

# LIBRARIES MICHIGAN STATE UNIVERSITY EAST LANSING, MICH 48824-1048

# This is to certify that the thesis entitled

# INDIVIDUAL LEVEL FACTORS ASSOCIATED WITH DECREASED DEPRESSION AMONG RURAL LOW-INCOME WOMEN: A FAMILY RESILIENCE PERSPECTIVE

presented by

#### LAURIE A. BULOCK

has been accepted towards fulfillment of the requirements for the

Master of Arts	degree in	Departm	nent of Family and Child Ecology		
J	Subaca	$\mathcal{D}$			
Major Professor's Signature					
	/2	-8-0	4		
		Date			

MSU is an Affirmative Action/Equal Opportunity Institution

# PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due. MAY BE RECALLED with earlier due date if requested.

DATE DUE	DATE DUE	DATE DUE
		,

6/01 c:/CIRC/DateDue.p65-p.15

# INDIVIDUAL LEVEL FACTORS ASSOCIATED WITH DECREASED DEPRESSION AMONG RURAL LOW-INCOME WOMEN: A FAMILY RESILIENCE PERSPECTIVE

By

Laurie A. Bulock

# A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Family and Child Ecology

2004

#### **ABSTRACT**

# TOWARD A FAMILY RESILIENCE MODEL: INDIVIDUAL LEVEL FACTORS ASSOCIATED WITH MATERNAL DEPRESSION

By

#### Laurie A. Bulock

This study examined factors associated with decreased depression levels among rural low-income women over a one-year time period. Bivariate correlation and multiple regression analyses were conducted to identify individual level perceptual and objective factors associated with depression levels at Waves one and two, and which factors were associated with depression score changes. Further regression analyses were run on the portion of the women whose depression levels had decreased from Wave one to Wave two to below the CES-D cut-off of 16 in order to identify which factors were associated with participants' improved mental well-being. The results show that wave one depression scores along with life satisfaction, parental confidence, and parental support predict lower depression levels at Wave two, and serve to mediate economic variables. Changes in depression scores were predicted by changes in perceived life satisfaction, perceived parental confidence, and annual income, and indirectly by changes in perceived parental support. Decreased depression to below the CES-D cut-off was predicted by changes in annual income, perceived life satisfaction, and perceived parental confidence.

# **DEDICATION**

To my loving husband Bryan

And to my wonderful children Corey, Sydney and Max

This is dedicated to you with lots of love.

#### **ACKNOWLEDGEMENTS**

I would like to acknowledge and express sincere appreciation to Dr. Barbara Ames, my advisor and chairperson of my committee, for her warmth, encouragement, and patience, and for keeping me on track. Your push for excellence has helped me to become a better writer. I want to thank Dr. David Imig for the opportunity to work on this exciting and rewarding project, and for the providing support and exchanging ideas. Your questions have contributed to my growth as a student and scholar. I would also like to thank Dr. Joanne Keith for serving as a committee member, and for providing encouragement throughout my program.

I thank God for leading me where I am today, and for getting me through the tough times. I would like to thank my family for your patience, and understanding.

Bryan, my loving husband, I could not have done this without your support and belief in me. This is our accomplishment together. To my children Corey, Sydney, and Max, your love and patience helped pull me through when I really needed it. You're the best.

To my parents, Kathy and Ron Holcom, and Mel and Jan Hansens, your lives have been an inspiration to me. Your love and belief in me sparked the desire to follow through. Mom, I don't know what I would have done over the years without your help and support. You have done more for me and my family than you could ever know. Thank you.

# TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER 1	
INTRODUCTION	1
Statement of the Problem	
Significance of the Study	
Conceptual Model	
Research Questions & Hypotheses	
Conceptual and Operational Definitions	
Research Assumptions	
CHAPTER II	
REVIEW OF LITERTURE	10
Low income and rural family challenges	
Family risk and resilience framework	
The role of perceptions and maternal depression	15
The fole of depression	13
CHAPTER III	
RESEARCH METHODOLOGY	21
Research Design	
Research Sample	
Research Instruments	
The CES-D Scale	
Life Satisfaction	
Income Adequacy	
Parental Confidence	
Parental Support	
Data Collection Procedure	
Analyses	
Hypotheses	27
CHAPTER IV	
RESULTS	29
Demographic characteristics of the sample	29
Research Question 1	
Research Question 2	
Research Question 3	
Regression model 1	
Regression model 2	

Regression model 3	47
Regression model 4	
Summary of Results	
CHAPTER V	
DISCUSSION AND CONCLUSIONS	56
Key Findings	56
Limitations of the Research	63
Implications of the Study	
APPENDICES	
Appendix A: Additional Tables	75
Appendix B: Wave One Survey Protocol	
Appendix C: Wave Two Survey Protocol	103
REFERENCES	139

# LIST OF TABLES

Table 1: Participants' Demographic Characteristics	32
Table 2: Descriptive Data for Study Variables	34
Table 3: Descriptive Data for New Change Variables and One-Sample T-Test for Differences Between Waves One and Two	35
Table 4: Percentages of Participants Who Improved, Stayed the Same Or Worsened Along the Study Variables	36
Table 5: Crosstabulations of Depression Categories for Wave 1 and Wave 2	38
Table 6: Bivariate Correlations Among Wave 1 Variables	39
Table 7: Bivariate Correlations Among Wave 2 Variables	40
Table 8: Bivariate Correlations among Change Variables	41
Table 9: Regression of Depressive Symptoms on Wave 1 Variables	44
Table 10: Depressive Symptoms Regressed on Wave 2 Variables	46
Table 11: Regression of Changed Depression Symptoms on Change Variables	48
Table 12: Regression of Decrease in Depressive Symptoms on Demographic Change Variables	
Table 13: Descriptives of Small Dropped Sample	75
Table 14: Descriptives of Large Dropped Sample	76

# **LIST OF FIGURES**

Figure 1: Factors that may be associated with changes maternal depression at two points in time using an ecological framework	5
Figure 2: Path model of individual level factors associated with changes in maternal depression	49
Figure 3: Path model of individual level factors associated with decreased maternal depression	53

#### **CHAPTER I**

#### INTRODUCTION

Working poor families in rural areas face many challenges and risks, including isolation, limited employment and educational opportunities, and poverty extended over long periods of time. Transportation can become a problem for rural families when home, workplaces and childcare locations are separated by long distances. Of the employment options available, many do not provide basic benefit packages that would include health insurance or vacation or sick time. Changes in welfare legislation, while intended to help families by moving them off the welfare rolls and into the workforce, may actually make it harder for poor families to make ends meet. Some families struggle and are not able to cope with the demands posed by the realities of rural life, while others overcome adverse situations and emerge stronger.

The purpose of this study was to explore individual level factors associated with risk and resilience among rural working poor families. Specifically, this study explored relationships between depression and indicators of mental well-being among women from low income families living in rural areas. Understanding the nature of these relationships across time at the individual level provides a foundation for further investigations that link individual level risk and resilience processes with family level risk and resilience processes among rural working poor families.

According to family stress and coping theory, families' perceptions of their challenges and capabilities are key to their success in coping, or adaptive functioning, in

the face of prolonged adversity (McCubbin, McCubbin & Thompson, 1993; McCubbin & Patterson, 1983; Patterson, 2002a, 2002b). Similarly, stress and coping processes among individuals are influenced by a person's perceptions of the hardships created by stressor events, and by his or her capabilities and concepts of self, such as mastery and selfesteem (Pearlin, Menaghan, Lieberman & Mullan, 1981). Poverty and economic hardship are commonly operationalized as stressors and strains in models developed to investigate factors and processes associated with depression. Recent research has suggested that low income alone does not significantly predict parental depression or child adjustment among Hispanic families working in rural areas (Hovey & Magaña, 2002; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003). Rather, similar to stress and coping, and risk and resilience theories, the subjective appraisals associated with the strains of not having enough money and unstable employment were more indicative of parental and family stress (Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003). Within the context of rural poverty and welfare reform, it was important that this study examine factors influencing maternal depression in order to understand factors which may act as risks for depression, and which may act as buffers against depression. This study examines such factors within a broader family risk and resilience framework.

#### STATEMENT OF THE PROBLEM

The purpose of this study was to identify individual level factors within a sample of rural working poor families in the United States that were associated with family risk and resilience processes. Specifically, this study explored individual level factors

identified from data collected at two points in time that were be associated with maternal depression. Changes in the data and patterns of associations with depression between waves of data were explored. Within an ecological framework, the individual level risk and protective factors examined included participants' reported depressive symptoms and perceptual indicators of mental well-being. Finally, the study examined which factors were predictive of depression among rural working poor women.

#### SIGNIFICANCE OF THE STUDY

Research on the concept of family risk and resilience is relatively new, and researchers continue to debate the conceptualization and operationalization of family resilience (Patterson, 2002; McCubbin, McCubbin, Thompson, Han & Allen, 1997; Walsh, 2003; Cowan, Cowan & Schulz, 2003). While it is well documented that exposure to maternal depression and other parental mental illnesses are associated with risk and resilience among children and adolescents (Seifer, 2003; Hammen, 2003; and Luthar, D'Avanzo & Hites, 2003), less is known about the role of maternal depression within family risk and resilience processes. This study provided an opportunity to explore individual level factors and processes associated with maternal depression and set the stage for further exploration of links between maternal depression and family risk and resilience processes within this population.

#### CONCEPTUAL MODEL

#### The family risk and resilience framework.

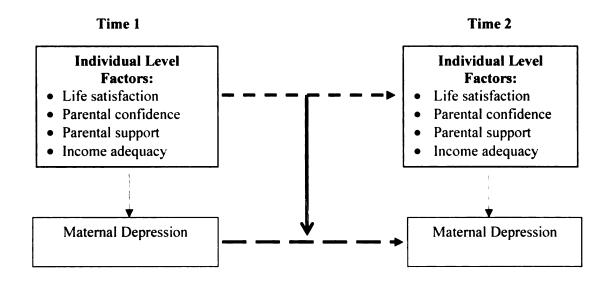
Similar to research on risk and resilience among individuals, family risk and resilience has its roots in the stress and coping literature (Patterson, 2002). Several models have emerged in the family risk and resilience literature that are useful for examining different aspects of family adaptation to stress or crises. According to Patterson's Family Adjustment and Adaptation Response (FAAR) Model (2002), competent family functioning emerges as a product of family relational processes. The FAAR Model "emphasizes the active processes families engage in to balance family demands with family capabilities as these interact with family meanings to arrive at a level of family adjustment or adaptation" (Patterson, 2002b, p. 236). The family's appraisal, or perception of the situation, is a crucial link in developing competence (resilience) or vulnerability (risk). In turn, a family's appraisals are influenced by the unique perspectives and collective experiences of its individual members. Thus it was important in this study to understand participants' perceptions of their situations and of their well-being, and how those perceptions along with objective indicators were related to changes in their mental well-being.

# The human ecological model.

The human ecological approach provides a framework with which to view family members as they interact within family subsystems, and as they interact with macrosystem institutions including work and societal expectations. Individuals and families are viewed as dynamic as they adapt to changes within and between systems

with which they are interdependent. The ecological model provides a lens with which to examine microsystem and macrosystem influences on individual and family functions over time (Bubolz & Sontag, 1993). For instance, within the context of welfare reform, stricter policies regarding employment and access to public assistance can affect the extent to which workers are able to provide for the economic needs of their families. This in turn can contribute to parental stress and mental well-being, affecting relationships and caregiving abilities. This study focused on changes among individual level perceptual factors (presented in Figure 1) and objective indicators that were associated with changes in maternal depression across two waves of data collection.

Figure 1. Factors associated with changes in maternal depression among women in rural working poor families at two points in time using an ecological framework.



### RESEARCH QUESTIONS AND HYPOTHESES

For this study the following research questions and hypotheses were posed in order to understand risk and resilience among rural working poor families within the context of welfare reform. This study integrated family risk and resilience theory within an ecological framework, as focused on individual level factors:

- 1. Do perceived levels of depression and individual level factors change significantly between waves one and two for the study sample?
  - H1: Participants' perceptions of their depression levels will increase from wave one to wave two.
  - H2: Participants' perceptions of life satisfaction will decrease between waves one and two.
  - H3: Participants' perceptions of family income adequacy will decrease between waves one and two.
  - H4: Participants' perceptions of parental confidence will decrease between waves one and two.
  - H5: Participants' perceptions of parental support will decrease between waves one and two.
- 2. Which of the changed individual level factors are associated with changes in maternal depression levels?
  - H6: Changes in levels of maternal depression will be negatively correlated with changes in life satisfaction, family income adequacy, parental confidence, and parental support.

3. Which of the changed individual level factors predict changes in maternal depression levels?

H7: Changes in participants' perceptions of life satisfaction, family income adequacy, parental confidence, and parental support will negatively predict changes in levels of maternal depression.

#### CONCEPTUAL AND OPERATIONAL DEFINITIONS

#### Individual level factors

Conceptually, individual level factors refer to subjective or objective factors which contribute to individual and family well-being, given the context of rural poverty and welfare reform and framed within an integrated family risk and resilience and ecological theory. Subjective factors included respondents' subjective thoughts, feelings, and opinions. Objective factors included respondents' age, education level, ethnicity, and employment status. Operationally, individual level factors were measured using the following items from the interview protocol: maternal depressive symptoms, perceived life satisfaction, perceived parental confidence, perceived parental support, and perceived income adequacy. These measures are further defined in Chapter Three.

#### Maternal Depression

Maternal depression was conceptualized in the study as the perceived level of depressed mood or affect as indicated by participant's responses on the self-report scale utilized in the study. Depression is defined in Taber's Cyclopedic Medical Dictionary (Thomas, 1993) as presence of altered or depressed mood nearly everyday, and is

characterized by diminished interest in things or activities that are usually pleasurable.

Operationally, maternal depression was measured with a 20-item scale, as described in Chapter Three.

#### Life Satisfaction

Conceptually, life satisfaction refers to whether the respondent felt content or satisfied with her life at the time of the interviews. It was considered a perceptual variable in this study because it involved participants' subjective perceptions or appraisals of their life circumstances. Perceptions and appraisals are important to meaning making in the resilience literature. Theoretically, one's appraisal of life satisfaction will influence how one perceives and balances life demands and capabilities in order to adjust or adapt. Operationally, life satisfaction was measured in this study with a one-item measure, as described in Chapter Three.

#### Parental Confidence

Conceptually, parental confidence refers to the participant's subjective feelings about her abilities, or role fulfillment, as a parent. In the resilience literature, subjective appraisals of capabilities are important for balancing life demands. In the depression literature, successful role fulfillment positively affects emotional well-being (Ross & Huber, 1985). Conversely, role strain contributes to depression levels (Pearlin, Menaghan, Lieberman, & Mullan, 1981). While mastery has been widely used in the literature as a self-concept or psychological resource for coping. (Ennis, Hobfall & Schroder, 2000; Pearlin, Menaghan, Lieberman & Mullen, 1981; Pearlin & Schooler,

1978; Siefert, Heflin, Corcoran, & Williams, D. 2004; Turner & Lloyd, 1999a, b), other variables can as used as well, such as mothers' optimism (Taylor, Rodriguez, Seaton, & Dominguez, 2004). In this study, parental confidence was conceptualized as a self-concept, or psychological resource. That is, the well-being of the self is protected via the perception of successful fulfillment of the parenting role. Operationally, parental confidence was measured in this study with a 7 item scale, as described in Chapter Three.

# Parental Support

Parental support refers to participants' perceived access to parenting support, such as family, friends, or professionals. Compared to definitions of general social support, in this study, social support pertained to the social relations the participant perceives she can draw from for support in fulfilling the parenting role. Operationally, parental support was measured with a six item scale, as described in Chapter Three.

#### **RESEARCH ASSUMPTIONS**

- All respondents answered questions honestly during the semi-structured interview.
- 2. All individuals strive to function competently and provide for family members.
- 3. All families work to contribute to their family well-being, and to contribute to society as a whole.

#### CHAPTER II

### REVIEW OF THE LITERATURE

Low income and rural family challenges in the context of welfare reform

There has been debate since the passage of Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) about how to measure the success of welfare changes both nationally and within states. Early reports used caseload reduction and increased employment rates as measures of the success of welfare reform (Bauer, Braun & Olson, 2000; Lichter and Jayakody, 2002). However these instances co-occurred in the late 1990's, during a time of economic growth when jobs were available. In addition, these reports of early successes did not consider that families that left welfare may not have left poverty (Bauer, Braun & Olson, 2000; Cheng, 2002; Lichter and Jayakody, 2002). Researchers from many fields have championed the need for research that considers other measures of individual and family well-being among the poor that are more current and reflect the economic realities of the early 21<sup>st</sup> century. Data collection for the current study began in 2000 for wave one, and 2001 in wave two.

In analyses of multiple national quantitative datasets, and using qualitative data, Heymann (2000, 2002) documented several risks working poor families face. Many families are in what she calls "multiple jeopardy": low income, health problems, child problems with school, child behavior problems, child disabilities, problems with transportation, and the time crunch. Within the context of a global, 24-hour economy, low-income parents often must work irregular shifts to accommodate employers' needs, but lose time with their families and struggle to find adequate child care for off-peak

hours. In addition, most low-income workers receive few basic benefits from their employers, such as health insurance coverage, vacation and sick time, and over time pay. Thus many low-income workers are working long hours with little pay. They struggle to make ends meet, and to meet the social and emotional needs of their families. Yet they are not provided with the security afforded by basic employee benefits.

Given this context, the concept of risk and resilience among rural working poor families is a timely research topic. Lichter and Jayakody (2002) report that most welfare to work programs were developed from an urban-based political and cultural context. Yet rural economies have challenges that are uniquely different than urban challenges.

Working adults in rural populations are challenged by limited employment and education opportunities, long commutes between work and home, childcare concerns, and the need to work multiple jobs to make ends meet (Ames, Brosi, & Damiano-Teixeira, 2003).

Research conducted by the Rural Policy Research Institute's Rural Poverty Research Center (2004) found that welfare reform was accompanied by reduced welfare caseloads and poverty rates and increased employment rates, but not in rural areas. In addition, child poverty and food insecurity rates were higher in rural areas than metro areas (USDA, 2002).

The link between poverty and depression is well documented in the literature, as is the link between depression in mothers and child and family well-being. Both are discussed further in the following sections. However, given the continued lag in poverty rates in rural areas, and the link with depression, it was expected that depression levels in the present study sample would increase from wave one to wave two, and that annual income and perceptual indicators of well-being would decrease.

#### Family Risk and Resilience Framework

The family resilience literature is closely identified with the literature on individual resilience and uses many of the same concepts and definitions. For instance, both sets of literature agree that deeming an individual or a family resilient requires two fundamental judgments: 1) that the person or family under study functions well on some measure, and 2) that the person or family under study experienced significant adversity, whether chronic or acute, and overcame it (Masten & Powell, 2003; Patterson, 2002). In addition, both sets of literature emphasize resilience as a dynamic process through which competent functioning is the outcome despite adverse situations (Luthar, Cicchetti & Becker, 2000; Patterson, 2002; McCubbin, McCubbin, Thompson, Han & Allen, 1997).

Resilience is multidimensional and heterogeneous in nature. Individuals and families face varying risks, possess varying personal or family-level attributes, and have access to a variety of support resources. In addition, resilience processes occur over time and within a developmental context. Thus, within the context of adversity, individual and family functioning varies across developmental and family function domains (Luthar, Cicchetti & Becker, 2003; Patterson, 2002). For instance, an individual who has experienced prolonged poverty may function competently within cognitive and language domains, but struggle with emotional and social domains during adolescence. The same person may overcome the emotional and social struggles related to adolescence and function differently in adulthood. Similarly, families who have experienced poverty may function well within the nurturing and protection domains of family functions, but struggle with membership and economic support functions when their children are young.

However, when their children have grown past the age when childcare is needed, the family may develop competence in other areas.

Evidence and patterns of competent functioning among young people who have grown up in poverty have been well documented, along with the individual and family factors that are often associated with poverty (Cauce, Stewart, Rodriquez, Cochran, & Ginzler, 2003; Owens & Shaw. 2003; Reynolds & Ou, 2003; Seidman & Pedersen, 2003; and Wyman, 2003). Parental depression is another factor that has been identified in the resilience literature as associated with individual risk or resilience among children and youth (Brown, Brody & Stoneman, 2000; Hammen. 2003; Hammen & Brennan, 2003; Jackson, 1998; Luthar, D'Avanzo & Hites, 2003). It is important that this study examine factors associated with maternal depression among this sample of rural working poor families within a family resilience framework, given the potential ramifications of maternal depression on the development and well-being of the mother and other family members.

#### The role of perceptions and maternal depression

Individual and family level perceptions and capabilities are important to resilience. Several models have been developed that incorporate family perceptions, or appraisals, of stressors, crises, and capabilities for adjusting to them. The Circumplex Model of Marital and Family Systems presents a map which can be used to characterize family types (patterns of interactions) along three dimensions: cohesion, adaptability, and communication (Olson, 1993). According to this model, the processes families use to handle stress and crisis, as well as normative family demands, are influenced by their

family type (varying levels of family cohesion and adaptability). The family's perception of the situation and use of family resources (capabilities) interact with family type to influence adaptation of the family system (Lavee & Olson, 1991).

The Double ABCX Model of Adjustment and Adaptation (McCubbin & Patterson, 1983) focuses on the ways in which stressor events interact with family perceptions of the stressor, along with family resources, to produce a level of adjustment or crisis. What may follow over time is a pile up of stressors and demands which interact with new family perceptions and new and existing resources to produce maladaptation or bonadaptation.

Similarly, the Family Adjustment and Adaptation Response (FAAR) Model emphasizes families' meaning making processes (perceptions) to balance family demands with family capabilities to achieve a level of adjustment. If adjustment is not achieved, or if there is a pile up of demands, a crisis may occur which would necessitate new meanings of the situation in order to balance new demands with new and existing capabilities. Families must make changes in the family's structure and relational processes in order to facilitate bonadaptation.

These models have been used to study the importance of perceptions and capabilities among families who have faced significant risk and emerged resilient, such as families affected by war (McCubbin, McCubbin & Thompson, 1983), families raising children with serious illness or disabilities (Patterson, 2000), as well as families experiencing normative stresses and strains (Lavee & Olson, 1991). Canary, Stafford, and Semic (2002) examined resilience in marital relation processes and found that perception of maintenance strategies plays an important role in understanding relational

characteristics. DeJong, Chamratrithirong, & Tran (2002) found that the perception of life satisfaction among migrant families in Thailand is influenced by the migrant lifestyle.

Other recent research has shown that self-reported perceptions of maternal depressive symptoms are associated with reduced or loss of welfare benefits and food stamps, food insecurity, and child health problems (Casey, Goolsby, Berkowitz, Frank, Cook, Cutts, et.al, 2004). Among samples of rural Hispanic migrant workers, parental depression was predicted by subjective perceptions of not having enough money and unstable employment, rather than low income per se (Hovey & Magaña, 2002; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003).

It is clear that perceptions play a key role in the ability to "bounce back" from crisis. This study focuses on several perceptual variables in order to understand the role they play in predicting changes in maternal depression. Such variables will include life satisfaction, income adequacy, parental confidence, and parental support.

# The role of depression

In the context of rural poverty and welfare reform, maternal depression can be viewed as an outcome or response to stress processes brought on by economic hardships and strains (Mirowsky & Ross, 1990; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Pearlin & Schooler, 1978; Ross & Mirowsky, 1989; Turner & Lloyd, 1999a, 1999b), or it can be viewed as a contributor to child adjustment problems (Brown, Brody & Stoneman, 2000; Casey, Goolsby, Berkowitz, Frank, Cook, Cutts, et. al., 2004; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003; Hammen, 2003; Hammen & Brennan, 2003; Jackson, 1998; Luthar, D'Avanzo & Hites, 2003), and family

functioning, such as problems associated with food insecurity (Casey, Goolsby, Berkowitz, Frank, Cook, Cutts, et. al., 2004; Olson, Anderson, Kiss, Lawrence, & Seiling, 2004; Siefert, Heflin, Corcoran & Williams, 2004). For the scope and purposes of this study, it is important to understand the role of depression as a response to the economic hardships and strains brought on by the challenges of rural life and welfare reform.

Depression is often used in the resilience literature as an outcome variable or manifestation of stress in order to examine the protective factors and processes that may lead to positive adaptation. Like resilience, depression is heterogeneous and multidimensional in nature. Depression combines with differing types of stressors to affect different segments of the population in different ways.

Pearlin and associates helped pave the way for understanding depression as a response to stress. In the stress process model (Pearlin, Menaghan, Lieberman & Mullan, 1981), depression was viewed as an outcome or manifestation of stress in which discrete life events (acute or chronic) trigger associated life strains or role strains and decreases in self concepts (mastery and self-esteem). In their model, individuals may employ coping responses or utilize social supports in order to avoid or minimize the distress brought about by the life event. The coping responses discussed involved individuals' use of comparative, or positive, framing, and valuation or devaluation of economic achievements. The first type of response involves the reframing of resources or circumstances such that one sees the present condition as an improvement over the past, or better compared to someone else.

Similarly, the structure of coping model (Pearlin & Schooler, 1978), describes coping resources and coping responses. Coping resources refer to what a person has available to them for developing a coping repertoire. Such resources include social resources and support networks, and psychological resources (self-esteem, self-denigration, mastery, denial). Coping responses refer to the behaviors and cognitions a person engages to deal with life situations. The three types of coping responses include responses that change the situation, responses that control the meaning of the situation, and responses that control the stress. The concepts and processes presented in the stress and coping models can be viewed similarly to the perceptions or meaning making concepts discussed in the resilience literature.

Within the broader society, the distribution of depression and the array of available coping behaviors and resources are partly explained by social status (Turner & Lloyd, 1999b). Perceived control and active problem solving have been found to be more prevalent among people with higher incomes and education levels (Ross & Mirowsky, 1989). The availability of positive self concepts, such as mastery and self-esteem, as buffers to depression are distributed by socioeconomic status. That is, people with higher socioeconomic status are more likely to have mastery and self-esteem available to them as buffers, and are thus less likely to suffer depression. Conversely, low socioeconomic status is associated with lower sense of mastery and self-esteem and higher depression (Turner & Lloyd, 1999a). Having a sense of control over outcomes (good and bad) is also associated with depression, and is also found to distribute according to socioeconomic status (Mirowsky & Ross, 1990).

Within families, the precursors to depression are different for husbands and wives. Economic hardship influences how well husbands and wives are able to fulfill their role obligations (Ross & Huber, 1985), which influences depression levels. For husbands, depression levels and successful role fulfillment is associated with his earnings. Wives' depression levels and successful role fulfillment is associated with her education level and the number of children in the home. The authors suggest that education is a more important component of socioeconomic status for women than income because it helps women successfully meet role obligations in the home. The authors found that childrens' presence increases both parents' depression levels by increasing economic hardship. However, childrens' presence also decreases mothers' depression levels, possibly indicating successful role fulfillment.

Various individual level, family level, and societal level factors have been identified in the literature as important to maternal depression. These factors can be conceptualized within the stress and coping models discussed previously in this section. Poverty and associated economic hardships are discussed in much of the literature on maternal depression as life events which trigger strains and coping responses (Brown, Brody & Stoneman, 2000; Casey, et.al., 2004; Coiro, 2001; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003; Ennis, Hobfall & Schroder, 2000; Jackson, 1998, 1999; Jackson & Huang, 1998; Ross, 2000; Siefert, Heflin, Corcoran, & Williams, D. 2004; Taylor, Rodriguez, Seaton, & Dominguez, 2004). The present study also discusses poverty, within the context of rural life and welfare reform, as a life event which triggers coping responses.

While mastery has been widely used in the literature as a self-concept or psychological resource for coping, as discussed previously (see also Ennis, Hobfall & Schroder, 2000; Siefert, Heflin, Corcoran, & Williams, D. 2004), other variables such as mothers' optimism (Taylor, Rodriguez, Seaton, & Dominguez, 2004) can be conceptualized as self-concepts or psychological resources. In this study, parental confidence is conceptualized as a self-concept, or psychological resource. The well-being of the self is protected via the perception of successful fulfillment of the parenting role.

Coping resources and coping responses are employed in the stress and coping models to mitigate distress triggered by life events. Social support has been operationalized as a coping resource in research studies to determine its effects on depression, and has received mixed results (Ross & Mirowsky, 1989). In terms of maternal depression, perceived access to social support has been found in some studies to buffer the relationship between life events and levels of depressive symptoms (Coiro, 2001; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003; Ennis, Hobfall & Schroder, 2000). Jackson (1998, 1999) found that instrumental support received by mothers is associated with higher levels of depression. Other studies found that support received from a spouse, non-resident father, or significant other is associated with lower depression levels (Jackson, 1998, 1999; O'Brien, Heron Asay & McCluskey-Fawcett, 1999; Ross & Mirowsky, 1989), especially under circumstances of high risk (Brown, Brody & Stoneman, 2000). Parental support is operationalized in this study as a coping resource because it is a form of social support that is particular to fulfilling the parenting role. Coping responses, as discussed earlier in this section, refer to behaviors and

cognitions for dealing with life situations, and often involve positive framing such that one sees life conditions in a positive light, or as an improvement. In this study, life satisfaction is considered a coping resource because it serves to frame participants' life conditions in a positive light.

The studies discussed in this section were classic for identifying factors and processes associated with depression, but were conducted by national random sampling, and by interviews with metropolitan samples. Within the context of welfare reform, it would be useful to identify factors and processes that may be unique to rural populations.

#### **CHAPTER III**

### RESEARCH METHODOLOGY

### Research Design

This study used data from a multi-state research project titled NC223, "Low Income Rural Families: Tracking their Well-Being and Functioning in the Context of Welfare Reform." The project adopted a multidisciplinary approach to develop an understanding of the challenges and complexities faced by rural low-income families within the context of their communities. The project collected three waves of quantitative and qualitative data over a five year time period from 24 counties in 14 states. This study focused on the sample of rural families who participated in the first two waves of data collection.

The multi-state NC223 study was designed to assess the well-being of rural working poor families within the context of welfare reform. In order to carry out the objectives of the research study, a longitudinal non-experimental survey research design was used, which included purposive samples from one county in each of the participating states. This particular study used quantitative data from the multi-state dataset and was designed to examine associations between maternal depression and individual level indicators of family well-being among low income families living in rural areas.

# Research Sample

The NC223 sample consisted of rural families in 24 counties across 14 states. To be included in the multi-state study, it was required that each family have at least one child 12 years old or younger living in the home. Families also had to be eligible for,

although not necessarily receiving. Food Stamps or the Supplemental Nutritional Program for Women Infants and Children (WIC) at the time of the interviews, or have a poverty ratio less than 200% of the poverty level limit. Preference was given to families with at least one preschool child so that child care arrangements could be studied.

The sample included participants from all geographical regions of the United States: four states in the Western region, five in the Central, two in the Southern, and four in the Eastern region. Compared to rural working families nationwide, the larger NC223 sample (Bauer, 2003) and the current study sample had a higher proportion of rural Latino(a) families (21% for NC223 and 17.1% for the current study, versus 12% nationwide), a lower proportion of White families (68% for NC223, 68.1% for the current study, versus 75% nationwide), and a lower proportion of rural Black families (8% for NC223, 8.4% for the current study, versus 18% nationwide). Native American families (n=5, 1% for NC223 and current study) were not targeted for recruitment due to complicated circumstances regarding tribal benefits and services.

A purposive sample was selected due to the difficulty in obtaining a consistent across state random sample of rural low-income, highly mobile families. Most states recruited participants through food programs or other educational programs for low-income families within the identified counties. Interviews were conducted face-to-face with the woman in the family for about two hours using a semi-structured protocol. Interviews took place in family homes, places of work, or community centers.

Three waves of interviews were conducted and included 433 participants for wave one and 315 participants for wave two. Data for wave three are still being collected in some states. Attrition among those in the sample occurred for several reasons. One state

dropped from the study before wave two data were collected. Some participants from wave one did not meet the sampling criteria to be interviewed for wave two (they were no longer eligible to receive assistance, their incomes rose above the 200 percent poverty limit, or their youngest child matured over the 12 year old age limit). Last, many participants could not be contacted for the second wave of interviews, because they had moved. The sample for the present study included families who participated in both waves one and two (254) and whose income level at wave one was below 200 percent of the poverty limit. Families whose income levels were below 200 percent of the poverty lime in wave one, but rose above it in wave two, were still included in this study.

Though the family was defined as the unit of analysis for the larger national study, the women in the families were interviewed. Thus respondents were all females. Ethnic representation in this sample is similar to the larger study, with a higher proportion of Latino(a) families. The average age of participants when they entered the study was 29 years old.

#### **Research Instruments**

The larger NC223 study collected a comprehensive and broad range of measures to begin to understand the effect of welfare reform on rural populations. This study focused on measures that could be used to understand individual level family risk and resilience processes among rural working poor families in the United States. Measures for this study included the following:

#### Dependent variable

Maternal depression (n = 254), was measured using the Center for Epidemiologic Studies' Depression Scale (CES-D), which was designed to measure symptoms of depression in the general public. It was found to have high internal consistency and adequate test-retest repeatability, and evidence of construct validity. By clinical and self-report criteria, the scale was found to have concurrent validity. The properties hold across Black and White English-speaking American subpopulations, across both sexes, a wide age range, and SES. Participants were asked to rate how often they experienced certain feelings within the last week. Responses ranged from "rarely or none of the time" (coded as 0) to "most or all of the time" (coded as 3). Sample items included: "I could not shake the blues," "I had crying spells," and "I felt depressed." The 20-item inventory has a reported Cronbach's alpha of .82 (Radloff, 1977). Cronbach's alpha for this study was .89 for wave 1 and .90 for wave 2. Scores are totaled for all items, resulting in a continuous score ranging from 0 to 36. Radloff indicates an arbitrary cutoff score of 16, which is the cutoff score commonly used in other large studies such as the National Longitudinal Study of Youth (NLSY).

#### Independent variables

- Life satisfaction (n = 254), a one-item nominal measure that asked participants how satisfied they were with their lives. Responses were coded on a one-to-five Likert-type scale, ranging from "very dissatisfied" (low) to "very satisfied" (high).
- Income adequacy (n = 254), a one-item nominal measure to determine participants' perceptions of the adequacy of the families' income. The item was consistent with a

Likert-type scale with responses coded from one-to-five. The participants were asked the extent to which they thought their income was enough for their families to live on. Responses ranged from "not at all adequate" (coded as 1) to "can afford about everything we want and still save money" (coded as 5).

- Parental confidence (n = 254), the first of two components of "The Parenting Ladder," a measure constructed by the Oregon State University Family Policy Program (Richards, 1998). Each item of the parenting ladder is scored on a seven point scale in terms of where the participant would put herself on the ladder. A score of 0 means the person places herself at the lowest point on the ladder. A higher score means the participant places herself higher on the ladder, with 6 as the highest point. Parental confidence was conceptualized in this study as self-concept, or psychological resource indicating a perceived level of success in fulfilling the parenting role. Items for the seven-item parental confidence portion asked participants where they perceived themselves on the ladder in terms of, for example: a) knowledge of how children grow and develop; b) confidence that you know what is right for your child; and c) your success in teaching your child how to behave.

  Scores are totaled for all items, resulting in a continuous score ranging from 0 to 42.
- Parental support (n = 254), is the second part of "The Parenting Ladder," as described above. Parental support was conceptualized in this study as participants' perceived access to social relations that could be drawn from for support in fulfilling the parenting role. The six-item parental support portion asks participants about support they perceive that they get from others. Items for the parental support portion ask participants where they would put themselves on the ladder in terms of:

a) other parents to talk to; b) someone to help in an emergency; and c) someone to offer helpful advice or moral support. Scores are totaled for all items, resulting in a continuous score ranging from 0 to 36.

### **DATA COLLECTION**

Two hour interviews were conducted face-to-face with the woman in the family using a semi-structured protocol. Interviews took place in family homes, places of work, or community centers. Twenty-four of the interviews were conducted in Spanish.

### Analyses

There were four steps to analyzing the data collected from the measures listed in the previous section. The steps are listed below and organized by the research questions:

**Research Question #1:** Do scores for individual level factors change significantly between waves one and two for the study sample?

Analysis Step #1: Descriptive procedures were conducted for the dependent variable and each of the independent variables for waves one and two.

Analysis Step #2: New change score variables were created for the dependent variable and each of the independent variables by subtracting wave one scores from wave two scores. One sample t-tests were then computed to determine whether there were significant changes from wave one to wave two. The new change variables were treated as continuous variables for all other analyses.

**Research Question #2:** Which of the changed individual level factors are associated with changes in maternal depression?

Analysis Step #3: Bivariate correlation procedures were conducted to determine associations among the change scores for maternal depression and change scores for each of the independent variables, and for all pairs of the change scores of the independent variables. A correlation matrix was produced.

**Research Question #3:** Which of the changed individual level factors predict changes in maternal depression?

Analysis Step #4: Multiple linear regression analyses were conducted to determine which of the change scores for the independent variables were predictive of changes in maternal depression scores.

Analysis Step #5: Path analyses were conducted for each of the regression models from Step 4 to illustrate the predictive contributions of the independent variables.

### **HYPOTHESES**

The following hypotheses are presented, framed within the context of welfare reform, and directed by human ecological theory:

H1: Participants' perceptions of their depression levels will increase from wave one to wave two.

H2: Participants' perceptions of life satisfaction will decrease between waves one and two.

H3: Participants' perceptions of family income adequacy will decrease between waves one and two.

H4: Participants' perceptions of parental confidence will decrease between waves one and two.

H5: Participants' perceptions of parental support will decrease between waves one and two.

H6: Changes in maternal depression levels will be negatively correlated with changes in life satisfaction, family income adequacy, parental confidence, and parental support.

H7: Changes in participants' perceptions of life satisfaction, family income adequacy, parental confidence, and parental support will predict changes in maternal depression levels.

#### **CHAPTER IV**

### RESULTS

# Demographic Characteristics of the Sample

Demographic characteristics of the participants were obtained during the first wave of interviews and were updated during the second wave. A summary of sample characteristics is presented in Table 1. Frequencies were run for each demographic variable, which gave percentages, the mean, and the standard deviation. Data collected during interviews provided information about participants' age, household income, ethnicity, level of education, marital status, and employment status.

The number of participants in the first wave included 433 women, and the second consisted of 315 women. Attrition among those in the sample occurred for several reasons. One state dropped from the study before wave two data were collected. Participants from another state participated in wave one, but did not complete all of the measures. Those participants also dropped from the study before wave two data were collected. Some participants from wave one did not meet the sampling criteria to be interviewed for wave two (they were no longer eligible to receive assistance, or their youngest child matured over the 12 year old age limit). Last, many participants could not be contacted for the second wave of interviews, because they had moved.

Tables 13 & 14 (located in Appendix A) provide descriptive analyses of the portion of participants who dropped from the study. Table 13 describes a smaller portion of women who dropped from the study, and did not complete all of the study measures (n = 18). Fifteen of those women were from the same state, and were a sample of grandmothers who were raising their grandchildren. Therefore the mean age of the

smaller sample was much older (51 years old) than the study sample and the other women who dropped. Only two women from the smaller dropped sample were under 40 years old. Most of the women from the smaller dropped sample were White (83.3%) or African American (11.2%). Most were married (67%), and half were employed. Over half of the smaller sample did not graduate from high school (61%). This smaller portion of women had a higher average income (\$20,090) compared to the larger dropped sample (\$14,395) and the study sample (\$14,348). There was no depression data for the smaller dropped sample. However, three of the women completed the other study variables. All three were either satisfied or very satisfied with their lives. One perceived her family income was only adequate to meet necessities. Another perceived her family income as adequate to afford some things; and the other perceived her income as adequate to afford about everything the family wanted. The average parental confidence score for the three women was 30.3, which was slightly lower than the larger dropped sample (31.8) and the study sample (31.0). Perceived parental support for the three women was also lower (23.3) than the larger dropped sample (26.4) and the study sample (27.1).

Table 14 describes the larger sample of women who dropped from the study after wave one, and completed the study measures (n = 112). Compared to the present study sample, there were a higher percentage of women who dropped from the study who were of Hispanic or African American origin (21.6% and 11.7% respectively). The larger sample of women who dropped from the study had a lower level of education; almost half (45.0%) had not earned a GED or high school diploma. There was a higher percentage of mothers who were either single parents or married (31.3% and 46.4% respectively), and fewer who were divorced (1.8 versus 12.6). Table 14 reports a mean

age of 27, which is comparable to the study sample (29 years old). The incomes of this larger sample of women who dropped from the study had comparable annual household incomes to the study sample (\$14,395 versus \$14,348). Compared to the study sample, the women who dropped from the study reported fewer depressive symptoms, with a wave one mean depression score of 16.1 compared to 18.1 for the study sample. However, this should be interpreted with caution since 16.6 is still within the established cutoff score of 16 (Radloff, 1977). Analyses also show that the larger dropped sample reported similar life satisfaction (3.8), income adequacy (2.5), parental confidence (31.8), and parental support (26.4), compared to the study sample.

The total number of participants for the present study consisted of 254 women who participated in both waves of data collection, and who did not have missing data for the study variables for both waves. The age of participants ranged from 17 years to 52 years, with a mean age of 29. Compared to rural poor families nationwide, as described in Chapter III, this sample had a higher proportion of rural Latina women (17.1%), a lower proportion of White women (68.1%), and a lower proportion of rural Black women (8.4%). The sample also included a small proportion of Native American women (1.2%), and those who consider themselves multi-racial (4.8%).

In this study, 5.5% of the participants attended school up to the eighth grade, while 19.8% attended high school, and 28.2% of the participants earned a high school diploma or GED. Approximately 27% obtained some college education, while 2% completed a college degree or obtained graduate level education.

Table 1. Participants' Demographic Characteristics (N = 254)

	Percent	Mean	SD
Participant's age		29	7.2
Participant's household income			
Year 1		\$14,348	\$8,905
Year 2		\$22,127	\$14,721
Participant's ethnicity			
Non-Hispanic White	68.1		
Hispanic/Latino	17.1		
African American	8.4		
Native American	1.2		
Multi-racial	4.8		
Other	0.4		
Participant's education			
8 <sup>th</sup> grade or less	5.5		
Some high school	19.8		
High school or GED	28.2		
Specialized training	15.4		
Some college, no degree	27.3		
College graduate	2.0		
Some post graduate/Graduate degree	0.8		
Participant's marital status	Wave 1	_	Wave 2
Single	24.0	_	22.1
Married	40.6		43.1
Living with partner	15.4		18.2
Divorced	12.6		10.7
Separated	7.5		5.9
Employment status			
Employed	52.8		60.6
Unemployed	47.2		39.4

Since this study considered participants' well-being over a period of time within the context of welfare reform, it was important to consider marital status, employment status, and household income at both waves of data collection. At the time of the first wave of interviews, 24% of the women were single, 40.6% were married, 15.4% were

living with a partner, and 20% were separated or divorced. By wave two there was an increase in the amount of participants who were married (43.1%) or living with a partner (18.2%), while 22.1% were single. Sixteen percent were divorced or separated.

Among those who participated in both waves, employment status rose, from 52.8% of participants employed at wave one, to 60.6% employed at wave two. Average annual household income levels also rose over the one year period for this sample; from a mean of \$14,348 at wave one to a mean of \$22,127 at wave two. The income increase may be related to the increase in employment status, as reflected in the bivariate analysis (Table 4), or may be related to more participants being married or with a partner in wave two. However, there may be other factors related to increased income that are beyond the scope of this study.

Research Question 1: Do scores for individual level factors change significantly between waves one and two for the study sample?

Descriptive procedures were run for the dependent variable (maternal depression) and the independent variables (life satisfaction, income adequacy, parental confidence, and parental support) for both waves, including means and standard deviations.

Descriptive statistics are presented as percentages in Table 2. Results of one-sample *t*-tests comparing the two waves are presented in Table 3.

On the average, participants reported fewer depressive symptoms from wave one (18.1%) to wave two (15.1%, t = -4.60. p < 05). Life satisfaction among participants increased slightly from 3.6% to 3.9%, but statistically significant (t = 5.05, p < .05), as did income adequacy from 2.4% to 2.8% (t = 6.54, p < .05). In addition, participants

Table 2. Descriptive Data for Study Variables (N = 254)

Measure	Wa	ve 1	Wave 2		
	Mean	SD	Mean	SD	
Maternal depression	18.1	11.4	15.1	11.1	
Life satisfaction	3.6	.96	3.9	.83	
Income adequacy	2.4	.88	2.8	.95	
Parental confidence	31.0	4.7	30.9	5.0	
Parental support	27.1	7.6	28.0	6.4	

Because this study was concerned with examining associations between changes in individual level factors of family risk and resilience over time, change scores were created for maternal depression and each independent variable. Change scores also were created for three demographic variables (marital status, employment status, and annual

household income) which are included in multivariate analyses described later in this chapter. Change scores were created by subtracting wave one mean scores from wave two mean scores. Table 3 presents a summary of one-sample *t*-tests for the change scores.

Table 3. Descriptive Data for New Change Variables and One-Sample T-Test for Differences Between Waves One and Two

Change variable (w2 score – w1 score)	Mean	t-value	df	P value
Change in depression	-3.03	-4.60	253	.000
Change in life satisfaction	.30	5.05	253	.000
Change in income adequacy	.41	6.54	253	.000
Change in parental confidence	08	27	253	.785
Change in parental support	.81	1.81	253	.071
Change in marital status	03	55	252	.582
Change in employment status	.08	2.61	253	.010
Change in annual income	7779.31	8.66	253	.000

Based on the scores for the change variables, categorical variables were created to examine participants' changes in depression and among the independent variables more closely. Depression change scores of negative one or lower indicated improvement in depressive symptoms (wave two depression levels were lower than wave one levels), scores of zero indicated that the number of depressive symptoms did not change between waves, and scores of one or higher indicated more depressive symptoms at wave two. Conversely, for the independent variables, change scores of one or higher indicated improvement (wave two scores were higher than wave one), zero reflected no change, and change scores of negative one or lower reflected a worsening of well-being. Table 4

displays the frequencies and percentages of the participants who improved between waves one and two on the study variables, those who stayed the same between waves, and those who reported a worsening of mental well-being from wave one to wave two. While many women experienced worsening depressive symptoms (35%), over half experienced improvement or reported the same number of depressive symptoms. Approximately half of the women reported the same level of life satisfaction for both waves, while 37% reported an improved sense of life satisfaction, and 15% reported a lower sense of life satisfaction. Perceptions of income adequacy remained unchanged or improved for most of the participants. Changes in parental confidence and parental support were similar in nature. A small percentage of participants felt the same at wave two as they did at wave one, while almost half either improved or worsened. Last, most participants' annual incomes increased from wave one to wave two (72%). These categorical change variables are not used in further analysis for this study, but were used to examine the changes between waves more closely.

Table 4. Percentages of participants who improved, stayed the same, or worsened along the study variables

Variable	# Improved (%)	# Same (%)	# Worse (%)
Depression	156 (61.4%)	9 (3.5%)	89 (35.0%)
Life Satisfaction	94 (37.0%)	122 (48.0%)	38 (15.0%)
Income Adequacy	107 (42.1%)	115 (45.3%)	32 (12.6%)
Parental Confidence	126 (49.6%)	22 (8.7%)	106 (41.7%)
Parental Support	128 (48.4%)	18 (7.1%)	113 (44.5%)
Annual Income	182 (71.7%)	1 (.4%)	71 (28%)

Because mean depression scores improved by only 3 symptoms between waves, and wave two mean depression scores were so close to the clinical cutoff of 16, Table 5 was created to examine more closely participants' movement along the depression continuum between waves. Total depression scores for each wave were converted to categorical variables where total scores of zero to nine indicated the participants were not depressed, scores of 10 to 15 indicated mild depression, 16 to 24 reflected moderate depression, and scores 25 and above indicated severe depression (as discussed in Seligman, 1998). Table 5 reveals that, of the 62 women who were not depressed in wave one, 17 experienced increased depressive symptoms by wave two, 5 of them increasing to above the cutoff of 16. Of the 57 women who were mildly depressed in wave one, 24 improved to the nondepressed category, 19 remained mildly depressed and 14 experienced increased depressive symptoms by wave two. Of the 57 women who were moderately depressed in wave one, 35 improved to below the 16 cutoff, 24 remained moderately depressed, and 12 worsened to the severely depressed category. Last, of the 63 women in the severely depressed category in wave one, 20 improved to below the cutoff, 17 improved to the moderately depressed category, and 26 remained severely depressed. When looking at the total number for each category, one can see that the numbers of women in each category was fairly evenly distributed, with more in the moderately depressed range, and then by wave two the pattern became more skewed toward the nondepressed and mildly depressed end of the continuum.

Table 5. Crosstabulation of Depression Categories for W1 and W2 (N = 253)

	Wave 2 Depression Categories & Frequencies						
W1 Depression Categories &	Nondepressed	Mildly depressed	Moderately depressed	Severely depressed			
Frequencies	n = 93	n = 63	n = 58	n = 40			
Nondepressed n = 62	45	12	4	1			
	48.9%	19.0%	6.9%	2.5%			
Mildly depressed n = 57	24	19	13	1			
	26.1%	30.2%	22.4%	2.5%			
Moderately depressed $n = 71$	16	19	24	12			
	17.4%	30.2%	41.4%	30.0%			
Severely depressed n = 63	7	13	17	26			
	7.6%	20.6%	29.3%	65.0%			
Total	92	63	58	40			
	100%	100%	100%	100%			

Note: Pearson Chi-Square = 92.98; p < .05

Research Question 2: Which of the changed individual level factors are associated with changes in maternal depression?

Three separate bivariate correlation procedures were performed. The first two were to test for associations among the study variables at wave one and at wave two, as displayed in tables 6 and 7. The third correlation was performed to test for associations among the changes in the dependent and independent variables.

As reflected in Table 6, wave one depression scores were negatively and significantly correlated with life satisfaction (r = -.48, p < .01), income adequacy (r = -.31, p < .01), parental confidence (r = -.41, p < .01, parental support (r = -.38, p < .01), employment status (r = -.17, p < .01), and annual income (r = -.19, p < .01). According to these results, larger scores for life satisfaction and parental confidence showed the

strongest association with lower wave one depression scores. Interestingly, marital status was not significantly correlated with depression. There were other interesting relationships among the study variables. For example, life satisfaction was not significantly correlated with marital satisfaction or income, however it was significantly associated with perceived income adequacy. Perceived income adequacy was significantly correlated with all of the study variables, including marital status. However, marital status was not correlated with income. A surprising finding is that parental support is not significantly correlated with marital status, but parental confidence was.

Table 6. Bivariate Correlations among Wave 1 Variables (N = 254)

	2	3	4	5	6	7	8
1. Wave 1depression	48**	31**	41**	38**	.10	17**	19**
2. Life Satisfaction		.28**	.29**	.34**	07	.21**	.10
3. Income adequacy			.16*	.14*	20**	.19**	.23**
4. Parental confidence				.40**	14*	.07	09
5. Parental support					03	.12	.03
6. Marital status						.01	02
7. Employment status							.19**
8. Annual income							

Note: \*p<.05 (2-tailed). \*\*p<.01 (2-tailed)

Wave one depression scores were included in the correlation matrix for wave two. Similar to Table 6, Table 7 reflects similar associations between wave two depression and wave two study variables, with a stronger association with life satisfaction (r = -.55, p < -.55)

.01). In addition, wave two depression is significantly and directly correlated with wave one depression. That is, women who were depressed in wave one were likely to be depressed in wave two, and women with lower wave one depression scores were likely to report lower wave two depression scores. An interesting finding in wave two was the significant correlation between parental support and employment status (r = .15, p < .05). This relationship was not significant in wave one. Also in wave two, life satisfaction was significantly correlated with income (r = .19, p < .01), but wasn't in wave one.

Table 7. Bivariate Correlations among Wave 2 Variables, and Including Wave 1 Depression Score (N = 254)

Depression Score (14	234)							
	2	3	4	5	6	7	8	9
1. Wave 2 depression	.57**	55**	36**	42**	35**	.09	27**	20**
2. Wave 1 depression		37**	23**	28**	29**	.09	26**	06
3. Life Satisfaction			.46**	.38**	.22**	12	.27**	.19**
4. Income adequacy				.24**	.18**	14*	.28**	.39**
5. Parental confidence					.38**	12	.19**	.02
6. Parental support						05	.15*	.02
7. Marital status							08	01
8. Employment status								.27**
9. Annual income	1) ab ab	.01.42	-11 15					

Note: \*p<.05 (2-tailed). \*\*p<.01 (2-tailed)

Finally, bivariate correlation procedures were performed to test for associations among changes in the dependent and independent variables. Results presented in Table 8

show that decreases in maternal depression were significantly correlated with increased life satisfaction (r = -.34, p < .01), income adequacy (r = -.15, p < .05), parental confidence (r = -.34, p < .01), and parental support (r = -.17, p < .01). These findings support the fourth hypothesis, which proposed that changes in maternal depression would be negatively correlated with changes in the independent variables.

Fewer maternal depressive symptoms also were significantly correlated with higher income levels (r = -.17, p < .01), a control variable to be used in multivariate analysis. However, changes in maternal depression were not significantly correlated with the changes in the other two control variables, marital status (r = -.01) and employment status (r = -.04).

There were several other interesting correlations among change variables in the study and control variables worth noting. For instance, similar to wave one associations, increased life satisfaction was significantly associated with increases in perceived income adequacy (r = .14, p < .05), but was not significantly associated with higher actual income level. However, increased life satisfaction was significantly correlated with changes in employment status (r = .17, p < .01). Changes in life satisfaction were not significantly correlated with changes in marital status; however, the changes in marital status between waves of data collection were not statistically significant. As expected, changed parental confidence was significantly associated with increased parental support (r = .30, p < .05).

Table 8. Bivariate Correlations among Change Variables (N = 254).

	2	3	4	5	6	7	8
1. Change in depression	34**	15*	34**	17**	01	04	17**
2. Change in life satisfaction		.14*	.30**	.25**	10	.17**	.10
3. Change in income adequacy			.10	.03	10	.27**	.34**
4. Change in parental confidence				.30**	01	01	.05
5. Change in parental support					.03	.00	.04
6. Change in marital status						.08	11
7. Change in employment status							.30**
8. Change in income level							

Note: \*p<.05 (2-tailed). \*\*p<.01 (2-tailed).

Research Question 3: Which of the changed individual level factors are predictive of changes in maternal depression?

Results from the analyses thus far do not support hypotheses one, two, three, and five. Given the context of welfare reform, it was expected that maternal depression would increase, and the independent variables would decrease from wave one to wave two. From a risk and resilience perspective, these unexpected findings provided an opportunity to take a closer look at which factors predicted decreased depression scores. Therefore, four separate hierarchical multiple regression analyses were performed in order to critically examine the factors that contribute to maternal depression in wave one, in wave two, the factors which predicted *changes* in maternal depression levels between

waves one and two, and finally, factors which predicted *decreased* depression scores.

The four separate regression models are presented in this section.

# Regression model 1

Prior to employing the change variables, the first regression analysis was conducted using wave one demographic and independent variables to predict their contribution to wave one depression levels. The multiple regression analysis was performed using the enter method in three steps with the demographic variables entered in the first step.

The first step in Table 9 demonstrates that older participants were more likely to have higher depression levels (standardized beta = .13, t = 2.0, p = .05). However, employment status (beta = -.14, t = -2.3, p = .02), and income (beta = -.18, t = -2.9, p = .004) predicted lower wave one depression levels. In the next step, wave one scores for perceived income adequacy and parental support were added to the regression model. Results indicate participants' perceptions that their incomes are adequate (beta = -.22, t = -2.0, p = .05), and that they received needed parental support (beta = -.33, t = -5.6, p = .000) significantly contributed to lower wave one depression levels. However, the contribution of participants' age and employment status was no longer significant.

In the last step, wave one life satisfaction and parental confidence were added to the model. Both variables were significant contributors to lower depression scores (life satisfaction: beta = -.31, t = -5.4, p = .000; parental confidence: beta = -.27, t = -4.6, p = .000). Also in this step, participants' education became a significant contributor to lower depression scores (beta = -.14, t = -2.7, p = .01). Table 9 demonstrates that the third step

in the model accounted for 40% of the variation in wave one depression scores that was explained by the independent variables ( $R^2 = .40$ , F = 15.8, p = .00).

Table 9. Regression of Depressive Symptoms on Wave 1 Variables (N = 254)

	Step 1	Step 2	Step 3
Participant's age	.13*	.03	.09
Participant's education	11	10	14*
Participant's ethnicity	01	01	01
Marital status	.09	.05	.01
Employment status	14*	06	02
Annual income	18*	12*	16*
Income adequacy		22*	12*
Parental support		33*	12*
Life satisfaction			31*
Parental confidence			27*
$R^2$	.09*	.25*	.40*
F-Ratio	4.2*	9.8*	15.8*

Notes: Depression is regressed on wave 1 demographic variables (Step 1); income adequacy and parental support (Step 2); and life satisfaction and parental confidence (Step 3). Standardized regression coefficients are shown.

# Regression model 2

The second regression analysis was conducted using wave two demographic and independent variables, and wave one depression levels to predict their contribution to

<sup>\*</sup> p<.05

wave two depression levels. The multiple regression analysis was performed using the enter method in four steps with the demographic variables entered in the first step.

The first step in Table 10 demonstrates that employment significantly predicted lower depression scores in wave two (standardized beta = -.22. t = -3.5, p = .001), as did higher income levels (beta = -.13, t = -2.1, p = .04). In the next step, perceived income adequacy and perceived parental support were added to the regression model. Results indicate that the respondents' perceptions that their incomes were adequate (beta = -.25, t = -4.0, p = .000), and their perceptions of parental support (beta = -.29, t = -5.0, p = .000) contributed to lower wave two depression scores. However, the effects of employment status and annual income changed in the second step. Employment status was still a significant predictor, but the magnitude of its effect decreased (beta = -.13, t = -2.1, p = .03), and the effect of annual income on depression was no longer significant (beta = -.06, t = -.90, p = .37).

In the third step, wave two scores for life satisfaction and parental confidence were added to the model. Both variables significantly predicted wave two depression scores (life satisfaction: beta = -.37, t = -6.1, p = .00: parental confidence: beta = -.18, t = -3.2, p = .002). The effects of employment status and perceived income adequacy were no longer statistically significant in predicting wave two depression scores, and the contribution of annual income to the model remained statistically non-significant.

Perceived parental support remained a statistically significant contributor to the model, but its magnitude decreased, suggesting a mediating effect with the addition of the last two variables. Also of interest, the contribution of participants' education levels approached significance in this step (beta = -.10, t = -1.9, p = .054).

Table 10. Depressive Symptoms regressed on Wave 2 Study Variables (N = 254)

	Step 1	Step 2	Step 3	Step 4
Participant's age	.05	.03	.07	.03
Participant's education	09	10	10	06
Participant's ethnicity	10	09	05	05
Marital status	.06	.03	01	01
Employment status	22*	13*	06	01
Annual income	13*	06	08	09
Income adequacy		25*	07	06
Parental support		29*	17*	12*
Life satisfaction			37*	28*
Parental confidence			18*	15*
Wave 1 depression score				.35*
$R^2$	.113	.262	.417	.511
F-Ratio	5.1*	10.6*	16.9*	22.4*

Notes: Depression is regressed on wave 2 control variables (Step 1); income adequacy and parental support (Step 2); life satisfaction and parental confidence (Step 3); and wave 1 depression (Step 4). Standardized regression coefficients are shown. \* p<.05

In the last step, wave one depression scores were added to the model and were found to significantly predict wave two depression (beta = .35, t = 6.7, p = .000). In this step, parental support, parental confidence, and life satisfaction remained significant contributors to the model. Interestingly, income and perceived income adequacy were not significant contributors in the third and fourth step. The magnitude of education's effect decreased with this step and did not contribute to the model. Table 10 demonstrates that the fourth step in the model accounted for 51% of the variation in

wave two depression scores that was explained by the independent variables ( $R^2 = .511$ , F = 22.4, p = .000).

# Regression model 3

The third regression analysis employed the change variables that were presented in Tables 3 and 8. This was done in order to determine which of the independent variables (*changes* in life satisfaction, income adequacy, parental confidence, and parental support) were predictive of *changes* in maternal depression, regardless of the direction of change. In addition, demographic variables such as participants' ages, education levels, ethnicity, and changes in marital status, employment status, and annual income were included in the regression model as control variables.

This regression analysis was performed using the enter method in three steps with the demographic variables entered in the first step. Table 11 demonstrates that changes in annual income predicted changes in maternal depression. When annual income increased, maternal depressive symptoms decreased, and the relationship was statistically significantly (standardized beta = -.18, t = -2.65, p = .009).

In the next step, changes in income adequacy and parental support were added to the regression model. Results show that increases in perceived parental support are predictive of decreased maternal depression symptoms (beta = -.16, t = -2.5, p = .015). Increased annual income remains a statistically significant predictor; however its magnitude and significance level decreased with this step. For the third step, changes in life satisfaction and parental confidence were added to the model. As Table 11 illustrates, increases in perceived life satisfaction and perceived parental

Table 11. Regression of Changed Depressive Symptoms on Change Variables (N = 254)

	Step 1	Step 2	Step 3
Participant's age	07	03	02
Participant's education	.01	.00	03
Participant's ethnicity	09	09	05
Change in marital status	04	04	06
Change in employment status	.00	.03	.05
Change in annual income	18*	14*	14*
Change in income adequacy		11	07
Change in parental support		16*	02
Change in life satisfaction			24*
Change in parental confidence			25*
Wave 1 depression score			
$R^2$	.040	.086	.21
F-Ratio	1.8	2.4*	6.3*

Notes: Depression is regressed on changes in control variable (Step 1); changes in income adequacy and parental support (Step 2); and changes in life satisfaction and parental confidence (Step 3). Standardized regression coefficients are shown. \* p<.05

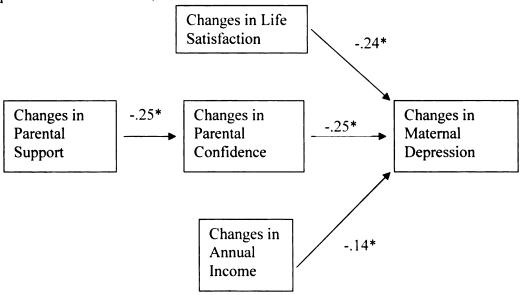
confidence are statistically significant predictors of decreases in reported maternal depressive symptoms (change in life satisfaction: beta = -.24, t = -3.8, p = .000; change in parental confidence: beta = -.25, t = -4.0, p = .000). Increased annual income remains a significant predictor in this step as well. However, increased

perception of parental support is no longer a statistically significant contributor to the changes in maternal depression in this step, suggesting a mediating relationship between changes in parental support and the last two variables entered. According to Table 11,

the third step accounts for 21% of the variation in the dependent variable (changes in maternal depression) that is explained by the independent variables ( $R^2 = .21$ , F = 6.3, p = .000). These findings provide partial support for hypothesis seven, which proposed that changes in life satisfaction, income adequacy, perceived parental confidence, and perceived parental support would negatively predict changes in maternal depression levels.

Path analysis (presented in Figure 2) was conducted to isolate the predictive contributions of interrelated independent change variables toward changes in depression scores. The results demonstrate that changes in parental confidence, life satisfaction, and annual income had direct effects on changes in maternal depression. Effects of changes

Figure 2. Path model of individual level factors associated with changes in maternal depression



Standardized beta coefficients are presented in the path model.

p < .05

in parental support on changed depression scores were mediated by changes in parental confidence. Participants' education levels and changes in employment status and perceived income adequacy were not statistically significant contributors to changes in depression.

# Regression model 4

Within the context of welfare reform it was hypothesized that depression levels would increase, income levels would decrease, and that individual level perceptual factors would decrease (hypotheses one, two, three, and five). The data presented in this study did not support these hypotheses. Instead, the first two analyses indicated the opposite. Depression levels decreased, and annual income increased, as did the individual level perceptual factors of life satisfaction, income adequacy, and parental support.

However, the study of risk and resilience is concerned with identifying factors and processes that contribute to improved or competent functioning in families and individuals despite having faced significant adversity, such as the challenges presented by rural poverty. Therefore, it was important in this study to take a closer look at the portion of mothers in the study sample whose mental well-being improved such that their reported depression scores by wave two fell below the CES-D cut-off of 16 (Radloff, 1977), and which change variables predicted the improved depression scores. This regression analysis employs the same change variables, and the same steps as in *Regression model 2*, but with the smaller proportion of participants reporting decreased depression scores to below the cut-off (N = 119).

The first step employs the demographic variables (participant's age, education, and ethnicity, and changes in marital status, employment status, and annual income). Table 12 shows that increased annual income was the only demographic variable which significantly predicted decreased depression scores (beta = -.22, t = -2.07, p = .04). Changes in perceived income adequacy and parental support were added in step two. The results indicate that neither were predictive of decreased depression, however, the effect of annual income changed so that its magnitude was slightly smaller, and it was not significant (beta = -.21, t = -1.85, p = .06).

Earlier, table 3 showed a decrease in perceived parental confidence between waves that was not significant (supporting hypothesis four for the larger study sample of 254 women); however, perceived parental confidence was associated with depression in the correlation tables, and has been a significant contributor in each regression model. This warrants further investigation. Therefore another one sample *t*-test was conducted on change in parental confidence from wave one to wave two to determine whether its change was significant for this smaller sample of participants whose depression levels decreased to below the cut-off. Results do confirm statistically significant improvement in perceived parental confidence for those participants whose depression scores decreased to below 16 (t = 2.7, p < .008). Thus, changes in parental confidence was added with changes in life satisfaction to the final step. As Table 12 indicates, both are significant predictors of decreased depression (change in life satisfaction: beta = -.25, t = -2.48, p = .02; change in parental confidence: beta = -.21, t = -2.2, p = .03). In this last step, increased annual income again became a significant contributor to the model (beta = -.23, t = -2.2, p = .03). The third step in the model accounts for 16% of the variation in the

decreased maternal depression that is explained by the independent change variables  $(R^2 = .16, F = 2.0, p = .05)$ .

Table 12. Regression of Decrease in Depressive Symptoms on Demographic and Change Variables (n = 119)

	Step 1	Step 2	Step 3
Participant's age	05	04	04
Participant's education	.03	.02	.10
Participant's ethnicity	03	03	04
Change in marital status	.06	.06	01
Change in employment status	.04	.05	.09
Change in annual income	22*	21	23*
Change in income adequacy		03	01
Change in parental support		02	08
Change in life satisfaction			25*
Change in parental confidence			21*
$R^2$	.05	.056	.16
F-Ratio	1.0	.76	2.0*

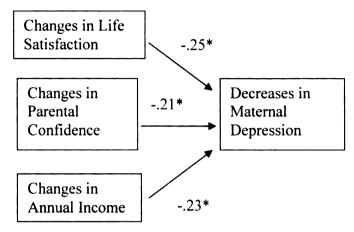
Notes: Depression is regressed on demographic variables (Step 1); changes in income adequacy and parental support (Step 2); and changes in life satisfaction and parental confidence (Step 3). Standardized regression coefficients are shown.

Path analysis (presented in Figure 3) was conducted to isolate the predictive contributions of the change variables toward *decreased* depression scores. The results demonstrate that increases in perceived parental confidence, life satisfaction, and actual

<sup>\*</sup> p<.05

annual income contributed significantly to reducing depression symptoms to below the CES-D cut-off.

Figure 3. Path model of individual level factors associated with decreased maternal depression



Standardized beta coefficients are presented in the path model.

### Summary of Results

This study was designed to understand the nature of family risk and resilience at the individual level, and within the context of welfare reform, by examining factors related to changes in maternal depression among women from rural working poor families across two waves of data collection. The study examined the following change variables: perceptions in life satisfaction, income adequacy, parental confidence, and parental support. In addition, demographic variables (participants' ages, education levels, and ethnicity), and changes in three demographic variables were included in the analyses: marital status, employment status, and annual income. Three research questions related to maternal depression were addressed. Descriptive analyses, crosstabulations, and one-sample t-tests were conducted to examine changes in the study variables between waves

p < .05

one and two. Change variables were created and used in three of the analyses. Pearson Product Moment Correlations were run to determine relationships between and among the outcome and predictor variables. Last, four separate multiple regression analyses were conducted to determine the predictive nature of the independent variables and control variables on wave one depression scores, wave two depression scores, *changes* in maternal depression (regardless of direction of change), and *decreases* in maternal depression (scores that improved to below 16). The significance level chosen was .05.

The results are summarized as follows:

- 1. Contrary to the first five hypotheses, the overall mental well-being of many of the participants improved from wave one to wave two. That is, average maternal depression levels decreased significantly while employment status, annual income, and the perceptions of life satisfaction and income adequacy increased significantly.
- 2. Pearson Product Moment correlations supported hypothesis six. There were statistically significant correlations between decreases in maternal depressive symptoms and increases in annual income, perceived life satisfaction, income adequacy, parental confidence, and parental support.
- 3. Several indicators were significantly related to wave one depression levels, including participants' education, income, perceived income adequacy, parental support, life satisfaction, and parental confidence.
- 4. Perceived life satisfaction, parental confidence, parental support, and wave one depression scores contributed directly to wave two depression scores. Many other variables contributed indirectly. There was a complex relationship among the economic variables. The effects of employment status and actual annual income were mediated by

participants' perceived income adequacy. The effect of perceived income adequacy was mediated when life satisfaction and parental confidence were entered into the model. In addition, participants' education levels combined with parental support and parental confidence to predict wave two depression scores in the third step of the regression model, but not in the fourth step when wave one depression scores were added to the model.

- 5. Hypothesis seven was partially supported by *regression models 3 and 4*. A greater sense of life satisfaction and parental confidence significantly predicted changes in depressive symptoms among study participants. Perceived income adequacy was not a statistically significant predictor of changed or decreased depression, however, increased actual annual income was.
- 6. Changed parental confidence mediated the relationship between changes in parental support and changes in depression.
- 7. Among participants whose depression scores fell below 16 by wave two, the important contributing factors were an increased sense of life satisfaction, increased perception of parental confidence, and a higher actual annual income.

# **CHAPTER V**

# DISCUSSION AND CONCLUSIONS

This study integrated family risk and resilience theory within an ecological framework, as focused on individual level factors. Based on Patterson's FAAR Model of Family Resilience and Adaptation, the results of this study suggested that participants engaged in the active processes of balancing the demands of rural family life with their capabilities (such as their educational levels and perceived parental confidence in fulfilling the parenting role) and effective utilization of resources (higher incomes and sources of parental social support), along with the interaction of meanings (perceived life satisfaction and income adequacy), which predicted improved parental well-being and may influence how well individuals and families adapt to adversity (Canary, Stafford & Semic, 2002; DeJong, Chamratrithirong & Tran, 2002; Lavee & Olson, 1991; McCubbin, McCubbin & Thompson, 1993; McCubbin & Patterson, 1983; Patterson, 2002).

The discussion of the results is presented in three parts. The first part examines key findings from the research, with discussions of factors that were important to the changes and decreases in depression. The second and third parts discuss the limitations and implications of the study.

### **Key Findings**

Economic Factors: Annual Income, Perceived Income Adequacy, and Employment

This study yielded interesting findings on the relationship between the economic factors and depression. Objective economic factors for this study included annual

income and employment status. Participants' perceptions that their incomes were adequate to live on (income adequacy) was the subjective economic factor.

Participants' annual incomes directly influenced their depression levels when the first wave of interviews were conducted, but did not directly contribute to depression levels during the second wave. However the increase in annual incomes between waves was significant in the change regression models. At first glance, these findings appear to be contradictory. Further examination of the descriptive data helps clarify the contradiction.

Analysis of the changes in annual income between waves shows that incomes increased for 71% of the participants. However, depression levels improved for 61% of the participants. This suggests that increased income alone does not lower depression levels. Rather, other factors may act to mediate the effect of higher incomes on wave two depression levels, or they may act independently to directly influence depression. This would be consistent with many studies of depression in which the contribution of income was mediated by other perceptual or resource variables (Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003; Ennis, Hobfall & Schroder, 2000; Hovey & Magaña, 2002; Piescher & Bauer, 2004; Ross & Huber, 1985). For instance, participants' perceptions of income adequacy appeared to mediate the effects of participants' annual incomes. That is, in each regression model, when perceived income adequacy was added, the magnitude of the effects of participants' incomes on depression decreased. A similar pattern emerged with participants' employment status. When perceived income adequacy was added to the first two regression models, the contribution of employment status was decreased. This suggests that being employed and having a higher income is

important for buffering against depression when they influences one's perceptions that one's income is adequate to support a family. Further examination suggests that participants' sense of life satisfaction also plays a mediating role with the economic factors. That is, to the extent that participants reported a higher sense of life satisfaction and felt their incomes were adequate, higher incomes and employment predicted depression levels at wave two.

On the other hand, examination of the contributions of the other study variables finds that perceived income adequacy, parental support, life satisfaction, and parental confidence directly influenced depression levels at both waves in the first two regression models, but only changes in life satisfaction and parental confidence were directly influential with increased incomes in the change regression models. In addition, the change models only accounted for 21% and 16% of the variability in depression. Further examination of the change variables reveals that, although statistically significant, the magnitudes of the changes were not substantial. These findings suggest that the change models were not useful for predicting changes in depression levels among the participants. Instead, as Regression Models 1 and 2 illustrate, participants' mental wellbeing (including depression levels and perceptions of life satisfaction, income adequacy, parental confidence and parental support) at wave one more directly predicted depression levels at follow up (wave two), and that small but significant increases in perceived life satisfaction and parental confidence were important when combined with increased annual income to lower depression levels in many of the participants. This is consistent with other longitudinal studies of depression and mental well-being Dearing, Taylor & McCartney, 2004; Moen, Robison & Dempster-McClain, 19950.

### History of Depression

Analyses of the wave two correlation matrix and regression model reveal that participants' depression levels at wave one were most strongly associated and predictive of depression levels at wave one. Comparisons of depression levels between waves one and two reveal that, although mental health improved for many participants, there remained a substantial portion of women (39%) who were still moderately or severely depressed during wave two interviews. The finding that depression levels at wave two were influenced by depression levels at wave one is consistent with other longitudinal studies (Dearing, Taylor & McCartney, 2004; Moen, Robison & Dempster-McClain, 1995).

# Sense of Life Satisfaction and Parental Confidence

Two of the perceptual variables, sense of life satisfaction and perceived parental confidence, were important in all four regression models for determining depression levels at waves one and two, and for predicting changes in depression levels, and reduced depression levels. The finding that these two perceptual variables, along with increased annual income, contributed to improving mental well-being among participants suggests that, although objective economic factors are important to parental mental well-being, they are not more important than a person's perceptions or appraisals. As discussed previously, this is consistent with the literature on depression that indicates low income alone does not predict parental depression (Hovey & Magaña, 2002; Dennis, Parke, Coltrane, Blacher, & Borthwick-Duffy, 2003).

Parental confidence was conceptualized as a self-concept, or a psychological resource indicating participants' subjective feelings about their ability to successfully fulfill the parenting role. The findings from this study support the importance of feeling successful as a parent for buffering against and decreasing depression, and are consistent with other research on depression (Ross & Huber, 1985; Pearlin, Menaghan, Lieberman & Mullan, 1981). These findings also are consistent with Oltman (2003), who conducted a phenomenological study using the qualitative data set from the larger Rural Families study. She found that participants' relationships, especially relationships with their children, were important for developing a sense of meaning in their lives.

# Perceived parental support

The effect of perceived parental support on depression was mediated by parental confidence. Participants who reported higher parental support in wave two were more likely to report higher parental confidence in their parenting roles, and thus reported lower levels of depressive symptoms. Parental support is a form of social support that specifically supports the parenting role. Other studies on depression have found mixed results regarding the effects of social support on depression. Islam (2004), in her thesis using the same multi-state rural data set as this study, found that mothers with perceptions of high social support reported fewer depressive symptoms. In addition, social support acted as a moderator for participants who had maintained their marital status over time. Conversely, Richards and associates (2004), using wave one qualitative data, found that participants with the lowest levels of depression perceived high levels of social support which had no strings attached (that is, no expectations of reciprocity).

However, those with the highest levels of depression felt that social support came with strings attached. Similarly, Brown, Brody and Stoneman (2000) reported in their study of rural black mothers that support from one's spouse was an important buffer for depression under conditions of significant socioeconomic risk. These studies are consistent with the classic research study on the stress process (Pearlin, Menaghan, Lieberman, &Mullan, 1981) which suggests that social supports act to buffer depression indirectly by reinforcing self-concepts and are most beneficial to those who need it most.

It may be that the benefits of social support for buffering depression depend upon who is the giver of social support, and how the receiver uses it. For example, Ross and Mirowsky (1989) demonstrated that compared to men, women have higher levels of depression, but also have higher levels of social support and are more likely to talk to others about their problems. Talking to others, in their study, was related to increases in depression. However, their findings also indicate that married people have lower levels of depression and higher levels of perceived support than unmarried persons. Similarly, in a study of low-income, single, African American mothers, Jackson (1998) found that instrumental support received from participants' mothers, especially those whose mothers lived with them, was associated with increased maternal depression and parental distress. However, mothers in that sample reported lower levels of depression when they were satisfied with the non-resident father's involvement with their children (Jackson, 1998, 1999). The author defines non-resident fathers' involvement with the children (love, nurturing, and time) as social support received from the non-resident father. The findings from Islam (2004), Ross and Mirowsky (1989), and Jackson (1998, 1999) suggest that support received from a spouse, or other non-resident parent, is more

effective for buffering depression than support received from social networks. Thus the role that social support plays in mitigating depression warrants further investigation to determine the types of social support that are most effective (spousal, family, social networks), and how these types of support are utilized by the receiver to cope with stress and reduce depression.

## Participants' education

Among the objective demographic factors included in this study, age, ethnicity, and marital status were not associated as buffers against depression in any of the regression models. Participants' education levels, on the other hand, was significant at wave one when parental support and parental confidence were added to Regression model 1, and approached significance as a buffer against depression at wave two when parental support and parental confidence were added to Regression model 2. This suggests that parental support and parental confidence have a moderating effect on the relationship between participants' education levels and their levels of depression at wave two. That is, higher education levels may be associated with lower depression levels for women who feel they receive support as a parent, and are confident in their parenting abilities. This is consistent with Ross and Huber's (1985) suggestion that women's education is associated with successful role fulfillment. Education levels did not, however, significantly contribute to changes or improvements in maternal well-being for this sample. A possible explanation may be that women with higher education levels are able to employ more coping mechanisms, and that those coping mechanisms contributed more

directly to improvements in depression than education. This explanation is consistent with Pearlin and Schooler's finding (1978).

#### Limitations of the Research

Family resilience theory was integrated within an ecological framework. Within the scope of this study, the conceptual model provided a good framework for addressing factors related to maternal depression; however the model was incomplete in focusing on the individual level. To complete an ecological model of risk and resilience among rural working poor families within the context of welfare reform, it would be important to consider the family level and environmental level factors the NC223 multi-state database has to offer. The health status of family members, especially of children, is an example of a family level variable that may be associated with maternal depression. Other examples of family level variables from the larger NC223 study that might improve the model include satisfaction with child care arrangements, the number of people living in the home, and the ability to make ends meet. Examples of environmental level variables that could be included in a more comprehensive conceptual model include neighborhood safety, access to community services, access to affordable health care, work environment, and presence, or lack of, basic employment benefits such as health insurance, paid sick leave, and paid vacation.

Another limitation of the study model was the use of the one-item measure, life satisfaction. This one-item measure did not provide a depth of understanding of the construct it represents. For instance, it did not clearly reflect the level of satisfaction participants may have felt across multiple roles such as marital satisfaction, relationship

satisfaction, satisfaction with the mother role, satisfaction with social networks, and satisfaction with one's job. Life satisfaction was an important variable associated with maternal depression levels. Thus learning the various possible dimensions and qualities of life satisfaction would have provided a better understanding of the relationship between life satisfaction and maternal depression.

The resilience literature suggests that shared meanings of challenges and capabilities among family members are central to the concept of family resilience. Information obtained from other household members may have provided a better means for observing the processes by which the sample families created shared meanings and situational appraisals. Also, the current study model would be better served within a research design using mixed quantitative and qualitative methods in order to glean a better understanding of family meaning making in the sample, and to add richness to the model. The multi-state project has available the quantitative data needed to complete an ecological model, and qualitative data to explore meaning making.

Sense of mastery is a concept that is central to understanding resilience.

According to past research, a sense of belief in abilities to develop solutions to manage challenges may be an important component for building protective mechanisms in families (Conger and Conger, 2002; McCubbin, McCubbin & Thompson, 1993; McCubbin & Patterson, 1983; Patterson, 2002). Recent research on families moving from welfare to work has found that a sense of mastery significantly predicted higher earnings and likelihood of working more hours (Danziger, Ananat & Browning, 2004). In addition, research on depression and stress processes emphasize such concepts as optimism, mastery, self-esteem, effective problem solving, sense of control, and ability to

claim responsibility for good outcomes as factors that protect against depression, or help shorten the duration of depressive episodes (Mirowsky & Ross, 1990; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Pearlin & Schooler, 1978; Ross & Mirowsky, 1989; Seligman, 1998; Turner & Lloyd, 1999a, 1999b). The present study conceptualized parental confidence as a protective self-concept, but it may not be sufficient by itself to represent a complete construct of the self-concept. Being a parent is just one part of a person's identity. Use of instruments like the Mastery Scale, may provide a more comprehensive construct for self-concept. Similarly, life satisfaction (a one-item measure) was operationalized as a coping response in the study. This too, appears insufficient as a comprehensive coping response measure, as it does not explain cognitions one might engage to deal with life situations. Future data collection efforts of the larger project should employ more qualitative probing of the parenting confidence and life satisfaction constructs to determine why they are so important for mitigating depression, and to determine how they may be related to other self-concepts and coping responses.

In regard to family processes, little quantitative information was available on the quality of relationships within the family, such as spousal relationships, parent-child relationships, and sibling relationship. A qualitative investigation of attachment and social adjustment would be useful for determining positive family adjustment.

Further, other than child health indicators, there was no information available in the data set about the developmental and educational progress of families' school-age children. For instance, there were no data available indicating whether younger children qualified for or participated in pre-primary or zero-to-five programs. Also, there were no

indicators of whether school-age children participated in special education, emotionally-impaired, or gifted and talented programs in school, or whether there were problems with delinquency, or whether there were special recognitions for achievements. Such information would contribute to a better understanding of individual and family risk and resilience indicators and processes in the local and national sample.

Comparisons of depression levels between waves one and two reveal that, although mental health improved for many participants, there remained a substantial portion of women (39%) who were still moderately or severely depressed during wave two interviews. Therefore, one should not conclude that the general well-being of rural working poor women is on a positive trend. The study sample was purposive in nature and focused on a smaller subset of the population. Therefore, the findings do not generalize across populations. The purpose of this study was to begin examining the changes in depression over time, specifically, those changes that were associated with an improvement in the number of reported depressive symptoms in order to employ a family risk and resilience model. Results from this study indicate that the biggest individual level determinants of changes in mental well-being involve participants' educational levels, increased incomes, baseline depression levels at wave one, and perceptual indicators of successful parental role fulfillment, social support received for the parental role, life satisfaction, and a sense that one's income is adequate to support a family.

In addition, a substantial portion of the wave one sample dropped from the study before wave two data collection. Analyses of descriptives statistics revealed that the women who dropped from the study were less educated, but were comparable to those who didn't drop in terms of age, household income, life satisfaction, parental confidence,

and parental support. On the other hand, the women who dropped from the study reported fewer depressive symptoms. A small portion of the women who dropped from the study did not complete all of the wave one study measures that were used in this current study. For example, one state's sample consisted of grandmothers raising grandchildren, in which the measures for depression, life satisfaction, parental confidence, and parental support were excluded during wave one interviews. Therefore, this smaller sub-sample of women could not be compared to the study sample in terms of the study variables.

Last, this study focused on data collected at two points at one year intervals, with the second wave of data collected between 2000 and 2001. Major events have occurred within families, communities, and our country since then. The downward trend of the economy in 2001 is an example of and event that likely affected the sample families by creating more economic hardship and anxiety.

### Implications of the Research

The mental well-being of parents is important when determining how to provide services and assistance to families, and how to best implement policy, especially in the context of welfare reform. Imposing mandates and time limits may not be effective for helping families into the workforce and out of poverty if parents are experiencing depressive symptoms and struggling in their parental roles. Many parents who experience depressive symptoms do not receive mental health services. They are less likely to leave the welfare rolls, although not less likely to work or attend school (Coiro, 2001). Social service agencies might best serve families currently or newly receiving

benefits by assessing the their needs and working with them to determine how they might improve or maintain mental health while helping them find employment or educational opportunities that are meaningful and substantial to families' financial health.

Communities also have a role to play in better meeting the needs of families in rural areas. The importance of increased income and mothers' perceptions of life satisfaction, parental confidence, and parental support to their improved mental well-being points to the importance of local policy and practice for providing the resources and services necessary for fostering these perceptions among individuals and families at risk. Based on wave one data, education is an important factor, and one which can be enhanced by more educational opportunities in rural communities. Policies and programs that stimulate economic growth and educational opportunities in rural areas may help raise income levels and promote a sense of hope and satisfaction.

In addition, results of this study reveal that, even though income levels increased for many participants, their perceptions that their incomes were adequate to support their family did not increase substantially. This suggests that money management may be an issue. Obtaining loans and credit cards has become easier in the American culture. Programs aimed at helping families in rural areas manage and make decisions about money may help them reduce debt loads and improve their sense of income adequacy. This suggests another area of future study for this sample.

Services that aim to promote strengths within individuals and families affected by depression and adversity should consider the role of parental confidence for improving well-being and parental competence. Improving access to affordable, safe and reliable childcare in rural areas seems important for promoting parental confidence. In some

areas of the country, promoting the strengths and viability of informal kinship and social support networks as providers of childcare might help alleviate some of the financial and emotional burdens experienced by low-income parents. Support for such networks should involve access to affordable education and training on child development and child learning, enabling these informal networks to provide a more structured environment that promotes early learning.

The purpose of this study was to examine factors influencing maternal depression in order to explore individual level factors associated with risk and resilience among women in rural working poor families. The frameworks supporting the research design were human ecological theory and family risk and resilience theory, which emphasize processes between individuals, systems and their environments for supporting growth and development, establishing equilibrium, and promoting adaptation to changes. This study examined only a small portion of the whole picture possible for studying family resilience. Further investigation is necessary for connecting the individual level findings from this study with family and societal level risk and resilience factors and processes. In addition, as indicated in the previous section, investigation of the qualitative data available from the multi-state dataset would add richness and understanding to the ways in which risk and resilience factors and processes play out within the lives of the sample families.

From a risk and resilience approach, further study is needed comparing the families of mothers whose depression levels improved to below the cut-off with families of mothers whose depression levels worsened. It would be important to understand some of the differences in the well-being of individual family members, and differences in

relational processes and family functioning in order to inform policy and practice about the most effective ways to assist rural working poor families.

Considering other outcome variables also may be important for further family risk and resilience investigations. Depression was used in this study because of the rich literature base that supports its use as an indicator of individual well-being, and because parental depression is implicated as a factor contributing to child adjustment problems (Brown, Brody & Stoneman, 2000; Hammen, 2003; Hammen & Brennan, 2003; Jackson, 1998, 1999; Luthar, D'Avanzo & Hites, 2003). From a resilience perspective, and given their importance to this study, perceived life satisfaction and parental confidence are worth studying as outcome variables. Research connecting possible links between these two perceptual factors and other constructs such as satisfaction with child care arrangements, feeling safe in the community, work and family issues, employer benefits, and family health would have implications for partnerships and programming at the community level. Local law enforcement could use such information for community policing programs to enhance safety in the community. Local governments could work with local employers to negotiate a better balance between work demands and family life, and to discuss developing basic benefits packages for low-income workers.

Learning about what contributes to enhanced sense of life satisfaction and parental confidence also has implications for parenting education and other community based agencies for developing programs which would focus on fulfillment of parental roles. Other variables from the database that may be important as outcomes for studying family resilience could include child health, family health, and making ends meet.

Education is another variable that warrants investigation. Results from this study and some of the depression literature suggest that education is indirectly related to lower depression scores, and may contribute to perceived maternal role fulfillment. Research is needed to explore the mechanisms by which education can enhance the lives of low-income parents and their families. Such findings could contribute to policy and programming discussions at local, state and federal levels for developing support systems to make educational opportunities more available to low-income families in rural and urban areas.

Last, efforts to evaluate the effectiveness of welfare reform must consider more relevant factors to family well-being than caseload reduction (Bauer, Braun & Olson, 2000; Cheng, 2002; Lichter and Jayakody, 2002). Researchers from many fields have championed the need for research that considers other measures of individual and family well-being among the poor that are more current and reflect the economic realities of the early 21<sup>st</sup> century. It is also important to consider the contextual differences between rural and urban poverty when setting economic policy priorities.

#### **Conclusions**

This study identified factors related to depression, and to improving mental well-being among a sample of rural working poor mothers within a family risk and resilience framework. The scope of the study was limited to a certain level of analysis in order to establish a connection between maternal mental well-being at the individual level and relational functioning at the family level. The findings discussed indicate that previous annual income, and perceptions of life satisfaction and parental confidence are important contributors for decreasing depressive symptoms to below the established cut-off. More

complex analyses using mixed quantitative and qualitative methods are needed to develop a deeper understanding of the family and societal level risk and resilience factors and processes in the sample population.

# **APPENDICES**

# APPENDIX A

# **Additional Tables**

Table 13. Descriptives of Small Dropped Sample (n = 18).

		Mean	SD
Participant's age		51	11.4
Household income		\$20,090	\$12,526
Maternal depression		missing	
Parental confidence (n = 3)		30.3	1.2
Parental support (n = 3)		23.3	13.9
Participant's ethnicity Non-Hispanic White	Percent 83.3	Participant's marital status Single	Percent 22.0
Hispanic/Latino	5.6	Married	66.7
African American	11.2	Living with partner	ē
Native American		Divorced	11.1
Asian		Separated	10
Multi-racial Other			n=18
Ottlet	n = 18		
Participant's education		Employment status	
8 <sup>th</sup> grade or less	38.9	Employed	50.0
Some high school	22.2	Unemployed	50.0
High school or GED	11.1		n=18
Specialized training Some college, no degree College graduate	22.2		
Some post graduate/Graduate degree	5.6		
	n = 18		
<u>Life satisfaction</u> Very dissatisfied		Income adequacy Not at all adequate	
Dissatisfied		Can meet necessities only	33.3
Mixed feelings		Can afford some things	33.3
Satisfied	33.3	Can afford about everything we want	33.3
Very satisfied	66.7	Can afford everything and still save money	
n = 3	M = 4.7	n = 3	M = 3.0

Table 14. Descriptives of Large Dropped Sample (n = 112).

Household income			Mean	SD
Maternal depression         16.1         10           Parental confidence         31.8         5           Parental support         26.4         8           Parental support         26.4         8           Participant's ethnicity         Participant's marital status         Percent           Non-Hispanic White         62.2         Single         31           Hispanic/Latino         21.6         Married         46           African American         11.7         Living with partner         12           Native American         1.8         Divorced         1           Asian         .9         Separated         8           Multi-racial         .9         n = 1           Other         .9         n = 11           Participant's education         Employment status           8th grade or less         14.4         Employment status           Some high school         30.6         Unemployed         57           Some college, no degree         12.6         Some post graduate/Graduate degree         2.7           College graduate         2.7         Some post graduate/Graduate degree         2.7           Very dissatisfied         1.8         Not at all adequate         12	Participant's age		27.7	8.0
Parental confidence         31.8         5           Parental support         26.4         8           Participant's ethnicity         Percent         Participant's marital status           Non-Hispanic White         62.2         Single         31           Hispanic/Latino         21.6         Married         46           African American         11.7         Living with partner         12           Native American         1.8         Divorced         1           Asian         .9         Separated         8           Multi-racial         .9         n = 1           Other         .9         n = 111           Participant's education         Employment status           8th grade or less         14.4         Employed         57           Some high school or GED         27.0         n = 1           Specialized training         12.6         12.6           College graduate         2.7         Some oollege, no degree         12.6           College graduate         2.7         Some post graduate/Graduate degree         1.8         Not at all adequate         12           Very dissatisfied         1.8         Not at all adequate         12           Satisfied         3	Household income		\$14,395	\$10,740
Parental support         Percent         Percent         Percent           Participant's ethnicity         Participant's marital status         31           Non-Hispanic White         62.2         Single         31           Hispanic/Latino         21.6         Married         46           African American         11.7         Living with partner         12           Native American         1.8         Divorced         1           Asian         .9         Separated         8           Multi-racial         .9         n = 1           Other         .9         n = 111           Participant's education         Employment status         Employed         57           Some rollegon ress         14.4         Employed         57           Some high school or GED         27.0         n = 1           Specialized training         12.6         12.6           Some college, no degree         12.6         12.6           College graduate         2.7         Some post graduate/Graduate degree         2.7           Very dissatisfied         1.8         Not at all adequate         12           Dissatisfied         3.6         Can meet necessities only         38           Mixed	Maternal depression		16.1	10.8
Percent	Parental confidence		31.8	5.0
Participant's ethnicityParticipant's marital statusNon-Hispanic White62.2Single31Hispanic/Latino21.6Married46African American11.7Living with partner12Native American1.8Divorced1Asian.9Separated8Multi-racial.9n = 1Other.9n = 111Participant's education 8th grade or less14.4Employment status Employed57Some high school or GED27.0unemployed43Some college, no degree12.6unemployed43College graduate2.7on = 1Some post graduate/Graduate degree12.6on = 111Life satisfaction Very dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantCan afford everything and still save money22.3	Parental support		26.4	8.0
Participant's ethnicityParticipant's marital statusNon-Hispanic White62.2Single31Hispanic/Latino21.6Married46African American11.7Living with partner12Native American1.8Divorced1Asian.9Separated8Multi-racial.9n = 1Other.9n = 111Participant's education 8th grade or less14.4Employment status Employed57Some high school or GED27.0unemployed43Some college, no degree12.6unemployed43College graduate2.7on = 1Some post graduate/Graduate degree12.6on = 111Life satisfaction Very dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantCan afford everything and still save money22.3		Percent		Percent
Non-Hispanic White Hispanic/Latino 21.6 Married 46 African American 11.7 Living with partner 12 Native American 1.8 Divorced 1 Asian 9 Separated 8 Multi-racial 9 n = 111  Participant's education 8th grade or less 14.4 Employed 15 Some high school 16 High school or GED 17 Specialized training 12.6 Some college, no degree College graduate College graduate College graduate Dissatisfied 1.8 Not at all adequate 12 Life satisfaction Very dissatisfied 3.6 Can meet necessities only Mixed feelings 3.9 Can afford some things 42 Can afford about everything we want Very satisfied 2.3 Can afford everything and still save money	Participant's ethnicity		Participant's marital status	1 0100111
Hispanic/Latino 21.6 Married 46 African American 11.7 Living with partner 12 Native American 1.8 Divorced 1 Asian .9 Separated 88 Multi-racial .9		62.2		31.3
African American  Native American  1.8 Divorced  1.8 Employment status  1.8 Can afford about everything we want  2.8 Can afford about everything we want  2.8 Can afford everything and still save money	-		•	46.4
Native American  Asian  Asian  .9 Separated  8 Multi-racial  .9 Other  .9  n = 111   Participant's education  8th grade or less  Some high school  High school or GED  Specialized training  Some college, no degree  College graduate  College graduate/Graduate degree  n = 111   Life satisfaction  Very dissatisfied  Dissatisfied  Not at all adequate  12.6  Can afford about everything we want  Very satisfied  12.6  Can afford everything and still save money  12.6  Can afford everything and still save money	•			12.5
Multi-racial .9	Native American		<u> </u>	1.8
Multi-racial .9	Asian	.9	Separated	8.0
Participant's education 8 <sup>th</sup> grade or less 14.4 Employed 57 Some high school 30.6 Unemployed 43 High school or GED 27.0 Specialized training 12.6 Some college, no degree College graduate Some post graduate/Graduate degree  n = 111  Life satisfaction Very dissatisfied 1.8 Not at all adequate 12 Dissatisfied 3.6 Can meet necessities only 38 Mixed feelings 33.9 Can afford some things 42 Satisfied 38.4 Can afford about everything we want Very satisfied 22.3 Can afford everything and still save money	Multi-racial	.9	•	n = 112
Participant's education 8th grade or lessEmployment statusSome high school30.6Unemployed57Some high school or GED27.0n = 1Specialized training12.612.6Some college, no degree12.62.7College graduate2.72.7Some post graduate/Graduate degree1.8Not at all adequacyVery dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we want42Very satisfied22.3Can afford everything and still save money22	Other	.9		
8 <sup>th</sup> grade or less 14.4 Employed 57 Some high school 30.6 Unemployed 43 High school or GED 27.0 n = 1 Specialized training 12.6 Some college, no degree 12.6 College graduate 2.7 Some post graduate/Graduate degree n = 111   Life satisfaction Income adequacy Nery dissatisfied 1.8 Not at all adequate 12 Dissatisfied 3.6 Can meet necessities only 38 Mixed feelings 33.9 Can afford some things 42 Satisfied 38.4 Can afford about everything we want Very satisfied 22.3 Can afford everything and still save money 22		n = 111		
8 <sup>th</sup> grade or less 14.4 Employed 57 Some high school 30.6 Unemployed 43 High school or GED 27.0 n = 1 Specialized training 12.6 Some college, no degree 12.6 College graduate 2.7 Some post graduate/Graduate degree n = 111   Life satisfaction Very dissatisfied 1.8 Not at all adequate 12 Dissatisfied 3.6 Can meet necessities only 38 Mixed feelings 33.9 Can afford some things 42 Satisfied 38.4 Can afford about everything we want Very satisfied 22.3 Can afford everything and still save money 2	Participant's education		Employment status	
Some high school 30.6 Unemployed 43 High school or GED 27.0 n = 1  Specialized training 12.6 Some college, no degree 12.6 College graduate 2.7 Some post graduate/Graduate degree n = 111  Life satisfaction In Income adequacy Income adequacy Income adequate Income adequat		14.4		57.0
High school or GED 27.0  Specialized training 12.6  Some college, no degree 12.6  College graduate 2.7  Some post graduate/Graduate degree n = 111   Life satisfaction Income adequacy Income adequacy Income adequacy Income adequacy Income adequate Income Income adequate Income adequate Income adequate Income adequate	- C	30.6		43.0
Specialized training  Some college, no degree  College graduate  2.7  Some post graduate/Graduate degree  n = 111  Life satisfaction Very dissatisfied  Dissatisfied  Dissatisfied  Satisfied  Satisfi	•		1	n = 112
Some college, no degree  College graduate  Some post graduate/Graduate degree  n = 111  Life satisfaction Very dissatisfied Dissatisfied Dissatisfied 3.6 Can meet necessities only Mixed feelings 33.9 Can afford some things Satisfied 38.4 Can afford about everything we want  Very satisfied 22.3 Can afford everything and still save money	•	12.6		
College graduate  Some post graduate/Graduate degree  n = 111  Life satisfaction Very dissatisfied Dissatisfied Dissatisfied Mixed feelings Satisfied 3.6 Can meet necessities only Mixed feelings Can afford some things Can afford about everything we want  Very satisfied  22.3 Can afford everything and still save money	•	12.6		
degreeLife satisfactionIncome adequacyVery dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantVery satisfied22.3Can afford everything and still save money2		2.7		
Income adequacyVery dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantVery satisfied22.3Can afford everything and still save money23	Some post graduate/Graduate			
Life satisfactionIncome adequacyVery dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantVery satisfied22.3Can afford everything and still save money	degree			
Very dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantVery satisfied22.3Can afford everything and still save money23		n = 111		
Very dissatisfied1.8Not at all adequate12Dissatisfied3.6Can meet necessities only38Mixed feelings33.9Can afford some things42Satisfied38.4Can afford about everything we wantVery satisfied22.3Can afford everything and still save money23	Life satisfaction		Income adequacy	
Dissatisfied  3.6 Can meet necessities only  38  Mixed feelings  33.9 Can afford some things  42  Satisfied  38.4 Can afford about everything we want  Very satisfied  22.3 Can afford everything and still save money		1.8		12.5
Mixed feelings 33.9 Can afford some things 42 Satisfied 38.4 Can afford about everything we want  Very satisfied 22.3 Can afford everything and still save money 22.3	•		•	38.4
Satisfied  38.4 Can afford about everything we want  Very satisfied  22.3 Can afford everything and still save money			•	42.0
Very satisfied  Very satisfied  22.3  we want  Can afford everything and still save money	•			
very satisfied 22.3 still save money	Saustied	58.4	we want	4.5
· ·	Very satisfied	22.3	•	2.7
$\mathbf{n} = 1 1 1$ $\mathbf{n} = 1 1 1$ $\mathbf{n} = 1 1 1$	n = 112	M = 3.8	n = 112	M = 2.5

# APPENDIX B

**Wave One Survey Protocol** 

Interviewer:	ID:	
	Date:	

### PARENT INTERVIEW PROTOCOL

### YEAR 1

Thank you for agreeing to participate in this important research on family life. As you probably know, we are part of a big study that is looking at how families living in rural parts of the country are managing on a limited income. We are talking to families living in small towns and rural areas all over the United States. Not all of the families we will talk to are currently receiving welfare. In fact, we will talk to some families who have never received cash assistance from the government, but nevertheless have trouble making ends meet each month. There are no "right" answers to any of our questions; we just want to hear what life is like for you and your family. Remember, this interview is voluntary. If you don't want to answer a question, you don't have to. All information you give us will be kept confidential. (Do not proceed unless you have a completed informed consent document.)

Let's begin by talking about who lives in your household. Besides you, who lives in your house?

CURRENT I	CURRENT HOUSEHOLD COMPOSITION							
A. Mother's 1st NameDOB								
Marital S	tatus*_	Eth	nicity**					
B. Partner's	1st Na	me	-1	DOE	B Etl	nnicity**		
Child 1 <sup>st</sup> (name)	Sex	DOB	Relation to A***	Relation to B***	Contact w/bio parent (Y, N)	support		
1								
3								
5								

	* Key to codes		** Key to codes	**	* Key to codes
S	= Single	W	= Non-Hispanic White	Α	= Adopted
M	= Married	Н	= Hispanic/Latino	SC	= Stepchild
LWP	= Living with partner	AA	= African American	В	= Biological
					child
D	= Divorced	N	= Native American	F	= Foster child
SEP	= Separated	Α	= Asian	NR	= Not related
1		M	= Multi-racial	O	= Other
i		O	= Other		

Do you have any children not currently living with you? (If yes) Who are they, and where are they living?

#### OTHER HOUSHOLD MEMBERS

Relationship to A	Length of Time in Household	Arrangement
Interviewer Notes:		
***		

#### LIVING IN THE COMMUNITY

- 1. Tell me about how this neighborhood/area is as a place to live. Does this neighborhood/area have everything that you and your family need? If not, what sorts of things are missing? (Probe if necessary: Do you have easy access to a grocery store; a mini-mart or convenience store; other household shopping; medical care; a gas station; church; school; child care; a library?)
- 2. Families may need to know how to find many different services available in the community. The services needed are different for each family. I have a list of resources that are often available in communities. I'd like to know about the kinds of community services you know about. Shall I read the list to you, or would you like to fill this out yourself? (Administer: Knowledge of Community Resources Measure)

NOTE: IF THE INTERVIEWEE ASKS YOU TO READ THE MEASURE, ASSUME THAT ALL FURTHER SURVEY MEASURES SHOULD BE READ ALOUD.

3. What's the best thing about living where you do? The worst?

- 4. Is your housing adequate for you and your family's needs? Why or why not? (Probe: size, quality, price, landlord.)
- 5. Have you moved in the past two years? If so, why? How does this place compare with where you lived before? (If not addressed) How has your family responded to these changes? How do you feel about this?
- 6. (Optional, ask if not addressed in #5) Have you ever had a time in the last two years when you and your family were homeless? For how long were you homeless? What did you do? How did you get housing again?
- 1. Let's talk about your employment situation. Are you currently working? (If not employed, skip to Question #2) What do you do? How much are you paid? When did you start working there? How many hours do you generally work each week? How many weeks do you work during the year? Have you ever had a raise? When? How much? (List only current employment; space provided for up to three jobs.)

## Participant's Current Employment

	Wage/salary	Date started	Hours/week	Weeks/year	Amount raise
Job 1					
Job 2					
Job 3					

- 2. (Ask only if <u>not</u> currently employed) Are you looking for a job now? (If yes) How are you going about it? Have you ever worked for pay? (If answer is no, ask the appropriate questions in this section, but skip work history section)
- 3. What about your partner? What does your partner do? How much is your partner paid? When did your partner start working there? How many hours does your partner generally work each week? How many weeks does your partner work during the year? Has your partner ever had a raise? When? How much?

	Partner's Current Employment							
	Wage/salary	Date started	Hours/week	Weeks/year	Amount raise			
Job 1								
Job 2								
Job 3								

4. Is there anyone else in the household who has a job? (If yes) Tell me about that.

- 5. (Ask if currently employed) What problems, if any, do you currently face at work?
- 6. (Ask if currently employed) Do you get any benefits from your job(s)? How about your partner? What about health insurance...

Provided by	Mother's Job(s)	Provided by Partner's Job(s)		
☐ Yes	□ No	☐ Yes	□ No	
☐ Yes	□ No	☐ Yes	☐ No	
Yes	□ No	☐ Yes	☐ No	
Yes	□ No	☐ Yes	☐ No	
☐ Yes	□ No	☐ Yes	☐ No	
☐ Yes	□ No	Yes	☐ No	
	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	☐ Yes ☐ No	Job(s)  ☐ Yes ☐ No ☐ Yes	

- 7. What would be your ideal job for supporting your family? What would help you to get that kind of job?
- 8. In the last several years welfare regulations have changed. There is now more of an emphasis on getting a job, and there are now time limits (talk about specific state programs, if appropriate). What do you think about these changes? Has your family been affected by them?

### **WORK HISTORY**

- 1. We also want to know about the kinds of work that people have done in the past. Tell me about your work history. How old were you when you got your first job?
- 2. About how many jobs do you think you've had since then? Have you been more likely to work full-time or part-time? Why?
- 3. What kinds of jobs did you have? What were some of the reasons you left these jobs?
- 4. Tell me about the job that you held the longest, not counting your current job. When did you have this job? What did you do? What did you like about it? Why did you leave?

### TRANSPORTATION AND CHILDCARE

- 1. What about transportation? How do you usually get around? (If not addressed: Do you own a car or have one you can borrow? How do you and your partner get to and from work?)
  - a. (If the family has no car) How do you get your groceries, take your children to the doctors, run errands?
  - b. (If the family has a car) How reliable is your car? When was the last time your car broke down? What happened?
- 2. What do you do when you really need transportation and it's not available to you?
- 3. When you are working (or participating in a job training program or the state's welfare-to-work activities) who takes care of your children? Tell me how you get them there, and about how long they stay every day. Is it different if you have to work evenings or weekends?
- 4. (If appropriate) What about your older children? What do they do after school? What about school holidays and summers?
- 5. How many childcare arrangements do you have each week/month? Overall, how much do you pay for childcare each month?
- 6. How do you like your childcare provider? Why do you feel this way? Have you ever changed providers? Why?
- 7. Is there ever a time when you need someone to take care of your children outside your time at work? Who does that? How does it go?
- 8. Tell me about a situation when you needed emergency childcare. What did you do? Have you ever had to miss work or a training program because of a childcare problem? How did your supervisor react?
- 9. What do you do for childcare if your child gets sick? What happens if your provider is sick?

### Family of Origin Characteristics

1. Tell me a little bit about your background. What was your family like when you were growing up? Who was in your family? Where did you live? What do you remember about your childhood?

2.	Did your parents work? What kind of work did they do?
3.	How much education did your mother have? Your father?  1 = 8 <sup>th</sup> grade less 2 = some high school 3 = high school or GED 4 = specialized technical, business or vocational training after high school 5 = some college, including AA 6 = college or university graduate 7 = one or more years beyond college 8 = graduate degree 9 = don't know
4.	Do you know if your family ever received welfare or other assistance?  ☐ Yes ☐ No ☐ Don't Know
5.	How often did your family move when you were a child? Why did you move?
6.	(Optional) How much contact do you have with your family now? Who are you in contact with? Where do they live? What is your relationship like now?

#### **FAMILY WELL-BEING**

- 1. Tell me about a typical day (a working day, if appropriate). What time do you get up? When do your children get up? Then, what happens next? And then...? (The goal here is to get through a typical weekday for the family.)
- 2. What sorts of things do you do for fun with your family? How often do you get to do them?
- 3. Overall, how would you say things are going for your family right now? (If not addressed) How are things going for you personally? (If appropriate) How are things going between you and your partner?
- 4. Here is a checklist that asks about how things have been in the last week. (Administer: Feelings About How Things Are Going)
- 5. Parents need lots of skills to help their families get by. Everyone has certain skills and abilities, but it's usually not possible for someone to have every single skill needed. We'd like to know what sorts of skills you have. (Administer: Life Skills Assessment)

- 6. Family members often have health problems. Sometimes these problems don't have much of an impact on day-to-day life, while at other times they can be a big problem. We'd like to know about any health problems the members of your family might have. (Administer: Adult Health Survey; Administer: Child Health Survey; use more than one if needed to get info about all children)
- 7. (If there are other people living in the household) Do any of the other people in your household have any health problems? (If yes) What kinds of health problems?
- 8. (If applicable) Do any of these health problems affect everyday life in your family? If so, how?
- things about your family make your mount and become of the access of the

9.	What things about your family make you proud and happy right now? What are the biggest challenges for your family as a whole?
EI	DUCATION AND INCOME
1.	What is your current educational level? (use scale below)  1=8 <sup>th</sup> grade less  2 = some high school  3 = high school or GED  4 = specialized technical, business or vocational training after high school  5 = some college, including AA  6 = college or university graduate  7 = one or more years beyond college  8 = graduate degree  9 = don't know
2.	How much education did you have when you first became a parent? (use scale)
3.	(If no high school diploma) Why did you leave high school before finishing?
4.	(If appropriate) What about your spouse/partner-how much education does he have? (scale)
5.	In the last few years have you had the opportunity to get further education or develop new job skills? What kind? How were you able to do this?
6.	We'd like to know a bit about your family's sources of income. Remember, all of this information is completely confidential. From which of the following sources do you receive income?
V	Take Home Pay Weekly Bi-Weekly Monthly Wages and salaries (self)  Wages and salaries (partner)

Social Security Disability Social Security					
Retirement/Pensions SSI (Supplemental Security					
Income)			<b>J</b>	<b>-</b>	<b>—</b>
TANF					
<b>Unemployment Compensation</b>					
Worker's Disability					
Compensation					
Veterans' Benefits		<del></del>			
Child or spousal support		-			
Children's wages Food Stamps					
Regular gifts from	<u></u>				
family/friends				_	_
Other:					
B. Families sometimes receive a programs. Do you receive ass					vate
□ WIC	П Т	ransportatio	n Assistanc	re.	
□School Lunch Program				(only some s	tates)
☐ EIC (Earned Income Credit)		ducational (			,
☐ Child Care Assistance		ledicaid/ Ma	A		
☐ Housing Assistance		ther			
☐ Energy/Fuel Assistance					
9. Is there any other assistance y clothing, holiday gifts, furnitu	-	-	-		
Type of help A	Amount	Type of h	elp	Amo	ount
	-				

10. Compared to two years ago, would you say your family's economic situation has:							
5 = Improve 4 = Improve 3 = Remaine 2 = Gone do 1 = Gone do	d a little d the same wn a little						
11. (Optional)To wh	nat extent do you think you	ur incom	ne is end	ough for you to live on?			
3 = Can affo 4 = Can affo	l adequate t necessities only rd some of the things we w rd about everything we w rd about everything we w	ant					
paying for neces	there been a time when y sities? What did you have dit payments? Personal ca lid you do?	trouble	paying	for? Food? Clothing?			
	Item Food Clothing Medical Care Dental Care Medicines Credit Payments Personal Care Items Diapers School Fees or Expenses Past Bills: Other:	Yes	Nº 0 0 0 0 0 0 0 0 0 0				
13. Have you or members of your household ever gone hungry or been close to going hungry? Please describe the situation as fully as you can. What led to it? How did you deal with it?							
14. What do you need most to prevent this situation from happening again? (Administer Food Security Module)							
15. When you've go specific agencie	one for help from an agend	ey, how	were yo	ou treated? (Probe for			

16. In the past year, have you sold or pawned anything you owned?

#### **PARENTING**

- 1. Let's talk about being a parent. What do you enjoy most about being a parent? What are your strengths as a parent? What is the hardest part of being a parent?
- 2. (If appropriate) How does your partner help you with parenting?
- 3. (Optional) Here's another checklist that asks you to describe how you feel about yourself as a parent. (Administer: Parent Ladder)

#### SOCIAL SUPPORT

- 1. Who are the people who are most important to you and your family? By this, we mean friends or relatives who are important to you for one reason or another. For each person ask: Who is this person? Why are they important to you? (If appropriate) How did you meet them? How often are you in contact with them? Is there anyone else?
- 2. Is there anyone who makes things hard for your family? How so? Tell me about that.
- 3. Do you ever get to go out with your friends? Have you been able to find the time for any outside activities? What sorts of things do you do?

### **SUMMARY**

- 1. When you look back over the past few years, what do you think are the most important things that have happened to you and your family?
- 2. Looking ahead into the future, what are you most looking forward to in the coming year? What do you most worry about? What do you think things will be like for your family in three years?

3. Overall, how satisfied are you wit you feel that way?	h your life right now? (Use scale below) Why do
1 = very dissatisfied	
2 = dissatisfied	
3 = mixed feelings	
4 = satisfied	
5 = very satisfied	
4. Is there anything else that you thin right now? Is there anything we've	nk we should know about how your family is doing we missed?
As you know, we would like to visit v family is doing. To make it easier to	D BE REMOVED AND KEPT IN STATE FILES with you again in a few months to see how your contact you in case you move and forget to tell us, umbers of three people who will always know where hat we may contact them.
Name	Phone Number
	_
Thank you so much for your time.	
NOTE	

# KNOWLEDGE OF COMMUNITY RESOURCES

There are many community services that families need to know how to access. The services needed are different for each family. If you needed it, would you know where to go to:

	Service	Yes	No
1.	Get help on heating bills		
2.	Apply for subsidized housing		
3.	Find temporary housing		
4.	Apply for Medicaid		
5.	Find help for a drug or alcohol problem		
6.	Find help for a domestic violence problem		
7.	Get your child immunized		
8.	Find a family doctor		
9.	Find dental care		
10	Find a mental health counselor		
11.	Find family planning services		
12.	Apply for welfare		
13.	Get legal assistance		
14.	Apply for food stamps		
15.	Apply for WIC		
16.	Locate job training		
17.	Find transportation choices		
18.	Find child care		
19.	Apply for a child care subsidy		
20.	Find help for a family member with disabilities		
21.	Find low-cost clothing for your family		
22	Find Cooperative Extension Activities (EFNEP,		

# LIFE SKILLS ASSESSMENT

Do yo	ou have:	Yes	No
1.	A driver's license		
2.	Car insurance		
3.	Car registration		
4.	Heath insurance		
5.	A checking account		
6.	A good credit record		
7.	A local library card		
Do yo	ou know how to:		
8	Manage your bills		
9	Write a personal check		
10	Make a family budget		
11.	Stretch your groceries to the end of the month		
12.	Register to vote		
13.	Apply for a credit card		
14.	Prepare a well-balanced meal for your family		
15.	Get telephone service		
16.	Work with your landlord to improve housing		
17.	Register a consumer complaint		
18.	Talk to your child's teacher		
19.	Fill out forms to apply for services		
20.	Apply for a job		1
21.	Write a resume		
22.	Dress for a job		
23.	Fill out your own income tax forms		
24.	Join a local club or organization		
25.	Create a personal support system		1

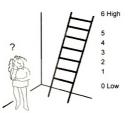
# FEELINGS ABOUT HOW THINGS ARE GOING

For each of the following statements, check the box that best describes HOW OFTEN YOU HAVE FELT THIS WAY DURING THE PAST WEEK.

	Rarely or none of the time	A little of the time	A moderate amount of	Most or all of the time
1. I was bothered by things that don't usually bother me			time	
2. I did not feel like eating; my appetite was poor				
3. I felt that I could not shake the blues even with help from my family and friends				
4. I felt that I was just as good as other people				
5. I had trouble keeping my mind on what I was doing				
6. I felt depressed				
7. I felt that everything I did was an effort		۵		
8. I felt hopeful about the future				
9. I thought my life had been a failure				
10. I felt fearful				
11. My sleep was restless				
12. I was happy				
13. I talked less than usual				
14. I felt lonely				

	Rarely or none of the time	A little of the time	A moderate amount of time	Most or all of the time
15. People were unfriendly				
16. I enjoyed life				
17. I had crying spells				
18. I felt sad				
19. I felt that people disliked me				
20. I could not "get going"				

#### THE PARENTING LADDER



Where would you put yourself on the Parenting Ladde	er in terms of:
Your knowledge of how children grow and develop?	
Your confidence that you know what is right for your	child?
Your ability to create a safe home for your child?	
Your success in teaching your child how to behave?	
Your skill at finding fun activities that interest your ch	nild?
The amount of stress in your life right now?	
Your ability to cope with the stress in your life?	
Parenting is often smoother when others are there to he you put yourself on the Parenting Ladder in terms of:	elp. Where would
Other parents for you to talk to?	
Someone to help you in an emergency?	
Someone to offer helpful advice or moral support?	
Someone for you to relax with?	
Professional people to talk to when you have a question about your child?	on
Your overall satisfaction with the amount of support in your life?	

# ADULT HEALTH SURVEY

	ou and/or your partner	About how many times in	Have you or your
	nedical insurance?	the past year have you	partner had any
	YesNo	been to a doctor or	injuries or serious
Partne	er Yes No	other health care	illnesses in the past
		provider?	year?
-	, what kind?		You Yes
	Private/HMO		No
	Medicaid/MA		Partner Yes
[ ]	State Health Plan	Your	No
	Other (Explain)	partner?	
			If yes, please explain
Do vo	ou and/or your partner	If none, when was the last	
-	any type of dental	time you visited a doctor	
insura		or health care provider?	
	Yes No	Provident	About how many
Partne	er YesNo		times in the past year
		Your	have you missed
If ves	, what kind?	partner?	work due to an
•	Private	partitor	illness/injury?
	Medicaid/MA	About how many times in	inicos/injury.
<u>-</u>	Other (explain)	the past year have you	***************************************
'-2'	Other (explain)	visited a	Your
		dentist?	
		dentist?	partner?
		Your	Have you been
		partner?	pregnant in the past
			three years
		If none, when was the last	Yes No
		time you did visit a	If yes: How many
		dentist?	times
			Are you and your
		Your	partner able to have
		partner?	more children?
		1	Yes No
			If so, do you
			currently use birth
			control?
			Yes No

In the past three years, have you or your partner experienced any of the following health problems?

	You	Partner		You	Partner
Heart Problems			Joint Problems		
High Blood Pressure			Chronic Pain		
Diabetes			Eating Disorder/		
			Obesity		
Cancer			Skin Problems		
Digestive			Permanent Disability		
Problems			•		
Liver Problems			Sexually Transmitted		
Seizure Disorder			Disease		
Depression/Anxiety			Reproductive		
			Problems		
Anger Management			Bladder Infections		
Hepatitis			Drug Problem		
Allergies			Alcohol Problem		
Asthma			Tobacco Use		
Frequent colds/					
flu/sinus			Anemia		
Thyroid Problems			Emotional, physical,		
Kidney Problems			or sexual abuse		
Fatigue			Migraines/Headaches		
Eye or vision			<b>C</b>		
problems			Learning Disabilities		
Back Problems			Arthritis		
Other (specify)					

First name of: Child 1: Child 3:	Child 2:	
	CHILD HEALTH SURVEY	
Does C1 have medical insurance?  Private/HMO Medicaid/MA State Plan Other (Explain):	Does C1 have any type of dental insurance? Y Yes Y No If yes, what kind?  Private  Medicaid/MA  Other (Explain):	Has your child had any injuries or serious illnesses in the past year? C1: Y Yes YNo C2: Y Yes YNo C3: Y Yes YNo
C2: Y Yes Y No If yes, what kind?  Private/HMO Medicaid/MA State Plan Other (Explain):	C2: Y Yes Y No If yes, what kind?  Private Medicaid/MA Other (Explain):	If yes, please explain
C3: Y Yes Y No If yes, what kind? Private/HMO Medicaid/MA State Plan	C3: Y Yes Y No If yes, what kind?  Private Medicaid/MA Other (Explain):	About how many times in the past year has your child misses school due to an
About how many times in the past year has your child been to a doctor or other health care provider?  C1 C2 C3 C3 C3 C3 C1	About how many times in the past year has your child visited a dentist?  C1 C2 C3  If none, when was the last time your child did visit a dentist?	illness/injury? C1: C2: C3:
If none, when was the last time your child visited a doctor or health care provider?  C1 C2 C3	C1 C2	

In the past three years, has your child experienced any of the following health problems?

	C1	C2	C3		C1	C2	C3
Allergies				Head Lice			
Anemia				<b>Behavior Problems</b>			
Asthma				Conjunctivitis			
Cancer				(pink eye)			
Chronic Pain				ADD/ADHD			
Learning Disability	y 🗖			Fetal Alcohol Effects	s/		
Depression/Anxiety	y 🗖			Syndrome			
Anger Managemen	t 📮			Fetal Drug Effects			
Diabetes				Broken Bones			
Digestive Problems	s 🗖			Sexually Transmitted	d		
Drug Problem				Disease			
Alcohol Problem				Skeletal Problems			
Ear Infections				Tobacco Use			
Eating Disorder/				Migraines/Headache	s 🗖		
Obesity				Permanent Disability	/ <b>u</b>		
Eye or vision				Other (specify)			
Fatigue							
Frequent colds/flu/				<del></del>			
sinu							
Hepatitis							
Seizure Disorders							
Skin Problems							

### FOOD SECURITY MODULE

These next questions ask about the food eaten in your household in the last 12 months, since (current month) of last year, and whether you were able to afford the food you need.

	hich of these st st 12 months:	atements bests	describe	es the food eaten in your household in the
[1] En [2] En [3] So [4] Of	ough of the kir lough but not a metimes not er ten not enough		s of food KIP 1b) b)	eat (SKIP 1a and 1b) Is we want (SKIP 1a)
la.	people don't	always have en 'OU don't alwa	ough to	ASK] Here are some of the reasons why eat. For each one, please tell me if that is a enough to eat. [READ LIST. MARK ALL
	YES	NO  □  □  □  □  □	DK	Not enough money for food Not enough time for shopping or cooking Too hard to get to the store On a diet No working stove available Not able to cook because of health problems
1b.	always have t	the quality or va	ariety of OU don	Here are some reasons why people don't food they want. For each one, please tell 't always have the kinds of food you want to [AT APPLY.]
	YES	NO  □  □  □  □	DK	Not enough money for food Kinds of food we want not available Not enough time for shopping or cooking Too hard to get to the store On a special diet

2.	Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for your household in the last 12 months, that is, since last (name of current month).
	The first statement is "We worried whether our food would run out before we got money to buy more." Was that often true, sometimes true, or never true for your household in the last 12 months?  Often True Sometimes True Never True DK or Refused
3.	"The food that we bought just didn't last, and we didn't have money to get more."  Was that often, sometimes or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
4.	"We couldn't afford to eat balanced meals." Was that often, sometimes or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
5.	"(I/We) relied on only a few kinds of low-cost food to feed (my/our) child/ren because (I was/we were) running out of money to buy food." Was that often, sometimes or never true for your household in the last 12 months?  □ Often True □ Sometimes True □ Never True □ DK or Refused
6.	"(I/We) couldn't feed (my/our) child/ren a balanced meal, because I couldn't afford that." Was that often, sometimes or never true for your household in the last 12 months?  □ Often True □ Sometimes True □ Never True □ DK or Refused
	answer "often true" or "sometimes true" to any one of Questions 2-6, or response [3] [4] to Question 1, then ask questions 7-16, otherwise stop here.

co	My/Our child was/The children were) not eating enough because (I/we) just ouldn't afford enough food." Was that often, sometimes or never true for your busehold in the last 12 months?  □ Often True □ Sometimes True □ Never True □ DK or Refused
yo	the last 12 months, since last (name of current month), did you (or other adults in our household) ever cut the size of your meals or skip meals because there wasn't lough money for food?  Yes No (Skip 8a) DK (Skip 8a)
_	F YES ABOVE, ASK] How often did this happen—almost every month, some as but not every month, or in only 1 or 2 months?  Almost every month Some months, but not every month Only one or 2 months DK
	the last 12 months, did you ever eat less than you felt you should because there asn't enough money to buy food?  Yes  No  DK
	the last 12 months, were you ever hungry but didn't eat because you couldn't ford enough food?  Yes  No  DK
	the last 12 months, did you lose weight because you didn't have enough money or food?  Yes  No DK
If any	answer to Question 7-11 is affirmative, continue, otherwise stop here.

<ul> <li>12. In the last 12 months did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?</li> <li>☐ Yes</li> <li>☐ No (Skip 12a)</li> <li>☐ DK (Skip 12a)</li> </ul>
12a. [IF YES TO 12, ASK] How often did this happen—almost every month, some months, but not every month, or in only 1 or 2 months?  ☐ Almost every month ☐ Some months, but not every month ☐ Only one or 2 months ☐ DK
13. The next questions are about children living in the household who are under 18 years old. In the last 12 months, since (current month) of last year, did you ever cut the size of (your child's/any of the children's) meals because there wasn't enough money for food?  ☐ Yes ☐ No ☐ DK
14. In the last 12 months, did (CHILD'S NAME/any of the children) ever skip meals because there wasn't enough money for food?  ☐ Yes ☐ No (skip 14a) ☐ DK (skip 14a)
14a. [IF YES ABOVE, ASK] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?  □ Almost every month □ Some months, but not every month □ Only one or 2 months □ DK
15. In the last 12 months, (was your child/were the children) ever hungry but you just couldn't afford more food?  ☐ Yes ☐ No ☐ DK
<ul> <li>16. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?</li> <li>☐ Yes</li> <li>☐ No</li> <li>☐ DK</li> </ul>

# **APPENDIX C**

**Wave Two Survey Protocol** 

Interviewer	ID:	Date:
PARENT IN	TERVIEW P	ROTOCOL
	YEAR II	
I want to thank you for agreeing to be in there are no right or wrong answers to a what life is like for you and your family voluntary. If you do not want to answer that you give us will be kept confidention PARTICIPANT HAS SIGNED THE IN	any of our quy. I want to rear a question, al. [DO NOT	estions. We are interested in hearing remind you that the interview is you don't have to. All information PROCEED UNLESS
{NOTE TO INTERVIERWER – ALWAY MANNER FIRST, DON'T JUST READ THEIR ANSWERS TO THE OPEN-EN BOXES AND THEN PROBE WHEN N MAKE SURE THAT YOU FILL IN ALL FORM.}	OFF A LIST DED QUEST ECESSARY T	OF YES/NO QUESTIONS. USE TIONS TO FILL IN THE YES/NO TO GET INFORMATION. PLEASE
CURRENT HOUSEHOLD COMPOSI	<u>ITION</u>	
Mother's 1st Name		
We'd like to catch up on any changes i we talked with you.	n your life an	d in your family since the last time
{PULL THE APPROPRIATE INFORM	IATION FRO	M THE WAVE I INTERVIEW.}
Last year, you said that		
were living in your household.		
Is this still true? Yes □ No □		
Is there any one new living in your hou	sehold? Yes	□ No □
Who? {FILL IN CHART FOR NEW CF PARTNERS AND NON-PARTNERS}	HILDREN, FI	ILL IN SECTIONS BELOW FOR

[IF CHILD MOVED OUT] When? Why? Where is child living now?

2	ime)			Relation Mother	Spouse	bio parent (Y, N)	child support		
* Ke S M	ey to code = Singl = Marr = Livin = Divo	es e ied ig with	n partner	**Key to Codes W =Non-Hisp H =Hispanic/I AA =African A N =Native Ar A =Asian M =Multi-raci O =Other	anic White Latino Latin	SC = Ste $B = Bic$	opted pchild logical child ter child t related		
livin Has	st year you told us you were {married, separated, divorced, single, ng with}.  s that changed? Yes \( \sigma\) No \( \sigma\) [IF NO, SKIP TO NEXT SECTION]  [IF YES] What is the change?								
	Did partner moved out? (PROMPT: When? Why?)  ☐ Yes ☐ No								
	Did a new partner moved in? (PROMPT: How long has partner lived here?)  ☐ Yes ☐ No								
	New Partner's 1st Name DOB Ethnicity**								
	Did a nor ☐ Yes ☐	-	ner move	out (PROMPT:	When? Why	y?)			
	Did a not temporar	y arra		in (PROMPT: V ?)	Vhen? Why?	? Is it a permar	nent or		
	What is 1	his pe	rson's re	lationship to you	?				

# LIVING IN THE COMMUNITY

1.	Are you living in the same pPLACE, SKIP TO Q2]	living in the same place? Yes \(\bigcup \) No \(\bigcup \) [IF LIVING IN THE SAME, SKIP TO Q2]				
	[IF NO] How many different places have you lived since we last talked?					
	Tell me what has happened	with the p	laces where you lived?			
	(PROBE: Why did you mov Why do you think that?)	e? How o	does this compare to where you used to live?			
	Are there services close by? How close?	Yes 🗖	No 🗖			
	Do you have easy access to:					
	Grocery store	Yes 🗖	No 🗖			
		Yes 🗖				
	School	Yes 🗖	No 🗖			
	Other	Yes 🗖	No 🗖			
	If not, what is missir	ng or far av	way?			
	Tell me about how your move affected your family.  PROBE: How is your family responding to the change? Is the place where you are living now adequate for your needs?  PROMPT: size, quality, price, landlord.					
	What's the best thing about your new place (and/or community)? The worst thing?					
	at any point in the last year? Yes \(\bigcap\) No \(\bigcap\) we did you find housing again? a friend during that time?					
	and what each family needs the kinds of community serv	may be ve vices you l	hat families need to know how to access, ery different. I would like to know about know about.  COMMUNITY RESOURCES MEASURE			
2.	. [IF THEY ARE LIVING IN THE SAME PLACE]  Has anything changed in your neighborhood this year? Can you tell me about that?					

	What is the best thing about living where you do (cor What's the worse?	nmunity or neighborhood)?
	Do you feel safe where you live? Yes \(\sigma\) No \(\sigma\) Why or why not? What makes it safe/not safe? (Phy	sical safety or otherwise.)
	Do you feel that your children are safe? (PROBE to fin your home Yes No The neighborhood Yes No At their school Yes No	ill in chart)
	Why do you feel your children are safe (or unsafe)? it that makes you concerned for their safety? Is there it?	• •
3.	Why do you choose to live in this area? In this partic In this town? In this neighborhood? (PROBE: Are fa Yes □ No □	-
4.	Our house or apartment can sometimes have problem problems or a leaky roof) that can make things difficult	` -
	an you tell me about any housing problems that you have EEDED, PROBE WITH FOLLOWING)	ve experienced? (IF
	Leaky plumbing	Yes □ No □
	Faulty electrical system	Yes □ No □
	Exposed wires	Yes □ No □
	Broken heating system	Yes 🗖 No 🗖
	Pests (such as mice, rats, fleas, or cockroache	s) Yes 🗖 No 🗖
	Leaky roof or ceiling	Yes 🗆 No 🗖
	No hot water	Yes 🗖 No 🗖
	Stove or refrigerator that would not work	Yes 🗖 No 🗖
	Environmental problems (such as asbestos,	
	lead paint, radon, or mold,	Yes 🗖 No 🗖
	broken stairs, doors, etc.?)	
	[IF YES TO ANY] Were you able to How did you pay for it? How long did pose a difficulty for you and your fam	d the problem last? Did this

## EMPLOYMENT/CURRENT WORK

{IN THIS SECTION, PICK THE SERIES OF QUESTIONS THAT CAPTURES WHAT THE RESPONDENT, AND PARTNER IF APPLICABLE, WAS/WERE DOING AT THE TIME OF THE WAVE I INTERVIEW. YOU MAY WANT TO ALWAYS LEAVE IN THE QUESTIONS RELATED TO A NEW PARTNER JUST TO BE SAFE.}

•	ESPONDENT WAS WORKING LAST YEAR, ASK THE "A" QUESTIONS}
1.	A. Last time we talked you said you were working at  Are you still working there? Yes □ No □
	[IF YES] How is your job/work going for you? Has anything changed about your job? Such as  Different responsibilities Yes □ No □ Different hours Yes □ No □
	Have you had a raise or promotion? Yes □ No □
	When? How much?
	Has the promotion changed your family life in any way (such as new hours or longer hours)
	Is this your only job? Yes □ No □
	[IF NO] Tell me about your other job(s).
	Why did you need another job?
	[IF NOT WORKING AT SAME JOB] Can you tell me about what happened with your other job? (PROBE: Why did you leave the other job?
	Are you currently working? Yes □ No □
	[IF NOT WORKING] Have you looked for work? Yes □ No □
	[IF LOOKED FOR WORK] How has that gone? [THEN SKIP TO Q2]
	[IF NOT LOOKED FOR WORK] What's kept you from looking? [THEN SKIP TO Q2]

[IF YES, ARE WORKING] Tell me about the job(s) you have now. (PROBE to fill in charts: Where are you working now? What is it that you do? Are you working full-time or part-time?

Job 2			Wage/Salary	Started	Hours/wk	Weeks/yr	Raise
(PROBE to fill in chart: Do you get any benefits with this new job(s)?)  Health insurance for yourself Yes □ No□ Health insurance for children Yes □ No□ Sick leave Yes □ No□ Vacation Yes □ No□ Overtime Yes □ No□ Retirement plan Yes □ No□ How does this job compare to your old job? Why do you say that?  **IF RESPONDENT WAS NOT WORKING LAST YEAR. ASK THE "B" QUESTIONS** B. Last time we talked, you said you were not working.  Has this changed over the year? Have you looked for work? Yes □ No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this jobid you know someone who already worked there? Where are you working now? W	Job 1						
Health insurance for yourself Yes  No Health insurance for children Yes No Health insurance for children Yes No No Sick leave Yes No No Vacation Yes No Overtime Yes No	Job 2						
Health insurance for children Yes  No  No  Sick leave Yes  No  No  No  Vacation Yes  No  No  No  No  No  No  No  No  No  N							ob(s)?)
Sick leave Yes No No No Overtime Yes No							
Vacation Overtime Yes No Retirement plan Yes No No How does this job compare to your old job? Why do you say that?  **IF RESPONDENT WAS NOT WORKING LAST YEAR. ASK THE "B" QUESTIONS**  B. Last time we talked, you said you were not working.  Has this changed over the year? Have you looked for work? Yes No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this jobid you know someone who already worked there? Where are you working now? W							
Overtime Retirement plan Yes No No No How does this job compare to your old job? Why do you say that?  How does this job compare to your old job? Why do you say that?  {IF RESPONDENT WAS NOT WORKING LAST YEAR. ASK THE "B" QUESTIONS}  B. Last time we talked, you said you were not working.  Has this changed over the year? Have you looked for work? Yes No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this jobid you know someone who already worked there? Where are you working now? W							
How does this job compare to your old job? Why do you say that?  {IF RESPONDENT WAS NOT WORKING LAST YEAR. ASK THE "B" QUESTIONS}  B. Last time we talked, you said you were not working.  Has this changed over the year? Have you looked for work? Yes \( \text{NO} \) No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this jobid you know someone who already worked there? Where are you working now? W							
{IF RESPONDENT WAS NOT WORKING LAST YEAR. ASK THE "B" QUESTIONS}  B. Last time we talked, you said you were not working.  Has this changed over the year? Have you looked for work? Yes □ No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this job you know someone who already worked there? Where are you working now? W		Retire	ment plan				
Has this changed over the year? Have you looked for work? Yes \(\sigma\) No  [IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this job you know someone who already worked there? Where are you working now? W		IDENT WAS NO	T WORKING I	LAST YEA	IR. ASK THE		
[IF YES] How has that gone?  [IF NO] What's kept you from looking? [THEN SKIP TO Q2]  [IF WORKING] Tell me about your job(s). (PROBE: How did you find this job you know someone who already worked there? Where are you working now? W			•		Ŭ	work? Yes [	] No□
[IF WORKING] Tell me about your job(s). (PROBE: How did you find this jobid you know someone who already worked there? Where are you working now? W		_	·	•			
Did you know someone who already worked there? Where are you working now? W		[IF NO	)] What's kept	you from	looking? [T	HEN SKIP	ГО Q2]
	Did you kno	w someone who	already worke	d there?	Where are yo	u working n	ow? What
Wage/Salary Started Hours/wk Weeks/yr Raise			Wage/Salary	Started	Hours/wk	Weeks/yr	Raise
Job 1	Job 1						
Job 2	Job 2						

	(PROBE to fill in chart: Do you get a Health insurance for yourself Health insurance for children Sick leave Vacation Overtime Retirement plan	Yes 🗖	ith this new job(s)?)  No   No   No   No   No   No   No   No
2. In the la Yes □	ast year, have you had the opportunit No	y to get further	education or training?
(PROB	S] Tell me about that. What kind wa E: How did you pay for it?) PLOYER-SPONSORED] Who else		•
``A" QUESTIC	DENT HAD A PARTNER WHO WAS DNS} SAME PARTNER AS WAVE 1] L {name of person} was working.		
	Is he (she) still working there? Yes	□ No □	
	[IF YES] Has anything changed abo hours, etc.)?	ut his (her) job	? (responsibilities,
	Has he (she) had a raise or promotio When?	n? Yes □ No	
	How much?		
	Has the promotion changed your fan hours or longer hours)?	nily life in any	way (such as new
	[IF NO] Can you share with me wha working at the same job? (PROBE:	• •	• • •
	Is he (she) currently working? Yes	□ No □	
	[IF NO] Has he (she) looked for wo	rk? Yes 🗖 N	o 🗖
	[IF YES, LOOKED FOR WORK] I [THEN SKIP TO Q5]	How has that g	one?
	[IF NOT LOOKED FOR WORK] VITHEN SKIP TO Q5]	What has kept l	nim (her) from looking?

[IF YES, CURRENTLY WORKING] Tell me about his (her) current job(s). (PROBE to fill in chart: Where is he (she) working now? What is it that he (she) does? Is he (she)

working full-time or part-time?

	Wage/Salary	Started	Hours/wk	Weeks/yr	Raise
Job 1					
Job 2					
(PROMPT to fill in c	,	, •	•	th this new	job?)
	insurance for			No	
Health	insurance for	children	Yes 🗖	No	
Sick le	eave		Yes 🗖		
Vacati	on		Yes 🗖	No	
Overti	me		Yes 🗖	No	
Retire	ment plan		Yes 🗖	No	
{IF RESPONDENT HAD A ITHE "B" QUESTIONS.} B. [IF SAME PARTNER		O WAS NO	OT WORKING	G AT WAVE	•
Has this changed ove	r the year? Ye	s 🗖 No 🗀	)		
[IF NO] Has he (she	) looked for wo	ork? Yes	□ No □		
[IF YES, LOOKED I	FOR WORK]	How has tl	nat gone? [Th	IEN SKIP T	TO Q5]
[IF NOT LOOKED F [THEN SKIP TO Q5		Vhat has k	ept him (her)	from lookir	ng?

[IF YES, CURRENTLY WORKING] Tell me about his (her) job(s). (PROBE: How did he (she) find out about the job? Did he (she) know someone already working there? Where is he (she) working now? What is it that he (she) does? Is he (she) working full-time or part-time? (PROBE to fill in charts.)

		Wage/Salary	Started	Hours/wk	Weeks/yr	Raise
	Job 1					<del></del>
	Job 2					
	(PROMPT to fill in ch	art: Does he (	she) get ar	ny benefits w	ith this new	job?)
	Health Sick lea Vacatio Overtin	n		f Yes \( \text{Yes} \)	No No No No	
3.	[IF THERE IS A NEV Yes □ No □	V PARTNER]	Is your p	artner/boyfri	end/spouse o	employed?
	[IF NO] Has he (she)	looked for wo	·k? Yes □	l No □		
	[IF YES, LOOKED F	OR WORK] H	Iow has th	at gone? [TH	IEN SKIP T	O Q5]
	[IF NOT LOOKED FO [THEN SKIP TO Q5]	OR WORK] W	Vhat has k	ept him (her)	from looking	ng?
	[IF YES, CURRENTI How did he (she) find working there? Where he (she) working full-	out about the is he (she) wo	job? Did orking nov	he (she) know v? What is it	w someone a that he (she	already
	Has he (she) ev	ver had a raise	? Yes 🗖	No 🗆		
	When?		How mu	ch?	<del></del>	
		Wage/Salary	Started	Hours/wk	Weeks/yr	Raise
	Job 1					
	Job 2					

(PROMPT to fill in chart: Does he (she) get any benefits with this new job?)				
	Health insurance for him/her Health insurance for childrer Sick leave Vacation Overtime Retirement plan	Yes Yes Yes Yes		No
4.	Does anyone else in the household have a jo	b? Yes □	No 🗖	
	[IF YES] Tell me about that.			
	How about a child or children? Yes ☐ No			
	[IF YES] What is done with the child's/chil	dren's earnir	ngs?	
5.	[IF NOT CURRENTLY WORKING] Since you are not currently working outside life that makes it more difficult for you to w program? (PROBE to fill in the chart)		•	•
	Childcare Yes ☐ Health issues Yes ☐ Family issues Yes ☐ Your partner Yes ☐	No D No D No D		
	Can you tell me more about that?			
7.	What is your opinion of job opportunities in <i>WORDING</i> } From last year until now, what this area? Have there been any changes?			
8.	Sometimes people express strong opinions a welfare. What kinds of opinions have you hat do you think of these opinions?	• •	who are re	eceiving

	your children? children were	What was the situation	on? Have you on fairly because	nese things said to you? To ever felt that you or your e you were on welfare?
		Refused service Made to wait Treated rudely	Yes □ Yes □ Yes □	No 🗆 No 🗅 No 🗅
9.	an emphasis of families who le get cash assist end of this year required to we immigrants from	n getting a job, and the	ere are now time for five years will be of parents without week. These week legal aliens	changes also apply to are not able to receive
	·	nese rules have affected vith anyone about these		n any way? Yes  No  No  nilv? Friends?
	{ALTERNATI		u hear things o	n TV or radio about these
TRAN	ISPORTATION	N AND CHILD CARE		
{ <i>IF H</i> ./	AD VEHICLE I  A. Last time car{INDICAT	with your car/truck{C	t you had a (rel u had a situatio	
	Tell me about	what happened. What	t did you do?	
	Has a friend o	or relative helped you o	ut? Yes 🗖 No	
	How do you g	get around if your car b	reaks down or	is not available to you?
•	B. Last time v {USE INFOR.	WAVE 1, ASK 1B.} we talked, you said that MATION FROM WAV. OF TRANSPORTATION	E I} Do you st	ill depend on {THIS PERSON/

	(PROBE: How do you usually get around? How do you get to work? How do you get groceries?) (PROBE IF NECESSARY:
	Has a friend or relative helped you out? Yes □ No □
2.	This year the price of gas has gone up and down. Did this change anything in how you get around? Yes □ No □ (PROBE: Have the increases caused you any problems? Yes □ No □ What have you done?)
•	INFORMATION FROM WAVE 1 TO CONSTRUCT QUESTION 3.} [IF APPROPRIATE] Last time we talked, you said that
	provided care for your children. Do you still have the same arrangement(s)? Yes \(\bigsir \) No \(\bigsir \) [IF YES, GO TO Q4]
	[IF NO] What brought about the changes? Do you have a new child care provider? (PROBE: How is this working out? How do you like your new child care provider(s)? How does your child like the provider(s)? (IF MORE THAN ONE PROVIDER, PROBE: How many? Why more than one?)
{IF RE	ESPONDENT HAS OLDER CHILDREN, ASK QUESTION 4, OTHERWISE
	[IF APPROPRIATE] What about your older children? What do they do after school? What about school holidays and summers?
5.	Tell me about a situation when you needed emergency childcare. What did you do? (PROBE: Have you ever had to miss work or a training program because of a childcare problem? Yes \(\to\) No \(\to\) [IF YES] How did your supervisor react? (PROBE IF NECESSARY: Has a friend or relative helped you out? PROBE: Is there a time when you needed someone to take care of your children outside your time at work? Who does that? How does it go?
6.	What do you do for childcare if your child gets sick? What happens if your childcare provider is sick? (PROBE IF NECESSARY: Has a friend or relative helped you out?) (PROBE IF APPROPRIATE: How did your supervisor react?
7.	[IF RESPONDENT IS CURRENTLY WORKING] How is it combining work responsibilities and family responsibilities? Do you have any problems at home because of work? Or do you have any problems at work because of family?

- 8. [ONLY FOR MI RESPONDENTS] We have been talking about childcare, transportation, and a lot of other issues. Can you think for a moment about a list of all of the things that need to happen in order for you [and/or your partner] to be able to work for pay. What would you need most to be able to work for pay? What would come next? [Continue with the list as far as they can.] Is there anything that you have not already told us about that you need to have or you need to happen in order to be able to work? (PROBE: Moving for work, commuting, carpooling, child care, housekeeping, new clothing or uniforms, odd jobs to make enough money, education for a better job, help from friends or family, ...)
- 9. [ONLY FOR MI RESPONDENTS] Last time, you told us about what your ideal job would be, the sort of job you would most like to have. What would be an ideal job for you right now? What would you need to happen for you to get that job and be able to keep it? (PROBE: moving, commuting, carpooling, child care, housekeeping, odd jobs, education, training, help from friends or family, ...)

10.	[IF RESPONDENT IS CURRENTLY WORKING] Is there anything in your life	fe
	that makes it more difficult for you to hold down a job (or participate in a traini	ng
	program)? (PROBE to fill in chart)	_

Childcare	Yes 🗖	No 🗖
Health issues	Yes 🗖	No 🗖
Family issues	Yes 🗖	No 🗖
Your partner	Yes 🗖	No 🗖
Can you tell me more about	that?	

### FAMILY OF ORIGIN

- 1. Last year we talked a bit about your family background. In the past year, have there been any important changes in your relationships with your parents or your brothers and sisters or other relatives?
- 2. Has your family experienced any important events in the last year, or is there any family news that you think we should know about? (PROBE: births, deaths, marriages, illnesses , etc.)

### INCOME AND MAKING ENDS MEET

1. We would like to know about your family's sources of income in the past year. Remember, all this information is completely confidential. From which of the following did you receive income this year? (PROBE for changes in TANF, child and spousal support, food stamps, wages: Has that been the same all year? Tell me about the change.)

	Amount	Weekly	Biweekly	Monthly	Other
Wages & Salaries (self)			َ 🗖	٦	
Wages & Salaries (partner)					
Tips, Commissions, Overtin	ne				
Social Security Disability					
Social Security Retirement/					
pensions					
Supplementary Security					
Income		_ 🗖			
TANF		_ 🗖			
Unemployment					
Compensation					
Worker's Disability					
Compensation					
Veterans' Benefits		_ 🗖			
Child or Spousal Support		_ 🗖			
When it doesn't come, what	do you do?	How do y	ou manage?		
Children's wages					
Food Stamps					
Regular gifts from family/		<del></del>			
friends					
Others					

2.	Did you receive assis [TRY TO RECORD			following sources over the past year?  IF POSSIBLE.]
			Amount	•
WIC				What do you get from WIC?
School	Lunch/Breakfast Prog	gram		Do your children eat the food? Yes □ No □
Earned	I Income Tax Credit			What did you do with the money?
Childe	are Assistance			,
	ng Assistance			
	//fuel Assistance			
	ortation Assistance			
-	tion Grants or Loans			
Medica				
	ionary Assistance			
	PPLICABLE}			
•	[describe]			
Other	[deserree]			
3.	pay per month and with pay each month for the fill in chart)  Include Electricity  Gas/Oil/Wood/Coal  Cable TV  Water  Garbage	hat utilitiene utiliti	ies, if any, are is that are not int in it	amilies. Tell me about how much you included. About how much do you included in your rent? (PROBE to  Amount how much per month?
		has chan	ged your hou	anything happened to you over the sing costs? (PROBE: Rent gone up?
	time paying for the u	tilities? ou do?	Yes □ No □ Was anything	disconnected? Yes D No D

4.	month? What services does this incluced phone, pager?) Have yo year? Yes □ No □	ide? (PRO)	BE: Internet connection, le	ong distance,
5.	In the past year, have you ha	d a problem	paying for any of the foll	owing?
	[FOR EACH YES] What ha	ive you done	when this happened?	
	Medicines	Yes	No	
6.	[OPTIONAL] What other m How much do you normally any of them? Yes \(\bigcup \) No \(\bigcup	spend on the	ese? Have you ever had to	· · · · · · · · · · · · · · · · · · ·
7.	Since we last talked, have yo going hungry or ever gone he Yes \(\bigcup \) No \(\bigcup \) [IF YES] Tell hungry?	ungry?	·	
8.	Tell me about any strategies the month. (PROMPT: Do y friend's house? Yes □ No often does that happen? Do make enough for both famili (PROMPT: Have you gotter last year? Yes □ No □ [I of food you got?)	you or your of [IF YE you ever codes? Yes Improved from tood from the fro	children ever eat at a fami ES] Tell me about this.) (ok together with some oth No  a food bank or soup kitch	ly member's or PROBE: How er family to en during the

# 9. [ADMINISTER FOOD SECURITY MODULE] 10. When people are having a hard time making ends meet, sometimes they will work for cash by doing different kinds of odd jobs. Have you ever done anything like that?

for cash by doing different kinds of odd jobs. Have you ever done anything lik that?
Yes \( \sigma \) No \( \sigma \)
(PROBE: Cleaned homes? Collected bottles/cans? Mowed lawns? Shoveled snow?)[IF APPROPRIATE] Has your partner ever worked for cash? Yes □ No □
[IF YES] What did you do? How long? Have you done this in the last year? Yes □ No □
How much did you earn? Did you like doing that work?
[IF NO] Do you know other people who do this? What do you think about it?
Compared with last year, would you say that your family's economic situation
has
[CIRCLE NUMBER OF RESPONSE]
5 Improved a little
<ul><li>4 Improved a little</li><li>3 Remained the same</li></ul>
2 Gone down a little
1 Gone down a lot
To what extent to do you think your income is enough for you to live on?

- 12. To what extent to do you think your income is enough for you to live on? [CIRCLE NUMBER OF RESPONSE]
  - 1 Not at all adequate

11.

- 2 Can meet necessities only
- 3 Can afford some of the things we want but not all we want
- 4 Can afford about everything we want
- 5 Can afford about everything we want and still save money

13. During the last year, did you ever borrow money from a relative or friend?
Yes □ No □
[IF YES] Why did you borrow it? How much did you borrow?
Have you been able to pay it back? Yes □ No □
[IF YES, PAID BACK] How were you able to do that?
[IF NOT PAID BACK] Has anything happened because you have not been able to pay it back? Yes □ No □

- 14. If you got \$20 tomorrow, what would you do with it?
- 15. If you got \$200 tomorrow, what would you do with it?
- 16. What if your child needed a new pair of shoes, how would you get them for him or her?
- 17. Birthdays are often times for celebration. Tell me about how you celebrate your child's / children's birthday(s). (PROBE: How much would you usually spend on a gift?)
- 18. When you think about your bills and the things you need to buy, how do you decide which comes first if you don't have the money for them all?
- 19. What are your favorite money-stretching techniques?
- 20. How has the health of your family been this year? Has the health of any family member changed? How? (PROBE: Has a health problem affected your family life at all? How?)
- 21. ADMINISTER CHILD HEALTH SURVEY & ADULT HEALTH SURVEY.]

### **PARENTING**

- 1. [IF LIVING WITH PARTNER/SPOUSE] What sort of parenting tasks do you typically do? And what parenting tasks does your partner/boyfriend/spouse typically do?
- 2. Do you (and your partner/boyfriend/spouse IF APPLICABLE) get help or advice in parenting from anyone else? What sort of help do they provide? How do you feel about this help?

3.	[IF RESPONDENT IS <u>NOT</u> LIVING WITH FATHER OF CHILD/REN] During the past 12 months, how often did your child(ren) see their father(s)? Why? [MAKE SURE THAT QUESTION IS ANSWERED FOR EACH NON-CUSTODIAL FATHER.]
	Overall, what is your relationship like with
	Do you think that
	Do you ever have conflicts with's {INSERT NAME OF CHILD/CHILDREN} father about the child? Yes □ No □
	[IF YES] What are the conflicts about? (PROBE to fill in chart)  Custody Yes □ No □ Child support Yes □ No □ How child is being raised Yes □ No □ Visits Yes □ No □ Other Yes □ No □
	How do these conflicts get resolved?
4.	[OPTIONAL] What is your number one wish for your child/ren? Why do you feel this way? Has this changed over the last few months? Yes □ No □ [IF YES] Why?
5.	[ADMINISTER <u>PARENTING LADDER</u> .]
6.	About how you responded to the last question on the Parenting Ladder, why do you feel that way?

# **FAMILY WELL-BEING**

{USE THE INFORMATION FROM WAVE 1 TO CONSTRUCT THE NEXT QUESTION.}

1.	Last year, you said that the thing that you were looking forward to the most was  How is that going? {OR WHATEVER THE APPROPRIATE FOLLOW-UP QUESTION(S) MAY BE.}
ÙF	THERE IS SOMETHING ELSE FROM WAVE 1 THAT YOU WISH TO FOLLOW ON WITH THE RESPONDENT, USE THE NEXT QUESTION AS A GUIDE. THERWISE OMIT.}
2.	Last year you mentioned(or you were). Is the situation still the same? Have things changed? Gotten better? Gotten worse? {OR WHATEVER THE APPROPRIATE FOLLOW-UP QUESTION(S) MAY BE.}
3.	A. [OPTIONAL] Would you describe yourself as a person with religious or spiritual beliefs? Yes \(\sigma\) No \(\sigma\) [IF YES] Does this play a role in your everyday life? Yes \(\sigma\) No \(\sigma\) How so?
	B. {ALTERNATIVE WORDING} What do you rely on when times are difficult? Religion? Family? Friends? How does this/do they help you?
4.	Tell me about a typical day. (PROBE: What time do you get up? When do your children get up? What happens next? And then? [THE GOAL HERE IS TO GET A PICTURE OF A TYPICAL WEEKDAY FOR THE FAMILY.]
5.	What sorts of things do you do for fun? [PROBE: Do you have any hobbies?]
6.	What things about your family make you proud and happy right now?
7.	What are the biggest challenges for your family as a whole?
8.	How are things going for your family right now? Tell me about that. How are things going for you personally?

- 9. [IF HAS PARTNER] How are things between you and your partner? Tell me about that.
- 10. Is there any one who is making things harder for your family right now? Tell me about that.
- 11. Overall, how satisfied are you with your life right now?

[CIRCLE NUMBER OF RESPONSE]

- 1 Very dissatisfied
- 2 Dissatisfied
- 3 Mixed feelings
- 4 Satisfied
- 5 Very satisfied

Why do you feel that way?

12. [ADMINISTER <u>FEELINGS ABOUT HOW THINGS ARE GOING</u> MEASURE.]

### SOCIAL SUPPORT

- 1. Have you made any new friends over the past year? What has made that possible?
- 2. Are you able to get together with friends? What kinds of things do you do? How often?
- 3. Are there any old friends that you have lost contact with over the last year? Tell me a little about that.

### **SUMMARY**

- 1. What is the most important thing that happened to your family in the past year? Did something good happen to you or one of your children? Did something not so good happen to you or one of your children?
- 2. Thinking ahead to the coming year, what are you looking forward to? What

	worries you? What do you think things will be like for your family next year at this time?
3.	What do you think things will be like for your family in three years? Why do you think this?
4.	Is there anything else you think we should know about how your family is doing right now? Is there anything we have missed?
•	ASE MAKE SURE THAT THE CONTACT PERSON IS STILL THE SAME, THAT PERSON'S INFORMATION IS STILL THE SAME.
5.	The last time we talked, you said that would know how to find you if we were unable to contact you. Has this changed?
Contac	ct Information from Wave I:
	SE MAKE ANY CHANGES OR WRITE NEW CONTACT INFORMATION OW BEFORE ENDING THE INTERVIEW:
This is	s the end of the interview. Thank you so much.

## KNOWLEDGE OF COMMUNITY RESOURCES

There are many community services that families need to know how to access. The services needed are different for each family. If you needed it, would you know where to go to:

	Service	Yes	No
1.	Get help on heating bills		
2.	Apply for subsidized housing		
3.	Find temporary housing		
4.	Apply for Medicaid		
5.	Find help for a drug or alcohol problem		
6.	Find help for a domestic violence problem		
7.	Get your child immunized		
8.	Find a family doctor		
9.	Find dental care		
10	Find a mental health counselor		
11.	Find family planning services		
12.	Apply for welfare		
13.	Get legal assistance		
14.	Apply for food stamps		
15.	Apply for WIC		
16.	Locate job training		
17.	Find transportation choices		
18.	Find child care		
19.	Apply for a child care subsidy		
20.	Find help for a family member with disabilities		
21.	Find low-cost clothing for your family		
22	Find Cooperative Extension Activities (EFNEP,		
		1	1

# LIFE SKILLS ASSESSMENT

Do yo	ou have:	Yes	No
1.	A driver's license		
2.	Car insurance		
3.	Car registration		
4.	Heath insurance		
5.	A checking account		
6.	A good credit record		
7.	A local library card		
Do yo	ou know how to:	· · · · · · · · · · · · · · · · · · ·	
8	Manage your bills		
9	Write a personal check		
10	Make a family budget		
11.	Stretch your groceries to the end of the month		
12.	Register to vote		
13.	Apply for a credit card		
14.	Prepare a well-balanced meal for your family		
15.	Get telephone service		
16.	Work with your landlord to improve housing		
17.	Register a consumer complaint		
18.	Talk to your child's teacher		
19.	Fill out forms to apply for services		
20.	Apply for a job		
21.	Write a resume		
22.	Dress for a job		
23.	Fill out your own income tax forms		
24.	Join a local club or organization		
25.	Create a personal support system	_	

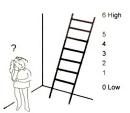
## FEELINGS ABOUT HOW THINGS ARE GOING

For each of the following statements, check the box that best describes HOW OFTEN YOU HAVE FELT THIS WAY DURING THE PAST WEEK.

	Rarely or none of the time	A little of the time	A moderate amount of	Most or all of the time
1. I was bothered by things that don't usually bother me			time	
2. I did not feel like eating; my appetite was poor				
3. I felt that I could not shake the blues even with help from my family and friends				
4. I felt that I was just as good as other people				
5. I had trouble keeping my mind on what I was doing				
6. I felt depressed				
7. I felt that everything I did was an effort				
8. I felt hopeful about the future				
9. I thought my life had been a failure				
10. I felt fearful				
11. My sleep was restless				
12. I was happy				
13. I talked less than usual				
14 I felt lonely		П	П	П

	Rarely or none of the time	A little of the time	A moderate amount of time	Most or all of the time
15. People were unfriendly				
16. I enjoyed life				
17. I had crying spells				
18. I felt sad				
19. I felt that people disliked me				
20. I could not "get going"				

### THE PARENTING LADDER



where would you put yourself on the Farenting Ladder in terms of:
Your knowledge of how children grow and develop?
Your confidence that you know what is right for your child?
Your ability to create a safe home for your child?
Your success in teaching your child how to behave?
Your skill at finding fun activities that interest your child?
The amount of stress in your life right now?
Your ability to cope with the stress in your life?
Parenting is often smoother when others are there to help. Where wouly you put yourself on the Parenting Ladder in terms of:
Other parents for you to talk to?
Someone to help you in an emergency?
Someone to offer helpful advice or moral support?
Someone for you to relax with?
Professional people to talk to when you have a question about your child?
Your overall satisfaction with the amount of support in your life?

# ADULT HEALTH SURVEY

Do you and/or your partner	About how many times in	Have you or your
have medical insurance?	the past year have you	partner had any
You YesNo	been to a doctor or	injuries or serious
Partner Yes No	other health care provider?	illnesses in the past year?
If yes, what kind?	•	You Yes
Private/HMO		No
Medicaid/MA		Partner Yes
State Health Plan	Your	No
Other (Explain)	partner?	
		If yes, please explain
Do you and/or your partner	If none, when was the last	
have any type of dental	time you visited a doctor	
insurance?	or health care provider?	
You YesNo		About how many
Partner Yes No		times in the past year
	Your	have you missed
If yes, what kind?	partner?	work due to an
Private		illness/injury?
Medicaid/MA	About how many times in	
Other (explain)	the past year have you	
	visited a	Your
	dentist?	partner?
	Your	Have you been
	partner?	pregnant in the past three years
	If none, when was the last	YesNo
	time you did visit a	
	dentist?	If yes: How many times
		Are you and your
	Your	partner able to have
	partner?	more children?
	partiter:	YesNo
		If so, do you
		currently use birth control?
		Yes No

In the past three years, have you or your partner experienced any of the following health problems?

	You	Partner		You	Partner
Heart Problems			Joint Problems		
<b>High Blood Pressure</b>			Chronic Pain		
Diabetes			Eating Disorder/		
			Obesity		
Cancer			Skin Problems		
Digestive			Permanent Disability		
Problems			,		
Liver Problems			Sexually Transmitted		
Seizure Disorder			Disease		
Depression/Anxiety			Reproductive		
1			Problems		
Anger Management			Bladder Infections		
Hepatitis			Drug Problem		
Allergies			Alcohol Problem		
Asthma			Tobacco Use		
Frequent colds/					
flu/sinus			Anemia		
Thyroid Problems			Emotional, physical,		
Kidney Problems			or sexual abuse		
Fatigue			Migraines/Headaches		
Eye or vision					
problems			Learning Disabilities		
Back Problems			Arthritis		
Other (specify)					

First name of: Child 1: Child 3:	Child 2:	
	CHILD HEALTH SURVEY	
Does C1 have medical insurance?  Private/HMO Medicaid/MA State Plan Other (Explain):	Does C1 have any type of dental insurance? Y Yes Y No If yes, what kind? Private Medicaid/MA Other (Explain):	Has your child had any injuries or serious illnesses in the past year? C1: Y Yes YNo C2: Y Yes YNo C3: Y Yes YNo
C2: Y Yes Y No If yes, what kind?  Private/HMO Medicaid/MA State Plan Other (Explain):	C2: Y Yes Y No If yes, what kind?  Private  Medicaid/MA  Other (Explain):	If yes, please explain
C3: Y Yes Y No If yes, what kind?  Private/HMO Medicaid/MA State Plan	C3: Y Yes Y No If yes, what kind?  Private Medicaid/MA Other (Explain):	About how many times in the past year has your child misse school due to an
About how many times in the past year has your child been to a doctor or other health care provider?  C1 C2 C3 C3 C3 C1	About how many times in the past year has your child visited a dentist?  C1 C2 C3  If none, when was the last time your child did visit a dentist?	illness/injury? C1: C2: C3:
If none, when was the last time your child visited a doctor or health care provider?  C1 C2 C3	C1 C2	

In the past three years, has your child experienced any of the following health problems?

	C1	C2	C3		C1	C2	C3
Allergies				Head Lice			
Anemia				<b>Behavior Problems</b>			
Asthma				Conjunctivitis			
Cancer				(pink eye)			
Chronic Pain				ADD/ADHD			
Learning Disability				Fetal Alcohol Effects	s/		
Depression/Anxiety				Syndrome			
Anger Management				Fetal Drug Effects			
Diabetes				Broken Bones			
Digestive Problems				Sexually Transmitted	i		
Drug Problem				Disease			
Alcohol Problem				Skeletal Problems			
Ear Infections				Tobacco Use			
Eating Disorder/				Migraines/Headaches	s 🗖		
Obesity				Permanent Disability			
Eye or vision				Other (specify)			
Fatigue							
Frequent colds/flu/							
sinus							
Hepatitis							
Seizure Disorders							
Skin Problems							

## FOOD SECURITY MODULE

These next questions ask about the food eaten in your household in the last 12 months, since (current month) of last year, and whether you were able to afford the food you need.

1.	Which of the		ests describ	es the food eaten in your household in the	
[2] [3] [4]	Enough of the Enough but n Sometimes no Often not eno	kinds of food	inds of food t (SKIP 1b) IP 1b)	eat (SKIP 1a and 1b) ds we want (SKIP 1a)	
1a.	[IF OPTION 3 OR 4 SELECTED, ASK] Here are some of the reasons why people don't always have enough to eat. For each one, please tell me if that is a reason why YOU don't always have enough to eat. [READ LIST. MARK ALI THAT APPLY.]				
	YES	NO	DK	Not enough money for food Not enough time for shopping or cooking Too hard to get to the store On a diet No working stove available Not able to cook because of health problems	
1b.	[IF OPTION 2 SELECTED, ASK] Here are some reasons why people don't always have the quality or variety of food they want. For each one, please tell me if that is a reason why YOU don't always have the kinds of food you want to eat. [READ LIST. MARK ALL THAT APPLY.]				
	YES	NO	DK	Not enough money for food Kinds of food we want not available Not enough time for shopping or cooking Too hard to get to the store On a special diet	

	food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for your household in the last 12 months, that is, since last (name of current month).
	The first statement is "We worried whether our food would run out before we got money to buy more." Was that often true, sometimes true, or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
3.	"The food that we bought just didn't last, and we didn't have money to get more."  Was that often, sometimes or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
4.	"We couldn't afford to eat balanced meals." Was that often, sometimes or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
5.	"(I/We) relied on only a few kinds of low-cost food to feed (my/our) child/ren because (I was/we were) running out of money to buy food." Was that often, sometimes or never true for your household in the last 12 months?  □ Often True □ Sometimes True □ Never True □ DK or Refused
6.	"(I/We) couldn't feed (my/our) child/ren a balanced meal, because I couldn't afford that." Was that often, sometimes or never true for your household in the last 12 months?  □ Often True □ Sometimes True □ Never True □ DK or Refused
	answer "often true" or "sometimes true" to any one of Questions 2-6, or response [3] [4] to Question 1, then ask questions 7-16, otherwise stop here.

2. Now I'm going to read you several statements that people have made about their

7.	couldn't afford enough food." Was that often, sometimes or never true for your household in the last 12 months?  ☐ Often True ☐ Sometimes True ☐ Never True ☐ DK or Refused
8.	In the last 12 months, since last (name of current month), did you (or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?  Yes No (Skip 8a) DK (Skip 8a)
	[IF YES ABOVE, ASK] How often did this happen—almost every month, some nths but not every month, or in only 1 or 2 months?  ☐ Almost every month ☐ Some months, but not every month ☐ Only one or 2 months ☐ DK
9.	In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?  ☐ Yes ☐ No ☐ DK
10.	In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?  ☐ Yes ☐ No ☐ DK
11.	In the last 12 months, did you lose weight because you didn't have enough money for food?  ☐ Yes ☐ No ☐ DK

If any answer to Question 7-11 is affirmative, continue, otherwise stop here.

12. In the last 12 months did (you/you or other adults in your household) ever not ear for a whole day because there wasn't enough money for food?  ☐ Yes ☐ No (Skip 12a) ☐ DK (Skip 12a)	ıt
12a. [IF YES TO 12, ASK] How often did this happen—almost every month, some months, but not every month, or in only 1 or 2 months?  ☐ Almost every month ☐ Some months, but not every month ☐ Only one or 2 months ☐ DK	
13. The next questions are about children living in the household who are under 18 years old. In the last 12 months, since (current month) of last year, did you ever the size of (your child's/any of the children's) meals because there wasn't enough money for food?  ☐ Yes ☐ No ☐ DK	
<ul> <li>14. In the last 12 months, did (CHILD'S NAME/any of the children) ever skip meals because there wasn't enough money for food?</li> <li>☐ Yes</li> <li>☐ No (skip 14a)</li> <li>☐ DK (skip 14a)</li> </ul>	\$
14a. [IF YES ABOVE, ASK] How often did this happen—almost every month, som months but not every month, or in only 1 or 2 months?  ☐ Almost every month ☐ Some months, but not every month ☐ Only one or 2 months ☐ DK	e
15. In the last 12 months, (was your child/were the children) ever hungry but you just couldn't afford more food?  ☐ Yes ☐ No ☐ DK	st
<ul> <li>16. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?</li> <li>☐ Yes</li> <li>☐ No</li> <li>☐ DK</li> </ul>	e

## **REFERENCES**

## REFERENCES

- Ames, B. D., Brosi, W., & Damiano-Teixeira, K. (2003, November). The ecology of a rural community: Implications for wage-earning women. Paper presented at the 65<sup>th</sup> National Council on Family Relations Annual Conference, Vancouver, BC, Canada.
- Bauer, J. W. (2003). Rural Families Speak: Research Report. University of Minnesota.
- Bauer, J. W., Braun, B., & Olson, P. D. (2000). Welfare to well-being framework for research, education and outreach. *The Journal of Consumer Affairs*, 34(1), 62-81.
- Brown, A. C., Brody, G. H., & Stoneman, Z. (2000). Rural black women and depression: A contextual analysis. *Journal of Marriage and the Family*, 62, 187-198.
- Bubolz, M. M. & Sontag, M. S. (1993). Human ecology theory. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), Sourcebook of family theories and methods (pp. 419-448). New York: Plenum Press.
- Canary, D. J., Stafford, L., & Semic, B. A. (2002). A panel study of the associations between maintenance strategies and relational characteristics. *Journal of Marriage and Family*, 64, 395-406.
- Casey, P. Goolsby, S., Berkowitz, C., Frank, D., Cook, J., Cutts, D., Black, M. M., Zaldivar, N., Levenson, S., Heeren, T., & Meyers, A. (2004). Maternal depression, changing public assistance, food security, and child health status. *Pediatrics*, 113, 298-304.
- Cauce, A. M., Stewart, A., Rodriguez, M. D., Cochran, B., & Ginzler, J. (2003).

  Overcoming the odds? Adolescent development in the context of urban poverty.

  In Luthar (ed.), *Resilience and vulnerability* (pp. 343-363). New York: Cambridge University Press.
- Cheng, T. (2002). Welfare recipients: How do they become independent? *Social Work Research*, 26, 159-170.
- Coiro, M. J. (2001). Depressive symptoms among women receiving welfare. Women & Health, 32, 1-18.
- Conger, R. D. & Conger, K. J. (2002). Resilience in Midwestern families: Selected findings from the first decade of a prospective, longitudinal study. *Journal of Marriage and Family*, 64, 361-373.
- Cowan, P. A., Cowan, C. P, & Schulz, M. S. (2003). Thinking about risk and resilience in families. In F. Walsh (Ed.), Normal family process: Growing diversity and complexity (pp. 1-36). New York: Guilford Press.

- Danziger, S. K., Ananat, E. O., Browning, K. G. (2004). Childcare subsidies and the transition from welfare to work. *Family Relations*, *53*, 219-228.
- Dearing, E., Taylor, B. A., & McCartney, K. (2004). Implications of family income dynamics for women's depressive symptoms during the first 3 years after childbirth. *American Journal of Public Health*, 94, 1372-1377.
- DeJong, G. F., Chamratrithirong, A., & Tran, Q. G. (2002). For better, for worse: Life satisfaction consequences of migration. *The International Migration Review*, 3, 838-863.
- Dennis, J. M., Parke, R. D., Coltrane, S., Blacher, J. & Borthwick-Duffy, S. A. (2003). Economic pressure, maternal depression, and child adjustment in Latino families: An exploratory study. *Journal of Family and Economic Issues*, 24, 183-202.
- Dyk, P. H. (2004). Complexity of family life among low-income and working poor: Introduction to the special issue. *Family Relations*, 53, 122-126.
- Ennis, N. E., Hobfall, S. E. & Schroder, K. E. E. (2000). Money doesn't talk, it swears: How economic stress and resistance resources impact inner-city women's depressive mood. *American Journal of Community Psychology*, 28, 149-173.
- Hammen, C. (2003). Risk and protective factors for children of depressed parents. In Luthar (ed.), *Resilience and vulnerability* (pp. 50-75). New York: Cambridge University Press.
- Hammen, C. & Brennan, P. A. (2003). Severity, chronicity, and timing of maternal depression and risk for adolescent offspring diagnosis in a community sample. *Archives of General Psychiatry*, 60, 253-258.
- Heymann, S. J. (2000). The widening gap: Why America's working families are in Jeopardy and what can be done about it. New York: Basic Books.
- Heymann, S. J. (2002). Low-income parents and the time famine. In S. Hewlett & C. West (Eds.), *Taking parenting public: The case for a new social movement* (pp. 103-116). Lanham, MD: Rowman & Littlefield Publishers.
- Hovey, J. D. & Magaña, C. G. (2002). Exploring the mental health of Mexican migrant farm workers in the Midwest: Psychosocial predictors of psychological distress and suggestions for prevention and treatment. *The Journal of Psychology*, 136, 493-513.
- Islam, J.C.S. (2004). Marital relationship status, social support and psychological well-being among rural, low-income mothers. Unpublished master's thesis, University of Maryland.

- Jackson, A. P. (1998). The role of social support in parenting for low-income, single, black mothers. *The Social Service Review*, 72, 365-378.
- Jackson, A. P. (1999). The effects of nonresident father involvement on single black mothers and their young children. *Social Work*, 44, 156-166.
- Jackson, A. P., & Huang, C. C. (1998). Concerns about children's development: Implications for single, employed black mothers' well-being. Social Work Research, 22, 233-240.
- Lavee, Y. & Olson, D. H. (1991). Family types and response to stress. *Journal of Marriage and Family*, 53, 786-798
- Lichter, D. T. & Jayakody, R. (2002). Welfare reform: How do we measure success? *Annual Review of Sociology, 28,* 117-141.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543-562.
- Luthar, S. S., D'Avanzo, K., & Hites, S. (2003). Maternal drug abuse versus other psychological disturbances: Risks and resilience among children. In Luthar (ed.), *Resilience and vulnerability* (pp. 104-129). New York: Cambridge University Press.
- Masten, A. S. & Powell, J. L. (2003). A resilience framework for research, policy, and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 1-25). New York: Cambridge University Press.
- McCubbin, H. I., McCubbin, M. A., & Thompson, A. I. (1993). Resiliency in families: The role of family schema and appraisal in family adaptation to crisis. In Brubaker (ed.), *Family relations: Challenges for the future* (pp. 153-177). Newbury Park, CA: SAGE Publications.
- McCubbin, H. I., McCubbin, M. A., & Thompson, A. I., Han, S., Allen, C. T. (1997). Families under stress: What makes them resilient. *Journal of Family and Consumer Sciences*, 89, 2-11.
- McCubbin, H. I. & Patterson, J. M. (1983). The family stress process: The double ABCX model of adjustment and adaptation. In McCubbin, et al (ed.), *Social stress and the family* (pp. 7-27). New York: Haworth Press.
- Mirowsky, J. & Ross, C. E. (1990). Control or defense? Depression and the sense of control over good and bad outcomes. *Journal of Health and Social Behavior*, 31, 70-86.

- Moen, P., Robison, J. & Dempster-McClain, D. (1995). Caregiving and women's well-being: A life course approach. *Journal of Health and Social Behavior*, 36, 259-273.
- O'Brien, M., Heron Asay, J., & McCluskey-Fawcett, K. (1999). Family functioning and maternal depression following premature birth. *Journal of Reproductive and Infant Psychology*, 17, 175-188.
- Olson, D. H. (1993). Family continuity and change: A family life-cycle perspective. In Brubaker (ed.), *Family relations: Challenges for the future* (pp. 17-40). Newbury Park, CA: SAGE Publications.
- Olson, C. M., Anderson, K., Kiss, E., Lawrence, F. C., & Seiling, S. B. (2004). Factors protecting against and contributing to food insecurity among rural families. *Family Economics and Nutrition Review*, 16, 12-20.
- Oltman, P. J. (2003). Finding meaning: A phenomenological study of low-income rural women. Unpublished master's thesis, University of Nebraska-Lincoln.
- Owens, E. B. & Shaw, D. S. (2003). Poverty and early childhood development. In Luthar (ed.), *Resilience and vulnerability* (pp. 267-292). New York: Cambridge University Press.
- Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family*, 64, 349-360.
- Patterson, J. M. (2002). Understanding family resilience. *Journal of Clinical Psychology*, 58, 233-246.
- Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337-356.
- Pearlin, L. I. & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2-21.
- Piescher, K. N. & Bauer, J. W. (2004). Economic and social factors of depression for rural low income mothers. Paper presented at the Annual Conference of the National Council on Family Relations, Orlando, FL.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement. 1(3), 385-401.
- Reynolds, A. J. & Ou, S. R. (2003). Promoting resilience through early childhood intervention. In Luthar (ed.), *Resilience and vulnerability* (pp. 436-459). New York: Cambridge University Press.

- Richards, L. N. (1998). One step at a time: A report on the outcomes of Oregon's 1996/1997 Even Start Programs. Prepared for Oregon Even Start Programs and Department of Community College & Workforce Development. Corvallis, OR: College of Home Economics and Education, Oregon State University.
- Richards, L. N., Merrill, M., Corson, C., Sano, Y., Graham., N., & Weber, P. (2000).

  After we say goodbye: A follow-up of Oregon's Even Start families. Technical report prepared for the Office of Community Colleges and Work Force Development, Oregon Department of Education. Corvallis, OR: College of Home Economics and Education, Oregon State University.
- Richards, L. N., Coehlo, D., Guyer, A., Mammen, S., Bauer, J. W., Berry, A., et. al. (2004). Health concerns of rural low-income families. Paper presented at the Annual Conference of the National Council on Family Relations, Orlando, FL.
- Ross, C. E. (2000). Neighborhood disadvantage and adult depression. *Journal of Health and Social Behavior*, 41, 177-187.
- Ross, C. E. & Huber, J. (1985). Hardship and depression. *Journal of Health and Social Behavior*, 26, 312-327.
- Ross, C. E. & Mirowsky, J. (1989). Explaining the social patterns of depression: Control and problem solving—or support and talking? *Journal of Health and Social Behavior*, 30, 206-219.
- Seidman, E. & Pedersen, S. (2003). Holistic contextual perspectives on risk, protection, and competence among low-income urban adolescents. In Luthar (ed.), *Resilience and vulnerability* (pp. 318-342). New York: Cambridge University Press.
- Seifer, R. (2003). Young children with mentally ill parents: Resilient developmental systems. In Luthar (ed.), *Resilience and vulnerability* (pp. 29-49). New York: Cambridge University Press.
- Siefert, K., Heflin, C. M., Corcoran, M. E., & Williams, D. R. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. Journal of Health and Social Behavior, 45, 171-186.
- Seligman, M. E. P. (1998). Learned optimism: How to change your mind and your life. New York: Free Press.
- Siefert, K., Heflin, C., Corcoran, M. E., & Williams, D. R. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. Journal of Health and Behavior, 45, 171-186.

- Taylor, R. D., Rodriguez, A. U., Seaton, E. K., & Dominguez, A. (2004). Association of financial resources with parenting and adolescent adjustment in African American families. *Journal of Adolescent Research*, 19, 267-283.
- Thomas, C. L. (Ed). (1993). *Taber's encyclopedic medical dictionary* (17<sup>th</sup> ed.). Philadelphia: F. A. Davis Company.
- Turner, R. J. & Lloyd, D. A. (1999). The stress process and the social distribution of depression. *Journal of Health and Social Behavior*, 40, 374-404.
- Turner, R. J. & Lloyd, D. A. (1999). Personal resources and the social distribution of depression. *American Journal of Psychology*, 27, 643-672.
- United States Department of Agriculture, Economic Research Service. (2002). Rural America at a glance. [Brochure]. Retrieved November 6, 2004 from United States Department of Agriculture, Economic Research Service Web site: http://www.ers.usda.gov/publications/rdrr94-1/
- Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process*, 42, 1-18.
- Wyman, P. A. (2003). Emerging perspectives on context specificity of children's adaptation and resilience: Evidence from a decade of research with urban children in adversity. In Luthar (ed.), *Resilience and vulnerability* (pp. 293-317). New York: Cambridge University Press.

