (Pearce, 1978;

McLanahan & Kelly, 2006). This economic disadvantage may manifest in income insufficiency, income shocks, and financial exclusion.

8.1.1 Income insufficiency and housing instability. Consistent with other sources, single mothers in the sample differed in a number of important ways than two-parent families and families headed by a single father. Single mothers were raising nearly the same number of children in their households compared to single fathers and two-parent families, but were doing so with considerably fewer financial resources. Single mothers reported monthly incomes that were half that of two-parent families and two-thirds that of single fathers. This income inequality consistently resulted in single mother households' disproportionate representation among families in poverty, whereby 36% of households headed by single women fell below the federal poverty level, though they made up only 25% of American families (Vespa, Lewis, & Kreider, 2013; Livingston, 2013). Further, 18% of single mothers in the sample received means tested cash benefits such as TANF, compared to only 12% of single father households, and 4% of two-parent family households. This preponderance of single mother's receipt of increasingly scarce cash benefits suggests particularly extreme income insufficiency, which may impact their ability to make housing payments on time.

A single mother's insufficient income can result in facing a high rent burden, particularly in housing markets hard hit by the affordable housing crisis and those without sufficient housing subsidies to meet growing demand. Without a housing voucher to reduce housing costs, single mothers, more than other family types, tended to struggle with high rent burdens and the ability to cover monthly housing expenses (Berger, Heintze, Naidich, & Meyers, 2008; Steffen et al., 2015; Brisson & Covert, 2015). Thus, for some single mothers, missing a rent payment may be associated with continued economic strain wherein there simply was not enough income to cover

ongoing households expenses. For other families headed by a single mother, and income shock may further complicate an already unstable financial situation.

8.1.2. Income shocks and housing instability. Single mothers were more likely to lose 25% or more of their income over the 9 month observation period than other household types. Income insufficiency and volatility among single mothers has been observed previously (Fry, 2013; Bollinger & Ziliak, 2007), and was likely due to high concentrations of single mothers in low wage service sector occupations that provide little flexibility or benefits that may help a single mother successfully negotiate work and family life (Povich, Roberts, & Mather, 2014). Thus, the frequency of income shocks observed in the sample may be related to single mothers losing hours at work or losing employment altogether because of the competing and unrelenting demands of the workplace and family life. These structural barriers that prevent single mothers from earning enough consistent income to support her family and may be related to the ability for single mothers to achieve housing stability.

Consistent with other research, income shocks were related to increased likelihood of missing a housing payment. These shocks, which may be related to a job loss, reduction in work hours, relationship change, or fluctuations in self-employment income, were strongly associated with reported missed housing payments and impacted approximately 20% of the lowest-income earners with children. Only about half of these households were able to make a full recovery of income in the following year (McKernan et al., 2009; Acs et al., 2009). Thus, single mothers, already negotiating raising a family with inadequate income, appeared to be at substantial risk for missing a housing payment due to income shocks. However, these households may have been able to withstand a change in their financial circumstances and avoid missing a housing payment if they had adequate liquid assets on hand.

8.1.3. Inadequate liquid assets and housing instability. Single mothers in the sample frequently had no liquid assets on hand. This is parallel to previous research, which has suggested that single mothers, compared to single fathers, typically had much lower overall wealth (Chang, 2010). Single mothers have reported low liquid assets, limited emergency savings, and little confidence in their ability to come up with $2,000 in 30 days (FINRA Foundation, 2013; Lusardi, Schneider, and Tufano, 2011). In the rare cases where single mothers did have adequate liquid assets, they often spent them down to cover immediate or unexpected needs and the family returned to liquid asset poverty (Leonard & Di, 2014). Consequently, many single mothers simply do not have liquid assets that are associated with timely housing payments.

This was consistent with the literature, which has demonstrated that adequate liquid assets, equal to two months of expenses, were related to less reported material hardship (McKernan et al., 2009). Additionally, greater amounts of liquid assets were associated with reduced likelihood of later multiple hardships such as being unable to make a house and utility payment on time (Mills & Amick, 2010). Recent research has suggested that sufficient asset liquidity is approximately one month of income for lower-resourced families (Pew Charitable Trust, 2015b). In this study, assets were determined as adequate at equal to three months of income, which may have been too high a level of liquid assets for many households, particularly single mothers, to attain. It may be the case that setting the level of liquid asset adequacy based on one month of household income would have resulted in greater variance in the sample and thus, stronger findings related to this variable of interest. Nonetheless, the existing literature and findings of this research have indicated that some level of liquid asset holdings were related to the ability to make housing payments on time.

8.1.4. Financial exclusion and housing instability. Single mothers consistently negotiate fragile financial conditions which requires stringent budgeting and creative money management techniques in order to meet the needs of their families (Edin & Lein, 1997; Edin & Shaefer, 2015). The findings suggested that single mothers infrequently keep their scarce resources in mainstream financial institutions. This may be due to insufficient income, distrust of financial institutions, or preference for alternative financial products. Single mothers are the most frequently unbanked and underbanked compared to other household types and the most commonly reported reason being underbanked was insufficient income (FDIC, 2012). Instead of engaging with banks or credit unions, single mothers may have found that alternative financial services, including prepaid debit or credit cards, check cashing services, and payday lenders more adequately met their financial needs (FDIC, 2012). While using these services may be preferred due to initially lower cost and convenience, some services may later be so costly that they further limit a their ability to gain secure financial footing (Servon, 2013; Pew Charitable Trust, 2012, 2013). The findings of this research have suggested that having a bank account, particularly among homeowners was significantly related to making on-time housing payments. Other research has also indicated significant relationships among banked status and housing security (Taylor et al., 2009).

8.2 Type of residence and housing instability

Those who rented their homes were more likely to miss a housing payment than homeowners, due to a host of factors including financial exclusion, inadequate liquid assets, and income shocks. Missing a housing payment may be more consequential for renters compared to homeowners, as eviction from a rental unit occurs more quickly than foreclosure on a home (Uniform Residential Landlord and Tenant Act, 1974; Federal Housing Finance Agency, 2011).

In the sample of renters, results suggested demographic characteristics associated with increased economic vulnerability including single motherhood, lower educational attainment, younger age, having more children, and presence of a mental or physical disability, were also related to missing a housing payment. Interestingly, measures of income sufficiency including employment, monthly income, and receipt of cash benefits were not significant indicators of missing a housing payment in the renters sample; yet, having experienced an income shock was a significant indicator.

Though not tested through a moderating model in the study, the greater risk of missing a housing payment experienced by renters may be partially explained by their relative financial inexperience compared to homeowners. In order to purchase and maintain ownership of their homes, homeowners likely had to save for an initial down payment and navigate the financialized process of home buying. This would endow homeowners with greater exposure to a range of financial products. This means that homeowners, compared to renters, may have had more experience exercising financial foresight and accumulation of resources to build assets that could help them make on time housing payments.

Additionally, homeowners tended to have higher levels of educational attainment than did renters. Higher educational attainment has also been associated with greater financial literacy, which may equip those with a college degree or higher with the knowledge to make on-time payments (Lusardi, Mitchell, & Curto, 2010); for example, individuals who have completed their college degrees or graduate and professional degrees may be more likely to avoid student loan default and not carry credit card debt (Gross, Cekic, Hossler, & Hillman, 2009; Chien & Devaney, 2001). It may be the case, then, that individuals with a college degree or higher demonstrate these same behaviors with regards to making on-time housing payments.

8.3 Limitations

Though the findings of this research inform a substantial gap in the knowledgebase regarding financial instability and its relationships to housing instability, they should be interpreted in light of several limitations. These limitations include issues with data, measurement, and methods.

8.3.1 Data limitations. The SIPP has been used extensively to study the financial lives of vulnerable U.S. households, thus the reason for using stratification to over-sample lower-income households within the primary sampling units. Because many of the variables of interest and the dependent variable were correlated with income, both empirically and theoretically, it is likely that the frequencies of these variables were higher in the sample than the population (U.S. Census Bureau, 2008). Compared to the total population, the sample for this study had considerably more two-parent households at 77%, about 10 percentage points higher than the total population. Single fathers made up 5% of the sample, and comprised 10% of the total population of households with children under 18, and single mothers comprised 18% of the sample, while they represented 27% of the total population (Vespa et al., 2013). As mentioned previously, population weights could have accounted for this difference in the sample and the overall population; however, they were not correctly included in the initial data extraction. It should be noted, however, that many studies do not use weights or have found little to no difference in multivariate outcomes comparing weighted to unweighted SIPP data (Moore, 2001; Card, Hildreth, & Shore-Sheppard, 2004; Shaefer & Gutierrez, 2013; Friedline, Johnson, & Hughes, 2014). Nonetheless, future testing of the research questions of this study should account for weighted and unweighted samples to discern if differences exist.

In this research, selection bias, which occurred as respondents were filtered into the subsample for analyses, likely compromised the effects of complex random sampling used by the SIPP (U.S. Census Bureau, 2008). Selection bias in the form of attrition bias impacted the interpretation of the findings. The dependent variable used in this research was only collected during Wave 6 of observation period. Similarly, asset variables were only collected during Wave 4 of the observation period. The sample was limited to only those individuals who responded to both Waves 4 and 6 of the 2008 SIPP. Thus, attrition bias occurred when any person who responded to Wave 4, but not Wave 6 was dropped from the sample. This selection bias implies that the results of these analyses may have been different for those respondents who did not complete Wave 4 and Wave 6 of the SIPP, or who completed only one wave and were dropped from the sample.

In addition, the SIPP did not collect data on interpersonal or domestic violence in any of the Core or Topical Modules of the 2008 panel. In other research, interpersonal or domestic violence was a consistent predictor of housing instability, particularly among households headed by a single mother (Fertig & Reingold, 2008; Wood et al., 1990; Baker et al., 2003). Other omitted covariates, which may have been associated with housing instability, included rent burden in dollars and receipt of a housing subsidy (Steffen, et al., 2015; Fertig & Reingold, 2008). The inability to control for these variables led to almost certain omitted variable bias, which will be discussed later in this section.

8.3.2 Measurement limitations. There were several concerns with the construction of variables that limit interpretation of the results. First, financial inclusion was measured as having an interest-earning checking account or savings account. In the literature, financial inclusion can measured in different ways. Financial inclusion may refer to use of basic financial products, like

a checking or savings account (Friedline, 2012), or use of additional financial products in addition to transaction or savings accounts (Demirguc-Kunt & Klapper, 2012). Because use of an interest-earning checking account was used as the checking account variable, instead of just a checking account that may or may not earn interest, the number of respondents that could have been considered financially included was likely lower than what was captured in this variable. For example, a respondent with an interest-earning checking account, not knowing that they had an interest earning checking account, may have responded “no” to this question, effectively giving a false negative response. Not knowing whether one’s checking account earns interest or does not would be unsurprising given the relatively limited financial knowledge of many Americans (FINRA Foundation, 2013). Conversely, this variable may have been capturing other indicators of financial behavior, as those who reported having an interest earning checking account were perhaps more attuned to the details of their financial products and also more aware of their overall financial situation.

Second, the construction of the liquid assets variable was based on the existing research of academics, policy analysts and advocates, and professional financial advice (CFED, 2015; Lusardi, Schneider & Tufano, 2011; Brobeck, 2008; Chase, Gjertson, & Collins, 2011; Koning Beals, 2012; Ramsey, 2015). Households were considered to have adequate liquid assets if they had liquid assets equal to three months of income. There was little variance in this variable, as nearly all respondents indicated that they did not have this amount of liquid assets. More recent literature indicated that the typical cost of a financial shock was around $2,000 (Pew Charitable Trust, 2015a). For lower-income families making below $25,000 each year, the average financial shock was equal to approximately one month of income. Setting the bar of adequate liquid assets equal to three months of income, based on the existing literature at the time, likely overstated the

number of lower-income individuals with inadequate liquid assets. In fact, it appears that adequate asset liquidity, at least to cover a financial shock, is largely dependent on income (Pew Charitable Trust, 2015b).

Third, the amount of liquid assets was taken from a variable which asked the current monthly balance of interest earning checking accounts, savings accounts, money market deposit accounts, and certificates of deposit. Yet, 32% of the sample did not have an interest-earning checking account or savings account. It is possible that these respondents did have a checking account that did not earn interest; it is also possible that some of these respondents used cash instead of mainstream banking products. The amount of liquid assets kept in cash would not have been included in the calculation of the adequate liquid assets variable, which may have led to an understatement of amount of liquid assets. This is particularly concerning given the over-representation of lower-income families in the sample, as lower-income household were more likely to be unbanked and presumably using cash for financial transactions (FDIC, 2012).

8.3.3 Methodological limitations. Though the variables included in the preceding analyses were chosen with attention to previous empirical and theoretical findings on housing instability, some methodological issues limited the interpretations of these findings. Endogeneity bias, which occurred as both measurement error and omitted variable bias, were present in this study (Duncan, Magnuson, & Ludwig, 2004; Stone & Rose, 2011). In the previously discussed construction of the interest earning checking account variable, there was measurement error. Here, the way the question was question was phrased likely contributed to a flawed measure of this component of financial inclusion. The “noise” introduced into the logistic regression equation by this covariate likely caused attenuation bias, or a diminished or augmented coefficient for the interest earning checking account variable (Hausman, 2001).

Endogeneity bias occurred due to omitted variables. As discussed in the data limitations section, several variables were unavailable in the waves of the 2008 SIPP used for this research. It could have been the case that one omitted variable was also correlated with the dependent and multiple independent variables (Stone & Rose, 2011). Here again, this may have caused an understatement or overstatement of the magnitude of the coefficients (Hausman, 2001).

Both the inability draw causal inferences and the inability to specify the direction of relationships between the covariates and outcome were implications of the aforementioned limitations. Causal inference may be determined from observational studies using approaches that adjust samples effected by selection bias and address endogeneity bias (Winship & Morgan, 1999). Statistical techniques including propensity score matching and instrumental variable approaches, which may have addressed some of this endogeneity and selection bias, are in the forthcoming discussion.

The direction of relationships between the variables could not have been determined due to the design of the 2008 SIPP. All variables related to financial inclusion, income shocks, and inadequate liquid assets were measured at Wave 4. Nine months later, when responding to Wave 6, participants were asked if they had missed a rent or mortgage payment in the prior *twelve* months. As such, a missed rent payment could have occurred in the three months before collection of the financial instability variables. This complication of data collection impedes the ability to establish whether the independent variables of interest preceded or followed a missed housing payment.

Another methodological limitation was due to the goodness of fit of several of the logistic regression models. Four indicators of goodness of fit were used for each model: log likelihood

ratio testing, classification tables, the Hosmer-Lemeshow goodness of fit test, and the Nagelkerke Pseudo R^2. Across the models presented in Tables 5.1 and 5.2, the full sample, all likelihood ratio tests were statistically significant, which indicated that the proposed model including additional coefficients was a better fit than the comparison nested model that included no controls (Hays, 1973; Knoke & Bohrnstedt, 1994). Classification rates were approximately 92% for each of the four models, which indicated high specificity of classification. However, the Hosmer-Lemeshow test was significant in each of the four models and the constant was not significant in Models 1 through 3. The Nagelkerke Pseudo R^2 for each of the models was low, indicating approximately 9% of explained variance.

In Tables 6.1 and 6.2, the renter sample, all models had significant log likelihood ratio tests and the classification rate was approximately 85%. Here, the Hosmer-Lemeshow goodness of fit tests approached significance or were not at all significant, which indicated good model fit. The Nagelkerke Pseudo R^2 was lower for models in with the renters only sample, at approximately 4.5% of explained variance. These inconsistent goodness of fit indicators should cause some concern about the appropriateness of the model specification. However, Hosmer, Lemeshow, & Sturdivant (2013) advise that not one indicator of fit should considered above others. Taken together, it can be concluded that the models presented in Tables 6.1 and 6.2 were likely better specified than those in Table 5.1 and 5.2.

8.4 Implications

These results, considered in light of the previously detailed limitations, have important implications for future research on the relationships between financial inclusion, inadequate liquid assets, income shocks, and housing instability. Implications regarding theory, policy and social work practice are discussed in the following section.

8.4.1 Implications for research. This research may prompt future inquiry into the relationships between financial inclusion, inadequate liquid assets, income shocks, and housing instability. First, future research may use the 2008 SIPP for a longer observation period in order to study the fluctuations of income and liquid assets. In this dissertation, only two points of observation, Wave 4 and Wave 6 were included. However, the topical modules included in these waves were repeated in Wave 7 and Wave 9. It would be possible, then, to follow households within the sample from Wave 4 through Wave 9, thus gaining more insight into how income and assets fluctuate over a longer time period, or if there are patterns of missed rent payments over this longer observation period. Such an approach would also establish time ordering that would address previously mentioned issues of directionality.

Second, future research may extend beyond testing the main effects of the variables of interest and covariates, as was done in this dissertation. This may be accomplished through the inclusion of interaction terms or through a mediation model. It is likely that interacting some covariates may have produced significant effects on the outcome variable. For example, given the considerable empirical and theoretical evidence of the feminization of poverty, it may be the case that household income interacted with household type would produce a significant interaction term in relation to a missed housing payment. Studying the interaction effects may more closely approximate an intersection of phenomena and produce a more parsimonious model with improved model fit. Additionally, some research has indicated that in the event of an unforeseen loss of income or expenditure shock, individuals will first turn to liquid asset held in their checking or savings account (Pew Charitable Trust, 2015b). Future use of a mediation model may explore if a portion of the effect of income shocks on a missed housing payment is due to liquid assets.

Next, the determination of “adequate” in the liquid assets variable was determined based on existing empirical definitions of adequate emergency or precautionary savings. However, it may be that lower amounts of liquid assets are protective in the event of an income shock or unexpected expense, particularly among lower-income populations. Recent research has suggested that the most costly income shocks for individuals making less than $25,000 per year average $2,000, or approximately one month of income (Pew Charitable Trust, 2015a). Future research may use the 2008 SIPP to test this level of liquid assets within lower-income households to determine if this level of liquid asset are associated with later material hardship.

Statistical techniques including instrumental variable approaches, as well as propensity score methods may help address some of the endogeneity bias that prevented causal inferences from being made in this research. Propensity score methods address selection bias by assessing the balance of covariates represented in the sample; if significant differences in the sample do occur, the sample can be balanced using a number of different approaches including: inverse probability and ATT weights, covariate adjustment, matching, and stratification. In effect, this imitates the randomization of experimental approaches, thus reducing selection bias (Guo & Fraser, 2010; Austin, 2011).

Future research may also attend to issues of endogeneity bias created through omitted variables and measurement error with an instrumental variable approach. The use of instrumental variables allows causal effects to be estimated by choosing an ‘instrument’ that is correlated with the independent variables, but not correlated with the error term (Angrist, Imbens, & Rubin, 1996; Angrist & Krueger, 2001). To address omitted variable bias, future research may include number of banks in the neighborhood in a model estimating the impact of inadequate liquid assets on a missed housing payment. The number of banks in a neighborhood is likely correlated

with a number of covariates including income, employment, and liquid assets. However, it is likely not correlated with missed housing payments. If determined to be an appropriate and adequate instrumental variable, the portion of variability of liquid assets that is unrelated to the omitted variables can then be used to determine the strength of the relationship between it and the outcome variable (Angrist & Krueger, 2001),

Finally, while the SIPP may be an ideal nationally representative dataset to explore the relationships between financial and housing instability, other datasets include or are beginning to include variables that measure the financial conditions of households. The Fragile Families and Child Wellbeing Study, Wave 15 will, for the first time, include measures of financial fragility, or households' confidence in coming up with $2,000 of liquid assets in 30 days; and, the Panel Survey of Income Dynamics (PSID) already includes a number of measures of assets, income, financial inclusion, and housing outcomes. Importantly, many of these datasets can be linked with geospatial data that may provide the ability to test the relationships between the characteristics of a location and housing outcomes.

8.4.2 Implications for theory. The findings of this research lend empirical support to the theory of the feminization of poverty as well as to assets and financial capability theory. Findings indicated that single mothers were earning less than their male counterparts or two-parent families, were raising more children, and were disproportionately represented among families who were receiving cash benefits or who missed a housing payment. As suggested over 40 years ago, it is still the case that the choice or necessity of raising children as a single woman results in substantial material hardship that not only impacts earnings, but also liquid asset holdings and the ability to maintain stable housing (Pearce, 1978; McLanahan & Kelly, 2006).

Additionally, assets theory has largely focused on the promise of illiquid assets as a mechanism that, in tandem with income subsidies, may alleviate poverty (Sherraden, 1991). This research extends that theoretical perspective to reveal the promise of liquid assets as a mechanism that may help prevent missing a rent payment, a somewhat commonplace event experienced by very low-income families. Thus, the benefits that may be realized by having different types of assets are likely different based on income, which suggests that assets theory may need to be extended to account for this. For the very lowest income families, institutional supports for building liquid assets in the form of savings may be an important first step in gaining financial stability. With the ability to weather changes in income and unexpected expenses, the likelihood of being able to later build savings for investment in illiquid assets may increase.

This research also contributes to the existing discussion regarding financial capability (M.S. Sherraden, 2013). Financial capability suggests that having access to affordable, fair mainstream financial products may play a key role in helping families build financial stability. Indeed, this research did suggest that having a bank account or savings account was related to reduced incidence of missing a housing payment. However, among renters, who are at most risk of losing housing should they miss a payment, banked status did not have a significant effect. While there is a growing body of support to indicate that financial capability is related to financial stability, operationalization of the theory is not standardized; this research tested only one building block of financial capability operationalized as having a mainstream checking or savings account. Future research may determine exactly which types of financial products or measures of financial education best capture financial capability.

8.4.3 Implications for policy. Social welfare policy that will make substantial changes in the lives of the most economically vulnerable families must characterize financial and housing instability as outcomes of the feminization of poverty (Pearce, 1978). Affordable housing continues to be out of reach for many American households, particularly those headed by single mothers (NLIHC, 2013; Steffen et al., 2015). Affordable fair market housing options continue to fail to keep pace with the needs of these families and wage stagnation limits the opportunity for many families to ascend the economic ladder or escape from severe housing cost burdens (Steffen et al., 2015; Fry, 2013). Thus, policymakers should be attuned and responsive to the affordable housing crisis, ensuring that existing funding and affordable housing units are preserved, and additional resources, ideally in the form of Section 8 or Housing Choice Vouchers, are provided to help lower-income families establish and maintain their homes in the neighborhoods of their choice (NLIHC, 2015).

To expand affordable housing options to more lower-income families, some have proposed reform of the mortgage interest deduction, a federal tax deduction that benefits mostly moderate to higher income homeowners (Sard & Fischer, 2013). One proposed change includes establishing flat mortgage interest credit, instead of a deduction based on a household's tax bracket. This approach would effectively benefit families of limited means more than more affluent homeowners. Compared to the existing mortgage interest deduction, a 15% non-refundable credit for mortgages up to $500,000 would generate approximately $24 billion in additional funds from households making over $200,000 each year. This revenue could then be redistributed to lower-income homeowners, thus making homeownership more affordable (Fischer & Huang, 2013).

Estimated to produce approximately $200 billion in tax revenue over 10 years, the Center of Budget and Policy Priorities has also proposed a renter's credit that would be funded by this tax reform. The renter's credit, funded by the reform of the mortgage interest deduction, would be capped at $5 billion each year and would be distributed to states to implement a credit or voucher program capping rent burden at 30% of income for lower resourced families (Sard & Fischer, 2013). This suggested policy change was endorsed by the National Low-income Housing Coalition for the 2015-2016 policy year.

In addition to affordable housing and housing subsidy reform, some policy change may be aimed at helping to improve the balance sheets of lower-income households. Given the relationships between income insufficiency, frequency of income shocks or unexpected expenditures, and lack of liquid assets, one method for improving the ability to make housing payments on time maybe to fortify liquid assets. Recently, programs to promote personal, emergency savings have been targeted toward lower-income households; the success of such programs have spurred advocacy for the introduction of federal policy to promote emergency savings. Of particular note, West and Adams (in press) have suggested changing the federal IDA program to allow matched savings for emergencies, instead of only for future developmental purposes. McKernan and Ratcliffe (2009) have suggested a matched savings program for recipients of the EITC. In their proposal, low-income families that save a portion of their EITC refunds would have their savings matched 1:1 up to $200 per year. The families would then have ready access to savings in the case of a household emergency.

Black and Schreur (2014) have suggested bringing tax-time savings to scale and providing an opportunity to save when filing taxes by using financial incentives and providing access to savings products and/or a savings account within the existing tax filing structure.

Through the Financial Security Credit Act, they suggest providing a 50% match on savings from the previous year by expanding the Saver's Credit beyond retirement savings. This refundable tax product would provide the opportunity to open a savings account in the tax filing process, thus incentivizing emergency savings while bringing fringe banked households into the financial mainstream. Estimated to cost $4 billion each year, the program would allow a full 50% matching credit for low to moderate income tax filers and a scaled down match for higher income tax filers (New America Foundation, 2013).

Additional policy changes that may address the feminization of poverty include expanding access to affordable childcare, paid time off, and raising the minimum wage or implementing a basic income guarantee. Unaffordable or unreliable childcare substantially impacted single mothers' ability to maintain employment. Mothers who received childcare subsides tended to have fewer disruptions from work for child-related issues (Forry & Hofferth, 2011). Compared to single mothers who received AFDC, single mothers who received TANF benefits had less disposable income partially due to the rise in childcare expenses (Ahn, 2014). Thus, childcare is both necessary and unaffordable for many single mothers. Due to the limited reach of the federal Child Care and Development Block Grant, Hamm and Martin (2015) of the Center for American Progress have proposed a new tax credit that would provide low to moderate income families up to $14,000 per child each year scaled to income level to help cover childcare costs. Childcare costs would scaled to not exceed more than 12% of income. Such a policy could make childcare affordable and reliable for single mothers, thus providing improved opportunities to maintain employment.

In addition to unaffordable and unreliable childcare, single mothers also tend to have work disruptions and resultant income volatility due to their concentration in lower-paid, fewer

benefit, service industry occupations (Povich et al., 2014). Without federally mandated paid time off for vacation or sick leave, lower-income workers lose income, and in some cases their jobs when they have to attend to a family emergency or personal illness. The Healthy Families Act, would provide a federal mandate of seven days of paid sick leave per year for employees working for any company with over 15 employees. Those with fewer than 15 employees would be required to provide unpaid sick leave without consequence to the employee. While paid sick leave legislation has been passed in a handful of states, Congress has yet to pass the Healthy Families Act (National Partnership for Women & Families, 2016).

Significant and persistent income disparities in the US have left many single mothers unable to earn enough income to support their families, even when they are able to secure childcare and work a forty-hour week. Because working full time at the federal minimum wage would still leave a single mother with one child well below the federal poverty guidelines, there has been a considerable effort directed toward raising the minimum wage. The Raise the Wage Act has been introduce to increase the federal minimum wage to $12.00 by 2020 (National Employment Law Project, 2016). However, several states and some cities have already implemented minimum wage increases (National Conference of State Legislatures, 2016). Policies, either state or federal, to raise the minimum wage hold some promise for helping lower-income families and single mothers in particular, to become more financially stable.

Another approach to addressing income inequality is a basic income guarantee. A basic income guarantee would provide a regular fixed income to each adult member of the population regardless of family size or an individual's ability to participate in the formal workforce. The amount of the basic income would be sufficient to cover basic needs and could be supplemented by working in the formal workforce (Van Parijs, 2004). Funds earned above the guaranteed

basic income would be subject to taxation, likely a negative income tax that would further benefit lower-income earners (Zelleke, 2005).

8.4.4 Implications for practice. This research has highlighted important ways for social workers to engage in the primary prevention of housing instability (i.e. stopping housing instability before it happens) across all levels of practice. Each of these implications for practice require that social workers return to the profession's commitment to engage in primary prevention of social problems in order to maximize client wellbeing (McCave & Rischel, 2010; 2013). In the case of housing instability, the target of primary prevention is financial instability.

In interpersonal practice, lower-income clients frequently engage with social work professionals capable of creating and delivering programming that could improve their household financial stability (Birkenmaier & Curley, 2009). While innovative anti-poverty programs have been implemented by some agencies, the norm for case workers still tends to be limited to helping clients to create a budget. Yet, lower-income households have consistently demonstrated stringent budgeting and money management strategies often due to necessity, not on the advice of a social worker (Edin & Lein, 1997; Edin & Shaefer, 2015). Thus, it is important to move beyond simply telling clients how to better manage their scant resources, as most clients in fragile financial situations have likely already worked and reworked their budgets. Social workers should, instead, adopt a financial capability approach to practice that puts the profession's commitment to economic justice at the forefront. For example, social workers may to attend to clients' personal financial matters by providing thoughtful and appropriate avenues to increase income, build assets, or negotiate lending and credit (Despard, Chowa, & Hart, 2012). Programs to help social workers integrate these principles of financial capability into social work practice have been introduced through continuing education and

through curricular changes in educational programs (Birkenmaier, Kennedy, Kunz, Sander, & Horwitz, 2013).

At the mezzo level, the increased attention to vulnerable household financial conditions has already resulted in new services and programming, such as matched emergency savings products that may help improve financial stability (Adams & West, 2015). Many program models, particularly those that provide matching incentives for saving a portion of a tax return, are promising approaches to improving financial stability (Beverly, Schneider, & Tufano, 2006; Tucker et al., 2014; Azurdia, Freedman, Hamilton, & Schultz, 2013; Manturuk, Dorrance, & Riley, 2012). It will be the task of social work managers and program directors find resources for their own communities to implement local interventions, as well as target these interventions to their most economically vulnerable clients. Funding from foundations and federal grants are available to communities interested in testing and developing programs that may help economically disadvantaged clients increase income and build assets (Ford Foundation, 2016; ACF, 2016)

Finally, social workers in macro practice should advocate for policy change in their own organizations, states, and at the federal level regarding the need for radical reform to current social welfare policy. In fact, the entry points for primary prevention of financial stability across all levels of practice may be entirely contingent upon the ability of the profession to return to its roots of anti-poverty activism in order to advance social policy. This may be a substantial challenge, as social work has distanced itself from anti-poverty work in favor of other, more lucrative social work practice since the 1970s (Specht & Courtney, 1995). This predilection, coupled with the rise of neoliberal thought, culture, and social welfare policy has permitted some social workers to frame clients as individual economic actors capable of self-sufficiency against

the odds of capitalism. This may be further evidence of the profession's drift away from practice that firmly is grounded in an understanding of structural inequality (Lorenz, 2005).

Taken together, social workers in micro, mezzo, and macro practice must return to the roots of the profession and again problematize the nature of capitalism and patriarchy. One way to do this would be to frame financial instability and housing instability as outcomes of the feminization of poverty that may be alleviated by targeting social welfare policy changes toward the most economically, politically, and socially disadvantaged members of the current economy, single mothers. As interpersonal social work regards single mothers as experts of their own experience and macro social work endorses radical changes to social welfare policy, there is a real possibility of a secure financial future for single mothers.

8.5 Conclusion

This research fills a substantial gap in the knowledge base regarding how indicators of financial instability relate to housing instability among different household types. In addition to being financially excluded, sustaining an income shock, and not having adequate liquid assets, this research has revealed that both single motherhood and renting instead of owning a primary residence are related to missing a housing payment. For renters, especially those who are low-income, missing or being late on a housing payment can jeopardize their housing stability. Addressing the implications of this research will require social workers to usher in timely, feasible policy change that is informed by a feminist perspective and commitment to the primary prevention of financial instability.

References

Abramovitz, M. (2012). Theorising the neoliberal state for social work. In Gray, M., Midgley, J., & Webb, S. (Eds.) *The Sage Handbook of Social Work*. (p. 33-50). New York: Sage.

Acs, G., Loprest, P., & Nichols, A. (2009). Risk and recovery: Documenting the changing risks to family incomes. Retrieved from http://www.urban.org/UploadedPDF/411890_risk_and_recovery.pdf.

Adams, D., & West, S. (2015). Asset building among low-income adults: An exploratory study with participants in an emergency savings program. *Journal of Community Practice*, 23(3-4), 436-461.

Administration for Children and Families (2009). Report to Congress: Assets for independence program status at the conclusion of the tenth year. Retrieved from http://www.acf.hhs.gov/programs/ocs/afi/ExecSummaryAFITenthReporttoCongress.pdf

Administration for Children and Families. (2014). TANF 2014 Budget. Retrieved from https://www.acf.hhs.gov/sites/default/files/olab/sec3i_tanf_2014cj.pdf.

Administration for Children and Families (2016). Assets for Independence demonstration program. Retrieved from http://www.acf.hhs.gov/grants/open/foa/index.cfm?switch=foa&fon=HHS-2015-ACF-OCS-EI-1005.

Ahn, H. (2015). Economic well-being of low-income single-mother families following welfare reform in the USA. *International Journal of Social Welfare*, *24*(1), 14-26.

Albelda, R. (2009). Why it's harder (and different) for single mothers: Gender, motherhood, labor markets, and public work supports. Retrieved from https://www.umb.edu/editor_uploads/images/centers_institutes/center_social_policy/Why

%20it%E2%80%99s%20harder%20%28and%20different%29%20for%20single%20mothers%20Gender,%20motherhood,%20labor%20markets%20and%20public%20work%20supports.pdf

Anderson, R. (2011). Dynamics of economic well-being: Poverty, 2004-2006. Retrieved from http://www.census.gov/prod/2011pubs/p70-123.pdf.

Angrist, J. & Krueger, A. (2001). Instrumental variables and the search for identification: From supply and demand to natural experiments, *Journal of Economic Perspectives*, *15*(4), 69-85.

Angrist, J., Imbens, G., & Rubin, D. (1996). Identification of causal effects using instrumental variables. Journal of the American Statistical Association, *91*(434), 444-455.

Austin, P. (2011). An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivariate Behavioral Research*, *46*(3), 399-424.

Azurdia, G., Freedman, S., Hamilton, G., & Schultz, C. (2013). Encouraging savings for low-and moderate-income individuals: Preliminary implementation findings from the SaveUSA evaluation. Retrieved from http://www.mdrc.org/sites/default/files/SaveUSA_brief14.pdf.

Baker, C., Cook, S., & Norris, F. (2003). Domestic violence and housing problems: A contextual analysis of women's help-seeking, receiving informal support, and formal system response. *Violence Against Women*, *9* (7), 754-783.

Bartazini, M. (2012). Modigliani's life-cycle theory of savings fifty years later. *BNL Quarterly Review*, LV111, 233-234.

Bassuk, E., & Beardslee, W. (2014). Depression in homeless mothers: Addressing an unrecognized public health issue. *American Journal of Orthopsychiatry*, *84*(1),73-81.

Bassuk, E., & Geller, S. (2006). The role of housing and services in ending family homelessness. *Housing Policy Debate*, *17*(4), 781-806.

Bassuk, E., Buckner, J., Perfloff, J., & Bassuk, S. (1998). Prevalence of mental health and substance use disorders among homeless and low-income housed mothers. American *Journal of Psychiatry*, *15* (11), 1561-1564.

Bassuk, E., Huntington, N., Amey, C., & Lampereur, K. (2006). Family permanent supportive housing. Preliminary research on family characteristics, program models, and outcomes. Retrieved from: http://www.csh.org/wp-content/uploads/2011/12/Report_FamilyPSH.pdf

Belle, D. (1990). Poverty and women's mental health. *American Psychologist*, *45* (3), 385-389.

Bellou, A., & Cardia, E. (2013). Occupations after WWII: The legacy of Rosie the Riveter. Retrieved from http://ftp.iza.org/dp7615.pdf.

Berger, L. M., Heintze, T., Naidich, W. B., & Meyers, M. K. (2008). Subsidized housing and household hardship among low-income single-mother households. *Journal of Marriage and Family*, *70*(4), 934-949.

Bergman (1986). *The economic emergence of women.* New York: Basic Books.

Bertrand, M., Mullainathan, S., & Shafir, E. (2004). A behavioral-economics view of poverty. *American Economic Review*, *94*(2),419-423.

Beverly, S. G., & Sherraden, M. (1999). Institutional determinants of saving: Implications for low-income households and public policy. *Journal of Socio-economics*, *28*(4), 457-473.

Beverly, S., Schneider, D., & Tufano, P. (2006). Splitting tax refunds and building savings: An empirical test. *Tax Policy and the Economy*, *20*, 111-162.

Birkenmaier, J., & Curley, J. (2009). Financial credit: Social work's role in empowering low-income families. *Journal of Community Practice*, *17*(3), 251-268.

Birkenmaier, J., Kennedy, T., Kunz, J., Sander, R., & Horwitz, S. (2013). The role of social work in financial capability. In J. Birkenmaier, M.S. Sherradden, & Curley, J. (Eds.) *Financial capability and asset development: Research, education, policy, and practice* (278-301). New York: Oxford.

Black, R. (2013). Asset limits in the Supplemental Nutritional Assistance Program: The case for reform. Retrieved from http://assets.newamerica.net/sites/newamerica.net/files/policydocs/SNAPassetlimitsFINAL_0.pdf.

Black, R., & Schreur, E. (2014). Connecting tax time to financial security. Designing public policy with evidence from the field. Retrieved from http://assets.newamerica.net/sites/newamerica.net/files/policydocs/Connecting_Tax_Time_to_Financial_Security-Final.pdf.

Blank, S., & Blum, B. (1997). A brief history of work expectations for welfare mothers. *The Future of Children: Welfare to Work, 7*(1), 28-38.

Bollinger, C., & Ziliak, J. (2007). Welfare reform and the level, composition, and volatility of income. Retrieved from http://www.ukcpr.org/SeminarSeries/Ziliak-Bollinger_WelfareReformandVolatility_032007.pdf.

Bolton, M., Brave, E., Miller, E., Crowley, S., & Errico, E. (2015). Out of reach. Retrieved from nlihc.org/sites/default/files/oor/OOR_2015_FULL.pdf

Bratt, R. (1997). A withering commitment. Retrieved from http://www.nhi.org/online/issues/94/bratt.html.

Brisson, D. & Covert, J. (2015). Housing instability risk among subsidized housing recipients: characteristics associated with late or nonpayment of rent. *Social Work Research*, *39*(2), 119-128.

Brobeck, S. (2008). Understanding the emergency savings needs of low- and moderate- income households: A survey-based analysis of impacts, causes, and remedies. Retrieved from: http://www.consumerfed.org/elements/www.consumerfed.org/file/Emergency_Savings_Survey_Analysis_Nov_2008.pdf

Brooks, J., Wiedrich, K., Sims, L., & Medina, J. (2014). Treading water in the deep end: Findings from the 2014 Assets and Opportunity Scorecard. http://issuu.com/cfednews/docs/2014_scorecard_report/3?e=7117260/6529225

Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children*, *7*(2) 55-71.

Broussard, C. A. (2010). Research regarding low-income single mothers' mental and physical health: a decade in review. *Journal of Poverty*, *14*(4), 443-451

Burt, M. (2006). Characteristics of transitional housing for homeless families. Retrieved from http://www.urban.org/UploadedPDF/411369_transitional_housing.pdf

Card, D., Hildreth, A. K., & Shore-Sheppard, L. D. (2004). The measurement of Medicaid coverage in the SIPP: Evidence from a comparison of matched records. *Journal of Business & Economic Statistics*, *22*(4), 410-420.

Casey, T. (2011). Single mothers since 2000: Falling further down. Retrieved from http://www.legalmomentum.org/sites/default/files/reports/single-mothers-since-2000.pdf

Center on Budget and Policy Priorities. (2014a). United States: TANF spending factsheet. http://www.cbpp.org/cms/index.cfm?fa=view&id=3809

Center on Budget and Policy Priorities. (2014b). Policy basics: The Earned Income Tax Credit. Retrieved from: http://www.cbpp.org/cms/?fa=view&id=2505.

Chang, M. (2010). Lifting as we climb: Women of color, wealth, and America's future. Retrieved from http://www.insightcced.org/uploads/CRWG/LiftingAsWeClimb-WomenWealth-Report-InsightCenter-Spring2010.pdf.

Chang, M., & Mason, C. (2010). At rope's end: Single mothers, wealth, and assets in the U.S. Retrieved from: http://cnicolemason.com/home/wp-content/uploads/At%20Rope%27s%20End-Single%20Women%20Mothers%20CR2PI.pdf

Chase, S., Gjertson, L., & Collins, J. (2011). Coming up with cash in a pinch: Emergency savings and its alternatives. *CFS Issue Brief, 6*.

Chen, H., Cohen, P., & Chen, S. (2010). How big is a big odds ratio? Interpreting the magnitudes of odds ratios in epidemiological studies. *Communications in Statistics—Simulation and Computation*, *39(4)*, 860-864.

Chomsky, N. (1999). *Profit over people: neoliberalism and global order*. New York: Seven Stories Press.

Cities for Financial Empowerment Fund. (2015). Our projects. Retrieved from http://www.cfefund.org/info/our-projects#how-we-work.

Clemans-Cope, L., Perry, C., Kenney, G., Pelletier, J., & Pantell, M. (2008). Access to and use of paid sick leave among low-income families with children. *Pediatrics*, *122*(2), 480-486.

Clinton, W. (1994). Public papers of the presidents of the United States: William J. Clinton, 1994. Washington, DC: Government Printing Office.

Collins, P. H. (1989). The social construction of black feminist thought. *Signs*, *14*(4), 745-773.

Corporation for Enterprise Development. (2013). Resource guide: Lifting asset limits in public benefit programs. Retrieved from http://cfed.org/assets/scorecard/2013/rg_AssetLimits_2013.pdf.

Corporation for Enterprise Development. (2015). Policy issues: Asset limits. Retrieved from http://cfed.org/policy/policy_issues/asset_limits/.

Costa, D. (2000). From mill town to board room: The rise of women's paid labor. *Journal of Economic Perspectives. 14*(4), 101-122.

Cowal, K., Shinn, M., Weitzman, B., Stojanovic, D., & Labay, L. (2002). Mother-child separations among homeless and housed families receiving public assistance in New York City. *American Journal of Community Psychology. 30*(5), 711-730.

Croan, T., Hatcher, J., Long, M., & Wertheimer, R. (2002). Children in working poor families: A review of the literature. Retrieved from: http://www.childtrends.org/files/Child_Trends-2003_05_01_RB_PoorFamilies.pdf.

Crosier, T., Butterworth, P., & Rodgers, B. (2007). Mental health problems among single and partnered mothers. *Social Psychiatry and Psychiatric Epidemiology*, *42*(1), 6-13.

Culhane, D. P., & Metraux, S. (2008). Rearranging the deck chairs or reallocating the lifeboats? Homelessness assistance and its alternatives. *Journal of the American Planning Association*, *74*(1), 111-121.

Debonis, M. (2013). D.C. public housing waiting list to close; no new applicants after April 12. Retrieved from: http://articles.washingtonpost.com/2013-04-03/local/38246499_1_public-housing-waiting-list-housing-agency-d-c-housing-authority

DeMarco, D., Mills, G., & Ciurea, M. (2008) Assets for independence act evaluation. Retrieved from http://www.acf.hhs.gov/programs/opre/resource/assets-for-independence-act-evaluation-impact-study-final-report

Demirgüç-Kunt, A., & Klapper, L. F. (2012). Measuring financial inclusion: The global findex database. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2043012

DeNavas-Walt, C., & Proctor, B. (2015). Income and poverty in the United States: 2014. Retrieved from http://www.census.gov/hhes/www/poverty/

Despard, M., Chowa, G., & Hart, L. (2012). Personal financial problems: Opportunities for social work interventions? *Journal of Social Service Research, 38*(3), 342-350.

Devaney, S. A., Anong, S. T., & Whirl, S. E. (2007). Household savings motives. *Journal of Consumer Affairs, 41*(1), 174-186.

Dickinson, N., & Barth, R. (2014). The Children's Bureau: Shaping a century of child welfare practices, programs, and policies. Retrieved from https://www.naswpress.org/publications/children/inside/childrens-bureau-chapter.html

Dolgoff, R., & Feldstein, D. (2007). *Understanding Social Welfare*. Upper Saddle River: Pearson.

Duncan, G. J., Magnuson, K. A., & Ludwig, J. (2004). The endogeneity problem in developmental studies. *Research in Human Development, 1*(1-2), 59-80.

Duncan, G. J., Magnuson, K., Kalil, A., & Zio-Guest, K. (2012). The importance of early childhood poverty. *Social Indicators Research*, *108* (1), 87-98.

Edin, K. J., & Shaefer, H. L. (2015). *$2.00 a day: Living on almost nothing in America*. New York: Houghton Mifflin Harcourt.

Edin, K., & Lein, L. (1997). Making ends meet: How single mothers survive welfare and low-wage work. New York: Russell Sage Foundation.

Elliott, W. (2013). The effects of economic instability on children's educational outcomes. *Children and Youth Services Review*, *35*(3), 461-471.

Elsby, M. W., Hobijn, B., Şahin, A., Valletta, R. G., Stevenson, B., & Langan, A. (2011). The labor market in the Great Recession—An update to September 2011. *Brookings Papers on Economic Activity*, 353-384.

Federal Deposit Insurance Corporation. (2013). 2013 FDIC national survey of unbanked and underbanked households. Retrieved from https://www.fdic.gov/householdsurvey/

Federal Deposit Insurance Corporation. (2012). 2011 FDIC national survey of unbanked and underbanked households. Retrieved from https://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf

Federal Housing Finance Agency. (2011). An overview of the home foreclosure process. http://fhfaoig.gov/Content/Files/SAR%20Home%20Foreclosure%20Process_0.pdf

Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, *60*(8), 1861-1883.

Fertig, A., & Reingold, D. (2008). Homelessness among at-risk families with children in twenty American cities. *Social Service Review*, *82*(3), 485-510.

Finch, I., & Schott, L. (2013). The value of TANF cash benefits continued to erode in 2012. Retrieved from http://www.cbpp.org/cms/index.cfm?fa=view&id=3943.

Finlayson, A. (2009). Financialisation, financial literacy and asset-based welfare. *The British Journal of Politics & International Relations*, *11* (3), 400-421.

FINRA Foundation. 2013. Financial Capability in the United States: Report of Findings from the 2012 National Financial Capability Study. http://www.usfinancialcapability.org/downloads/NFCS_2012_Report_Natl_Findings.pdf

Fischer, W., & Huang, C. (2013). Mortgage interest deduction is ripe for reform. Retrieved from http://www.cbpp.org/research/mortgage-interest-deduction-is-ripe-for-reform#_ftn1.

Floyd, I., & Schott, L. (2013). TANF cash benefits continued to lose value in 2013. Retrieved from http://www.cbpp.org/files/10-21-13tanf.pdf.

Ford Foundation (2016). Grants database. Retrieved from https://www.fordfoundation.org/.

Forry, N., & Hofferth, S. (2011). Maintaining work: The influence of child care subsidies on child care—related work disruptions. *Journal of Family Issues*, *32*(3), 346-368.

Fox, J., Bartholomae, S., & Lee, J. (2005). Building the case for financial education. *Journal of consumer affairs*, *39*(1), 195-214.

Friedline, T. (2012). Predicting children's savings: The role of parents' savings for transferring financial advantage and opportunities for financial inclusion. *Children and Youth Services Review*, *34*(1), 144-154.

Friedline, T., Johnson, P., & Hughes, R. (2014). Toward healthy balance sheets: Are savings accounts a gateway to young adults' asset diversification and accumulation?. *Federal Reserve Bank of St. Louis Review*, *96*(4), 359-389.

Friedman, L. M. (1966). Public housing and the poor: an overview. *California Law Review*, *54* (2), 642-669.

Fry, R. (2013). Four takeaways from Tuesday's Census income and poverty release. Retrieved from http://www.pewresearch.org/fact-tank/2013/09/18/four-takeaways-from-tuesdays-census-income-and-poverty-release/.

Fry, T. R., Mihajilo, S., Russell, R., & Brooks, R. (2008). The factors influencing saving in a matched savings program: Goals, knowledge of payment instruments, and other behavior. *Journal of Family and Economic Issues*, *29*(2), 234-250.

Gilbert, N. (1982). Policy issues in primary prevention. *Social Work*, *27*(4), 293-297.

Gilliam, F.(1999). The" welfare queen" experiment: How viewers react to images of African-American mothers on welfare. *Neiman Reports*, *53*(2), 1-6.

Glenn, E. (1985). Racial ethnic women's labor: The intersection of race, gender, and class oppression. *Review of Radical Political Economics*, *17*(3), 86-108.

Glenn, E. (2000). From servitude to service work: Historical continuities in the racial division of paid reproductive labor. In Ruiz, V., & Dubois, E. (Eds.) *Unequal Sisters: A Multicultural Reader in US Women's History*. (p. 436-466). New York: Routledge.

Goldberg, E. (2014). These most vulnerable groups are suffering the most because of income inequality. Retrieved from http://www.huffingtonpost.com/2014/01/29/sotu-income-inequality_n_4682553.html

Goodman, A., Saxe, L. & Harvey, M. (1991). Homelessness as psychological trauma: Broadening perspectives. *American Psychologist*, *46*(11), 1219-1225

Grigg, J. (2012). School enrollment changes and student achievement growth: A case study in educational disruption and continuity. *Sociology of Education*, *85*(4), 388-404.

Grinstein-Weiss, M., Key, C., & Carrillo, S. (2015). Homeownership, the Great Recession, and wealth: Evidence from the Survey of Consumer Finances. *Housing Policy Debate*, *25*(3), 419-445.

Gross, J. P., Cekic, O., Hossler, D., & Hillman, N. (2009). What matters in student loan default: A review of the research literature. *Journal of Student Financial Aid*, 39(1), 19-29.

Gubits, D., Shinn, M., Bell, S., Wood, M., Dastrup, S., Solari, C., Brown, S. et al., (2015). Family options study: Short-term impacts of housing and services interventions for homeless families. Retrieved from https://www.huduser.gov/portal/family_options_study.html#short-term-outcomes.

Guo, S., & Fraser, M. (2010). *Propensity score analysis: Statistical methods and applications*. Thousand Oaks: CA, Sage Publications, Inc.

Hamm, K., & Martin, C. (2015). A new vision for child care in the United States. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/2015/08/31111043/Hamm-Childcare-report.pdf

Hagen, J., & Davis, L. (1995). The participants' perspective on the job opportunities and basic skills training program. *The Social Service Review*, *69*(4), 656-678.

Hamilton, L., Alexander-Eitzman, B., & Royal, W. (2015). Shelter from the storm. *SAGE Open*, *5*(1), 2158244015572487.

Harknett, K. (2006). The relationship between private safety nets and economic outcomes among single mothers. *Journal of Marriage and the Family*, *68*(1) 172-191.

Hartmann, H. I., English, A., & Hayes, J. (2010). Women and men's employment and unemployment in the Great Recession. Retrieved from:

http://www.iwpr.org/publications/pubs/women-and-men2019s-employment-and-unemployment-in-the-great-recession.

Hausman, J. (2001). Mismeasured variables in econometric analysis: problems from the right and problems from the left. *Journal of Economic Perspectives*, *15*(4), 57–67.

Hays, W. L. (1973). *Statistics for the social sciences* (Vol. 410). New York: Holt, Rinehart and Winston.

Heckman, J. (1997). Instrumental variables: A study of implicit behavioral assumptions used in making program evaluations. *Journal of Human Resources*, *32*(3), 441-462.

Herbers, J. E., Cutuli, J. J., Supkoff, L. M., Heistad, D., Chan, C. K., Hinz, E., & Masten, A. S. (2012). Early reading skills and academic achievement trajectories of students facing poverty, homelessness, and high residential mobility. *Educational Researcher*, *41*(9), 366-374.

Hofferth, S. (2015). Child rearing norms and practices in contemporary American families. Retrieved from: https://contemporaryfamilies.org/child-rearing-norms-practices/.

Hotz, V., & Scholz, J. (2001). The Earned Income Tax Credit. Retrieved from http://www.nber.org/papers/w8078.pdf.

Housing Authority of Kansas City. (2016). Public housing program: Tenant selection/waiting list. Retrieved from: http://www.hakc.org/affordable_housing/how_to_apply/tenant_selection.aspx

Hudson, C. (2005). Socioeconomic status and mental illness: tests of the social causation and selection hypotheses. *American Journal of Orthopsychiatry*, *75*(1), 3-18.

Hurst, E., & Ziliak, J. (2006). Do welfare asset limits affect household saving? Evidence from welfare reform. *Journal of Human resources, 41*(1), 46-71.

Ji, M. (2006). A study of the structural risk factors of homelessness in 52 metropolitan areas of the United States. *International Social Work, 49*(1), 107-117.

Joint Center for Housing Studies. (2014). The state of the nation's housing. Retrieved from http://www.jchs.harvard.edu/research/state_nations_housing

Kalton, G., & Miller, M. E. (1990). The seam effect with social security income in the Survey of Income and Program Participation. Retrieved from: http://www.nber.org/sipp/docs/wp116_9011.pdf#page=6

Kaplan, G., Violante, G., & Weidner, J. (2014). The wealthy-hand-to-mouth. Retrieved from http://www.brookings.edu/about/projects/bpea/papers/2014/wealthy-hand-to-mouth.

Keynes, J. M. (1936). The General Theory of Employment, Interest and Money. London: MacMillan.

Knoke, D., & Bohrnstedt, G. (1994). Statistics for social data analysis. Itasca: F.E. Peacock Publishers.

Koning Beals, R. (2012). That elusive emergency fund: Why you need it. Retrieved from http://money.usnews.com/money/personal-finance/articles/2012/05/30/that-elusive-emergency-fund-why-you-need-it

Ladd, H. (1982). Equal credit opportunity: women and mortgage credit. *The American Economic Review, 72*(2),66-170.

Lambert, S., & Henly, J. (2013). Double jeopardy: The misfit between welfare-to-work requirements and job realities. In Brodkin, E., and Marston, G. (Eds.) *Work and the*

Welfare State: Street-Level Organizations and Workfare Politics. (p. 69-84), Washington DC: Georgetown University Press.

Langley, P. (2007). Uncertain subjects of Anglo-American financialization. *Cultural Critique*, 65, 67-91.

Lawson, R., & Lawson, B. (2008). *Poverty in America: An Encyclopedia*. Santa Barbara: ABC-CLIO.

Lee, B., & Schreck, C. (2005). Danger on the streets: Marginality and victimization among homeless people. *American Behavioral Scientist*, *48*(8), 1055-1081.

Lehmann, E., Kass, P., Drake, C., & Nichols, S. (2007). Risk factors for first time homelessness in low-income women. *American Journal of Orthopsychiatry*, *77*(1), 20-28.

Leonard, P., Dolbeare, C., & Lazere, E. (1989). A place to call home: The crisis in housing for the poor. Retrieved from files.eric.ed.gov/fulltext/ED307349.pdf

Leonard, T., & Di, W. (2014). Is household wealth sustainable? An examination of asset poverty reentry after an exit. *Journal of Family and Economic Issues*, *35*(2), 131-144.

Leventhal, T., & Newman, S. (2010). Housing and child development. *Children and Youth Services Review*, *32*(9), 1165-1174

Livingston, G. (2013). The rise of single fathers: A ninefold increase since 1960. Retrieved from http://www.pewsocialtrends.org/2013/07/02/the-rise-of-single-fathers/

Long, D. (2006). Chapter five: Impacts on poverty and material hardship. In *Effects of Housing Vouchers on Welfare Families*. Retrieved from http://www.huduser.org/publications/pdf/hsgvouchers_1_2011.pdf.

Lorenz, W. (2005). Social work and a new social order-challenging neo-liberalism's erosion of solidarity. *Social Work & Society*, *3*(1), 93-101.

Lovell, V. (2004). No time to be sick: Why everyone suffers when workers don't have paid sick leave. Retrieved from: http://paidsickdays.nationalpartnership.org/site/DocServer/No_Time_To_Be_Sick.pdf

Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A., & Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: a systematic review. *Social Science & M edicine*, *71(*3), 517-528.

Lundy, C., & van Wormer, K. (2007). Social and economic justice, human rights and peace The challenge for social work in Canada and the USA. *International Social Work*, *50*(6), 727-739.

Lusardi, A., Mitchell, O., & Curto, V. (2010). Financial literacy among the young. Journal of Consumer Affairs, *44*(2), 358-380.

Lusardi, A., Schneider, D., & Tufano, P. (2011). Financially fragile households: Evidence and implications. Retrieved from http://www.nber.org/papers/w17072.

Manturuk, K., Dorrance, J., & Riley, S. (2012). Factors affecting completion of a matched savings program: Impacts of time preference, discount rate, and financial hardship. The *Journal of Socio-Economics*, *41*(6), 836-842.

Marshall, J., Ruth, B., Sisco, S., Bethke, C., Piper, T., Cohen, M., & Bachman, S. (2011). Social work interest in prevention: A content analysis of the professional literature. *Social Work*, *56*(3), 201-211.

Mathur, A., Fu, H., & Hansen, P. (2013). The mysterious and alarming rise of single parenthood in America. Retrieved from http://www.theatlantic.com/business/archive/2013/09/the-mysterious-and-alarming-rise-of-single-parenthood-in-america/279203/

McCave, E., & Rishel, C. (2010). Prevention as an explicit part of the social work profession: a systematic investigation. *Advances in Social Work, 12*(2), 226-240.

McCave, E., Rishel, C., & Morris, M. (2013). Prevention as an explicit part of the social work profession: Part two of a systematic investigation. *Advances in Social Work, 14*(2), 544-555.

McKernan, S. M., & Ratcliffe, C. E. (2009). Asset building for today's stability and tomorrow's security. *New England Community Developments*, (2).

McKernan, S., Ratcliffe, M., & Vinopal, K. (2009). Do assets help families cope with adverse events? Retrieved from http://www.urban.org/uploadedpdf/411994_help_family_cope.pdf.

McLanahan, S. S., & Kelly, E. L. (2006). The feminization of poverty. In *Handbook of the sociology of gender* (pp. 127-145). Springer: US.

Meadows-Oliver, M., Sadler, L., Swartz, M., & Ryan-Krause, P. (2007). Sources of stress and support and maternal resources of homeless teenage mothers. *Journal of Child and Adolescent Psychiatric Nursing, 20*(2), 116-125.

Meyer, B. (2010). The effects of the Earned Income Tax Credit and recent reforms. Retrieved from http://www.nber.org.www2.lib.ku.edu:2048/chapters/c11973.pdf.

Mills, G., & Amick, J. (2010). Can savings help overcome instability? Retrieved from: http://www.urban.org/UploadedPDF/412290-savings-overcome-income-instability.pdf

Modigliani, F. (1966). The life cycle hypothesis of saving, the demand for wealth and the supply of capital. *Social Research, 33*(2), 160-217.

Molnar, J., Rath, W., & Klein, T. (1990). Constantly compromised: The impact of homelessness on children. *Journal of Social Issues, 46*(4), 109-124.

Moore, J. C. (2001). Asset ownership screening procedures in the Survey of Income and Program Participation (SIPP) methods panel. Retrieved from http://www.census.gov.edgekey-staging.net/srd/papers/pdf/rsm2001-1.pdf

Moore, J. C. (2008). Seam bias in the 2004 SIPP panel: Much improved, but much bias still remains. Retrieved from http://psidonline.isr.umich.edu/Publications/Workshops/ehc-07papers/Seam%20Bias%20in%20the%202004%20SIPP%20Panel.pdf

Mullainathan, S., & Thaler, R. (2000). Behavioral economics. Retrieved from http://www.nber.org/papers/w7948.

Mulroy, E., & Lane, T. (1992). Housing affordability, stress and single mothers: Pathway to homelessness. *Journal of Sociology & Social Welfare*, *19*(3), 51-64.

Nam, Y. (2008). Welfare reform and asset accumulation: Asset limit Changes, financial assets, and vehicle ownership. *Social Science Quarterly*, *89*(1), 133-154.

National Alliance to End Homelessness. (2014). FY 2015 Appropriations: HUD's homeless assistance grants. Retrieved from http://b.3cdn.net/naeh/2e7030dfa28b65459a_xzm6b5q09.pdf

National Association of Social Workers. (2008). Code of ethics. Retrieved from http://www.socialworkers.org/pubs/code/default.asp.

National Conference of State Legislatures. (2016). State minimum wages. Retrieved from http://raisetheminimumwage.org/pages/fact-sheet-time-to-raise-the-minimum-wage.

National Conference of State Legislatures. (2014). Financial literacy 2014 legislation. Retrieved from http://www.ncsl.org/research/financial-services-and-commerce/financial-literacy-2014-legislation.aspx

National Employment Law Project. (2016). Fact sheet: It's time to raise the minimum wage. Retrieved from http://raisetheminimumwage.org/pages/fact-sheet-time-to-raise-the-minimum-wage.

National Low-Income Housing Coalition. (2015). 2015-2016 public policy agenda. Retrieved from http://nlihc.org/sites/default/files/NLIHC_2015-2016_Policy_Agenda_0.pdf

National Low-Income Housing Coalition. (2014). Housing wage calculator. Retrieved from http://nlihc.org/library/wagecalc

National Low-income Housing Coalition. (2013). America's affordable housing shortage, and how to end it. Retrieved from: http://nlihc.org/sites/default/files/HS_3-1.pdf

National Low-Income Housing Coalition. (2004). A look at waiting lists: What can we learn from the HUD approved annual plans? Retrieved from http://nlihc.org/sites/default/files/04-03WaitingLists.pdf

National Partnership for Women & Families. (2016). The Healthy Families Act. Retrieved from http://www.nationalpartnership.org/research-library/work-family/psd/the-healthy-families-act-fact-sheet.pdf.

New America Foundation. (2015). Modernizing asset limits: Promoting savings, simplicity, and self-sufficiency. Retrieved from: http://assetlimits.newamerica.net/.

New America Foundation. (2013). The ASPIRE Act of 2013. Retrieved from http://assets.newamerica.net/sites/newamerica.net/files/program_pages/attachments/ASPIRE%202013%20Proposal%20Summary.pdf

New York City Housing Authority. (2016). About NYCHA: Fact sheet. Retrieved from http://www1.nyc.gov/site/nycha/section-8/applicants.page

Nielsen, R. B., & Seay, M. C. (2014). Complex Samples and Regression-Based Inference: Considerations for Consumer Researchers. *Journal of Consumer Affairs, 48*(3), 603-619.

North, D. (1991). Institutions. *The Journal of Economic Perspectives, 5*(1), 97–112.

North, G. (2012). Learning to Save: Tailoring Matched Savings Accounts to Meet the Savings Needs of Low-income Earners in Los Angeles. The Heller School for Social Policy and Management, Brandeis University.

Nunez, R., Adams, M., & Simonsen-Meehan, A. (2011). The beginning of the end of transitional housing? Retrieved from http://www.icphusa.org/pdf/reports/icph_transitionalhousing.pdf

O'Flaherty, B. (2009). What shocks precipitate homelessness? Retrieved from: http://jagiellonia.econ.columbia.edu/bo2/research/whatrisks.pdf.

O'Brien, R. (2008). Ineligible to save? Asset limits and the saving behavior of welfare recipients. *Journal of Community Practice, 16*(2), 183-199

Park, J. M., Fertig, A. R., & Allison, P. D. (2011). Physical and mental health, cognitive development, and health care use by housing status of low-income young children in 20 American cities: a prospective cohort study. *American Journal of Public Health, 101* (S1), S255-S261.

Park, J., Fertig, A., & Metraux, S. (2014). Factors contributing to the receipt of housing assistance by low-income families with children in twenty American cities. *Social Service Review, 88*(1), 166-193.

Parsell, C., & Marston, G. (2012). Beyond the 'at risk' individual: Housing and the eradication of poverty to prevent homelessness. *Australian Journal of Public Administration, 71*(1), 33-44.

Pearce, D. (1978). The feminization of poverty: Women, work, and welfare. *Urban and Social Change Review, 11* (1-2), 28-36.

Pew Charitable Trust. (2015a). What resources do families have for financial emergencies? Retrieved from http://www.pewtrusts.org/~/media/assets/2015/11/emergency-savings-report-2_artfinal.pdf.

Pew Charitable Trust (2015b). The role of emergency savings in family financial security. Retrieved from http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2015/10/the-role-of-emergency-savings-in-family-financial-security-how-do-families

Pew Charitable Trust. (2013). The faces of economic mobility. Retrieved from http://www.pewtrusts.org/en/multimedia/data-visualizations/2013/faces-of-economic-mobility#black/womman/nocollege/children

Phillips, L., & Stuhldreher, A. (2011). Building better bank ons: Top 10 lessons from Bank On San Francisco. Retrieved from: http://sfofe.org/wp-content/uploads/2011/09/BBBO-final.pdf

Phinney, R., Danziger, S., Pollack, H. A., & Seefeldt, K. (2007). Housing instability among current and former welfare recipients. *American Journal of Public Health*, *97*(5), 832-7

Povich, D., Roberts, B., & Mather, M. (2014). Low-income working mothers and state policy: Investing for a better economic future. Retrieved from http://www.workingpoorfamilies.org/wp-content/uploads/2014/02/WPFP_Low-Income-Working-Mothers-Report_021214.pdf

Rafferty, Y., & Shinn, M. (1991). The impact of homelessness on children. *American Psychologist*, *46*(11), 1170.

Ramsey, D. (2015). Three to six months of expenses in savings. Retrieved from https://www.daveramsey.com/baby-steps/3.

Rapoport, L. (1961). The concept of prevention in social work. *Social Work*, *6*(1), 3-12.

Reid, W. J., & Smith, A. D. (1972). AFDC mothers view the work incentive program. *The Social Service Review*, *46*(3), 347-362.

Rice, D. (2011). Section 8 rental assistance programs are not growing as a share of HUD budget. Retrieved from http://www.cbpp.org/cms/?fa=view&id=3544.

Roskin, M. (1980). Integration of primary prevention into social work practice. *Social Work*, *25*(3), 192-196.

Roy, K., Tubbs, C., & Burton, L. (2005). Don't have no time: Daily rhythms and the organization of time for low-income families. *Family Relations*, *53*(2), 168-178.

Rubin, A., & Babbie, E. (2016). *Empowerment series: Research methods for social work.* Boston: Cengage Learning.

Sard, B., & Fischer, W. (2013). Renters' tax credit would promote equite and advance balanced housing policy. Retreived from http://www.cbpp.org/research/housing/renters-tax-credit-would-promote-equity-and-advance-balanced-housing-policy?fa=view&id=3802.

Schott, L. (2012). Policy basics: An introduction to TANF. Retrieved from http://www.cbpp.org/cms/?fa=view&id=936

Servon, L. (2013). The high cost, for the poor, of using a bank. Retrieved from http://www.newyorker.com/currency-tag/the-high-cost-for-the-poor-of-using-a-bank#entry-more

Shaefer, H. L., & Gutierrez, I. A. (2013). The Supplemental Nutrition Assistance Program and material hardships among low-income households with children. *Social Service Review, 87*(4), 753-779.

Shefrin, H., & Thaler, R. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry, 26*(4), 609-644.

Sherraden, M. (1991). Assets and the poor. A new American welfare policy. Armonk: ME Sharpe.

Sherraden, M. S. (2013). Building blocks of financial capability. In J. Birkenmaier, M. S. Sherraden, & J. Curley (Eds.), *Financial education and capability: Research, education, policy, and practice* (pp. 3-43). New York: Oxford University Press.

Silva, L., Wijewardena, I., Wood, M., & Kaul, B. (2011). Evaluation of the family self-sufficiency program: prospective study. Retrieved from http://www.huduser.org/portal/publications/familyselfsufficiency.pdf.

Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 99-118.

Soss, J., Fording, R., & Schram, S. (2011). *Disciplining the poor*. Chicago: University of Chicago Press.

Specht, H., & Courtney, M. E. (1995). *Unfaithful angels: How social work has abandoned its mission*. New York: Simon and Schuster.

Steffen, B., Carter, G., Martin, M., Pelletiere, D., Vandenbroucke, D., Yao, Y. (2015). Worst case housing needs: 2015 report to congress. Retrieved from https://www.huduser.gov/portal/publications/affhsg/wc_HsgNeeds15.html.

Stone, S. I., & Rose, R. A. (2011). Social work research and endogeneity bias. *Journal of the Society for Social Work and Research*, *2*(2), 54-75.

Taylor, M., Jenkins, S., & Sacker, A. (2009). Financial capability and wellbeing: Evidence from the BHPS. Retrieved from http://www.third-sector.co.uk/wp-content/uploads/financial-capability-and-psychological-well-being-May-09.pdf

Toosi, M. (2002). A century of change: the U.S labor force, 1950-2050. Retrieved from http://www.bls.gov/opub/mlr/2002/05/art2full.pdf

Tsemberis, S., & Eisenberg, R. F. (2000). Pathways to housing: Supported housing for street-dwelling homeless individuals with psychiatric disabilities. *Psychiatric Services*, *51*(4), 487-493.

Tucker, J. N., Key, C. C., & Grinstein-Weiss, M. (2014). The benefits of saving at tax time: Evidence from the $aveNYC evaluation. *The Journal of Socio-Economics*, 48, 50-61.

U.S. Bureau of Labor Statistics. (2015). Women in the labor force: A databook (2014 Edition). Retrieved from http://www.bls.gov/cps/wlf-databook2014.htm.

U.S. Census Bureau. (2015). Table 1: Employment, work experience, and earnings by age and education. Civilian noninstitutional population: United States, both sexes. Retrieved from: https://www.census.gov/hhes/www/income/data/earnings/call1usboth.html

U.S. Census Bureau. (2008). 2008 SIPP user's guide. Retrieved from http://www.census.gov/programs-surveys/sipp/methodology/users-guide.html.

U.S. Conference of Mayors. (2011). Hunger and homelessness survey. Retrieved from: http://usmayors.org/pressreleases/uploads/2011-hhreport.pdf

US Department of Health and Human Services (2014a). TANF caseload data 2014. Retrieved from: https://www.acf.hhs.gov/sites/default/files/ofa/2014_recipient_tan.pdfU.S.

U.S. Department of Health and Human Services. (2014b). Temporary Assistance for Needy Families Program: Tenth report to Congress. Retrieved from http://www.acf.hhs.gov/sites/default/files/ofa/10th_tanf_report_congress.pdf

U.S. Department of Health and Human Services. (2011a). The 2011 HHS poverty guidelines. Retrieved from http://aspe.hhs.gov/poverty/11poverty.shtml.

U.S. Department of Health and Human Services. (2007). Characteristics and dynamics of homeless families. Retrieved from https://aspe.hhs.gov/sites/default/files/pdf/75331/report.pdf

U.S. Department of Health and Human Services (2003). Indicators of welfare dependence. Annual report to congress. Retrieved from http://www.aspe.hhs.gov/HSP/indicators03/apa.htm

U.S. Department of Housing and Urban Development. (2015). The 2014 annual homelessness assessment report to congress. Retrieved from https://www.hudexchange.info/hdx/guides/ahar/

U.S. Department of Housing and Urban Development. (2014a). Fact sheet: Family self-sufficiency (FSS) program. Retrieved from http://portal.hud.gov/hudportal/documents/huddoc?id=fssfactsheet.pdf.

U.S. Department of Housing and Urban Development. (2014b). Emergency Solutions Grants program fact sheet. Retrieved from https://www.hudexchange.info/resource/2015/emergency-solutions-grants-esg-program-fact-sheet/.

U.S. Department of Housing & Urban Development. (2013). Homeless prevention and rapid rehousing: Program description. Retrieved from: http://portal.hud.gov/hudportal/HUD?src=/recovery/programs/homelessness

U.S. Department of Housing and Urban Development. (2010). Life after transitional housing for homeless families. Retrieved from: http://www.huduser.org/portal/publications/LifeAfterTransition.pdf\

U.S. Department of Housing and Urban Development. (2007). HUD historical background. Retrieved from http://www.hud.gov/offices/adm/about/admguide/history.cfm#1940

U.S. Department of Housing and Urban Development. (2001). Voucher program guidebook: Housing choice. Retrieved from http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_11743.pdf.

UCLA Statistical Consulting Group. (2016). FAQ: How are the likelihood ratio, Wald, and Lagrange multiplier (score) tests different and/or similar? Retrieved from http://www.ats.ucla.edu/stat/mult_pkg/faq/general/nested_tests.htm

Uniform Residential Landlord and Tenant Act of 1974, Kansas State , §§ 58-2540 et seq.

Van Parijs, P. (2004). Basic income: a simple and powerful idea for the twenty-first century. *Politics & Society, 32*(1), 7-39.

Vespa, J., Lewis, J., & Kreider, R. (2013). America's families and living arrangements. Population characteristics. Retrieved from https://www.census.gov/prod/2013pubs/p20-570.pdf

Vitt, L. A., Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J. K., & Ward, J. (2000). *Personal finance and the rush to competence: Personal financial literacy in the US.* Nellysford: Institute for Socio-Financial Studies.

Weinreb, L., Buckner, J., Williams, V., & Nicholson, J. (2006). A comparison of the health and mental health status of homeless mothers in Worcester, Mass: 1993 and 2003. *American Journal of Public Health*, *96*(8), 1444-1448.

Wenzel, S., Koegel, P., & Gelberg, L. (2000). Antecedents of physical and sexual victimization among homeless women: a comparison to homeless men. *American Journal of Community Psychology*, *28*(3), 367-390.

Winship, C., & Morgan, S. (1999). The estimation of causal effects from observational data. *Annual Review of Sociology*, 25, 659-706.

Wood, D., Valdez, B., Hayashi, T., & Shen, A. (1990). Health of homeless children and housed, poor children. *Pediatrics*, *86*(6), 858-866.

Xiao, J. J., & Noring, F. E. (1994). Perceived saving motives and hierarchical financial needs. *Financial Counseling and Planning*, *5*(1), 25-44.

Xiao, J., & Gray Anderson, J. (1997). Hierarchical financial needs reflected by household financial asset shares. *Journal of Family and Economic Issues*,*18*(4), 333-355.

Yu, M., North, S., LaVesser, P., Osborne, V., & Spitznagel, E. (2008). A comparison study of psychiatric and behavior disorders and cognitive ability among homeless and housed children. *Community Mental Health Journal*, *44*(1), 1-10.

Zelleke, A. (2005). Basic income in the United States: Redefining citizenship in the liberal state. *Review of Social Economy*, *63*(4), 633-648.

Zima, B., Wells, K., & Freeman, H. (1994). Emotional and behavioral problems and several academic delays among sheltered homeless children in Los Angeles County. *American Journal of Public Health*, *82*(2), 260-264.

9.0 APPENDIX

Table 7: Correlations of variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Missed housing payment	1.000															
(2) Race	.052***	1.000														
(3) Ethnicity	.060***	-.045***	1.000													
(4) Household type	.119 ***	-.146***	.087***	1.000												
(5) Type of residence	-.140***	-.164***	-.179***	-.315***	1.000											
(6) Education	-.101***	-.013	-.208***	-.168***	.199***	1.000										
(7) Age	-.135***	-.074***	-.149***	-.132***	.305***	-.043**	1.000									
(8) Number of children	.132***	.061***	-.161***	.118***	-.184***	-.038***	.527**	1.000								
(9) Log income	-.136***	-.080***	-.113***	-.293***	.280***	.347**	.022*	-.058***	1.000							
(10) Employment	-.009	-.003	-.024*	-.020*	.028**	.201***	.400***	.150***	.276***	1.000						
(11) Rec'd benefits	-.070***	.103***	-.070***	.211***	-.206***	-.170***	-.013	.084***	-.181***	.157***	1.000					
(12) Mental / physical disability	-.083*	.031*	-.030**	.080***	-.086***	-.147***	-.119***	-.069***	-.156***	-.323***	.202***	1.000				
(13) Checking account	.110***	-.084***	-.168***	-.174***	.230***	.279***	.108***	-.092***	.247***	.075	-.124***	-.110***	1.000			
(14) Savings account	-.097***	-.063***	-.142***	-.185***	.228***	.258***	.006	-.054***	.278***	.185***	-.152***	-.097***	.364***	1.000		
(15) Inadequate liquid assets	.070	.007	.018	-.071***	-.010	-.032*	-.059***	.039**	.054***	.078***	.023*	.007	-.066***	-.353**	1.000	
(16) Income shock	.072***	.019	.046***	.039***	.077**	-.052***	-.038**	.036*	.070***	.023*	.043***	.072***	-.053***	-.043***	.032**	1.000