The Impact of Family Economic Hardship and Parental Commitment on Children's Outcomes

Based on household production, role model or socialization, and culture of poverty theories, this study attempts to examine the factors affecting children's various outcomes such as self-esteem, mastery, academic performance, and educational aspirations, using data from the National Survey of Families and Households (NSFH), waves one and two. The sample consists of families with focal children ages 10 to 17 (N=927). The results of OLS models indicate that family economic status and parental commitment exert significant influences on children's outcomes.

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Introduction

Many children face economic deprivation and the disadvantages that correlate with it during their growing up years. In 1997, almost 20% of children in the United States lived below the poverty threshold. Considering the poverty rate for the total U.S. population was 13%, children experience the highest rate of poverty relative to other all age groups. About 9% of children were in extreme poverty, defined as less than 50% of the poverty threshold. When the definition is expanded to include the near poor, defined as 200% of the poverty threshold, more than 41% of children suffered from family economic hardship (U.S. Bureau of the Census, 1998).

The deficiency of parental family income leads to child poverty in the United States. Economically deprived parents are not able to provide good food and nutrition, housing, health care, education and good neighborhoods for children. Although there are many public programs for children, they are very limited and targeted only at the very poor (Kamerman & Kahn, 1989). Therefore, the well-being of children depends entirely on parental economic resources.

Demographic changes over the past 20 years have intensified income inequality among children (Corcoran, 1995). Increasing out-of-wedlock births and a high rate of divorce have created a large number of single parent families. Single parent households -- in particular single mother families -- disproportionately constitute the poor population in the United States. In 1997, about 50% of single mother families with children under age 18 were in poverty, and the poverty rate of single mother families raising preschool age children reached 59.1%. Poverty in childhood tends to be most prevalent among minority groups. Black and Hispanic children are over-represented in the population of poor children. Nearly 36.8% of Black children and 36.4% of Hispanic children were below the poverty threshold in 1997, but only 16.1% of white children were poor (U.S. Bureau of the Census, 1998).

Significance and Justification of This Study

A number of studies have demonstrated that a deficiency of parental income has a detrimental impact on children. When income insecurity and inequitable distribution of benefits and services continue, the gaps in children's development and well-being by income will increase. These disadvantages in childhood are shown to linger on in adulthood (Aston & McLanahan, 1991; Hill & Duncan, 1987). Considering that children's outcomes are virtual predictors associated with successful adulthood and socio-economic achievement, child outcome research is very significant and necessary for policy decisions. Therefore, a systematic and comprehensive investigation of the link between parental income and children is required. In order to have a better understanding and make a more accurate assessment of the impacts of parental income and its correlates on child outcomes, interdisciplinary theories and modeling need to be developed and utilized. With more emphasis on family economic status than previous studies, this study attempts to fill a gap in children's outcome research. This study employs data from the National Survey of Families and Households (NSFH) waves one and two. NSFH data is relatively untapped as a source of research on extensive family issues (Sweet, Bumpass, & Call, 1988).

This study has four objectives. They are (1) to establish a profile of children's psychological, and academic outcomes by family economic status, (2) to investigate the relationships between children's outcomes and family

economic status, parental time commitment, parental characteristics, demographic characteristics, and child characteristics, (3) and to make a more accurate assessment of the possible impact of recent major policy changes on needy children with a better understanding of the aforementioned relationships.

Review of Literature

Economic Perspective

Economic literature suggests that parental income is critical to children's outcomes. It has been held that parental income matters because it exerts its influence on children via resource allocation and investment (Becker, 1976). This argument is elaborated on and strengthened in Becker's household production theory. His household production approach starts with the assumption that a household is not only a consumption unit but also a production unit. In other words, households produce the best commodity (i.e., children's developmental outcomes) by combining the time spent by family members with market-purchased goods or services. As parents' utility is concerned with their children's welfare, they are willing to spend time and money on their children. Under this approach, all behaviors are rationalized by utility maximization, which is subject to time and budget constraints. These basic assumptions do not conflict with those of traditional economic theory.

How to combine market-purchased goods and time spent on children is determined by the relative prices of time and of market goods or services. Substitution between time and goods also rests on whether a home produced good of interest (i.e., children's outcomes) is relatively time intensive or good intensive. Along with time and good inputs, Becker added environmental variables to the production function. Environmental factors represent the environment where the production (i.e., children's self-esteem and academic performance) occurs. Production functions may be shifted upward or downward due to the environmental factor.

Non-economic Perspectives

As shown in the work of Woelfel and Haller (1971), significant others like parents exert a vital influence on children. Parents are believed to contribute to the formation of attitudes, values, self-concept and other psychological structures. Socialization or role model theory explains that the absence of a significant other like a parent, coach, or minister leads to the lack of a role model and risk of mal-socialization. This theory helps to understand the impact of parental behaviors and roles on children's cognitive and socio-psychological development (Haveman & Wolfe, 1995; Haveman, Wolfe, & Spaulding, 1991; Hill & Duncan, 1987).

The working mother hypothesis illustrates that mother's absence from home has a negative effect on children's development and attainment (Haveman & Wolfe, 1995; Haveman et al., 1991). Mother's market work enhances economic security, and allows her to purchase more market goods with which she replaces home goods. Despite the economic advantages, the working mother hypothesis highlights the negative effects of decreased time spent on children, weighing decreased time inputs on children against increased goods inputs due to maternal employment. It seems that this perspective focuses on the actual number of hours spent in child care and neglects the quality or productivity of the time that is spent.

With an emphasis on the cultural aspects of economic deprivation, the poverty or welfare culture theory explains how poverty and welfare receipt affect children's development, educational attainment and intergenerational poverty (Corcoran, 1995). Because this theory highlights parents, peers, and neighborhood as mediators of culture, value, and socialization, it is in accordance with role model theory. However, this hypothesis stresses that growing up poor has a cultural effect on children and family processes. The culture of poverty, according to Lewis (1966), leads to a unique life style and a set of solutions for human behaviors among poor populations. This theory illustrates that children raised in poor families assimilate into a culture of poverty, feelings of fatalism, helplessness, dependence, and inferiority.

Methodology

Conceptual Framework

The conceptual framework of this study is guided by economic perspective. It starts with several underlying assumptions to incorporate a non-economic or non-market household behavior (i.e., child care) into the traditional economic theory of utility maximization to build a more comprehensive and integrative model. It is assumed that parent(s) are major decision-makers within the household and one of their primary concerns is the welfare of their children. Since parent(s) have a limited amount of income and time, their utility maximizing behavior is constrained by economic status and time availability. As a production unit, a household plays a vital role

in forming and developing the quality of children (C) by combining parental time inputs (Tm or Tf) and market inputs (Xc). Aside from market goods and the time commitment of parent(s), there are other relevant variables associated with the production of children's quality. They contribute to shifting the production function of children's quality either upward or downward. The production shifters in this study are: parental characteristics (P), demographic factors (D), and child characteristics (K). The production function of children's quality can be written as follows:

$$C = C\ (Xc,\ Tm,\ Tf;\ P,\ D,\ K\ )$$

Where   C: Child's quality
Xc: Market-purchased goods and services for child
Tm: Time input of mother
Tf: Time input of father
P: Parental characteristics
D: Demographic characteristics and
K: Child characteristics

Data and Sample

The data for this study is taken from the National Survey of Families and Household (NSFH), waves one and two. The Center for Demography and Ecology and the Department of Sociology of the University of Wisconsin-Madison took the major responsibility for the design, sampling, collection, preparation, and processing of the NSFH data. The first wave of NSFH was collected from 1987 through 1988. It contains a nationally representative sample (N=13,007) with some over-sampled groups (Sweet, Bumpass, & Call, 1988). The data set contains rich information on the nature and variability of American family life, covering extensive family issues.

From 1992 through 1994, a 5-year-follow-up study of the original sample was conducted (N=10,007). Wave two of NSFH followed the design and content of wave one. Focal children were originally ages 5-12 at the time of wave one and 10 to 17 years old (N=1,412) in the follow-up study. For this study, the sample consists of families with focal children ages 10 to 17 (N=927). NSFH waves one and two are used to identify longitudinal causes and effects of family economic conditions.

Measurement of Variables and Hypothesis

Children's various outcomes (i.e., self-esteem, mastery, academic performance, and educational aspiration) are used as the dependent variables in the following multivariate models. The measure of self-esteem[1] employed in this study is taken from three out of ten items in the Rosenberg (1965) scale, which refers to one's positive attitude toward oneself. The mastery index[2] consists of four items from a seven-item mastery measure constructed by Pearlin and Schooler (1978). Academic performance of focal children is measured by asking children about their school grades. To each of the school grades, numbers are assigned: 8 to mostly A; 7 to A-B; 6 to B; 5 to B-C; 4 to C; 3 to C-D; 2 to D; and 1 to F. Educational aspiration of children has five categories: would not finish high school; would graduate from high school; would graduate from vocational school or 2 year college; would graduate from 4 year college; and would get masters or doctoral degree. The number of years is assigned to each of the categories.

The independent variables are clustered into five categories: family economic status, time-related factors, parental characteristics, demographic characteristics, and child characteristics. Family economic status includes income-to-needs ratio and income-to-needs ratio 5 years ago. Income-to-needs ratio is an indicator of family economic status, which is obtained by dividing parental family income by the poverty threshold. It is hypothesized that the ratio is positively related to children's outcomes. Due to limitations of the NSFH data, economic status 5 years ago will be used as a proxy variable for the longitudinal aspects of child poverty. This variable was drawn from NSFH wave one.

Time related factors consist of mother's time use and parental time use. Mother's time input is measured by mother's self-reported commitment to focal child in terms of how she spends her time with the child. Based on principal component analysis, an index for mother's time use is created. It is hypothesized that higher number of mother's time index is positively related to children's outcomes. Parental time use is based on focal children's perception or observation. Again, principal component analysis is employed to create an index for parental time commitment. It is expected that a higher number of parental time index is positively associated with children's outcomes.

Work performance, work and welfare, marital status, duration of mothers being married, parenting index and mother's education account for parental characteristics. The ratio of earned income to total income is used to reflect the work productivity and economic independence of parent(s) through market activity. Using those who work without welfare as a reference group, three dummy variables are employed. Using married couples as a reference group, the relationship of marital status to children's outcomes is examined. It is expected that children with married parents are more likely to have positive outcomes than those with unmarried parents. Duration of mothers being married is measured by calculating the number of months mothers had been married. It is hypothesized that the duration will be positively associated with other outcomes. The index of parenting is based on focal children's perceptions or observation. An index for parenting is created using principal component analysis. It is hypothesized that a higher score is inversely related to positive outcomes of children. Mother's education greatly influences productivity or efficiency in her investment or production of children's outcomes. Compared to high school graduates, it is hypothesized that mothers who did not finish high school are likely to have children with lower outcomes, while their college-educated counterparts are likely to have children with higher outcomes when other independent variables are held constant.

Demographic characteristics consist of residential mobility, race, and residence in a metropolitan area. Residential mobility is measured by the number of relocations since 1982. Changes in physical environment due to relocation become a barrier to the flow of time and goods inputs spent on children. It is expected that higher residential mobility is inversely associated with children's positive outcomes. Most studies have concluded that white children have more positive outcomes than non-white children, in particular, black children. Using whites as a reference group, three dummy variables (i.e., blacks, Hispanics, and others) are used. As suggested by most of the previous studies, it is hypothesized that minority children will have lower outcomes than white children. Whether children resided in a metropolitan area is used as a proxy variable to capture the possible impact of the environment outside the home.

Child characteristics such as the number of siblings, child age, and gender matter in investigating children's developmental outcomes. The number of siblings is measured by the number of children who live within the household. Given parental budgets and time constraints, the number of children within the household may decrease the quantity and quality of time and goods allocated to each child. Children's school experience is important since they spent most of their time in school with their peer groups. It is expected that the more negative experience children have at school, the less likely they are to have good outcomes.

Results

The OLS results for self-esteem, mastery, school performance, and educational aspiration are presented in Table 1. As suggested by household production theory, family economic status contributes to enhancing children's psychological well-being and educational aspirations. Parental time commitment (TIMEFC), as perceived by children, was shown to have a significant and positive impact on their school performance, consistent with existing literature (Astone & McLanahan, 1991; Sampson & Laub, 1994) and the hypothesis of this study. This result also supports household production theory. The combination of maternal employment and family's welfare status was significantly related to children's self-esteem. Among children with working mothers, those without welfare had higher self-esteem than their counterparts from families receiving welfare, when other independent variables were held constant. In addition, welfare children with unemployed mothers were found to have lower self-esteem than non-welfare children with working mothers. Children growing up in never-married mother families had lower self-esteem and lower GPA compared to those raised by married couples. Meanwhile, living with separated, divorced, or widowed mothers did not have a significant and detrimental influence on children's psychological and academic outcomes.

The OLS results showed that the effect of the parenting index (PARENT) was of great significance in all categories. This finding indicates that parenting played an important role in forming and developing children's psychological outcomes, academic performance in school, and educational aspiration. Consistent with the hypothesis of this study, mother's educational attainment was significant. Compared to children raised by less educated mothers, children living with highly educated mothers were found to have significantly higher mastery, performance in school, and educational aspirations. Consistent with the hypothesis of this study and previous studies (Haveman et al., 1991; Sampson & Laub, 1994), residential mobility was found to be negatively associated with children's mastery index. As families moved more frequently, children tended to have lower mastery. The OLS results challenges widespread assumptions and past research regarding the link between race and children's

outcomes. This study indicated that other things being equal, being born into a black family compared to being a white family increased children's self-esteem. By contrast, Hispanic children showed lower mastery than their white counterparts. The findings of this study also suggest that as children got older, their scores for psychological outcomes such as self-esteem and mastery increased, while those for academic performance decreased. Boys tended to have lower scores for academic performance and lower educational aspirations than girls, which was consistent with previous research (Patterson, Kupersmidt & Vaden, 1990). As children had more negative experiences in school, they tended to have lower mastery and academic performance.

Table 1
OLS Results for Children's Outcomes (N=927)

Independent Variables	Self-esteem	Mastery	School performance	Educational aspiration
Intercept	6.88 (.28)***	5.08 (.395)***	8.06 (.46)***	16.64 (.676)***
Family Economic Status:				
Income-to-needs in 87-8	.008 (.012)	.008 (.017)	.006 (.019)	.015 (.028)
Income-to-needs in 92-4	.035 (.015)*	.034 (.021)^	.034 (.024)	.066 (.036)^
Time-related factors:				
Mother's time (TIMEP)	-.006 (.009)	-.014 (.012)	.008 (.015)	.005 (.021)
Parental time (TIMEFC)	.004 (.007)	.011 (.009)	.026 (.0113)*	.016 (.016)
Parental Characteristics:				
Work Performance	-.109 (.125)	-.007 (.175)	-.119 (.204)	.208 (.299)
Work*Welfare				
Working with welfare	-.300 (.151)*	.037 (.21)	-.372 (.245)	-.293 (.359)
Not working with welfare	-.31 (.13)*	.249 (.185)	-.352 (.216)	.119 (.316)
Neither working/welfare (working without welfare)	-.042 (.068)	-.052 (.095)	-.159 (.11)	-.136 (.162)
Marital status				
Separated/divorced	-.045 (.082)	-.035 (.11)	-.033 (.134)	.044 (.196)
Widowed	.101 (.189)	-.073 (.264)	.21 (.31)	.302 (.45)
Never-married (Married)	-.245 (.144)^	-.29 (.201)	-.89 (.235)**	-.278 (.34)
Duration of being married	.00009 (.0005)	-.0002 (.0006)	-.0008 (.0007)	.001 (.001)
Parenting (PARENT)	-.044 (.014)***	-.053 (.019)**	-.085 (.02)***	-.073 (.033)*
Education				
Less than high school	-.13 (.108)	-.32 (.15)*	-.25 (.17)	-.73 (.257)**
College and higher (High school)	.018 (.088)	.214 (.123)^	.424 (.144)**	.64 (.21)**
Demographic Factors				
Residential mobility	-.051 (.038)	-.155 (.053)**	.061 (.062)	-.007 (.091)
Race				
Blacks	.22 (.089)*	-.026 (.12)	.063 (.145)	.161 (.213)
Hispanics	-.09 (.125)	-.52 (.174)**	-.186 (.203)	-.303 (.298)
Others (Whites)	-.017 (.21)	-.34 (.29)	.501 (.336)	-.037 (.49)
Living in the metro area	.06 (.076)	.003 (.106)	-.035 (.124)	.071 (.182)
Child Characteristics:				
Child age	.04 (.016)*	.177 (.022)***	-.103 (.026)***	-.049 (.037)
Boy	-.057 (.063)	-.088 (.087)	-.427 (.102)***	-.599 (.149)***
Number of siblings	-.037 (.029)	-.023 (.04)	-.016 (.047)	.039 (.069)
School experience index	-.0007 (.006)	-.021 (.008)*	-.022 (.01)*	-.005 (.015)
R-squared	.0751	.136	.172	.099
Adjusted R-squared	.0505	.113	.150	.076

Note: ^p<.10. *p<.05 **p<.01 ***p<.001
Numbers in parentheses are standard errors.

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Discussion

The findings of this study indicate that two major factors in the household production function of children's outcomes – family economic status and time spent on children – are significant. Family economic status was significantly and positively associated with self-esteem, mastery, and educational aspiration, as suggested by household production theory. The effect of parental time input measured by the parental time index (TIMEFC) was consistent with the hypothesis of this study. Children living with unmarried mothers have significantly lower outcomes than those growing up in married couple families. Considering the increase in out-of-wedlock births and divorce rates, this finding calls for effective policy responses for one-parent families and their children. The United States has a greater proportion of single mother households suffering from economic deprivation than does any other Western industrialized nations, which is attributable to a narrow definition of public support (Kamerman, 1995). The United States does not have any universal cash benefits based on the presence of children in a family, and there is no established national standard for child support either (Kamerman, 1995). Findings of this study also acknowledge the crucial role of parenting behaviors in forming and developing children's outcomes. The parenting index created for this study plays a critical role in influencing almost all of the children's outcomes, strongly suggesting that U.S. public policy for families and children should support parenting education programs. It is worth noting what causes negative parenting behaviors. Studies suggest that negative parenting behavior is greatly caused by poverty, financial stress, or job dissatisfaction (Sampson & Laub, 1994).

Subjective perception or experience regarding school life was found to influence children's outcomes. Since school is a big part of their daily lives, school experiences may greatly determine children's developmental outcomes. The quality of education and the physical environment of schools tend to show variations across local communities where children and their families reside. Considering the amount of local control over public education, inequalities of opportunity for accessing a quality public education will continue to persist. Consequently, children residing in poor or working class communities are less likely than those in middle income or upper-middle income class communities to have access to quality education. The findings of this study call for a critical evaluation of the current educational policy with respect to an equal access to quality education.

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Endnotes

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