Individual, family, and community factors that predict economic self-sufficiency: An analysis of Minnesotans who receive community action agency services

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Abstract

The research question addressed by this dissertation is: ***What household (individual and family) characteristics and community-level factors contribute to continued material hardship and welfare dependence and inhibit economic self-sufficiency among low-income families?*** The individuals who participated in this study are clients of one of the 28 community action agencies in Minnesota. Community action agencies are nonprofit organizations that receive funding from the federal Community Services Block Grant to address poverty at the community level. Here the term **economic self-sufficiency** is used to define a state of being for individuals and families that meet two criteria. The first component is **income source**. *To be self-sufficient, a household must be receiving more than half of their income from sources other than public assistance.* The second component is **income adequacy**. *To be economically self-sufficient a household also must not be experiencing material hardship, meaning that they are able to afford both food and housing expenses.* To examine the relationship between economic self-sufficiency and various individual/family and county-level variables, multilevel regression modeling techniques were used. The key findings are that: demographic characteristics are generally related to self-sufficiency and the impact of these variables on self-sufficiency is reduced when cash and non-cash supports are controlled in the models; participants' access to and use of cash-and non-cash supports are strong predictors of self-sufficiency, even after controlling for the impact of county-level factors; and nonprofit density is the only county-level factor that is significantly related to individual participants' self-sufficiency, and the nature of this relationship is still unclear. The results of this dissertation suggest that public programs geared toward promoting self-sufficiency should focus on increasing access to non-cash resources and supports, especially in the areas of transportation and housing. Also, community action agencies should make it a goal to register their clients who are eligible for the Earned Income Tax Credit. These agencies should also address major barriers to self-sufficiency by assessing and responding to needs for transportation, housing, and child care. More research is needed on the cost effectiveness of various policy and program solutions to improve self-sufficiency.

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Chapter 1: Introduction

Research on poverty and inequality has in many cases contributed to maintaining the status quo in political and economic systems. These systems and structures create barriers for individuals and families to become economically self-sufficient. One reason why most poverty research does not address the underlying structural causes of poverty is that this research takes socially constructed characteristics and systems as given, including those of race, gender, and market capitalism (O'Connor 2001; Schram 1995). Poverty research since the 1970s has been more focused on welfare reform (to reduce dependence among recipients) than eliminating poverty (see, for example, Moynihan, Smeeding, and Rainwater 2004). Most poverty research has *assumed* that the goal of government poverty-reduction programs is to ameliorate the conditions of poverty, whereas the actual program goal may be controlling government spending.

It is important for poverty researchers to address the broad implications of the current economic and political structure instead of just narrowly focusing on evaluating anti-poverty efforts, while taking the individual's environment in which these efforts are developed and implemented for granted (Angel, Lein, and Henrici 2006; Hickey and Bracking 2005; Schram 1995). Some sociologists assert that we know what needs to be done to eliminate poverty, but it hasn't happened, and won't happen under the current system, because the solution is politically unpopular (Harrington 1962; O'Connor 2001). Some sociologists have examined the degree to which factors such as labor markets and the structure of government assistance affect the economic well-being of individuals and families (e.g., Blank 1997; Wilson 1996). A different area of study examines the degree to which community-level variables like the availability of nonprofit assistance (Bielefeld 2000; Gronbjerg and Paarlberg 2001), and social network factors like support from family and friends (Coleman 1988; Lin 1999), interact with individual/family characteristics and environmental circumstances to affect economic self-sufficiency.

In this dissertation, I address community-level barriers to economic self-sufficiency, examining the impact of human services availability, social network support, and individual/family situations. For the purposes of this study, **economic self-sufficiency** is defined at the household level as being able to afford both food and housing expenses in the previous month (**dependent variable 1: income adequacy**) and having less than half of all household income coming from public assistance (**dependent variable 2: income source**). Data from Minnesota community action agencies, the Minnesota Longitudinal Finance Study, and the Minnesota Department of Employment and Economic Development (DEED) are used to examine the relative influence of individual and family characteristics and community-level factors on economic self-sufficiency.

This study contributes to sociological theory in several ways. First, it extends a sociological variant of the classical economics theory of rational choice. Specifically, this study adds nuance to the assertion derived from mainly qualitative research (e.g., Edin and Lein 1997) that, when looking at *both financial and non-financial* aspects of the "choice" to work versus receive welfare from the perspective of the poor, some of their decisions appear more "rational" (i.e., utility maximizing) than public policies, politicians, and members of the general public might frame them. Human capital theory (Becker 1975), which is based in classical economics, asserts that individuals make decisions to maximize their own utility. The theory assumes that people have information about the range of options available to them and the various costs and benefits of each of those options. Other sociologists (Edin and Lein 1997; Angel, Lein, and Henrici 2006) would claim that only looking at whether welfare or working pays more in terms of actual financial income ignores the human factors that go into this decision, such as whether or not the parent feels comfortable with the child care arrangement they must use while working, the amount of time they may lose with their children by working certain hours, or the compromising of important social network ties that working necessitates. Human capital theory also assumes that individuals make decisions based on their *individual* utility, whereas sociologists who advocate for considering non-economic factors as well have emphasized individuals' interest in the utility of others (especially family members and dependents). I will build on the work of Edin, Lein, London, Angel, Newman, and others and extend their work by using quantitative models to illustrate the relative impact of household-level (i.e., individual and family) and community-level (i.e., county) variables.

Second, my dissertation extends social network theory by testing the idea that individuals who have social network support are more likely to be economically self-sufficient than individuals who do not have access to these sources of support. This part of my dissertation research draws on social capital/social network theories, which claim that individuals are more likely to be successful if they have relationships with other individuals who provide certain benefits to them (e.g., Coleman 1988). These benefits can include things such as advice or connections on where to get good jobs, parenting support, financial assistance, temporary housing, and other less tangible forms of support (a shoulder to cry on, etc). Existing research in this vein asserts that people who have more access to social network support are more likely to be able to attain economic self-sufficiency.

Third, this dissertation examines the role of nonprofit social service density/availability on the economic self-sufficiency of individuals and families in metropolitan and nonmetropolitan areas of Minnesota. Previous research by Bielefeld (2000), Gronjberg and Paarlberg (2001), Nemenoff (2008), and others has shown that the rate of poverty in a community is inversely related to the size of the nonprofit human services sector in that community on a macro level. I extend this area of research by making the connection between social service density and household-level economic self-sufficiency outcomes.

Finally, this dissertation increases understanding about the role of labor markets in determining employment patterns of unskilled workers. Structural theories of inequality suggest that social systems are more important than individual characteristics in determining who is poor, and who among the poor are able to escape poverty. Blank (1997), Wilson (1996, 1987, 1980), and others have argued that, since the 1970s, local labor markets are playing an increasing role in determining the chances of low-income individuals being employed. Because modern labor markets do not provide as many unskilled jobs that pay living wages (compared with the 1960s and earlier), and because unskilled jobs have geographically moved away from concentrations of unskilled workers, poor people are increasingly unable to find jobs that are compatible with meeting the financial and non-financial needs of themselves and their families while still appropriate for their skill level and educational background. My research tests the assertion that local unemployment rates and the proportion of the local labor market that is in the service sector are both related to individual employment outcomes.

Overall, this study contributes to the theoretical and policy debate about the impact local labor market conditions, availability of human services, social network support, access to non-cash resources, income supplements, and individual/family characteristics have on the likelihood that families will attain economic self-sufficiency, and the extent to which labor market circumstances, social services, social network connections, or individual/family characteristics should be the focus of policy and programming efforts to promote economic self-sufficiency. This study explicitly models the impact of household-level and county-level variables in determining economic self-sufficiency. In addition, this study controls for welfare benefit levels while examining the impact of local labor market conditions by including all of the counties in Minnesota, some of which have relatively high unemployment rates and some of which have lower unemployment rates. (All of the counties in Minnesota are subject to the same welfare rules and benefits, whereas the labor market conditions and social service density vary across these communities.) This ability to control for welfare benefits adds strength to findings that local labor market conditions and social service density significantly impact welfare use. The outline of the remainder of this dissertation is as follows:

Chapter 2: Literature Review – This chapter includes a comprehensive literature review highlighting the important and relevant theoretical and empirical work that has been done on this topic. Questions to be addressed include: What is the scope of poverty in the U.S.? What are the differences between public opinion and policy makers' perceptions of the causes of poverty and the lived experiences of those in poverty? What structural factors make it difficult for some individuals and families to attain economic self-sufficiency? What is the current status of and ideology behind public assistance programs in the U.S.? What is the current official method for measuring poverty? Why is this method inadequate? What is economic self-sufficiency? What are the various ways it is defined? How does lack of concrete operationalization of this concept contribute to policy problems? How is economic self-sufficiency operationalized for this dissertation? Why is this particular operationalization appropriate given the research questions? What are the individual and family characteristics associated with poverty? What are the community-level factors associated with poverty?

This chapter also summarizes a major anti-poverty program in Minnesota – community action agencies, which are funded in part by the federal Community Services Block Grant that is passed through the state within the complex network of anti-poverty programs initially developed in the 1960's War on Poverty (see page 22 for more information). This section includes a detailed description of the Self-Reliance Achievement Scale (SRAS), which is the tool used by community action agencies to assess the progress of their clients toward economic self-sufficiency. SRAS data collected from community action clients in 2007 across Minnesota is the basis of the empirical sections of this dissertation. The results of a reliability and validity test I previously completed with SRAS data are included, as well as any relevant literature supporting my specific operationalization of the concept of economic self-sufficiency or any of the explanatory variables. I address the following questions: What is community action and how does it fit within the system of programs that serve the poor in the U.S.? How does community action in Minnesota measure the progress of their clients toward the goal of economic self-sufficiency? Is this method reliable and valid?

Chapter 3: Methods – This chapter describes the study participants, data collection methodology, and analytic approach. This also includes a detailed description of the individual/family level variables and the community-level variables used in this analysis (hypothesis specification). Questions addressed include: Who are the participants in this study? How were they sampled? How representative are the study participants of the entire population of low-income individuals and families in Minnesota? What variables are used in this study? How are they operationalized? What is the distribution of these variables in the study sample? What statistical techniques are used to test the study's hypotheses? Why are these techniques appropriate? What are the statistical models that are being tested?

Chapter 4: Descriptive analyses – This section presents the results of descriptive analyses, by hypothesis. Questions addressed include: What individual and family level variables are associated with economic self-sufficiency? What community level variables are associated with economic self-sufficiency?

Chapter 5: Inferential analyses – This section presents the results of inferential analyses, specifically logistic regressions. Questions addressed include: Are the study's hypotheses supported or rejected by the analysis? What is the relative importance of individual/family level variables and community level variables in predicting the economic self-sufficiency outcomes for individuals and families?

Chapter 6: Conclusions – This chapter demonstrates how the findings from my research contribute to both theoretical and policy debates on this topic. Questions addressed include: How are the study's findings interpreted in terms of implications for sociological theory and research? For the practice in community action? For policy-makers who make funding decisions for particular programs? What are the limitations of this research? What questions or angles should future research address?

Chapter 2: Literature Review

Defining the problem

Poverty is a deficiency or lack of something, usually money or resources that can be purchased with money. Clearly, then, to be in poverty means to have less money than some agreed-upon amount, and some could argue that no further explanation for this persistent social problem is needed. However, sociological minds might wonder: Why do some people experience poverty while others have plenty? Why do some people who are born into poverty become wealthy (or at least middle class) while others spend their lives poor? What structural factors contribute to poverty and welfare dependence, especially in the contemporary U.S. where there is enough money (and food, shelter, resources, etc.) to go around, if only things were distributed more evenly? What prevents some individuals from becoming economically self-sufficient while others manage to make ends meet without public assistance? Many theorists and observers of the social world have attempted to make sense of these difficult issues.

Much of the research on these topics in sociology and related fields focuses on the individual correlates and causes of welfare dependence and poverty. Some of the factors studied include education, family structure, and access to housing, health care, child care, and transportation. However, caution must be used when linking individual characteristics to individual outcomes without considering the bigger picture, including such issues as why children of the poor are more likely to be poor as adults, why minorities have higher rates of poverty than whites, and why some families with two working adults still can't make ends meet.

Whereas most research on poverty focuses on individual- or family-level explanations for poverty, other approaches critically analyze the economic or political system. Herbert Gans (1972) applied the theory of functionalism to explain the persistence of poverty through analysis of social structures. The idea is straightforward:

poverty exists because people in power benefit from it. For example, rich people benefit from poverty because they have poor people who are desperate enough to be willing to do the "dirty" work of cleaning their homes, caring for their children and elderly, and keeping their lawns mowed. The persistence of poverty also creates and maintains jobs for a whole range of professionals, including social workers, criminologists, and state human service workers. And finally according to Gans, "poverty persists not only because it satisfies a number of functions but also because many of the functional alternatives to poverty would be quite dysfunctional for the more affluent members of society" (1972, p. 287).

In fact, critical sociologists claim that research itself impacts anti-poverty policy by the way the research questions are framed. Since 1965, federal funding for poverty research has increased significantly from less than $3 million to over $200 million annually, with much of this funding being devoted to applied research including program evaluation and policy analysis (O'Connor 2001). And because the federal government supplies a majority of applied poverty research funding, critical scholars argue that most of the research questions and designs align well with the administration's policy and ideology (Schram 1995). This line of reasoning supports the idea that policy makers in the U.S. are most likely to pay attention to research that they funded or requested and are less likely to pay attention to research that starts with a different ideological perspective than their own (Moen and Jull 1995). Although the theories behind poverty research have changed over time, the focus has typically been on documenting the characteristics and behaviors of the poor rather than examining the structural factors that contribute to the persistence of poverty (O'Connor 2001). Ultimately, "policy makers [a]re encouraged to focus on what [i]s wrong with welfare and welfare recipients rather than on what [i]s wrong with the economy and society at large" (Schram 1995, p. 104).

How many people in the U.S. live in poverty? What challenges do they experience?

According to the U.S. Census Bureau (2007, American Community Survey), 9.5 percent of U.S. families (households with children) and 13.0 percent of individuals living in the U.S. had incomes below the poverty line in 2007. In Minnesota we fare slightly better, with 6.5 percent of families and 9.5 percent of individuals in poverty. The national poverty rate (for more information on how the poverty rate is calculated, see the next section starting on page 9) dropped significantly from the time it was first measured in the early 1960s through the mid-1970s, when the overall poverty rate bottomed out at around 10 percent before climbing again in the recession of the 1980s to levels between 12 and 15 percent. After about 1991, the poverty rate again decreased, before a slight jump in the early 2000s, around the same time as we were experiencing another recession (Hoynes et al. 2005). However, income variance among U.S. families has increased by two-thirds since 1975 (Western, Bloome, and Percheski 2008). Poverty spells are usually short – half last less than one year and three-quarters last less than four years (Cellini, McKernan, and Ratcliffe 2008).

Economic self-sufficiency is often impossible for low-income individuals and families (Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001; Edin and Lein 1997; Ehrenreich 2001; Grabowski 2006; Stack 1975). Pre-welfare reform research conducted with low-income single mothers who were either on welfare or working low-wage jobs found that neither low-wage work nor welfare were adequate for these mothers to make ends meet (Edin and Lein 1997). (“Welfare reform” refers to the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, or PRWORA. See section below that describes this Act and its impact on U.S. welfare policy and programs.) The majority of single mothers in this study had to supplement their income with side jobs or illegal activities to cover all of their families’ monthly expenses. The study also found that being welfare-reliant was more conducive to supplemental earnings strategies (such as “off-the-books” babysitting, housecleaning, etc.) than was low-wage work. The authors of this study therefore predicted that the welfare reform law of 1996 would make single mothers worse off financially because it pushes these women off welfare and into the workforce more quickly than pre-welfare reform programs, which means fewer of these women will be able to earn supplemental incomes. Based on the results of their qualitative research, the authors felt that the single mothers who had the least amount of social network support and access to non-cash resources would be most significantly impacted by the changes implemented with welfare reform. They claimed that increases in child support enforcement and increased utilization of the Earned Income Tax Credit could buffer against some of this negative financial impact of moving quickly off welfare.

In fact, other research has shown that low-income families are not necessarily better off than they were before welfare reform. Using a participant-observer approach and starting with a journalist's perspective, Ehrenreich (2001) spent several months of her life working low-wage jobs in four U.S. cities to illustrate the difficulties that go along with low-wage jobs and low-income housing. Her research highlights the functional and logical adaptations made by poor individuals, families, and communities in response to structural constraints beyond their control. In general, low-income single mothers "do not freely choose the strategies they employ [to make ends meet]. Rather, their choices are constrained both by the social-structural characteristics of the cities in which they live and by the quality of the mothers' social capital and access to noncash resources" (Edin and Lein 1997, p. 264).

To make ends meet, every woman but one in Edin and Lein's (1996) study of nearly 400 poor women in four U.S. cities had to supplement their income with off-the-books work or in-kind support from informal kin networks, whether the main source of the family's income was welfare or employment. In addition, one-third of the women in this study had run out of food at least once in the past year, one-third had their phone disconnected at least once, and one-quarter were doubled up in their housing.

Although much of the research and policy-making around the issue of poverty has emphasized the characteristics, attitudes, and behaviors of the poor as a primary factor contributing to the persistence of poverty, research that uses first-hand interaction with welfare recipients and the working poor has found strong evidence that a vast majority of poor people hold values for working and self-sufficiency similar to middle-class norms

(Brown and Barbosa 2001; Scott, London, and Edin 2000; Edin and Lein 1997; Edin and Lein 1996). For example, Edin and Lein (1996, 1997) reported that 85 percent of the nearly 400 low-income women in their study wanted to work, but most were not ready for the jobs available in their communities and were not allowed to pursue training opportunities under the rigid work requirements of welfare reform (the new law requires recipients to work after two years of receiving benefits and has a lifetime limit of five years). Another study of the job aspirations of welfare recipients found that these individuals viewed the work mandates as legitimate, but they desired more education and their occupational aspirations were fairly low, even for those individuals with relatively high educational attainment (Scott, London, and Edin 2000).

Most people on welfare at any given time are very short-term users who will get benefits temporarily before moving very quickly, and with very little support or training, back into the labor market (Cancian and Meyer 2004). Although long-term welfare recipients make up a small proportion of the overall welfare rolls at any given time, they cost more because of their prolonged use and their need for more intensive services. Therefore, this subset of all welfare recipients is the focus of much research and policy attention. Long-term welfare recipients are likely to have multiple issues such as lack of child care, housing, transportation, or health insurance; domestic violence; mental and physical health problems; responsibility of caring for a child or other family member with severe health problems; and/or criminal background, which are all barriers to stable employment and economic self-sufficiency (Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001).

Blalock, Tiller, and Monroe (2004) conducted in-depth interviews with 10 black single mothers in Louisiana who are all former welfare recipients who reached the time limits imposed by welfare reform (i.e., the Temporary Assistance to Needy Families, TANF, block grant, which replaced Aid to Families with Dependent Children, AFDC) so they are now trying to make it on their own – none of these women have escaped poverty despite the fact that they are now off welfare. These studies provide strong indication of the inadequacies of the welfare system and the labor market to meet the needs of single mothers trying to leave welfare *and* escape poverty. The ultimate strategy to make ends meet for these poor families may be "not welfare, but not work either" (Blalock, Tiller, and Monroe 2004, p. 134). In other words, some combination of strategies (legal but prohibited by welfare programs, and illegal) must be used by many low-income people to meet the needs of their families.

Ultimately, then, the problem is that many individuals and families in the U.S. struggle to make ends meet whether they are on welfare or working in low-wage jobs. One major approach to researching these issues focuses on individual characteristics and uses quantitative data to explain dependence and material hardship (Cheng 2002 and 2003; Duncan et al. 2003; Elman and O'Rand 2004; London 2006), whereas a separate body of research uses qualitative research from the perspective of the low-income people themselves to illustrate how structural factors create significant barriers to economic self-sufficiency (e.g., Edin and Lein 1997; Blalock, Tiller, and Monroe 2004; Scott, London, and Edin 2000; Eherenreich 2001). The overarching research question that I address with this study, using quantitative data from two levels of analysis (household and community), is: ***What household (individual and family) characteristics and community-level factors contribute to continued material hardship and welfare dependence, and inhibit economic self-sufficiency, among low-income families?***

In addition to the actual problems experienced by people living in poverty described above, there is also the problem of defining what is an adequate level of income to prevent families from experiencing material hardship. The next section of this dissertation describes traditional methods of measuring and reporting poverty in the U.S.

The U.S. government's official poverty line

In the early 1960s, Mollie Orshansky, an economist from the Social Security Administration, developed the basic concept of the poverty threshold that is still being used by the U.S. government today (Fisher 2005). Orshansky used the lowest cost food budget for a family of four provided by the United States Department of Agriculture (USDA) multiplied by three to create a base poverty threshold for a "typical" American family (two parents, two kids). This measure assumes that an average family spends about one-third of their income on food. She then used a formula to adjust the threshold for different family sizes and compositions.

The official poverty threshold is the statistical version of the poverty measure that is issued by the U.S. Census Bureau to count the number of people who are poor. Poverty guidelines are simplifications of the thresholds that are used by the U.S. Department of Health and Human Services to determine eligibility for means-tested programs (*Focus* 1998). It is important to note that Orshansky never intended or expected her poverty measure to be used so broadly, to define and measure poverty across all government agencies and to determine eligibility for government benefits. Rather, the measure appears to have been appropriated by the federal government for this purpose because of its relative simplicity and political appeal (O'Connor 2001; Beeghley 1984). Some experts continue to assert that the use of the poverty threshold to determine program eligibility is inappropriate (*Focus* 1998).

The poverty threshold uses food, arguably one of a human's most basic needs, as a proxy measure for all basic needs. This is a relatively simple and logical proposition. Basically, the poverty threshold measures a family's ability to purchase the minimum amount of food (and other basic necessities, once multiplied by three) needed to survive. This is appealing for two reasons. First, although they can disagree about most things, it is unlikely that any politician would make the argument that food is not a basic necessity for all human beings. Second, (at the time the measure was developed) it was well-established that a typical family spends about a third of its income on food (Fisher 2005), and the minimum amount of money needed to be able to purchase that food was provided by a relatively independent and credible source (the USDA). Therefore, this method of measuring poverty has persisted in good part because alternative measures are more complicated and/or less politically feasible (O'Connor 2001).

Problems with the official poverty line

The federal government continues to use this absolute poverty threshold to enumerate the poor and to determine eligibility for government benefits despite the significant concerns about the appropriateness of the measure highlighted by the scholarly community (Beeghley 1984; Fisher 2005; *Focus* 1998; Iceland 2005; Jorgenson 1998; Williamson and Hyer 1975). The first concern originates from the USDA food budget that was used. As previously mentioned, Orshansky used the lowest cost, or "economy", food budget as the base of her poverty measure. However, this food budget is clearly described by the USDA as a temporary budget to be used in a crisis, but not a budget that can sustain a nutritionally adequate diet over the long term. Some researchers have expressed concern that our federal government has set the poverty threshold so low that a family whose income is at or just below the threshold cannot afford to purchase food to provide a nutritionally adequate diet (Beeghley 1984). An alternative would be to use the second level, or "basic", food budget provided by the USDA, which is the lowest cost food budget that is nutritionally adequate for extended use. Similarly, it has been argued that the proportion of a family's budget that is spent on food is not constant across all income levels; rather, it is more reasonable to assume that very poor families spend a much larger proportion of their budget on food compared with higher income families (Beeghley 1984). Other scholars have claimed that the cost of living should be calculated to include the costs of participating in our social system, not just the bare minimum to meet basic physiological necessities (Jencks 1972).

Second, a major criticism of the federal government's poverty threshold is that it has not responded to changes over time. There are several changes that are relevant: 1) the overall standard of living has increased since the 1960s and the poverty threshold does not reflect this change (Jorgenson 1998); 2) the proportion of a family's budget that is spent on food has decreased over time while the proportion of income spent on other basic necessities (especially housing) has increased (Beeghley 1984; Ehrenreich 2001); and 3) the poverty threshold was not indexed adequately (Fisher 2005). Each of these changes means that a family income at the poverty threshold is now even less adequate than it was in the 1960s (and it may not have been adequate even at that time) to purchase basic necessities. In other words, if the poverty threshold is intended to draw a line between the households that are able to meet their own basic needs and those who cannot, it is set far too low given the current standard of living and prices for goods and services (*Focus* 1998). This is despite some changes that have been made to the original poverty measure to address these criticisms.

For example, in 1965, the Poverty Level Review Committee of the Bureau of the Budget (now the Office of Management and Budget or OMB) decided to adjust the poverty thresholds annually for price changes. Since 1969, the Consumer Price Index (CPI) has been used to make these adjustments for price. Other changes have been made to the original poverty measure developed by Orshansky in order to respond to societal trends. For example, in 1969 the ratio of poverty threshold for non-farm to farm households was reduced and in 1981 it was eliminated, due to the increasing food budgets of farm households (Fisher 2005). Stack (1975) even argued that the household may not be the most appropriate unit of analysis for studying poverty in African American communities because the "household" is actually a fluid unit that grows or contracts depending on how many members of the kin network are "officially" living at that residence at the time of the survey.

In 1992, after a request from Congress, the National Academy of Science and the National Research Council convened a Panel on Poverty to propose an alternative to the existing poverty measure (*Focus* 1998; Iceland 2005). The panel recommended that the poverty threshold be determined by calculating the household income needed for food, clothing, shelter, utilities, and then increasing it by a modest amount for "other needs" like household and personal care supplies and non-work transportation. They recommended that the threshold be adjusted for household size and composition, similar to what was done with the original measure. The cost of each of these basic necessity items would be determined by scaling based on the median spending on these items, as measured by the U.S. Consumer Expenditure Survey (CEX) (Iceland 2005). This is in contrast to the original measure that only uses the food budget (multiplied by three) to estimate household consumption needs. This revision would help to adjust for the fact that prices for various goods and services do not increase at the same rate. The adjustment would also add an element of relativity because the threshold would be scaled to *median* consumption (*Focus* 1998).

Measuring poverty based on actual income needed for basic necessities is appealing in one final respect: certain demographic groups (the elderly) are significantly more likely to own their homes outright, which significantly reduces their expenditures for housing compared with younger families that are renting or homeowners with a substantial mortgage. Accounting for actual housing costs is likely to reduce the proportion of elderly homeowners who are considered poor and increase the proportion of renters and younger homeowners who are considered poor (*Focus* 1998).

Third, although the official poverty measure does account for household size and composition, some critics have argued that the thresholds for some non-typical households may be computed incorrectly because adding or removing one adult or one child does not have a constant impact on household budgets across all household sizes (Beeghley 1984). For example, adding one child to a household may not *proportionally* increase the food budget as much for a household that already has six children compared with a household that only has one child.

Fourth, many scholars have questioned what counts as “income” when determining which families are in poverty. The U.S. Census Bureau defines income as “the sum of all money received from wages, social security payments, cash public assistance benefits, dividends, interest, rent, unemployment and workers’ compensation, pensions, and all other sources of cash” (Beeghley 1984, p. 325). The National Academy of Science’s Panel on Poverty recommended including the value of cash income and “near-cash” benefits such as food stamps; housing subsidies; school lunches; energy assistance; the Women, Infants, and Children food program (WIC); and the Earned

Income Tax Credit (EITC) in the calculation of income. The panel also suggested that nondiscretionary expenses (taxes, child care, work-related expenses, medical costs, and child support paid out) be deducted from the income measure (*Focus* 1998; Iceland 2005).

Despite the suggestions to incorporate noncash government benefits into the calculation of a household's income, this change has not been made (Fisher 2005). There is by no means a consensus on the issue of what should be counted as income. According to some, in-kind government benefits should *not* be counted as income because in-kind benefits do not make those who receive them less poor and because these benefits (e.g., Medicaid) are typically paid directly to the vendor of the service, not to the recipient of the benefit (Beeghley 1984; *Focus* 1998). An alternative approach would be to use a Medical Care Risk Index (MCRI) to estimate future medical care needs and resources, and to deduct this estimated expense from family income (*Focus* 1998).

Counting in-kind benefits as income for the poor is also problematic because in-kind benefits are not counted for other income groups. Since in-kind benefits paid to the poor (in the form of food stamps, Medicaid, public housing, and school lunches) accounted for only 20 percent of all in-kind benefits paid by the federal government to Americans (in 1980), it is clear that counting these benefits as "income" could affect the middle- and upper-classes as well as the poor (Beeghley 1984).

Fifth, there have been efforts to change the poverty threshold (and other assessment of inequality) to consumption-based measures versus the income-based measure that is currently used. Jorgenson (1998) recommends using consumption, as measured by the Consumer Expenditure Survey (CEX), instead of income to measure household resources. The CEX is sponsored by the Bureau of Labor Statistics and conducted by the U.S. Census Bureau using quarterly interviews (N=6800, rotating panel) and a two-week household consumption diary (N=6000) (*Focus* 1998). He also suggests that total household consumption, not just food consumption, should be used to measure household resources. The argument for using consumption-based measures is based on Friedman's permanent income hypothesis, which asserts that the distribution of household expenditures is less dispersed than the distribution of income (Jorgenson 1998; Slesnick 1994). Using data from the CEX in 1960/61, 1972, 1973, and 1980-1991, Slesnick (1994) confirms that a consumption-based measure shows inequality to be stable in the U.S. since the early 1970s, whereas income-based measures find increasing inequality. Efforts to revise the official poverty measure to a consumption-based measure have not been successful and/or have not yet been implemented, nor is there consensus on the issue. Iceland (2005) asserts that income-based poverty measures are more conceptually and operationally advanced than consumption-based measures, and therefore, he urges researchers to continue to use income-based measures in poverty research.

Sixth, some researchers have suggested that the March Current Population Survey (CPS) is not the best tool to measure poverty rates in the U.S. The National Academy of Science's Panel on Poverty recommended that the federal government use the Survey of Income and Program Participation (SIPP) instead (*Focus* 1998). The SIPP is sponsored by the U.S. Census Bureau, and has a sample size of about 36,700 households each year. Households are retained on the study panel for four years. There are no adjustments made for sample attrition, which could be problematic. By contrast, the CPS is a monthly survey sponsored by the Bureau of Labor Statistics that is used to produce the national monthly unemployment statistics. The U.S. Census Bureau supplements the March CPS with a set of questions about income. The monthly sample size is about 48,000 households; participating households are in the sample for four months, out for eight, and back in for four more months. This sample is corrected for attrition by bringing in more households every month according to how many dropped out in the previous month (*Focus* 1998).

Clogg, Massagli, and Eliason (1989) expressed concerns that the decennial U.S. Census counts in general (i.e., not specific to poverty counts) underestimate certain groups in the population, namely black males not in the labor force, due to nonresponse bias. This undercount could impact poverty rates if the groups that are under-counted have higher poverty rates than the population as a whole.

Variations on measuring poverty or material hardship

Many scholars continue to assert that the official poverty measure should be revised. Liberals insist that the official measure under-represents the needs of the poor (Beeghley 1984; Schram 1995), whereas conservatives argue that the current measure exaggerates the extent of poverty in America (Iceland 2005; Jorgenson 1998; Rector and Hederman 2004). Finally, some have pointed out that the current poverty measure will not be useful in determining the impact of welfare reform on poverty rates, since the current poverty measure does not take in-kind benefits into account (*Focus* 1998). Cancian and Meyer's (2004) study of early TANF participants in Wisconsin found that the proportion of families who are considered "poor" varies significantly depending on whether the cut-off is set at 100 percent of the federal poverty line, 150 percent, or 200 percent; and depending on which income sources – food stamps, Medicaid, and the Earned Income Tax Credit – are included. For example, 56 percent of their sample had family incomes greater than 100 percent of the poverty line whereas only 7 percent had incomes above 200 percent of the poverty line. Over three-quarters (76%) of their participants avoided "poverty" if the cost of Medicaid was considered part of their income, whereas less than half avoided "poverty" if food stamps (47%) or the Earned Income Tax Credit and other taxes (45%) were considered part of their income.

Research has shown how variations in the poverty measure would result in a very different picture of the poor in America. Williamson and Hyer (1975) found that 16 different methods of measuring poverty in the U.S. produced estimates of the poverty rate that ranged from 7 to 28 percent. Based on their results, they conclude that caution should be used when comparing poverty rates across studies that use different poverty measures.

Studies of the official U.S. poverty measure compared with proposed alternatives show that the selection of which measure to use can significantly impact a study's findings and the policy recommendations that result. For example, Iceland (2005) used data from the 1993 and 1999 Current Population Survey to compare poverty rates using the standard measure and using the alternative measure developed by the National Academy of Science's (NAS) Panel on Poverty. This study found that the alternative measure actually produces a *lower* overall poverty rate than the standard measure. In addition, the NAS measure would produce lower poverty rates among children, blacks, and Hispanics compared with the official measure, but the NAS measure produces higher poverty rates among whites and the elderly compared with the official measure (*Focus* 1998, Iceland 2005). In 1996, the extreme poverty rate would have been cut in more than half and the overall poverty rate would have been one-fifth lower using the NAS measure compared with the official poverty measure. However, near-poverty rates increase with the NAS measure (*Focus* 1998). In addition, the tool and sample used to measure poverty can make a difference. The Survey of Income and Program Participation produces lower poverty rates (for 1991) than the CPS, using both the official poverty measure and the National Academy of Science's alternative measure (*Focus* 1998).

Differences in poverty measurement schemes can also result in very different conclusions about the effectiveness of various anti-poverty policies and programs. Whereas much of the media and general public concluded that the War on Poverty[1] was a failure based on the continuing persistence of poverty and increasing socioeconomic inequality since the 1960s, Jorgenson (1998) concluded that "the War on Poverty was won" based on his analysis of consumption-based poverty measures. This difference in

[1] The War on Poverty is the unofficial name for legislation first introduced by United States President Lyndon B. Johnson during his State of the Union address on January 8, 1964. This legislation was proposed by Johnson in response to a national poverty rate of around 19 percent. The speech led the United States Congress to pass the Economic Opportunity Act, which established the Office of Economic Opportunity (OEO) to administer the local application of federal funds targeted against poverty. (http://en.wikipedia.org/wiki/War_on_Poverty)

conclusions is likely due to the fact that consumption-based measures account for the increased standard of living better than do income-based measures.

There are organizations that have concluded that the official poverty measure is meaningless because of how low the threshold is set, and also because the current absolute measure does nothing to help us understand the amount of inequality in society. Therefore, these organizations (e.g., the Jobs NOW Coalition in Minnesota, http://www.jobsnowcoalition.org/) publish their own poverty statistics based on alternative (and in their opinion, more realistic) measures of poverty. The most common of these measures is 50 percent of the median household income in a county, which is a relative measure. The Jobs NOW Coalition also adjusts their thresholds for family size and composition.

Not all poverty measurement research has focused on evaluating the U.S. poverty threshold or alternatives to that system. One study used data from Finland, the Netherlands, and the United Kingdom to compare three alternative measures of poverty (relative income poverty, housing deprivation, and subjective poverty) using a latent class approach (Moisio 2004). This study found that all three of these poverty indicators measured the same latent construct. In this case, the researcher set the model to have two latent classes, to correspond to the groups of poor and non-poor. However, this method could also be used to investigate the presence multiple latent classes (e.g., chronic poor, transitional poor, and non-poor; or very poor, poor, near-poor, and non-poor). Any poverty indicators used in the model should be locally (i.e., conditionally) independent, meaning that the relationship between the indicators is due to the latent class (poverty status), and the relationship between these indicators disappears when poverty status is held constant. The latent class approach is potentially very useful for evaluating alternative poverty measures, because individual indicators are only valuable if they serve as a reliable proxy for the latent construct. Overall, Moisio (2004) concludes that multiple indicators should *always* be used to measure poverty. However, the practicality of this suggestion is questionable.

Further, the Bureau of Labor Statistics investigated the potential for using a subjective measure of poverty by evaluating respondents' ability to answer four questions intended to tap the subjective aspect of being poor (*Focus* 1998). This investigation determined that these subjective poverty questions are difficult for respondents to answer and that they typically produce an unacceptable level of measurement error. (To be sure, standard measures of poverty may also be subject to measurement error related to faulty assumptions.)

Finally, Cancian and Meyer (2004) found that how economic well-being is measured has very strong effects on the conclusions that are drawn on the outcomes of welfare to work programs. Only 16 percent of the 1,924 women in their study met the criteria under all three measures to be considered "success" cases. Material hardship was measured by subjective self-report from participants to items asking if they had experienced food or housing insecurity in the previous year.

Despite all the criticisms leveled against it, the U.S. poverty threshold is the most commonly used measure of poverty in the U.S., both in policy circles and in scholarly research. For example, both Sandfort and Hill (1996) and Cheng (2002), the authors of two studies cited below for their work toward defining self-sufficiency, utilized the official poverty line as the cut-off for the "income adequacy" component of their self-sufficiency variable. The continued use of this measure in scholarly work despite its many known shortcomings can be partially attributed to the fact that the federal government sets the research agenda, the major funding streams, and the definitions used in poverty research (O'Connor 2001).

What is economic self-sufficiency?

Historically, the concept of self-sufficiency has been defined in many ways. Aristotle claimed that self-sufficiency is an important component in the ultimate goal of life (eudaimonia). He acknowledged two types of self-sufficiency: solitary and political.

Solitary self-sufficiency requires that all one's needed resources are procured without any assistance from others. On the other hand, his definition of political self-sufficiency allows for some assistance from others to meet one's needs. He viewed this type of self-sufficiency as a more realistic and appropriate goal, given that people are all "political" creatures, meaning that humans inherently are social beings (Haslip 2003). Published in 1841, Emerson's essay, *Self-Reliance*, is one of the first modern works to describe individuals who are self-reliant. Here self-reliance is defined as a state of individuality and morality despite appearances of contradiction (i.e., individuals who are self-reliant act in ways that they feel to be morally correct regardless of whether that makes them appear inconsistent with themselves or with society).

For the purposes of this study, the discussion is limited to a narrower and more concrete concept of ***economic self-sufficiency***. More detail is needed to further specify this concept. Any discussion of self-sufficiency within the context of American culture must take into consideration Americans' strong belief in self-determinism (i.e., if you're poor it's probably because of something you did or did not do) and Americans' patterns of affiliation with and interactions with society (i.e., Americans tend to have a strong sense of independence and individuality) (Lane 2001). This strong belief in self-determinism contributes to the maintenance of income inequalities and limited economic redistribution. Under this ideology, a market economy (i.e., working for pay at a job) is viewed as the most equitable method of economic distribution. Conversely, political allocations (i.e., public welfare assistance programs) are seen as providing unjustified benefits to the poor. "The American public believes in a soft determinism coupled with a thinly veiled social Darwinism that within some broad social parameters holds people accountable for their socioeconomic condition. We want to provide assistance to those who are in need, but only to the extent that they can demonstrate that they have not willfully contributed to their situation of need" (Daugherty and Barber 2001, p. 666).

In fact, economic self-sufficiency has become a key outcome in terms of evaluating programs for low-income individuals, especially welfare recipients (Lane

2001; Santiago and Galster 2004; O'Connor 2001; Daugherty and Barber 2001; Sandfort and Hill 1996). This is related to the reform of public assistance programs from entitlements into temporary assistance programs with an emphasis on moving individuals into employment. As this pro-work philosophy has been strengthened in the minds of funders, the pressure has increased for social service providers to demonstrate outcomes associated with improved economic self-sufficiency in their clients (McMillen et al. 2005; Edwards, Cooke, and Reid 1996). More generally, "public dissatisfaction with the role of government is leading to an increased focus on effectiveness and efficiency and a new fixation on results and outcomes" (Edwards, Cooke, and Reid 1996).

For example, in 1981, the Community Service Block Grant (CSBG) Act was passed, which created federal block grant funding (administered by the U.S. Department of Health and Human Services) that is passed through to community action agencies and other eligible entities by a designated state agency. A total of $9 billion is administered annually by community action to provide support, services, and improvements in low-income communities. The statutory goals of the CSBG funding are: securing and maintaining employment, securing adequate education, better income management, securing adequate housing, providing emergency services, improving nutrition, creating linkages among anti-poverty programs, and achieving self-sufficiency (National Community Action Foundation, 2007). In 1993, passage of the Government Performance and Results Act (GPRA) required that federally-funded programs, including community action agencies, demonstrate measurable outcomes. In August 1994, the Office of Community Services chartered the Community Services Block Grant Monitoring and Assessment Task Force, which created six broad goals and a list of direct measures to respond to GPRA. One of these goals is for low-income people to become more self-sufficient (ROMA, 2011). Public Housing Authorities (PHAs) have also incorporated goals of self-sufficiency into their programming, as a part of the National Affordable Housing Act of 1990, which requires most PHAs to help program participants reduce their dependence on public assistance (Santiago and Galster 2004). Community action in Minnesota is the focus of the next chapter of this dissertation.

Community action is an important set of services to focus on because these organizations more often serve the working poor and near-poor. Research on those individuals and families who are not on welfare but who are near-poor (called the "missing class" by Newman and Chen 2007) has also found that employment has significant costs, both financial and otherwise. This is particularly true for families that live in communities with sub-standard schools and child care, which means parents must make the choice between working a low-wage job to avoid going on welfare or spending more time with their children (and not having to put them in unsafe care) by going on welfare. So although most low-income people value working, "[n]either money nor the satisfaction that comes from having a job will help very much if there is no one around to mind the children" (p. 116). Further, the situation of individuals and families in the "missing class" may be more serious than the situation of people on welfare, because people in the missing class often do not qualify for public assistance programs such as cash assistance, child care subsidies, housing subsidies, public health insurance, and food stamps, but they also do not earn enough to buy these things on their own. Similarly, in their study of low-income families (using data from the Three City Study), Angel, Lein, and Henrici (2006) found that the ability to get and keep a job depend on many factors including the time commitment required to apply for benefits like TANF, Medicaid, food stamps, and child care and housing subsidies.

Although economic self-sufficiency is the goal of many public programs and, furthermore, an ideal of American society, it is difficult to know when it is achieved because the concept is poorly defined (Sandfort and Hill 1996). Some have defined the concept simply with regard to whether or not an individual is employed: "Sociologically, an individual is never self-sufficient in the purest sense (of being totally self-contained) but achieves a publicly recognized level of self-sufficiency through the performance of the social function of work" (Daugherty and Barber 2001, p. 669). On the other hand, Cancian (2001) argues that "although work is an important path toward improved well-being for poor families, a successful and humane social welfare policy must recognize and respond to its limitations" (p. 309). In other words, work does not always lead to economic self-sufficiency for families. In Cancian's study, 40 percent of families had incomes below the poverty line after five years of being off welfare.

Others have considered the degree to which an individual's or family's financial resources are derived from public assistance. For example, the federal government defines a family as dependent "if more than 50 percent of its total income in a one-year period comes from TANF, Food Stamps, and/or SSI, and this welfare income is not associated with work activities" (from a 2002 U.S. Department of Health and Human Services report, quoted in Cancian and Meyer 2004).

In his study of 693 welfare recipients who participated in the Women's Employment Survey conducted by the University of Michigan, Danziger (2000) used a three-level classification system for low-income individuals. He classified participants as wage-reliant (no public assistance earnings), combiners (earned income plus public assistance), and welfare-reliant (public assistance income only). Data from the first two waves of this panel study (in 1997 and 1998) found that over two-fifths (43.6%) of the women in the study were wage reliant in the month prior to the interview, over one-quarter (27.1%) were combiners, and one-fifth (20.4%) were welfare-reliant. This study is unique in that it defines economic self-sufficiency within a much shorter time period (the one month prior to the interview) compared with most other studies. For example, Sandefur and Cook (1998) consider individuals who are off the welfare rolls for two years or more ("permanent exit") to be self-sufficient, and, as described above, the federal government uses one year as the length of time within which proportion of income from welfare matters.

Even more distressing in terms of attempting to synthesize this body of research is that many of these studies used the term self-sufficiency to describe the goal of various programs and/or the outcome variable of interest in their research, but do not ever define these terms (e.g., Taylor and Barusch 2004; Brown and Barbosa 2001; Cancian 2001).

Most of these studies imply or assume that self-sufficiency is the opposite of welfare dependence or the equivalent of employment, but they do not specify the exact degree to which an individual must be employed (i.e., does working 10 hours per week in a fast food restaurant make someone self-sufficient, even if the income they earn does not cover the cost of child care for the time while they are at work?) or off public assistance (i.e., is a family self-sufficient if they are not receiving the TANF cash assistance but are receiving other benefits for low-income people, such as food stamps, child care subsidies, housing subsidies, Medicaid, etc.?)

Most researchers include public assistance programs that are only available to low-income people, probably because most, if not all, middle-class families would be considered “welfare recipients” if all public programs (like the child credit, mortgage tax rebates, etc.,) were included. In their study of women who participated in the early TANF program in Wisconsin (W-2), Cancian and Meyer (2004) found that varying proportions of this population would be considered “independent from government assistance” depending on which definition was used. If they defined “independence” as receiving less than $1,000 from W-2, food stamps, and SSI, then over one-quarter (26%) of the population was “independent” whereas only 7 percent would be considered “independent” if Medicaid benefits were also included in the total amount of assistance received by the family. Finally, if child care subsidies were included, only 2 percent of the families were “independent”. These researchers examined proportional measures of “independence from government assistance” and found that 70 percent of the families in their study received less than half of their personal income from W-2, food stamps, and SSI, but only 13 percent received no income from these sources. Nearly 9 out of 10 (87%) of the families in their study received at least some income in addition to W-2, food stamps, and SSI.

Finally, some researchers have combined two or more variables to operationalize the concept of economic self-sufficiency. For example, Cheng (2003) describes four levels of “financial independence” among his sample of former AFDC/TANF recipients in the National Longitudinal Survey of Youth (NLSY79) dataset. The lowest level is dependency (complete reliance on welfare as the only income source for the family), next is supplementation (mostly relying on welfare with some supplementation of the income with employment), then self-reliance (the family is earning their own income but has not escaped from poverty), and finally autonomy (the family is earning their own income at an adequate level to more out of poverty). The federal poverty level is used to distinguish between the top two levels on this scale. The two variables used together to operationalize economic self-sufficiency in Cheng's study are financial status and employment status.

Sandfort and Hill (1996) attempted to explicitly define self-sufficiency in contrast to welfare dependency by examining both source of income and adequacy of income. These authors explored their operationalization of self-sufficiency with a sample of 302 young, unmarried mothers drawn from the Panel Study of Income Dynamics (PSID) dataset, a nationally representative longitudinal study that oversampled low-income families (the authors used the study weights to maintain the representativeness of the data). They used the federal poverty line as the measure of income adequacy. In terms of income source, earned income from employment is the highest level of self-sufficiency, with income from family members being the next level down. In this case, "income" from family could include in-kind support such as child care, transportation, housing, etc. It also includes child support and income from a spouse. Public benefits that are available to individuals and families at all income levels, such as unemployment insurance, social security, worker's compensation, mortgage tax rebates, Medicare, and so on are the next lowest level of self-sufficiency. Further down on the continuum are public assistance programs targeted to the poor (subsidized child care and housing, heating and energy assistance, food stamps, Medicaid, and the Earned Income Tax Credit). The lowest level of the scale is public cash assistance (TANF/AFDC). Even with this level of detail, the authors acknowledge room for improvement: "A comprehensive index of economic self-sufficiency would have to scale the different sources of income quantitatively and develop relative weights for each source" (p. 8).

In summary, self-sufficiency is a virtue that has been extolled for centuries by philosophers and the narrower idea of economic self-sufficiency has been ingrained in American ideology and public discourse. Recently, this value has been used to justify significant reforms to entitlement programs (welfare), and has been held up by policy-makers and funders as the standard that social services (including public and nonprofit programs) should strive to achieve. However, the concept has been poorly defined in sociology and related fields, which results in a series of problems. First, it is difficult to compare or synthesize research on the topic when each study uses a slightly different definition of self-reliance/self-sufficiency. Second, policy debates become muddled because the research behind the policy is not clearly specified so policy-makers end up supporting programs (or not) based on ideology rather than evidence. Third, the concept has been mistakenly equated with employment when much of the research on this topic has shown that many individuals and families who are employed still cannot achieve economic self-sufficiency (i.e., they still struggle to make ends meet).

The following section of this literature review describes the current welfare program in the U.S. and its emphasis on work for all able-bodied adults, and illustrates how the changes to welfare that were implemented in 1996 have impacted both the size of the welfare rolls and the ability of poor individual and families to get off welfare and make ends meet through employment.

Self-sufficiency in the context of the post-welfare reform era

The 1996 welfare reform laws (the Personal Responsibility and Work Opportunity Reconciliation Act, or PRWORA) emphasized personal responsibility and the ability of individuals to meet their basic needs through market economy employment. PRWORA established the Temporary Assistance to Needy Families (TANF) block grant, which replaced the old welfare system, Aid to Families with Dependent Children (AFDC) (Corcoran et al. 2000). Unlike AFDC, which allowed individuals to remain on welfare indefinitely as long as they had dependent children in their household, TANF places a 60-

month time-limit on individuals receiving public assistance and created incentives that encouraged states to push as many welfare recipients as possible into the workforce as quickly as possible, regardless of the preparedness of these individuals to obtain living wage jobs.

The pro-work rhetoric surrounding welfare reform includes three propositions (which do not necessarily hold true under examination): 1) work is the norm, 2) work is good for families, and 3) work leads to self-sufficiency (Corcoran et al. 2000; Cancian 2001). Welfare reform was also based on the belief that public assistance itself can cause dependence and discourage work (Daugherty and Barber 2001).

Evaluations of welfare reform are mixed. Some researchers (Haskins 2006; Moynihan, Smeeding, and Rainwater 2004) have concluded that welfare reform was a success, whereas other researchers have pointed out the continued poverty, lack of political representation, and social and financial problems of poor Americans, especially minorities and single-mother families (Blank and Kovak 2007-08; Lein et al. 2007; Blalock, Tiller, and Monroe 2004; Corcoran et al. 2000; Edin and Lein 1997; Ehrenreich 2001). Research that reports welfare reform was a success points to the increasing earnings for low-income families (Haskins 2006; Moynihan, Smeeding, and Rainwater 2004), the lowest ever poverty rates for black children (Haskins 2006), and decreased welfare rolls (Cauthen and Lu 2003). The counterargument is that leaving welfare does not necessarily lead to economic self-sufficiency (Lein et al. 2007; Newman and Chen 2007; Blalock, Tiller, and Monroe 2004; Cancian and Meyer 2004; Danziger 2000; Edin and Lein 1996; Edin 1995).

One national evaluation of (pre-reform) welfare using March CPS data from 1969 through 1988 concluded that working single-mothers have, on average, 35 percent higher income than welfare mothers (Danziger 2000). However, this analysis did not take into account the high cost of working, such as for child care, work clothes, and transportation, in addition to the reduction in benefits such as Medicaid, food stamps, and child care and housing subsidies that typically accompanies exiting welfare. Welfare mothers do not have work-related costs, so even through their actual income is lower on welfare than while working, the amount of money they bring home (after accounting for necessary work-related expenses) may be higher when they are on welfare (Edin and Lein 1997).

In general, welfare programs and welfare reform are difficult to evaluate because there are several (often competing) goals of these programs (Gueron 1996). The first goal of putting welfare recipients to work is in direct contrast to the goals of protecting children from severe poverty and controlling the costs of welfare, because working often costs a single-mother more than it pays (Edin and Lein 1997) and because the cost to the government of paying a single-mother to care for her own children through welfare benefits may be comparable to paying child care costs so single-mothers can work low-wage jobs (Lein et al. 2007; Edin and Lein 1996). In essence, it is a philosophical and moral decision to pay for child care so single-mothers can work versus paying the mothers to care for their own children; because we value employment in this society policy has moved toward "mandatory" employment for all able-bodied adults regardless of their family obligations (Jencks in Edin and Lein 1996).

Mandatory work programs may actually cost the government as much as cash benefits, at least initially, which is why universal mandatory work programs (and especially programs that are intensive enough to have an impact) are difficult to fund (Gueron 1996). This may be why many welfare reform programs have emphasized very quick entry into the labor market with relatively little focus on job training (Gueron 1996). However, the actual experiences of welfare recipients indicate that quick movement into the labor market results in dead-end jobs that have no opportunity for promotion or training that could lead to better jobs in the future (Edin and Lein 1996). Therefore, the welfare reform strategy of emphasizing quick entry into the labor market has been successful at reducing the welfare rolls in the short-term but may not be the most appropriate strategy to ensure the long-term economic self-sufficiency of poor families. In addition, welfare policies tend to exacerbate the economic disadvantage of minority single mothers because of restrictions against higher education and an emphasis on immediate employment (London 2006). More in-depth training opportunities for welfare recipients to learn work skills directly related to the needs of the employers in that community at that time would be a better long-term strategy to promote economic self-sufficiency (Blalock, Tiller, and Monroe 2004; Edin and Lein 1997; Edin and Lein 1996; Edin 1995).

Using the size of the welfare rolls as a measure of success leads to the conclusion that welfare reform has been effective. Since 1996, many individuals and families previously dependent on public assistance have moved off welfare. Cauthen and Lu (2003) reported that [calculated based on the denominator of all low-income children] "the percent of low-income children in families relying on earnings but not public assistance increased to 81 percent in 2001 from 65 percent in 1993" (p.5). However, women who leave welfare for work are not necessarily moving out of poverty (Lein et al. 2007; Edin 1995). Therefore, the need for support services among low-income working families may have actually increased since the mid-1990s (Annie E. Casey Foundation 2003). Further, current long-term welfare recipients are typically those individuals with the most barriers to becoming self-reliant, because the easier-to-serve welfare recipients have already become employed and left the welfare rolls (Lein et al. 2007; Cancian and Meyer 2004).

One early study began to evaluate Minnesota's new welfare program before the official welfare reform laws were even passed (Knox, Miller, and Gennetian 2000). The Manpower Demonstration Research Corporation (MDRC) evaluated the pilot Minnesota Family Investment Program (MFIP), which is now Minnesota's TANF program, from 1994 to 1998, with over 14,000 families in seven Minnesota counties. It is important to note that the evaluation of this pilot program may not reflect the outcomes of the fully implemented statewide program for two primary reasons. First, this evaluation was conducted in a very strong economy with a very tight labor market so participants were more likely to be able to get employment quickly, whereas in the current environment the unemployment rate is higher and therefore low-skill jobs are less available. Second, the MFIP pilot was a more generous program than the fully implemented statewide program (in terms of the financial assistance provided and allowances for education, child care, etc.), so client outcomes will be correspondingly lower in the full program. However, even with these caveats it appears that MFIP was more effective at getting families off welfare. MFIP clients were 35 percent more likely to be employed, had 23 percent higher earnings, and were 13 percent more likely to have health care compared with the comparison AFDC families. The outcomes were most positive for long-term single-parent recipients. On the other hand, MFIP may have actually reduced employment among two-parent families because the more generous benefits allowed one parent to stay home with the children.

In addition to the improved employment and earnings outcomes, MFIP was also viewed favorably by case workers and clients (Knox, Miller, and Gennetian 2000). First, case workers felt more empowered to discuss employment goals with their clients, whereas under AFDC they felt constrained to focus on program eligibility issues. Also, MFIP combined AFDC, food stamps, and family general assistance into a single program, which made negotiating the system easier for families. Finally, the authors show that MFIP resulted in increases in marriage and marriage stability, less domestic violence, and fewer childhood behavior problems among MFIP participants compared with AFDC recipients. The authors conclude that providing more generous financial support to parents when they go to work can make significant differences in the well-being of their children. Grabowski (2006) specifically identified MFIP workers' encouragement of their clients, who were also participants in the Youth Development Study, to pursue education or employment training as a source of success (i.e., getting off welfare and exiting poverty), although this encouragement was not consistent across participants in her study.

Community action - federally-funded anti-poverty programs

The Economic Opportunity Act of 1964 established over 1000 Community Action Agencies (CAAs) around the United States. The purpose of CAAs is to "provide services and activities having a measurable and potentially major impact on alleviating causes and effects of poverty." The Act required that each CAA be governed by a board composed equally of local elected officials, low income individuals from the community, and members of major groups and interests served in the community (i.e., business, religion, law enforcement, education, etc.)[2] Some CAAs are public, some are nonprofit, and some are private (National Community Action Foundation, 2007).

In 1981, the Community Service Block Grant (CSBG) Act was passed, which rescinded the Economic Opportunity Act and created federal funding (to be administered by the U.S. Department of Health and Human Services) that is passed through to Community Action Agencies and other eligible entities by a designated state agency. The CSBG was established in part as a response to President Regan's attempt to consolidate the Community Action system with 11 other social service programs. Congress authorized the CSBG along with the Social Services Block Grant in the Omnibus Budget Reconciliation Act of 1981. The CSBG has been reauthorized five times. CAAs make up approximately 90 percent of the entities that receive CSBG funding. [3]

A total of $9 billion is administered annually by CAAs to provide support, services, and improvements in low-income communities. The CSBG requires CAAs to foster partnerships, conduct outreach, mobilize the community to bring about change, leverage various funding sources to meet their mission, and create new, innovative programs to address the needs of their communities. Nationally, CAAs provide services to over 13 million Americans living in poverty and several million more families with incomes only slightly above the poverty line each year. The nature of CSBG funds allows each CAA to assess and address the specific needs of the local community. To

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[2] http://www.facebook.com/pages/Community-Services-Block-Grant/133157066722629?sk=wiki#!/pages/Anti-Poverty-Act/116956251685843

[3] http://www.facebook.com/pages/Community-Services-Block-Grant/133157066722629?sk=wiki

flexibly tailor the remedy to the problem, CAAs offer a wide variety of services. They coordinate emergency assistance, operate senior centers, sponsor youth programs, supply transportation in rural areas, run Head Start programs, and help families weatherize their dwellings. They provide linkages to employment and training programs, high school equivalency courses and vocational education. CAAs also provide many other services to combat poverty, including: income management, credit counseling, entrepreneurial training and small business incubators; domestic violence crisis assistance, parenting classes, and family development programs; and food pantries, emergency shelters, low-income housing developments, and community revitalization projects. The largest investment of Minnesota community action dollars through these agencies (25% of expenditures) is for self-sufficiency services.

The common goal of CAAs is to enable people to eventually become independent of any public or charitable assistance. The statutory goals of the CSBG funding are: securing and maintaining employment, securing adequate education, better income management, securing adequate housing, providing emergency services, improving nutrition, creating linkages among anti-poverty programs, and achieving self-sufficiency (National Community Action Foundation website, 2004). Clearly, the goals of CAAs align closely with the research questions for this study. Minnesota CAAs' client data is the basis for the empirical components of this dissertation. See Figure 1 for a map of all CAAs in Minnesota.

Minnesota CAAs participate in a voluntary association, the Minnesota Community Action Partnership (MinnCAP). This umbrella organization works to support individual CAAs in their goals of improving the self-reliance of poor and low-income Minnesotans. The MinnCAP website describes the following services and activities provided by Minnesota CAAs[4]:

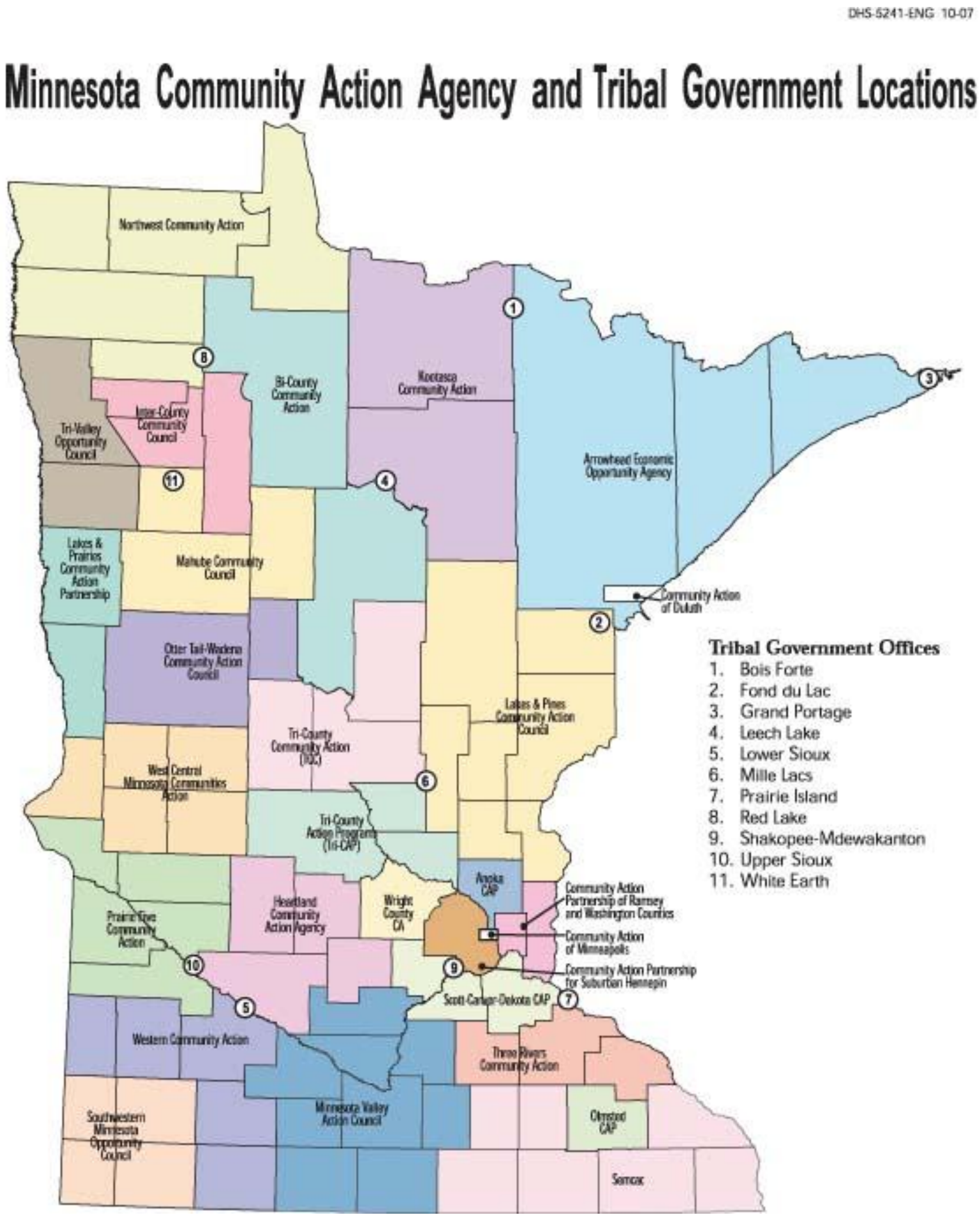
- Helping people move up the career ladder through job training, job search, and career development services;

[4] From www.mncaa.org

- Keeping people warm and dry through energy assistance and weatherization services;
- Helping the unemployed find work through job training and application assistance;
- Helping families and seniors put food on the table through food shelves and nutrition programs;
- Giving children a safe and healthy start through WIC, Head Start, crisis nursery, and child care programs; and
- Help in times of crisis through emergency housing and financial assistance, counseling, and crisis nursery services.

In addition, MinnCAP advocates for policy solutions that eliminate poverty in Minnesota. Their efforts to evaluate these initiatives provided the unique setting within which I was able to obtain detailed individual/family-level data for a large sample of low-income households across Minnesota. This created the “natural” (i.e., non-experimental) conditions for my research. My study design uses this existing data opportunity to test the relative impact of individual/family characteristics and community characteristics with regard to prediction of individual/family economic self-sufficiency. The following section describes the impetus for community action’s approach to measuring client economic self-sufficiency.

Figure 1. Minnesota community action agencies



Source: Minnesota Office of Economic Opportunity

Community action is required to measure client progress toward self-sufficiency

In 1993, passage of the Government Performance and Results Act (GPRA) required that federally-funded programs, including CAAs, demonstrate measurable outcomes. To this end, the national Community Action Network adopted Results-Oriented Management and Accountability (ROMA) to respond to GPRA. ROMA is an approach to management which builds accountability into the daily activities of staff and the daily operations of an organization.

In August 1994, the Office of Community Services chartered the CSBG Monitoring and Assessment Task Force, which created six broad goals and a list of direct measures to respond to GPRA. Two of the goals address family level outcomes: low-income people become more self-sufficient and low-income people, especially vulnerable populations, achieve their potential by strengthening family and other supportive systems. Two of the goals address community level outcomes: the conditions in which low-income people live are improved and low-income people own a stake in their community. Finally, two agency-level goals are addressed: partnerships among supporters and providers of services to low-income people are achieved and agencies increase their capacity to achieve results (ROMA website, 2004).

During this same time period, welfare reform trends (specifically, the Personal Responsibility and Work Opportunity Reconciliation Act, or PRWORA, of 1996) have caused a shift in the way CAAs do business in two primary ways. First, welfare reform emphasizes personal responsibility and the ability of individuals to meet their basic needs through market economy employment (Lane, 2001). This emphasis on employment as the route to self-reliance has spread to the rest of the social services sector, including CAAs. Furthermore, as this philosophy has been strengthened in the minds of funders, the pressure has increased for social service providers to be able to demonstrate outcomes associated with improved self-sufficiency in their clients (personal communication with ROMA team members, September 2004).

Second, welfare reform has moved many individuals and families previously dependent on public assistance off of welfare. Cauthen and Lu (2003) reported that "the percent of low-income children in families relying on earnings but not public assistance increased to 81 percent in 2001 from 65 percent in 1993" (p.5). However, women who leave welfare for work are not necessarily moving out of poverty (Edin, 1995). Therefore, the need for support services among low-income working families may have actually increased since the mid-1990s (Annie E. Casey Foundation, 2003). Furthermore, current long-term welfare recipients are typically those individuals with the most barriers to becoming self-reliant, because the easier-to-serve welfare recipients have already become employed and left the welfare rolls (Canican and Meyer, 2004).

The common goal of community action agencies is to enable people to eventually become independent of any public or charitable assistance. Each year in the U.S., community action organizations provide services to over 13 million Americans living in poverty and several million more families with incomes only slightly above the poverty line. In 2006, Minnesota CAAs helped 795,671 low-income individuals, 40 percent of whom are children (mostly Head Start participants) and 19 percent are age 55 or older. Most of the families served (84%) are poor or near-poor, with household incomes of less than 1.5 times the poverty line. Over-three quarters (79%) of families served reported income from current or former employment, whereas only 5 percent reported they have no source of income. Over one-quarter (28%) of families are headed by a single parent. Over one-third (36%) of participants 24 years of age and older did not complete high school. Almost one-third (31%) of participants lack health insurance, and 15 percent are disabled. Nearly half (47%) own their own homes. Over half (53%) are members of a minority group.

In summary, welfare reform introduced time limits which pushed many families off welfare and into low-wage jobs. In many cases, these jobs do not offer high enough pay, good enough benefits, or adequate stability to ensure the economic self-sufficiency of the low-wage workers and their families. So while welfare reform can be viewed as a success if it is purely the size of the welfare rolls that is being evaluated, research on the experiences of individuals and families who are leaving welfare indicates a need for more job training, more jobs that pay a living wage, and additional income supplements and support for families moving from welfare to work. Community action provides one source of support for low-wage individuals and families, and because of recent trends that require increased emphasis on measuring outcomes related to economic self-sufficiency, their data offers the opportunity for a "natural experiment" where both individual-level and community-level characteristics vary across individual study participants while welfare benefits remain constant (i.e., uniform benefit levels for all participants). But before we can analyze the relative importance of these factors in determining the ability of low-income families to attain economic self-sufficiency, more specification of the independent variables is needed.

The previous sections of this literature review describe the problem of poverty in the U.S. and the challenges of operationalizing the dependent variable in my dissertation research: economic self-sufficiency. The following sections of this review summarize the existing research attempting to explain the "causes" and correlates of economic self-sufficiency. These variables are categorized as individual/family characteristics, social network variables, and community-level variables.

Individual/family characteristics associated with self-sufficiency

Many sub-disciplines within sociology use individual-level explanatory variables to determine individual-level socioeconomic outcomes. Some of these variables have particular relevance for studies of economic self-sufficiency. It is important to note that although many of these variables are considered individual or family characteristics because they are measured at this level, structural factors play an important role in influencing individual and family access to these resources and in how these characteristics affect self-sufficiency.

The following sections of this literature review illustrate various individual and family-level variables associated with economic self-sufficiency. These variables include: marital status, education, race/ethnicity, cash support (child support and the Earned Income Tax Credit), and non-cash support (child care, transportation, housing, and health insurance). It is well-established that most individuals and families living in poverty experience multiple challenges to attaining economic self-sufficiency. For example, participants in one large study of welfare leavers in Texas reported, on average, two barriers to employment and one-third of participants had three or more barriers (Lein et al. 2007).

Race/ethnicity

In the U.S., people of color are more likely than whites to be poor. African American and Latino poverty rates are more than triple white poverty rates (25%, 23%, and 8%, respectively) (Hoynes et al. 2005). There is strong evidence to suggest that discrimination in the labor market plays a critical role in the lower attainment of women and minorities (Celinni, McKernan, and Ratcliffe 2008; Tomaskovic-Devey, Thomas, and Johnson 2005).

Oliver and Shapiro (1997) focused on racial differences in wealth instead of differences in income. They believe that wealth is as important as income in the perpetuation of racial disparities in poverty because “the same social system that fosters the accumulation of private wealth for many whites denies it to blacks, thus forging an intimate connection between white wealth and black poverty. Just as blacks have had ‘cumulative disadvantages,’ many whites have had ‘cumulative advantages’” (p. 5). Further, wealth inequality between blacks and whites is even more significant than income inequality. In the mid-1990s, middle-class blacks earned 70 cents for every dollar earned by middle-class whites, whereas middle-class blacks had only 15 cents of assets (wealth) for every dollar of white wealth. And upper-class blacks are more likely to have children who end up in lower socioeconomic groups whereas upper-class whites are more likely to have children who also become upper-class.

African Americans, American Indians, and Latinos all have higher poverty rates than whites in the U.S., and the poverty rate of minority groups is more cyclical and dependent on social and economic changes, whereas the white poverty rate is more stable (Anderson 2003; Hoynes et al. 2005). Earnings inequality was very high between blacks and whites in the early 1960s (over 40%), but this inequality decreased to about 15 percent by 1975 and remained through the end of the 20th century (Gottschalk 1997). (Disparities in poverty rates do not necessarily align with disparities in earnings, because as within group earnings inequality increases, the mean earnings for that group will increase even if the poverty rate for that group also increases.)

One theoretical examination of the psychological factors related to success is Ogbu's cultural-ecological theory, which shows how the differing internal orientations of minorities in the U.S. are related to differences in educational attainment across racial and ethnic groups (Ogbu and Simons 1998). The cultural-ecological theory depends on Ogbu's classification of minorities in the U.S.: "involuntary minorities" are African Americans and American Indians, because both groups came to be minorities in America through actions of white slave traders and settlers; "voluntary minorities" are immigrants of other ethnic groups who came to the U.S. willingly in search of better opportunities for themselves, often with hopes of eventually returning to their homeland. This approach illustrates how the involuntary or voluntary minority status of individuals from different ethnic and racial groups in the U.S. determines their orientation to the educational system ("oppositional subculture" versus "tourist attitude" respectively), which in turn determines educational attainment. The policy suggestions that accompany this line of research include closing the cultural gap in schools by incorporating the students' own cultures into teaching and finding ways to increase minority students' trust in school and other public institutions (Ogbu and Simons 1998). Similarly, Call and McNall (1992) used data from the Youth Development Study to show that poor Hmong youth exhibit fewer academic problems than poor non-Hmong students because of the intra-familial support, tight clan structure, and expectations of high academic performance that are common in the Hmong culture.

Becker and Tomes (1986) illustrate how minorities make less investment in human capital *because* they are rational actors. In other words, minorities get less return on human capital investments than do whites because of structural discrimination, but they are maximizing their utility like everyone else; their utility curve is just lower than the utility curve of whites (Becker 1975).

In their study of the earnings of U.S. men in the first 20 years of their career, Tomaskovic-Devey, Thomas, and Johnson (2005) assert that the original human capital model makes a faulty assumption that human capital attainment is individually determined; by contrast, they argue that "…*human capital investment is often not a voluntary and almost never an individual choice.* Human capital acquisition is a social process" (p. 61, emphasis in original). Specifically, these authors illustrate how exposure to discrimination affects individual choices. In addition, they claim that the human capital theory assumption that employers maximize efficiency by always hiring the most productive workers (with productivity being signaled by various human capital investments including education, general labor market experience, and employer-specific experience) is contradicted by organizational theories, which posit that employees' assessed human capital is used by employers as a form of social closure (i.e., hiring people like themselves and from their social networks). In their sociological modification of human capital theory, these authors claim that racial discrimination results in less human capital attainment of minorities through longer periods of job searching and unemployment, less on-the-job training, and shorter periods of employment with a given employer, relative to white workers with similar educational credentials. In other words, employers over-value white education and under-value minority education in early hiring and promotion decisions. Further, race-linked job sorting occurs (i.e., people of one race tending toward one occupation or industry while people of another race tend toward a different occupation or industry that pays differently), which also results in racial differences in earnings trajectories. This is supported by their analysis of the National Longitudinal Study of Youth data using a fixed-effects model, which shows that racial differences in earnings are smallest early in the career and increase over time for the first 20 years of the career before leveling off.

By contrast, Elman and O'Rand (2004) use nationally representative data on baby boomer workers from the National Survey of Families and Households to show that, although white individuals who enter the labor market with advanced educational credentials are more highly compensated than are minorities with similar pre-career educational attainment, this is not true for individuals who wait until mid-career to obtain postsecondary education (i.e., minorities and women who go back to school mid-career earn as much as white men who do the same).

"Within a status attainment or human capital framework, we cannot observe discrimination [directly]" because these models falsely assume a "meritocratic labor market allocation process" (Tomaskovic-Devey, Thomas, and Johnson 2005, p.85). Therefore, structural explanations of poverty are more appropriately used to illustrate how different racial and ethnic groups in society are more or less likely to become poor, and these approaches typically focus on the disparity between whites and African Americans, although other minority groups in America are also over-represented among the poor.

Orthodox Marxist theory posits that the capitalist class creates division along racial lines by isolating lower priced labor to limit the bargaining power of the working class with the ultimate goal of maximizing profits (Wilson 1980). In other words, owners want to promote divisions within the working class specifically to suppress their demands for better wages and working conditions. Immediately following the U.S. Civil War, the capitalist class supported discrimination against nonwhites and encouraged racial prejudices because these divisions isolated the white and nonwhite segments of the working class. The result of this division is a relatively privileged white working class and a relatively disadvantaged nonwhite working class. The ruling class can then use this division within the working class to ward off strikes among white workers (because the owners can threaten to hire nonwhites if whites decide to strike) and to more generally keep the price of labor low by ensuring a surplus of nonwhite workers. According to Wilson (1980), orthodox Marxist theory effectively explains how class conflict shaped U.S. race relations in the antebellum south because it correctly identifies two distinct economic classes, workers and owners, and because it illustrates how racial antagonism was used to conceal the inherent goal of the ruling class to exploit *all* workers.

By contrast, split labor market theory (a variant of neo-Marxist theory) argues that business supports a *laissez-faire* attitude toward labor such that all workers are allowed to compete freely in an open market, rather than protecting one segment of the working class (as in the orthodox Marxist explanation). A split labor-market develops when the price of labor differs by race for the same work, such that three economic classes develop: owners, higher priced workers (in this case, whites), and lower priced workers (in this case, minorities) (Bonacich 1976). Two indicators that a split labor market has occurred are: 1) significantly lower wages for one group, and 2) significantly lower rates of unionization for the same group. Employers in a split labor market have an incentive to attract lower priced labor, which threatens the interests of the higher priced labor and results in racial antagonisms. In addition, nonwhites are less likely to be unionized, which reduces their bargaining power and makes it even more probable they will receive lower wages than whites for the same work. Therefore, according to the split labor market theory, racial strife should be directly related to the amount of competition nonwhite workers are posing to the white working class. The two methods used by higher priced labor to reduce the competition from lower priced labor in a split labor market are exclusion and caste. Put simply: “[c]apital turns toward the cheaper labor pool as a more desirable work force, a choice consistent with the simple pursuit of higher profits. Higher priced labor resists being displaced, and the racist structures they erect to protect themselves are antagonistic to the interests of capital” (Bonacich 1976, p. 44). The “trickle down” policy solutions proposed by scholars using individual-level approaches assume that improvements in the labor market for people with better jobs will eventually benefit people of all income levels. However, the split labor market approach asserts that minorities will not benefit from trickle down approaches because their jobs are often in a totally different market than white collar jobs (Schiller 2004).

Wilson (1980, 1987, 1996) is careful to distinguish between historic and contemporary discrimination. While he acknowledges the negative impact of historic racism and discrimination in creating racial disparities in income and wealth, he demonstrates that contemporary racial discrimination has a relatively minimal impact on the economic life chances of blacks compared with other class-based factors like joblessness and concentrated poverty. He clarifies that "these economic and political changes have not significantly alleviated racial tensions in U.S. society. Instead they have produced a *shift in racial conflict away from the industrial order to the sociopolitical order,* a shift which has also increased the importance of economic class position, thereby decreasing the importance of race in determining the extent to which individual blacks have access to or are able to develop resources deemed important for life chances and survival" (Wilson, 1980, p. 88, emphasis added).

Therefore, although race/ethnicity is associated with self-sufficiency because of structural factors such as discrimination and racism, race/ethnicity is included in the models in this study as an individual-level variable. Specifically, the models use a dummy variable to indicate white or non-white.

Education and employment

Sociological theories that rely on classical economics assumptions of utility-maximizing behavior and equilibrium in free markets are a good example of primarily individual-level approaches. Human capital theory (Becker 1975; Becker and Tomes 1986) asserts that socioeconomic outcomes (dependent variable) are determined by the amount of human capital that is passed down from parents to children and that is obtained through lifetime investments. One of the basic propositions of human capital theory is: "More highly educated and skilled persons almost always tend to earn more than others" (Becker 1975, p. 10). Human capital is defined as attributes "including skills and abilities, personality, appearance, reputation, and appropriate credentials" (Becker and Tomes 1986, p. 55). The extent of human capital investment by an individual, primarily in the form of education and job training, is determined by that individual's preferences and ability to defer gratification, the parents' preferences for bequeathing assets versus investing in their child's human capital, and the rate of return on human capital investments (Becker and Tomes 1986). The rate of return is determined by various opportunities and constraints in the social structure and labor market. A review of the human capital literature (Cellini, McKernan, and Ratcliffe 2008) found that over time changes in employment and earnings and attainment of a high school diploma are increasingly likely to contribute to poverty exit than are other factors such as changes in marital status (one-parent vs. two-parent families), addition of children to the family, or young adults starting their own household.

Status attainment theory (Blau and Duncan 1967), although not based as heavily on classical economic assumptions as human capital theory, similarly attempts to explain individual status outcomes (and more specifically, mobility) by individual-level factors including educational attainment and initial occupational status, and father's occupational status and educational attainments. The specific causal path use in this model is from father's educational attainment to his occupational status to the son's educational attainment to his initial occupational status, and finally to his ultimate occupational status. The original analysis using this model found that while father's and son's occupational status are correlated at about 0.4, there is a significant degree of social mobility. In other words, the individual's own achievements are more important than the ascriptive processes in society which tend to place children in the same status level as their parents. In fact, the correlation between an individual's educational attainment and their occupational status is about 0.6 (Kerckhoff 1995). Recent research conducted by Beller and Hout (2006) found that the correlation between father's and son's occupation is still about 0.3 to 0.4 and that income mobility is around 0.4. Many different types of analyses have confirmed that there is a high degree of socioeconomic mobility in America. "Indeed, there is nearly as much economic inequality among brothers raised in the same home as in the general population. This means that inequality is created anew in each generation" (Jencks 1972). This perspective deemphasizes the structural determinants of attainment, namely discrimination in educational and occupational opportunity (Tomaskovic-Devey, Thomas, and Johnson 2005).

A life course approach allows researchers to examine cumulative advantages that result from earlier versus later educational attainment. The assumption is that an "earlier start [in postsecondary education] affords more time for wage growth via occupational advancement" (Elman and O'Rand 2004, p. 130). In addition, Mortimer et al. (2007) showed how an adolescent's psychological orientation to school or work led them to "pursue different 'tracks' with varying emphases upon school and work, which commence as early as age 14 and 15, and continue through the 20s… These tracks…are likely to have lasting implications for their socioeconomic attainments" (p. 34-35).

Some life course research has found that children from high status families tend to be placed in higher academic achievement groupings than lower status children, even after controlling for actual academic performance. For example, Kerckhoff et al. (1995) offer a more critical use of individual-level explanatory variables to show that social structure and hierarchy have a strong influence on individual-level outcomes. In addition, research using the National Survey of Families and Households (a nationally representative study with 1987-88 data on baby boomers) shows a "delayed advantage" such that individuals from relatively advantaged backgrounds are more likely than those from relatively disadvantaged backgrounds to return to school as adults, among workers who do not obtain postsecondary education before entry into the labor market (Elman and O'Rand 2005).

There are certain things that can be done to break the cycle of poverty. Brofenbrenner and colleagues (1996) found that increasing parents' education can substantially reduce the risk of dropping out of high school for children growing up in single-parent families. These researchers used data from the nationally-representative

National Longitudinal Survey of Youth (NLSY) to show that overall about half the children who live in single-parent families with a parent who dropped out of high school will live in poverty as adults. They conclude that helping poor parents obtain more education (especially a high school degree) can help to improve their children's chances of getting ahead.

Therefore, individuals' educational attainment both directly affects their own chances of being economically self-sufficient and also impacts the chances that their offspring will become self-sufficient. A categorical variable of educational attainment (less than high school, high school diploma or GED, or some post-secondary education or more) is included in the models used for this study.

Marital status, number of children, and single parenting

Single parenthood has increased dramatically over the last 50 years. In 1960, only about 9 percent of all children in the U.S. lived in single-parent homes whereas at the end of the century 25 percent of U.S. children lived in single-parent families (Moynihan, Smeeding, and Rainwater 2004). In terms of explaining the social causes and correlates of poverty, change in family structure is a topic of major debate. The main concern about family structure is the proportion of children living in single-parent families, which can result both from out-of-wedlock births *and* from divorce, separation, imprisonment of fathers, and other sources of marital dissolution. Specifically, the debate is whether single-parenting causes more poverty or whether poverty causes single-parenthood (or whether the two variables are even related in a causal manner at all). Some theorists claim that single-parent families are the source of the growth of child poverty rates and also that racial differences in the proportion of children living in single-parent families explain racial disparities in poverty in contemporary U.S. society (Brofenbrener et al. 1996; Eggebeen and Lichter 1991; Moynihan, Smeeding, and Rainwater 2004). Others contend that single parenting has increased in the U.S. across the income distribution, and that policies and programs that focus on reducing single parenting as a way to reduce family poverty are misguided (Musick and Mare 2006; Musick and Mare 2004).

Brofenbrenner et al. (1996) used data from the National Longitudinal Study of Youth (NLSY), a nationally representative sample of 12,000 youths age 14 to 22 who were first interviewed in 1979, to illustrate the relationship between single-parenting and poverty in pre-welfare reform U.S. However, these authors do *not* assert that it is a one-way causal relationship; rather, they feel that poverty and single-parenthood are mutually reinforcing across generations. Specifically, "the principal determinant of whether a woman becomes a single parent… appears to be the income level of the family in which she was raised" (p. 107). Alternately, Moynihan and colleagues (2004) view single-parenting as an intermediate variable, affected by social changes such as urbanization, increasing overall education level of society and increased assortative mating by education level, increased divorce rates, increased cohabitation, increased sexual relations among teens, and poor family planning. They also cite economic explanations for the rise of single-parent families, such as decreased specialization in the home (i.e., men used to have jobs while women stayed at home with the kids, but now men and women are both expected to have jobs outside of the home); increased income of women relative to men; and a shortage of marriageable men. In other words, these authors claim that other social changes have contributed to the increased rate of single-parenting over time.

Other researchers (Musick and Mare 2006; Musick and Mare 2004) have come to a different conclusion after examining the NLSY dataset, as well as analyzing the NLS Young Women survey (both conducted by the U.S. Bureau of Labor Statistics) and the March Current Population Survey from 1970 to 2003. Musick and Mare (2006) used log-linear models to test the pattern of association between single parenting and poverty over time. This method allowed them to distinguish between intergenerational association and structural changes such as the overall increase in the proportion of single-parent families over time. These researchers dispute the claim that single parenting and poverty are causally related across generations. Recent empirical evidence indicates that although single-parenting is a key determinant of poverty, the relationship between single-parenting and poverty has been somewhat offset by the relative increase of women's wages relative to men over the past decades (Cellini, McKernan, and Ratcliffe 2008).

In their study of welfare leavers in Texas in the late 1990s, Lein et al. (2007) found that only 4 percent of the women in their study who left welfare reported marriage as the main reason for leaving. On the other hand, the women in this study who left welfare for marriage were more likely than women who left welfare for other reasons to stay off welfare for at least one year.

Therefore, marital status, number of children, and a single parent dummy variable are all included as household-level explanatory variables in the models used in this study.

Social support

The following sections describe the social support variables that are associated with economic self-sufficiency, related to social networks and social capital. Many approaches that bridge the household-level and the community-level have built upon rational choice assumptions, meaning that these theories emphasize the calculated decision-making that poor individuals use when deciding who to associate with, based on what "resources" their associates bring to the table. For example, Newman and Chen (2007) conducted ethnographic research with individuals and families from the "missing class" which is the class of people who are near-poor (not on welfare, not making ends meet either). They found that "romantic"-type relationships rarely were initiated or ended without careful consideration by both parties regarding the financial implications of the decision.

Network theories also tend to emphasize how the structure of social relationships affects the resources associated with that relationship. Social resources theory asserts that society is a structured pyramid, and that most of the resources and information are concentrated at the top, among a small but very powerful group of people (Lin 1999). This theory builds on status attainment theory by stressing the importance of social resources in addition to personal resources in the determination of socioeconomic status of individuals.

The general concept of linking individuals' outcomes to their position within social networks was not initially intended to explain poverty or stratification. Coleman (1988) used the individual-level rational action premise and modified it by demonstrating why people sometimes act in ways that might not initially appear to be in their best interest. He points out that the intellectual stream of economics often sees individuals as purely self-interested ("under-socialized man") whereas sociological theorists view people as inherently governed by social norms and obligations ("over-socialized man"). His work on social capital theory is an attempt to bridge this divide. Coleman defined social capital in contrast to human and physical capital: "Just as physical capital is created by changes in materials to form tools that facilitate production, human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways. Social capital, however, comes about through changes in the relations among persons that facilitate action" (1988, p. S100). Social capital is hypothesized to moderate the effect of human capital on status attainment such that "when social capital is high, attained status will be high, regardless of the level of human capital; and when social capital is low, human capital exerts a strong effect on attainment" (Lin 1999, p. 485).

According to Coleman (1988), there are several characteristics of social relations that can produce social capital. First, when an individual holds obligations from a number of other individuals because of previous favors he or she has performed, and especially in cases where the entire social network has a web of obligations and expectations built in, that individual can "cash in" on the obligations owed to him or her, thereby accessing resources that would not have been available had those relationships not existed. Second, individuals obtain information from social contacts who are their relations for other purposes. This fits with the assumption of classical economic theory that complete information is critical for making rational (i.e., self-interested) decisions. Third, social norms create social capital in cases where the norms require individuals to forgo self-interest for the common good. In practice, examining the social contexts of individual behavior can help us to understand the full range of incentives and information available to the individual (Danziger and Lin 2000).

Some network structures provide more social capital to its members than others, and some positions within the network provide more access to social capital resources of the network than others. The level of closure (i.e., the multiplicity of relationships among network members) determines how much social capital is available. Networks that are highly closed are likely to be higher in social capital than less closed networks because individuals in those networks know each other through multiple contexts (e.g., as the parent of a child's friend, as a fellow PTA member, as a fellow congregation member, neighbor, etc.) (Coleman 1988). On the other hand, Granovetter (1973) and others have shown that weak social network ties also provide access to social capital because they provide information to the individual that is not as available in closed network models.

One study of low-income mothers in rural Maryland reported that women receive more support, both emotional and practical, from their relatives than from friends or the relatives of their partners (Kohler et al. 2004). This study also revealed a negative relationship between the participant's likelihood of experiencing depression and her perceived access to social support. Finally, social support buffered these women against economic hardship. Another study using data from the Fragile Families and Child Wellbeing Study, a nationally representative sample of single mothers, also found that social capital reduced single mothers' work-family conflict, and in turn, lower levels of work-family conflict resulted in higher likelihood of employment (Ciabattari 2007).

Importantly, Coleman (1988) demonstrates how parents' human capital can only be transmitted to the next generation if adequate stores of social capital exist. This means that a parent with extremely high human capital may not transmit any of their human capital to their children unless the family relationships are strong enough. Further, if that parent is a single parent who must work many hours in order to make ends meet, their ability to pass their skills on to their children is limited by the minimal amount of time they have to spend with their kids. Similarly, the amount of parental attention to each child is inversely related to the number of children in the family, with the younger children faring worse than the older children.

Because of the multiple barriers faced by many low-income families in meeting their needs both through employment and formal social welfare systems, many poor communities (and especially poor minority communities) have established strong mechanisms of providing and receiving informal social support from their peers and kin (Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001; Edin and Lein 1996; Kohler et al. 2004; Stack 1975). The seminal ethnographic work of Stack (1975) demonstrates how the reliance on informal social networks in African American communities developed as a direct result of their experiences in poverty. This important research illustrated how informal exchange networks developed around child caring responsibilities ("child exchange") and household goods ("swapping") to fill the gaps where formal avenues to obtain these goods and services were unaffordable, inaccessible, and/or inadequate. In these poor minority communities, fathers not only support their children through financial contributions and their own time and energy; it appears that an added important aspect of the absent father's involvement with his child is the connection it gives that child to the father's entire kin network (Stack 1975). From the single mother's perspective, it makes much more sense to deceive the welfare system and to try a more cooperative approach rather than an adversarial approach with the father of their children. In general, single mothers who are on welfare face a constant struggle to meet the needs of their children through any means necessary, while appearing not to violate any welfare rules in order to avoid sanctions or total loss of benefits, and trying to maintain a relationship with the father of their children or another man (Edin and Lein 1996). In fact, the child support and welfare systems may be partially to blame for the erosion of relationships between black men and black women (Edin and Lein 1996).

On the other hand, Brown and Barbosa (2001) found in their interviews with 15 women on welfare that social network ties could create negative pressure on women trying to escape welfare and poverty, when other members of the network became threatened by their attempt to further themselves through education.

In their ethnographic study, Newman and Chen (2007) also found that near-poor individuals and families tend to rely on relatives and friends for resources such as child caring and house sharing. However, like Brown and Barbosa's (2001) participants, the individuals who were interviewed for Newman and Chen's (2007) study reported some degree of increased stress and relationship strain as a result of their reliance on people in their network for support. Newman and Chen (2007) also noted that immigrant households may be at a disadvantage in terms of access to social network resources if the parent generation emigrated without their own parents or other relatives, who would typically provide child care and other forms of support.

The use of informal social support networks to meet needs is an example of a "family adaptive strategy," which is a general approach to responding to structural and environmental limitations and for transmitting these coping skills across generations (Moen and Wethington 1992). The concept of family adaptive strategies can be useful in terms of understanding the rational choice aspects of individual and family behavior within the context of structural constraints.

Because of the proven importance of social ties in determining the self-reliance of individuals and families (using Aristotle's "political" conception of self-reliance), access to social support is included as an explanatory variable in the models used for this research. (However, because social support is an individual-level variable in the sense that each individual has access to different levels of support, the social support variable used for the models in this paper is included in the individual level of analysis.)

Income supplements: Child support and the Earned Income Tax Credit

Child support is a perfect example of how patterns of behavior in poor communities appear to be dysfunctional to members of the middle-class when in fact the behavior may be more logical when examined from the perspective of the poor individual, and when non-cash resources are also considered. Edin and Lein (1996) found that in some cases welfare mothers and the absent fathers of their children collude to evade the formal child support system, and in other cases single mothers use the formal child support system to threaten their child's father. These behaviors may not seem as logical to middle-class people as simply following the payment schedules of the child support system and reporting to the authorities if the father does not comply with the judgment. However, from the single mother's perspective, this system has put her in a tenuous position of needing to secure a stable source of resources for herself and her children while being asked to speak out against the father of her children in order to get court-ordered child support, which (in most states) is then taken by the state to offset the welfare/TANF payments paid to that mother (i.e., the mother sees no net income increase from the child support, it's just coming from a different source). Further, by putting pressure on the father to pay child support or by turning in the father who doesn't make his payments to authorities, the mother may jeopardize the *noncash* support that she receives from the father and his people.

One study of welfare leavers in Texas found that most of these women were not confident in their ability over the long-term to receive consistent and stable child support payments (Lein et al. 2007). These women did not feel that child support by itself was going to help them stay off welfare. A Wisconsin study during the same time period found that the impact of child support on helping women get off welfare could be greater if women had a better understanding of the child support system (Meyer, Cancian, and Nam 2007). This indicates that there are interactions between child support and other income sources, particularly welfare, and that many families that receive or could receive these benefits may not have a clear understanding of how the system works, or if they do understand the system it might not make sense from a rational choice perspective for them to comply with the system. In their experimental evaluation of Wisconsin's child support program which actually allowed mothers to keep their welfare payments plus the additional child support paid by their children's fathers, Cancian, Meyer, and Caspar (2008) found that paternity was established more quickly and child support payments were more likely to be made by noncustodial fathers, and overall these mothers received more financial support, at no extra cost to the state.

"The Earned Income Tax Credit (EITC) is a federal program designed to offset income taxes for low-income workers. Households earning approximately $40,000 or less per year are eligible. The benefit is substantial for families with children (over $3,000 for one child and over $5,000 for two children, for families that fall into the lowest income category) but is much smaller (less than $500) for individuals or couples without children. It was established originally in 1975 and expanded three times since then, most recently in 2001. There are restrictions on investment income as well as earned income, and since the maximum credit $4,716 is significantly higher than the allowed investment income of $2,900, low income homes having an investment income between $2,901 and $4,715 will actually lose money. The EITC is the largest poverty reduction program in the United States. Almost 21 million American families received more than $36 billion in refunds through the EITC in 2004. These EITC dollars lifted more than 5 million of these families above the federal poverty line. Further, economists suggest that every increased dollar received by low and moderate-income families has a multiplier effect of between 1.5 to 2 times the original amount, in terms of its impact on the local economy and how much money is spent in and around the communities where these families live. Using the conservative estimate that for every $1 in EITC funds received, $1.50 ends up being spent locally, would mean that low income neighborhoods are effectively gaining as much as $18.4 billion. Millions of American families who are eligible for the EITC do not receive it, leaving billions of additional tax credit dollars unclaimed. Research by the Government Accountability Office and the Internal Revenue Service indicates that between 15 percent and 25 percent of households who are entitled to the EITC do not claim their credit, or between 3.5 million and 7 million households. The average EITC amount received per family in 2002 was $1,766. Using this figure and a 15 percent unclaimed rate would mean that low-wage workers and their families lost out on more than $6.5 billion, or more than $12 billion if the unclaimed rate is 25 percent. Many nonprofit organizations around the United States, sometimes in partnership with government and with some public financing, have begun programs designed to increase EITC utilization by raising awareness of the credit and assisting with the filing of the relevant tax forms" (wikipedia, "Earned Income Tax Credit," downloaded 8/31/2009). In their study of welfare leavers, Lein et al. (2007) found that only a very small proportion (3%) of their participants used the Earned Income Tax Credit. Therefore, although this program has been shown to contribute both to increasing the economic well-being of individuals and families and to generating significant economic development opportunities in low-income communities, its significant underuse is problematic.

In sum, a household's receipt of child support and/or the Earned Income Tax Credit can make the difference in their ability to attain economic self-sufficiency. Therefore, these variables are included in the models used for this study.

Non-cash resources: Health insurance coverage, housing, child care, and transportation

Non-cash resources including medical insurance, housing, child care, and transportation are critical to consider in any analysis of economic self-sufficiency among individuals and families. It is especially important to note that often a family will qualify for public health insurance, housing subsidy, and child care subsidy while they are on welfare and not employed but as soon as one parent becomes employed, the family becomes ineligible for these non-cash assistance programs or their benefits are greatly reduced (Newman and Chen 2007).

Angel, Lein, and Henrici (2006) used data from the Three City Study to examine the consequences of welfare reform by surveying 2,400 families and conducting ethnographic interviews with 255 families from poor neighborhoods in Boston, San Antonio, and Chicago, in 1999-2001. They found that "problems related to health pervaded the lives of the families we studied... It was immediately obvious that the means-tested nature of the health care and other systems that [participants] relied upon, and the fact that the requirements of those organizations were often seriously incompatible with work and the ability to establish family routines, meant that these families lived with constant uncertainty and instability... Such instability can undermine the most sincere efforts to achieve self-sufficiency of even the most functional family and the most psychologically resilient parents... [I]nstability in health care is related to and exacerbates instability in all other areas of the lives of low-income families" (p. 12-13). These researchers also identified problems with Medicaid eligibility, because the program requires each individual to qualify separately, which often resulted in different coverage (including some lack of coverage) for members of the same family. Even in cases where low-income workers are eligible for insurance through their employers, the cost of the deductibles and co-pays is often a barrier to becoming insured (Angel, Lein, and Henrici 2006).

According to Newman and Chen (2007), housing equity provides 44 percent of wealth in the U.S. In fact, they argue that "[b]y far the most important mechanism for cementing a family's hold on the American Dream is access to equity [typically obtained through home ownership]" (p. 205). In addition, being able to find affordable housing in a convenient and safe location is difficult or impossible for many low-income families (Ehrenreich 2001; Stack 1975). And finally, stable and affordable housing contributes to stability in all other areas of a family's life, because one must have a permanent address in order to apply for public assistance and other services, and to get a job.

Child care is a huge barrier for single-mothers in the workforce, both because the quality of affordable child care is often suspect and because child care may not be available during the times needed by parents who work low-wage (often with second shifts or swing shifts) jobs (Lein et al. 2007; Angel, Lein, and Henrici 2006; Brown and Barbosa 2001; Ehrenreich 2001; DeBord, Canu, and Kerpelman 2000; Heyman and Earle 1998; Edin and Lein 1997). Newman and Chen (2007) found that near-poor parents who participated in their ethnographic study faced significant barriers to obtaining quality child care for their children, first because of cost (and they were often ineligible for child care subsidies), and second because the capacity of child care providers in low-income neighborhoods is often very limited since so many of the neighborhood's residents are working, and working long hours. Another qualitative study of single mothers transitioning from welfare to work also found that child care arrangements were often patched together due to financial and job constraints, provider limitations, and the mothers' desire to find the most suitable arrangement possible for their children (Scott, London, and Hurst 2005).

Transportation is another barrier to self-sufficiency. Working creates the need for a family to have transportation to and from work and child care. Public transportation is often inaccessible for low-wage jobs and private transportation can be cost prohibitive (Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001; Ehrenreich 2001). Nearly one-quarter of the welfare leavers in Lein et al.'s (2007) study had experienced transportation problems that interfered with their ability to work during the past six months, but owning a car, especially one that was actually worth something, was a barrier to eligibility for many public assistance programs, so caseworkers often told the participants not to buy a car. Another study using the National Survey of Families and Households, a nationally representative sample of 670 single mothers, found that families who own a car were more likely to have incomes above the federal poverty line (Rocha 1997). In their study of low-income families in three major cities in the U.S., Angel, Lein, and Henrici (2006) also identified lack of transportation as a significant contributor to inability to get or keep a job.

Much of the research leading up to the 1996 welfare reform law argued that welfare payments created a work disincentive because AFDC benefits were supposedly too high and thus welfare recipients were not motivated to get off welfare (Edin and Lein 1996). One of the intents of PRWORA and TANF is to extend various non-cash components of a family's benefits when the welfare recipient first starts working, in such a way that the family should actually experience higher financial well-being while working than while on welfare. This appears to be an appropriate policy given available information about the work disincentives under AFDC: several studies found that leaving welfare for work resulted in loss of health insurance and housing subsidy, plus increased cost of child care. The loss of these benefits, *not* the amount of the actual AFDC cash benefit, was the cause of the work disincentive (Lein et al. 2007; Edin and Lein 1996).

In other words, non-cash resources including child care, housing, transportation, and health insurance can make the difference between working and being unemployed, or between material hardship and making ends meet. In their study of welfare leavers, Lein et al. (2007) showed how TANF provided access to other programs, which was more appreciated by participants than the actual cash assistance itself. Access to child care, health insurance, affordable and stable housing, and transportation had a huge role in determining employment for TANF recipients: 36 percent of the participants who returned to welfare cited a need for Medicaid as the primary reason for returning compared with 41 percent who said lost income was the primary reason for going back on welfare. Therefore, non-cash resources are included as household-level variables in the models used in this study.

Community-level variables associated with self-sufficiency

In addition to the individual variables described above, there are structural (or community-level) variables that are associated with a household’s ability to become economically self-sufficient. These variables include: availability of human services to meet the needs of poor and near poor individuals and families, geographic location in a city or suburb vs. a rural area, and local labor market conditions (unemployment rates and proportion of jobs in the service sector and manufacturing sector). The literature on each of these variables is reviewed in the following sub-sections.

Availability of human services

Social capital theorists argue for increased policy emphasis on strengthening and extending people's access to social network resources (Lin 1999). Social capital was previously generated in the U.S. through families, communities, and informal associations, but because of increased family mobility and single-parenting, many families do not have access to the same levels of social capital through these traditional channels. Therefore, formal organizations are increasingly needed to fill this gap (Coleman 1988).

However, research on the availability of nonprofit services in various geographic areas has shown that nonprofit service organizations tend to locate in areas that are not necessarily characterized by the highest demand for those services (Belanger and Stone 2008; Jossart-Marcelli and Wolch 2003; Gronbjerg and Paarlberg 2001; Bielefeld 2000; Nemenoff 2008). Jossart-Marcelli and Wolch (2003) examined the distribution of nonprofit services across southern California cities using 1996 data from the National Center for Charitable Statistics and found that nonprofits tend to locate in communities that offer a relatively high opportunity for government subsidization and private contributions, such that the areas with the highest need had fewer services available per person in need. Specifically, inner ring suburban areas had the highest concentrations of nonprofit services whereas inner city areas and affluent suburbs had fewer services available. Therefore, some researchers conclude that nonprofit services should not be viewed as a substitute for government provided services, since the distribution of nonprofit services is not likely to result in a redistribution of resources to the areas with highest need (Jossart-Marcelli and Wolch 2003; Gronbjerg and Paarlberg 2001). In their review of the existing literature on this topic, Gronbjerg and Paarlberg (2001) also found that certain community characteristics, including high social capital, a high proportion of manufacturing jobs, and presence of other nonprofit organizations determine the density of nonprofit services at the county level. Another study using NCCS data in nine metropolitan areas in the U.S., including the Twin Cities, found that moralistic (vs.

individualistic or traditionalistic) political culture was related to higher density of nonprofit services (Bielefeld 2000).

Most of the research on nonprofit service availability and density has focused on metropolitan areas. However, one study conducted in a southern state used all 75 of the state's counties to compare the availability of services across urban and rural areas (Belanger and Stone 2008). This study, which used data from surveys with child welfare workers, found that social services related to child welfare were less available in the state's rural counties compared with the state's urban counties. Not surprisingly, distance to available services was cited as a primary barrier to access in rural areas. The results of this study are limited by the small sample size (N=75 counties), but the results did not show statistically significant relationships between the availability of services and child welfare outcomes.

At the time this literature review was written, there was no available published research specifically related to self-sufficiency outcomes and nonprofit service availability/density. Including nonprofit density as a predictor of individual and family self-sufficiency in this dissertation turns this previous research on its head by now examining the degree to which nonprofit density contributes to (rather than examining the degree to which it is determined by) self-sufficiency of residents in the area.

Labor market conditions: service sector and manufacturing sector, and unemployment rates

Some researchers have argued that labor market factors resulting in underemployment and unemployment cause more poverty than lack of effort among the poor (Schiller 2004; Wilson 1996). "Earnest and realistic attempts to act responsibly and improve oneself are undermined by the system itself" (Angel, Lein, and Henrici 2006, p. 184).

O'Connor (2001) is particularly critical of poverty research that obscures the role of structure by appearing to be more scientific than it really is in the analysis of individual-level variables: "By highlighting market forces, neoclassical theorists [including Milton Friedman, Jacob Mincer, Gary Becker, and Theodore Schultz] diminished the importance of institutional practices and policies as factors in shaping economic outcomes. At the same time they exaggerated the role of rational choice, individual behavior, and the level playing field by assuming that workers should be viewed in the same light as their profit-maximizing employers, as rational actors operating without constraints to maximize their own individual self-interest" (p. 141). A high unemployment rate in a local area is a factor that must be considered when examining individual behavior, because it represents the degree to which individuals who are seeking employment are able to find open positions.

According to Angel, Lein, and Henrici (2006), who conducted surveys and in-depth interviews with thousands of low-income families in Boston, Chicago, and San Antonio, the employment options available for unskilled workers, typically in the service sector, do not support family routines or stability. Therefore, industry of employment in addition to supply of jobs needs to be considered in any analysis of economic self-sufficiency.

Location: urban vs. rural

In addition to the over-representation of inner city residents among the poor, rural residents are also more likely to experience poverty. Not surprisingly, pockets of rural poverty are located in Appalachia and the Mississippi Delta, and in the Great Plains and southwest around Indian Reservations. However, rural poverty reached a record low of 13 percent in 2000. The number of rural residents living in concentrated poverty decreased by nearly 50 percent in the 1990s. On the other hand, "the social isolation of rural communities and the stigma associated with the receipt of governmental assistance may make rural poverty particularly debilitating for families" (Kohler et al. 2004, p. 162).

Many public assistance programs were actually designed for urban residents, so rural residents often do not (or cannot) benefit as much from programs such as Medicaid or child care assistance (Lein et al. 2007; Rocha 1997).

Finally, "[r]ural areas where there is a high level of unemployment and greater proportions of people who live below the poverty level have lower income levels because of limited occupational choices" (Rocha 1997, p. 6). Therefore, a dummy variable for urban vs. rural residence is included in the models used for this study.

Hypotheses

Based on the research literature described above, this study tests the following hypotheses:

1) A local labor market with a high unemployment rate, or an otherwise depressed labor market in a rural area, has a negative impact on the ability of individual and families to become economically self-sufficient, after controlling for individual and household characteristics (see H1 in Figure 2).

2) A local labor market with a relatively high proportion of jobs in the service sector makes it more difficult for individuals and families living in those counties to attain economically self-sufficiency, whereas a local labor market with a relatively low proportion of jobs in the service sector makes becoming economically self-sufficiency more likely, after controlling for individual and family characteristics (see H2 in Figure 2).

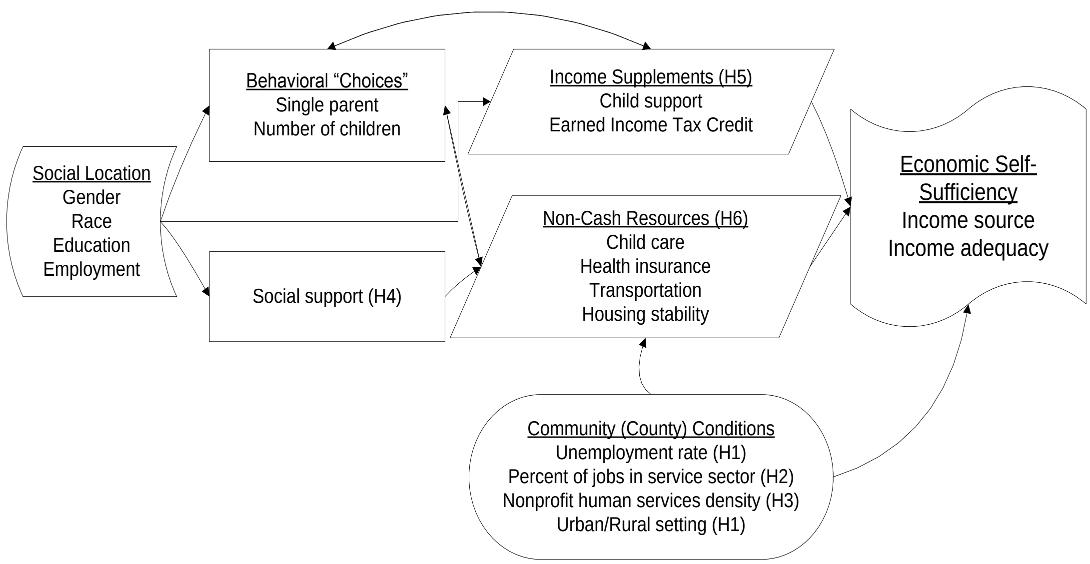
3) Higher density of local human services improves the ability of individuals and families to attain economic self-sufficiency (see H3 in Figure 2).

4) Individuals and families who have informal social network support are more likely than individuals and families who do not have social support to attain economic self-sufficiency (see H4 in Figure 2).

5) Individuals and families who have income supplements like child support and the Earned Income Tax Credit are more likely than individuals and families who do not have these resources to attain economic self-sufficiency (see H5 in Figure 2).

6) Individuals and families who have access to non-cash resources like affordable and high-quality child care, affordable and stable housing, transportation to meet their daily needs, and health insurance coverage are more likely to attain economic self-sufficiency than individuals and families who do not have access to these resources (see H6 in Figure 2).

Figure 2. Graphical illustration of the hypotheses being tested



The next chapter (Methods) describes the study participants, data sources, and statistical modeling techniques used to answer the research question: ***What are the household (individual and family) characteristics and community-level factors that contribute to continued material hardship and welfare dependence, and inhibit economic self-sufficiency, among low-income families?***

Chapter 3: Methods

In this chapter, the data sources and statistical analyses used for this dissertation are described in detail. The data and analyses are cross-sectional. The empirical background described in the last chapter helps to provide evidence for the choices made below. The strength of the method used here is its quantitative design, built on theoretical frameworks used to explain individual-level economic self-sufficiency outcomes with individual-level and community-level explanatory variables. Nonetheless, given the cross-sectional nature of the data, all results should be considered associational; therefore, causal claims should not be made.

At the individual level, theories based on ethnographic, interview, and survey data from low-income individuals (e.g., Edin and Lein 1996; Lein et al. 2007), as well as human capital theory, status attainment theory, and social capital theory informed the selection of proper variables for analysis. At the community level, Marxist and neomarxist theory, and empirical work on nonprofit service density, urban/rural differences, and labor markets informed the choice of which contextual factors are included. Both of these levels are described in turn, including bivariate analyses and descriptive statistics. The chapter concludes with a description of the statistical method used in the analyses that follow to test the study's hypotheses.

Data source – Individual and household data

This study was completed in partnership with the Minnesota Community Action Partnership (MinnCAP), individual Community Action Agencies (CAAs) in Minnesota, and the Minnesota Office of Economic Opportunity (OEO). The OEO is a state agency that passes federal Community Services Block Grant[5] (CSBG) funds to local agencies

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[5] The Community Services Block Grant (CSBG) provides U.S. federal funding for Community Action Agencies (CAAs) and other programs that seek to address poverty at the community level. Like other block grants, CSBG funds are allocated to the states and other jurisdictions (including tribes, the District of Columbia, the Commonwealth of Puerto Rico, and territories) through a formula, with less federal oversight and fewer federal requirements than categorical grants. The CSBG formula determines each jurisdiction's funding level based on poverty population; once disbursed, most of the money is passed by

and oversees their work. MinnCAP is the statewide association of local CAAs, and MinnCAP advocates at the state level for policies and programs that will benefit CAAs and their clients (low-income Minnesotans). CAAs are nonprofit agencies that serve single counties or groups of counties by providing a range of services to low-income individuals and families including Head Start, weatherization and home energy assistance, home delivered meals and congregate dining, and family self-sufficiency programming.

The individual-level data, including both the individual-level demographic and explanatory variables and individual outcomes, were obtained from the statewide CAA client database maintained by MinnCAP. County-level data including employment rates and sectors of employment was obtained from the public Minnesota Department of Employment and Economic Development's website. The nonprofit density data is from the Minnesota Longitudinal Finance Study.

Following the national Results Oriented Measurement and Accountability[6] (ROMA) model, MinnCAP and the Minnesota Office of Economic Opportunity (OEO, the agency that administers federal CSBG funds) partnered with CAAs and researchers from Wilder Research, including the author of this dissertation, to develop a tool for measuring changes in individual clients' economic self-sufficiency over time. This tool, called the Self-Reliance Achievement Scale (SRAS), is used by front-line community action staff to assess the progress over time toward self-sufficiency of their case managed clients.

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the states and other jurisdictions to CAAs and other designated organizations to be spent on employment, education, income management, housing, nutrition, emergency services, and health. (http://en.wikipedia.org/wiki/Community_Services_Block_Grant)

[6] ROMA was created in 1994 by an ongoing task force of Federal, state, and local community action officials – the Monitoring and Assessment Task Force (MATF). Based upon principles contained in the Government Performance and Results Act of 1993, ROMA provides a framework for continuous growth and improvement among more than 1000 local community action agencies and a basis for state leadership and assistance toward those ends. (http://www.roma1.org/554/interior.html)

The SRAS includes 15 items that are related to economic self-sufficiency. All items were designed to be as objective as possible, and the categories were designed to be: a) easy to determine where to put someone on the scale, and b) have enough meaningful categories to predict changes in economic self-sufficiency while at the same time not being so detailed that accuracy is sacrificed. (Note that the services provided to clients under each domain are also recorded by community action staff – these data are not used in this dissertation.) See Figure 3 for rating form that CAA staff use to rate individuals/ families using the SRAS and see Figure 4 for the domains and rating categories ("scores").

Figure 3. The Self-Reliance Achievement Scale (SRAS) rating form

DOMAIN	**STATUS**	**SERVICES**
A. Hours of Employment		
B. Job Retention and Stability		
C. Household Income Sources		
D. Child Support		
E. Earned Income Tax Credit (EITC)		
F. Adequacy of Income		
G. Financial Credit		
H. Housing Stability		
I. Housing Affordability		
J. Health Insurance Coverage		
K. Child Care		
L. English Proficiency		
M. Education		
N. Transportation		
O. Informal Social Support		

Figure 4. The Self-Reliance Achievement Scale (SRAS) rating form

A. Hours of Employment
0-Unemployed
1-Working less than 15 hrs/week
2-Working 15 - 19 hrs/week
3-Working 20 - 24 hrs/week
4-Working 25 - 29 hrs/week
5-Working 30 - 34 hrs/week
6-Working 35 - 40 hrs/week
7-Working more than 40 hrs/week
9-Unable to work or retired

B. Job Retention and Stability
0-Unemployed
1-Worked less than 1 month at current job
2-Worked 1 month but less than 3 months at current job
3-Worked 3 months but less than 6 months at current job
4-Worked 6 months or longer at current job
9-Unable to work or retired

C. Household Income Sources
0-No household income
1-Public cash benefits/no earned income for any HH member
2-More than 50% public cash benefits with some earned income
3-More than 50% earned income with some public cash benefits
4-Earned income/no public cash benefits for any HH member

D. Child Support
0-Eligible, no income benefit
2-Eligible, partial or irregular benefit
4-Eligible, receives full benefit
9-Not applicable

E. Earned Income Tax Credit (EITC)
0-Eligible, no benefit
2-Eligible, applied for benefit
4-Eligible, received or receiving benefit
9-Not applicable/not eligible

F. Adequacy of Income for Food and Shelter
0-Unable to meet food AND housing expenses during the last month
2-Able to meet food OR housing expenses during the last month
4-Able to meet BOTH food and housing expenses during the last month

G. Financial Credit
0-No
1-Poor
2-Restoring or beginning to establish
4-Good or restored
9-Not able to determine

H. Housing Stability
0-Homeless
1-Emergency shelter, doubled up or notice of eviction/foreclosure
2-Transitional housing (time limited)
3-Subsidized rental housing
4-Market rate rental housing
6-Home ownership

I. Housing Affordability
0-Pays more than 50% of HH income
2-Pays less than 50% but more than 30% of HH income
4-Pays less than 30% of HH income
9-Not applicable/not paying

J. Household Healthcare Insurance Coverage
0-No insurance for *any* HH members
1-Public health insurance for *some* HH members
2-Public health insurance for *all* HH members
3-Mix of public and private insurance for *some* HH members
4-Mix of public and private insurance for *all* HH members
5-Private insurance for *some* HH members
6-Private insurance for *all* HH members

K. Child Care
0-Not available
1-Available but inadequate to meet need
2-Available and adequate with subsidy
4-Available and adequate without subsidy
9-Not needed

L. English Proficiency
0-No skills/inadequate skills
1-Limited skills
2-Functional skills with some support
4-Functional skills, no support needed

M. Education
0- Not adequate to meet employment needs
2- Adequate for current employment but not for work advancement
4- Adequate for current employment and advancement
9-Unable to work or Retired

N. Transportation
0-Not adequate to meet daily needs
2-Adequate to meet some but not all daily needs
4-Adequate to meet daily needs

O. Informal Social Support
0-No support from family/friends
2-One family member/friend they can turn to in a crisis
4-Two or more family members/friends they can turn to in a crisis

When front-line CAA workers in Minnesota establish an ongoing service relationship with an individual or family (i.e., when the service they provide is not a one-time service such as home weatherization), they are required to complete the SRAS with that person (or if the client is part of a family unit receiving services, the head of household is the one person from that household who is rated). Then, the CAA staff person enters the SRAS ratings into the web-based database maintained by MinnCAP. Every three months (approximately), the staff person rates the individual/family again using the SRAS, and can review the historical ratings to observe if any changes have occurred in their status that could impact their economic self-sufficiency. CAA staff may also record up to three services that were provided to their client during the rating period – the service data is not used in this dissertation, since the vast majority of services are recorded as "information & referral," which is too broad to be useful here.

Two of the domains (C and F) on the SRAS are the dependent variables for this study. Several of the other variables, as well as household demographic characteristics (also found in the MinnCAP database) and county-level data (from various data sources) are the basis for the analysis in this dissertation.

Reliability and validity of SRAS data

To assess the reliability and validity of the items from the SRAS used for this study, a pretest of the instrument was conducted. (I conducted this pre-test with support from the Minnesota Office of Economic Opportunity and a Graduate Research Partnership Program stipend from the University of Minnesota, advisor: Professor Scott Eliason.) The first part of the pretest – reliability testing – was designed to determine if the ratings completed by community action staff using the SRAS are accurate.

To do this, community action staff were asked to rate a convenience sample of approximately 145 clients using the SRAS. Clients who participated in the pretest were given a confidential, self-administered survey at the same time as their community action case manager rated them. The survey items were very similar to the items on the SRAS.

The primary assumption for the reliability testing is that clients know their own "scores" on the SRAS, because the scores correspond to objective and straightforward measures of their family's status. As a test of this assumption, we compared clients' self-reported earned income to official earned income data provided by the Minnesota Department of Employment and Economic Development. Of the 73 clients who were employed at the time of the survey and who reported having only one job, the correlation between their self-reported earnings and the official earnings data was very high (0.879, $p<0.01$). This indicates that clients were, in general, both willing and able to provide accurate information about themselves and their situation in the context of this study (self-administered, confidential surveys). Further, because we know that earned income is often misreported on surveys due to many reasons, it is likely that the clients' responses to the other items on the survey are even more accurate than their self-reported income. In other words, it appears that the assumption that clients rate themselves accurately is reasonable. Therefore, the closer the community action staff member's rating of the client is to the client's rating of themselves, the more accurate or reliable it is. See Table 1.

Table 1. Inter-rater reliability – Percent of cases where Community Action case manager rating and participant self-rating match exactly

Item on the SRAS	(N=145)
household income sources	74%
adequacy of income	59%
child support	78%
EITC	58%
housing stability	83%
health insurance	75%
child care	46%
transportation	67%
informal social support	81%

These results of the pretest indicate that, in general, community action staff rate their clients very accurately using this tool. On the other hand, there are several items for which the reliability is less than satisfactory (around 75% or lower). These low reliability scores can be attributed to two main factors. First, it is possible that community action staff do not know the "correct" rating on the item. Second, it is possible that some of the rating categories on the SRAS are difficult to comprehend and were interpreted differently by individual clients and staff. Of particular concern is the discrepancy between staff ratings and client self-ratings on the adequacy of income variable, which is one of the two outcome variables used in this study. More research is needed to understand the degree to which case workers can accurately assess and rate their clients using this tool. Since SRAS data are used for individual-level case management as well as for research and evaluation, it will be important for this tool to be strengthened and continually evaluated.

The second main goal of the pretest was to test the validity of the self-sufficiency outcome measures. The self-sufficiency outcome variables, income source and income adequacy, are the two measures that were tested for validity. If these items are valid, scores on the items on the SRAS should be related to the independently derived measures of income source and income adequacy. To test this, official earned income data (from the Minnesota Department of Employment and Economic Development) and official welfare use data (from the Minnesota Department of Human Services) were obtained for all pretest study participants. These data were obtained based on participants' social security numbers (after getting informed consent from them). Correlations between earned income and SRAS scores and between welfare use and SRAS scores were tested. See Table 2.

Table 2. Outcome measure validity – Correlation with official data (N=146)

Outcome measure	Correlation with earned income (DEED administrative data)	Correlation with welfare status (DHS administrative data)
income source	0.310**	-0.431**
Income adequacy	0.156	-0.234**

**significant at p<0.01

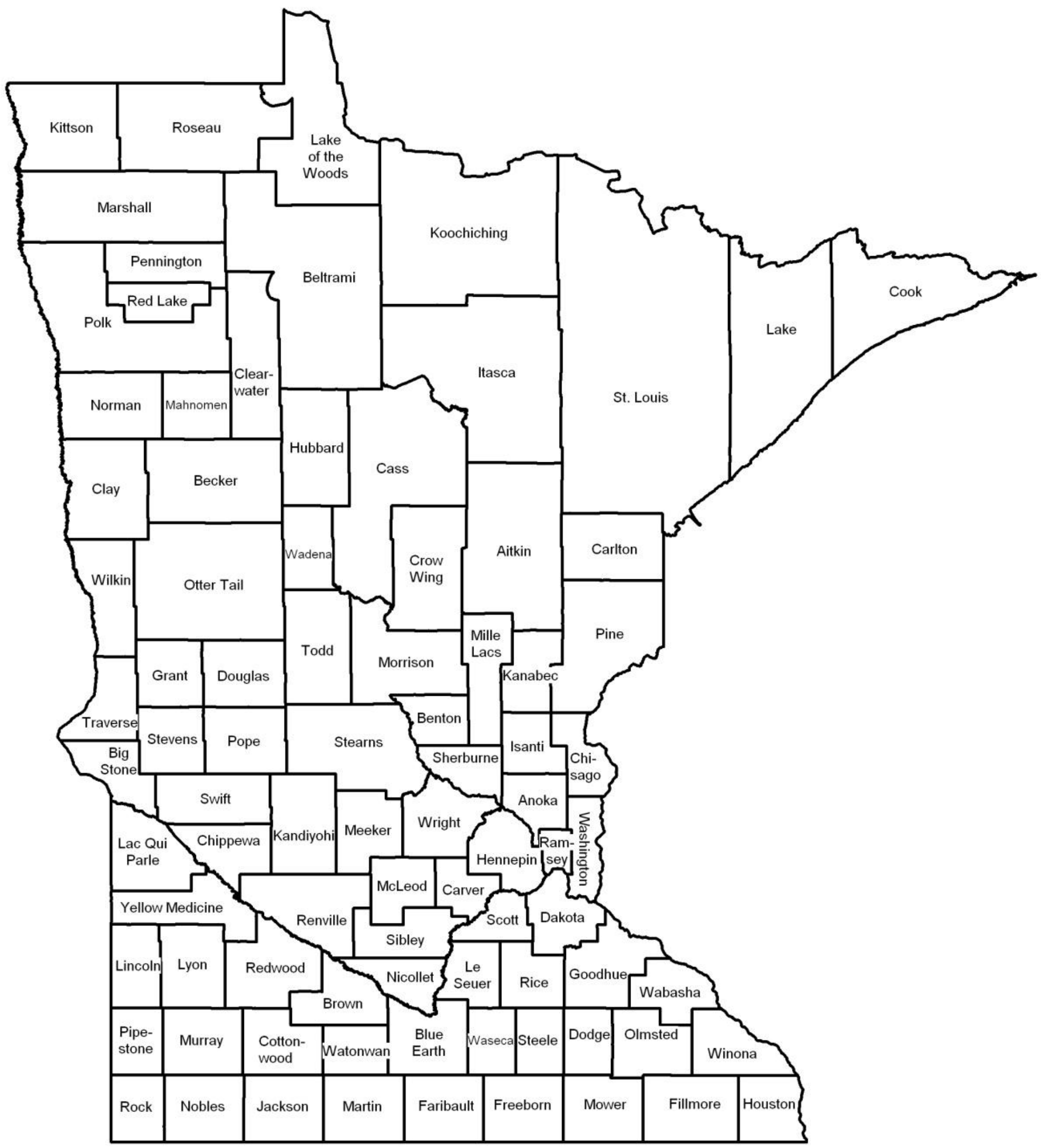
Correlations under 0.4 are considered weak and correlations between 0.4 and 0.6 are considered moderate. The income source measure is significantly correlated in the expected direction with both official income data and official welfare use data. The income adequacy measure is correlated with both official income data and official welfare use data, but the relationship between official income and the income adequacy measure is not statistically significant. This could be due in part to the relatively small sample size (i.e., low statistical power). It also could be due to error in the measurement of income adequacy as shown by the relatively low inter-rater reliability score.

In summary, Minnesota Community Action Agencies (CAAs) have responded to federal mandates for measuring the outcomes of their services by creating a tool called the Self-Reliance Achievement Scale (SRAS) in partnership with researchers (including the author of this dissertation) and funders. The Minnesota Community Action Partnership (MinnCAP) maintains the statewide database where individual CAA staff record SRAS ratings for their clients. The results of a pretest of the SRAS indicate that the tool is a moderately reliable and valid method of measuring economic self-sufficiency, particularly when viewed as a case management tool to be used by social service providers to assess their clients and make service decisions. However, more refinement is needed to improve the tool for future research and program evaluation use. This work is currently in progress; I have met several times with representatives from the Minnesota Office of Economic Opportunity (OEO), MinnCAP, CAA staff, and researchers from the University of Minnesota to discuss these and other concerns related to measuring client outcomes.

Participant characteristics

The individuals who participated in this study are all current or former clients of one of the 28 community action agencies in Minnesota. The vast majority of these clients received on-going services commonly considered case management services. This means that these clients received services over a period of time to address multiple areas in their lives, most of which are closely related to economic self-sufficiency. Participants come from 76 different counties around Minnesota. See Figure 5 for a map of Minnesota Counties.

Figure 5. Map of all Minnesota Counties



See Table 3 for a listing of Minnesota Counties with the number of study participants and the CAA that served those participants.

Table 3. Number of participants by county

All Minnesota Counties	Number of study participants who live in this county	Percent of study participants who live in this county	Community Action Agency that serves these study participants
Aitkin County	33	1.7%	Lakes & Pines, Tri-County
Anoka County	165	8.3%	AACAP, CASH, Heartland
Becker County	40	2.0%	Mahube, Otter Tail-Wadena
Beltrami County	47	2.4%	Bi-County, ICCC
Benton County	20	1.0%	Tri-County
Big Stone County	5	0.3%	Prairie Five
Blue Earth County	19	1.0%	MVAC, Tri-County
Brown County	34	1.7%	MVAC, ACCAP
Carlton County	76	3.8%	Lakes & Pines
Carver County	16	0.8%	SCD CAP
Cass County	18	0.9%	Bi-County
Chippewa County	3	0.2%	Prairie Five
Chisago County	46	2.3%	Lakes & Pines
Clay County	15	0.8%	Clay-Wilkin, Lakes & Prairies
Clearwater County	31	1.6%	ICCC
Cook County	--	--	--
Cottonwood County	3	0.2%	SMOC, Western
Crow Wing County	67	3.4%	Bi-County, Tri-County
Dakota County	74	3.7%	SCD CAP
Dodge County	4	0.2%	Semcac
Douglas County	57	2.9%	West-Central
Faribault County	3	0.2%	MVAC
Fillmore County	1	0.1%	Semcac
Freeborn County	--	--	--
Goodhue County	18	0.9%	Three Rivers
Grant County	28	1.4%	West-Central
Hennepin County	29	1.5%	CASH, CA of Mpls, ACCAP, Heartland
Houston County	1	0.1%	Semcac
Hubbard County	45	2.3%	Mahube, Bi-County
Isanti County	63	3.2%	Lakes & Pines, Tri-County

Itasca County	1	0.1%	Lakes & Pines
Jackson County	10	0.5%	SMOC, Western
Kanabec County	44	2.2%	Lakes & Pines, Tri-County
Kandiyohi County	127	6.4%	Heartland
Kittson County	--	--	--
Koochiching County	1	0.1%	Heartland
Lac qui Parle County	--	--	--
Lake County	--	--	--
Lake of the Woods County	--	--	--
Le Sueur County	21	1.1%	MVAC
Lincoln County	--	--	--
Lyon County	12	0.6%	Western
Mahnomen County	11	0.6%	Mahube
Marshall County	1	0.1%	TVOC
Martin County	19	1.0%	Lakes & Pines, MVAC
McLeod County	55	2.8%	Heartland
Meeker County	32	1.6%	Heartland
Mille Lacs County	53	2.7%	Lakes & Pines
Morrison County	5	0.3%	Tri-County
Mower County	2	0.1%	Semcac
Murray County	3	0.2%	SMOC
Nicollet County	15	0.8%	MVAC
Nobles County	23	1.2%	SMOC
Norman County	5	0.3%	TVOC
Olmsted County	41	2.1%	Olmsted CAP, Semcac
Otter Tail County	23	1.2%	Otter Tail-Wadena, West-Central
Pennington County	58	2.9%	ICCC
Pine County	83	4.2%	Lakes & Pines, Tri-County
Pipestone County	3	0.2%	SMOC
Polk County	51	2.6%	ICCC, TVOC
Pope County	15	0.8%	ICCC, West-Central
Ramsey County	1	0.1%	ACCAP
Red Lake County	18	0.9%	ICCC
Redwood County	4	0.2%	Western
Renville County	19	1.0%	Heartland
Rice County	24	1.2%	Three Rivers
Rock County	1	0.1%	SMOC
Roseau County	--	--	--
Saint Louis County	46	2.3%	CA of Duluth
Scott County	25	1.3%	SCD CAP
Sherburne County	4	0.2%	Lakes & Pines, Tri-County

Sibley County	10	0.5%	MVAC
Stearns County	54	2.7%	Heartland, Tri-County
Steele County	5	0.3%	Lakes & Pines, Semcac
Stevens County	5	0.3%	West-Central
Swift County	8	0.4%	Prairie Five
Todd County	--	--	--
Traverse County	5	0.3%	West-Central
Wabasha County	3	0.2%	Three Rivers
Wadena County	23	1.2%	Otter Tail-Wadena
Waseca County	34	1.7%	MVAC
Washington County	2	0.1%	ACCAP
Watonwan County	--	--	--
Wilkin County	--	--	--
Winona County	3	0.2%	Semcac
Wright County	5	0.3%	Tri-County, Wright County CAP
Yellow Medicine County	7	0.4%	Prairie Five

Economic self-sufficiency (Dependent variables)

Economic self-sufficiency is defined for this dissertation using a combination of the various approaches described in Chapter 2. Here, as in Sandfort and Hill (1996) and Cheng (2003), both the source and the adequacy of income are included in the definition. The MinnCAP database contains the data needed to assess participants' economic self-sufficiency outcomes. For this study, the term **economic self-sufficiency** is used to define a state of being for individuals and families that meet two criteria. The first component of economic self-sufficiency is **income source**. *To be self-sufficient, a household must be receiving more than half of their income from sources other than public assistance.* (This definition does not consider or include in-kind benefits like food stamps or Medicaid, because they do not have cash equivalent value and because by definition people must be poor to receive them.) The ratings participants can be given on this item are: no household income, all household income from public case benefits with no earned income, more than 50 percent of household income is from public cash benefits with some earned income, more than 50 percent of household income is earned income with some public cash benefits, and all household income is earned income with no public cash benefits.

Like Danziger (2000), I restrict my analysis of income source to cash assistance versus other sources of household income. The measure of income source I use in this study allows for the fact that most families who leave welfare rely on a variety of sources of income, not just employment income, to make ends meet. Lein et al. (2007) reported that just 55 percent of welfare leavers in their study, conducted in Texas in the late 1990s, were employed when exiting welfare and just 70 percent were employed sometime in the year after exiting. Nearly all of the welfare leavers in their study relied on more than one source of income. This study found that over a third of the welfare leavers who participated had experienced difficulty paying for housing and/or food insecurity during the past year. Also like Danziger (2000), the period of time used in this analysis is the previous month.

The second component of economic self-sufficiency is **income adequacy**. *To be economically self-sufficient a household also must not be experiencing material hardship, meaning that they are able to afford both food and housing expenses.* The ratings participants can be given on this item are: unable to meet food and housing expenses during the last month, able to meet food or housing expenses in last month but not both, and able to meet both food and housing expenses in last month. The measure of income adequacy I use in this study is very similar to the subjective measure used by Cancian and Meyer (2004). This definition of income adequacy uses ordinal rather than interval data for several reasons. First, the official definition of poverty based on actual dollars of income is commonly acknowledged to be far too low to represent an actual cutoff below which point families experience hardship. Second, relative measures of poverty, or measures based on consumption rather than income are difficult to obtain because a family's exact income or spending must be accurately obtained. Third, using actual income or consumption creates the opportunity for measurement error that is masked by the apparent detail in the data, whereas a subjective measure is more likely to provide an accurate reflection of a family's true situation by grouping them into *meaningful* categories. I suggest that this subjective measure of income adequacy is more appropriate than the official poverty measure using actual income data for these reasons.

Nearly half of the study participants are economically self-sufficient on both measures (income adequacy and income source). However, almost one-fifth of these individuals and families are not economically self-sufficient by either measure and over one-third are economically self-sufficient on one of the measures but not the other. See Table 4.

Table 4. Participant status on both measures of economic self-sufficiency

	Income adequacy	
Income source	HH income NOT adequate to meet food and housing expenses last month	HH income is adequate to meet food and housing expenses last month
Less than 50% of HH income is earned income	385 (17.5%)	450 (20.4%)
50% or more of HH income is earned income	316 (14.3%)	1052 (47.8%)

Demographic variables

Individuals and families must meet certain income criteria that generally classifies them as low-income to be eligible for community action services, although the specific income cut-offs are different for different programs. It is important to note that this sample of over 2,000 low-income individuals in Minnesota whose data were used for this dissertation was not randomly selected from all low-income individuals in Minnesota, and the percent of participants from each county is not proportionate to the overall population in the county. In other words, the sample of study participants is not statistically representative of all low-income people in Minnesota. However, the characteristics of the sample are very similar to the characteristics of the population of Minnesota households at or below the poverty level or below from the 2007 American Community Survey estimates. See Table 5.

Table 5. Participant characteristics compared to characteristics of all poor households in Minnesota

Variable	Minnesota households below the poverty line (2007 American Community Survey) (N=87,456)	Study participants (N=1,994)
Number of children in HH		
No children	19%	15%
1-2 children	55%	53%
3-4 children	21%	27%
5+ children	6%	6%
Household type		
Married, no children	12%	2%
Married, with children	19%	31%
Single parent, male	9%	2%
Single parent, female	54%	36%
Educational attainment*		
Less than high school	26%	20%
High school degree/GED	37%	38%
Some college	26%	36%
Bachelor’s degree or higher	11%	5%
Race/ethnicity		
White	62%	83%
Black or African American	14%	8%
American Indian	3%	5%
Asian	5%	1%
2 or more races	3%	3%
Other	3%	--
Hispanic*	9%	11%

*Note. The U.S. Census Bureau only reports education for adults age 25 and older. Since all study participants are age 18 or older, the results are relatively comparable.

The demographic characteristics of study participants are similar to the overall population of poor Minnesotans, with the exception of race (White households are over-represented in the study sample, and African Americans and Asians are slightly under-represented), education (participants are less likely to have less than a high school degree and more likely to have some college or more education), and household type (study participants are more likely to be married with children, and less likely to be single mothers, than the average poor household in Minnesota). This is likely due to the fact that the study participants over-represent rural areas and under-represent urban areas of the state. Although not representative in the statistical sense, these study results can be used to develop preliminary theories about the role of individual and family characteristics and social network support on economic self-sufficiency.

Individual and household explanatory variables

The individual and household data used in this dissertation comes from Minnesota CAAs client records database, which is updated and entered by community action case workers. The community action database contains data on individual participants' demographic characteristics, including marital status, number of children in the household, education level, employment status, and race/ethnicity (all shown in Table 5 on p. 81), as well as case managers' SRAS ratings of client status on non-cash resources, income supplements, and social support. See Table 6 on p. 83.

Most study participants (77%) have health insurance for all of the members of their household. Another 18 percent have some members in their household who are insured and some who are not. Just 5 percent of participants do not have health insurance for any household members. Child care also appears to be a major problem for only a small proportion (5%) of all study participants, whereas child care is not needed or is completely adequate without a subsidy for three-quarters (74%) of participants and adequate with a subsidy for one-fifth (21%) of participants. Two-thirds (64%) of participants have adequate transportation, one-quarter (24%) have partially adequate transportation, and 12 percent have completely inadequate transportation. Just over 10 percent of participants live in transitional housing, emergency shelters, or another unstable arrangement including homelessness. Over one-quarter (28%) live in subsidized rental housing and over one-third (36%) live in market rate rental housing. Just one-quarter (27%) of participants are homeowners. These data indicate that the majority of study participants, while certainly not middle class, are also clearly not destitute. In fact, it appears that this group of individuals and families is solidly working class. These variables are used in the exploratory analysis and as appropriate are included in the inferential models to explain participants' economic self-sufficiency outcomes.

Table 6. Participants' status on independent variables

Variable	**Study participants* (N=1,994)**
Employment status	
Not employed	36.5%
Employed part-time (1-29 hrs./week)	21.8%
Employed full-time (30+ hrs./week)	41.8%
Social support	
No support from family and friends	3.5%
One support person	22.4%
Two or more support people	74.1%
Child support	
Eligible, no benefit received	22.0%
Eligible, partial or irregular benefit received	14.4%
Eligible, full benefit received	13.1%
Not eligible	50.5%
Earned Income Tax Credit (EITC)	
Eligible, no benefit received	7.4%
Eligible, applied but not yet received	7.3%
Eligible, benefit received	48.4%
Not eligible	37.0%
Child care	
Child care unavailable or inadequate	5.1%
Child care adequate with subsidy	20.7%
Child care adequate without subsidy	15.1%
Child care not needed	59.1%
Transportation	
Not adequate to meet daily needs	12.0%
Adequate to meet some but not all daily needs	24.1%
Adequate to meet all daily needs	63.9%
Housing stability	
Homeless or precariously housed	5.7%
Transitional housing	4.2%
Subsidized rental housing	27.7%
Market rate rental housing	35.6%
Home owner	26.9%
Health insurance	
No household members insured	5.4%
Some household members insured	17.8%
All household members insured	76.8%

*2007 SRAS data from Minnesota community action agencies.

Data sources - County-level data

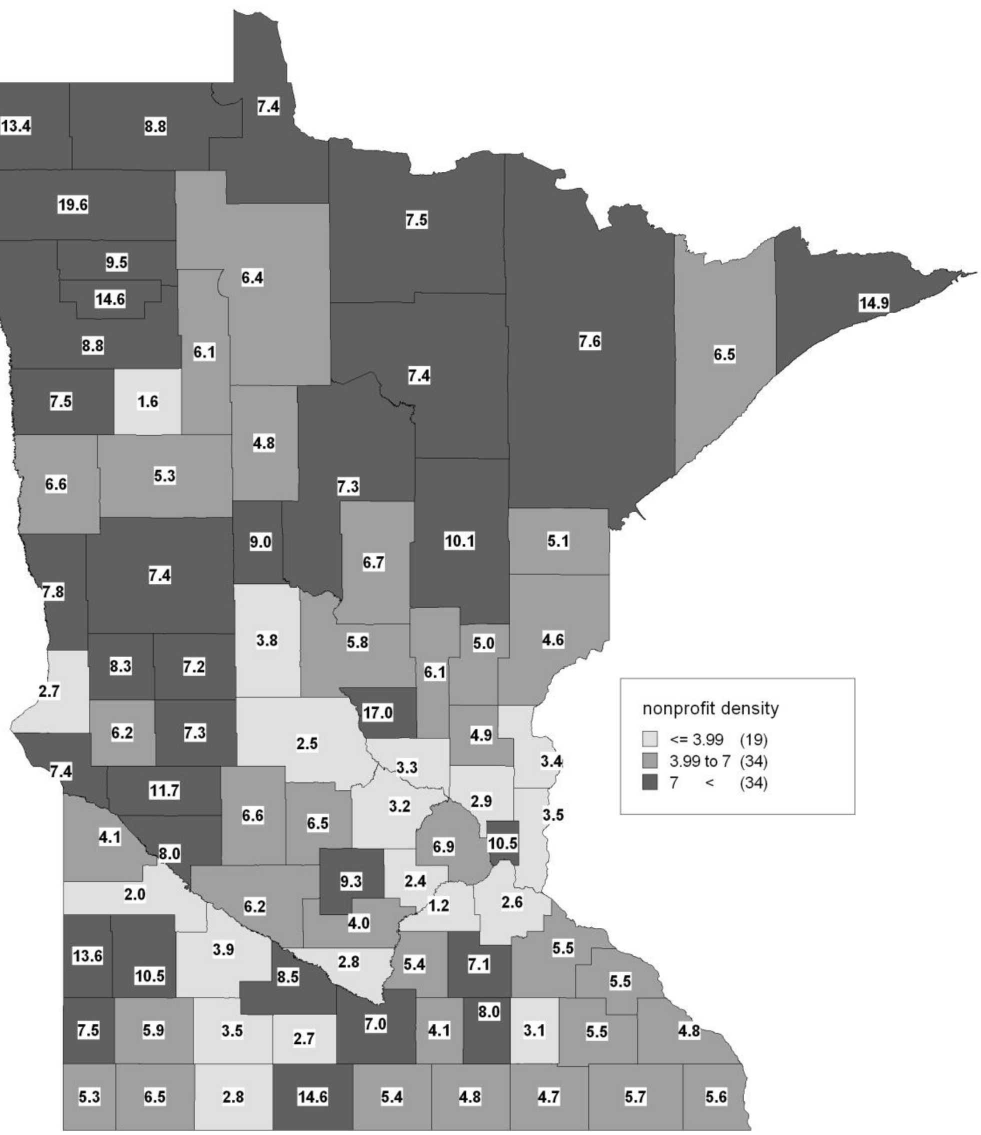
Minnesota CAAs serve residents of all 87 counties in Minnesota. Data for residents of 76 counties is included in this study, as described above. These counties offer a wide range of labor market experiences for the individuals living in them. The county-level data was obtained from several sources.

Nonprofit density

Information on nonprofit density was calculated using data from the Minnesota Longitudinal Finance Study conducted by the Minnesota Council on Nonprofits, which is a survey of a stratified random sample of all nonprofit organizations in Minnesota. This dataset includes all 501c3 and 501c4 (i.e., tax exempt nonprofit) organizations with annual revenues over $25,000 in Minnesota during 1999-2006. The purpose of the Minnesota Longitudinal Finance Study is to improve the overall quality of the financial information that is available on nonprofit organizations in Minnesota and to make available a source of accurate, longitudinal financial records for further study. The final study dataset was produced to improve comprehensiveness and accuracy by triangulating data from the Internal Revenue Service's (IRS) Business Master File, financial data from the Minnesota Attorney General's Office, and the National Center for Charitable Statistics' (NCCS) Core Files. The result is that the Minnesota Longitudinal Finance Study dataset is the most comprehensive available for nonprofit organizations in Minnesota (Sandfort, Mortenson, and Zhao 2007). The dataset classifies organizations using the National Taxonomy of Exempt Entities (NTEE) codes, which specify the type of organization it is. For the purposes of my dissertation, I selected all organizations that were coded in the health and human services categories. This represents about 3,600 organizations across Minnesota.

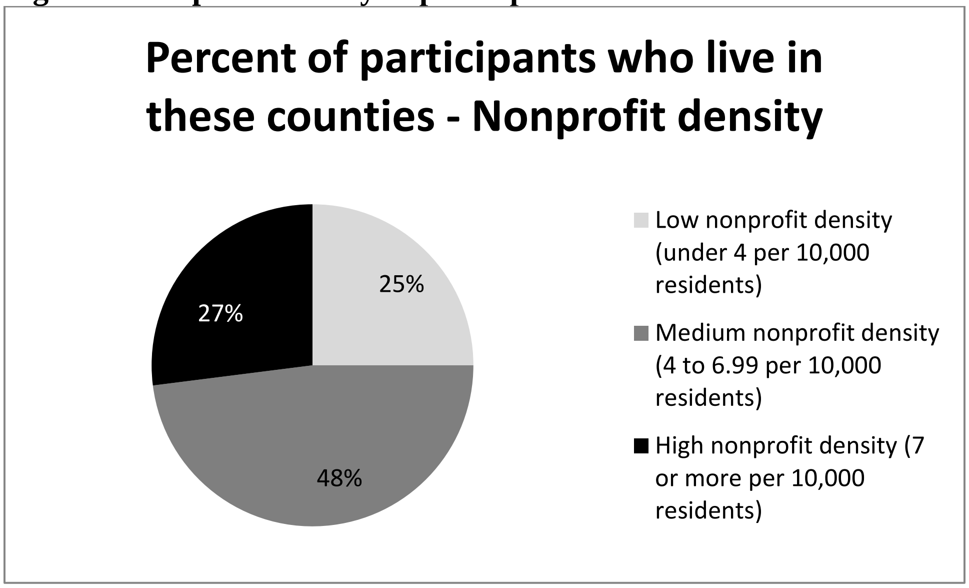
Nonprofit density (number of nonprofit organizations per 10,000 residents) in Minnesota ranges from 1.2 to 19.6 with most counties falling in the range of 3 to 10 per 10,000 residents. A county is considered to have a "low" nonprofit density if it is less than 4 per 10,000 residents, a "medium" nonprofit density if it is between 4 and 6.99 per 10,000 residents, and a "high" nonprofit density if it is 7 per 10,000 residents or higher. Nonprofit density is lowest in the suburban Twin Cities counties and highest in northern and western Minnesota. See Figure 6 for a map of nonprofit density by county for all Minnesota Counties.

Figure 6. Nonprofit density (number of nonprofits per 10,000 residents), by county



One-quarter (25%) of study participants live in “low” nonprofit density counties, half (48%) live in “medium” nonprofit density counties, and 27 percent live in “high” nonprofit density counties. See Figure 7.

Figure 7. Nonprofit density in participants’ counties



Proportion of jobs in the service sector and in the manufacturing sector

Data from the Minnesota Department of Employment and Economic Development (DEED) Quarterly Census of Employment and Wages (QCEW) was used to calculate proportion of the labor market in each county that is in the service sector and in manufacturing. This monthly survey conducted by DEED includes all employers under the Unemployment Insurance System, which covers 97 percent of all jobs in Minnesota. County-level employment by sector Using the North American Industrial Classification System) for the six quarters covered by this study (2006 Q3 through 2007 Q4) was downloaded from DEED’s website. Then, the total number of jobs in the service sector was divided by the total number of jobs in all industries to calculate the percent of the labor market in the service sector.

The proportion of jobs in the service sector ranges from 43.7 percent to 93.9 percent. A county is considered to have a “low” proportion of jobs in the service sector if it is less than 70 percent, a “medium” proportion of jobs in the service sector if it is between 70 and 84.9 percent, and a “high” proportion of jobs in the service sector if it is 85 percent or more. It is notable that counties with a low proportion of jobs in the service sector are concentrated in southwest Minnesota. See Figure 8 for a map of percent of jobs in the service sector by county, for all Minnesota Counties.

As described above, counties were grouped into “low service sector counties” with under 70 percent of all jobs in the county in the service sector, “medium service sector counties” with 70 to 85 percent of all jobs in the county in the service sector, “high service sector counties” with 85 percent or more of all jobs in the county in the service sector. Over two-thirds (68%) of study participants live in medium service sector counties, whereas 12 percent live in low service sector counties and 20 percent live in high service sector counties. See Figure 9.

Figure 8. Percent of jobs in the service sector, by county

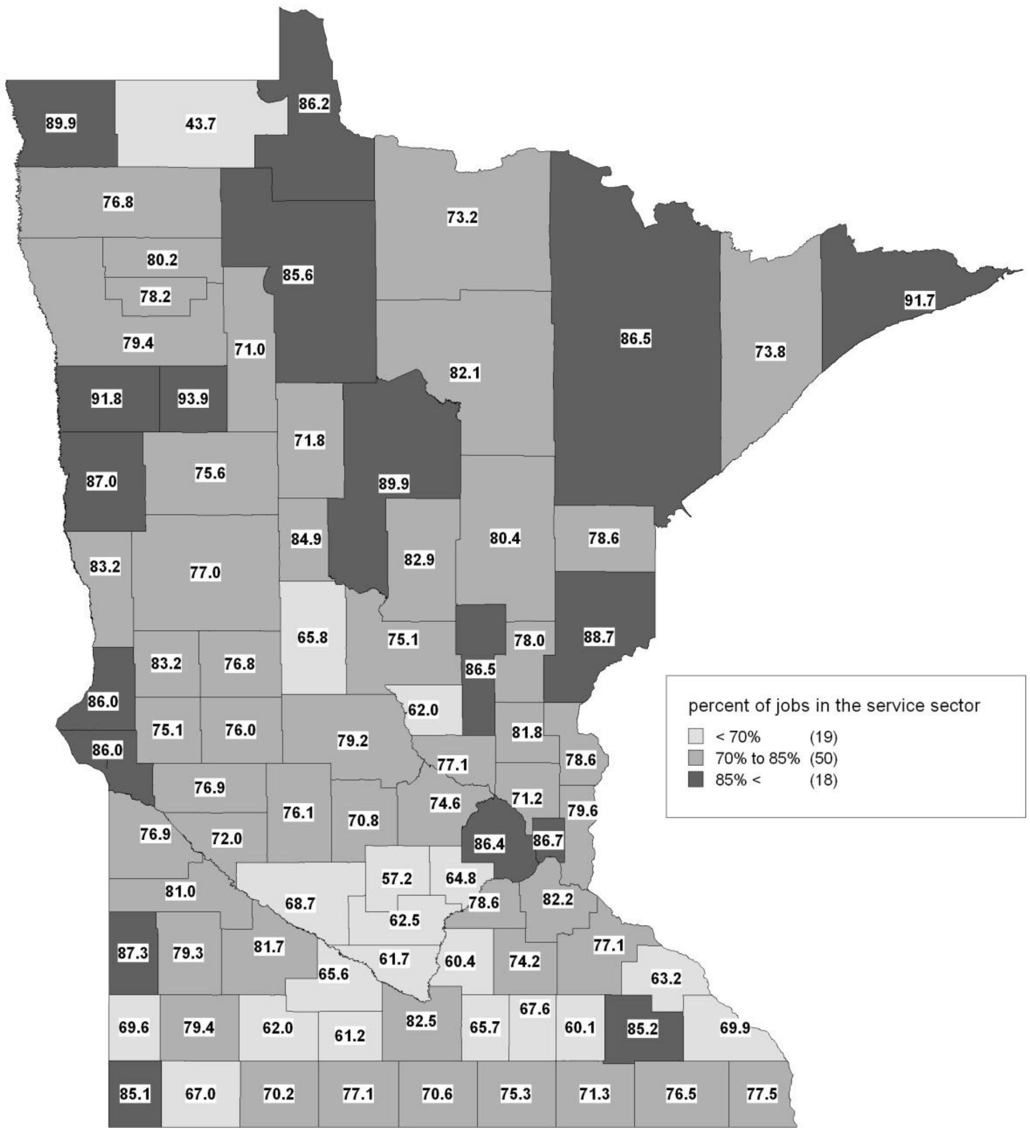
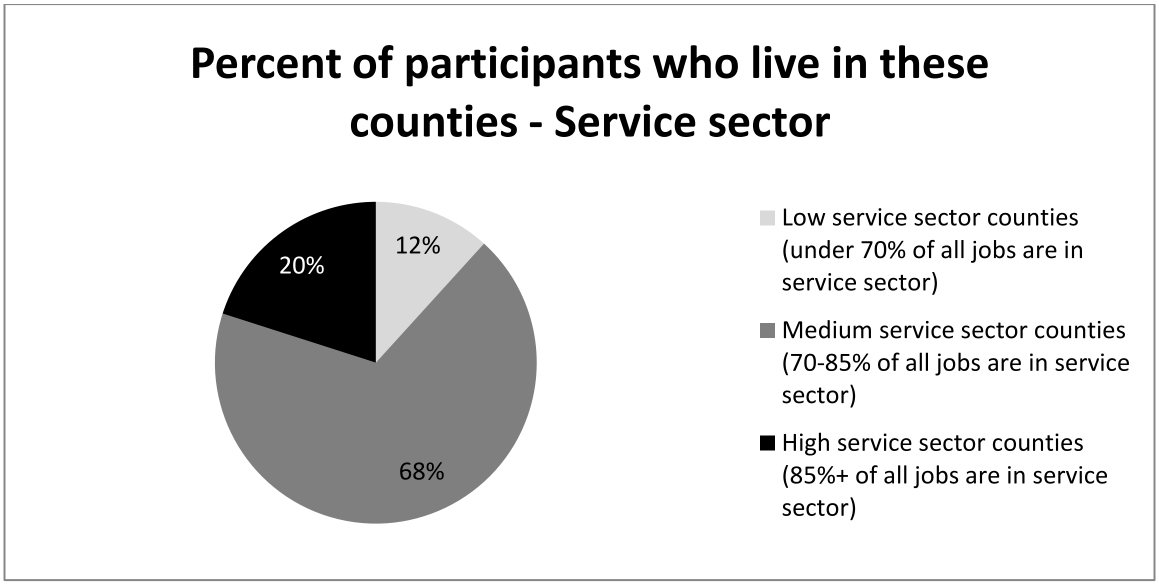
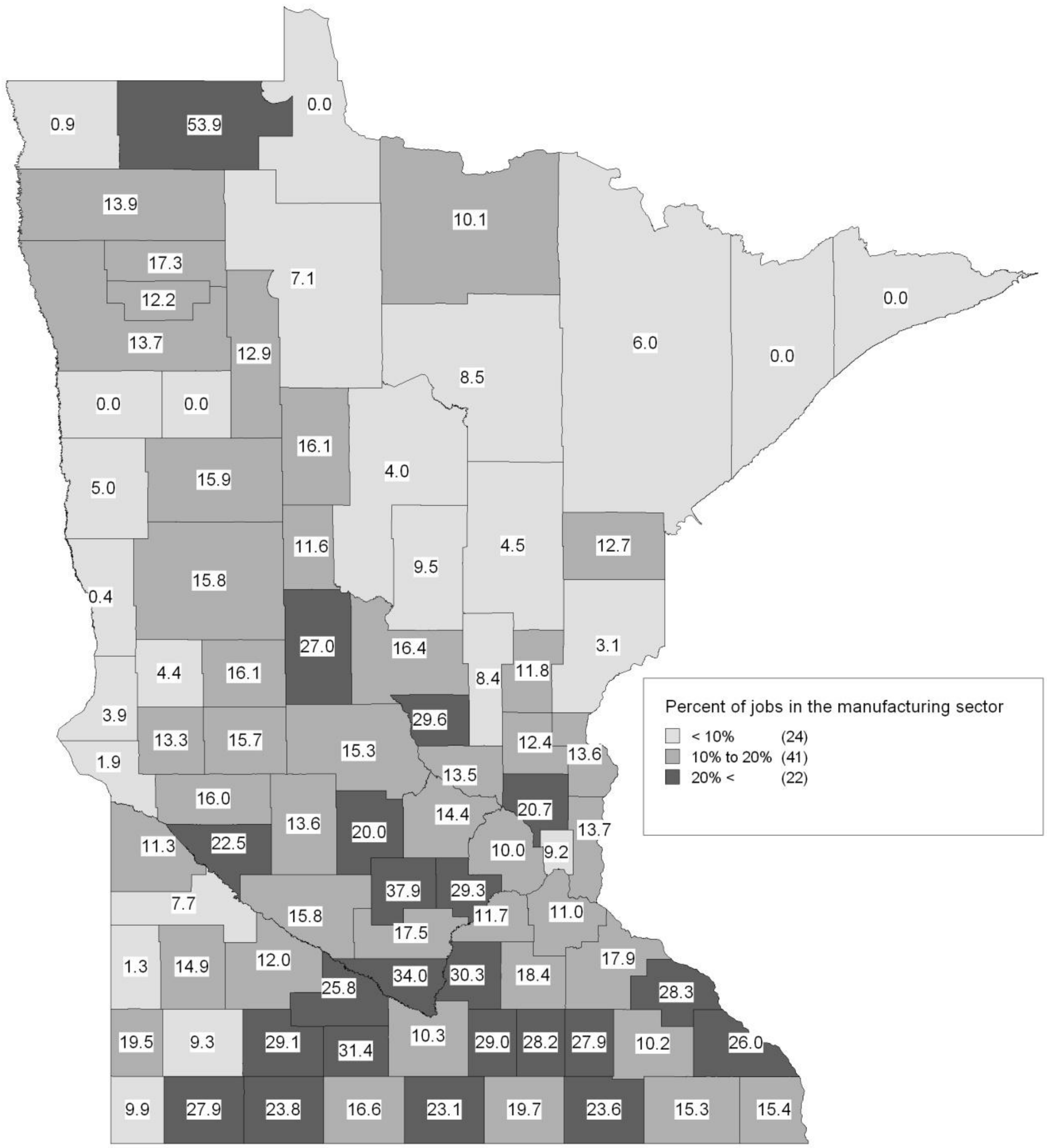


Figure 9. Labor market (service sector) conditions in participants' counties



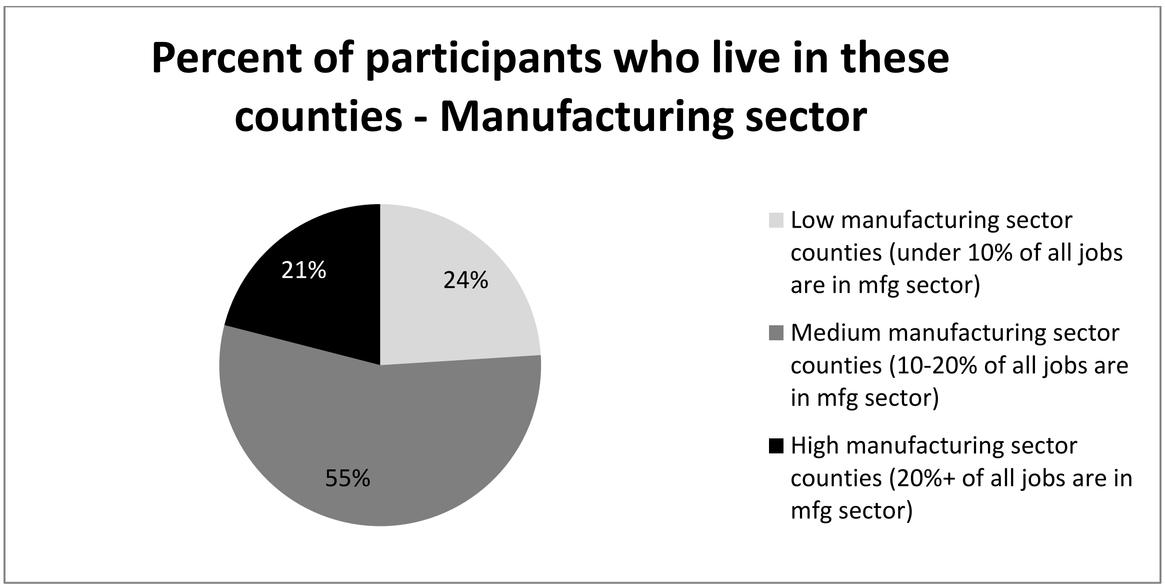
The same approach that was used to calculate percent of jobs in the service sector by county was also used to calculate the percent of jobs in the manufacturing sector by county. A county is considered to have a "low" proportion of jobs in the manufacturing sector if it is less than 10 percent, a "medium" proportion of jobs in the service sector if it is between 10 and 19.9 percent, and a "high" proportion of jobs in the service sector if it is 20 percent or more. Counties with a high proportion of manufacturing jobs are concentrated in southern/southeast Minnesota. Northeast Minnesota tends to have a lower proportion of jobs in the manufacturing sector. See Figure 10 for a map of percent of jobs in the manufacturing sector by county, for all Minnesota Counties.

Figure 10. Percent of jobs in the manufacturing sector, by county



Using a similar process (also described above), counties were grouped into "low manufacturing sector counties" with under 10 percent of all jobs in the county in the manufacturing sector, "medium manufacturing sector counties" with 10 to 20 percent of all jobs in the county in the manufacturing sector, and "high manufacturing sector counties" with 20 percent or more of all jobs in the county in manufacturing. Over half (55%) of participants live in counties with "medium" manufacturing sectors, whereas 24 percent live in "low" manufacturing counties and 21 percent live in "high" manufacturing counties. See Figure 11.

Figure 11. Labor market (manufacturing sector) conditions in participants' counties



Unemployment rates

County-level unemployment rates by month were also obtained from the DEED Local Area Unemployment Statistics (LAUS) system. The LAUS program is a federal-state cooperative program between the U.S. Bureau of Labor Statistics and DEED. Regression models used to estimate monthly unemployment rates rely on both current and historical data from the Current Population Survey, the Current Employment Statistics (CES) program, and the Unemployment Insurance statistics program. DEED LAUS data are publicly available on their website[7]. County-level unemployment rates were obtained for the 18 months covered by this study (July 2006 through December 2007) and were averaged for this 18-month period. County unemployment rate ranges from 3.04 to 9.39 percent with most counties in the range of 4 to 6 percent. A county is considered to have a "low" unemployment rate if it is less than 4.25 percent, a "medium" unemployment rate if it is between 4.25 and 5.99 percent, and a "high" unemployment rate if it is 6 percent or more. High unemployment is concentrated in north/northwest Minnesota, and low unemployment is concentrated in southwest and southeast Minnesota and the Twin Cities. See Figure 12 for a map of unemployment rates by county, for all Minnesota Counties.

One-quarter (26%) of study participants live in "low" unemployment rate counties, half (52%) live in "medium" unemployment rate counties, and 22 percent live in "high" unemployment rate counties. See Figure 13.

[7] (http://www.positivelyminnesota.com/apps/lmi/laus/)

Figure 12. Unemployment rate (July 2006-December 2007 18-month averages), by county

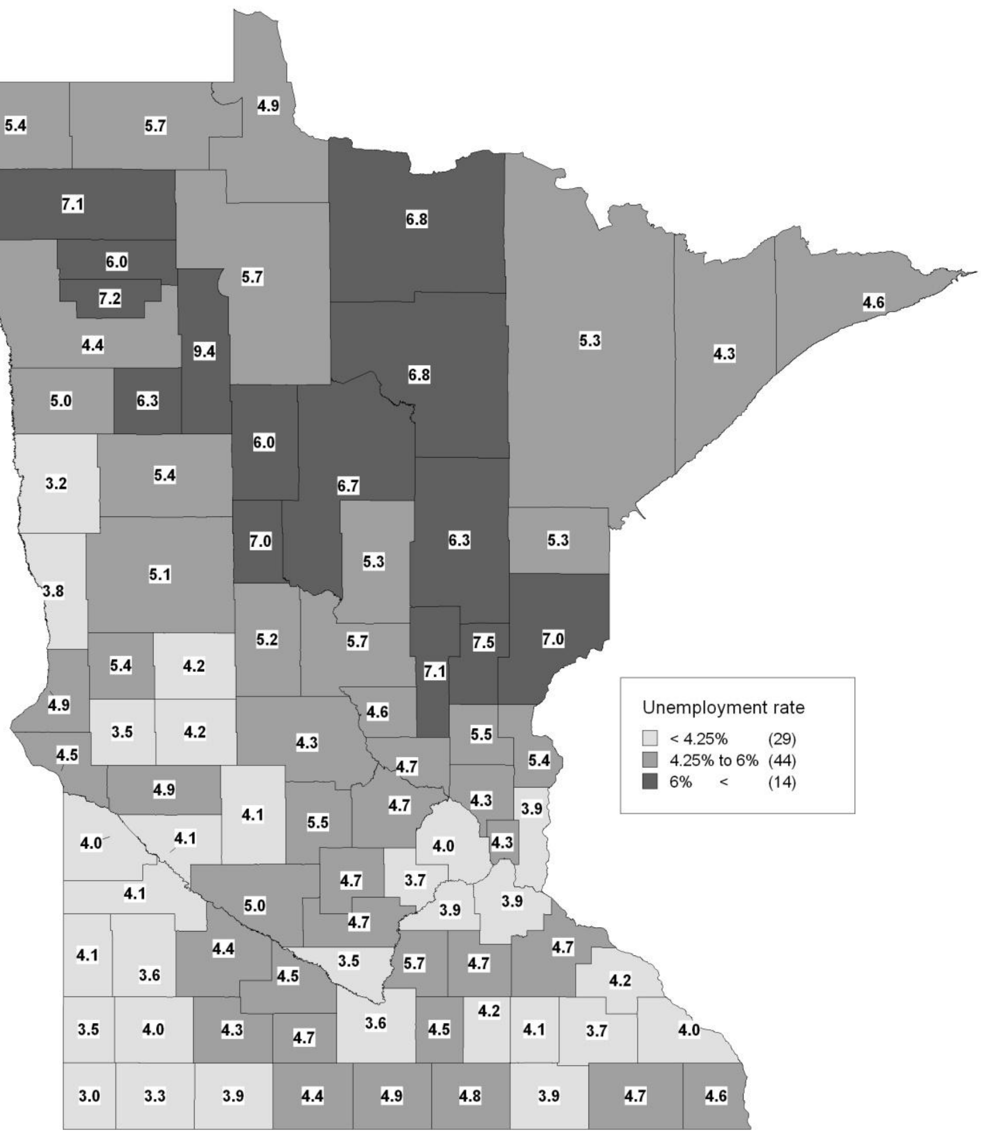
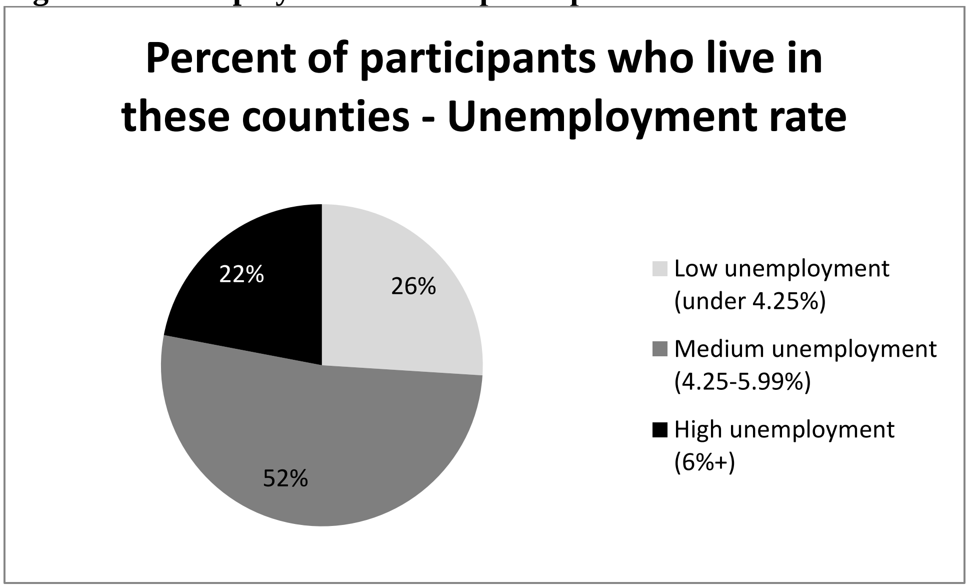


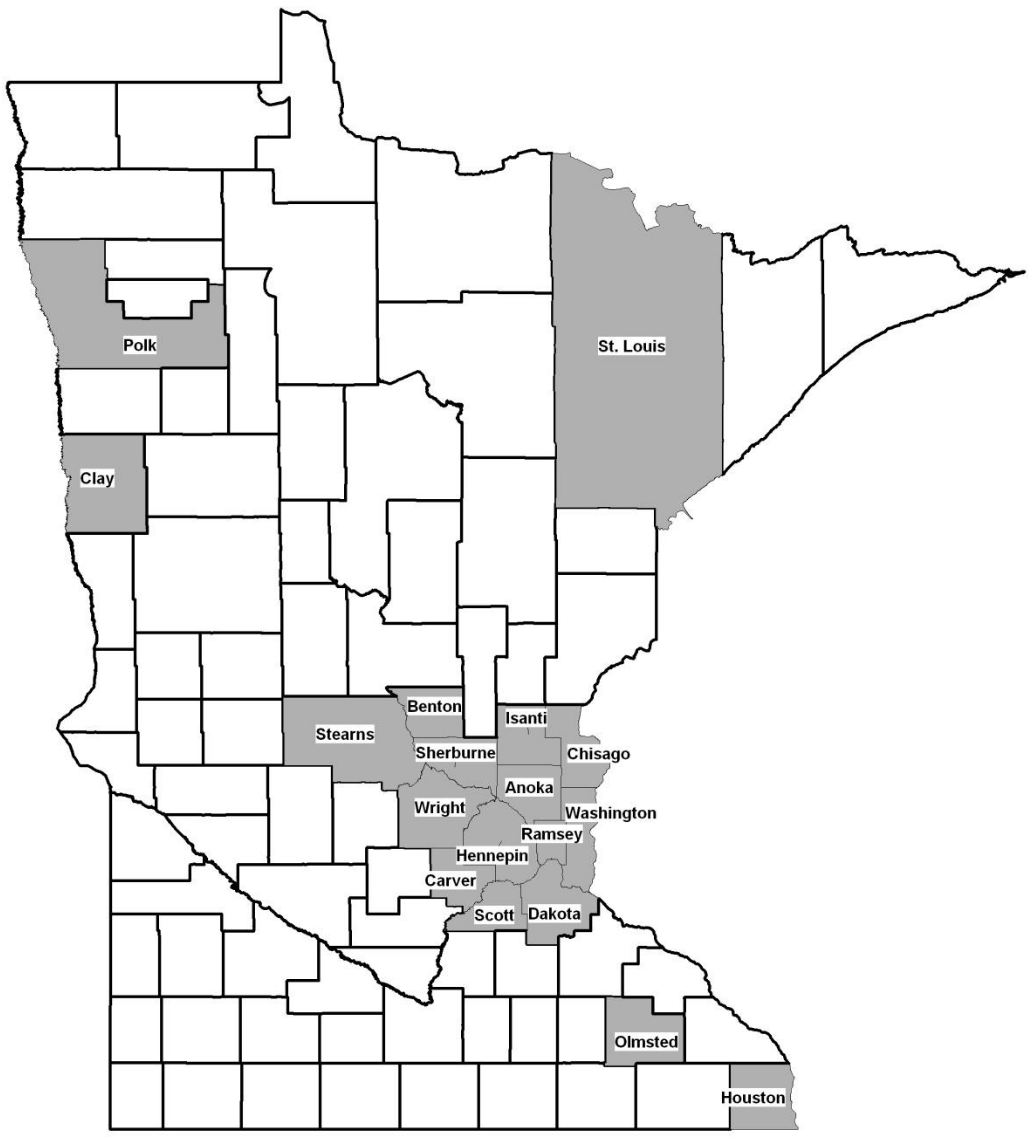
Figure 13. Unemployment rates in participants' counties



Location: urban vs. rural

Finally, the Missouri Census Data Center provided the information on their website to determine *which counties in Minnesota are urban (i.e., within a metropolitan statistical area) and which are rural (i.e., non-metropolitan)*. According to this source, there are 18 urban counties in Minnesota, representing the metropolitan statistical areas of: the Twin Cities (Minneapolis/St. Paul); Rochester; St. Cloud; Duluth; Fargo/Moorhead; Grand Forks, North Dakota; and La Crosse, Wisconsin. The other 68 counties in Minnesota are rural. Two-thirds (67%) of study participants live in rural counties and one-third (33%) live in urban counties. Clearly, participants from rural areas are over-represented in this data set compared with the proportion of low-income Minnesota families overall. This is also a difference from Edin and Lein and other studies which have included mainly or only urban low-income families. See Figure 14 for a map of urban counties in Minnesota.

Figure 14. Urban counties in Minnesota



Summary of county-level explanatory variables

Overall, it appears that nonprofit density is generally higher in greater Minnesota than in the Twin Cities metropolitan area. In addition, counties with a high proportion of jobs in the service sector and high unemployment rates are concentrated in northern Minnesota, whereas counties with a high proportion of jobs in the manufacturing sector are concentrated in southern Minnesota. Table 7 summarizes all of the county-level variables used in this dissertation.

Table 7. County-level explanatory variables (N=1,981)

All Minnesota Counties	Nonprofit density (per 10,000 residents)	Percent of all jobs in service sector*	Percent of all jobs in manufacturing sector*	Unemployment rate*	Urban = 1
Aitkin County	10.1	80.4	4.5	6.3	0
Anoka County	2.9	71.2	20.7	4.4	1
Becker County	5.3	75.6	15.9	5.4	0
Beltrami County	6.4	85.6	7.1	5.7	0
Benton County	17.0	62.0	29.6	4.6	1
Big Stone County	7.4	86.0	1.9	4.5	0
Blue Earth County	7.0	82.5	10.3	3.6	0
Brown County	8.5	65.6	25.8	4.5	0
Carlton County	5.1	78.6	12.7	5.3	0
Carver County	2.4	64.8	29.3	3.7	1
Cass County	7.3	89.9	4.0	6.7	0
Chippewa County	8.0	72.0	22.5	4.1	0
Chisago County	3.4	78.6	13.6	5.4	1
Clay County	6.6	87.0	5.0	3.2	1
Clearwater County	6.1	71.0	12.9	9.4	0
Cook County	14.9	91.7	0.0	4.6	0
Cottonwood County	3.5	62.0	29.1	4.3	0
Crow Wing County	6.7	82.9	9.5	5.3	0
Dakota County	2.6	82.2	11.0	3.9	1
Dodge County	3.1	60.1	27.9	4.1	0
Douglas County	7.2	76.8	16.1	4.2	0
Faribault County	5.4	70.6	23.1	4.9	0
Fillmore County	5.7	76.5	15.3	4.7	0
Freeborn County	4.8	75.3	19.7	4.8	0
Goodhue County	5.5	77.1	17.9	4.7	0
Grant County	8.3	83.2	4.4	5.4	0

Hennepin County	6.9	86.4	10.0	4.0	1
Houston County	5.6	77.5	15.4	4.6	1
Hubbard County	4.8	71.8	16.1	6.0	0
Isanti County	4.9	81.8	12.4	5.5	1
Itasca County	7.4	82.1	8.5	6.8	0
Jackson County	2.8	70.2	23.8	3.9	0
Kanabec County	5.0	78.0	11.8	7.5	0
Kandiyohi County	6.6	76.1	13.6	4.1	0
Kittson County	13.4	89.9	0.9	5.4	0
Koochiching County	7.5	73.2	10.1	6.8	0
Lac qui Parle County	4.1	76.9	11.3	4.0	0
Lake County	6.5	73.8	0.0	4.3	0
Lake of the Woods County	7.4	86.2	0.0	4.9	0
Le Sueur County	5.4	60.4	30.3	5.7	0
Lincoln County	13.6	87.3	1.3	4.1	0
Lyon County	10.5	79.3	14.9	3.6	0
Mahnomen County	1.6	93.9	0.0	6.3	0
Marshall County	19.6	76.8	13.9	7.1	0
Martin County	14.6	77.1	16.6	4.4	0
McLeod County	9.3	57.2	37.9	4.7	0
Meeker County	6.5	70.8	20.0	5.5	0
Mille Lacs County	6.1	86.5	8.4	7.1	0
Morrison County	5.8	75.1	16.4	5.7	0
Mower County	4.7	71.3	23.7	3.9	0
Murray County	5.9	79.4	9.3	4.0	0
Nicollet County	2.8	61.7	34.0	3.5	0
Nobles County	6.5	67.0	27.9	3.3	0
Norman County	7.5	91.8	0.0	5.0	0
Olmsted County	5.5	85.2	10.2	3.7	1
Otter Tail County	7.4	77.0	15.8	5.1	0
Pennington County	9.5	80.2	17.3	6.0	0
Pine County	4.6	88.7	3.1	7.0	0
Pipestone County	7.5	69.6	19.5	3.5	0
Polk County	8.8	79.4	13.7	4.4	1
Pope County	7.3	76.0	15.7	4.2	0
Ramsey County	10.5	86.7	9.2	4.3	1
Red Lake County	14.6	78.2	12.2	7.2	0
Redwood County	3.9	81.7	12.0	4.4	0
Renville County	6.2	68.7	15.8	5.0	0
Rice County	7.1	74.2	18.4	4.7	0
Rock County	5.3	85.1	9.9	3.0	0

Roseau County	8.8	43.7	53.9	5.7	0
Saint Louis County	7.6	86.5	6.0	5.3	1
Scott County	1.2	78.6	11.7	4.0	1
Sherburne County	3.3	77.1	13.5	4.7	1
Sibley County	4.0	62.5	17.5	4.7	0
Stearns County	2.5	79.2	15.3	4.3	1
Steele County	8.0	67.6	28.2	4.2	0
Stevens County	6.2	75.1	13.3	3.5	0
Swift County	11.7	76.9	16.0	4.9	0
Todd County	3.8	65.8	27.0	5.2	0
Traverse County	2.7	86.0	3.9	4.9	0
Wabasha County	5.5	63.2	28.3	4.2	0
Wadena County	9.0	84.9	11.6	7.0	0
Waseca County	4.1	65.7	29.0	4.5	0
Washington County	3.5	79.6	13.7	3.9	1
Watonwan County	2.7	61.2	31.4	4.7	0
Wilkin County	7.8	83.2	0.4	3.8	0
Winona County	4.8	69.9	26.0	4.0	0
Wright County	3.2	74.6	14.4	4.7	1
Yellow Medicine County	2.0	81.0	7.7	4.1	0

Sources: Minnesota Longitudinal Finance Study; Minnesota Department of Employment and Economic Development; and Missouri Census Data Center.
*Note: Data reported are the averages of the monthly or quarterly data reported in the second half of 2006 and all of 2007.

Economic self-sufficiency

The proportion of participants who are economically self-sufficient varies by county. See Table 8.

Table 8. Proportion of participants who are economically self-sufficient, by county

County*	Percent of participants who are economically self-sufficient	
	Income source (N=1,984)	Income adequacy (N=1,977)
Aitkin (N=33)	75.8%	87.9%
Anoka (N=173)	31.8%	66.5%
Becker (N=40)	62.5%	75.0%
Beltrami (N=42)	31.0%	56.4%
Benton (N=20)	65.0%	90.0%
Brown (N=33)	18.2%	24.2%
Carlton (N=76)	78.9%	84.2%
Chisago (N=46)	67.4%	60.9%
Clearwater (N=31)	71.0%	51.6%
Crow Wing (N=67)	28.4%	77.6%
Dakota (N=73)	65.8%	46.6%
Douglas (N=57)	77.2%	80.7%
Grant (N=28)	85.7%	92.9%
Hennepin (N=29)	58.6%	82.8%
Hubbard (N=45)	57.8%	62.2%
Isanti (N=63)	61.9%	73.0%
Kanabec (N=45)	64.4%	75.6%
Kandiyohi (N=127)	76.4%	77.2%
Le Sueur (N=21)	47.6%	47.6%
McLeod (N=55)	87.3%	78.2%
Meeker (N=32)	81.3%	81.3%
Mille Lacs (N=53)	73.6%	76.9%
Nobles (N=25)	68.0%	80.0%
Olmsted (N=41)	19.5%	56.1%
Otter Tail (N=23)	60.9%	69.6%
Pennington (N=58)	62.1%	52.6%
Pine (N=83)	81.9%	80.7%
Polk (N=51)	62.7%	30.6%
Rice (N=24)	58.3%	50.0%
St. Louis (N=46)	10.9%	41.3%
Scott (N=25)	64.0%	32.0%
Stearns (N=54)	64.8%	83.3%
Wadena (N=22)	45.5%	65.2%
Waseca (N=32)	53.1%	43.8%

*Note: Since some counties have very few or no participants and percentages can be misleading for small Ns, data are only reported for counties with more than 20 participants.

Summary of participant and county characteristics

In summary, study participants have similar characteristics to the overall population of poor households in Minnesota. In addition, participants live in counties that have a wide range of labor market conditions, including relatively low or high proportion of jobs in the service and manufacturing sectors, relatively low or high unemployment rates, and relatively low or high nonprofit density. Participants over-represent rural areas in Minnesota, but a significant proportion of participants are also from urban counties. This range of contextual factors and variability in these factors is critical for accurate analyses of the ways in which individual/family and community factors interact and contribute to economic self-sufficiency of households.

Data analysis

To examine the relationship between economic self-sufficiency and various individual/family and county-level variables, descriptive tests of correlation and association including χ^2 tests and Pearson's correlation tests were conducted. All results are reported in text and graphical format. Key findings are summarized after each sub-section of results. These descriptive tests make up Chapter 4 of this dissertation.

To examine the relationship between economic self-sufficiency and various individual/family and county-level variables, binomial linear mixed models were executed using the lme4 package in the R statistical software package. This type of model is often called mixed effects or hierarchical because the technique allows individual cases to be nested into categories or groups. In this case, the dependent variables are measured at the individual level and the independent variables include both individual-level and county-level variables. In other statistical techniques such as regression analysis, there is an assumption of independence across the observations. When confronted with a dataset where that assumption is violated, such as this one containing individuals nested within counties, mixed effects correct for correlated error terms, and therefore can accurately model the effects at each level. These analyses will include two levels, such that individual i is nested within county j. For an outcome Y_{ij}, Level 1 takes the form:

$$Y_{ij} = \pi_{0j} + \pi_{1j} a_{1ij} + \pi_{2j} a_{2ij} + \ldots + \pi_{Pj} a_{Pij} + e_{ij}.$$

In this equation, π_{pj} for $p = 0,1,...,P$ are individual-level coefficients, a_{pij} is an individual-level predictor p for individual i in county j, and e_{ij} is the error term for individual i. The variance of e_{ij}, or the individual-level variance, is σ^2. It is assumed that the error term is normally distributed.

Each of the π_{pj} coefficients in the individual-level model becomes an outcome variable in the county-level model, taking the form:

$$\pi_{pj} = \beta_{p0} + \beta_{p1} X_{1j} + \beta_{p2} X_{2j} + \ldots + \beta_{pk} X_{kj} + r_{pj}$$

In this equation, β_{pq} for $q = 0,1,...,Q_p$ are the region-level coefficients for a particular individual level coefficient p, X is a region-level predictor, and r_{pj} is the region-level error term. In the models reported in Chapter 5, the coefficients for both the individual-level predictors and the county-level predictors are reported together in terms of the effect they have on the individual-level outcome variables.

The terms on the right side of the equations are the standard terms for the intercept and the independent variables in a regression equation. The terms on the left side are called logits – they represents the natural log of the odds of being economically self-sufficient (for both the income source and the income adequacy dependent variables). These models predict a linear relationship between the independent variables and the natural log of the odds of being economically self-sufficient. This statistical technique was used to predict the binary outcomes related to economic self-sufficiency among the participants in this study. In Chapter 5, the exponentiated coefficients are reported, which correspond to the odds of the outcome occurring depending on differences in the independent variables.

The same set of models were completed for each of the dependent variables. The first model in the set includes only the demographic variables. The second model in the set adds the cash and non-cash support variables. The third model in each set includes just the demographic variables and the community-level variables (and excludes the cash and non-cash supports). The fourth model in each set includes all explanatory variables. The results of the modeling are provided in Chapter 5. See Table 9 for a summary of all variables included in the analyses reported in the following chapters, the hypothesized direction of the relationship between the variable and the outcome measures, and any hypothesized intra- or inter-level interactions.

Table 9. Summary of variables used in analysis and hypothesized direction of relationship

Predictor (Data Source)	**Specific Item/Measure**	**Directional Expectation for Self-Sufficiency Outcome #1: Income source**	**Directional Expectation for Self-Sufficiency Outcome #2: Income adequacy**
Race/ethnicity (SRAS)	-White (non-Hispanic) -Other	+ (white)	+ (white)
Education (SRAS)	-No high school diploma -High school diploma or GED -Post-high school education	+	+
Employment status (SRAS)	-Not employed -Employed part-time (1-29 hrs./week) -Employed full-time (30+ hrs./week)	+	+
Presence of children (SRAS)	-Dummy coded; 1=children present	-	-
Marital status (SRAS)	-Single, divorced, separated, or widowed -Married or living with partner	+ (married)	+(married)
Single parent (SRAS)	-Single parent -Not single parent (calculated from number of children and number of adult variables)	- (single parent)	- (single parent)

Social support (SRAS)	-No support from family/friends -One family member/friend they can turn to in a crisis -Two or more family members/friends they can turn to in a crisis	+	+
Child support (SRAS)	-Eligible, no income benefit -Eligible, partial or irregular benefit -Eligible, receives full benefit -Not eligible	+	+
Earned Income Tax Credit (SRAS)	-Eligible, no benefit -Eligible, applied for benefit -Eligible, received or receiving benefit -Not eligible	+	+
Child care (SRAS)	-Not available -Available but inadequate to meet need -Available and adequate with subsidy -Available and adequate without subsidy -Not needed	+	+
Transportation (SRAS)	-Not adequate to meet daily needs -Adequate to meet some but not all daily needs -Adequate to meet daily needs	+	+

Housing stability (SRAS)	-Homeless -Emergency shelter, doubled up or notice of eviction/foreclosure -Transitional housing (time limited) -Subsidized rental housing -Market rate rental housing -Home ownership	+	+
Health insurance (SRAS)	-No insurance for *any* HH members -Some HH members insured -All HH members insured	+	+
Nonprofit service density (Minnesota Longitudinal Finance Study)	Number of nonprofit human service organizations per 10,000 residents (calculated from Minnesota Nonprofit Finance Study data)	+	+
Proportion of jobs in the service sector (DEED)	Percent of all jobs that are in the service sector (calculated from DEED data)	-	-
Proportion of jobs in manufacturing (DEED)	Percent of all jobs that are in the manufacturing sector (calculated from DEED data)	+	+
Unemployment rate (DEED)	Percent of all individuals in the labor market who are currently unemployed (obtained from DEED)	-	-
Urban/rural (Missouri Data Center)	-Not part of a metro area -Part of a metro area	+ (urban)	+ (urban)

Chapter 4: Descriptive analyses

This chapter describes the results of all bivariate descriptive analyses. Specifically, each of the explanatory/predictor variables was examined for correlation with each of the dependent variables at the individual/family level. In addition, at the county-level, the proportions of participants in each county who are self-sufficient (using each of the dependent variable measures of self-sufficiency) were examined for correlations with the county-level explanatory variables. This chapter concludes with a summary of the results of these descriptive analyses.

Bivariate analyses – Individual and household variables

In this section, bivariate analyses (cross-tabs with χ^2tests of significance, and where appropriate, Pearson's correlations) for all of the individual and family independent variables, including demographic variables, used in the statistical models for this dissertation compared with both dependent variables are reported.

Race/ethnicity

Race/ethnicity, i.e., whether the participant is white or non-white, is associated with income source (χ^2=44.718, $p \leq 0.001$), and with income adequacy (χ^2=4.377, $p \leq 0.05$). White participants are more likely than non-white participants to be economically self-sufficient. See Figure 15.

Education

Not surprisingly, level of education is also associated with household income source (χ^2=31.728, $p \leq 0.001$), and with household income adequacy (χ^2=19.384, $p \leq 0.001$). Participants who have higher education, particularly some college or more, are more likely to be economically self-sufficient. See Figure 16.

Figure 15. Percent of participants who are self-sufficient by race/ethnicity

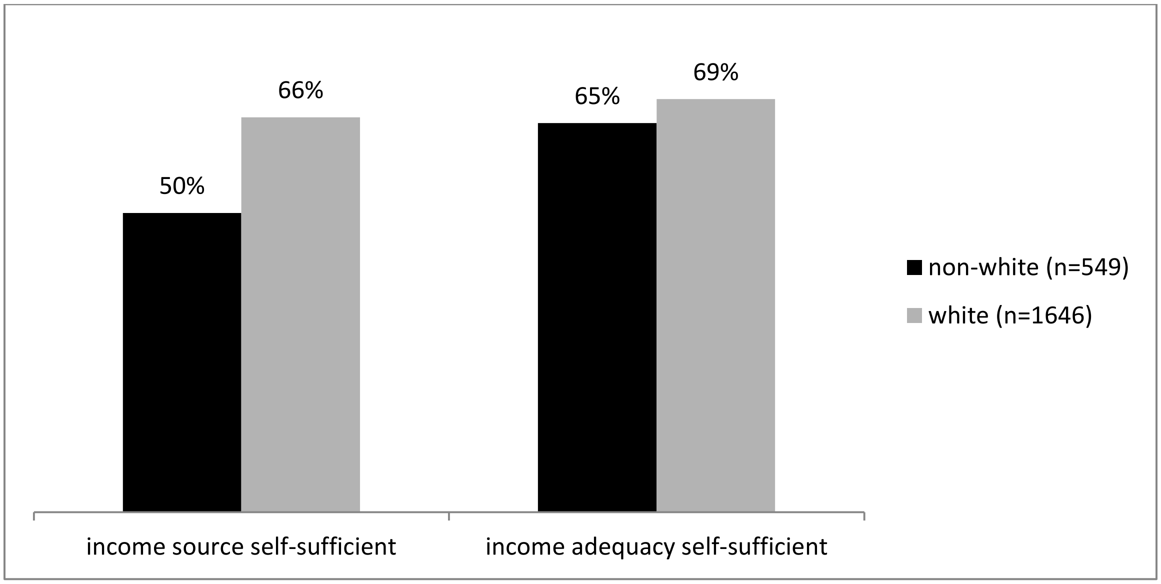
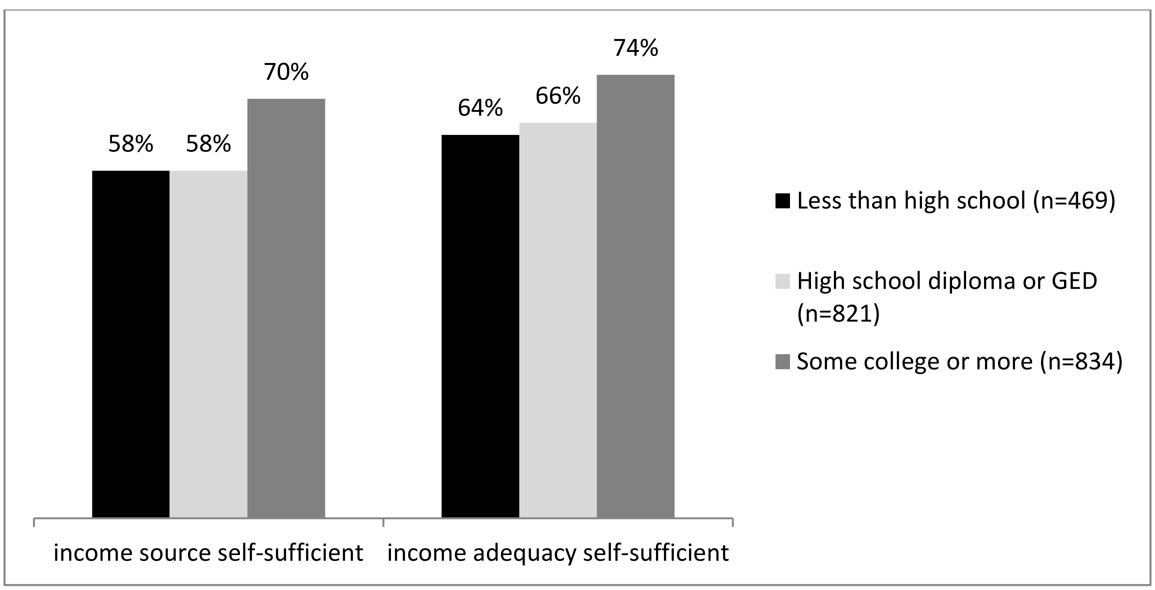


Figure 16. Percent of participants who are self-sufficient by education



Employment status

Employment status is strongly associated with household income source (χ^2=213.268, p≤0.001), and with household income adequacy (χ^2=32.028, p≤0.001). As expected, participants who are not employed are far less likely than those who are employed, especially full-time (30+ hours per week) to be self-sufficient. See Figure 17.

Number of children

Number of children is not associated with household income source (Pearson correlation=-0.023), or with household income adequacy (Pearson correlation=0.037). However, it appears that participants who do not have any children are more likely to be economically self-sufficient and participants with one or two children are least likely to be self-sufficient. See Figure 18.

Figure 17. Percent of participants who are self-sufficient by employment status

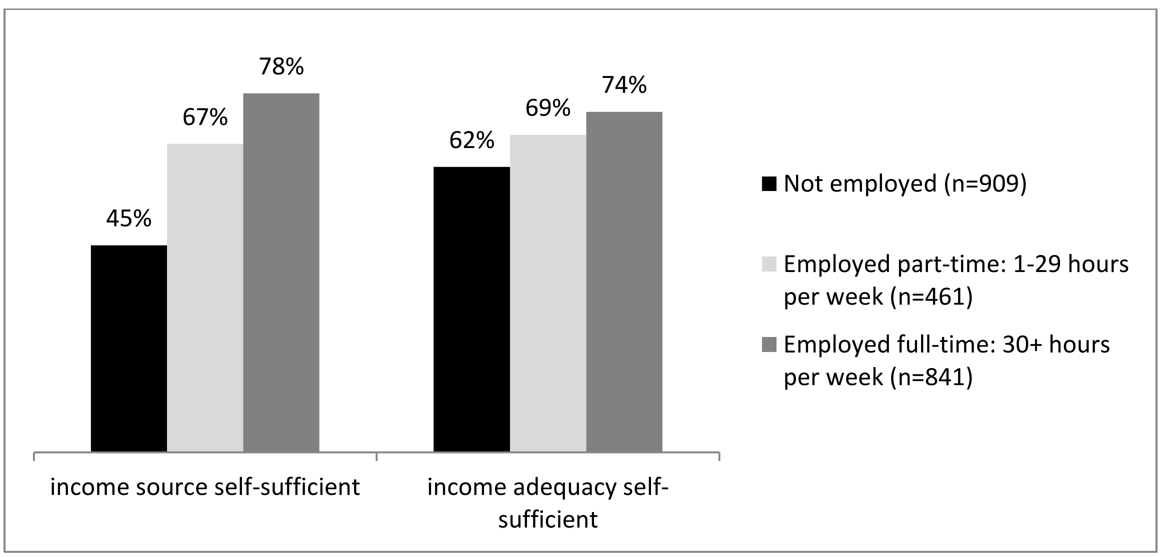
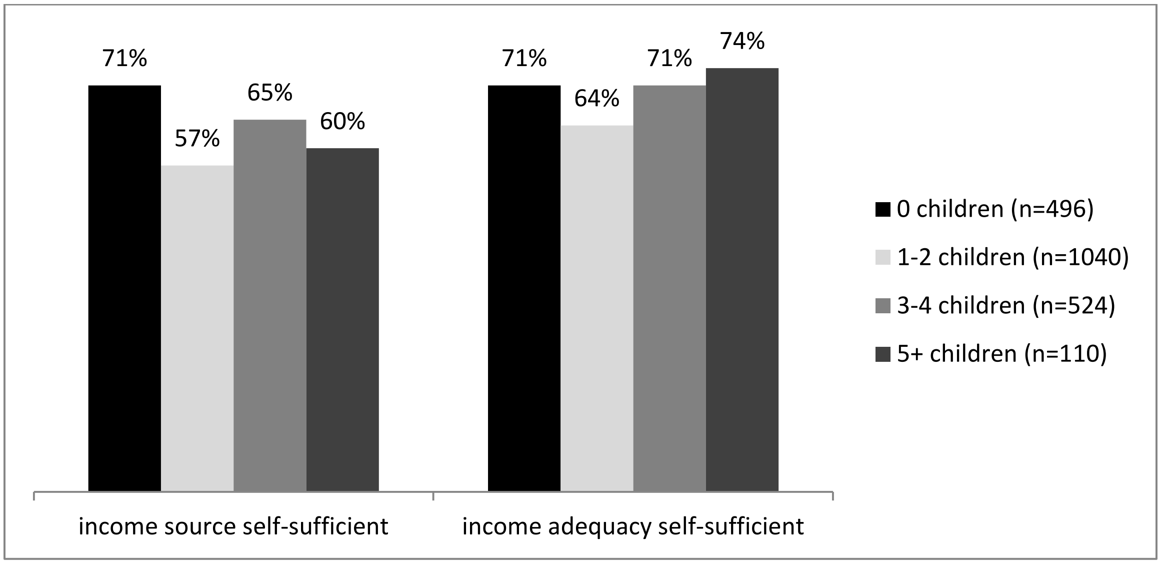


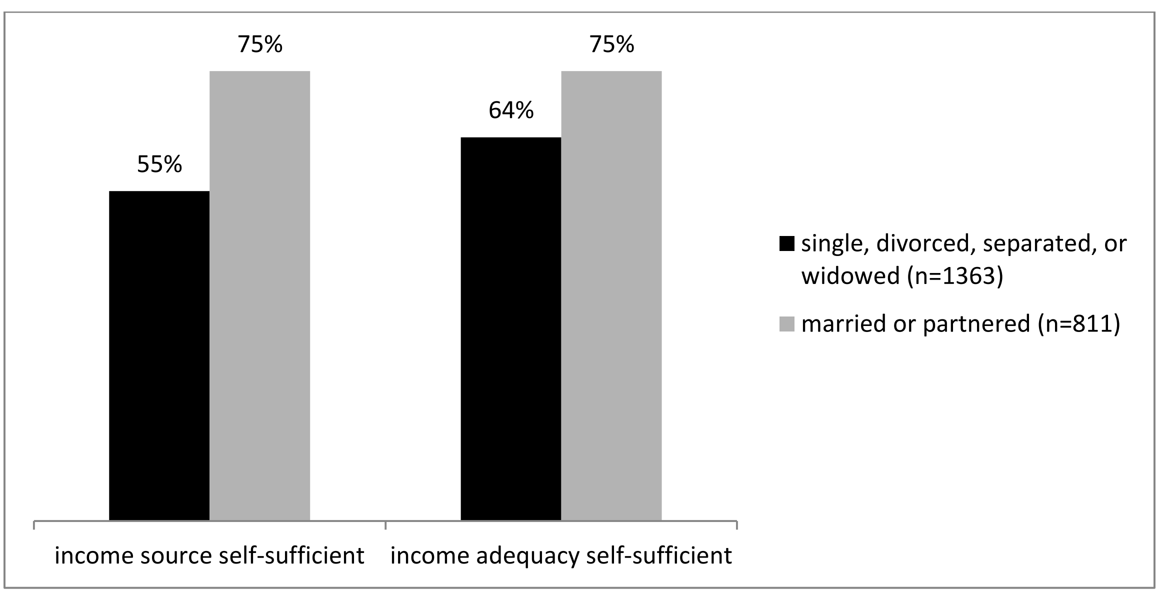
Figure 18. Percent of participants who are self-sufficient by number of children in the household



Marital status

Marital status is associated with income source (χ^2=84.132, p≤0.001), and with income adequacy (χ^2=27.209, p≤0.001). Participants who are married or living with a partner are significantly more likely than participants who are single, divorced, separated, or widowed to be economically self-sufficient. See Figure 19.

Figure 19. Percent of participants who are self-sufficient by marital status



Single parent

Being a single parent is associated with income source (χ^2=119.417, p≤0.001), and with income adequacy (χ^2=36.384, p≤0.001). Single parents are less likely to be economically self-sufficient than participants who are not single parents. (The group who are not single parents includes 498 participants who do not have any children in their household and 931 participants who are partnered or married parents.) See Figure 20.

Social support

Social support is associated with income source (χ^2=78.762, p≤0.001), and with income adequacy (χ^2=53.643, p≤0.001). Participants who have two or more friends or family members they can turn to for support are more likely than participants with only one or no sources of support to be self-sufficient. See Figure 21.

Child support

Child support is associated with income source (χ^2=141.568, p≤0.001), and with income adequacy (χ^2=33.653, p≤0.001). As expected, participants who are eligible but do not receive their child support benefit are least likely to be self-sufficient, while those who receive a partial benefit and those who receive their full benefit are even more likely, and those who are not eligible for child support are most likely to be self-sufficient. See Figure 22.

Earned Income Tax Credit

The Earned Income Tax Credit (EITC) is associated with income source (χ^2=67.872, p≤0.001), and with income adequacy (χ^2=47.440, p≤0.001). In terms of household income source, participants who receive the full EITC benefit are most likely to be self-sufficient whereas participants who are not eligible for the EITC and those who are eligible but have not received any benefit are least likely to be self-sufficient. This is likely due to the fact that you must be employed and earn an income to be eligible for this benefit. In terms of income adequacy, participants who are not eligible for the EITC are most likely to be self-sufficient. This is likely due to the fact that you must be low-income to be eligible for the benefit. See Figure 23.

Figure 20. Percent of participants who are self-sufficient by single parent status

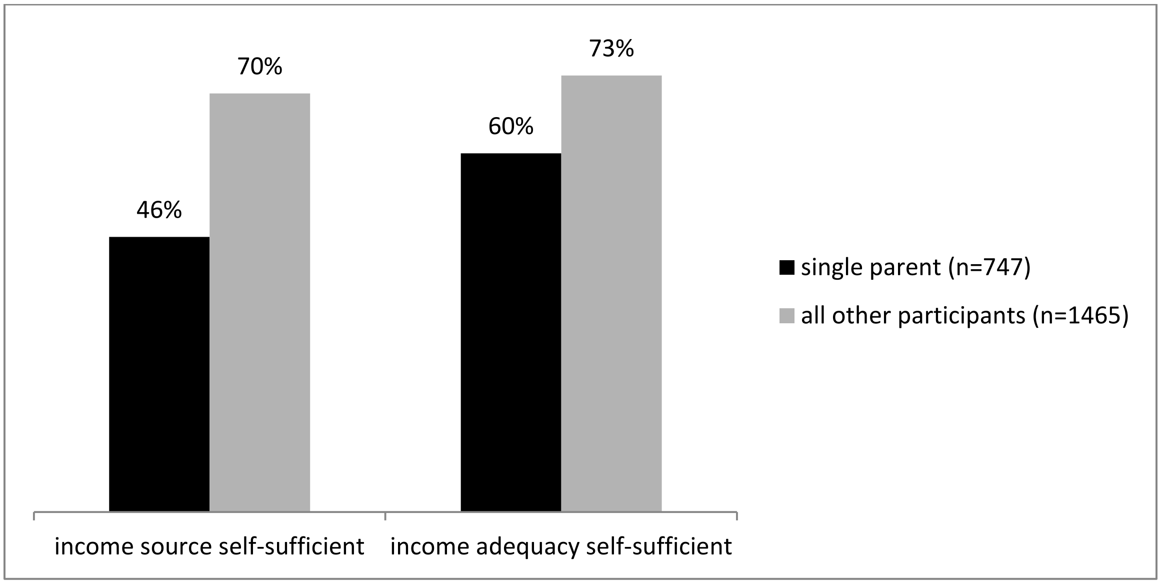


Figure 21. Percent of participants who are self-sufficient by amount of social support the participant has

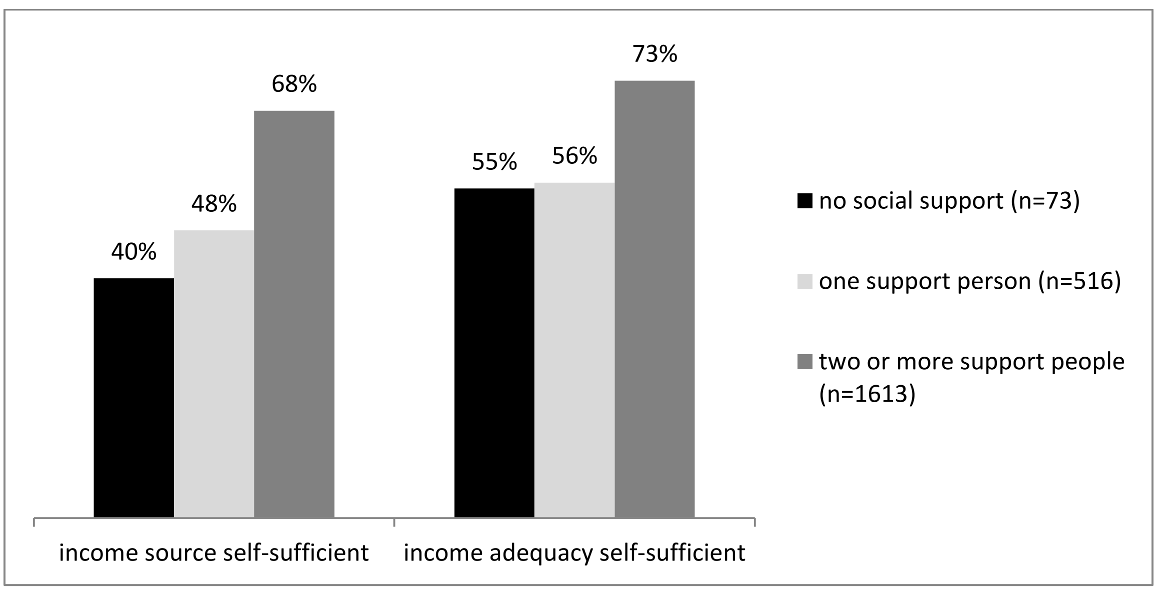


Figure 22. Percent of participants who are self-sufficient by child support status

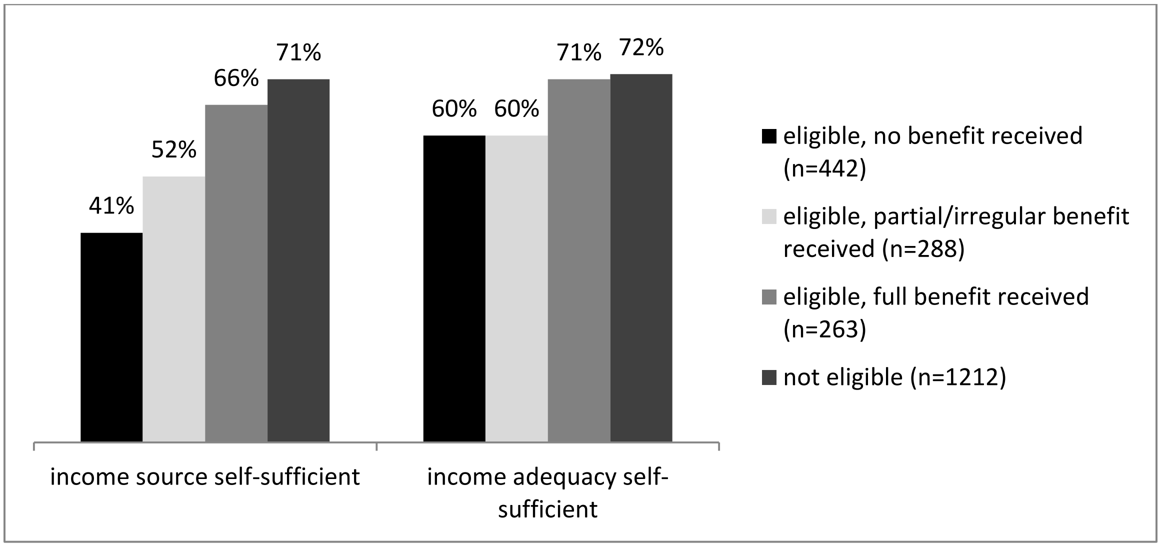
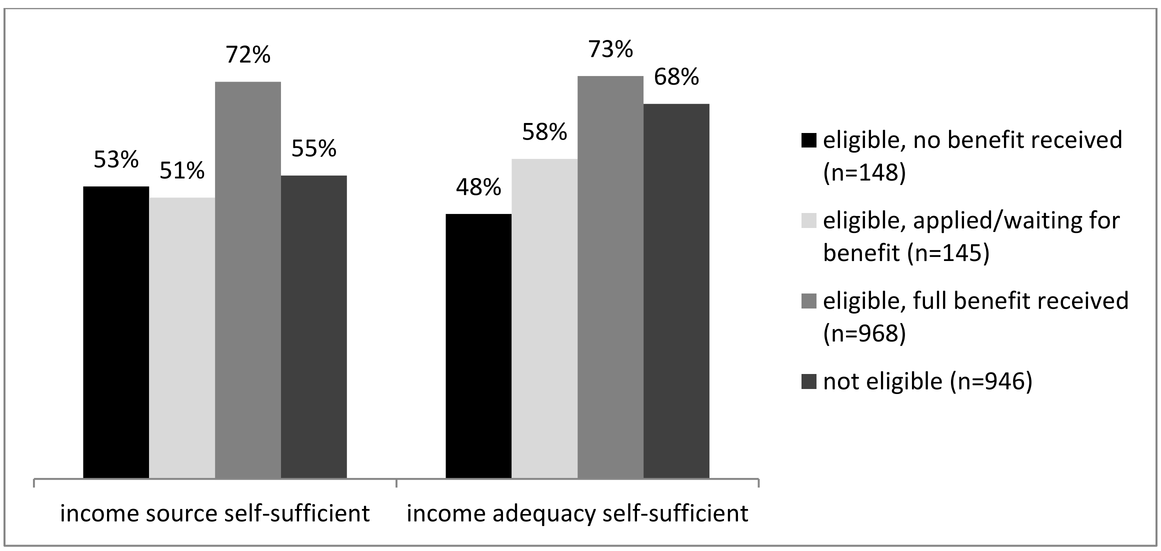


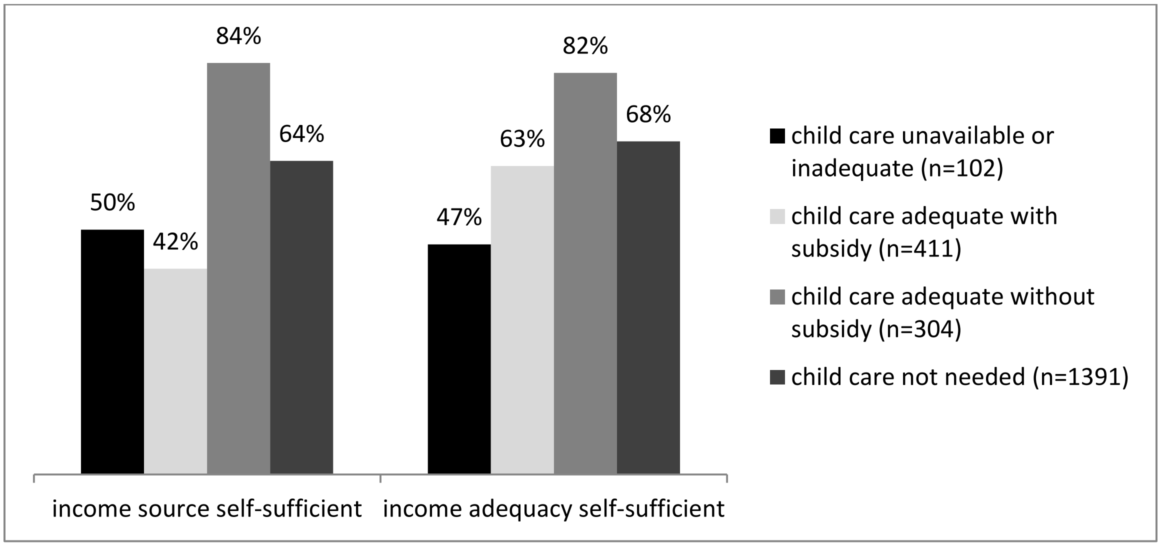
Figure 23. Percent of participants who are self-sufficient by EITC status



Child care

Adequacy of child care is associated with income source (χ^2=143.046, p≤0.001), and with income adequacy (χ^2=55.011, p≤0.001). Participants who do not need child care or who have child care that is adequate without a subsidy are most likely to be self-sufficient, whereas participants who do not have adequate child care are least likely to be self-sufficient. See Figure 24.

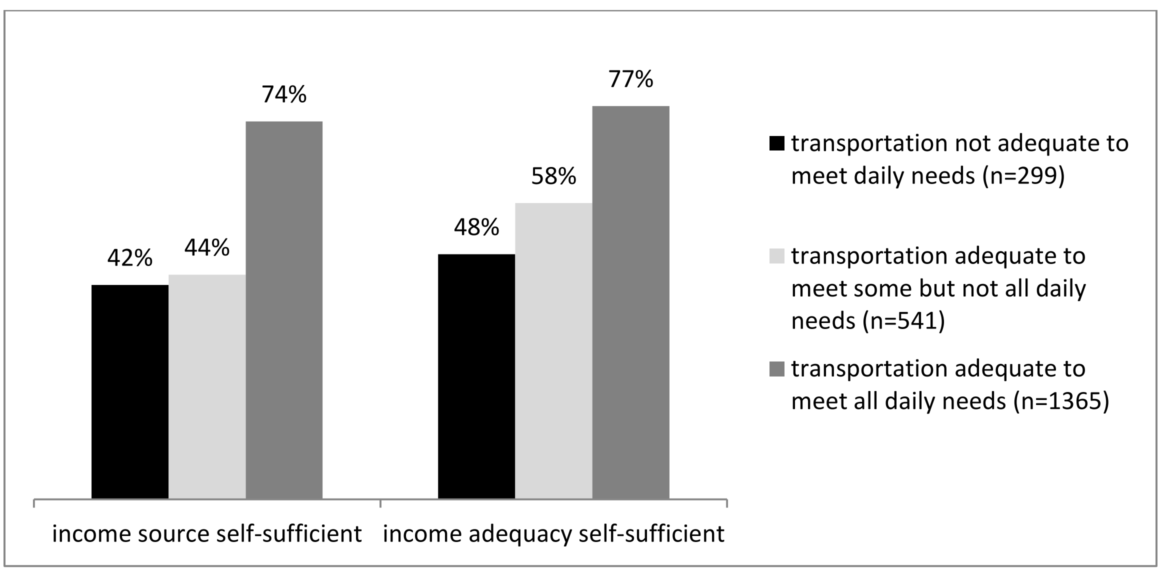
Figure 24. Percent of participants who are self-sufficient by child care status



Transportation

Access to transportation is strongly associated with income source (χ^2=205.529, p≤0.001), and with income adequacy (χ^2=129.154, p≤0.001). Participants who have adequate transportation are more likely than participants with inadequate or no transportation to be self-sufficient. See Figure 25.

Figure 25. Percent of participants who are self-sufficient by transportation status



Housing stability

Housing stability is strongly associated with income source (χ^2=164.094, p≤0.001), and with income adequacy (χ^2=125.856, p≤0.001). Participants who have higher housing stability are more likely to be self-sufficient. See Figure 26.

Health insurance

Health insurance is associated with household income source (χ^2=23.162, p≤0.001), but not with household income adequacy. In fact, participants who have health insurance for all members of their household are less likely to economically self-sufficient in terms of income source compared with participants who do not have health insurance for anyone in their household. This is likely due to the fact that households with no or very low earned income are eligible for public health insurance programs whereas participants who are working are likely to be employed in jobs that do not offer benefits (Angel, Lein, and Henrici 2006). See Figure 27.

Summary of individual and household level bivariate analyses

In summary, with two exceptions (health insurance and number of children in the household) all of the individual and household variables that are hypothesized to explain variation in economic self-sufficiency are in fact statistically associated (in the expected direction in all cases) with both measures of economic self-sufficiency. Specifically, among study participants, those who are self-sufficient are more likely to:

- Be employed, especially full-time
- Have adequate child care without a subsidy, or not need child care
- Have adequate transportation to meet all daily needs
- Be homeowners or have market rate rental housing
- Be ineligible for child support or receive the full benefit for which they are eligible
- Be ineligible for the EITC or receive the full Earned Income Tax Credit (EITC) benefit for which they are eligible
- Have two or more people they can turn to for support

Figure 26. Percent of participants who are self-sufficient by housing stability

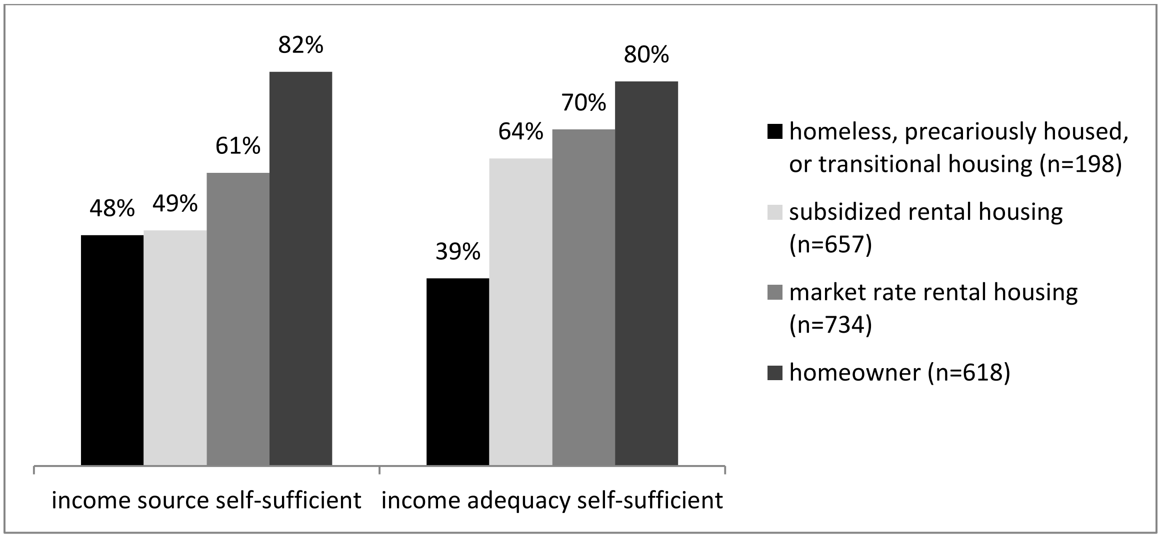
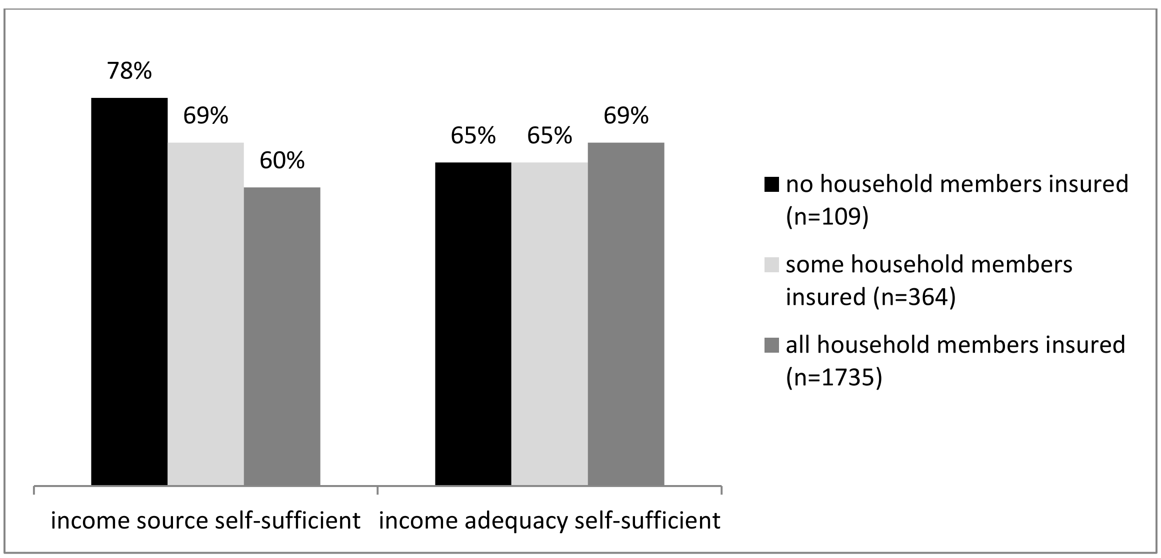


Figure 27. Percent of participants who are self-sufficient by health insurance status



Bivariate analyses – County-level variables

In this section, bivariate analyses for all of the county-level independent variables used in the statistical models for this dissertation compared with both dependent variables are reported. It is important to note that in this chapter counties were grouped for the purposes of some of the descriptive analyses, but the raw data (not grouped categories) were used for the inferential analyses reported in the Chapter 5.

Nonprofit density

Nonprofit density is weakly correlated with income source (Pearson correlation= -0.048, $p \leq 0.05$), but not with income adequacy (Pearson correlation=-0.022). When individual participants are grouped into counties with low nonprofit density (under 4 nonprofits per 10,000 residents in the county), medium nonprofit density (4 to under 7 nonprofits per 10,000 residents in the county), and high nonprofit density (7 or more nonprofits per 10,000 residents in the county), however, there appears to be no correlation with individual household income source. On the other hand, participants who live in counties with medium nonprofit service density are more likely than other participants to be income adequacy self-sufficient (χ^2=27.482, $p \leq 0.001$). See Figure 28.

Proportion of jobs in the service sector

Proportion of jobs in the service sector is not correlated with income source (Pearson correlation=0.001), but it is weakly correlated with income adequacy (Pearson correlation=0.054, $p \leq 0.05$). When individual participants are grouped into counties with a low proportion of jobs in the service sector (under 70%), a medium proportion of jobs in the service sector (70% to under 85%), and a high proportion of jobs in the service sector (85% or more), there appears to be no correlation with individual household income source. However, participants who live in counties with a medium or high proportion of jobs in the service sector are more likely to be income adequacy self-sufficient (χ^2=19.506, $p \leq 0.001$). See Figure 29.

Figure 28. Percent of participants who are self-sufficient by the nonprofit density in their county of residence

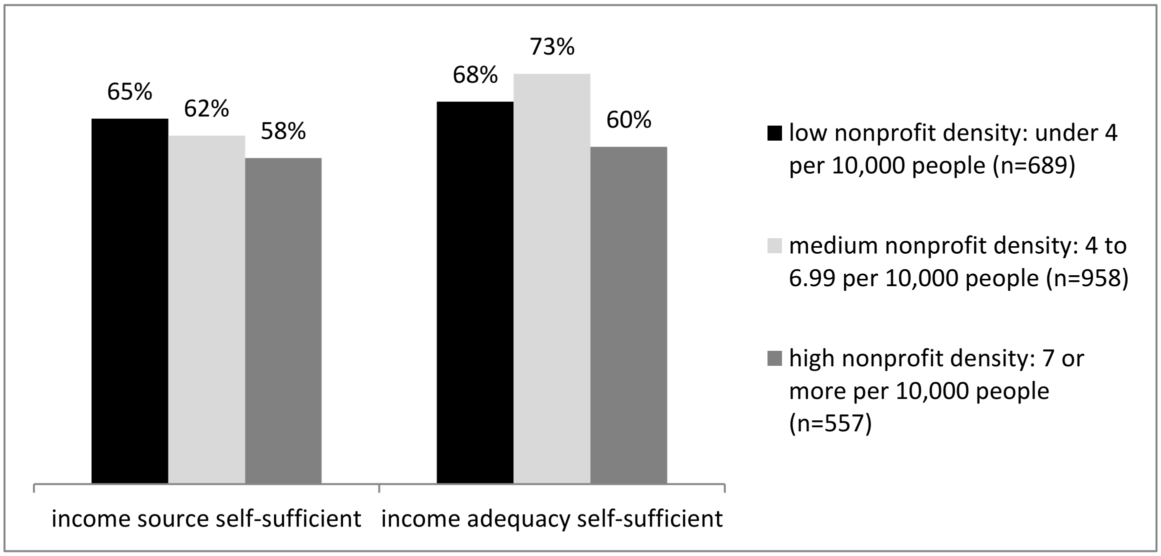
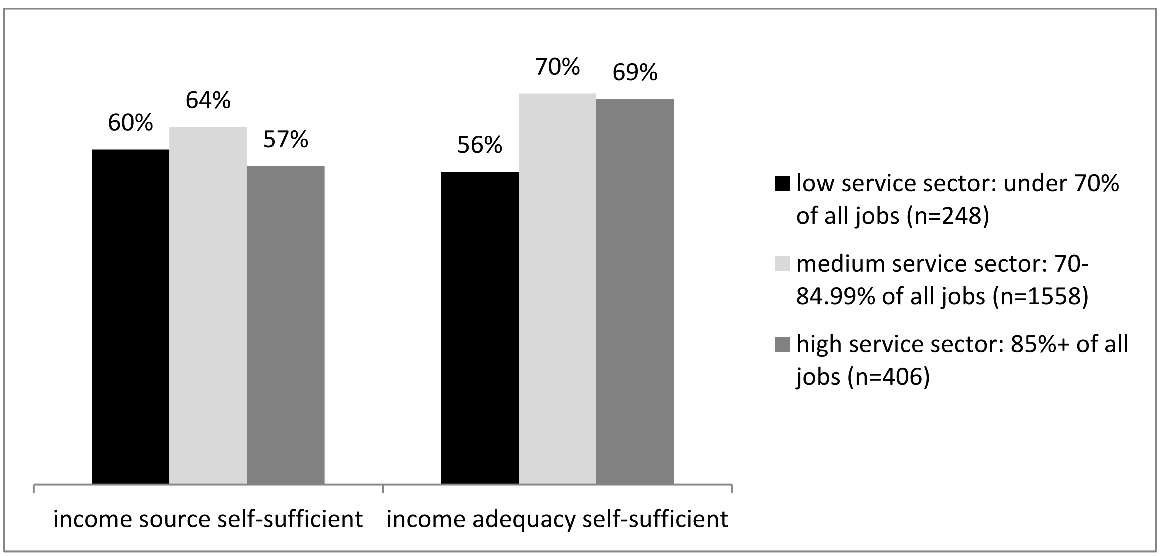


Figure 29. Percent of participants who are self-sufficient by the proportion of jobs in the service sector in their county of residence



Proportion of jobs in the manufacturing sector

Proportion of jobs in the manufacturing sector is not correlated with income source (Pearson's correlation=-0.018), but it is weakly correlated with income adequacy (Pearson's correlation=-0.067, $p \leq 0.01$). When individual participants are grouped into counties with a low proportion of jobs in the manufacturing sector (under 10%), a medium proportion of jobs in the manufacturing sector (10% to under 20%), and a high proportion of jobs in the service sector (20% or more), these groupings are again not correlated with income source, but they are correlated with income adequacy (χ^2=11.866, $p \leq 0.01$). Participants who live in counties with a low proportion of jobs in the manufacturing sector are more likely to be income adequacy self-sufficient. See Figure 30.

Unemployment rate

The unemployment rate is weakly correlated with income source (Pearson's correlation=0.043, $p \leq 0.05$), but not with income adequacy (Pearson's correlation= 0.020). When individual participants are grouped into counties with low unemployment rates (under 4.25%), medium unemployment rates (4.25% to under 6%), and high unemployment rates (6% or more), these groupings are similarly statistically correlated with income source (χ^2=30.220, $p \leq 0.001$) but not with income adequacy. Participants who live in counties with high unemployment are most likely to be income source self-sufficient, followed by participants who live in counties with low unemployment rates. Participants who live in counties with medium unemployment rates are least likely to be income source self-sufficient. This finding may be due in part to the fact that this sample is not representative of all low-income families, and it is possible that many or most low-income families in counties with high unemployment are not served by community action agencies. See Figure 31.

Figure 30. Percent of participants who are self-sufficient by the proportion of jobs in the manufacturing sector in their county of residence

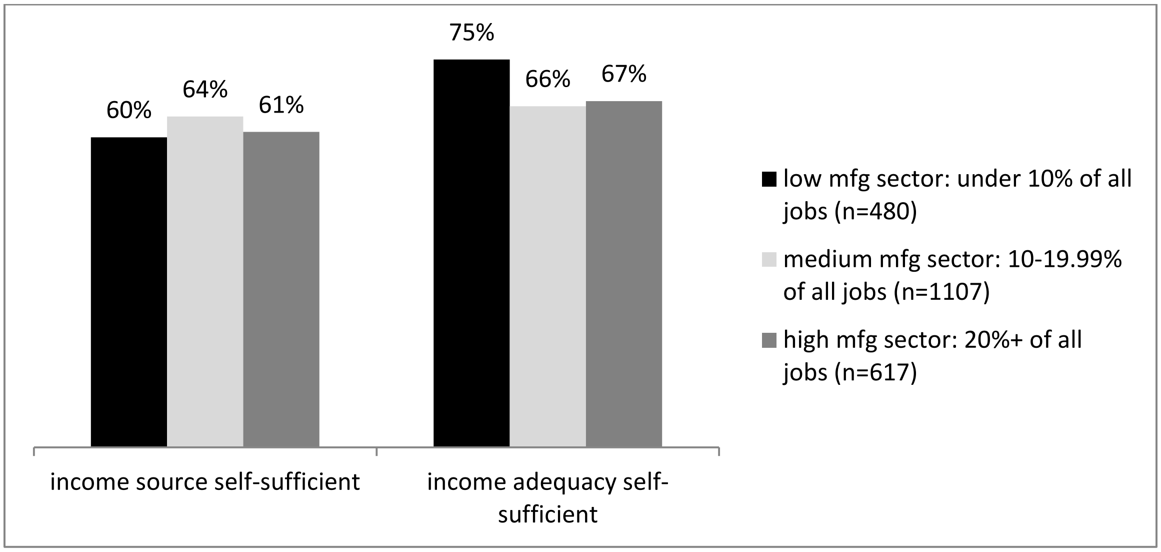
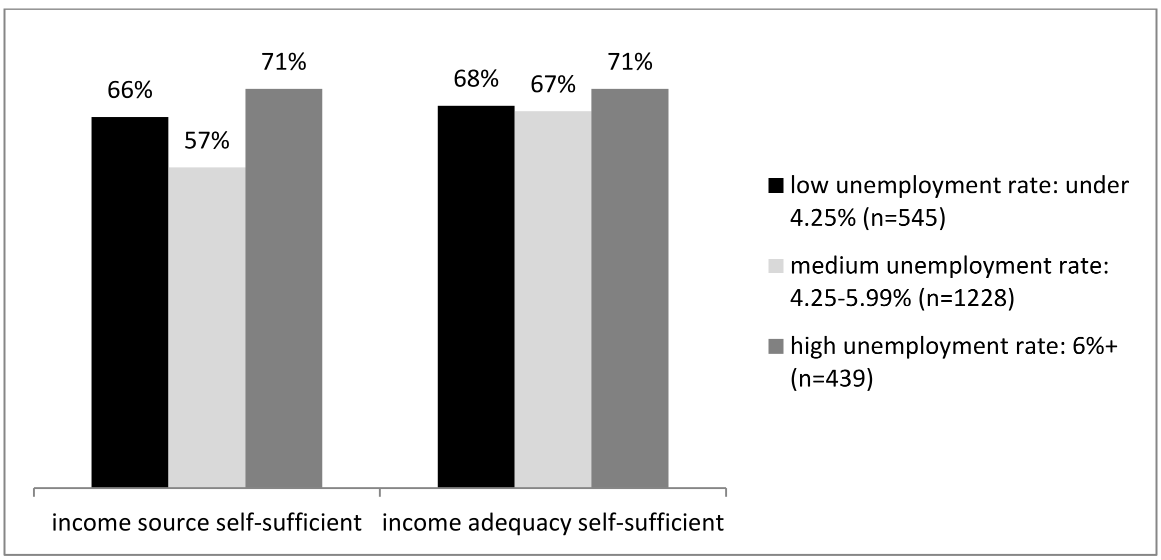


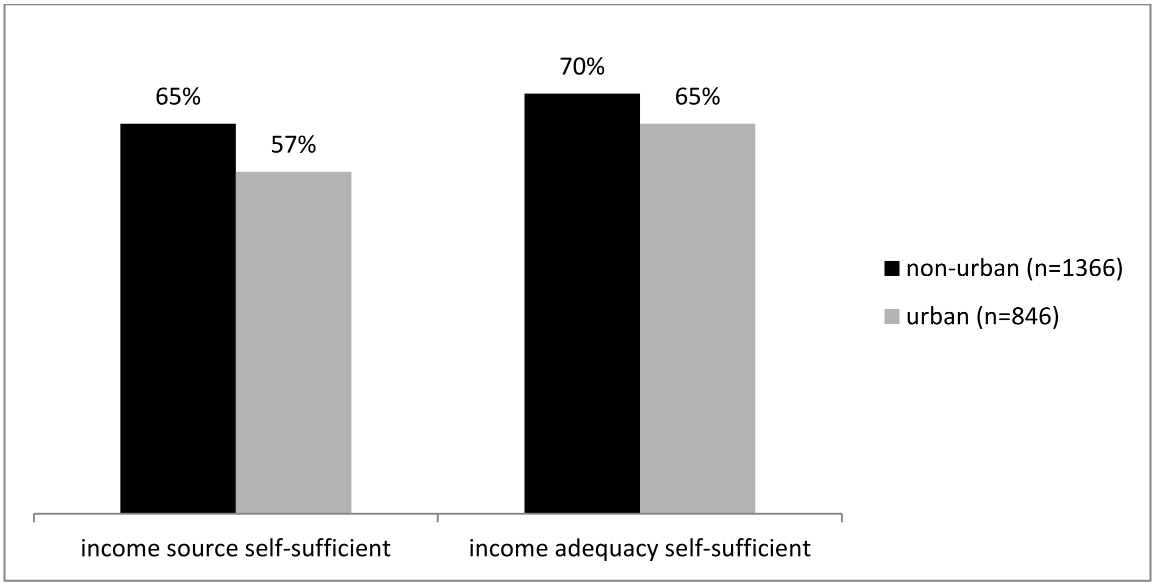
Figure 31. Percent of participants who are self-sufficient by the unemployment rate in their county of residence



Location: urban vs. rural

Location is significantly correlated with both income source (χ^2=12.578, p≤0.001) and income adequacy (χ^2=8.267, p≤0.01). Participants who live in non-urban counties are more likely to be self-sufficient. See Figure 32.

Figure 32. Percent of participants who are self-sufficient by urban vs. non-urban county of residence



Summary of bivariate analyses – County-level variables

In summary, only some of the county-level variables that are hypothesized to be related to individual economic self-sufficiency are in fact statistically correlated with one or both measures of self-sufficiency. Specifically, participants who are economically self-sufficient are more likely to:

- Live in counties with medium (not low or high) nonprofit service density – true for income adequacy but not income source
- Live in counties with medium or high (not low) proportion of jobs in the service sector – true for income adequacy but not income source
- Live in counties with a low (not medium or high) proportion of jobs in the manufacturing sector - true for income adequacy but not income source
- Live in counties with low or high unemployment rates - true for income source but not income adequacy
- Live in non-urban counties

Other bivariate tests were used to determine which of the hypothesized interactions to include in the inferential models described in Chapter 5. None of these interactions were significant in the initial run of the models, so the interactions were left out of the final models that are presented. These bivariate analyses found that:

- White participants are more likely than non-white participants to live in counties with high unemployment rates (at least among this sample of low income individuals and families)
- Participant education level is not related to the proportion of jobs in the service or manufacturing sectors in their county
- Of participants who have at least one child living in their household, number of children appears to be related to single parent status (single parents are more likely to have one child whereas partnered parents are more likely to have more than one child) and adequacy of child care (relationship direction is unclear); number of children is not related to adequacy of social support
- Of participants who are eligible for child support, those who are partnered are more likely than those who are single parents to receive their full child support benefit; however, single parents are more likely to be eligible for child support than partnered parents
- Single parent status is not associated with employment status
- Participant social support is associated with nonprofit density in their county of residence, but the nature of the association is unclear
- Participants who are not employed are least likely to be eligible for the EITC, whereas participants who are employed full-time are most likely to have received the EITC benefit
- Participants who are not employed are less likely to need child care, whereas participants who are employed full-time are more likely to have child care that is adequate without a subsidy
- Participant employment status is not correlated with household health insurance status
- Participants who live in rural counties are more likely to have access to transportation that is adequate to meet all their daily needs, whereas participants who live in urban areas are more likely to have access to transportation to meet just some of their daily needs

Chapter 5: Inferential analyses

As previously described, the individual level correlates of economic self-sufficiency are well documented in the literature. A separate body of literature has examined the community level factors associated with self-sufficiency. In this dissertation, multilevel regression modeling is used to predict two economic self-sufficiency outcomes: income source and income adequacy. These models show how individual, family, and community factors influence the economic self-sufficiency of a family.

Participants' income source can be from earned income or from public assistance, or both, or they may have no income source at all. If participants receive more than half of their household income from sources other than public assistance, they are considered self-sufficient in terms of this operationalization of the dependent variable. Sixty percent of participants are economically self-sufficient using the income source operationalization.

Participants may be able to afford their monthly housing and food expenses, they may be able to afford one of these but not the other, or they may not be able to afford either. If participants can afford both their monthly food and housing expenses, they are considered self-sufficient in terms of this operationalization of the dependent variable. Sixty-seven percent of participants are economically self-sufficient according to their income adequacy.

I used the statistical package R[8] to fit generalized linear mixed models using the lme4 package. The models are discussed in turn below. As stated in Chapter 3, the same set of multilevel models was used for each of the measures of self-sufficiency. The first model in the set includes only demographics as independent variables. The second model in the set adds the cash and non-cash support variables. The third model in each set includes just demographics and the community-level variables (and excludes the cash and

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[8] *R Development Core Team. 2011. A language and environment for statistical computing.* R Foundation for Statistical Computing, Vienna, Austria.

non-cash supports). The fourth model in each set includes all explanatory variables. (In addition, I also computed the models with only the county-level variables and excluding all demographic and cash and non-cash support variables. However, these models were not significant predictors of either income source self-sufficiency or income adequacy self-sufficiency so they are not presented here.) Table 10 shows the final result of these modeling procedures for the income source self-sufficiency outcome variable, and Table 11 shows the final result for the income adequacy self-sufficiency outcome variable.

Findings

The Akaike information criterion[9] (AIC) fit statistic was used to determine the goodness of fit of the models. Smaller AIC scores mean the model is a better fit. The coefficients should be interpreted as the effect of that particular variable on the outcome, after controlling for the other variables in the model. The results of the models indicate that, in general, the cash and non-cash support variables (all measured at the individual level, but essentially determined by federal and state policies and related services and programs) are better than factors measured at the county level (such as the unemployment rate or proportion of jobs in the service sector) at predicting self-sufficiency. This is shown by the fact that the cash and non-cash support variables are highly significant, even in the models that control for county factors. Model 3 indicates that county-level variables do not add much predictive value over participant demographics alone (model 1) in terms of predicting participant income source self-sufficiency outcomes.

[9] http://en.wikipedia.org/wiki/Akaike_information_criterion

Table 10. Results of logistic regression modeling with "income source" as the dependent variable

	Variable	Dependent Variable #1: Household income source - Mixed Effects exp(B) (fixed effects standard error)			
		model 1	model 2	model 3	model 4
	Intercept	17.643 (0.352)	30.469 (0.403)	15.013 (3.800)	10.940 (3.605)
Demographics	Race (dummy, white vs. non-white)	0.473*** (0.133)	0.612*** (0.144)	0.477*** (0.134)	0.621*** (0.144)
	Education (some college or more vs. less than HS)	0.698*** (0.154)	0.883 (0.166)	0.689*** (0.154)	0.874 (0.166)
	Education (some college or more vs. HS diploma/GED)	0.624*** (0.127)	0.820 (0.138)	0.616*** (0.128)	0.809 (0.138)
	Employment status (employed FT vs. not employed)	0.133*** (0.139)	0.150*** (0.157)	0.132*** (0.140)	0.149*** (0.158)
	Employment status (employed FT vs. employed PT)	0.428*** (0.157)	0.442*** (0.169)	0.425*** (0.158)	0.440*** (0.169)
	Presence of children in HH (dummy)	0.388*** (0.191)	0.387*** (0.228)	0.384*** (0.192)	0.390*** (0.229)
	Marital status (married/partnered vs. single)	0.435*** (0.157)	0.647* (0.174)	0.435*** (0.157)	0.651* (0.174)
	Single parent (dummy)	1.853*** (0.165)	1.286 (0.188)	1.852*** (0.165)	1.288 (0.188)
Cash & non-cash supports	Social support (2 or more supporters vs. 0 supporters)		0.530* (0.319)		0.545* (0.319)
	Social support (2 or more supporters vs. 1 supporter)		0.729* (0.150)		0.725* (0.150)
	Child support (not eligible vs. no benefit received)		0.501*** (0.184)		0.496*** (0.184)

Child support (not eligible vs. partial/irregular benefit received)		0.647*** (0.203)		0.636*** (0.203)
Child support (not eligible vs. full benefit received)		1.057*** (0.214)		1.048*** (0.214)
EITC (not eligible vs. no benefit received)		0.914*** (0.254)		0.908*** (0.254)
EITC (not eligible vs. applied/waiting for benefit)		0.807*** (0.247)		0.812*** (0.246)
EITC (not eligible vs. benefit received)		1.625*** (0.158)		1.630*** (0.157)
Child care (not needed vs. unavailable/inadequate)		0.619*** (0.294)		0.607*** (0.294)
Child care (not needed vs. adequate with subsidy)		0.557*** (0.183)		0.557*** (0.182)
Child care (not needed vs. adequate without subsidy)		1.504*** (0.217)		1.511*** (0.218)
Transportation (adequate to meet all daily needs vs. some daily needs)		0.435*** (0.183)		0.431*** (0.184)
Transportation (adequate to meet all daily needs vs. not adequate)		0.529*** (0.149)		0.516*** (0.149)
Housing stability (home owner vs. homeless/precariously housed)		0.515*** (0.277)		0.532*** (0.277)
Housing stability (home owner vs. transitional housing)		0.448*** (0.329)		0.436*** (0.328)
Housing stability (home owner vs. subsidized rental housing)		0.471*** (0.178)		0.462*** (0.178)
Housing stability (home owner vs. market rate rental housing)		0.562*** (0.169)		0.558*** (0.169)
Health insurance (all HH members insured vs. no HH members insured)		2.016 (0.320)		2.005 (0.319)
Health insurance (all HH members insured vs. some HH members insured)		1.233 (0.164)		1.214 (0.163)

County-level variables	Nonprofit density (per 10,000; centered)			0.911* (0.040)	0.900** (0.038)
	Percent of job in the service sector (centered)			1.004 (0.040)	1.012 (0.038)
	Percent of job in the manufacturing sector (centered)			1.004 (0.041)	1.023 (0.039)
	Unemployment rate (centered)			1.088 (0.114)	1.090 (0.108)
	Location (urban vs. rural)			1.013 (0.303)	1.088 (0.284)
Model fit	AIC	2170	2006	2174	2008

#p<0.10, *p<0.05, **p<0.01, ***p<0.001 (two tailed)
Note: For all categorical predictors, the first category listed is the reference category.

Table 11. Results of logistic regression modeling with "income adequacy" as the dependent variable

	Variable	Dependent Variable #2: Household income adequacy - Mixed Effects exp(B) (fixed effects standard error)			
		model 1	model 2	model 3	model 4
	Intercept	3.866 (0.324)	6.679 (0.370)	2.801 (3.81)	4.419 (3.730)
Demographics	Race (dummy, white vs. non-white)	0.903 (0.127)	1.073 (0.136)	0.905 (0.127)	1.076 (0.137)
	Education (some college or more vs. less than HS)	0.660** (0.145)	0.791 (0.156)	0.655** (0.145)	0.782 (0.156)
	Education (some college or more vs. HS diploma/GED)	0.703** (0.121)	0.858 (0.130)	0.701** (0.121)	0.855 (0.131)
	Employment status (employed FT vs. not employed)	0.484*** (0.125)	0.583*** (0.142)	0.488*** (0.125)	0.588*** (0.142)
	Employment status (employed FT vs. employed PT)	0.776*** (0.147)	0.839*** (0.157)	0.777*** (0.147)	0.840*** (0.157)
	Presence of children in HH (dummy)	1.062 (0.176)	0.972 (0.210)	1.056 (0.177)	0.963 (0.210)
	Marital status (married/partnered vs. single)	0.736* (0.147)	0.929 (0.163)	0.739* (0.147)	0.933 (0.163)
	Single parent (dummy)	1.370* (0.156)	1.316 (0.177)	1.375* (0.156)	1.325 (0.177)
Cash & non-cash supports	Social support (2 or more supporters vs. 0 supporters)		0.889** (0.286)		0.867** (0.286)
	Social support (2 or more supporters vs. 1 supporter)		0.654** (0.139)		0.648** (0.139)
	Child support (not eligible vs. no benefit received)		1.049 (0.174)		1.049 (0.174)

Child support (not eligible vs. partial/irregular benefit received)		0.828 (0.189)		0.832 (0.189)
Child support (not eligible vs. full benefit received)		1.333 (0.209)		1.327 (0.209)
EITC (not eligible vs. no benefit received)		0.346*** (0.230)		0.341*** (0.230)
EITC (not eligible vs. applied/waiting for benefit)		0.566*** (0.229)		0.565*** (0.230)
EITC (not eligible vs. benefit received)		0.892*** (0.150)		0.893*** (0.150)
Child care (not needed vs. unavailable/inadequate)		0.484** (0.263)		0.488** (0.262)
Child care (not needed vs. adequate with subsidy)		1.036** (0.172)		1.051** (0.172)
Child care (not needed vs. adequate without subsidy)		1.454** (0.202)		1.443** (0.203)
Transportation (adequate to meet all daily needs vs. some daily needs)		0.364*** (0.172)		0.366*** (0.172)
Transportation (adequate to meet all daily needs vs. not adequate)		0.542*** (0.140)		0.547*** (0.140)
Housing stability (home owner vs. homeless/precariously housed)		0.215*** (0.261)		0.217*** (0.261)
Housing stability (home owner vs. transitional housing)		0.315*** (0.296)		0.312*** (0.297)
Housing stability (home owner vs. subsidized rental housing)		0.726*** (0.169)		0.728*** (0.169)
Housing stability (home owner vs. market rate rental housing)		0.870*** (0.159)		0.870*** (0.159)
Health insurance (all HH members insured vs. no HH members insured)		0.962 (0.259)		0.951 (0.259)
Health insurance (all HH members insured vs. some HH members insured)		0.795 (0.151)		0.792 (0.151)

County-level variables	Nonprofit density (per 10,000; centered)			0.993 (0.038)	0.984 (0.037)
	Percent of job in the service sector (centered)			1.020 (0.040)	1.021 (0.039)
	Percent of job in the manufacturing sector (centered)			0.989 (0.041)	0.991 (0.041)
	Unemployment rate (centered)			0.847 (0.114)	0.857 (0.111)
	Location (urban vs. rural)			0.577 (0.299)	0.588 (0.290)
Model fit	AIC	2371	2201	2375	2205

#p<0.10, *p<0.05, **p<0.01, ***p<0.001 (two tailed)
Note: For all categorical predictors, the first category listed is the reference category.

The impact of demographic characteristics on economic self-sufficiency

Race is a significant predictor of income source self-sufficiency, and is a more significant predictor when cash and non-cash support are not controlled in the model. When cash and non-cash support are not controlled, white participants are about 2.1 times more likely than non-white participants to be income source self-sufficient. However, when cash and non-cash supports are controlled in the model, white participants are about 1.6 times more likely than non-white participants to be income source self-sufficient. This indicates that while white participants are more likely than non-white participants to be income source self-sufficient, much of this difference may be due to the difference in their access to and/or use of cash and non-cash supports. Race/ethnicity has a similar effect on self-sufficiency whether or not county level labor market factors are controlled. This indicates that the effect of race/ethnicity on self-sufficiency is similar across counties with different labor market characteristics. Race is not a significant predictor of income adequacy self-sufficiency.

Similarly, education is a significant predictor of income source self-sufficiency and income adequacy self-sufficiency, but only when cash and non-cash support are not controlled. Before controlling for cash and non-cash support, participants with some college or more education are about 1.5 times more likely than participants with less education to be self-sufficient in terms of their income source and the adequacy of their income. The coefficient for education is not significant once cash and non-cash supports are included in the models. Human capital theory (Becker 1975; Becker and Tomes 1986) asserts that socioeconomic outcomes are determined by the amount of human capital (education) that is obtained through lifetime investments. These results suggest that access to cash and non-cash resources mediates the impact of an individual’s education level on their likelihood of being self-sufficient. Education has a similar effect on self-sufficiency whether or not county level labor market factors are controlled.

Employment status is, not surprisingly, a significant predictor of self-sufficiency. Compared with participants who are not employed, those who are employed full-time are about 7 times more likely to be income source self-sufficient and about 1.8 times more likely to be self-sufficient in terms of income adequacy. In addition, participants who are employed full-time are between 1.2 and 1.5 times more likely than participants who are employed part-time to be self-sufficient. When cash and non-cash supports are controlled, the effect of employment on self-sufficiency is reduced in terms of income adequacy, but controlling for these variables does not affect the impact of employment on income source self-sufficiency. This finding has interesting implications for the policy debate about whether employment is the only route to self-sufficiency. These results indicate that households that have access to and use cash and non-cash supports may be buffered from the impact of unemployment or underemployment on their household's overall income adequacy. Employment status has a similar effect on self-sufficiency whether or not county level labor market factors are controlled.

Participants who have children in their household are about 2.6 times more likely than participants without children to be income source self-sufficient, even after controlling for cash and non-cash supports and county-level factors. Presence of children in the household is not a significant predictor of income adequacy self-sufficiency. These findings should be interpreted in light of the sample, which is a non-representative sample of low-income adults who receive services from one of many community action agencies in Minnesota. It may be that this sample includes a group of participants who do not have children but who are more severely limited in their ability to be self-sufficient than the average low-income Minnesotan due to disability, etc. Presence of children in the household has a similar effect on self-sufficiency whether or not county level labor market factors are controlled.

Marital status is a significant predictor of self-sufficiency, and is more significant when cash and non-cash supports are not controlled. Married/partnered participants are 2.3 times more likely than single participants to be income source self-sufficient, until cash and non-cash supports are controlled, at which time married/partnered participants are 1.5 times more likely than single participants to be income source self-sufficient. Married/partnered participants are also about 1.4 times more likely than single participants to be self-sufficient in terms of income adequacy, although this effect is eliminated once cash and non-cash supports are controlled. This indicates that although marriage/partnering is associated with self-sufficiency, access to and use of cash and non-cash supports reduces or eliminates the effect of marital status on self-sufficiency, particularly in terms of adequacy of income. Marital status has a similar effect on self-sufficiency whether or not county level labor market factors are controlled.

Single parent status is a significant predictor of self-sufficiency, until cash and non-cash supports are controlled. Before controlling for cash and non-cash supports, participants who are not single parents are 1.9 times more likely than participants who are single parents to be income source self-sufficient. Before controlling for cash and non-cash supports, participants who are not single parents are about 1.4 times more likely than participants who are single parents to have an adequate income. These effects disappear (the coefficients on the single parent variables are not significant) when cash and non-cash supports are introduced to the models, which suggests that these supports ameliorate the negative self-sufficiency effects of being a single parent. Single parent status has a similar effect on self-sufficiency whether or not county level labor market factors are controlled.

The influence of cash and non-cash supports on economic self-sufficiency

Social support (as it was measured here) is a predictor of self-sufficiency, and the effect is similar whether or not county-level factors are controlled. Participants with two or more people they can turn to for social support are 1.9 times more likely than participants who do not have any social support to be income source self-sufficient and 1.1 times more likely to be self-sufficient in terms of income adequacy. Participants with two or more sources of social support are also about 1.5 times more likely than participants who have only one source of social support to be self-sufficient.

Surprisingly, although child support is a good predictor of income source self-sufficiency, it is not significant in terms of its predictive ability for income adequacy self-sufficiency. Participants who are not eligible for child support are about twice as likely as participants who are eligible but have not received their benefits to be income source self-sufficient, and they are about 1.6 times more likely than participants who receive only a partial benefit to be income source self-sufficient. Although statistically significant, there is no practical difference between participants who are not eligible for child support and those who are eligible and receive their full benefit. The fact that receipt of child support does not predict income adequacy indicates that child support should not be viewed as a viable alternative to public assistance for single parent families (i.e., child support is not enough to provide adequate income on its own). This supports the recommendation of Cancian, Meyer, and Caspar (2008), who argued that allowing custodial parents to keep their child support plus TANF payments (instead of taking away an amount form their TANF that corresponded to the amount they received in child support) is a cost-neutral option for the government that increases the real income of custodial families.

Participant receipt of the Earned Income Tax Credit (EITC) is a significant predictor of self-sufficiency. The effect of the EITC is different for income source than for income adequacy, although the effect is strong in both cases even after controlling for county-level factors. In terms of income source self-sufficiency, participants who are not eligible for the Earned Income Tax Credit (either because they are not employed or because they earn too much to qualify) are 1.2 times more likely than participants who are eligible but have not yet applied or are waiting for their benefit to be self-sufficient. In addition, participants who received the full EITC benefit are about 1.6 times more likely than participants who are not eligible for the EITC to be income source self-sufficient. This is a strong indication that the EITC is effective at helping low-income families reduce welfare dependence. In terms of income adequacy self-sufficiency, participants who are not eligible for the EITC are about 2.9 times more likely than participants who are eligible but have not applied to be self-sufficient, and they are 1.8 times more likely than participants who are waiting for their benefit and 1.1 times more likely than participants who received their benefit to be self-sufficient. This indicates that most participants who are not eligible for the EITC because they earn too much are also self-sufficient in terms of the adequacy of their income. In other words, the program appears to be designed effectively such that individuals who are not self-sufficient are eligible and those who are self-sufficient already and do not need the program are not eligible.

Child care adequacy is associated with self-sufficiency, although the relationship between child care and self-sufficiency is different for income source and income adequacy. However, the effects of child care on self-sufficiency are similar after controlling for county-level factors. Participants who do not need child care (either because they do not have children or they stay home with their children) are about 1.7 times more likely than participants who need child care but have inadequate care or receive child care through a subsidy program to be income source self-sufficient. On the other hand, participants who have adequate child care and do not need a subsidy are 1.5 times more likely than participants who do not need child care to be income source self-sufficient. In terms of income adequacy, participants who do not need child care are about 2.1 times more likely than participants who have inadequate child care to be self-sufficient, whereas participants who have adequate child care without a subsidy are about 1.4 times more likely than participants who do not need child care to be self-sufficient. This finding echoes the finding that presence of children in the household is positively associated with self-sufficiency. And clearly inadequate and/or unaffordable child care is a barrier to self-sufficiency.

Adequacy of transportation is a strong predictor of self-sufficiency, both in terms of income source and income adequacy. Participants who have a source of transportation that is adequate to meet all their daily needs are about twice as likely as participants with inadequate or no transportation to be income source self-sufficient. In addition, participants who have adequate transportation are 1.8 times more likely than participants with some transportation and 2.8 times more likely than participants with no transportation to be income adequacy self-sufficient. These findings are as robust as any of the findings reported here, and they strongly point to the need for more research, as well as more policy and programming work to determine and influence the relationship between access to transportation and self-sufficiency, particularly in greater Minnesota.

Housing stability is also a strong predictor of income source and income adequacy self-sufficiency, and these findings are constant whether or not county-level factors are controlled. In terms of income source, participants who are homeowners are about twice as likely as participants who live in all other housing types to be self-sufficient. In other words, in terms of welfare dependence, it appears that the best predictor of self-sufficiency with regard to housing type is homeowner status. In terms of income adequacy self-sufficiency, participants who are homeowners are more likely than participants with all other housing situations to be self-sufficient, including: 4.6 times more likely than homeless and precariously housed participants, 3.2 times more likely than participants who live in transitional or supportive housing, 1.4 times more likely than participants who live in subsidized rental housing, and 1.1 times more likely than participants who live in market rate rental housing. This indicates that the income adequacy of poor families is highly dependent on their housing situation. These findings, similar to those for transportation, are very robust. Although more work has already been done in this area relative to the area of transportation, it is important for researchers, policy makers, and service providers to continue to consider, examine, and influence the degree to which housing stability impacts individual and family self-sufficiency.

Health insurance is not a significant predictor of self-sufficiency in this study, possibly due to the fact that both the poorest and least self-sufficient families and the most self-sufficient families are the most likely to be insured – the first group by public insurance and the second group by employer-sponsored insurance. Therefore, although the variable is not significant in these models, it is still an important factor to consider because “instability in health care is related to and exacerbates instability in all other areas of the lives of low-income families” (Angel, Lein, and Henrici 2006, p. 12-13). Families are often forced to make employment decisions based on their health care coverage not on the best interests of themselves or their families in other areas of life. Future policy or programming efforts designed to increase self-sufficiency must consider the degree to which health coverage is influencing individuals’ rational choice decisions and/or limiting the ability of individuals to become self-sufficient.

Cash and non-cash supports all have a similar effect on self-sufficiency whether or not county level labor market factors are controlled, which indicates that these factors will have equally positive impacts on the self-sufficiency of individuals regardless of the unemployment rate or proportion of jobs in the service sector in their county of residence.

Not surprisingly, the results of this dissertation show that the non-cash resources that are means-tested public programs -- EITC, child care, and health insurance -- are not related to economic self-sufficiency outcomes in as straightforward a manner as are transportation and housing stability, both of which are not as closely tied to income eligibility. Because of this link to means-tested programs, receiving the EITC, or having adequate child care and health insurance is not necessarily associated with a higher likelihood of being self-sufficient, and in some cases is even associated with a much lower likelihood of being self-sufficient. More theoretical and empirical work is needed to determine the degree to which use of non-cash public assistance programs can or should be considered in the determination of who is self-sufficient and who is not, and the degree to which increasing access to these resources will contribute to increased self-sufficiency among low-income individuals and families.

The influence of community factors on economic self-sufficiency

In terms of the county-level predictors, only one variable – nonprofit density -- appears to be a significant predictor of participants' income source self-sufficiency net of other factors in the model. First, with every 1.0 unit decrease in nonprofit density (per 10,000 residents, at the county level), the odds of being income source self-sufficient increase by about 10 percent. These findings support other research that shows nonprofit service organizations tend to locate in areas that are not necessarily the areas of highest need for those services (Belanger and Stone 2008; Jossart-Marcelli and Wolch 2003; Gronbjerg and Paarlberg 2001; Bielefeld 2000). This dissertation turned these results on their head to examine the impact of nonprofit density on individual and family self-sufficiency. These preliminary results confirm the previously identified association between higher nonprofit density and increasing economic self-sufficiency of the surrounding community. However, these results do not tell the whole story. Social capital theorists (Coleman 1988, Lin 1999) argue for increased policy emphasis on strengthening and extending people's access to social network resources. Social capital was previously generated in the U.S. through families, communities, and informal associations, but many families do not have access to the same levels of social capital through these traditional channels. Therefore, nonprofits may be increasingly needed to fill this gap. More research is needed to determine the relationship between nonprofit density and individual and family self-sufficiency.

The other county-level variables – location in an urban or rural area, percent of jobs in the service sector, percent of jobs in the manufacturing sector, and unemployment rate – are not significant predictors of self-sufficiency.

Hypothesis testing and revised theoretical model

Overall, then, this study produced some interesting findings in terms of the relative influence of individual/family characteristics and county-level factors on economic self-sufficiency. However, to be specific, we should return to the original hypotheses (and see the revised model based on the study results in Figure 33 on p. 142):

1) A local labor market with a high unemployment rate, or an otherwise depressed labor market in a rural area, has a negative impact on the ability of individual and families to become economically self-sufficient, after controlling for individual and household characteristics.

   In terms of unemployment rate, this hypothesis is <u>not</u> supported for either income source self-sufficiency or income adequacy self-sufficiency.

   In terms of location (urban vs. rural), this hypothesis is <u>not</u> supported for either outcome measure.

2) A local labor market with a relatively high proportion of jobs in the service sector makes it more difficult for individuals and families living in those counties to attain economically self-sufficiency, whereas a local labor market with a relatively low proportion of jobs in the service sector makes becoming economically self-sufficiency more likely, after controlling for individual and family characteristics.

   This hypothesis is <u>not</u> supported for either outcome measure.

3) Higher availability (density) of local human services improves the ability of individuals and families to attain economic self-sufficiency.

   This hypothesis is <u>not</u> supported for either outcome measure. (However, an inverse relationship was identified between income source self-sufficiency and nonprofit density.)

4) Individuals and families who have informal social network support are more likely than individuals and families who do not have social support to attain economic self-sufficiency.

   Hypothesis is supported.

5) Individuals and families who have income supplements like child support and the Earned Income Tax Credit are more likely than individuals and families who do not have these resources to attain economic self-sufficiency.

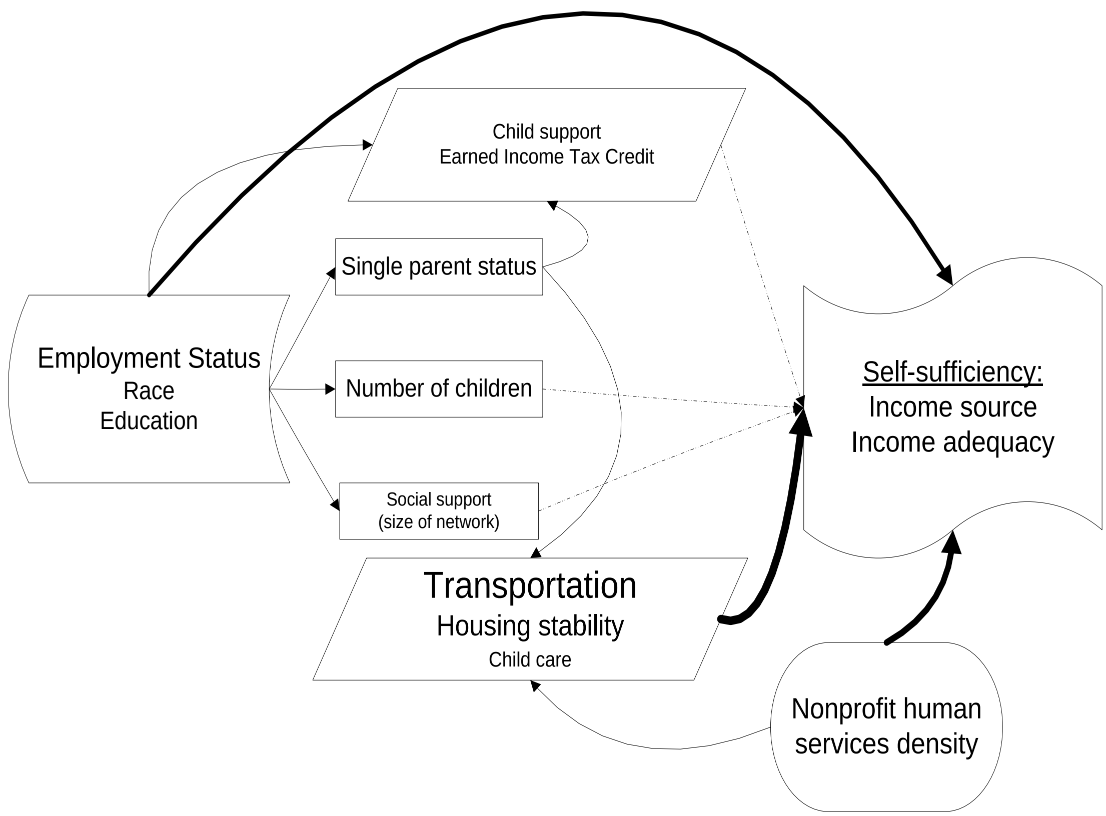
   Hypothesis is supported.

6) Individuals and families who have access to non-cash resources like affordable and high-quality child care, affordable and stable housing, transportation to meet their daily needs, and health insurance coverage are more likely to attain economic self-sufficiency than individuals and families who do not have access to these resources.

   Hypothesis is supported for child care, housing stability, and transportation.

   In terms of health insurance coverage, the hypothesis is <u>*not*</u> *supported.*

Figure 33. Graphical illustration of revised theoretical model



Chapter 6: Conclusions

Making ends meet is a tremendous challenge for many individual and families in the U.S. Qualitative sociologists and ethnographers have thoroughly documented the degree to which poor families struggle, and how circumstances beyond their control affect their ability to independently provide for themselves (e.g., Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001; Edin and Lein 1997; Ehrenreich 2001; Grabowski 2006; Stack 1975). Because it is qualitative in most cases, research in this vein has been unable to document the *relative* influence of various factors in determining the likelihood that one will be self-sufficient. A different body of quantitative research has emphasized how poor choices and bad behavior among individuals, and particularly among certain groups of individuals, has resulted in the economic disparities and chronic welfare dependence found in the U.S. today (Bronfenbrenner et al. 1996; Eggebeen and Lichter 1991; Moynihan, Smeeding, and Rainwater 2004). The research question addressed by this dissertation is: ***What household (individual and family) characteristics and community-level factors contribute to continued material hardship and welfare dependence and inhibit economic self-sufficiency among low-income families?***

This study was completed in partnership with the Minnesota Community Action Partnership (MinnCAP), individual Community Action Agencies (CAAs) in Minnesota, and the Minnesota Office of Economic Opportunity (OEO). CAAs are nonprofit agencies that provide a range of services to low-income individuals and families including Head Start, weatherization and home energy assistance, home delivered meals and congregate dining, and family self-sufficiency programming. The individuals who participated in this study are all current or former clients of one of the 28 community action agencies in Minnesota. The vast majority of these clients received on-going services commonly considered case management services. This means that these clients received services over a period of time to address multiple areas in their lives, most of which are closely related to economic self-sufficiency. Participants come from 76 different counties around Minnesota. The individual-level data used in this dissertation were obtained from the statewide CAA client database maintained by MinnCAP. The variables measured at the individual level include demographic characteristics as well as access to and use of cash and non-cash supports. It is important to note that although many of the cash and non-cash support variables are measured at the individual level, access to these resources is often determined (at least in part) by structural factors such as federal and state policies and programs.

County-level data including employment rates and sectors of employment was obtained from the public Minnesota Department of Employment and Economic Development's website. The nonprofit density data is from the Minnesota Longitudinal Finance Study.

Economic self-sufficiency is defined for this dissertation using a combination of the various approaches described in Chapter 2. Both the source and the adequacy of income are included in the definition. For this study, the term **economic self-sufficiency** is used to define a state of being for individuals and families that meet two criteria. The first component of economic self-sufficiency is **income source**. *To be self-sufficient, a household must be receiving more than half of their income from sources other than public assistance.* (This definition does not consider or include in-kind benefits like food stamps or Medicaid, because they do not have cash equivalent value and because by definition people must be poor to receive them.) The second component of economic self-sufficiency is **income adequacy**. *To be economically self-sufficient a household also must not be experiencing material hardship, meaning that they are able to afford both food and housing expenses.* Of the over 2,000 study participants, nearly half are economically self-sufficient on both measures (income adequacy and income source). However, almost one-fifth of these individuals and families are not economically self-sufficient by either measure and over one-third are economically self-sufficient on one of the measures but not the other.

To examine the relationship between economic self-sufficiency and various individual/family and county-level variables, the same set of multilevel regression models were completed for each of the dependent variables. The first model in the set includes only the demographic variables. The second model in the set adds the cash and non-cash support variables. The third model in each set includes just the demographic variables and the community-level variables (and excludes the cash and non-cash supports). The fourth model in each set includes all explanatory variables. (A fifth set of models including just the county-level variables was also computed, but is not presented here since none of the variables in the model were found to significantly predict either type of self-sufficiency.) The key findings include:

- Demographic variables including race, education, employment status, presence of children in the household, marital status, and single parent status are generally related to self-sufficiency and the impact of these variables on self-sufficiency is reduced when cash and non-cash supports are controlled in the models.
- Participants' access to and use of cash-and non-cash supports such as social support, child support, the Earned Income Tax Credit, child care, transportation, and housing stability are all strong predictors of self-sufficiency, even after controlling for the impact of county-level factors. The one exception is health insurance, which is not a significant predictor of self-sufficiency.
- Nonprofit density is the only county-level factor that is significantly related to individual participants' income source self-sufficiency, and the nature of this relationship is still unclear. None of the county-level factors are related to participants' income adequacy self-sufficiency.

While I believe that overall this dissertation has increased understanding of this topic with a thorough and comprehensive review of the literature and use of rigorous analysis methods of an original data set, there are two main limitations that should be noted.

The first limitation is methodological in nature. The data are from a convenience sample of adults who were receiving services from community action agencies in Minnesota. Although the study participants are low income individuals and families, they are not statistically representative of all low income individual and families in Minnesota or the U.S. However, a comparison of demographic characteristics shows that the study participants are relatively similar to all low income Minnesota families. In addition, this convenience sample is similar to the data sets used by Edin and Lein (1996) and their colleagues, in that it is not statistically representative but is large and thus is likely to include a wide range of individual experiences. Also, I have no reason to believe that the individuals in my dataset are different in any critical ways from other low income people in Minnesota, with the obvious exception of the fact that the participants in this study are receiving services from community action agencies, which are oftentimes geared toward improving self-sufficiency. This dataset was readily available to me as an employee of Wilder Research and a consultant to the Minnesota Department of Human Services and the Minnesota Community Action Association on the development and use of their Self-Reliance Achievement Scale, and there is an opportunity to influence policy, programming, and/or research by using this real-world data.

The second main limitation of this dissertation is in terms of the generalizeability of the findings. Specifically, the data that form the basis of the analysis and recommendations were gathered in Minnesota during the mid-2000s, which was a different economic era than we are in today. Given significant changes in society, particularly in the areas of employment stability, housing, and gas prices, it is unclear the extent to which these findings are still relevant.

Despite these limitations, the results from this dissertation can contribute in three main arenas: poverty theory and research, public policy, and community action practice. This study has contributed to poverty theory and research in two major ways. First, this study uses a quantitative approach to examining the relative influence and interaction of various factors, including both individual-level predictors and predictors that are determined by structural factors, on economic self-sufficiency. This approach gives a clearer, more comprehensive picture of the causes and correlates of poverty and inequality compared with qualitative approaches and quantitative approaches that only consider one level of data.

Second, this study has refined the operationalization of economic self-sufficiency. The idea of economic self-sufficiency has been ingrained in American ideology and public discourse. This value has been used to justify significant reforms to public assistance programs, and has been held up by policy-makers and funders as the standard that social services (including public and nonprofit programs) should strive to achieve.

Sandfort and Hill (1996), among others, defined self-sufficiency in contrast to welfare dependency. These authors also introduced the concept of defining self-sufficiency in terms of both source of income and adequacy of income. In addition to furthering their use of this conception of economic self-sufficiency, the operationalizations I used for these measures have also added value to the field of poverty research. The conception of income source self-sufficiency as a proportion of the household's total cash income that comes from public assistance versus all other sources is a useful definition because it recognizes the value of decreasing dependence on public assistance while at the same time reflecting the possibility that families receive support from many sources. The conception of income adequacy as a categorical rather than dollar value is appealing because it is simple, and it is a more realistic measure of material hardship than the official poverty line.

It is important to note that in some cases the situation of the working poor may be more serious than the situation of people on welfare, because the working poor often do not qualify for non-cash public assistance programs such as child care subsidies, housing subsidies, public health insurance, and food stamps, but they also do not earn enough to buy these things on their own. In their study of welfare leavers, Lein et al. (2007) showed how TANF provided access to other programs, which was more appreciated by participants than the actual cash assistance itself -- access to child care, health insurance, affordable and stable housing, and transportation had a huge role in determining whether or not participants in this study went back on welfare.

The results of this dissertation suggest that public programs, if they are designed to support individuals and families in being self-sufficient (not just independent from welfare, but also with an adequate income), should focus on increasing access to non-cash resources and supports, especially in the areas of transportation and housing. Land use and zoning policy at the local level can impact the degree to which low-income individuals and families have access to these resources, particularly in urban areas. The role of informal social support networks, especially in non-white communities, and the degree to which location and other factors affect the social support of individuals and families should also be considered. Finally, funding for non-cash assistance and subsidy programs at the state and federal levels is also key.

To be clear, the findings from this dissertation suggest that focusing on labor markets only (such as efforts to improve the overall unemployment rate by creating new jobs) will not be likely to have a significant impact on the self-sufficiency of individuals and families. However, the findings do generate additional questions about the role of nonprofits in promoting self-sufficiency. The density of nonprofit organizations in a local community is inversely related to the likelihood that people in that community are self-sufficient. Public policy may be able to influence the location of nonprofit organization by offering various incentives to ensure that access to services and resources aligns with community need.

Finally, the results of this dissertation provide some suggestions for how community action agencies in Minnesota might proceed in terms of improving the self-sufficiency of their clientele. First, community action agencies should make it a goal to register every one of their clients who is eligible for the Earned Income Tax Credit. Second, community action agencies should work with their clients to ensure child support claims are filed and payments are received by clients if at all possible. Third, community action agencies should address major barriers to self-sufficiency by assessing and responding to needs for transportation, housing, and child care.

Economic self-sufficiency has become a key outcome in terms of evaluating programs for low-income individuals (Lane 2001; Santiago and Galster 2004; O'Connor 2001; Daugherty and Barber 2001; Sandfort and Hill 1996). This is related to the reform of public assistance programs from entitlements into temporary assistance programs with an emphasis on moving individuals into employment. This pro-work philosophy has increased pressure for social service providers to demonstrate outcomes associated with improved economic self-sufficiency in their clients (McMillen et al. 2005; Edwards, Cooke, and Reid 1996). Community action agencies should advocate for increased non-cash supports for the working poor, especially in the areas of transportation, housing, and health coverage. The Minnesota Community Action Partnership should also work with other states' community action associations to further efforts to define self-sufficiency in federal policy arenas as the combination of income source and income adequacy.

More research is needed on this complex and multilayered topic. First, the federal research agenda has created a generation (or two) of social scientists whose primary mission has been to enumerate the deficits of the poor. These deficits have then been used as the explanation for why people are poor in the first place. Instead, more research is needed to determine how policies and programs can be designed and implemented by building on the strengths in these communities. Some researchers (e.g., Blalock, Tiller, and Monroe 2004; Brown and Barbosa 2001; Edin and Lein 1997; Ehrenreich 2001; Grabowski 2006; Moen and Wethington 1992; Stack 1975) have shown how families use adaptive strategies to respond to structural and contextual limitations. A new research agenda should focus on the adaptive strategies used in families and communities to see if these organic solutions can inform policy and programming.

In addition, more research is needed on the cost effectiveness of various policy and program solutions to improve self-sufficiency. Until policy-makers and service providers consider and understand the true cost of providing various financial and non-financial resources and the impact of those resources on the self-sufficiency outcomes of individuals and families, selecting the best option is a shot in the dark.

In conclusion, discussion of self-sufficiency in American culture must take into consideration our strong belief in self-determinism, which contributes to the maintenance of income inequalities and limited economic redistribution. Working for pay is viewed as the best way to provide for one's family. This dissertation has demonstrated that, in addition to living wage jobs, poor individuals and families need to have access to and use resources such as social support, transportation, stable housing, quality child care, and the Earned Income Tax Credit to become self-sufficient.

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