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THE EFFECTS OF CHILD CARE EXPENSES AND
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THE EFFECTS OF CHILD CARE EXPENSES AND
FINANCIAL AND SOCIAL SUPPORT ON
THE ECONOMIC WELL-BEING OF SINGLE MOTHER FAMILIES

By

SUNWOOK PARK

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ABSTRACT

THE EFFECTS OF CHILD CARE EXPENSES AND
FINANCIAL AND SOCIAL SUPPORT ON
THE ECONOMIC WELL-BEING OF SINGLE MOTHER FAMILIES

By

Sunwook Park

The purpose of this study is to investigate the effect of child care expenses and financial and social supports on the economic well-being of single mother families. Economic well-being is measured by three indicators: family income, per capita income, and the amount of public assistance received. This study also examines child care expense and financial and social support variables by family contextual factors (i.e., mother's age, marital status, educational level, employment status, and the presence of children aged 0-5) for single mother families.

The 1999 National Survey of America's Families (NSAF) is used to analyze the economic well-being of single mother families. In this study, 4,676 single mother families with children aged twelve and under are included for the analytical sample.

About half of all single mother families with children under age 12 had some amount of child care expenses in 1999. Monthly child care expenses for those who had child care expenses was an average of $ 255 and it accounted for about 15 percent of their family earnings. Multiple regression analyses show that child care expenses are significantly related to economic well-being after controlling for family contextual

factors. Higher child care expenses and a lower percentage of earnings spent on child care are related to better economic well-being.

The analyses also show that financial and social supports (i.e., general financial support from kin or friends, financial support for child care expenses, free child care by relatives, and child support payments from non-custodial fathers) have a positive effect on the economic well-being of single mother families. This study contributes to the literature related to family economic issues by emphasizing the role of child care expenses as well as financial and social supports in the lives of single mothers and their children.

To my parents, Sungdal Park and Jungsoon Cho

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CHAPTER I

INTRODUCTION

One of the most critical changes in American families is the tremendous

increase in the number of single mother families. According to a U.S. Census

Bureau, the number of single mother families has increased dramatically over the last

generation. In 1970, 10 percent of families with children under age 18 were headed

by single mothers (U.S. Bureau of the Census, 1971). In 2003, 23 percent of families

with children under age 18 were headed by single mothers (U.S. Bureau of the

Census, 2005a). The number of single mother families increased 68 percent during

the 1970s. The growth rate slowed to 19 percent in the 1980s, although the number of

single mother families continued to increase (Bianchi, 1995).

The climbing divorce rate and high rates of never married women with

children resulted in considerable numbers of children living with only one parent

(Hanson, Heims, Julian, & Sussman, 1995). In addition, single mother families with

children are more likely to be poor than are two parent families with children. In

2004, 28% of single mother families were in poverty, compared with 5% of married

couple families (DeNavas-Walt, Proctor, & Lee, 2005). Because so many children

fall into the single mother family situation for a period of time, and their status is

often economically deprived, both child care issues and the economic well-being of single mother families are of primary concern.

For all mothers of young children, labor force participation is strongly related to available and affordable child care (Marshall & Marx, 1991). For single mothers, unavailability of child care and high child care expense may be the most important reasons why single mothers cannot obtain and maintain a job (Hao & Brinton, 1997). Therefore, the lack of adequate child care intensifies their economic disadvantages.

Child care expenses are a particularly high burden in single mother families. They have fewer earners and on average their family income is lower than two parent families. Many single mothers try to reduce child care expenses by using informal care (i.e. relative care), since the cost of formal child care (i.e. center care) is too high in proportion to their earnings (Han and Waldfogel, 2001). In 1997, single parent families paid an average of $258 per month for child care nationally (Giannarelli and Barsimantov, 2000). When child care expenses are considered as a percentage of earnings, they represent 16 percent of earnings among single parent families compared with 7 percent among two parent families. Child care expenses, particularly for low income single mother families, may affect the decision of a mother's employment (i.e. not working, working part-time or working in nontraditional hours) (Connelly and Kimmel, 2003a & b). Furthermore, high expenses for child care may lead single mothers to choose a poor quality of care arrangement (Meyers, Han, Waldfogel, and Garfinkel, 2001).

Single mothers must play the dual role of provider and nurturer due to the absence of a husband (Hao & Brinton, 1997). To balance their commitments to work and family, single mothers may need some type of external support from various sources such as extended family members, friends, government, or various organizations. Support networks of single mother families play an important role in family economic well-being. Some supports may help improve the economic position of single mother families not only by providing monetary assistance but also by reducing child care expenses through providing free child care services.

Recent empirical research has explored the contribution of external supports to maintaining the economic well-being of single mother families. Research using the 1999 National Survey of America's Families (NSAF) data indicated that low income single parent families with young children were most likely to receive financial and child care help (Giannarelli, Adelman, & Schmidt, 2003). At least 58 percent of low income single parent families with children under age 5 received some type of child care help from relatives, government, other organization, nonresident fathers, or employers. Among low income single parent families with children under 13, at least 18 percent received free child care from a relative. The contribution of financial and social support by kin and friends can have a significant effect in alleviating some of the harsh aspects of poor households (Hunts & Avery, 1998).

The economic hardship of single mother families often increases the likelihood of receiving public assistance. About 15 percent of children living with mothers only received public assistance (i.e., Aid to Families with Dependent Children [AFDC],

Temporary Assistance to Needy Families [TANF], general assistance [GA], and emergency assistance [EA]), compared to only 1 percent of children living with both parents (U.S. Bureau of the Census, 2005b).

Although there is a relatively large amount of literature dealing with the negative effects of child care expenses on mothers' employment, few studies have focused on single mothers with children, and almost none of these studies have examined the effects of child care expenses after controlling for personal or familial characteristics (Han and Waldfogel, 2001). In contrast, this study examines the effect of child care expenses as well as financial and social supports on economic well-being after controlling for family contextual factors.

In previous studies, the evidence of the sources of supports, social support networks and financial supports from kin or extended family in both single and married mother family contexts, have been well documented. It has been posited that kin support increases the well-being of families by providing monetary and child care assistance. However, the results of the effectiveness and the functioning of financial or social supports on family well-being are not consistent. Receiving monetary support or in-kind support from kin may indicate poor economic conditions of the family (Parish, Hao, & Hogan, 1991).

Previous research often lacks a theoretical approach that addresses multi-level factors and social support factors that affect the economic well-being of single mother families. The limitations of previous studies are critical due to a growing awareness

among researchers, educators and policy makers that the economic deficit of single

mother families influences children's development and their future well-being.

Purpose of the study

The purpose of this study is to examine the effects of child care expenses and

financial and social supports on the economic well-being of single mother families.

Using a nationally representative data set, the 1999 National Survey of America's

Families, this study examines child care expenses of single mother families and the

effect of these expenses on their economic well-being. Economic well-being is

measured by family income, per capita income, and the amount of public assistance.

Child care expenses impact considerably on family economic well-being because of

the high percentage of family income that must be devoted to purchase reliable

quality child care. This study also examines existing types of financial and social

supports and their influence on the economic well-being of single mother families.

Significance of the Study

In recent years, the notable increase in the single mother family population has

brought substantial public attention to their poor economic status with regard to the

lack of financial and social resources and the lack of educational and work

opportunities, all related to the single mothers' double responsibilities as an earner and child care provider. Therefore, the question of the impact of child care expenses on single mother families is crucial to the improvement of single mother families' economic well-being.

The significance of this study also arises from the fact that there has been little research performed on the effect of financial support for child care expenses and child care support (i.e., free child care by relatives) on economic well-being, especially with regards to single mother families. Empirically, the findings produced by this study will enlarge the knowledge concerning economic and child care issues of single mothers families.

One of the contributions of this study comes from the use of recently available and nationally representative data from the National Survey of America's Families (Converse, Safir, Scheuren, Steinbach, & Wang, 2001). The NSAF data allow this study to include two important factors, child care expenses and support factors, in the analysis of the economic well-being in single mother family context. Previously available national data sets did not contain information on both family expenditures and social support receipt.

Results of this study will be especially interesting to policy makers at this time when welfare reform has reduced cash benefits and has required single mothers to work. The findings from this study may provide useful information on the connection among child care expenses, mother's working and economic stability in single mother families.

The results of this study can be also used by family researchers and financial educators to increase their understanding of the differences among single mother families in terms of child care expenses and various sources of support. With more understanding, researchers and practitioners will be able to develop more effective programs for single mother families. Ultimately, reducing the burden of child care expenses and increasing appropriate supports would buffer the negative impacts of poor economic conditions and provide a better developmental environment for children in single mother families.

Research Objectives

This study intends to accomplish three research objectives:

1. To determine if child care expense variables are related to the economic well-being of single mother families.

2. To determine if financial and social support variables are related to the economic well-being of single mother families.

3. To identify what family contextual factors are associated with child care expenses, financial and social supports as well as the economic well-being of single mother families.

Theoretical Framework

Human ecological perspective and social capital theory provide a theoretical basis for studying single mother families' economic well-being related to child care expenses and their support systems.

Human Ecological Perspective

A human ecological perspective offers a holistic approach to examine the fundamental interdependence between human beings and the total environment (Bubolz, Eicher, & Sontag, 1979). In the holistic ecological perspective, all events are related in circular and reciprocal ways. Any change in one aspect of the environment results in changes in all other systems.

In the human ecological perspective, the environment is defined as three interacting environments: the natural physical-biological environment, which includes physical and biological components (e.g., atmosphere, water and animals), the human built environment which includes alterations and transformations made by humans to the natural environment (e.g., roads and polluted air), and the social-cultural environment. The social-cultural environment includes the presence of other human beings, abstract cultural constructions (e.g., language, laws and cultural values) and social and economic institutions (e.g., market economy) (Bubolz and Sontag, 1993).

The ecological perspective involves human beings interacting with these three environments as well as the interactions of the environments with each other. It assumes that a human being is affected by and affects not only the immediate situation of which it is a part but all systems that directly or indirectly relate to it (Kratzer, 1991). Family ecology is the study of the totality of relationships that define the family-environment system as an integrated whole (Griffore & Phenice, 2001). This perspective allows researchers to have a holistic view in studying the family and thus provides important implications for family policies and programs to improve family well-being. Bubolz and Sontag (1993) indicate that the human ecological perspective provides a foundation for explaining various kinds of well-being indicators. From both objective and subjective standpoints, the degree of ill-being or well-being of humans can be assessed on individual, family, and societal levels.

The human ecological perspective is important to this study because it provides the basis for seeing the single mother family as it interacts with its environment and how these interactions influence the economic well-being of the families. Thus, the human ecological perspective is appropriate to study single mother families that face many economic difficulties, lack of resources, and ineffective social institutions.

In the study of quality of life and well-being of single parent families, Ihinger-Tallman (1995) indicates that families cannot be examined separately from their environments when family well-being is taken into account. The researcher identified factors that affected overall well-being of single parent families at three levels of

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environments – societal, interpersonal, and individual. At the societal level, the social institutions in which families are embedded with (i.e. legal, economic, and educational institutions) play an important role in family members' daily lives. At the interpersonal level, the significance of interpersonal networks such as relationships with extended kin, friends, and ex-spouse and supports through those networks, is included. At the individual level, personal characteristics (i.e. single parent's age, race or ethnicity, mental, emotional, and physical health) and cultural norms and values influence single parents' family well-being.

Jung (1996), showing the importance of applying an ecological perspective in studying families, indicates that this perspective that considers families as a system is useful to identify the needs and resources of single parent families. The researcher points out that individuals in single parent families, extended family members, and systems outside the family all play a vital role in resolving the issues single parent families face, such as lack of financial and familial resources, child welfare, and lack of supports.

Therefore, in the human ecological perspective, family economic well-being may result from the interaction of families' particular economic needs and the resources available in various environments. In this study it is hypothesized that the economic well-being of single mother families is influenced by their needs for child care and support resources.

Social Capital Theory

This study is also based on social capital theory. Coleman (1988) defined Social capital as a resource that exists in the structure of relations between individuals, which are norms, values, and social networks. Social capital that affects children and parents in the family reside within the family as well as outside the family, i.e., in the parent's relationships with other families and the institutions of the community. Similarly Bourdieu (1986) defined social capital as a social network and social relations with significant others which could yield positive outcomes. To establish beneficial social networks, people invest their time and energy. Social capital is understood to include social relations such as friendship networks and relationships with relatives that contribute to family well-being.

On the other hand, there are theorists who define social capital as a motive, not only the consequence of networks (Putnam, 2000; Folbre, 2001; Schmid, 2002). Putnam (2000) defines social capital as the nature and extent of networks that enable people to obtain resources and to participate in relationships that are the product of social networks. Putnam also indicates that social capital may produce negative outcomes as well as positive outcomes. In addition, social capital is defined as sympathy toward or caring for other people, which offers benefits and advantages (Schmid, 2002). Sympathy and caring may be stronger among relatives and friends.

The idea of social capital had a considerable influence on recent social and economic research. A number of studies have attempted to measure social capital and

addressed the effects of social support serving as a buffer against the harmful impacts

imposed by economic hardship. Meszaros (2001) defined social support as

supportive social resources that might facilitate coping with stressful situations.

Anguiano (1999) indicated that social capital included the time and effort of extended

family members contributing to other family members. For example, grandparents

and kin offer financial assistance and child care help as a support network. Such

support networks, held together through the exchanges of food, money and child care,

provide the means for nurturance which is necessary for family well-being (Bump,

1996).

Many studies of single parent families have focused on sources and types of

social support and single parents' social support networks. Nestmann and

Hurrelmann (1994) emphasized the importance of support networks in protecting

single parent families and enhancing their well-being. This research noted that the

support networks, which consisted of relatives and friends, were small and had few

but intensive contacts. In the study of the social support systems for poor single

mothers, Wijnberg and Weinger (1998) also indicated that a single parent's support

network offered a significant amount of assistance frequently and consistently. It

included child care, transportation, help during a child's illness, house cleaning and so

forth. Those practical supports were necessary and served as a coping strategy for

single parent families.

This study explores the financial and social support in single mother families

that is one type of social capital and is one of the important variables of this study.

Certain family contexts of single mother families may play a role in determining the amount and type of support a family receives. The supportive network with friends and relatives may have a considerable influence on the economic well-being of single mother families.

Conceptual Map

The conceptual model for this study (Figure 1) reflects how family contextual factors, child care expenses, and financial and social supports influence the economic well-being of single mother families. Family contextual factors such as mother's age, marital status, educational level, the presence of children aged 0-5, and employment status have an effect on child care expenses and financial and social support factors as well as economic well-being. Child care expense variables include the presence of child care expenses, monthly child care expenses, and percentage of earnings for child care expenses. Financial and social support variables include general financial support from kin or friends, financial support for child care expenses, free child care by relatives, and the amount of child support payment. The indicators of economic well-being include family income, per capita income, and the amount of public assistance. The economic well-being of single mother families is also influenced by child care expenses and financial and social support factors.
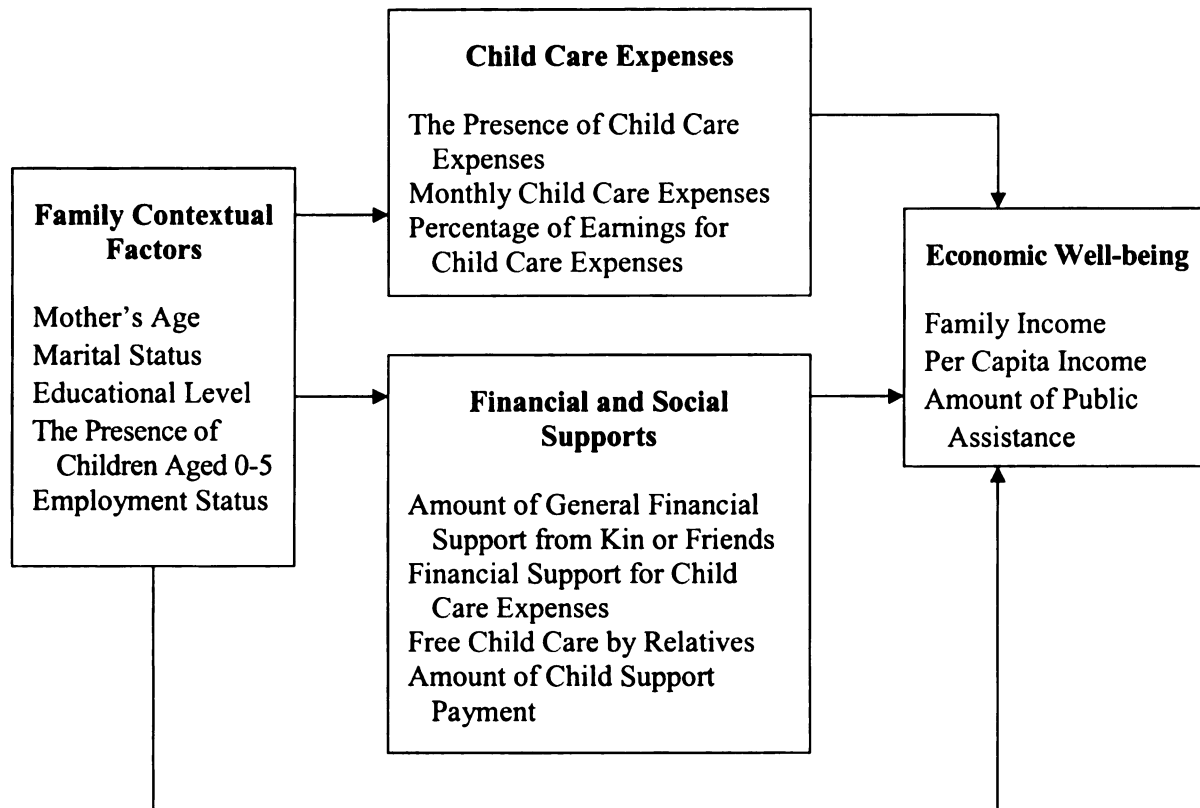
[Figure 1] Model of determinants of economic well-being in single mother families

Assumptions

The underlying assumptions are identified with regard to this study.

1. Family economic well-being is influenced by multiple factors from multi-level environments, which include the individual level, interpersonal level, and societal level. The economic well-being of the family can be affected by family characteristics, child care expenses, and financial and social supports.

2. Family income, per capita income, and the amount of public assistance are the effective indicators of economic well-being of the family.

3. Free child care by relatives can be a form of social support.

4. The participants of the National Survey of America's Families provided all the information on their economic and social situations as accurately as possible.

CHAPTER II

LITERATURE REVIEW

Related literature is reviewed in this chapter. It consists of three sections. These sections are economic well-being of single mother families, child care expenses of single mother families, and financial and social support of single mother families.

Economic Well-being of Single Mother Families

Much of the concern about the growth in single mother families stems from their difficult economic situation. Studies have examined factors affecting the economic well-being of single mother families. The indicators of economic well-being were total family income, per capita income, income per adult equivalence, income to needs ratio, consumption expenditures, ownership of assets and debts, and receiving public assistance. Single mother families with children have less family income and fewer assets than two parent families and they are overrepresented among the poor.

In 2004, median money income for single mother families was $29,826 compared with $63,813 for married couple families, according to results from the August 2005 Current Population Survey (DeNavas-Walt, Proctor, & Lee, 2005). A

substantial percentage of single mother families falls below the poverty threshold. In 2004, the poverty rate of single mother families was 28.4 percent compared with 5.5 percent for married couple families. The U.S. poverty thresholds for their family size and number of related children under 18 years for 2004 were $13,020 for a two-person family (one adult and one children), $ 15,219 for a three-person family (one adult and two children), and $19,223 for a four-person family (one adult and three children) (U.S. Bureau of the Census, 2005 c).

Lino (1994) examined the income and income sources of single mother families using the 1989-91 Consumer Expenditure Survey. Single mother families maintained by widows had the highest income ($22,790) followed by those maintained by divorced/separated women ($18,580) and those maintained by never-married mothers ($9,820). He computed per adult equivalent before-tax income by dividing average before-tax income by the average number of adult equivalents in the household. The single parent was given a value of 1.0, the first child was given a value of 0.4 and all other children were given a value of 0.3. Income per adult equivalent ranged from $5,810 for families maintained by never married mothers to $12,880 for those maintained by widows.

Lino (1994) also reported the employment status of single mother families. Eighty one percent of divorced/separated mothers were employed full or part time, as were 69 percent of widows, and only 52 percent of never married mothers. Public assistance was received by 55 percent of families maintained by never married

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mothers, 20 percent of families maintained by divorced/separated mothers and only 6 percent of families maintained by widows.

Women are more likely than men to experience large financial losses following marital dissolution and women with children usually experience severe economic suffering when they lose the spouse's income. Bradbury and Katz (2002) examined the income mobility of families that lose a spouse through death, divorce, or separation, using data from the Panel Study of Income Dynamics (PSID) from 1969 to 1998. Families losing a husband showed an average family income drop of 40 percent to 45 percent in real terms over a 10 year observation period. However, families in which the wife was working fared better when they lost a husband than families in which the wife was not working. The research also reported that among families losing a spouse, those with children were more likely to experience an income drop than families without children. A key factor contributing to the less favorable outcomes for families with children is the difference in needs. The PSID measure of income-to-needs ratio is based on an annual food-needs standard and adjusted for economies of scale (Bradbury and Katz, 2002). The PSID income-to-needs ratio considers family size, age, and sex of family members. The research indicates that mothers with children experience a larger decline in their income-to-needs ratio when the marriage dissolves; that is, they have a significant drop in economic well-being.

Using the data from the national Fragile Families and Child Well-being study of 1998-2000, Teitler, Reichman, and Nepomnyaschy (2004) examined economic

hardship and the reliance on public assistance of unwed mothers. This study revealed many unwed mothers experienced some form of financial difficulty. A common concern was the lack of sufficient income to pay bills, and many mothers reported more extreme financial difficulties, such as hunger, eviction, utility shutoffs, homelessness, or insufficient medical care. A considerable proportion of unwed mothers relied on public assistance. One third of unwed mothers received Temporary Assistance for Needy Families (TANF), and one fourth lived in public housing or received housing subsidies. The most striking finding of this study is that employment does not appear to substantially reduce mothers' dependence on public assistance. Regardless of their employment status, the vast majority of unwed mothers relied on some form of public assistance at some time during the year prior to the follow-up interview. Over 90 percent of mothers who worked and almost all (98 percent) of mothers who did not work, reported reliance on some form of public assistance.

Hao (1995) also indicated that in 1985, over one third of young single mothers received Aid to Families with Dependent Children (AFDC) payments. Tin and Castro (2004) examined the participation in public assistance programs, using the 1996-1999 panel of the Survey of Income and Program Participation (SIPP). The researchers reported that single mother families had lower income and higher poverty rates than single father families and married couple families. The average monthly poverty rate was 30 percent for single mother families in 1999, compared with 12 percent for single father families and 7 percent for married couple families. In 1999,

single mothers were about five times as likely to receive major means-tested public assistance, i.e., AFDC, TANF, General Assistance (GA), Food Stamps, Supplemental Security Income (SSI), Medicaid, and Housing Assistance, as people in married couple families (31 percent vs. 7 percent).

Child Care Expenses of Single Mother Families

For single mothers with limited monetary and time resources, child care expenses can be considerably burdensome. Using data from the 1997 NSAF, Giannarelli and Barsimantov (2000) examined child care expenses of America's families. Among employed single parents, 52 percent made payments for some type of child care. For employed single parents with the expense, the average monthly child care expense was $258, which accounted for 16 percent of the earnings of single parents. The research also examined child care expenses particularly for low-earning single parent families. Low-earning families were defined as those with monthly earnings no more than 200 percent of the federal poverty threshold. In 1997, 200 percent of the poverty threshold was $2,154 per month. For working single parent families with low-earnings, the average monthly child care expense was $230, accounting for 19 percent of their earnings.

Smith (2002) also examined child care expenses with data from the 1997 SIPP. In 1997, thirty three percent of mothers with children under age 15 reported they had child care expenses for regular child care arrangements. Among mothers who had

regular child care expenses, the average weekly child care expense was $71 per child. The researcher also indicated that child care expenses were different by families' income level. Poor families with children were less likely to pay for child care and paid a lower amount for child care than non-poor families with children. However, poor families spent a much higher percent of income for child care expenses than non-poor families (21 percent vs. 7 percent).

Using data from the 1999 NSAF, Capizzano, Adelman, & Stagner (2002) also reported the child care expenses for working families with school-age children during the summer and the school year. During the summer, 41 percent of working families paid for child care and these families who had child care expenses, spent on average $297, which was 8 percent of their earnings on child care. Similarly, during the school-year, 43 percent of families paid for child care and among these families who paid, average monthly expenses were $266, which accounted for 8 percent of family earnings. The researchers also found significantly different child care expenditure patterns between low-income families and higher-income families. Low-income families paid much less for child care than higher-income families did. The average child care expense for low-income families was $170 per month or 11 percent of their earnings, compared to $377, or 7 percent of earnings for higher-income families.

In the study of child care expenses and income in child care choice, Hofferth & Wissoker (1992) reported that family income other than the mother's earnings influenced the amount they paid for center care. The mother's hourly wage did not have a significant effect on child care expenditures. However, income from other

family members was significantly related to child care expenditures. Families with higher income from other family members were more likely to have higher child care expenses and use center based child care than families with lower income from other family members.

Capizzano and Adams (2003), using data from the 2002 NSAF, support the idea that child care expenses are a significant factor in arranging child care for families, particularly low-income families. The researchers found that low-income families with children under age 5 were more likely to use relative care than higher income families, probably because relative care is usually free or inexpensive.

Blank (1988) points out that single mother families have significant fixed costs of employment. Since single mothers are the primary caregivers for their children, they must arrange for the care of their children in order to participate in the labor force. There is a large amount of literature examining the effects of child care expenses on the employment of mothers. However, few researchers have explored the effects of child care expenses on single mother families with children. Several researchers estimated the effect of changes in the price of child care on single mother's employment and found that hourly child care costs had a negative effect on mother's employment for single mother families (Kimmel, 1998; Han & Waldfogel, 2001; Woodhouse, 2001; Baum II, 2002; Connelly & Kimmel, 2003a & b).

Using data from the 1987 SIPP, Kimmel (1998) explored the relationship between hourly child care cost and employment among single mothers with children under the age of 13. Single mothers were less likely to participate in the labor force

when hourly child care cost was increased. Kimmel also reported that employed single mothers spent an average $201 per month for child care, and this amount represented 16 percent of mother's monthly earnings.

According to Han & Waldfogel (2001), in the study of the influences of child care costs on the employment of single and married mothers with preschool-aged children, hourly child care costs were negatively related to mother's employment and single mothers were more negatively affected than married mothers. Researchers also confirmed that mothers with children aged 0-5 were more likely to pay for child care and have higher expenses for child care than mothers with children over 5. Woodhouse (2001) also examined the relationship between child care costs and single mothers' employment and found that single mothers reduced the quality of the child care if they did not reduce their labor supply when hourly child care costs were increased. In the study of the effect of child care costs on low-income mother's employment, Baum II (2002) found that child care costs accounted for a significant portion of low-income mother's earnings and increase in hourly child care costs had a negative effect on the mother's employment.

Using data from the 1992 and 1993 SIPP, Connelly and Kimmel (2003 a) reported that single mothers employed full-time have higher weekly expenditures for child care than single mothers employed part-time. The researchers reported that among full-time employed single mothers who pay for care, weekly expenditures for center-based care averaged $70 and for relative care was $49; part-time employed single mothers paid $60 on average for center care, and $43 for relative care. The

researchers indicated that part-time single mothers were more likely to use relative care, which is less expensive than center care. Researchers also found a negative significant effect of hourly child care cost on single mother's employment. The probability of being employed, either part-time or full-time, was decreased when the predicted hourly child care cost was increased.

Smith (2002) confirmed that child care expenses play an important role in mother's employment. Non-employed mothers may arrange child care when they go to school or look for work. The researcher found that non-employed mothers were less likely to make a cash payment for child care than were employed mothers, 14 percent compared with 43 percent for employed mothers. The average weekly child care expenses was higher for employed mothers than non-employed mothers ($75 and $49, respectively). However, the researcher found that the average hourly expenses for employed mothers with preschoolers was lower than for non-employed mothers ($2.22 and $3.34, respectively) because non-employed mothers needed child care arrangement for fewer hours than employed mothers.

A variety of family contextual factors affect child care expenses. In the study on spending patterns of single mother families, Lino (1994) reported that child care expenses were incurred by a smaller proportion of families maintained by never-married mothers and widows (16 and 14 percent), compared with families maintained by divorced/ separated mothers and married couples (23 and 31 percent). For never-married mothers, this differential may be explained by their low labor force participation rate; for widows, the differential is likely attributable to their having

older children who can take care of themselves. For divorce/separated mothers, 81 percent were employed. Only one quarter of them paid for child care. The researcher suggested that a large proportion of child care is provided by relatives, who are likely not paid.

Giannarelli & Barsimantov (2000) reported that there was a difference in child care expenses between families with children under age 5 and families with school-age children. Sixty percent of families with children under 5 years old compared to 37 percent of families with only children 5-12 years old had child care expenses in 1997. For school-age children, child care expenses may be reduced because child care is not needed during school hours and older children sometimes care for themselves. Additionally, the hourly child care costs for older children may be lower than for younger children.

According to Smith (2002), families with the youngest child under age 5 were more likely to have child care expenses than families where the youngest child is between the ages of 5-14. In addition, families with the youngest child under age 5 had greater weekly expenses and a higher percentage of their income for child care expenses than families with only school-age children. However, the hourly child care expenses for families with school-age children were higher than families with children under 5.

The mother's education and the number of children in the family are also related to child care expenses (Hofferth & Wissoker, 1992). Single mothers who completed some college classes were more likely to pay for child care than mothers

who completed high school. Additionally, the researchers reported that families with higher numbers of children were less likely to use center care and more likely to use paid sitter or relative care because of economies of scale. The use of center care is more expensive than the use of a paid sitter or relative care when a mother needs child care for more than two children.

The literature that focuses on child care expenses and receipt of public assistance is limited. In the study of the effect of child care costs on welfare recipiency, Connelly and Kimmel (2003b), using the 1992 and 1993 SIPP data, reported that single mothers receiving AFDC were less likely to have child care expenses than single mothers not receiving AFDC (36% vs. 56%); however, the AFDC recipient group paid a higher hourly price for child care. This may be because of the higher hourly cost of part-time child care. Researchers also found that single mothers receiving AFDC were more likely to rely on relative care and less likely to rely on center-based care. For all single mothers including AFDC recipients and non AFDC recipients, center-based care was the most expensive per week, followed by home-based care and relative care, respectively.

Financial and Social Supports in Single Mother Families

Many single mothers receive substantial support, either financial or child care assistance, from their parents, friends, kin, neighbors or associates. These financial and social supports from outside of the nuclear family are important factors that affect

family economic well-being. However, there have been few empirical studies of the relationship between financial and social supports and economic well-being. The few existing studies suggest that financial and child care supports for single mother families vary by the type of supports and families' characteristics.

Giannarelli, Adelman, & Schmidt (2003) indicated various sources of support for child care, using data from the 1999 NSAF. Many families receive supports through government or agency programs, such as Child Care and Development Fund (CCDF), the TANF, Head Start, before- and after school programs or other state and local programs. Some families pay for child care on a sliding fee scale. Many families get support from relatives either financially or by way of free child care services. Other sources of support come from employers or nonresident parents. The researchers also found that a higher proportion of single parent families reported receiving financial or social support than did two parent families. Likewise, a higher proportion of low-income families (i.e., families with income below 200 percent of the federal poverty level) received financial or social support than did higher-income families. Families that have received public assistance (AFDC or TANF) are more likely to get some support for child care expenses than families that never receive public assistance, 56 percent compared with 44 percent.

The empirical research of Hogan, Hao, & Parish (1990) examined kin networks and assistance to mother-headed families, using the 1984 National Longitudinal Survey of Labor Force Behavior, Youth Survey (NLSY). The researchers found over one-half of single mothers participated in a support network,

by means of coresidence with extended family members, income support, or unpaid child care, although at least one-third of single mothers did not receive any of these support. The researchers also reported that in 1984, over one quarter of single mothers received income supports from kin that accounted for at least one half of their income, and about one half of single mothers received unpaid child care, one aspect of social support, from grandparents, other kin or non-kin.

Other research by Parish, Hao, & Hogan (1991) focused on the family support networks of young mothers aged 14-21 years old. Family support networks varied by the mother's marital status. The researchers found that the young mothers got help with child care from the grandmother of their child (the respondent's mother) (24%) and other extranuclear kin (12%). Mothers who had never married were much more likely to rely on the child's grandmother and other kin. Kin usually offered child care support without payment. One half of all kin care was free and another tenth involved only compensation (e.g., gifts, meals, etc.) other than cash. For financial support, 10% of young mothers had half or more of their living expenses paid by kin. Four-fifths of financial support came mostly from parents who coreside with mothers. Unmarried mothers were most likely to receive both child care and financial support.

In the study of the kin networks as sources of support to married and single African American mothers, Jayakody, Chatters, and Taylor (1993) explored different forms of assistance (i.e., financial, child care, and emotional) and noted that sizeable variability exists with respect to the marital status and familial assistance. For financial supports, 16% of married, 19% of divorced and separated, 21% of widowed,

and 24% of never married mothers reported receiving monetary assistance from family. Never married mothers at higher levels of the poverty ratio were significantly more likely to receive financial assistance than are other mothers. The researchers concluded that the economic position of the mother and the potential size of the kin networks were important determinants of the likelihood of receiving financial assistance. In terms of child care assistance, divorced mothers were the least likely (9%) to receive assistance, whereas about 18% of widowed, 19% of never married and married mothers received help with children.

Hao and Brinton's study (1997), using data from the NLSY, found a strong relationship between marital status and kin support. Never married mothers have fewer economic resources than other single mothers and so they are more likely to rely on their family members and relatives. This research also noted that child support payment is a source of unearned income for single mothers and might enable them to purchase suitable child care.

Using the 1990 National Child Care Survey (NCCS), Hunts and Avery (1998) indicated that child care by relatives provides an important support to single parents facing stringent time constraints. The researchers reported that children from single parent families spend significantly more time in the care of relatives than other children, especially at nontraditional times of the day. Nontraditional hours refer to work that begins before 6:00am or after 7:00pm. Single parents without spouses do not have many options for child care. Informal support networks providing child care help could be especially important to single mothers who work both full time and part

time. The researchers also found that the child care by relatives varied by the parent's employment, child's age and the income level of family. They indicated that working parents, families with young children, and low-income families were more likely to receive child care from relatives for longer hours than non-working parents, families with older children, and high-income families. The researchers also indicated that most child care by relatives is provided without cash payment, although there are likely nonmonetary transfers between these parents and their relatives.

Snyder & Adelman (2004) examined the use of relative care for working parents with children under 12 years old, using data from the 1999 NSAF. Single parents working part-time or nontraditional hours (e.g., evening or weekend hours) use more relative care than parents working full-time or traditional hours since center care usually is not available during nontraditional hours. However, relatives usually offer parents flexible care options. The researchers also indicated that relatives are important child care providers to non-employed parents, particularly parents with lower-incomes and with children under 5. Non-employed parents need child care when they are looking for work or studying in school. Those parents use relative care because relative care may be inexpensive and reliable for parents and also offers flexible schedules. Smith (2002) also indicated that grandparents were less likely to be paid for child care of their grandchildren than were non-relatives. Only about 15 percent of grandparents were paid for child care. Even when they were paid, grandparents received much less money (per week and per hour) than other child care providers.

In the study of child care assistance for single mother families, Meyers, Han, Waldfogel, & Garfinkel (2001) found that child care expenses for low-income single mothers increased when mothers entered the labor force and when informal child care (e.g., child care by relatives) was not available. This is because usually this care was provided free of charge.

The literature related to child care support by relatives indicates that free child care is one of the most helpful types of support for single mother families, particularly for low-income and employed single mothers. Free child care support from relatives provides single mothers economic help as well as trustworthy child care.

Financial support from the government for child care such as child care subsidies represents one important source of support that influences the economic well-being of single mother families. Among low-income single parent families, families with children under age 5 were more likely to receive this government support but less likely to receive support from relatives than families with only school-age children (Giannarelli, et al., 2003). There are reasons for these differences, the researchers indicate. Families with children under age 5 need more hours of child care, and usually child care fees per hour for younger children are higher than for older children. Therefore families with younger children seek more government/ organization assistance. Likewise, there may be more child care assistance programs for younger children than for older children. In contrast, relatives provide more free child care for older children than for younger children because child care for older

children is less labor-intensive and may not require full-day care since older children are in school part of the day.

According to Smith (2002), the receipt of financial support for child care was related to families' income level and the receipt of public assistance. Low-income families with children under age 15 were more likely to receive financial support for child care from the government than were higher-income families. In 1997, nine percent of families with income below the poverty line received financial support from the government, compared with only 1 percent of families with income above the poverty line. Families receiving public assistance (i.e. TANF) were more likely to receive financial support for child care from government than families not receiving public assistance (15 percent vs. 3 percent). The researcher also reported that families with preschoolers received more financial support paying for child care than families with school-age children.

Child support payments from nonresident fathers can have a considerable effect on the economic well-being of single mother families. Using the 1997 NSAF data, Sorensen and Zibman (2000) examined the effect of child support payment on poverty. The researchers reported that only half of all children had received any financial support from their nonresident fathers in the past 12 months. The researchers also pointed out that child support payments were an important source of income for families with children that receive it. In 1996, among families receiving child support payments from nonresident parents, the average amount of child support was $3,795, which accounted for 16 percent of their family income.

With the data from the 1986-1992 NLSY, Argys, Peters, Brooks-Gunn, and Smith (1998) also examined child support payments among children age 5-8 whose fathers were absent. They reported that the average annual amount of child support received by children with divorced or separated mothers was $1,680, compared with $360 by children with never married mothers (the amount is measured in constant 1990 dollars). About 68 percent of divorced or separated mother families received child support awards while about 44 percent of never married mother families received child support awards.

In the study of the types of economic support for unmarried mothers, Sanfort and Hill (1996), using data of the 1968-1990 PSID, reported that young unmarried mothers received annually an average of $293 in child support payments and $131 in financial support from relatives (the amount are expressed in 1990 dollars). The researchers also found that the receipt of child support payment had a strong positive effect on mother's later self-sufficient income; however, financial support received from relatives did not have a statistically significant effect on mother's self-sufficient income.

In general, these previous studies support the notion that family, kin, and friends provide a vital backup for children of single mothers who must balance the demands of both the market economy and family responsibilities. Such supportive relationships with extended family members and friends serve as significant resources, mitigating the economic hardship of single mother families.

CHAPTER III

RESEARCH METHODOLOGY

With the data from the 1999 National Survey of America's Families, this study explores the relationship of economic well-being to child care expenses and financial and social supports for single mother families with children. This chapter includes research questions, conceptual and operational definitions, research hypotheses, and an explanation of data source and data analysis.

Research Questions

This study asks the following research questions.

1. What are the factors that predict the economic well-being of single mother families?

2. What are the factors that influence child care expenses in single mother families?

3. What are the factors that influence financial and social supports in single mother families?

4. Is there a relationship between child care expenses and economic well-being in single mother families?

5. Is there a relationship between financial and social supports and economic well-being in single mother families?

Conceptual and Operational Definitions

The dependent variable examined in this study is economic well-being, which is measured by family income, per capita income, and the amount of public assistance. The independent variables include child care expenses, financial and social support and family contextual factors. Child care expenses are measured by the presence of child care expenses, monthly child care expenses, and the percentage of earnings for child care expenses. Financial and social supports are measured by the amount of general financial support from kin or friends, financial support for child care expenses, free child care by relatives, and the amount of child support payments received. Family contextual factors include mother's age, marital status, educational level, the presence of children aged 0-5, and mother's employment status.

Dependent Variable

Economic Well-being

Conceptual Definition: The over all degree of family's economic situation.

Operational Definition: In this research, economic well-being of the family is measured by three indicators: family income, per capita income, and the amount of public assistance.

Family Income

Conceptual Definition: This refers to the total income before taxes earned by family members.

Operational Definition: The respondent was asked about the amount of monetary income before taxes in the last 12 months received by each person in the sampled family, 15 years old and over. Total family income is the algebraic sum of amounts reported separately for money wage or salary; net income from self-employment; Social Security; Supplemental Security Income; Public assistance or welfare payments; Interest (on savings or bonds); Dividends, income from estates or trusts, or net rental income; Veterans' payment or unemployment and workmen's compensation; Private pensions or government employee pensions; and Alimony or child support, regular contributions from persons not living in the household, and other periodic income. Amounts that are reported from the receipt of vouchers or coupons from the welfare office to pay for special expenses and food stamps are not included in the calculation of family income. Family income variable is a continuous variable.

Per Capita Income

Conceptual Definition: This refers to the amount of the family income available per person.

Operational Definition: The total amount of family income the respondent indicated is divided by the number of persons reported to be in the family.

Amount of Public Assistance

Conceptual Definition: This refers to the dollar amount of public assistance received.

Operational Definition: In the survey, the respondent was asked the annual dollar amount of public assistance, welfare payments, vouchers, or emergency help received from the welfare office in 1998. Assistance included money received from the state or local welfare office under the Temporary Aid to Needy Families program (TANF) (which replaced Aid to Families with Dependent Children or AFDC), General Assistance (GA) or General Relief (cash assistance from state and local programs for people who are not eligible for or who are waiting to enroll in other programs), Emergency Assistance or other forms of one-time cash payments, and vouchers or coupons received from welfare offices. This does not include regular payments from welfare offices for elderly, blind, or disabled persons, nor food, food stamps, clothing, or scholarships. The amount of public assistance is defined as a continuous variable.

Independent Variables

Child Care Expenses Variables

The Presence of Child Care Expenses

Conceptual Definition: This refers to the presence of expenditures for child care arrangements.

Operational Definition: The respondent was asked whether an amount was paid for child care. The amount includes child care expenses for all the child care arrangements and programs the respondent uses regularly for all children under age 13 while she worked, was in school or looked for work. This is a binary variable equal to one if the mother reported any expenses for child care, and zero otherwise.

Monthly Child Care Expenses

Conceptual Definition: This refers to the total amount paid for child care per month.

Operational Definition: In the survey, the respondent was asked about the total amount of money she paid for all child care arrangements used regularly during the last month. The respondent was asked to include child care expenses for all of her children under age 13 while she worked, was in school, or looked for work. This variable is a continuous variable.

Percentage of Earnings for Child Care Expenses

Conceptual Definition: This refers to the percentage of family earnings spent on child care.

Operational Definition: The amount of monthly child care expenses the respondent indicated was divided by the monthly earnings of the family. The monthly earnings of the family were computed by dividing annual family earnings by 12. Family earnings were calculated by summing the total earnings from all jobs for each family member.

Financial and Social support variables

Amount of General Financial Support from Kin or Friends

Conceptual Definition: This refers to the amount of financial assistance received from kin or friends.

Operational Definition: In the survey, the respondent was asked the annual dollar amount of financial assistance received from friends or relatives not living in the household. Financial assistance was defined as including regular assistance as well as assistance received on an irregular basis, but not occasional gifts or contributions. This variable is a continuous variable.

Financial Support for Child Care Expenses

Conceptual Definition: This refers to financial assistance in paying for child care.

Operational Definition: Two questions from the NSAF are used to measure financial support for child care expenses. In the first question, the respondent is asked if anyone else pays for all or part of the expense for the care of any of her children under age 13. Financial support includes financial assistance from a government agency or program, child care agency or program, other organization, child(ren)'s parent, respondent's employer, or a relative or friend. The respondents answered yes if they received child care from centers or other programs that are free of charge or of minimal cost to the parent indicating that some other agency is covering the rest of the child care expenses. In the second question, the respondent is asked if they pay for child care on a sliding fee scale. The respondents who answer 'yes' on either the first or second question are considered to be receiving financial support for child care. This variable is constructed as a binary variable equal to one if the respondent reported any financial support for child care expenses, and zero otherwise.

Free Child Care by Relatives

Conceptual Definition: This refers to help provided by relatives in caring for children.

Operational Definition: In this study, the respondents were considered to be getting free child care by relatives if they used relatives as child care providers

and paid nothing for child care. Free child care by relatives was coded as one if the respondent answered 'yes' on the question of whether they received child care from relatives at least once a week and if the respondent also answered 'no' on the question of whether they have child care expenses. Otherwise, it was zero. However, this variable is underestimated because the 1999 NSAF cannot identify the respondent as receiving free child care by relatives if the respondent does pay some expenses. For example, if the respondent uses multiple arrangements, i.e., uses free child care by relatives as one arrangement and pay for another arrangement, this respondent is not identified as receiving free child care by relatives.

Amount of Child Support Payment

Conceptual Definition: This refers to the amount of child support payment received from the non-custodial parents of children.

Operational Definition: In the survey, the respondents were asked the annual dollar amount of child support payment received in last year (1998). Child support was defined as dollars received from non-custodial fathers for the support of their children. Sometimes child support payments were paid through a welfare agency or a court. This is a continuous variable.

Family Contextual Variables

Age

Conceptual Definition: This refers to the respondent's age.

Operational Definition: The respondent's age was obtained through completion of the roster section of the questionnaire.

Marital Status

Conceptual Definition: This refers to the respondent's current marital situation.

Operational Definition: The respondent was asked about her marital status at the time of the interview. The respondent's marital status was coded as divorced, separated, widowed, or never married.

Educational Level

Conceptual Definition: This refers to the level of education achieved by individuals.

Operational Definition: The respondent was asked to indicate the highest grade or level of schooling completed. Allowable values include (1) no high school diploma or General Educational Development (GED), (2) high school diploma or GED, no college, (3) completed some college classes, (4) at least a bachelor's degree.

<u>The Presence of Children aged 0-5</u>

Conceptual Definition: This refers to the presence of at least one child aged 0-5 in the family.

Operational Definition: The respondent was asked to list the age of each person in the household. This is a binary variable equal to one if the respondent reported having at least one child aged 0-5, and zero otherwise.

<u>Employment Status</u>

Conceptual Definition: This refers to the level of participation in paid work.

Operational Definition: Employment is specified as a trichotomous variable defined at zero hours of work, part-time work, and full-time work. Respondents with weekly work hours from 1 to 34 were defined as working part-time, and those with 35 hours and over are defined as working full-time.

Research Hypotheses

Based on the human ecological perspective and social capital theory, research hypotheses are presented for this study. In the human ecological perspective, family well-being is influenced by factors at three levels of environments –individual, interpersonal, and societal environments (Ihinger-Tallman, 1995). In this study, it is hypothesized that the economic well-being of single mother families is influenced by family contextual factor variables (i.e., mothers' educational level) that are related to

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the individual level of environments, child care expense variables that are related to societal environments including the economic system, and financial and social support variables that are related to the interpersonal level of environments (e.g., financial support from kin is affected by the relationship with kin). Theoretically, social capital is understood to include supportive social resources that may reduce the harmful impacts of economic difficulties. Given social capital theory, it is hypothesized that financial and social support variables (i.e. free child care by relatives) influence the economic well-being of single mother families. In this study, five sets of hypotheses are developed and tested.

Hypothesis 1

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the economic well-being of single mother families.

Hypothesis 1.1

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the family income of single mother families.

Hypothesis 1.2

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the per capita income of single mother families.

<u>Hypothesis 1.3</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the amount of public assistance received by single mother families.

<u>Hypothesis 2</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to child care expenses variables in single mother families.

<u>Hypothesis 2.1</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the presence of child care expenses in single mother families.

<u>Hypothesis 2.2</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to monthly child care expenses in single mother families.

<u>Hypothesis 2.3</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to

the percentage of earnings paid for child care expenses in single mother families.

Hypothesis 3

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to financial and social supports in single mother families.

Hypothesis 3.1

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the dollar amount of general financial support from kin or friends in single mother families.

Hypothesis 3.2

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to financial support for child care expenses in single mother families.

Hypothesis 3.3

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the receipt of free child care by relatives in single mother families.

<u>Hypothesis 3.4</u>

Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the dollar amount of child support payments from non-custodial fathers in single mother families.

<u>Hypothesis 4</u>

Child care expenses are related to economic well-being after controlling for family contextual effects.

<u>Hypothesis 4.1</u>

The presence of child care expenses is related to economic well-being after controlling for family contextual effects.

1. The presence of child care expenses is positively related to family income after controlling for family contextual effects.

2. The presence of child care expenses is positively related to per capita income after controlling for family contextual effects.

3. The presence of child care expenses is negatively related to the amount of public assistance after controlling for family contextual effects.

<u>Hypothesis 4.2</u>

Monthly child care expenses are related to economic well-being after controlling for family contextual effects.

1. Monthly child care expenses are positively related to family income after controlling for family contextual effects.

2. Monthly child care expenses are positively related to per capita income after controlling for family contextual effects.

3. Monthly child care expenses are negatively related to the amount of public assistance after controlling for family contextual effects.

<u>Hypothesis 4.3</u>

Percentage of earnings for child care expenses is related to economic well-being after controlling for family contextual effects.

1. Percentage of earnings for child care expenses is negatively related to family income after controlling for family contextual effects.

2. Percentage of earnings for child care expenses is negatively related to per capita income after controlling for family contextual effects.

3. Percentage of earnings for child care expenses is positively related to the amount of public assistance after controlling for family contextual effects.

Hypothesis 5

Financial and social supports are related to economic well-being after controlling for family contextual effects.

Hypothesis 5.1

The amount of general financial support from kin or friends is related to economic well-being after controlling for family contextual effects.

1. The amount of general financial support from kin or friends is negatively related to family income after controlling for family contextual effects.

2. The amount of general financial support from kin or friends is negatively related to per capita income after controlling for family contextual effects.

3. The amount of general financial support from kin or friends is positively related to the amount of public assistance after controlling for family contextual effects.

Hypothesis 5.2

Financial support for child care expenses is related to economic well-being after controlling for family contextual effects.

1. Financial support for child care expenses is negatively related to family income after controlling for family contextual effects.

2. Financial support for child care expenses is negatively related to per capita income after controlling for family contextual effects.

3. Financial support for child care expenses is positively related to the amount of public assistance after controlling for family contextual effects.

Hypothesis 5.3

Free child care by relatives is related to economic well-being after controlling for family contextual effects.

1. Free child care by relatives is negatively related to family income after controlling for family contextual effects.

2. Free child care by relatives is negatively related to per capita income after controlling for family contextual effects.

3. Free child care by relatives is positively related to the amount of public assistance after controlling for family contextual effects.

Hypothesis 5.4

The amount of child support payments is related to economic well-being after controlling for family contextual effects.

1. The amount of child support payments is positively related to family income after controlling for family contextual effects.

2. The amount of child support payments is positively related to per capita income after controlling for family contextual effects.

3. The amount of child support payments is negatively related to the amount of public assistance after controlling for family contextual effects.

Data Source

Data for this study are extracted from the 1999 National Survey of America's Families (NSAF) Public Use File, collected by the Urban Institute, a nonprofit nonpartisan policy research and educational organization (Urban Institute, 1999). The NSAF is designed to produce estimates that are representative of the U.S. civilian, non-institutionalized population under age 65 (Abi-Habib, Safir, and Triplett, 2004). The NSAF was conducted in 13 states in the United States-- Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, Washington, and Wisconsin. These study area were selected to represent various aspects of the nation in terms of their size, geographic location, people's needs, and provision of government services. Collectively these 13 states account for over half of the U.S. population and represent a broad range of national characteristics with regard to family economic well-being, fiscal capacity, social services and government programs. The 1999 NSAF included data focusing primarily on income security, family structure, health care, child well-being, cash

assistance, other public programs, and family related experiences of the subjects (Converse et al., 2001). Large representative samples of low-income families with children were included in the NSAF.

A random selection of telephone households was the primary method of sampling of the NSAF. The sample had two parts: The main sample consisted of a random-digit dial (RDD) survey of households with telephones. This was supplemented with a second (area probability) sample of households without telephones. In both the RDD and area samples, interviewing was conducted in two stages: first, a short, five-minute screening interview was conducted in order to determine household eligibility. Following the screener interview, if the household was eligible and retained as a sample household, a more detailed, 27- to 45-minute extended interview was conducted to ask about the main survey items of interest.

Most Knowledgeable Adult (MKA) in the household was selected to be the primary respondent. In choosing the MKA, interviewers asked to speak to the person who knew the most about the children and the family. Therefore, the NSAF sought to obtain the most accurate information possible for each family. In this study MKA is the mother of children. Children were not interviewed directly; instead, children data were obtained by interviewing the MKA for that child within the household. When families had multiple children under age 6, the "focal child" for the interview was randomly selected. The same was done for children ages 6 to 12. No more than two children were sampled from each household.

All interviews were conducted on the telephone by interviewers working in central interviewing facilities, using computer-assisted telephone interviewing (CATI) technology. In-person interviewers provided cellular telephones to connect respondents in non-telephone households to the interviewing centers for the CATI interview; hence, the interviews were conducted in essentially the same way in both telephone and non-telephone households. Data collection for the interview started on February 15, 1999. The survey was completed in early October of 1999.

In all, 147,623 telephone households were screened for the 1999 survey. After screening, detailed extended interviews were conducted in 40,874 households. The overall response rate was approximately 70% for the 1999 survey.

For the purpose of this study, I drew all of the single mother families with children aged twelve and under. The analytical sample used for this research includes 4,676 single mother families with children.

Unlike other national data sets, the 1999 NSAF contains a sufficient number of single mother families with children under 13 to allow the researcher to examine these families' economic well-being. In addition, this data contains detailed information on the variables that the researcher intended to examine, e.g., child care expenses, child support payment, financial and social supports, family income, public assistance, and detailed information of family characteristics. The NSAF provides better data than are available in most other national surveys on theses issues. Thus, the NSAF is well-suited for this study of child care expenses and the economic well-being of single mother families.

Data Analyses

The aim of this study is to determine if there is a relationship between separate and combined independent variables and the economic well-being of single mother families. The data is analyzed using the Statistical Package of the Social Science (SPSS). Descriptive statistics (frequencies, percentages, and means) are used to contribute to the understanding of the basic characteristics of each of the variables for the sample. Correlations are calculated to determine the extent of associations among the variables. Pearson product-moment correlation coefficients among independent variables and between independent variables and economic well-being outcome variables were examined to measure the contribution of each independent variable to the economic well-being outcome variables. The independent variables, marital status (never married) and employment status (employed), were recoded to dichotomous variables for the correlation and regression analysis.

Multiple regression analysis is used to test the proposed hypotheses and is the primary statistical method in this study. Multiple regression allows the researcher to estimate possible influences from all variables, while controlling the simultaneous effects of other relevant variables. According to Lewis-Beck (1980), multiple regression is useful in two ways. First, it offers a more adequate explanation of the dependent variable, which is useful because few phenomena are products of a single

cause. Second, the effect of a particular independent variable is made more certain, because the distorting effects of other independent variables are removed.

In this study, multiple regressions are used to determine the amount of variation in several dependent variables. How much variation in economic well-being explained by child care expenses, financial and social support variables, and family contextual factors is examined. The multiple regressions are run for each of the dependent variables.

Multiple regression analyses also are performed to examine the combined effects of several predictors on economic well-being. Determining which independent variables are the best predictors of the economic well-being of single mother families were tested. All the variables were entered into an equation simultaneously to assess their total effect and to identify which of the variables were related to economic well-being while controlling for other effects. In multiple regression, the value of the dependent variable (y) is estimated from those independent variables $(x_1, x_2, ... x_p)$. This is achieved by the construction of a linear equation of the general form $y = b_o + b_1 (x_1) + b_2 (x_2) + ...+ b_p (x_p) + e_i$. In the equation, the parameters $b_1, b_2, ..., b_p$ are the partial regression coefficients, the intercept b_o is the regression constant, and e_i is the residual error.

The economic well-being function in this study is:

EWB = f {CCE, FSS, FCF }

where EWB (economic well-being) includes family income, per capita income, and the amount of public assistance. CCE (child care expenses) includes the presence of child care expenses, monthly child care expenses, and percentage of earnings paid for child care. FSS (financial and social supports) includes the amount of general financial support from kin or friends, financial support for child care expenses, free child care by relatives, and the amount of child support payment received. Finally, FCF (family contextual factors) includes mother's age, marital status, educational level, the presence of children aged 0-5, and employment status.

The regression equation used for this study is as follows:

$$Y = b_0 + b_1 (x_1) + b_2 (x_2) + \ldots + b_p (x_p) + e_i$$

Y = Economic well-being of single mother families with children under 13

(family income, per capita income, and the amount of public assistance)

x_1: mother's age

x_2: marital status (never married)

x_3: educational level

x_4: the presence of children aged 0-5

x_5: employment status (employed)

x_6: the presence of child care expenses

x_7: monthly child care expenses

x_8: percentage of earnings for child care

x_9: amount of general financial support received from kin or friends

x_{10}: financial support for child care expenses

x_{11}: free child care by relatives

x_{12}: amount of child support payment

The F test associated with the analysis of variance of the regression equation is used to accept or reject the null hypothesis. If a chance probability level is less than .05, the null hypothesis is rejected. The standardized coefficients (betas) that indicate the relative importance of the independent variables are used to examine which of the variables most contributed to the dependent variables. The R Square indicates how much of the variance in the dependent variable is explained by the model.

CHAPTER IV

RESULTS

This chapter addresses the results of descriptive analyses for the sample, the relation among the variables, and the multiple regression analyses. First, the sample description is presented. Second, the correlations among the independent variables and between the independent variables and the economic well-being variables are briefly discussed. Third, research hypotheses are tested using multiple regression to determine the amount of variation in the dependent variable, economic well-being, explained by family contextual factors, child care expenses and financial and social support.

Descriptive Analyses

Table 1 presents descriptive statistics for the full sample of 4,676 cases in this study. The average age of the mothers was over 32 years old. Among all single mothers, about 34 percent are divorced, 16 percent were separated, 47 percent were never married, and 4 percent were widowed. The mean of educational level of the sample was 2.39, which means that on average single mothers in the sample completed more than high school. About 17 percent of single mothers did not

complete their high school or GED, 41 percent completed their high school or GED, 28 percent completed some college classes, and 13 percent achieved at least a bachelor's degree. About 27 percent of the sample were not employed in 1999, 17 percent were employed part-time, and 56 percent were employed full-time. The average number of family members in the sample was 3.62, and the average number of children in the family was about 2. The mean age of children in the sample was over 6 years. About 57 percent of single mother families had at least one child aged 0-5 and about 43 percent of single mother families had the youngest child aged 6-12.

About 47 percent of the sample had child care expenses. Among the families that had child care expenses, the average monthly child care expense was $255 (S.D.=$227) and the mean percentage of family earnings spent on child care expenses was 15.4 (S.D.=14.6).

About ten percent of single mother families received general financial support from kin or friends and the average amount received was $161 (S.D.=$1,314). About twenty four percent of single mother families received financial support for child care expenses from a government agency, child care agency, other organization, respondent's employer, a relative or friend. About sixteen percent of single mother families received free child care by relatives. Over forty percent of single mothers received child support payments from non-custodial fathers. The average amount of child support payment was $1,528 (S.D.=$2,954).

The mean family income of the sample was $26,935 (S.D.=$24,822) in 1998.

The mean per capita income was $8,040 (S.D.=$7,390). About eighteen percent of

the sample received public assistance and the average annual amount of public

assistance was $601 (S.D.=$1,697).

Table 1
Sample Description[a]

Variables	Percentage	Mean (SD)
Age of the mother		32.24 (8.10)
Marital Status of the mother		
Divorced	33.8	
Separated	15.9	
Never married	46.6	
Widowed	3.7	
Education of the mother		2.39 (.92)
No high school diploma or GED	16.5	
High school diploma or GED, no college	40.8	
Completed some college classes	28.4	
At least a bachelor's degree	13.2	
Employment Status of the mother		
Not employed	27.2	
Part-time work	16.6	
Full-time work	56.2	
Number of family members		3.62 (1.45)
Number of Children		1.99 (1.10)
Age of child		6.55 (3.57)
Families with children aged 0-5	57.5	
Families with children aged 6-12	42.5	

Table 1 (continued)

Child Care Expenses		
The presence of child care payment	47.3	
Monthly child care expenses		$255.00 (226.56) [b]
Percentage of earnings for child care expenses		15.44 (14.56) [b]
Financial and Social Supports		
Receipt of general financial support from kin or friends	10.0	
Amount of general financial support from kin or friends		$161 (1,314)
Financial support for child care expenses	23.8	
Free child care by relatives	16.3	
Receipt of child support payment	41.2	
Amount of child support payment		$1,528 (2,954)
Economic Well-being		
Family income		$26,935 (24,822)
Per capita income		$8,040 (7,390)
Receipt of public assistance	17.8	
Amount of public assistance		$601 (1,697)
Number of observations	4,676	

a. Standard deviations (SD) are shown in parentheses.

b. n=1,900. The cases that had child care expenses were included in this analysis. Outliers were removed. The variable Monthly Child Care Expenses had many outliers (extreme scores). These outliers have an undue influence on the Mean, Standard Deviation and Regression analysis. According to Pallant (2005), the outliers can be deleted from the data set. Therefore, the researcher deleted the top and bottom 5 percent of the cases for Monthly Child Care Expense variable.

Table 2 presents the percentage and mean of variables by the presence of child care expenses. The average age of the mothers was slightly higher for single mothers with no child care expenses compared to those who had child care expenses. About ten percent of single mothers who had child care expenses did not achieve high school degree or GED, compared with twenty two percent of single mothers who did not have expenses. The majority of single mothers who had child care expenses were employed, while about forty two percent of single mothers with no expenses were not employed. About sixty three percent of single mothers who had child care expenses reported having at least on children aged 0-5, compared to about fifty two percent for single mothers who did not have expenses.

The average amount of general financial support from kin or friends was $188 for single mothers who had expenses, compared to $137 for single mothers who did not have expenses. About forty percent of single mothers who had child care expenses received financial support for child care, compared to only ten percent of single mothers who did not have child care expenses. Thirty one percent of single mothers who did not have child care expenses received free child care by relatives. The average was $1,702 child support payments received by single mothers who had child care expenses, compared to $1,373 received by single mothers who did not have expenses.

On average, single mothers who had child care expenses had higher family income than single mothers who did not have expenses, $30,591 vs. $23,652. The amount of public assistance received by single mothers who had expenses was $384, compared to $795 received by single mothers who did not have expenses.

Table 2

Percentage and Mean of Variables by the Presence of Child Care Expenses[a]

Variables	Have child care expenses	Don't have child care expenses
Age of the mother	31.55 (7.42)	32.86 (8.62)
Marital status of the mother		
Divorced	35.4%	32.3%
Separated	15.1%	16.6%
Never married	47.2%	46.1%
Widowed	2.3%	5.0%
Education of the mother		
No high school diploma or GED	9.9%	22.3%
High school diploma or GED	40.1%	41.5%
Completed some college classes	32.7%	24.6%
At least a bachelor's degree	16.4%	10.3%
Employment status of the mother		
Not employed	10.6%	42.1%
Part-time work	16.3%	16.9%
Full-time work	73.2%	41.0%
Families with children aged 0-5	63.4%	52.1%
Families with children aged 6-12	36.6%	47.9%
Financial and Social Supports		
Receipt of general financial support from kin or friends	10.0%	10.0%
Amount of general financial support from kin or friends	$188 (1,580)	$137 (1,019)
Financial support for child care expenses	39.2%	10.0%
Free child care by relatives	[b]	31.0%
Receipt of child support payment	44.8%	38.0%
Amount of child support payment	$1,702 (3,099)	$1,373 (2,811)
Economic Well-being		
Family income	$30,591 (25,701)	$23,652 (23,531)
Per capita income	$9,605 (7,814)	$6,635 (6,684)
Receipt of public assistance	12.7%	22.3%
Amount of public assistance	$384 (1,357)	$795 (1,933)
Number of observations	2213	2463

a. Standard deviations are shown in parentheses.
b. In the NSAF, only single mothers who have no child care expenses can be identified as receiving free child care by relatives.

Table 3 and Figures 2-5 below present child care expenses by family contextual factors for single mother families. Only single mothers who had child care expenses were included in the analyses. About forty one percent of all never married single mothers in the sample had child care expenses (Figure 2). Likewise, about forty one percent of divorced, separated, or widowed mothers in the sample had child care expenses. The average monthly child care expense was lower among families with never married mothers than families with divorced, separated, or widowed mothers, $234 compared with $274. On the contrary, the percentage of earnings for expenses was higher among families with never married mothers than families with divorced, separated, or widowed, 16 percent compared with 15 percent.

About twenty one percent of single mothers without a high school diploma or GED reported having child care expenses (Figure 3). Otherwise, about fifty percent of single mothers who completed at least a bachelor's degree reported having child care expenses. The average monthly child care expenses for single mothers without high school diploma or GED was $200, which accounted for 19 percent of the earnings, compared to $348, which accounted for 14 percent of the earnings for single mothers who completed at least a bachelor's degree.

About fifty two percent of employed single mothers had child care expenses and about eleven percent of non-employed single mothers had child care expenses (Figure 4). Among employed single mothers, the average monthly child care expense was $260, which accounted for 15 percent of the earnings, compared to $190, which accounted for 17 percent of the earnings for non-employed single mothers.

About forty five percent of single mother families with at least one child aged

0-5 had child care expenses, and about thirty five percent of single mother families

with the youngest children 6-12 had child care expenses (Figure 5). The average

child care expense for single mother families with at least one children aged 0-5 was

$285 per month or 17 percent of their earnings, compared to $202 or 12 percent of

earnings for families with the youngest child aged 6-12.

Table 3
Child Care Expenses by Family Contextual Factors for Single Mother Families that Pay
for Child Care [a]

Variables	Mothers who have child care expenses [b]	Monthly child care expenses [c]	Percentage of earnings for child care expenses [d]
Marital Status of the mother			
Never married	890	234 (180)	16.1 (15.0)
Divorced/ Separated/ Widowed	1010	274 (259)	14.9 (14.2)
Education of the mother			
No high school diploma or GED	165	200 (169)	19.0 (18.3)
High school diploma or GED	761	225 (174)	15.1 (13.7)
Completed some college classes	640	260 (212)	15.6 (14.3)
At least a bachelor's degree	316	348 (341)	13.9 (14.2)
Employment Status of the mother			
Not employed	143	190 (175)	16.8 (17.7)
Employed	1757	260 (229)	15.3 (14.3)
Families with children aged 0-5	1213	285 (246)	17.3 (15.4)
Families with children aged 6-12	687	202 (176)	12.1 (12.3)
Number of observations [e]	1900		

a. Standard deviations are in shown in parentheses.
b. Numbers
c. Dollars
d. Percentages
e. n=1,900. The samples that have child care expenses are included in this analysis. In
addition, outliers are removed. The variable Monthly child care expenses and Percentage
of earnings for child care expenses have many outliers (extreme scores). The researcher
deleted the top and bottom 5 percent of the cases.

Figure 2. Child Care Expenses by Single Mother's Marital Status
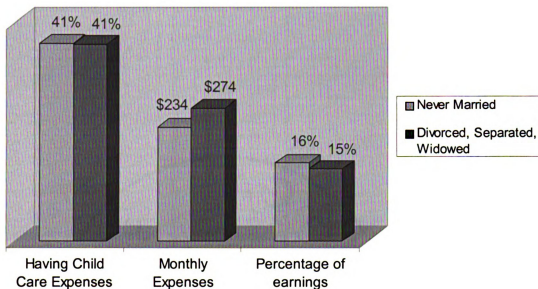
Figure 3. Child Care Expenses by Single Mother's Educational Level
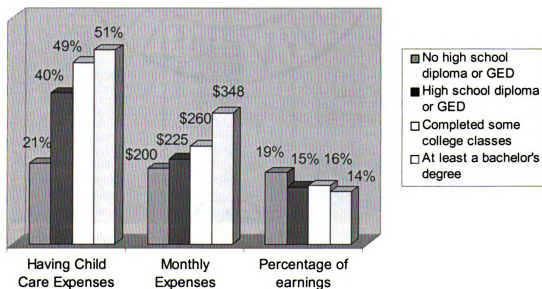
Figure 4. Child Care Expenses by Single Mother's Employment Status
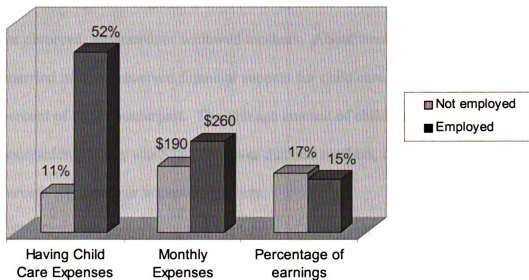
Figure 5. Child Care Expenses by the Presence of Children Aged 0-5
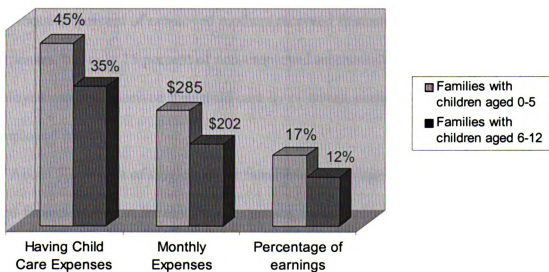
Table 4 below presents financial and social support by family contextual factors for single mother families. Never married mothers in the sample (2,179) received on average $94 of general financial support from kin or friends, compared to $220 for divorced, separated, or widowed mothers. About twenty eight percent of never married mothers received financial support for child care expenses, compared to 21 percent of their counterpart. The average amount of child support payments from nonresident fathers was $785 for never married mothers, compared with $2,178 for divorced, separated, or widowed mothers.

Single mothers who completed at least a bachelor's degree received on average $470 of general financial support, compared to $80 for single mothers without a high school diploma or GED. The average child support payment was $674 for single mothers without a high school diploma or GED, compared to $2,644 for single mothers with at least a bachelor's degree.

About 27 percent of employed mothers received financial support for child care expenses, but only 15 percent of non-employed mothers did. About 18 percent of employed mothers received free child care by relatives, compared to 12 percent of non-employed mothers.

About 30 percent of single mother families with at least one child aged 0-5 received financial support for child care expenses, compared with 15 percent for families with no children aged 0-5. The average amount of child support payments for families with children aged 0-5 was $1,154, compared to $2,034 for families with no children aged 0-5.

Table 4

Financial and Social Support by Family Contextual Factors for Single Mother Families [a]

Variables		General financial support from kin or friends		Financial support for child care expenses	Free child care by relatives	Child support payment	
	Number	Mothers who receive	Amount	Mothers who receive	Mothers who receive	Mothers who receive	Amount
Marital Status							
Never married	2179	198 (9.1%)	$94 (663)	599 (27.5%)	404 (18.5%)	690 (31.7%)	$785 (1894)
Divorced/Separated / Widowed	2497	270 (10.8%)	$220 (1679)	514 (20.6%)	360 (14.4%)	1237 (49.5%)	$2178 (3510)
Educational Level [b]							
No high school diploma or GED	770	68 (8.8%)	$80 (573)	146 (19.0%)	126 (16.4%)	205 (26.6%)	$674 (1735)
High school diploma or GED	1908	170 (8.9%)	$120 (976)	478 (25.1%)	349 (18.3%)	799 (41.9%)	$1424 (2698)
Completed some college classes	1330	155 (11.7%)	$121 (686)	354 (26.6%)	198 (14.9%)	601 (45.2%)	$1698 (2986)
At least a bachelor's degree	616	69 (11.2%)	$470 (2935)	120 (19.5%)	79 (12.8)	309 (50.2%)	$2644 (4280)
Employment Status							
Non-employed	1271	145 (11.4%)	$98 (651)	189 (14.9%)	155 (12.2%)	393 (30.9%)	$1087 (2756)
Employed	3405	323 (9.5%)	$185 (1488)	924 (27.1%)	609 (17.9%)	1534 (45.1%)	$1694 (3009)
Families with children aged 0-5	2687	289 (10.8%)	$165 (1353)	813 (30.3%)	424 (15.8%)	977 (36.4%)	$1154 (2477)
Families with children aged 6-12	1989	179 (9.0%)	$156 (1262)	300 (15.1%)	340 (17.1%)	950 (47.8%)	$2034 (3434)
Number of observations	4676	468 (10.0%)		1113 (23.8%)	764 (16.3%)	1927 (41.2%)	

a. Standard deviations are shown in parentheses.

b. The sum of numbers of mothers who receive financial and social support is not the same as the total number of observations due to missing values in the Educational Level variable. Fifty-two cases had missing values for Educational Level variable.

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Correlations

The correlation coefficients between family contextual factors, child care expenses, and financial and social support variables are presented in Table 5. Pearson's correlation coefficient (r) presented in the table indicates the strength and direction of the linear relationship between two variables. Correlation analysis also provides preliminary evidence of the existence of relationships which were hypothesized in the previous chapter. Several statistically significant correlations were found among the independent variables, and they ranged from $r = -.029$ (small) to .604 (moderate).

The presence of child care expenses was significantly correlated with mothers' employment and the presence of children aged 0-5. In addition, the presence of child care expenses was positively correlated to the receipt of financial support for child care and negatively correlated to the receipt of free child care by relatives. Likewise, monthly child care expenses were positively correlated to mothers' employment and educational level. Employed single mothers and more educated mothers generally reported higher monthly child care expenses. Monthly child care expenses were negatively correlated to the receipt of free child care by relatives.

The receipt of financial support paid for child care was positively correlated with the presence of children aged 0-5. The receipt of free child care by relatives was

Table 5

Correlations among Family Contextual Factors, Child Care Expenses, and Financial and Social Supports (N= 4676)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Family Contextual Factors												
1. Age of the mother	1											
2. Marital status (never married)	-.446(**)	1										
3. Educational level	.201(**)	-.133(**)	1									
4. The presence of children aged 0-5	-.445(**)	.253(**)	-.116(**)	1								
5. Employment (employed)	.069(**)	-.071(**)	.228(**)	-.125(**)	1							
Child Care Expenses												
6. The presence of child care expenses	-.081(**)	.011	.179(**)	.115(**)	.354(**)	1						
7. Monthly child care expenses	-.055(**)	-.029(*)	.192(**)	.171(**)	.236(**)	.604(**)	1					
8. Percentage of earnings for expenses	-.082(**)	.020	-.008	.087(**)	.031(*)	.251(**)	.347(**)	1				
Financial and Social Support												
9. Amount of general financial support from kin or friends	.040(**)	-.048(**)	.070(**)	.003	.029(*)	.020	.063(**)	.012	1			
10. Financial support for child care expenses	-.159(**)	.081(**)	.012	.176(**)	.128(**)	.342(**)	.186(**)	.142(**)	.022	1		
11. Free child care by relatives	-.072(**)	.056(**)	-.039(*)	-.018	.068(**)	-.419(**)	-.254(**)	-.106(**)	-.002	-.118(**)	1	
12. Amount of child support payment	.178(**)	-.235(**)	.178(**)	-.147(**)	.091(**)	.056(**)	.058(**)	-.019	.033(*)	.007	-.019	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

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positively associated with mothers' employment and negatively associated with the receipt of financial support for child care. The amount of child support payment was significantly correlated to single mothers' marital status. Never married mothers generally received a lower amount of child support payment from non-custodial fathers than divorced, separated, or widowed mothers did.

Table 6 presents the correlation coefficients between the independent variables and the three economic well-being variables. The correlations provide the associations between the independent variables and each of the outcome variables.

All independent variables in the study were significantly correlated to family income. Correlation coefficients ranged from r =.039 to .380. More educated and employed single mothers generally reported higher family income. Family income was positively correlated to monthly child care expenses (r =.304) and negatively correlated to the percentage of earnings paid for child care (r =.380). Family income was also positively correlated to the amount of child support payment received from non-custodial fathers. In other words, single mother families that spent a higher percentage of their earnings on child care generally had a lower family income, and families that received higher child support payments had a higher family income.

Similar to family income, most independent variables were significantly correlated to per capita income. Monthly child care expenses were positively correlated to per capita income. Otherwise, the percentage of earnings for child care and the amount of child care payments were negatively correlated to per capita income.

Most independent variables were significantly correlated to the amount of public assistance. Non-employed single mothers generally received a higher amount of public assistance. Single mothers who received a lower amount of child support payment received a higher amount of public assistance.

Table 6
Correlations between the Independent Variables and Economic Well-being (N= 4676)

	Family Income	Per Capita Income	Amount of Public Assistance
Family Contextual Factors			
Age of the mother	.081**	.152**	-.117**
Marital status (never married)	-.096**	-.125**	.116**
Educational level	.268**	.348**	-.154**
The presence of children aged 0-5	-.074**	-.180**	.114**
Employment status (employed)	.235**	.291**	-.226**
Child Care Expenses			
The presence of child care expenses	.140**	.201**	-.121**
Monthly child care expenses [a]	.304**	.290**	-.061**
Percentage of earnings for expenses [a]	-.380**	-.346**	.103**
Financial and Social Supports			
Amount of general financial support from kin or friends	.084**	.089**	-.027
Financial support for child care expenses	-.041*	-.041**	.071**
Free child care by relatives	.039**	-.015	-.020
Amount of child support payment	.240**	.223**	-.131**

*p< .05, **p<.01
a. n=1900, respondents who have child care expenses are included.

Multiple Regression Analyses

Economic Well-being with Family Contextual Factors

This section discusses the results of three multiple regression analyses that were computed to determine the effects of family contextual factors such as mother's age, marital status, educational level, the presence of children aged 0-5, and employment status on the three outcome variables related to the economic well-being of single mother families. The results of the analyses are presented in Table 7.

In the first regression, the family contextual variables explained 11% of the variance in family income. The F value for this model was found to be significant ($p < .000$). Four variables, among five family contextual factors, were significant on family income: marital status, educational level, the presence of children aged 0-5, and employment status. The result indicated that single mother families in the sample had higher mean family income when they were divorced, separated, widowed, had higher educational level, and were employed. The mother's educational level and employment status have the strongest relationship with family income for single mother families in this model.

In the second regression, the family contextual variables explained 19% of the variance in per capita income, and this model is significant ($p < .000$). The results indicated that single mothers' marital status, educational level, the presence of

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Table 7

Multiple Regression Results of Economic Well-being with Family Contextual Factors

Family Contextual Variables	Family Income	Per Capita Income	Amount of Public Assistance
Age of the mother	-.002	.022	-.039*
Marital status (never married)	-.049**	-.034*	.057***
Educational level	.219***	.279***	-.090***
The presence of children aged 0-5	-.016	-.103***	.048**
Employment status (employed)	.180***	.211***	-.188***
R Square	.106	.185	.072
F- statistic	109.905***	209.358***	71.676***
n	4624	4624	4624

*p< .05, **p<.01, ***p<.001

Note. Standardized regression coefficients (betas) are presented. They allow the estimation of the relative importance of each independent variable in determining the value of the dependent variable (Argyrous, 2000). Multicollinearity among independent variables was checked as part of the multiple regression procedure. The VIF (Variance inflation factor) values for each independent variable were not above 10. Commonly used cut-off point for determining the presence of multicollinearity is a VIF value of above 10 (Pallant, 2005); therefore the researcher did not violate the multicollinearity assumption.

children aged 0-5, and employment status were significant predictors of per capita income. The single mother's higher educational level made the strongest unique contribution to predicting higher per capita income in single mother families in the sample.

In the third regression, the family contextual variables explained 7% of the variance in the amount of public assistance, and this model is significant (p< .000). All family contextual variables were found to be statistically significant. The result indicated that single mother families in the sample received higher amounts of public

assistance when the mothers were younger, never married, had lower educational levels, had children aged 0-5, and were not employed. Employment status of the mother was the strongest predictor of the amount of public assistance received by single mother families in this model.

Child Care Expenses with Family Contextual Factors

The results of three multiple regression analyses that determine the influence of family contextual factors on each of the child care expense variables are presented in Table 8. In the first regression analysis, the family contextual variables explained 17% of the variance in the presence of child care expenses. The F value for this model was found to be significant ($p < .000$). The results indicated that single mothers' age, educational level, the presence of children aged 0-5, and employment status were significant predictors of the presence of child care expenses. Single mothers' employment status made the strongest unique contribution to predicting whether these families paid for child care.

In the second regression analysis, the family contextual variables explained 9% of the variance in monthly child care expenses, and this model is significant ($p < .000$). Four of the five family contextual variables were significant predictors of monthly child care expenses: marital status, educational level, the presence of children aged 0-5, and employment status. The result indicated that single mother families in the sample reported a higher mean monthly expense for child care when

Table 8

Multiple Regression Results of Child Care Expenses with Family Contextual Factors

Family Contextual Variables	The presence of child care expense	Monthly child care expenses [a]	Percentage of earnings for child care expenses [a]
Age of the mother	-.071***	.032	-.040
Marital status (never married)	-.015	-.098***	-.019
Educational level	.129***	.184***	-.038
The presence of children aged 0-5	.145***	.238***	.157***
Employment status (employed)	.347***	.071**	.002
R Square	.168	.093	.033
F- statistic	186.970***	38.415***	12.754***
n	4624	1882	1882

Note. Standardized regression coefficients (beta) are presented.

*p< .05, **p<.01, ***p<.001

a. n=1882, only the sample who have child care expenses was included in regression analysis.

single mothers were divorced, separated, widowed, had children aged 0-5, had higher

educational levels, and were employed. In this model, the presence of children aged

0-5 was the strongest predictor of a higher monthly child care expense for single

mother families.

In the third regression analysis, although family contextual variables explained

only 3% of the variance in the percentage of earnings paid for child care. Although

the F value for this model was found to be significant (p< .000), the value of R Square

is quite low. The practical implication (use) of this result may be limited. The

presence of children aged 0-5 was the only family contextual variable that was a

significant predictor of the percentage of earnings for child care expenses. The result

indicated that single mother families with children aged 0-5 paid a higher percentage

of their earnings for child care.

Financial and Social Supports with Family Contextual Factors

Table 9 presents the results of four multiple regression analyses that determine

the influence of family contextual factors on each of four financial and social support

variables in single mother families. In the first regression analysis, the family

contextual factors explained only 0.7% of the variance in the amount of general

financial support from kin or friends. Although this model was significant ($p< .000$),

the variance was quite small because a small number of families (only 10% among all

families) received general financial support from kin or friends (see Table 1). Low R

Square value of this model may limit the practical use of this result. The result

indicated that only two of the family contextual variables were found to be significant

in this model. Single mothers' marital status and educational level were significant

predictors of the amount of general financial support from kin or friends.

In the second regression analysis, the family contextual factors explained 6.2%

of the variance in financial support for child care expenses, and this model is

significant ($p< .000$). The result suggested that being younger, having children aged

0-5, and being employed increased the receipt of financial support for child care.

Single mothers' employment was the strongest predictor of the receipt of financial

support for child care expenses.

Table 9

Multiple Regression Results of Financial and Social Supports with Family Contextual Factors

Family Contextual Variables	Amount of general financial support from kin or friends	Financial support for child care expenses	Free child care by relatives	Amount of child support payment
Age of the mother	.024	-.101***	-.082***	.042*
Marital status (never married)	-.036*	.013	.033*	-.179***
Educational level	.061***	.017	-.043**	.130***
The presence of children aged 0-5	.032	.147***	-.058***	-.063***
Employment status (employed)	.015	.149***	.078***	.038**
R Square	.007	.062	.016	.086
F- statistic	6.958***	61.221***	14.806***	86.363***
n	4624	4624	4624	4624

Note. Standardized regression coefficients (beta) are presented.
*$p < .05$, **$p < .01$, ***$p < .001$

In the third regression analysis, the family contextual factors explained 1.6% of the variance in free child care by relatives. Although the F value for this model was found to be significant ($p < .000$), the value of R Square is relatively low because only 16% of families received free child care by relatives (see Table 1). The practical implication of this result may be limited. All family contextual factors were found to be significant. The result indicated that being younger and being employed were the strongest contributors to the receipt of free child care by relatives.

In the fourth regression analysis, the family contextual factors explained 8.6% of the variance in the amount of child support payment from non-custodial fathers, and this model is significant ($p < .000$). All family contextual variables were

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significant predictors of the amount of child support payments received. The result indicated that families in the sample received a higher amount of child support payment from non-custodial fathers when single mothers were older, divorced, separated, or widowed, had a higher educational level, did not have children aged 0-5, or were employed. The strongest contributor for receiving a higher child support payment from non-custodial fathers was the marital status (i.e., divorced, separated, or widowed) of single mothers.

Economic Well-being with Child Care Expenses

This section discusses the influence of child care expense variables on the economic well-being of single mother families. Multiple regression analyses were used to examine which of the child care expense variables significantly contributed to economic well-being when the family contextual variables were controlled. Table 10 presents the results of the regression analyses.

In models 1, 3, and 5, six independent variables explained 11% of the variance in family income, 20% in per capita income, and 8% in the amount of public assistance. The variance of model 5 was relatively small since the number of families that received public assistance accounted for just 20% of all sample families. The F values for these models were found to be significant (p< .000).

The presence of child care expenses was found to be positively significant on family income and per capita income and negatively significant on the amount of

Table 10

Multiple Regression Results of Economic Well-being with Child Care Expenses

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Family Contextual Factors						
Age of the mother	.001	-.024	.030	.024	-.043*	-.065*
Marital status (never married)	-.048**	-.037	-.033*	-.023	.056***	.051*
Educational level	.213***	.127***	.265***	.215***	-.083***	-.032
The presence of children aged 0-5	-.022	-.026	-.119***	-.137***	.056**	.017
Employment status (employed)	.164***	-.038*	.173***	.001	-.168***	-.043
Child Care Expenses						
The presence of child care expense	.047**	a.	.108***	a.	-.058***	a.
Monthly child care expenses		.568***		.511***		-.111***
Percentage of earnings for child care expenses		-.624***		-.534***		.140***
R Square	.108	.445	.194	.442	.075	.042
F- statistic	93.304***	214.472***	185.791***	212.426***	62.193***	11.666***
N b.	4624	1882	4624	1882	4624	1882

Note. Standardized regression coefficients (beta) are presented. Multiple regression results with unstandardized coefficients are provided in Appendix Table D.3. Multicollinearity among independent variables was checked. The VIF values for each independent variable were not above 10.
*p< .05, **p<.01, ***p<.001
a. The predictor variable is constant, thus excluded in regression analysis.
b. n=4624, in model 1, 3, 5, full sample was included in regression analysis. n=1882, in model, 2, 4, 6, only the sample who have child care expenses was included in regression analysis.

public assistance. The result indicated that single mother families with child care expenses had on average a higher family income and a higher per capita income than single mother families that did not pay for child care when other variables were controlled. The result also indicated that single mother families with child care

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expenses received on average a lower amount of public assistance than single mother families that did not pay for child care. Probably, poor single mother families cannot afford to pay for child care.

Models 2, 4, and 6 present the results of regression analyses that determine the influence of monthly child care expenses and the percentage of earnings for child care expenses on outcome variables. In these regressions, only the respondents who reported child care expenses were examined (n=1882). The seven independent variables explained 45% of the variance in family income, 44% in per capita income, and 4% in the amount of public assistance. These models were significant (p< .000).

Monthly child care expenses were found to be a positive and significant predictor of family income and per capita income, and a negative predictor of the amount of public assistance. The results suggested that single mother families with higher monthly child care expense had on average a higher family income, a higher per capita income, and received a lower amount of public assistance than single mother families with lower monthly child care expense when other variables were controlled.

In contrast, the percentage of earnings for child care expenses was found to be a negative predictor of family income and per capita income, and positive predictor of the amount of public assistance. The results indicated that single mother families with a higher percentage of earnings spent on child care had on average a lower family income, a lower per capita income, and received a higher amount of public assistance.

Economic Well-being with Financial and Social Supports

Table 11 represents the effects of the financial and social support factors on
the economic well-being of single mother families. Multiple regression analyses
show that financial and social supports significantly influenced economic well-being
when family contextual variables were controlled. In these analyses four financial
and social support variables and all of the family contextual variables were entered
simultaneously.

In the first regression analysis, financial and social support variables and
family contextual variables explained 15% of the variance in family income, and this
model was significant ($p< .000$). All of the financial and social support variables
were found to be significant on family income. Families in the sample had a higher
mean family income when single mothers received a higher amount of child support
from non-custodial fathers and did not receive financial support for child care. In this
model, the amount of child support payment was the strongest predictor of family
income when family contextual factors were controlled.

In the second regression analysis, financial and social support variables and family
contextual variables explained 21% of the variance in per capita income, and this
model was significant ($p< .000$). Similar to the first regression, the amount of child
support payment was the strongest contributor to per capita income when family
contextual factors were controlled.
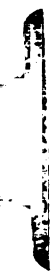
Table 11

Multiple Regression Results of Economic Well-being with Financial and Social Supports

Variables	Family Income	Per Capita Income	Amount of Public Assistance
Family Contextual Factors			
Age of the mother	-.016	.007	-.027
Marital status (never married)	-.014	-.006	.042**
Educational level	.193***	.258***	-.081***
The presence of children aged 0-5	.006	-.089***	.030
Employment status (employed)	.179***	.215***	-.197***
Financial and Social Supports			
Amount of general financial support	.061***	.062***	-.011
Financial support for child care expenses	-.065***	-.058**	.084***
Free child care by relatives	.031*	-.023	-.003
Amount of child support payment	.187***	.138***	-.078***
R Square	.147	.209	.084
F- statistic	88.369***	135.392***	47.104***
n	4624	4624	4624

Note. Standardized regression coefficients (beta) are presented. Multiple regression results with unstandardized coefficients are provided in Appendix Table D.4. Multicollinearity among independent variables was checked. The VIF values for each independent variable were not above 10.

*$p < .05$, **$p < .01$, ***$p < .001$

In the third regression analysis, financial and social support variables and family contextual variables explained 8% of the variance in the amount of public assistance, and this model was significant ($p < .000$). Only two of the financial and social support variables were found to be significant on the amount of pubic assistance received. The result indicated that the receipt of financial support for child

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care and a lower amount of child support payment made a significant contribution to

predicting a higher amount of public assistance received by single mother families.

Overall, those results of regression analyses suggest that financial and social supports

positively affect the economic well-being of single mother families.

Economic Well-being with all independent variables

Table 12 presents the effects of all independent factors on the economic well-

being of single mother families. In models 1, 3, and 5, ten independent variables

explained 15% of the variance in family income, 22% in per capita income, and 9% in

the amount of public assistance, and these models were significant (p< .000).

In models 2, 4, and 6, all independent variables were included in the multiple

regression analyses. Only the respondents who reported child care expenses were

examined (n=1882) in these analyses. All independent variables explained 48% of

the variance in family income, 47% in per capita income, and 5% in the amount of

public assistance. These models were significant (p< .000).

In these regressions, several independent variables were found to be

significant predictors of family income and per capita income. Families in the sample

had a higher mean family income and per capita income when single mothers had a

higher educational level, had higher monthly child care expenses, a lower percentage

of earnings for child care, received a higher amount of general financial support from

kin or friends and a higher amount of child support from non-custodial fathers. On

Table 12

Multiple Regression Results of Economic Well-being with All Independent Variables

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Family Contextual Variables						
Age of the mother	-.007	-.037	.020	-.012	-.037*	-.055*
Marital status (never married)	-.014	.005	-.006	.009	.042**	.039
Educational level	.182***	.104***	.242***	.197***	-.069***	-.026
The presence of children aged 0-5	-.004	-.006	-.103***	-.119***	.041*	.003
Employment status (employed)	.142***	-.034*	.162***	-.005	-.157***	-.046*
Child Care Expenses						
The presence of child care expense	.107***	a.	.153***	a.	-.117***	a.
Monthly child care expenses		.546***		.491***		-.100***
Percentage of earnings for child care expenses		-.614***		-.525***		.134***
Financial and Social Supports						
Amount of general financial support from kin or friends	.061***	.090***	.062***	.093***	-.012	-.006
Financial support for child care expenses	-.089***	-.039*	-.091***	-.049**	.110***	.082***
Free child care by relatives	.075***	a.	.041**	a.	-.052**	a.
Amount of child support payment	.184***	.186***	.133***	.132***	-.075***	-.038
R Square	.154	.484	.223	.468	.092	.049
F- statistic	83.850***	175.640***	132.231***	164.521***	46.844***	9.709***
n	4624	1882	4624	1882	4624	1882

Note. Standardized regression coefficients (beta) are presented. Multicollinearity among independent variables was checked. The VIF values for each independent variable were not above 10.
*p< .05, **p<.01, ***p<.001
a. The variable is constant, so it was excluded in regression analysis.

the other hand, families spent a higher percentage of earnings on child care and received financial support for child care had a higher amount of public assistance.

The results indicated that higher monthly child care expenses and lower percentage of earnings for child care made the strongest contributions to explaining a higher family income, a higher per capita income, and a lower amount of public assistance received.

CHAPTER V

DISCUSSION AND SUMMARY

This chapter presents the discussion and summary of findings. Discussion is divided into five sections. The first section discusses the effects of family contextual factors on economic well-being. The second section presents the effects of family contextual factors on child care expenses. The third section discusses the effects of family contextual factors on financial and social supports. The fourth section shows the effects of child care expenses on economic well-being. The fifth section discusses the effects of financial and social supports on economic well-being. Finally, the summary of findings is presented with regard to the research hypotheses addressed in this study.

Discussion

Economic Well-being with Family Contextual Factors

The results of the multiple regression analyses indicate that there are linkages between family contextual factors and economic well-being, as hypothesized (see Table 7). Certain family contextual factors have statistically significant effects on

family income and per capita income. Single mothers who were never married, less educated, or non-employed had lower family incomes. Likewise, single mothers who were never married, less educated, non-employed, or had children aged 0-5 had lower per capita incomes. Additionally, all family contextual factors had statistically significant effects on the amount of public assistance. When single mothers were younger, never married, less educated, non-employed, and had children aged 0-5, their families received more public assistance dollars.

These results are consistent with the finding of Lino (1994), who examined family income, income per adult equivalent, and public assistance for single mother families by the mothers' marital status. He reported that families maintained by never married mothers had lower family incomes, lower income per adult equivalent, and received higher amounts of public assistance than did families maintained by divorced, separated, or widowed mothers. Additionally, Teitler et al. (2004) found that unwed mothers who are employed are less likely to receive TANF benefits than unwed mothers who are non-employed.

Child Care Expenses with Family Contextual Factors

The results of the multiple regression analyses indicate that there are relationships between child care expenses and family contextual factors (see Table 8). First, several family contextual variables had significant effects on the presence of child care expenses. Single mothers who were younger, employed, had higher

educational levels, and children aged 0-5, were more likely to have child care expenses. These family contextual factors influenced the monthly amount of child care expenses as well. When single mothers were divorced, separated, or widowed, and employed, had higher educational levels and children aged 0-5, they had higher monthly child care expenses than others.

The particular influence of mothers' employment on the presence of child care expenses and the amount of care expenses is consistent with the findings of previous studies (Folk & Beller, 1993; Connelly and Kimmel, 2003 a; Smith, 2002). Folk & Beller (1993) reported that the estimated cost of care was significantly higher for mothers who were employed full-time and used market care (paid forms of care such as center care) than mothers who were not employed. Single mothers who are employed need more hours of child care than unemployed mothers. In addition, mothers who are employed full-time are more likely to use center care than mothers who are employed part-time because much center care is available only on a full-time basis.

According to the results of this study, never married mothers had lower monthly child care expenses than divorced, separated, or widowed mothers (see Table 8 and Appendix Table C.2, D.5, & D.6). This result is consistent with the findings of Smith (2002), who indicated that previously married mothers (divorced, separated, or widowed) with children under age 5 were more likely to use day care centers than never married mothers (26 percent compared with 19 percent). Instead, never married

mothers with children under age 5 were more likely to rely on grandparents and other relatives.

Based on the findings of this study, 47 percent of single mother families paid for child care. For families with expenses, the average monthly child care expense was $255, which accounted for 15.4 percent of the average monthly earnings of single mother families. This finding is similar to Giannarelli & Barsimantov (2000), who reported that employed single parents with child care expenses paid an average of $258 for child care per month representing 16 percent of their earnings in 1997.

There is only one family contextual factor with a statistically significant effect on the percentage of earnings paid for child care. When single mothers had children aged 0-5, they paid a higher percentage of their earnings for child care. This result is consistent with the previous study findings that families with younger children were more likely to purchase child care and spent a higher percentage of earnings on child care (Giannarelli & Barsimantov, 2000; Han & Waldfogel, 2001). According to Giannarelli & Barsimantov (2000), using the 1997 National Survey of America's Families (NSAF), working families with infants, toddlers, or preschool children need more hours of child care than families with school-age children. In addition, child care providers usually charge higher hourly rates for the care of younger children. They found that working families with children under 5 paid an average of $325 per month (10% of earnings) compared to $224 (8% of earnings) paid by families with the youngest child aged 5-12.

Financial and Social Supports with Family Contextual Factors

The results of this study indicate that as hypothesized, there are linkages between family contextual variables and financial and social support variables including the amount of general financial support from kin or friends, the receipt of financial support for child care expenses, free child care by relatives, and the amount of child support payment from nonresident fathers (see Table 9).

First, the analysis showed that 10 percent of single mother families received general financial support from kin or friends. Certain family contextual factors had statistically significant effects on the amount of general financial support from kin or friends. When single mothers were divorced, separated, or widowed and had higher education, families received a higher amount of general financial support from kin or friends.

The result of receiving a lower amount of general financial support for never married mothers is not consistent with previous research (Parish, Hao, & Hogan, 1991; Jayakody, Chatters, & Taylor, 1993). These studies found that never married mothers received more financial support from kin than divorced, separated or widowed mothers. In this study, one possible reason for the lower level of financial support for never married mothers when compared to divorced, separated, or widowed mothers is the potential size of the kin networks (Jayakody, Chatters, & Taylor, 1993). Never married mothers may have a smaller sized kin network than divorced, separated, or widowed mothers who may have access to a former spouse or

former in-laws. The previous research on the relationship between mother's

education and financial supports from kin or friends is very limited (Jayakody,

Chatters, & Taylor, 1993).

Second, the result in this study shows that about one quarter of single mother

families received financial support for child care expenses through various sources

such as government agencies, child care agencies, or other organizations, nonresident

parents, employers, relatives or friends. This finding strengthens earlier work of

Smith (2002), who reported that in spring 1997, a higher proportion of single parent

families with children under 15 years old received help paying for child care than did

two parent families (about 14 percent compared with 5 percent).

The results of the multiple regression analysis show that there are significant

relationships between financial support for child care expenses and family contextual

factors. Three family contextual factors were found to have significant effects on

financial support for child care expenses: the age of the mother, the presence of

children aged 0-5, and employment status. Single mother families were more likely

to receive some financial assistance for child care when they were younger, employed,

and had children under 5 years old. This result is consistent with previous research

(Meyers et al., 2001; Smith, 2002; Giannarelli, Adelman, & Schmidt, 2003). One

possible explanation for the positive relationship between mother's employment and

financial support for child care expenses may be because affordable child care

broadens single mothers' employment choices (Giannarelli, Adelman, & Schmidt,

2003). Meyers et al. (2001) also found that about one third of single mothers who had

child care expenses received some form of child care subsidy from the government and indicated that single mothers who were employed were more likely to be subsidized.

Third, the findings of the present study indicate that 16 percent of single mother families received free child care from relatives. When single mothers were younger, never married, less educated, employed and did not have children aged 0-5, their families were more likely to receive free child care by relatives.

This result is similar to the findings of Giannarelli, Adelman, & Schmidt (2003) who reported that 18 percent of low-income employed single parent families with children under age 13 received free child care from relatives and those with a child under 5 were less likely than those with only older children to have free child care by relatives (14 percent compared with 21 percent). One possible reason for getting less free child care by relatives for families with younger children may be explained by the characteristics of care for children under 5 years old. Because care for younger children is harder work and needs more hours per day than care for school-age children, relatives may be not willing to provide the free care for younger children (Giannarelli, Adelman, & Schmidt, 2003).

The previous study of the effect of mothers' employment on free child care by relatives is limited. Although some research shows that employed single mothers used relative care as their primary child care arrangements more than non-employed mothers did (Hofferth & Wissoker, 1992; Smith, 2002), they did not indicate whether the relative care was offered free of charge. Probably, the result may reflect that

many employed single mothers who did not have child care expenses received free child care by relatives. The receipt of free child care by relatives was measured by only mothers who did not have child care expenses in this study.

Mothers' higher educational levels reduced the receipt of free child care by relatives. One possible explanation for this result may be because these mothers are more likely to use center based care. The previous research suggested that parents with a college degree used center based care as the child care arrangement for their children under 13 to a greater extent than parents with a high school diploma (Hofferth & Wissoker, 1992; Snyder & Adelm, 2004). Perhaps this reflects that mothers with higher levels of education make much account of the academic and developmental aspects of center based care.

Fourth, the analysis in this study shows that 41 percent of single mother families received child support payments from non-custodial parents. They received a lower amount of child support payments when mothers were younger, never married, less educated, non-employed, and had children aged 0-5.

This result is consistent with the previous findings (Hanson, et al., 1996; Sorensen & Zibman, 2000; Argys et al., 1998; Hao & Brinton, 1997). One possible explanation of a lower amount of child support payment for never married mothers is that they are less likely to have legal arrangements for child care payments from nonresident fathers than divorced or separated mothers. Hanson et al. (1996) also pointed out that the nonresident fathers related to these never married mothers had less desire or ability to pay child support payments. The finding is also supported by

Sorensen & Zibman (2000), who found that poor children whose custodian had not completed high school were less likely to receive a child support award from their nonresident parent than other poor children. They reported that 16 percent of poor children whose custodian had not completed high school received a child support award, while 26 percent of poor children whose custodian had completed high school did.

Economic Well-being with Child Care Expenses

All child care expense variables were significantly related to each economic well-being variable as hypothesized (see Table 10). The presence of child care expenses was positively related to family income and per capita income after controlling for family contextual factors. In other words, single mother families that paid for child care had a higher family income and per capita income than families that did not pay for child care.

This finding is consistent with the previous finding that low earning families are less likely to pay for child care than higher earning families (Giannarelli & Barsimantov, 2000). Among single mothers who did not have child care expenses, many of them used parental care for their child care arrangement. Because of parental care, they tended to be employed part-time or unemployed. Therefore they had lower per capita income than single mothers who had child care expenses.

As expected, the presence of child care expenses was negatively related to the amount of public assistance, after controlling for family contextual factors. One possible reason for the lesser presence of child care expenses among families that receive a higher amount of public assistance is that the amount of public assistance is related to low earnings, unemployment, and the use of parental care.

In the analyses, monthly child care expenses were positively related to family income and per capita income but negatively related to the amount of public assistance. In contrast, the percentage of earnings for child care expenses was negatively related to family income and per capita income but positively related to the amount of public assistance. This result is consistent with previous research which found the amount of child care expenses to be a significant factor in family economic well-being (Giannarelli & Barsimantov, 2000; Sonenstein et. al, 2002; Smith, 2002).

Low-income single mothers are likely to choose low-cost child care arrangements. According to Sonenstein et al. (2002), low-income single mother families used center-based care as a child care arrangement less frequently than higher income families. Instead, low-income single families relied to a greater extent on grandparents and other relatives than on day care centers because of the higher expense for these forms of child care arrangements (Smith, 2002).

Economic Well-being with Financial and Social Supports

The results of multiple regression analysis indicate that there are linkages between financial and social support variables and economic well-being variables after controlling for family contextual variables (see Table 11). First, the amount of general financial support from kin or friends had a significant and positive influence on family income and per capita income, but no significant effect on the amount of public assistance. These results are contrary to the researcher's prediction of a negative relationship between the amount of general financial support and family income as well as per capita income. The findings indicated that single mother families receiving a higher amount of general financial support from kin or friends had higher incomes or higher per capita income. Possibly, this is because the general financial support from kin or friends is included in family income as a source of unearned income.

Second, the receipt of financial support for child care expenses had a significant and negative effect on family income and per capita income but a significant and positive effect on the amount of public assistance as hypothesized. Single mother families receiving financial support for child care had lower family incomes or lower per capita incomes. This finding confirms the previous study of Smith (2002) that families with preschoolers that receive any help to pay for child care are likely to have lower family incomes. Smith also indicated that single mother

families receiving public assistance may have more knowledge of the assistance programs of the government or other organizations.

Third, the results indicate that free child care by relatives was significantly, positively related to family income but not statistically related to per capita income and public assistance. This finding is not consistent with the predicted negative relationship between free child care by relatives and family income. Previous research (Hunts & Averty, 1998; Snyder & Adelman, 2004) suggests that relative child care is more common among low-income families than among high-income families. However, these researchers did not distinguish relative child care with expenses from relative child care without expenses. One possible reason for the positive relationship between free child care and family income may be that a relatively high proportion of mothers who received free child care were employed. Among single mothers who received free child care by relatives, about 80 percent were employed in this study.

Fourth, the findings suggest that the amount of child support payments had a significantly positive effect on family income and per capita income but a significantly negative effect on the amount of public assistance. As hypothesized, single mother families with a higher amount of child support payments had a higher family income and a higher per capita income but received a lower amount of public assistance. This result is similar to Sorensen & Zibman (2000), who reported that child support payments received from nonresident fathers is an important source of family income. The average child support payment accounted for over one quarter of

family income of children in poverty in 1996. This finding suggests that child

support payments from non-custodial parent have an important role in single mothers'

family economic well-being.

Summary of the findings

Based on the findings of this study, the summary is presented in terms of the

research hypotheses.

Hypothesis 1: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the economic well-being of single mother families.

> Hypothesis 1.1: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the family income of single mother families.

> Hypothesis 1.2: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the per capita income of single mother families.

> Hypothesis 1.3: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the amount of public assistance received by single mother families.

The findings of this study support these hypotheses that economic well-being

is significantly related to these family contextual characteristics (see Table 7). Never

married mothers in this study were likely to experience lower levels of economic

well-being than divorced, separated, or widowed mothers. Never married mothers

had lower family income, lower per capita income and received more public

assistance than divorced, separated, or widowed mothers. Single mother's

educational level and employment status played an important role in their economic

well-being. When single mothers were employed and had higher educational level,

their families had higher family income, higher per capita income and received less

public assistance. This finding confirms previous research that suggests the

importance of completion of schooling and mother's labor force participation on

family's economic well-being. In addition, this study indicates that having children

aged 0-5 is related to lower levels of economic well-being. Single mothers with

children aged 0-5 reported having lower per capita income and receiving more public

assistance than mothers with the youngest child 6-12. Single mother's age is

significantly related only to the amount of public assistance among the three

economic well-being variables. Younger single mothers received more public

assistance than older single mothers.

Hypothesis 2: Family contextual factors such as mother's age, marital status,
educational level, employment status, and the presence of children aged 0-5 are
related to child care expenses in single mother families.

> Hypothesis 2.1: Family contextual factors such as mother's age, marital status,
> educational level, employment status, and the presence of children aged 0-5
> are related to the presence of child care expenses in single mother families.

> Hypothesis 2.2: Family contextual factors such as mother's age, marital status,
> educational level, employment status, and the presence of children aged 0-5
> are related to monthly child care expenses in single mother families.

Hypothesis 2.3: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the percentage of earnings for child care expenses in single mother families.

The hypotheses are supported by the findings of this study (see Table 8). Mothers' age, educational level, the presence of children aged 0-5, and employment status are significantly related to the presence of child care expense. Single mothers who were younger, more educated, had children aged 0-5, and were employed, reported having child care expenses. Marital status of single mothers was not significantly related to whether families had child care expenses. Among family contextual factors, single mother's employment had the strongest effect on whether they had expenses for child care. This finding agrees with previous research (Smith, 2002) that indicates that employed single mothers are more likely to use paid forms of child care such as center care than relative care.

Single mother's marital status, educational level, the presence of children aged 0-5, and employment status are related to monthly child care expenses. Single mothers who were divorced, separated, or widowed, had a higher educational level, children aged 0-5, and were employed, had higher monthly child care expenses. Among family contextual characteristics, the presence of children 0-5 is the most important factor that influences the higher amounts that families pay for child care. The results of this study also show that the percentage of earnings for child care expenses is significantly related to only the variable, the presence of children aged 0-5. Single mother families with children aged 0-5 had higher monthly child care expenses

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and also paid a higher percentage of their earnings for child care than did families with the youngest child aged 6-12.

Hypothesis 3: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to financial and social supports in single mother families.

>Hypothesis 3.1: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the amount of general financial support from kin or friends in single mother families.

>Hypothesis 3.2: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to financial support for child care expenses in single mother families.

>Hypothesis 3.3: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to free child care by relatives in single mother families.

>Hypothesis 3.4: Family contextual factors such as mother's age, marital status, educational level, employment status, and the presence of children aged 0-5 are related to the amount of child support payments in single mother families.

The findings of this study support these hypotheses (see Table 9). General financial support from kin or friends was related to single mothers' marital status, and educational level. Single mothers who were never married and had a lower educational level received less general financial support from kin or friends. Financial support for child care expenses was related to single mothers' age, employment status and the presence of children aged 0-5. Single mothers who received financial support for child care were younger, employed, and had children

aged 0-5. Free child care by relatives was significantly related to all family contextual factors. Single mothers who received free child care by relatives were younger, never married, less educated, employed, and had the youngest child aged 6-12. The amount of child support payments was significantly related to all family contextual factors. Single mothers who were younger, never married, non-employed, had a lower educational level, and had the youngest child aged 6-12 received lower child support payments from nonresident fathers.

Hypothesis 4: Child care expenses are related to economic well-being after controlling for family contextual effects.

Hypothesis 4.1: The presence of child care expenses is related to economic well-being after controlling for family contextual effects.

1. The presence of child care expenses is positively related to family income after controlling for family contextual effects.
2. The presence of child care expenses is positively related to per capita income after controlling for family contextual effects.
3. The presence of child care expenses is negatively related to the amount of public assistance after controlling for family contextual effects.

The findings of this study support these hypotheses (see Table 10). Having child care expenses was significantly related to better economic well-being after controlling for family contextual effects. Single mother families with child care expenses had higher family income, higher per capita income and received less public assistance than families that did not have child care expenses.

<u>Hypothesis 4.2</u>: Monthly child care expenses are related to economic well-being after controlling for family contextual effects.

1. Monthly child care expenses are positively related to family income after controlling for family contextual effects.
2. Monthly child care expenses are positively related to per capita income after controlling for family contextual effects.
3. Monthly child care expenses are negatively related to the amount of public assistance after controlling for family contextual effects.

The results of this study support these hypotheses (see Table 10). Monthly child care expenses were positively related to economic well-being. Single mother families that had higher monthly child care expenses reported having higher family income, having higher per capita income, and receiving lower public assistance than families that had lower monthly child care expenses.

<u>Hypothesis 4.3</u>: Percentage of earnings for child care expenses is related to economic well-being after controlling for family contextual effects.

1. Percentage of earnings for child care expenses is negatively related to family income after controlling for family contextual effects.
2. Percentage of earnings for child care expenses is negatively related to per capita income after controlling for family contextual effects.
3. Percentage of earnings for child care expenses is positively related to the amount of public assistance after controlling for family contextual effects.

The hypotheses are supported by the findings of this study (see Table 10). The results of this study also showed that spending a higher percentage of family earnings for child care was significantly related to lower economic well-being. Single mother families that paid a higher percentage of their family earnings for child care had lower family income, lower per capita income, and received higher public assistance.

Overall, the results show that single mother families with fewer resources tend to

reduce child care expenditures by arranging for low-expense child care. Nevertheless,

their monthly child care expenses accounted for a higher percentage of family

earnings.

Hypothesis 5: Financial and social supports are related to economic well-being after
controlling for family contextual effects.

> Hypothesis 5.1: The amount of general financial support from kin or friends is
> related to economic well-being after controlling for family contextual effects.
>
> 1. The amount of general financial support from kin or friends is
>   negatively related to family income after controlling for family
>   contextual effects.
> 2. The amount of general financial support from kin or friends is
>   negatively related to per capita income after controlling for family
>   contextual effects.
> 3. The amount of general financial support from kin or friends is
>   positively related to the amount of public assistance after controlling
>   for family contextual effects.

These hypotheses were not supported by the findings of this study (see Table

11). General financial support from kin or friends was positively related to family

income and per capita income, but was not significantly related to the amount of

public assistance. A higher amount of general financial support from kin or friends

resulted in better economic well-being of single mother families.

> Hypothesis 5.2: Financial support for child care expenses is related to
> economic well-being after controlling for family contextual effects.
>
> 1. Financial support for child care expenses is negatively related to family
>   income after controlling for family contextual effects.

2. Financial support for child care expenses is negatively related to per capita income after controlling for family contextual effects.
3. Financial support for child care expenses is positively related to the amount of public assistance after controlling for family contextual effects.

These hypotheses are supported by the findings of this study (see Table 11). The receipt of financial support for child care expenses was related to lower levels of economic well-being. Single mother families receiving financial support for child care expenses reported having lower family income, having lower per capita income, and receiving more public assistance. This finding indicates that some families receive financial support for child care from government as a child care subsidy. Thus the receipt of this support is related to lower family income rather than higher family income.

Hypothesis 5.3: Free child care by relatives is related to economic well-being after controlling for family contextual effects.

1. Free child care by relatives is negatively related to family income after controlling for family contextual effects.
2. Free child care by relatives is negatively related to per capita income after controlling for family contextual effects.
3. Free child care by relatives is positively related to the amount of public assistance after controlling for family contextual effects.

These hypotheses were not supported by the findings of this study (see Table 11). The only indicator of economic well-being that was significantly related to free child care by relatives was family income. Free child care by relatives was positively

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related to family income. Receiving free child care by relatives resulted in higher family income in single mother families.

Hypothesis 5.4: The amount of child support payments is related to economic well-being after controlling for family contextual effects.

1. The amount of child support payments is positively related to family income after controlling for family contextual effects.
2. The amount of child support payments is positively related to per capita income after controlling for family contextual effects.
3. The amount of child support payments is negatively related to the amount of public assistance after controlling for family contextual effects.

The findings of this study support these hypotheses (see Table 11). Possibly of higher interest was the effect of child support payment from nonresident fathers on the economic well-being of single mother families. The payment of child support resulted in better economic well-being; in other words, this support was related to higher family income, higher per capita income and a lower amount of public assistance received. In fact, the amount of child support payments had the strongest positive effect on family income and per capita income.

CHAPTER VI

CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

This chapter presents conclusions, limitations and implications for policy and future study. In the first section, conclusions provide an overview of this study. Limitations of this study are presented in the second section. The third section suggests implications for policy. In the fourth section, implications for future study are presented.

Conclusions

The major purpose of this study was to examine the effects of child care expenses and financial and social supports on the economic well-being of single mother families. This study is particularly important at this time when the number of single mother families has increased and their poor economic conditions are well known. In addition, under the work-required welfare reform environment, the effect of child care expenses has been a high-stake concern. With nationally representative data from the 1999 National Survey of America's Families (NSAF), this study examined the economic status of single mother families, determined by three indicators: family income, per capita income, and the amount of public assistance.

This study used multiple regression analysis to verify the significant effect of child care expense variables (the presence of child care expenses, monthly child care expenses and the percentage of earnings for child care expenses) on economic well-being. This study also examined the influence of financial and social support variables (general financial support from kin and friends, financial support for child care, free child care by relatives, and child support payments) on economic well-being. The influence of family contextual factors (mother's age, marital status, educational level, the presence of children aged 0-5, and employment status) on child care expenses, financial and social supports and economic well-being was also explored.

The human ecological perspective and social capital theory are supported by the findings of this study. According to the human ecological perspective, the overall well-being of families is affected by three levels of environments such as individual, interpersonal, and societal environments (Ihinger-Tallman, 1995). Findings from this study confirm that the economic well-being of single mother families is influenced by various kinds of environments such as personal and familial environments (i.e., mothers' employment status and the presence of young children), interpersonal environments (i.e., financial support from relatives and friends), and societal environments (i.e., economic and institutional systems). Results of this study also support the notion of social capital. Social capital was defined as supportive social relations that influence family well-being in relationships with extended family members, relatives, and friends (Bourdieu, 1986). Findings of this study confirm that financial and social support (i.e., financial support from non-custodial fathers, kin,

friends, and government as well as free child care from relatives) influences the economic well-being of single mother families.

The overall finding of this study demonstrates that both child care expenses and support resources are important determinants of the economic well-being of single mother families. It is clear that for single mother families with a lack of financial resources, child care expenses are a major concern. Nationwide, about half of all single mother families with children under age 13 had some amount of child care expenses in 1999. Monthly child care expenses for those who paid for child care were an average of $ 255 and accounted for about 15 percent of their family earnings. The significant factors that affected child care expenses were mother's age, marital status, educational level, the presence of children aged 0-5, and employment status. Among these factors, single mother's employment status was the most important factor that determined whether families had child care expenses. Since employed single mothers must arrange for child care when they are working, families with employed mothers are much more likely to have child care expenses than families with non-employed mothers. In addition, among families having child care expenses, the presence of children aged 0-5 was the most important factor that affected the amount of child care expenses. Children aged 0-5 need longer hours of care than school age children because they do not go to school and child care centers usually charge more per hour for younger children. Additionally, child care expenses accounted for a higher percentage of the earnings of single mother families with children aged 0-5.

The analysis of this study also reveals important findings regarding the effect of child care expenses on the economic well-being of single mother families. The presence of child care expenses was positively related to family income and per capita income, but negatively related to the amount of public assistance. Additionally, higher monthly child care expenses and a lower percentage of earnings paid for child care were related to better economic well-being. Single mother families that spent a higher amount on child care and a lower percentage of their earnings had higher family income, higher per capita income, and received a lower amount of public assistance. Many single mothers who did not have child care expenses were not employed and used parental care (see Appendix Table C.1). Because of parental care and the lack of employment, they had lower incomes than single mothers who had child care expenses. Additionally, they received higher public assistance dollars. The results also indicate that single mother families with low income were likely to reduce child care expenses by choosing low-cost child care arrangements. Therefore, they tend to rely on relatives more frequently than center based care because relatives usually offer child care at no- or low-cost (Sonenstein et al., 2002).

A second set of findings is in regard to the determinants of financial and social supports and their effects on the economics of single mother families. The findings of this study indicate that monetary assistance and free child care are important as support resources. The profile of financial and social support shows that about one-quarter of single mothers receive financial support for child care, one-fifth receive free child care by relatives, just one-tenth receive general financial supports from kin

or friends, and about 40 percent receive child support payments from nonresident fathers. Furthermore, these supports have a positive effect on the economic well-being of single mother families. It is clear that these financial and social supports help alleviate their economic difficulties. However, these findings also suggest that many single mother families do not receive these kinds of supports from others, possibly because of their narrow social networks, availability of those supports, or lack of information about the availability of the supports. In general the results of this study are consistent with the previous research that has studied the nature of those supports and their influences on the family (Giannarelli, Adelman, & Schmidt, 2003; Smith, 2002; Hao & Brinton, 1997; Sandfort & Hill, 1996; Jayakody, Chatters, and Taylor, 1993; Parish, Hao, & Hogan, 1991).

Using more recent data from the NSAF, this quantitative research contributes to the literature related to child care expenses, support systems and economic well-being for the particular population of single mother families with children. It provides additional evidence of child care expenses as an important determinant of economic well-being and strengthens the arguments for proponents of financial and social supports for single mother families.

Limitations

This study of the effect of child care expenses and financial and social supports on the economic well-being of single mother families is limited by the 1999

NSAF data constraints. In the data, free child care by relatives is underestimated. Single mothers were identified as receiving free child care by relatives only if they used relatives as child care providers and had no other child care expenses. If single mothers combined free relative care with paid child care, the 1999 NSAF did not identify these mothers as receiving free child care by relatives.

The NSAF interviewed the respondents by phone with a questionnaire which contained sensitive questions such as family income, public assistance, subsidies and family relationships. It is uncertain how accurate respondents are in reporting such financial and family information.

In several multiple regression analyses of this study, the values of R Square were found to be quite low although their F values were significant ($p < .000$). The family contextual factors explained 3% of the variance in the percentage of earnings for child care expenses and only 0.7% of the variance in the amount of general financial support from kin or friends (see Table 8 & 9). The low value of R Square seems to reduce the practical significance of these analyses. Additionally, these results may mitigate the policy implications for these variables.

Estimates from multiple regression analyses are likely to be biased by unobserved variables (Woodhouse, 2001). Undoubtedly, NSAF data set does not include all the variables that affect the economic well-being of single mother families. Unobserved factors will influence the dependent variable, economic well-being, as well as the independent variables, i.e., family contextual factors.

One of the unobserved factors in this study is co-residence (e.g., single mothers living in their parents' homes). To some extent the receipt of financial and social support is underestimated in this study since it does not consider co-residence, which provides single mothers with greater access to a child care provider as well as financial supports provided by co-residents (i.e., free or low cost housing) (Hogan et al., 1990). Another unobserved factor is the ethnic differences in financial and social support. The extended kin network and greater levels of support are found among African-Americans, as compared to Whites. African-American single mothers often co-reside with their parents and more frequently use free child care by kin compared to Whites (Hogan, Hao, & Parish, 1990)

Although the NSAF data contains some aspects of financial and social support, some types of support such as advice, emotional and informational support are not included. These types of social support may have some influence on the economic well-being of single mother families. In addition, the NSAF does not include asset and debt information. These are important aspects of a family's economic well-being (Lino, 1995; Bartholomae, 2001).

This study is also limited because the data is cross-sectional and thus does not determine how child care expenses affect the economic well-being of single mother families over time. A dynamic approach with longitudinal data would be helpful to establish causal links that may exist between child care expenses and economic well-being.

Implications for Practical Use

The findings of this study suggest important implications for single mother families. Child care expenses affect family's economic well-being, since child care expenses account for a significant proportion of single mother's family income. Financial and social supports also affect family's economic well-being, by providing not only financial help but also free child care services. These findings can be of specific interest to federal and state policymakers attempting to improve the economic status of single mother families since this study identifies their needs for support, particularly related to child care.

The economic burden of child care expenses for single mothers could be alleviated by expanding child care subsidies. In this study, it is clear that many single mothers, pay considerable amounts of their earnings for child care. This finding suggests the efforts of policymakers are needed to help lower child care expenses for single mother families. Policies that expand or increase child care subsidies such as the Child and Dependent Care Tax Credit and the Child Care and Development Block Grant may reduce the impact of child care expenses. With appropriate child care subsidies, single mothers can choose available and affordable child care arrangements for their children and thus they can maintain and secure their jobs, which may improve their economic stability.

Another important finding of this study is that free child care provided by relatives is a significant support for single mother families. Government supports can

be offered directly to relatives who provide care (Hunt & Avery, 1998). Direct child care subsidies to relatives who provide child care might increase child care help by relatives and thus lighten the child care burden and improve the economic well-being of single mother families.

However, a child care subsidy alone would not solve the problem of poverty and economic hardship for single mother families (Parish, Hao and Hogan, 1991). The subsidy support would increase economic well-being if accompanied by useful programs for supporting labor force participation and educational achievement. Because the economic status of single mother families is highly influenced by their contextual characteristics such as the mother's employment status and educational level, intervention programs that help them complete schooling or get job training would be appropriate.

According to the findings of this study, a large proportion of single mothers are employed (56 percent are employed full-time and 17 percent are employed part-time) and employed mothers were more likely to pay for child care than non-employed mothers. They use more paid forms of care such as center-based care because they have to arrange for regular child care when they work (Folk & Beller, 1993). This finding suggests the need for policies and programs addressing the specific concerns encountered by these employed single mothers who are looking for paid forms of child care. Policies expanding financial support by employers of mothers and programs enlarging the application of a sliding fee scale offered by day care centers can be helpful for working single mothers.

The findings of this study reveal that never married mothers experienced lower levels of economic well-being than divorced, separated or widowed mothers did. Additionally, they received a lower amount of general financial support from kin or friends, and a lower amount of child support payment from non-custodial fathers. About 70 percent of never married mothers did not receive child support payments. The finding of multiple regression analyses also indicates that child support payments from non-custodial fathers had a significant positive effect on family income. The evidence reported here suggests that single mothers, particularly never married mothers, may become economically secure or may escape from poverty if they can establish child support orders and receive child support payments regularly.

The results from this study show that single mothers with children younger than 6 paid higher child care expenses and a higher percentage of earnings for child care. However, relatives were less likely to provide free child care for young children. This result suggests that single mothers with young children have a substantial need for financial support paying for child care. Policy makers and family researchers should focus on their financial need and consider expanding government support for those families with young children.

Findings from this study show that single mothers who did not have child care expenses received higher public assistance dollars from welfare offices. Many single mothers who did not have child care expenses were not employed. Due to their lack of employment, they tend to have low incomes and rely on public assistance. This result suggests that effective child care program that provides secure and high quality

child care may assist single mothers in working and becoming financially independent.

Implications for Future Study

This study of the economic well-being of single mother families provides implications for future research based on some of the specific limitations of this research. First of all, future research is needed that investigates conceptually representative and appropriate indicators of economic well-being. In this study, indicators of economic well-being are measured by family income, per capita income and public assistance. Future studies that include assets and debts as indicators of economic well-being are needed.

In addition, this study is cross-sectional, which provides valuable information on economic status of single mother families at one point in time. However, it does not explain causal relationships in terms of the changes of economic well-being. Without longitudinal research, it is not clear how economic well-being is changed over time by child care expenses as well as financial and social support. This study also reports the importance of social support on the economic well-being of single mother families, while only the receipt of free child care by relatives is included for the social support variable. Future research should try to expand on the notion of social support. Some types of social support such as co-residence with their parents, provision of emotional support, provision of reduced-cost child care can be included

in future study. About one third of single mothers and their children live in their child's grandparents' home at some point (Bumpass & Raley, 1995). Additionally, co-residence considerably affects the availability of child care and financial support from co-residents, i.e., mothers' parents. Therefore, the importance of co-residence needs to be examined.

In this study the role of child care support by relatives is limited due to the data constraint. The possibility of a family receiving free child care by relatives and also paying for child care was not an option. However, some relative care is paid care, although it is usually provided at a very low cost (Hunts & Avery, 1998). Furthermore sometimes, relatives who provide child care receive in-kind payment. To investigate all kinds of child care supports by relatives and how these supports influence single mothers' employment and their economic well-being, is needed in future study.

Finally, further research may consider the quality of care for the children of single mother families. The previous research showed that single mothers reduced the quality of the child care instead of reducing the hours they work when child care expenses increased (Woodhouse, 2001). However, few studies included measures of quality of care, particularly in relative care settings. Research on the relationship among quality of care for the children, child care expenses, and child outcome in single mother families may be useful to provide economic implications for the well-being of children of single mothers.

These are some implications for the future research on the economic issues of single mother families that need to be addressed. As long as a considerable proportion of children in America are living with only their mothers and the economic conditions of single mother families are relatively poor, given high child care expenses and insufficient supports, future research should focus on issues of child care and improving the overall well-being of single mothers and their children.

APPENDIX

APPENDIX A

VARIABLES IN THE STUDY

APPENDIX A. Variable Names and Explanations for the Study

Variables	Names	Explanation
Economic Well-being		
Family Income	Ublinc	Continuous variable, dollar
Per Capita Income	Ublinc2	Continuous variable, dollar
Receipt of Public Assistance	Janypub	Dummy variable, =1 if the respondent receives public assistance
Amount of Public Assistance	Janypamt	Continuous variable, dollar
Child Care Expenses		
The Presence of Child Care Expenses	Gpay_rcd	Dummy variable, =1 if the respondent report any child care expenses.
Monthly Child Care Expenses	Uccexp_r	Continuous variable, dollar
Percentage of Earnings for Child Care Expenses	Uccex_ar	Continuous variable, percentage
Financial and Social Supports		
Amount of General Financial Support from Kin or Friends	Ublfrrel	Continuous variable, dollar
Financial Support for Child Care Expenses	Gotpay_s	Dummy variable, =1 if the respondent report any financial support for child care expenses
Free Child Care by Relatives	Grelrcd3	Dummy variable, =1 if the respondent use relatives as child care providers and pay nothing for any child care arrangements
Amount of Child Support Payments	Ublchsp	Amount of child support payment, dollar
Family Contextual Factors		
Mother's Age	Uage	Continuous variable, years
Marital Status (Never married)	Umarsta2	Dummy variable, =1 if the mother is never married
Educational Level	Uedlv4rc	Continuous variable, 1 through 4 (missing:-9,-8,-7)
Families with Children Aged 0-5	Youngch1	Dummy variable, =1 if the mother has children aged 0-5
Employment Status	U_ushrs2	Categorical variable, =0 if the mother is not employed, =1 if the mother is employed part time, =2 if the mother is employed full time

APPENDIX B

NSAF VARIABLES AND DESCRIPTIONS

APPENDIX B. NSAF VARIABLES AND DESCRIPTIONS

<u>Family Income</u>

Label	Total family income last year
Description	This item represents the total past year income for the family. It was derived by summing together the income variables: UBLAFDC, UBLCHSP, UBLEA, UBLEARN, UBLFPAY, UBLFRREL, UBLGA, UBLINDV, UBLOTH, UBLPNAN, UBLRENT, UBLSOC, UBLSSI, UBLUNEM, and UBLWKCOS.

Variable	UBLAFDC
Label	Amount of AFDC received
Description	The interviewer defined AFDC (or Aid to Families with Dependent Children) and TANF (Temporary Assistance for Needy Families) as federal programs administered by state or local government that makes payments to low-income families with children.

Variable	UBLCHSP
Label	Amount of Child Support received
Description	The interviewer defined a child support order as any written agreement between the parents that indicated the amount of financial support that a nonresident parent was expected to make. The agreement did not have to be a legal document ratified by a court, but it had to be a written agreement, not an oral agreement.

Variable	UBLEA
Label	Amount of Emergency Assistance received
Description	The interviewer defined emergency assistance as emergency or one-time cash payment from the welfare office. Values for this variable were derived from questions J27 and J28 of the questionnaire.

Variable	UBLEARN
Label	Total family earnings last year
Description	This variable was calculated by summing the total earnings from all jobs for each family member, and thus represents the family's total earnings in the previous year.

Variable	UBLFPAY
Label	Amount of foster care payments received
Description	A family receives foster care payments for providing care to children placed in the home by the local welfare department. Respondents included only actual payments received, even if they did not cover all the expenses.

Variable	UBLFRREL
Label	Amount from friends/relatives
Description	Respondents were instructed to include regular assistance as well as assistance received on an irregular basis from friends or relatives, but not occasional gifts or contributions.

Variable	UBLGA
Label	Amount of General Assistance received
Description	General assistance (or general relief) was defined as cash assistance from state and local programs for persons who are not eligible for or who are waiting to enroll in other assistance programs.

Variable	UBLINDV
Label	Amount of interest/dividends received
Description	This category includes interest from accounts with banks, credit unions, and savings and loans; interest from money market funds and certificates of deposit; and interest from government bonds (such as savings bonds). It also includes dividends from shares of stock in corporations and mutual funds are also included.

Variable	UBLOTH
Label	Amount of other income received
Description	Examples of some other sources of income include housing assistance; aid received through the Low-Income Home Energy Assistance Program (LIHEAP); the Earned Income Tax Credit (EITC); scholarships from federal, state, or local public programs; incentive payments for work-related expenses by persons undergoing classroom training provided for by the JTPA; and other property income (such as royalties, estates and trusts).

Variable	UBLPNAN
Label	Amount of pension/annuity received
Description	Pension money and annuities include regular or lump-sum payments received by retired workers or their survivors from employer or union retirement or pension funds. This category also includes payments from annuities and Individual Retirement Accounts (IRAs). It does not, however, include veterans' payments or one-time payments from estates or inheritances.

Variable	UBLRENT
Label	Amount of rental income received
Description	Rental property income includes income from renting land, buildings, or real estate, and rental income from roomers or boarders.

Variable	UBLSOC
Label	Amount of Social Security received
Description	Social security includes payments from the U.S. government to workers who are at least 62 years old, the severely disabled, and dependents or survivors of workers. Workers must have contributed to the Social Security fund for the required number of years. This variable does not include money received as SSI or reimbursement for medical bills paid under Medicare.

Variable	UBLSSI
Label	Amount of SSI received
Description	Supplemental Security Income (SSI) refers to checks received by low-income people who are either aged (65 years old or older), blind, or

disabled. Most SSI recipients receive one monthly SSI check from the federal government. Income from the SSI program is not the same as Social Security; Social Security income was not included here.

Variable	UBLUNEM
Label	Amount of Unemployment Compensation received
Description	Respondents were to include state unemployment insurance funds; railroad unemployment benefits; strike benefits paid from union funds; supplemental unemployment benefits (paid by private companies during layoffs); and federal supplementary compensation payments (from the federal government when state unemployment funds run out). Earnings for on-the-job training sponsored under the JTPA do not count as unemployment compensation.

Variable	UBLWKCOS
Label	Amount of workers compensation/ veterans payments
Description	Workers compensation and/or veterans payments included payments made to workers injured on the job or who had a job-related illness, veteran service-connected disability compensation, veteran survivor benefits, veterans pensions, and educational assistance for veterans (under the GI Bill).

Receipt of Public Assistance

Question	In 1998, did anybody receive public assistance, welfare payments, vouchers, or emergency help from the welfare office?
Description	This variable designates whether any member of the social family received public assistance, welfare payments, vouchers, or emergency help from the welfare office. Help included money received from the state or local welfare office under the Temporary Aid to Needy Families program (TANF) (which replaced Aid to Families with Dependent Children or AFDC); General Assistance (GA) or General Relief (cash assistance from state and local programs for people who are not eligible for or who are waiting to enroll in other programs); Emergency Assistance or other forms of one-time cash payments; and vouchers or coupons received from welfare offices. Interviewers were instructed not to include regular payments from welfare offices for elderly, blind, or disabled persons, nor food, food stamps, clothing, or scholarships.

The Presence of Child Care Expenses

Question	Now think about all the child care arrangements and programs you use regularly for [(CHILD1)/(CHILD2)/all your children under age 13] while you worked, were in school or looked for work. How much did you pay for all child care arrangements and programs used in the last month?] [IF NECESSARY, SAY: If it is easier for you, you can tell us what you paid, in a typical week of the last month?]
Description	This variable asked the respondent to estimate the total amount of money she or he paid during the last month for all child care used while

she or he worked at a job for pay, looked for a job, went to school, or went to a job training program. The respondent was instructed to include child care costs for all of her or his children age 12 or younger. Many parents pay a single amount for child-care arrangements that actually cover more than one child. In other cases, it was necessary to help the respondent count up separate costs for each child in care. If the respondent had difficulty providing an estimate for the entire month, the respondent was asked to report an estimate for a typical week during the month. This variable notes only whether an amount was given or not. If an amount was given, it was recorded using the variable UCCEXP.

Monthly Child Care Expenses

Variable	UCCEXP
Label	Cost of child care (last month)
Description	This variable shows how much was paid for all child care arrangements used regularly during the last month. It was created for MKAs that used child care arrangements (including Center-Based Care, Head Start, Before and/or After School Care, Relative Care, In-Home Care by a Non-Relative, or Out-of-Home Care by a Non-Relative) for at least one focal child while the MKA worked, looked for work, or was in school. MKAs were asked how much they paid for all child care arrangements and programs used regularly for all their children under thirteen, while the MKA worked, was in school, or looked for work. Expenses could be reported in monthly or weekly terms. If weekly expenses were reported, this variable equals the weekly amount multiplied by 4.33. A small number of cases were edited to adjust for apparent confusion between weekly and monthly expenses.

Family Earnings

Label	Total family earnings last year
Description	This variable was calculated by summing the total earnings from all jobs for each family member, and thus represents the family's total earnings in the previous year.

Amount of General Financial Support from Kin or Friends

Label	Amount from friends/relatives
Description	Respondents were instructed to include regular assistance as well as assistance received on an irregular basis from friends or relatives, but not occasional gifts or contributions.

Financial Support for Child Care Expenses

Label	Other pay for part of child care cost
Question	Does anyone else pay for all or part of the cost of the care for

	[(CHILD1)/(CHILD2)/any of your children under age 13]? By this I mean a government agency, your employer or someone outside your household?
Description	Some low-income families receive child care from centers or other programs that are free of charge or of minimal cost to the parent. Often this means that some other agency (such as the government or an employer) is covering the rest of the child care costs. This question covered child-care voucher programs and situations in which someone outside the household contributed to the cost of child care, such as a divorced parent or a grandparent.
Label	Sliding fee for child care arrangements
Question	Is the amount of money you are charged for the child care of [(CHILD1)/(CHILD2)/any of your children under age 13] determined by how much money you earn? [IF NECESSARY, PROBE: Do you pay a sliding fee amount for any of these arrangements?]
Description	Many non-profit child-care programs use graded fee systems so that parents with lower incomes pay less than other parents for child care. This question determined whether the respondent paid less for child care than other families because the respondent was low-income. This question covered child care for any of the respondent's children age 12 and younger.

Free Child Care by Relatives

Label	Have child care in MKA's home
Question	We'd like to know how (CHILD1) spent (his/her) time when (he/she) was not with you during the last month. I'm going to read a list of different kinds of programs children attend and of people who care for children. I'd like you to tell me which ones you used for (CHILD1), at least once a week during the last month. First, did (CHILD1) attend...
Description	Care in the child's home could be provided by someone who comes in to take care of the child or by someone who lives in the household. The interviewer was instructed to include care given by relatives, but not to include care given by the respondent's spouse or partner, or care given by a parent of the child, even if they live somewhere else.
Label	Child had child care in other's home
Question	We'd like to know how (CHILD1) spent (his/her) time when (he/she) was not with you during the last month. I'm going to read a list of different kinds of programs children attend and of people who care for children. I'd like you to tell me which ones you used for (CHILD1), at least once a week during the last month. First, did (CHILD1) attend...
Description	Care provided in a private home other than the home where the child lives includes care given by relatives, but does not include care given by a parent of the child, even if the parent lives somewhere else.
Label	Care giver in home kin to child
Question	Is this person related to (CHILD1)?
Description	Care by a parent was not included, even if the parent does not live with

the child.

Label	Care giver in other's home kin to child
Question	Is this person related to (CHILD1)?
Description	Care by a parent was not included, even if the parent does not live with the child.

Receipt of Child Support Payment

Question	[In 1998, did anybody receive] child support?
Description	This variable designates whether any member of the social family received child support payments last year. Child support was defined as money received from parents for the support of their children. Sometimes child support payments were paid through a welfare agency or a court. Interviewers were instructed not to include TANF payments or any money received from relatives or friends other than a parent.

Amount of Child Support Payment

Description	The interviewer defined a child support order as any written agreement between the parents that indicated the amount of financial support that a nonresident parent was expected to make. The agreement did not have to be a legal document ratified by a court, but it had to be a written agreement, not an oral agreement.

Mother's Age

Description	The variable UAGE provides the age for each sampled person, truncated at 85. Ages were asked about early in the NSAF. The first name of each household member was also obtained at this point so that further questions about each individual could be asked using his or her name.

Marital Status

Description	Marital status was asked of the respondent only. Spouses of respondents were automatically coded as married, but unmarried partners of respondents were assigned a value of "No spouse in HH, partner in HH, DK marital status." It is coded as follows;

1 Married, spouse in household

2 Married, spouse not in household

3 Widowed

4 Divorced

5 Separated

6 Never married

7 No spouse in HH, marital status unknown

8 No spouse in HH, partner in HH, DK marital status

Educational Level

Description   Highest level of education completed (4-way, matches Census reports) It is coded as follows;

1 No high school diploma or GED

2 High school diploma or GED, no college

3 Completed some college classes

4 Bachelors degree (may have graduate deg)

Employment Status

Label   Hours worked per week this year

Description   This variable indicates the number of hours the sampled adult usually worked each week in the current year. Depending on how the sampled adult was employed, each score for this variable was calculated from responses to questions in section I (Employment and Earnings).

Families with Children Aged 0-5

Label   Number of family members aged 0-5

Description   This variable documents the number of family members younger than six years old at the time of the interview.

Number of Family Members

Label   Numer of family members

Description   This variable provides the number of people in the social/CPS family. The social family includes not only married partners and their children, but also unmarried partners, all of their children, and members of the extended family (anyone related by blood to the MKA, the spouse/partner, or their children). The CPS family is limited to persons living together in the same household related by blood, marriage, or adoption.

APPENDIX C

DESCRIPTIVE STATISTICS

Table C.1 Child Care Expenses by Primary Child Care Arrangement for Single Mother Families with Children under 13 [a]

Monthly Child Care Expenses	All families [c]	Center care	Before or after school care	Relative care	Head start	Non relative care	Parental care	Self care	Summer program
Never Married	2179	302	188	795	59	248	460	60	12
Pay for care	890	218	106	291	32	174	27	16	5
Monthly expenses [b]	234	266	211	211	229	251	214	233	248
	(180)	(193)	(170)	(165)	(158)	(200)	(164)	(162)	(319)
Divorced, Separated, or Widowed	2497	183	348	668	29	355	624	204	20
Pay for care	1010	121	239	260	9	257	50	34	13
Monthly expenses	274	419	250	248	190	274	229	163	463
	(259)	(404)	(203)	(213)	(94)	(270)	(163)	(136)	(316)
High school diploma	2678	246	248	890	57	321	719	120	12
Pay for care	926	153	139	303	22	213	44	24	6
Monthly expenses	221	246	207	207	242	238	206	148	258
	(174)	(227)	(156)	(157)	(172)	(165)	(173)	(129)	(220)
Some college	1946	233	285	558	28	278	352	142	19
Pay for care	956	182	204	242	18	216	32	26	11
Monthly expenses	289	387	257	256	191	292	251	221	514
	(265)	(331)	(214)	(223)	(109)	(301)	(147)	(156)	(339)
Employed	3405	393	449	1137	57	526	500	224	28
Pay for care	1757	314	329	499	34	401	68	48	18
Monthly expenses	260	326	241	232.98	226	272	229	191	403
	(229)	(295)	(196)	(194)	(147)	(248)	(167)	(147)	(323)
Not Employed	1271	92	87	326	31	77	584	40	4
Pay for care	143	25	16	52	7	30	9	2	0
Monthly expenses	190	258	172	184.50	197	167	182	50	.
	(175)	(290)	(124)	(138)	(153)	(152)	(116)	(0)	.
Families with Children Aged 0-5									
Pay for care	1213	339	111	365	41	244	54	23	4
Monthly expenses	285	321	321	246	221	305	250	227	428
	(246)	(295)	(261)	(206)	(147)	(248)	(163)	(154)	(303)
Families with Children Aged 6-12									
Pay for care	687	0	234	186	0	187	23	27	14
Monthly expenses	202	.	198	194	.	213	161	151	396
	(176)	.	(136)	(147)	.	(229)	(146)	(133)	(339)
Number of Observation	4676	485	536	1463	88	603	1084	264	32
		(10.4%)	(11.5%)	(31.3%)	(1.9%)	(12.9%)	(23.2%)	(5.6%)	(0.7%)

a. Standard errors are in parentheses.

b. Monthly expenses represent average monthly child care expenses in dollars among single mothers who pay for care.

c. The sum of numbers in each arrangement is not same with the number of all families because of missing cases.

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Table C.2 Percentage and Mean of Variables by Marital Status of the Mother [a]

Variables	Never Married Mothers	Divorced/ Separated/ Widowed Mothers
Age of the mother	28.37 (7.06)	35.61 (7.41)
Education of the mother		
No high school diploma or GED	19.4%	13.9%
High school diploma or GED	43.0%	38.9%
Completed some college classes	27.7%	29.4%
At least a bachelor's degree	8.5%	17.2%
Employment status of the mother		
Not employed	30.6%	24.2%
Part-time work	16.8%	16.5%
Full-time work	52.6%	59.3%
Families with children aged 0-5	70.9%	54.2%
Families with children aged 6-12	29.1%	45.8%
Child Care Expenses		
The presence of child care expenses	47.9%	46.8%
Monthly child care expenses [b]	$234 (180)	$274 (259)
Percentage of earnings for child care expenses [b]	16.1% (15.0)	14.9% (14.2)
Financial and Social Supports		
Receipt of general financial support from kin or friends	9.1%	10.8%
Amount of general financial support from kin or friends	$94 (663)	$220 (1,688)
Financial support for child care expenses	27.5%	20.6%
Free child care by relatives	18.5%	14.4%
Receipt of child support payment	31.7%	49.5%
Amount of child support payment	$785 (1894)	$2,178 (3,510)
Economic Well-being		
Family income	$24,378 (23,818)	$29,168 (25,462)
Per capita income	$7,049 (6,433)	$8,906 (8,036)
Receipt of public assistance	23.9%	12.4%
Amount of public assistance	$811 (1,927)	$418 (1,443)
Number of observations	2179	2497

a. Standard deviations are in shown in parentheses.
b. n=1,900. The samples that have child care expenses are included in this analysis. In addition, outliers are removed. The variable Monthly child care expenses and Percentage of earnings for child care expenses have many outliers (extreme scores). The researcher deleted the top and bottom 5 percent of the cases.

APPENDIX D

MULTIPLE REGRESSION TABLES

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Table D.1

Multiple Regression Results of Child Care Expenses with Financial and Social Supports After Controlling for Family Contextual Factors

Financial and Social Supports	The Presence of Child Care Expenses	Monthly Child Care Expenses	Percentage of Earnings Spent on Child Care
Family Contextual Factors			
Age of the mother	-.084***	.020	-.039
Marital status (never married)	.001	-.081**	-.021
Educational level	.103***	.172***	-.037
Presence of children aged 0-5	.090***	.249***	.154***
Employment status (employed)	.346***	.074**	-.002
Financial and Social Supports			
Amount of general financial support	-.001	.074**	.031
Financial support for child care expenses	.218***	-.076**	.008
Free child care by relatives	-.417***	a	a
Amount of child support payments	.027*	.044	-.015
R Square	.409	.105	.034
F- statistic	354.489***	27.438***	8.272***
n [b]	4624	1882	1882

Note. Standardized regression coefficients (beta) are presented.
*$p< .05$, **$p<.01$, ***$p<.001$
a. The predictor variable is constant, thus excluded in regression analysis.
b. n=1881, the sample who have child care expenses was included in regression analysis.

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Table D. 2

Multiple Regression Results of Economic Well-being with Financial and Social Support by the Presence of Child Care Expenses

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Have Child Care Expenses	Don't Have Child Care Expenses	Have Child Care Expenses	Don't Have Child Care Expenses	Have Child Care Expenses	Don't Have Child Care Expenses
Family Contextual Variables						
Age of the mother	.004	-.015	.050	-.003	-.024	-.038
Marital status (never married)	-.008	-.016	-.002	-.005	.037	.051*
Educational level	.211***	.152***	.281***	.205***	-.072**	-.069**
Families with Children Aged 0-5	-.011	-.018	-.090***	-.123***	.003	.069**
Employment status (employed)	.087***	.178***	.113***	.207***	-.121***	-.149***
Financial and Social Supports						
Amount of General Financial Support	.097***	.009	.100***	.003	-.015	-.010
Financial Support for Child Care Expenses	-.102***	-.056**	-.101***	-.053**	.126***	.115***
Free Child Care by Relatives	a.	.098***	a.	.054**	a.	-.064**
Amount of Child Support Payments	.196***	.175***	.145***	.124***	-.066**	-.089***
R Square	.139	.142	.207	.187	.057	.098
F- statistic	44.215***	44.357***	71.392***	61.983***	16.565***	29.227***
n	2193	2431	2193	2431	2193	2431

Note. Standardized regression coefficients (beta) are presented.
*p< .05, **p<.01, ***p<.001
a. The predictor variable is constant, thus excluded in regression analysis.

Table D. 3

Multiple Regression Results of Economic Well-being with Child Care Expenses
(unstandardized regression coefficients are presented)

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Constant)	7127.96	31300.27	448.83	6092.13	1613.59	752.81
Family Contextual Factors						
Age of the mother	2.408	-80.30	27.25	24.61	-9.04*	-9.85*
Marital status (never married)	-2418.83**	-1837.96	-484.80*	-346.48	190.97***	114.81*
Educational level	5781.48***	3637.56***	2147.37***	1877.28***	-152.62***	-40.94
The presence of children aged 0-5	-1127.11	-1363.39	-1782.35***	-2154.99***	190.86**	38.66
Employment status (employed)	9152.93***	-3557.44*	2880.13***	29.29	-639.54***	-184.42
Child Care Expenses						
The presence of child care expense	2316.66**	a.	1601.28***	a.	-195.11***	a.
Monthly child care expenses		62.35***		17.06***		-.546***
Percentage of earnings for child care expenses		-107605***		-27951.9***		1084.54***
R Square	.108	.445	.194	.442	.075	.042
F- statistic	93.304***	214.472***	185.791***	212.426***	62.193***	11.666***
N b.	4624	1882	4624	1882	4624	1882

*p< .05, **p<.01, ***p<.001
a. The predictor variable is constant, thus excluded in regression analysis.
b. n=4624, in model 1, 3, 5, full sample was included in regression analysis. n=1882, in model, 2, 4,
6, only the sample who have child care expenses was included in regression analysis.

In the analyses, it was predicted that single mother families with child care
expenses had $2,316.66 higher annual family income on average than families with
no child care expenses. The predicted annual family income increased $62.35 on
average for every one-dollar increase in monthly child care expenses. It was also
predicted that on average a one percent increase in the percentage of earnings spent
on child care decreased family income by $1076.05.

Table D. 4

Multiple Regression Results of Economic Well-being with Financial and Social Supports (unstandardized regression coefficients are presented)

Variables	Family Income	Per Capita Income	Amount of Public Assistance
(Constant)	6876.15	807.00	1554.05
Family Contextual Factors			
Age of the mother	-49.09	6.56	-5.73
Marital status (never married)	-680.56	-87.42	141.81**
Educational level	5251.16***	2085.24***	-149.33***
The presence of children aged 0-5	283.07	-1339.67***	103.74
Employment status (employed)	10021.26***	3575.91***	-750.49***
Financial and Social Supports			
Amount of general financial support	1.14***	.35***	-.02
Financial support for child care expenses	-3823.70***	-1006.42**	334.15***
Free child care by relatives	2071.67*	-455.42	-15.88
Amount of child support payment	1.57***	.34***	-.04***
R Square	.147	.209	.084
F- statistic	88.369***	135.392***	47.104***
n	4624	4624	4624

Note. Standardized regression coefficients (beta) are presented.
*p< .05, **p<.01, ***p<.001

In the analyses, it was predicted that annual family income increased $1.57 on average for every one dollar increase in child support payments. Financial support for child care expenses predicted a $334.15 increase in public assistance.

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Table D.5

Multiple Regression Results of Economic Well-being with All Independent Variables for Never Married Mothers

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Family Contextual Variables						
Age of the mother	-.064**	-.078**	-.032	-.016	-.011	-.051
Educational level	.169***	.099***	.249***	.195***	-.079***	-.033
The presence of children aged 0-5	-.026	.049	-.069**	-.051	.059*	.009
Employment status (employed)	.143***	-.043	.185***	-.007	-.149***	-.050
Child Care Expenses						
The presence of child care expense	.131***	a.	.164***	a.	-.152***	a.
Monthly child care expenses		.457***		.475***		-.124**
Percentage of earnings for child care expenses		-.643***		-.575***		.131***
Financial and Social Supports						
Amount of general financial support from kin or friends	.014	.076**	.050*	.101***	-.028	-.022
Financial support for child care expenses	-.124***	-.098***	-.113***	-.082**	.128***	.103**
Free child care by relatives	.116***	a.	.088***	a.	-.064**	a.
Amount of child support payment	.147***	.115***	.118***	.082**	-.081***	-.060
R Square	.126	.448	.203	.451	.093	.054
F- statistic	34.232***	78.612***	60.517***	79.507***	24.271***	5.531***
n	2149	880	2149	880	2149	880

*p< .05, **p<.01, ***p<.001

Note. Standardized regression coefficients (beta) are presented.

a. The variable is constant, so it was excluded in regression analysis.

Table D.6

Multiple Regression Results of Economic Well-being with All Independent Variables for Divorced, Separated, and Widowed Mothers

Variables	Family Income		Per Capita Income		Amount of Public Assistance	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Family Contextual Variables						
Age of the mother	.041*	-.002	.056**	-.031	-.044*	-.042
Educational level	.193***	.107***	.239***	.198***	.063**	-.017
The presence of children aged 0-5	-.031	-.036	-.126***	-.150***	.027	.003
Employment status (employed)	.146***	-.020	.154***	-.019	-.163***	-.035
Child Care Expenses						
The presence of child care expense	.096***	a.	.153***	a.	-.089***	a.
Monthly child care expenses		.611***		.526***		-.091*
Percentage of earnings for child care expenses		-.613***		-.528***		.159***
Financial and Social Supports						
Amount of general financial support from kin or friends	.080***	.098***	.067***	.096***	-.010	-.005
Financial support for child care expenses	-.059**	.000	-.076***	-.032	.094***	.049
Free child care by relatives	.041	a.	.005	a.	-.046*	a.
Amount of child support payment	.195***	.202***	.130***	.136***	-.086***	-.034
R Square	.173	.507	.226	.474	.075	.033
F- statistic	57.468***	113.415***	79.829***	99.333***	22.305***	3.748***
n	2475	1002	2475	1002	2475	1002

*p< .05, **p<.01, ***p<.001
Note. Standardized regression coefficients (beta) are presented.
a. The variable is constant, so it was excluded in regression analysis.

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APPENDIX E

UCRIHS APPROVAL LETTER

MICHIGAN STATE
U N I V E R S I T Y
April 18, 2005

To: Rosemary Walker
        Room 3 Human Ecology

Re: **Certification # PD05-010**

Title: Child Care Costs and Financial and Social Support Factors Related
to Ecomonic Well-being in Single Mother Families.

Thank you for submitting your certification for the use of an approved
public data file. The University Committee on Research Involving Human
Subjects (UCRIHS) **has received and accepted your certification.**

You may conduct this research project using the approved data file until its
completion without any further review from UCRIHS. If your project
expands to include human subjects or identifiable data from human
subjects you will have to submit a complete application to UCRIHS.

In the future, if you wish to conduct another project, not directly related to
this project, or use another approved data file not listed on this
certification, please submit another certification form. This will allow you
to continue your work without IRB review. In addition, the certification
allows us to keep a total of all human research being performed and gives
credit to you and your department in any reports or statistics.

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www.humanresearch.msu.edu
E-Mail: ucrihs@msu.edu

Please use the certification number listed above on any forms submitted
which relate to this project, or on any correspondence with UCRIHS.

Thank you for your cooperation and good luck with your research. If we
can be of further assistance, please contact us at 517-355-2180 or via
email at UCRIHS@msu.edu.

Sincerely,

Peter Vasilenko, PhD
UCRIHS Chair

Cc: Sunwook Park
3040 Staten Ave. #11
Lansing, MI 48910

*MSU is an affirmative-action,
equal-opportunity institution.*

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