

## Job Volatility of Rural, Low-income Mothers: A Mixed Methods Approach

Ann A. Berry · Mary Jo Katras · Yoshie Sano · Jaerim Lee · Jean W. Bauer

Published online: 27 November 2007  
© Springer Science+Business Media, LLC 2007

**Abstract** The struggle for rural, low-income mothers to enter and remain in the workforce can contribute to job volatility, longitudinal changes in employment patterns. This study used a mixed methods longitudinal approach to examine job volatility of 245 rural, low-income mothers across 14 states. The mothers were categorized into three groups: stable employment, intermittent employment, and continuous unemployment. Work and family responsibilities were a continuous struggle for these mothers. Some mothers addressed these struggles through changing jobs, receiving social support, and/or staying out of the workforce to care for their children. To reduce job volatility, both qualitative and quantitative analyses showed that human capital development requires workplace flexibility and social support in addition to the traditional investments in education and healthcare.

**Keywords** Human capital · Job volatility · Low-income · Rural · Women's employment

---

A. A. Berry (✉)  
Department of Family and Consumer Sciences, University of Tennessee, 218 Morgan Hall, Knoxville,  
TN 37996-4501, USA  
e-mail: aaberry@utk.edu

M. J. Katras · J. Lee · J. W. Bauer  
Department of Family Social Science, University of Minnesota, 1985 Buford Avenue, St. Paul, MN  
55108-6140, USA  
e-mail: mkatras@umn.edu

J. Lee  
e-mail: jalee@umn.edu

J. W. Bauer  
e-mail: jwbauer@umn.edu

Y. Sano  
Department of Human Development, Washington State University Vancouver, 14204 NE Salmon  
Creek Avenue, Vancouver, WA 98686-9600, USA  
e-mail: sano@vancouver.wsu.edu

## Introduction

Economic self-sufficiency for all individuals is a goal for our society. However, moving individuals from dependency on government and social assistance has proved to be challenging for some individuals, particularly low-income mothers. Cancian and Meyer (2000) found that after 5 years of leaving welfare, few women had good jobs, many with periods of intermittent and part-time work as well as unemployment. The irregular employment, in particular, often affects the individual and family functioning in terms of employment-related resources. Moving between a state of employment and unemployment or changing workplaces can create this volatile state and additional vulnerability (Bok and Simmons 2002). Job volatility often causes irregular family income and hinders rational planning in family life (Wilson 1996).

Literature examining the factors contributing to the employment circumstances of low-income women, rural and urban, focuses on barriers to employment and factors that contribute to women's sustained participation in the labor force (Berry 2003; Boushey 2002; Fletcher et al. 2002; Henly 1999; Katras et al. 2004). Further, most quantitative studies regarding low-income women's employment are cross-sectional, and policy issues are discussed based upon qualitative research conducted at one point in time. Issues of employment patterns need to be examined longitudinally in order to capture a more comprehensive picture of rural, low-income mothers.

The present study conceptualizes longitudinal employment patterns as *Job Volatility* and uses a mixed methods approach to offer a better understanding of the research problem than either method alone (Creswell and Plano 2007). The purpose of this study is to explain, both qualitatively and quantitatively, the job volatility of low-income mothers living in rural areas. Three types of employment patterns were categorized to investigate different circumstances of the mothers' employment: (a) stable employment, (b) intermittent employment, and (c) continuous unemployment. Stable employment refers to an employment trajectory for a mother employed at the same workplace over the three waves of data collection. Mothers who remained unemployed over three waves of data collection are grouped as continuous unemployment. Finally, intermittent employment is defined as a change of employment status throughout the three waves, varying from either employed or unemployed and from employer to employer. Comparisons among these groups of rural, low-income mothers are expected to clarify the challenges for stable long-term employment faced by these mothers and help educate policy makers and employers make informed decisions regarding the labor force participation of this population.

## Conceptual Framework

Human capital theory serves as the framework for this research study. According to Becker (1993), human capital can be viewed as an asset for both an individual as well as an employer, since an individual's skills and abilities when used in employment increase productivity which increases employer profitability. Neoclassical economic theory considers the investments in human capital to be education, training, and healthcare (Becker 1993). Sustained employment and increased earning power are affected both by the employer's as well as the individual's investments in human capital. A holistic approach to the individual, including those needs that assist in a worker's productivity and well-being, gives a better picture of the expenditures in one's human capital that sustain employability and reduce job instability. Increased education, training, and healthcare are all important;

however, there are other factors that can increase human capital and ultimately affect the employment circumstances of rural, low-income mothers. Human capital theory provides a good theoretical lens to investigate those factors in this study.

## Review of Literature

Previous research has investigated the employment circumstances of low-income women by examining the barriers to finding and keeping employment along with issues surrounding labor force participation and stability. These barriers and issues are discussed below.

### Barriers to Employment

Research has found many barriers that rural low-income women face in finding and maintaining employment. Based on human capital theory, lack of education and job skills and the lack of opportunity for job training and education (Kim 2000; Monroe et al. 1999) have been cited as factors particularly with finding and keeping employment in rural areas. With few opportunities for additional education or training, rural low-income women are without the ability to invest in their future.

The lack of dependable transportation has been cited as an important issue to finding and maintaining employment (Fletcher et al. 2002; Katras 2003; Lichter and Jayakody 2002; Monroe et al. 1999). Without reliable and consistent transportation, many rural low-income women have been unable to keep or search for employment. Furthermore, in rural areas, public transportation can be hard to find. Other employment challenges for low-income women have included personal health issues (Dooley et al. 2000; Fletcher et al. 2002; Flynt 1996) and disability (Ipsen 2004; Kim 2000). The inability to manage family and job responsibilities has also emerged as a limiting factor to job stability (Boushey 2002). Urban and Olson (2005) used an indicator variable of family resource management skills and found that mothers who lacked these skills were less likely to be employed.

Child care has also been identified as a barrier to employment. This issue has taken the form of lack of affordable care (Lichter and Jayakody 2002; Rural Welfare Policy Panel 1999), unacceptable or unreliable child care (Katras et al. 2004; Monroe and Tiller 2001), or inconsistent child care arrangements that sometimes interfere with the mothers' job responsibilities (Henly 1999). Berry (2003) found that rural, low-income mothers receiving child care assistance were more likely to be employed. Studies have shown that much of the child care in rural areas has been provided by family or friends, an arrangement which has sometimes led to a disruption in the child care provision and ultimately result in job loss (Colker and Dewees 2000; Henly 1999). Inconsistent child care arrangements could possibly explain the lack of participation in the labor force for rural, low-income mothers.

Researchers have found that stage of family, or number and ages of children also played a role in whether or not a woman has been able to obtain and sustain employment. Cancian and Meyer (2000) and Kim (2000) found that the more children one has at home and those with young children were less likely to work. Urban and Olson (2005) found that the shorter the amount of time since the birth of a child, the more likely a mother will be unemployed. Hynes and Clarkberg (2005) suggested that a woman's employment circumstances be viewed as a trajectory, especially after the birth of a child, as the employment situation may not be constant.

Mauldin and Mimura (2007) found that mothers in rural areas with children living at home seemed to be more economically disadvantaged than those in urban areas.

### Labor Force Participation and Job Stability

Some factors that have been found to affect employment stability focus on the job rather than the employees, i.e., management practices, which can lead to employee retention.

Flexibility of employer, employer policies, and supervisor and coworker social support were found to be effective in reducing job attrition, or labor force interruption (Glass and Riley 1998). Boushey (2002) found that welfare leavers who were more likely to remain employed after 2 years had higher starting wages and employer-provided health insurance. The quality of the first job an individual attains after leaving welfare was likely to impact job retention as well as employer-provided benefits.

Studies of informal networks, which included family, friends, neighbors, and other associates, found these to be significant determinants of job stability. These informal networks, especially those providing for child care, improved the employment stability of working low-income women and played an extensive role in supporting women in the everyday management of family and employment roles (Boushey 2002; Henly 1999). Henley (1999) suggested that finding and maintaining work may also have been dependent more on social connections than on personal qualifications. Katras et al. (2004) found that the private safety net provided by informal supports of family and friends to be critical in rural low-income families' abilities to access the resources they need in order to maintain employment and take care of their families. Wanberg (2005) found that having a strong social support system in place while an individual is looking for a job is also important. In examining the role of government and social support, Livermore and Powers (2006) reported that single mothers were more likely to be employed if they received the Supplemental Nutritional Program for Women Infants and Child (WIC), employment agency assistance, or instrumental social support. Simmons et al. (2007) suggested that for rural low-income mothers social support is a key contributor to sustained economic well-being.

Other studies have found that the individual characteristics of an employee, such as having a positive attitude and motivation, gave an employee a feeling of job satisfaction (Boushey 2002; Wanberg et al. 1999). Previous job satisfaction research showed that life satisfaction has a bi-directional relationship with job satisfaction (Judge and Watanabe 1993), which was an important determinant of turnover (Lambert et al. 2001).

## Methods

### Sample

Data for this study were drawn from the Rural Families Speak Project. The Rural Families Speak Project is a longitudinal multi-state Agricultural Experiment Station research project which assesses changes in the well-being and functioning of rural families in the context of welfare reform (Bauer 2004). The original project included 413 families across 14 states and 24 counties. Participants were mothers and interviews typically lasted between 2 and 3 hours. Each mother was asked a standard set of questions, but because of the qualitative nature of the interviews, some mothers were allowed to talk freely about topics that were not in the interview protocol.

### *Sub Sample*

For this study, a sub sample of 245 mothers interviewed at all three waves was used. Only 40 maintained stable employment across the three waves. Another 56 were continuously unemployed over the three waves. The remaining 149 mothers were categorized as the intermittent employment group consisting of those who changed their employer and those who were employed on and off throughout the data collection period. All 245 cases were included in the quantitative analysis. For the qualitative analysis, all mothers in the stable employment and continuously unemployed groups were included, while 50 of the 149 intermittently employed were randomly selected to control the quality of in-depth investigation.

According to the baseline information, on average the mothers were about 30 years old, had two or three children, had a youngest child of 3.5 years old, and lived with approximately four family members in a household. About two-thirds of the mothers were non-Hispanic white and had a partner in their household by marriage or cohabitation. Seventy-seven percent of the mothers completed at least high school or G.E.D. As expected, mothers with stable employment had the highest monthly income followed by intermittently employed and unemployed mothers (Table 1).

### Analytical Procedure

The study used a triangulation mixed methods design. Triangulation begins with simultaneously collected qualitative and quantitative data. The qualitative and quantitative data are analyzed separately, and the results are combined and/or compared (Creswell 2003; Creswell and Plano 2007).

### *Qualitative Analysis*

An inductive analysis was conducted to identify any emergent themes. According to Tashakkori and Teddlie (2003), an *eliminative induction* analysis is preferred for mixed methods approaches because while it recognizes multiple interpretations, it supports a single interpretation. The first stage of the analysis involved an initial coding of the three interview transcripts for each interview within each of the three groups in order to identify over-arching themes. After an initial reading of full transcripts, a second more comprehensive reading of the transcripts produced more specific and refined themes. Using the list of emergent themes, the transcripts were coded accordingly and inter-rater reliability was checked using a cross reading of each employment group by two different members of the research team.

### *Quantitative Analysis*

A multinomial logistic regression analysis was conducted to quantitatively predict the employment circumstances of the rural low-income mothers. The outcome variable was the mothers' longitudinal employment status: *stable*, *intermittent*, and *continuous unemployment*. The predictor variables were mother's education, partner status, the age of the youngest child, number of chronic health problems, receiving transportation

**Table 1** Demographic characteristics of mothers by employment status ( $N = 245$ )

Variable	Stable employment ( $n = 40$ ) $M$ ( $SD$ )	Intermittent employment ( $n = 149$ ) $M$ ( $SD$ )	Continuous unemployment ( $n = 56$ ) $M$ ( $SD$ )	Total  $M$ ( $SD$ )
Mothers' age	34.49 (7.35)	28.55 (6.73)	30.39 (7.17)	29.93 (7.23)
Number of children	2.65 (1.14)	2.16 (1.25)	2.45 (1.22)	2.31 (1.24)
Age of youngest child in a household	4.80 (3.07)	3.31 (2.90)	3.11 (2.61)	3.51 (2.91)
Total number of family members	4.48 (1.45)	4.23 (1.86)	4.48 (1.80)	4.33 (1.78)
Monthly income	\$1617.40 (828.37)	\$1348.00 (827.35)	\$1199.49 (836.55)	\$1358.04 (848.41)
Mothers employment				
Wage per hour	\$8.01 (3.29)	\$6.80 (1.86)	N/A	\$7.14 (2.40)
Hours per week	30.51 (11.88)	29.50 (12.69)	N/A	29.78 (12.43)
Weeks per year	47.30 (6.54)	49.17 (8.10)	N/A	48.58 (7.66)
	$N$	$N$	$N$	$N$
Marital Status				
Single	8	38	9	55
Married	19	55	28	102
Living with partner	6	25	10	41
Divorced	6	22	5	33
Separated	1	9	4	14
Mothers' Ethnicity				
Non-hispanic white	28	101	37	166
Hispanic/Latino	10	28	9	47
African American	1	12	3	16
Native American	0	1	1	2
Multi-racial	1	4	6	11
Other	0	1	0	1
Information missing	0	2	0	2
Mothers' education				
8th grade or less Some high school	3	9	4	16
High school or GED	3	22	12	37
Specialized training	8	46	19	73
After high school	8	26	5	39
Some college	12	44	14	70
College or university graduate	5	2	1	8
Graduate degree	1	0	1	2

Note: Data are based on baseline information

assistance, having a car, food insecurity, life satisfaction, and knowledge of community resources. All the predictor measures came from the baseline wave except for partner status, in order to clarify time order between predictors and mothers' employment trajectories.

### *Predictor Variables*

Mother's education was categorized into three levels: *less than high school*, *high school graduate*, and *beyond high school*. Partner status was measured by using *the same partner over three waves* as the reference group, and two dummy variables were created: *change of partner during three waves* and *no partner over three waves*. The age of the youngest child in the household was also included in the quantitative model.

Number of chronic health problems was measured using an index of 19 possible health problems a mother could identify as having, using as guides the studies of Devitto et al. (2005), Sturm and Wells (2001), and Segovia et al. (1989). Heart problems, high blood pressure, diabetes, cancer, liver problems, seizure disorder, asthma, back problems, chronic pain, permanent disability, reproductive problems, bladder infections, migraines/headaches, arthritis, allergies, thyroid problems, kidney problems, anemia and digestive problems. The score was calculated by summing the number of problems selected.

Receiving transportation assistance was a dummy variable that measured whether the mothers received formal transportation assistance: 1 = *receiving assistance* and 0 = *not receiving assistance*. Having a car was also a single item question: 1 = *having a car*, 0 = *not having a car*.

Food insecurity was measured by the 18-item U.S. Household Food Security Module with a 12-month time reference (Hamilton et al. 1997). This measure has been administered to participants in the Current Population Survey conducted by the U.S. Census Bureau for the U.S. Department of Labor, Bureau of Labor Statistics. The food insecurity score was calculated by summing the 18 items. This variable serves as an indicator of health.

Life satisfaction was assessed through a single item asking "How satisfied are you with your life as a whole?" Responses ranged from 1 (*very dissatisfied*) to 5 (*very satisfied*).

Knowledge of community resources was measured using 26 items from the Knowledge of Community Resources Index (Richards 1998), asking whether a mother knows how to find services in the community, such as job training, childcare, or medical treatment. The Rural Families Speak project research team added four population-specific items to the original measure, including finding temporary housing and applying for a childcare subsidy. A higher score indicates the greater knowledge of community resources, an indicator of resource management skills and available support.

## **Results**

### Results of Qualitative Analysis

#### *Stable Employment*

Among the mothers who were interviewed at all three waves ( $N = 245$ ), only 40 mothers (16.3%) remained in the same job over three waves. Although the mothers' working situations were diverse (e.g., occupations, wages, and working hours), the interviews revealed that they shared three common themes: (a) flexibility at the work place, (b) high satisfaction, and (c) strong social support.

The theme of flexibility at the work place was defined in this study as the degree and means by which mothers were able to care for their family while maintaining employment. All of the mothers talked about the importance of having flexibility at work in order to be

able to combine their work and family responsibilities, especially to care for their children. Flexibility was even considered as a job benefit. Janelle who ran a childcare business stated, “Flexibility is about the only benefit that I have.”

Sometimes having flexibility was more important than being paid well. Being asked what her ideal job was, Raven, a single mother of two school-age children responded, “I don’t get paid for the summer, but I have the summer off with the kids. That’s why I jumped at this job.” Another mother, Leandra, an administrative assistant, described how her supervisors understood her responsibility as a mother.

...they do more of a flex time for this...the little one [youngest child] is going to the pumpkin farm for the first time, with the Head Start, and I wanted to take off time to go to that...and they said, “That’s fine, if you want, you can work through your lunch and just add time on the end, or if you want, just come in like a half and hour early, you know, to make up for some of the time.”...See, and you don’t find too many offices that let you do that. And I think the whole reason is that most of the supervisors are very family-oriented.

Some mothers could even bring their children to their work place. Tiana who worked at a family-owned company told her interviewer that she could bring her daughter to work if she could not find any childcare provider. According to Tiana, her supervisor was very understanding because “She [her supervisor] did that when she was starting out. Family first, that’s how it is here.” Another mother, Emiliana, a real estate agent, often brought her 4-year-old daughter and 1-year-old son to the office because she was always by herself in the real estate office. For this group of mothers, a family-oriented work place was one key factor to maintaining employment over a long time period.

Work satisfaction was another major theme that emerged from the interviews. For some mothers, their family responsibilities and work satisfaction complemented each other, especially in terms of flexibility. Commenting that she enjoyed the work, Daria reasoned, “I’ll do it ‘til I die. Cause I’ve done it almost ten years. It just really works out with my family.” As some mothers chose flexibility at work over higher wages, other mothers also chose to stay at lower-paying jobs because they enjoyed the work environment. Ivy was an example for such a case. Ivy, a waitress at a family-owned restaurant, commented, “I enjoy the [work] environment. I mean we have a good family environment. We all get along...we have parties, and you know, we do things, and it’s good to see people be happy, and we just, I enjoy it.” When asked if there was anything she didn’t like, Ivy answered, “Well, I don’t make enough money, but I can’t change that.” Ellen, a produce manager at a co-op, also shared similar feelings. After expressing how much she enjoyed her work, Ellen explained, “I’m amazed at myself that I don’t get tired of it. It’s just, like, the beauty of the food.” She continued, “It’s very rewarding, even though it keeps me (in) poor.”

Other mothers attributed their job satisfaction to the nature of the job. They seemed to know their own likes and dislikes and what best fit their own personalities. For example, Jillian described her work as an aid at a hospital. She explained:

I like working with the patients. They go into the room, because they’re sick or they’re depressed, or being in the hospital. Go in and give them a smile and talk with them and take their tray to them, and just be nice to them. Some of the nurses and the aides are not so nice, and I just like being, working with the patients and helping them with their diets...I enjoy it.

Although the source of work satisfaction varied from mother to mother, feelings of job satisfaction or enjoyment were important factors in maintaining long-term employment.



The third theme which emerged from this group was the presence of strong social network. Many mothers attributed their ability to continue work to the fact that they had reliable childcare—in most cases a female family member of her family of origin; such as, a grandmother, mother, sister, or niece. Marta, an instructional assistant for a school district, was grateful that her own mother cared for her children while she worked. Marta says, “My mom lives next door so like right now when I go, she’s gonna cook (laughing).” Another mother, Tess, a single-mother of 4-year-old son, also had a strong social network. She explained that she could count on her mother, grandmother, and cousin as her babysitter. Even if “my mom gets sick, she’ll still usually baby-sit him.”

For these mothers, a strong social network helped them to maintain employment in various ways besides provision of childcare. Similar to the issue of job flexibility, these mothers felt they had an understanding with their female supervisors, who were also mothers, or had helpful co-workers who were willing to cover their shift when necessary. In summary, for many mothers, maintaining employment resulted from the combination of flexibility of work place, their own motivation, and a strong social network.

### *Intermittent Employment*

Of the mothers who were interviewed at all three waves, just over 60% were categorized as intermittently employed. The common over-all theme that emerged from interviews with this group was job and family maintenance with emergent sub-themes of flexibility, need for balance, and short-term health problems. The need for balance was defined as a family having a daily routine and that they were able to successfully combine work and family responsibilities.

The mothers with intermittent employment had a difficult time consistently combining work and family. Job maintenance was hard to achieve because of lack of flexibility at the work place, the need for balance between work and family responsibility, and their lack of satisfaction with their employment situations or choices. Oceana, a 24-year-old restaurant manager and a single mother of two young boys, was about to quit her job to go back to school because she was having a hard time managing a job and family responsibilities.

Basically, the reason why I want to quit is just because my job takes too much of my time, and I hardly see my kids. I hardly spend any time with them. And so I figure I’ll just get a part time job and go to school. And it’ll be like I still have my job. I’ll struggle for a little bit, but, for, to better myself in the future.

The theme of flexibility at the work place was also important for this group. Many mothers described similar situations as Eve, a 40-year-old divorced mother with one son who was having difficulties keeping her job as cook because it did not allow for her to care for her family when unexpected situations arose.

My little boy got sick and the Head Start teacher took him to the doctor and we had to take him to the hospital and the boss was really crummy about it ....He [son] and I were both sick...I had to stay home for like 3 days and the boss got rude with her, and so then [a different job] had called my grandma’s and wanted me to come back so I just went back to [a different job]. That is the first time I quit a job without giving them notice, but you know my kids come first. He [boss] was not very understanding at all.

As many mothers in this group identified, the lack of flexibility at the workplace often resulted in them seeking employment elsewhere. This is consistent with the finding of the stable employment mothers who indicated that the presence of flexibility at the workplace helped to keep them employed. When employers are supportive of an employee's care responsibilities, it creates an environment where employees are able to thrive both at work and at home. For Glenna, a 21-year old single mother of two young children who worked at a local grocery store, flexibility was crucial.

...if you call in sick or you call in, "My child is sick," they don't get mad at you. You get paid sick days...When Bailey got sick at the babysitter's, I think it was like the second week I was working, I said "Can I use my lunch break? I know it's only half an hour, I gotta go to Stanmore, I gotta pick up my baby and I gotta drop her off at Mom's." And he says, "Yeah, but if your mom's not home what're you gonna do?" I said, "I can't leave her there alone. I mean, she's only three." He says, "Well just call me when you get home let me know, and if you gotta skip the rest of the day that's all right, I'll pay ya for half the rest of the day."

While this group of mothers was diverse in terms of family size and employment type, the need for balance was something most had in common. Mothers in this group described how they needed to have childcare and employment schedules that were reliable and coincided. This was often achieved through piecing together various part-time jobs or starting a business of their own. When asked why she had several part-time jobs, Joni, a 24-year-old mother of a young child replied, "I have a daughter to raise."

Juggling work and family responsibilities often created tenuous situations for families. Jan, a single mother of a young daughter, wanted to have a job that gave her more employment opportunities that would allow her to maintain work and family life. She invested in her future by recently finishing a dental hygienist program to advance herself beyond her 14 years as a dental assistant. She described her job as a dental hygienist and how she would continue to search for a better work-family balance.

I work for a couple who's in their mid forties who have no children and, um, it's...I find it difficult to get everything I need to get done at home, um...done. I just feel like there's not enough time in the day. And I just, um, I feel guilty a lot, not being home with her [daughter], like this summer. I want to be home with her more. And, I am bothered that I can't be. Right now. So, I am actually trying to create something else in my life so that I can be home with her more next summer.

The job trajectory for this group reflected the mothers who were advancing in their careers. It also reflected mothers who changed jobs to maintain work-family balance over the time period of these interviews. Gabby a 36-year-old divorced (later married) mother of three, shared her situations at the time of each of the interviews. Gabby's story below clearly illustrates her long-term struggle to make everything work.

Wave 1 Interview: ...the hours are much better. I work Monday through Friday from eight thirty in the morning 'til four in the afternoon. So, basically I take my kids to school, and they go to daycare for about forty-five minutes, and then I'm there to pick 'em up.

Wave 2 Interview: (Pleasantville) was a bad town- the kids were- I mean, there were so many problems. I mean, I had gone up and I had quit my job. I quit because it was working seventeen, eighteen hour days. My kids were constantly in daycare and everything. So, we just said, nope, that was enough, and they put us out.

Wave 3 Interview: It's just I go to Stanmore, and I pick up stuff and I come home, and it's just peoples' names and addresses that I type into the computer. And format 'em on a disc, and take 'em back every day. It takes me about six to eight hours to do 'em on the computer here at home, and then every day between twelve-thirty and two thirty, I take it back, pick up a new batch and come home. Which is- it's only about twenty minutes down the road. But that way, I don't pay out day care, if one of the kids is sick during school, I'd be home.

As the previous interviews show, some of the mothers in this group received additional education and/or training that enabled them to secure employment. While not an overarching theme, eight of the mothers moving from unemployment to employment in the qualitative analyses received some type of additional education and training.

Some of the mothers that made up the intermittently employed group faced short-term health problems or minor disabilities (including pregnancy-related issues) that interrupted their employment trajectories leaving them unable to work for short periods of time and/or at certain types of jobs. Taffy, a 27-year-old single mother of two young daughters described her battle with short-term health issues.

I was terminated while I was in the hospital...this one was for depression, I had to end up having a nervous breakdown, and they admitted me right then and there, so I was in a position where I couldn't call. I wasn't allowed to call or anything...

These mothers who experienced intermittent employment showed that balancing work and family issues was a struggle without social and job supports.

### *Continuous Unemployment*

Of the mothers that were interviewed all three waves, almost 22% were continuously unemployed. Two common themes that depicted the realities of this group of mothers were health problems and choice. Choice was defined as the decision not to work because the mother chose to stay home with their children. When asked why they were not working, many responded, "To stay home with my children." Families in this group were often economically supported by a partner's employment or through other public or private resources.

Other mothers in the unemployed group were unemployed due to debilitating and/or chronic health problems that left them to be unable to work or unable to hold a job. The sub theme of health issues emerged through two other themes: family issues and barriers to finding a job. Through these themes it was evident that health-related issues were significant obstacles in finding and keeping a job and influenced both family and economic well-being. For some mothers such as Anjalee, a 22-year-old single mother who lived with her daughter and partner, multiple health issues were overwhelming "Let's see, where to start. I'm deaf in one ear. Partially deaf in the other. My eyes, my back, my learning..." Zola, a 44-year-old mother of two who lived with her partner of 20 years described her health challenges that kept from working.

Well, my back. I've still got the herniated disc and they've been giving me back shots. Like I said, they're talking about surgery now. And I've also got emphysema on top of that now. So that's something different that occurred within the last year.

Regarding the emergent theme of choice, mothers' decisions not to work appeared to be based upon their own values and/or being unable to access and/or economically support the

childcare they needed. After three interviews with this group of mothers, many talked about remaining unemployed for the sake of their children. When asked why she was not looking for a job during her initial interview, Jeanette, a 31-year-old married mother of three children responded, “So I can stay with my kids. We manage okay. I had a good salary, but it was too high of a price to pay not being home at all. I didn’t want someone else to raise my kids.” She remained at home with her children during our interviews with her and stated at her third interview, “I am just happy to be with the kids. We’d rather do with less than have to rely on outside care.”

As Jeanette commented, some mothers that made up the unemployed group actively made the choice to stay home with their children. These mothers’ choice is unlike previous research that focused on an individual’s ability to maintain employment. The results of this study have shown through the words of these mothers that they do in fact have jobs—raising their families.

### Results of Quantitative Analysis

Table 2 shows results of the multinomial logistic regression predicting job volatility in rural, low-income mothers. The top part of the table indicates the results of the mothers with intermittent employment while the bottom part focuses on the results of the unemployed mothers. These results are compared to a group of the mothers with stable employment which was a reference category in the multinomial logistic analysis. The table also includes odds ratios and percent changes in the right two columns in order to make interpretation easier.

#### *Predicting Intermittent Employment*

Factors that significantly increased the odds of being intermittently employed, compared to being continuously employed, were having a younger youngest child, receiving transportation assistance, and higher food insecurity. Age of the youngest child in the household significantly influenced the mothers’ intermittent employment over the years. Specifically, compared to the mothers with stable employment, having an older child decreased the odds of mothers’ intermittent employment by a factor of .79, holding other variables constant. Equivalently, if a mother had an older child, the likelihood of her intermittent employment decreased by 21.21%. That is, a mother of a younger youngest child was more likely to work intermittently while a mother of an older youngest child was more likely to be continuously employed.

Another significant factor to increase a likelihood of intermittent employment was receiving transportation assistance. Receiving the transportation assistance at the baseline was the most influential factor among other predictors to predict mothers’ intermittent employment. Higher food insecurity increased the odds of intermittent employment by a factor of 1.20. In other words, a higher level of food security at the baseline increased the likelihood for a mother to have stable employment over the years.

#### *Predicting Continuous Unemployment*

Predictors of mothers’ continuous unemployment overlapped with those of intermittent employment. Just as with the mothers with intermittent employment, having a younger

**Table 2** Estimates of multinomial logit model to predict job volatility ( $N = 245$ )

Variable	Coefficient <sup>a</sup>	Standard error	Odds ratio	Percent change <sup>b</sup>
<b>Intermittent employment (<math>n = 149</math>)</b>				
Intercept	4.62**	1.65	–	–
Mother's education	–0.09	0.30	0.91	8.56
Change of partner over 3 waves	–0.29	0.84	0.75	25.06
No partner over 3 waves	0.60	0.51	1.82	81.74
Age of youngest child	–0.24***	0.07	0.79	21.21
Number of chronic health problems	–0.06	0.12	0.94	5.59
Receiving transportation assistance	21.26***	0.55	1.71E+09	1.71E+11
Having a car	–1.11	0.86	0.33	67.16
Food insecurity	0.18*	0.07	1.20	0.20
Life satisfaction	–0.42 <sup>†</sup>	0.25	0.66	34.07
Knowledge of community resources	–0.02	0.05	0.98	1.72
<b>Continuous unemployment (<math>n = 56</math>)</b>				
Intercept	5.83**	1.84	–	–
Mother's education	–0.194	0.341	0.82	17.63
Changed partner over 3 waves	–2.108	1.374	0.12	87.85
No partner over 3 waves	–0.564	0.607	0.57	43.13
Age of youngest child	–0.25**	0.08	0.78	22.00
Number of chronic health problems	0.11	0.13	1.11	11.42
Receiving transportation assistance	21.07***	0.07	1.42E+09	1.42E+11
Having a car	–2.14*	0.92	0.12	88.20
Food insecurity	0.19*	0.08	1.21	20.71
Life satisfaction	–0.68*	0.28	0.51	49.14
Knowledge of community resources	–0.03	0.05	0.97	3.39

Note Reference group is mothers with stable employment at the same place over years

<sup>a</sup> Unstandardized coefficients, <sup>b</sup>Percent change in expected count per one-unit increase in X

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

child, higher food insecurity, and receiving transportation assistance contributed to the higher likelihood of unemployment over the years, compared to mothers with stable employment. However, other factors uniquely influenced the mothers' long-term unemployment. Factors that decreased the odds of being unemployed were having a car and higher life satisfaction. The results indicate that lower satisfaction level toward life leads to mothers' longitudinal unemployment. Taken together, these results show that compared to mothers with stable employment, the mothers with long-term unemployment seem to be more disadvantaged at the baseline in terms of child caregiving responsibilities, food security, need for transportation assistance, and life satisfaction.

## Discussion and Conclusions

The goal of this study was to examine the job volatility of rural, low-income mothers to understand the circumstances and characteristics that affect their participation in the labor

force. The mothers in our sample fell into three categories of employment circumstances: stable, intermittent, and unemployed. This study, using a mixed methods approach to examine job volatility, was able to compare and contrast the results. The qualitative and quantitative analyses complemented and corroborated each other to provide a rich and in-depth understanding of job volatility for this group of rural, low-income women with families. The data showed that all three groups struggled to maintain employment and overcome barriers to care for their families.

The mothers who maintained *stable employment* throughout this longitudinal study did so due several factors: (a) flexible work environment, (b) work satisfaction, and (c) a strong social network, particularly reliable child care. These mothers talked about how a good work environment and believing that their work is rewarding were more important than higher wages. This finding is important for future design and implementation of job training programs because it reveals that the personalities and aptitudes of job seekers should be considered, since the findings revealed that the mothers were more likely to be employed if they were satisfied with their work and perceived their job as rewarding. In addition, the mothers with stable employment also talked about how essential having a strong social support network was in remaining employed. While not normally viewed as an investment in human capital, this support system provided a security net for these women to be gainfully employed, enjoy their jobs, and be productive employees.

The mothers who experienced intermittent employment reported lack of flexibility at the work place, a need for balance between work and family responsibilities, the age of the youngest child being very young, a state of food insecurity and being the recipients of transportation assistance. Flexibility at the work place was one of the most critical factors that distinguished the mothers with stable employment from those with intermittent employment. The quantitative results support the findings of the qualitative analysis citing the issues of childcare and balancing work and taking care of children as significant factors in the mothers' intermittent employment circumstance, supporting the work of Cancian and Meyer (2000). Lack of flexibility in the work environment prevented the mothers from maintaining stable employment. These results imply that policymakers and employers need to enhance job flexibility and work conditions to increase and maintain participation in the labor force of rural, low-income mothers.

Some mothers chose to stay at home, instead of entering the workforce, to care for their children, despite their food insecurity and limited income. Caring for their children was a priority. This factor has not been identified in previous studies. As with some of the mothers in the intermittent group, chronic health problems, including health of self and/or a family member, was also a significant factor revealed in the qualitative analysis, although this factor, as measured by the number of chronic health problems, was not significant in the quantitative analysis. Other studies have shown health factors to be a barrier (Fletcher et al. 2002; Flynt 1996; Ipsen 2004). This contradiction in results shows the advantage in using the mixed methods approach.

Qualitative comparisons of the three groups revealed that the continuously employed group had strong safety nets in place to help them maintain employment; such as, their investments in human capital and social supports. While the other two groups may have had some similar safety nets, they had difficulty keeping a job due to family issues, health problems, and/or their own values. The challenges faced by the intermittently employed group were family and work struggles, while the continuously unemployed mothers chose to avoid this struggle by staying home with their children. Some were able to do this by relying on their partner's income or choosing to participate in education; investing in their human capital in order to have opportunities in the future for themselves and their families.

Those who were unable to participate in the labor force due to health issues were forced to deal with their own health needs while trying to pull together resources necessary to provide for their families.

While there are some distinct differences among the groups, these groups are not mutually exclusive; rather, there are elements of over-lap. The true reality of these groups can only be captured through a longitudinal lens that offers a look into these families' lives across time. This perspective revealed that many of these families cycle in and out of employment for various reasons. Child care issues were an over-arching theme in both qualitative and quantitative results, as previous research has shown. The quantitative findings showed that a mother with a younger child was less likely to be employed or continuously employed. Together, these results showed that childcare issues, particularly for younger children, significantly affected the mothers' employment circumstances.

Several factors were uniquely identified as significant factors through either the qualitative or the quantitative analysis. For instance, the qualitative analysis showed that chronic health problems were one of the major barriers to labor force participation. Human capital theory identifies healthcare as a factor in human capital development. However, in the quantitative analysis, the predictor variable, number of chronic health problems, was not significant in predicting employment. The quantitative results showed that when compared to those with stable employment, the intermittently employed group and the continuously unemployed group were more likely to receive transportation assistance. Not having a car was a marginally significant predictor for the longitudinal status of unemployment. These findings highlight how critical it is for rural, low-income women and their families among all employment groups to have access to resources that will improve their employability and support them once they do become employed, in order maintain their economic self-sufficiency.

The quantitative findings uniquely revealed that families with food insecurity were more likely to have a mother with intermittent employment and continuous unemployment over the three waves. The quantitative analysis also revealed lower life satisfaction as an employment predictor for these two groups. Whether their life satisfaction was due to employment situation or was a barrier to obtaining employment was not measured. However, the personal attitudes of the mothers in the stable group came out through the qualitative analysis as being an asset to their employability. This is an indicator that needs further research.

Limitations of this study include not being able to take several employment predictors into account in the quantitative analysis. For example, the job characteristics were not included as they were not available for the continuously unemployed mothers. The differences between the mothers who maintained stable employment but in different jobs and the mothers who had inconsistent employment over the three-wave period could not be examined. In addition, social support, which emerged as an important theme in the qualitative analysis, was not measured quantitatively. The chronic health indicator measured only the number of symptoms and did not consider degree of health problems, which might have altered the significance of this health variable. In spite of its limitations, this study provides significant contributions to understanding the circumstances surrounding the employment status and the human capital investment/support needs of this population. The study does show factors in the total capital development context that contribute to continuous employment of this population. Job flexibility and job fulfillment play key roles in the labor force participation of rural, low-income mothers.

## Implications for Policy

It should be noted that some mothers will never be in the workforce while they have young children. Raising children will take precedence over any employment opportunity. The family value of *children come first* is just too strong. Caring for family is a full-time vocation for these mothers.

Findings from this study can be used by both employers and policymakers to better serve the needs of rural, low-income mothers who do desire to work outside the home as well as the needs of rural communities. Employers want reliable, stable employees and profitable businesses. By providing the type of workplace necessary to support a working mother, rural employers will be better positioned to keep a productive workforce. While some businesses can be more flexible than others, it is important for employers to understand the challenges this population faces in labor force participation and the supports needed to remain in the labor force.

Job supports for rural businesses to aid low-income working mothers should be explored. The Family and Medical Leave Act of 1993 allows workers at companies with more than 50 employees to take up to 12 workweeks of unpaid leave to care for family members. In rural areas, many employers may not have this many employees and not offer this benefit to their employees, consequently there is a need for policy to address support options for rural, small employers.

Rural economic development is dependant upon a capable and dependable workforce. Long-term employment of individuals makes for stronger communities. Job readiness programs should try to match the skills and interests of the future employee, with the understanding that the individual will be more likely to remain employed in a position that meets her job satisfaction needs in addition to her skill set. Work preparedness programs should also include sessions on the topics of balancing work and family, money management, and identifying support systems.

In addition, child care subsidies should be expanded to assist rural, low-income mothers in finding and maintaining employment. Since affordable quality day care centers can be scarce in rural communities, the support for familial child caregivers is suggested in the form of child care subsidies and educational resources.

While not normally considered human capital investments, these factors clearly add to the safety net for working mothers in rural areas to enable them to be active participants in the labor force. Policymakers and employers would benefit by understanding the *whole picture* of human capital investment needs of this population. By developing programs to provide flexible workplaces, understanding employers, match individual's job skills and personalities with job opportunities, as well as providing for quality affordable child care and transportation, the job instability could possibly be reduced and worker productivity increased.

**Acknowledgments** This research was supported in part by USDA/CSREES/NRICGP Grants—2001-35401-10215, 2002-35401-11591, 2004-35401-14938. Data were collected in conjunction with the cooperative multi-state research project NC-223/NC-1011 Rural Low-income families: Tracking Their Well-being and Functioning in the Context of Welfare Reform. Cooperating states are California, Colorado, Indiana, Iowa, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Nebraska, New Hampshire, New York, Ohio, Oregon, South Dakota, West Virginia, and Wyoming.

## References

- Bauer, J. W. (2004). *Basebook report: Low income rural families, Tracking their well-being and functioning in the context of welfare reform*. St. Paul: University of Minnesota.
- Becker, G. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago: University of Chicago Press.



- Berry, A. A. (2003). *The relationship between selected housing and demographic characteristics and employment status among rural, low-income families*. Unpublished doctoral dissertation, Baton Rouge: Louisiana State University.
- Bok, M., & Simmons, L. (2002). Post-welfare reform, low-income families and the dissolution of the safety net. *Journal of Family and Economic Issues*, 23, 217–238.
- Boushey, H. (2002). *Staying employed after welfare: Work supports and job quality vital to employment tenure and wage growth*. (Economic Policy Institute Briefing Paper #128) Washington: Economic Policy Institute.
- Cancian, M., & Meyer, D. (2000). Work after welfare: Women's work effort, occupation, and economic well-being. *Social Work Research*, 24, 69–86.
- Colker, L. J., & Dewees, S. (2000). *Child care for welfare recipients in rural areas*. Administration for Children and Families. Retrieved May 17, 2005, from [http://www.acf.hhs.gov/programs/opre/welfare\\_employ/rural\\_wtw/reports/cc\\_wlf\\_part/cc\\_for\\_welfare.pdf](http://www.acf.hhs.gov/programs/opre/welfare_employ/rural_wtw/reports/cc_wlf_part/cc_for_welfare.pdf).
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks: Sage.
- Creswell, J. W., & Plano, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks: Sage.
- Devitto, Z., Varcoe, K., & Seiling, S. (2005, October). *Ethnic differences in predictors of health care use among low-income, rural women*. Paper presented at the Rural Families Speak Annual Meeting, Portland, OR.
- Dooley, D., Prause, J., & Ham-Rowbottom, K. A. (2000). Underemployment and depression: Longitudinal relationships. *Journal of Health and Social Behavior*, 41, 421–436.
- Fletcher, C. N., Garasky, S., & Jensen, H. H. (2002). *Transitioning from welfare to work: No bus, no car, no way*. Paper presented at the Hard-to-Employ and Welfare Reform Conference, Washington, D.C.
- Flynt, W. (1996). Rural poverty in America. *National Forum*, 76, 32–34.
- Glass, J. L., & Riley, L. (1998). Family responsive policies and employee retention following childbirth. *Social Forces*, 76, 1401–1435.
- Hamilton, W. L., Cook, J. T., Thompson, W. W., Buron, L. F., Frongillo, E. A. Jr., Olson, C. M., & Welher, C. A. (1997). *Household food security in the United States in 1995: Summary report of the food security measurement project*. Washington: U.S. Department of Agriculture, Food and Consumer Service.
- Henly, J. R. (1999). Challenges to finding and keeping jobs in the low-skilled labor market. *Poverty Research News*, 3, 3–5.
- Hynes, K., & Clarkberg, M. (2005). Women's employment patterns during early parenthood: A group-based trajectory analysis. *Journal of Marriage and Family*, 67, 222–239.
- Ipsen, C. (2004). Linking health, secondary conditions and employment outcomes. University of Montana Rural Institute, Research and Training Center on Disability in Rural Communities. Retrieved January 10, 2005, from <http://www.rtc.ruralinstitute.umt.edu/RuEcD/LinkingHealth.htm>.
- Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction—life satisfaction relationship. *Journal of Applied Psychology*, 78, 939–948.
- Katras, M. J. B. (2003). *The private safety net: How rural, low-income families access and use resources to make ends meet in the era of welfare reform*. Unpublished doctoral dissertation. St. Paul: University of Minnesota.
- Katras, M. J., Zuiker, V. S., & Bauer, J. W. (2004). Private safety net: Childcare resources from the perspective of rural low-income families. *Family Relations*, 53, 201–209.
- Kim, R.Y. (2000). Factors associated with employment status of parents receiving temporary assistance for needy families. *Social Work Research*, 24, 211–221.
- Lambert, E. G., Hogan, N. L., & Barton, S. M. (2001). The impact of job satisfaction on turnover intent: A test of a structural measurement model using a national sample of workers. *The Social Science Journal*, 38, 233–250.
- Lichter, D. T., & Jayakody, R. (2002). Welfare reform: How do we measure success? *Annual Review of Sociology*, 28, 117–141.
- Livermore, M. M., & Powers, R. S. (2006). Employment of unwed mothers: The role of government and social support. *Journal of Family and Economic Issues*, 27, 479–494.
- Mauldin, T. A. & Mimura, Y. (2007). Marrying, unmarried, and poverty dynamics among mothers with children living at home. *Journal of Family and Economic Issues*, 28, 566–582.
- Monroe, P. A., Blalock, L., & Vlosky, R. (1999). Work opportunities in a non-traditional setting for women exiting welfare: A case study. *Journal of Family and Economic Issues*, 20, 35–60.
- Monroe, P. A., & Tiller, V. (2001). Commitment to work among welfare—reliant women. *Journal of Marriage and Family*, 63, 816–828.

- Richards, L. N. (1998). *One step at a time: A report on the outcomes of Oregon's 1996/1997 Even Start Programs*. Corvallis: Oregon State University, College of Home Economics and Education.
- Rural Welfare Policy Panel (1999). *Rural America and welfare reform: An overview assessment* (Rural Policy Research Institute, P99–3). Retrieved January 10, 2005 from <http://www.rupri.org/publications/archive/old/welfare/p99-3/>.
- Segovia, J., Bartlett, R., & Edwards, A. (1989). An empirical analysis of the dimensions of health status measures. *Social Science Medicine*, 29, 761–768.
- Simmons, L. A., Braun, B., Wright, D. W., & Miller, S. R. (2007). Human capital, social support, and economic well-being among rural, low-income mothers: A latent growth curve analysis. *Journal of Family and Economic Issues*, 28, 635–652.
- Sturm, R., & Wells, K. (2001). Does obesity contribute as much to morbidity as poverty or smoking? *Public Health*, 115, 229–236.
- Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in the social and behavioral sciences*. Thousand Oaks: Sage.
- Urban, J. A., & Olson, P. N. (2005). A comprehensive employment model for low-income mothers. *Journal of Family and Economic Issues*, 26, 101–122.
- Wanberg, C. (2005). Job-search persistence during unemployment: A 10-wave longitudinal study. *Journal of Applied Psychology*, 90, 411–430.
- Wanberg, C., Carmichael, H., & Downey, R. (1999). Satisfaction at last job and unemployment: A new look. *Journal of Organizational Behavior*, 20, 121–131.
- Wilson, W. J. (1996). *When work disappears: The world of the new urban poor*. New York: Vintage Books.