Center for Studies in Demography and Ecology

The Effect of Welfare on Children's Educational Attainment

by

Inhoe Ku
University of Washington

1

THE EFFECT OF WELFARE ON

CHILDREN'S EDUCATIONAL ATTAINMENT[*]

Inhoe Ku

School of Social Work

University of Washington

e-mail: iku@u.washington.edu

June 2000

THE EFFECT OF WELFARE ON

CHILDREN'S EDUCATIONAL ATTAINMENT

Abstract

In this study, I assess the effects of childhood welfare experiences on adulthood educational attainment. I discuss economic, sociological, and psychological theories of the intergenerational effect of welfare. I estimate the effects separately by race, gender, and child developmental stages. I estimate family fixed-effect models as well as conventional regression models. Data come from the Panel Study of Income Dynamics. Conventional estimates show a negative relationship between welfare and children's education. Fixed-effect estimates show that not all of the effect is attributable to unobserved

disadvantages of welfare families. While welfare in early childhood has no effect, welfare in adolescence has negative effects.

The Temporary Assistance for Needy Families (TANF) program, which replaced the Aid to Families with Dependent Children (AFDC) in 1996, ended entitlement to cash assistance for eligible poor families with children. Under TANF, welfare recipients face a lifetime time limit of 5 years on welfare receipt, and stricter work requirements with sanctions for noncompliance. Welfare reform, combined with continued economic strength, has dramatically reduced the number of families on welfare (Ellwood, 2000). At its peak, in 1994, five million families were receiving AFDC on monthly average. By June 1999, the total caseload decreased by 50 percent

(Administration for Children and Families, 1999).

The new welfare reform reflects growing public concern about welfare dependency (Patterson, 1994). Many conservative advocates of welfare reform argue that welfare benefits erode personal responsibility for their families by creating deviant norms and values, and the deviant welfare culture is passed on to the children through distorted socialization (Murray, 1984; Mead, 1986; 1992; 1997a; 1997b). They suggest that welfare has a detrimental effect on children. On the other hand, liberals stress that welfare alleviates the harmful effects of poverty on children. Many liberals stress that the current welfare reform leaves poor families with young children the most vulnerable (Collins & Aber, 1997; Duncan & Brooks-Gunn, 1997).

While there is little doubt that welfare improves the immediate financial well-being of children, the long-term effects of welfare on children remain in dispute. This study estimates the long-term effect of parental welfare receipt in childhood on educational attainment in young adulthood. Educational attainment is a representative indicator of various socio-economic outcomes and a critical predictor of life-time well-being (Derek & Johnson, 1996). Many empirical studies on the effect of welfare on children find a negative correlation between parental welfare receipt and children's socio-economic outcomes. The studies of children's educational outcomes show a fairly consistent and negative correlation (for a review, see Corcoran, 1995). Yet, the findings from most research in this area are limited in four main ways.

First, traditional explanations of welfare's effect have fallen between two typical notions: one which stresses constrained opportunities around the poor, and the other which blames attitudinal deficits of the poor (Kane, 1987). Although several scholars have proposed alternative views focusing on complex interplay between opportunities and attitudes,[1] empirical research has often ignored those attempts, and findings have been interpreted to support one of the two dichotomies. This paper discusses theories from several disciplines. The theories show that the mechanisms by which welfare may affect poor parents and their children are far more complex than generally believed.

Second, theoretical arguments from both conservative and liberal

---

[1] For example, see Wilson (1987, 1996), Ellwood (1994), and Kane (1987).

perspectives tend to focus on socio-economic behaviors of minority youth. For example, Murray (1984) attributes black youth joblessness to the welfare benefit which is much more prevalent among blacks, while Wilson (1987) emphasizes the lack of economic opportunities in poor black neighborhoods. Yet, past empirical studies show inconsistent findings on the race-specific effects of welfare. In addition, there are few studies which have examined gender differences in the effects of welfare. In this paper, I analyze the effects of welfare separately by race and gender.

Third, there are few studies about the effect of welfare in early childhood. Most previous studies have related youth outcomes to parental welfare receipt during a short period of childhood, usually during adolescence.

The use of information on events during adolescence ignores potential effects at earlier ages. I use whole-childhood data to estimate the effects of welfare. In addition, I estimate the effects of welfare separately by child developmental stages: early childhood, middle childhood, and adolescence.

Fourth, although previous studies rather consistently found a negative correlation between welfare and children's adulthood outcomes even after controlling for a wide array of background characteristics, it is unresolved whether or how much the negative correlation reflects causal links. A fundamental problem in previous studies is that estimated effects of parental welfare use may incorporate the effects of unobserved disadvantages of welfare families, which affect both welfare use and child

outcomes. For example, research has shown that welfare families are more likely to have health and mental health problems (Blank, 1989; Moffitt & Wolfe, 1992; Danziger et al., 1999). This study deals with this limitation through the use of sibling data to take account of unobserved family characteristics.

I review relevant theories in the next section. The third section explains methods, data, and major variables. Results from the analyses are provided in the fourth section. Discussions and conclusions follow in the final section.

THEORY

Although the welfare benefit has been low in the US, the maximum amount paid to family of four with no other income has been around 40-60 percent of the average earnings of working

females from 1970s to 1980s (Moffitt, 1992). Given that single mothers must balance the double roles of provider and nurturer, the welfare benefit may have a substantial impact on the well-being of poor families and children. Theories posit several potential links between parental welfare receipt and children's educational attainment, some beneficial and others detrimental.

Economic Perspectives

A traditional explanation about the effect of welfare on children is provided by the economic deprivation hypothesis. The economic deprivation hypothesis argues that poor children may have to take on a heavy economic burden by working earlier and taking care of younger siblings, which interrupts their education. (McLanahan, 1985; Garfinkel & McLanahan, 1986; Chase-Lansdale &

Hetherington, 1990). This hypothesis implies that parental welfare receipt may have a positive effect on children's education by alleviating the financial burden on their families.

Economic theory provides a more rigorous explanation about how family economic resources affect children's educational attainment. The human capital theory posits that parents invest monetary resources and time in the human capital of their children, considering benefits and costs (Becker, 1981; Becker & Tomes, 1986). This theory suggests that additional economic resources from welfare increase parental investment in children by reducing the cost.[2] Moreover, AFDC recipients were eligible for Medicaid and

---

[2] One assumption for this argument is that welfare does not simply replace income from other sources available in its absence. Moffitt (1992) estimates that about 37 percent of AFDC benefit leaks out due to reduced earnings. Gruber (2,000) documents that AFDC does not crowd out other private sources of income. He shows that one dollar of AFDC increases the consumption of food and housing by 51 cents for divorced mother families. He indicates that this is the same share as in divorced single mother families in general. These findings suggest that welfare does not replace other sources of income very much.

Food Stamps and given priority in getting housing subsidies. These services may have improved children's education by meeting basic needs of children and allowing parents to allocate more economic resources to children's education. (Currie, 1995; 1998)

Research has shown that family income is significantly related to children's education (Haveman & Wolfe, 1995; Duncan & Brooks-Gunn, 1997). The income effect is much bigger among poor families (Duncan et al., 1998). However, it is still controversial whether the effect of income on child outcomes is causal (Mayer, 1997; Blau, 1999).

Economic theory also suggests that welfare may have some negative incentive effects on poor parents' behaviors. The welfare system increases costs of work and marriage, since poor people who work or marry

are less likely to be eligible to the benefits or qualify for less assistance. Research shows that the AFDC program generates nontrivial work disincentives, a significantly negative effect on marriage, and a positive effect on nonmarital childbirth (for a review, see Danziger, Haveman & Plotnick, 1981; Moffitt, 1992; 1998). The incentive effects may have negative effects on children's education. Most studies on a mother's employment among low-income families indicate that a mother's work improves children's cognitive development (Moore & Driscoll, 1997; Zaslow & Emig, 1997). Studies have found that growing up in a single-parent family or experiencing maternal divorce is negatively related to children's educational attainment (McLanahan & Sandefur, 1994; McLanahan, 1997). Studies have found

a significant negative association between the number of siblings and children's education (Blake, 1989).

Given modest negative incentive effects of welfare, however, the economic perspective generally predicts that parental welfare use would have some positive effect on children's education. The economic perspective suggests that welfare needs to be maintained but the negative incentive effects of welfare should be addressed by improving welfare and other related policies.

The economic perspective explains the role of economic constraints or opportunities in a family in children's educational attainment. Yet, the economic perspective does not provide an explicit explanation of the role of attitudes. Although economic models include tastes or preferences in the theoretical framework, they usually

consider an individual's tastes to be fixed over time.

Parental Stress-Parenting Practice theory

One line of psychological theories holds that economic hardship results in heightened feelings of stress and cause poor parenting practices, which hurts the academic development of children (Huston, McLoyd, & Coll, 1994; McLoyd, 1990; 1998). Because welfare alleviates economic hardship and financial strain, these theories imply that it diminishes parental distress and increases parental involvement in children's schoolwork.
Parker, Greer, & Zuckerman (1988) posits that poverty is related to stress, inadequate social support, maternal depression, and child characteristics to produce negative child development. Pearlin et al, (1981) consider stress as

arising out of adverse life events and persistent life strains, economic strains in particular. McLoyd (1990; 1998) posits that economic deprivation leaves poor families exposed to inadequate food, housing, and dangerous neighborhoods. These adverse living conditions, combined with expectancy of economic hardship, are related to psychological distress among poor single mothers. The stress disposes mothers to be self-involved, leading to emotionally less supportive and cognitively less stimulating contacts with children. These parenting practices put poor children at risk of suboptimal academic development.

Research has shown that poverty is associated with parents' psychological characteristics and parenting behaviors (Kessler, 1982; McLeod & Shanahan, 1993; McLoyd et al, 1994; Conger et al,

1994; Klebanov, Brooks-Gunn, & Duncan, 1994). Conger, Conger, & Elder (1997) find that family income and parenting behaviors affect adolescents' self-confidence and academic performance. Some studies suggest that a substantial portion of the effect of poverty on young children's cognitive development is accounted for by parental emotional support and cognitively stimulating experiences (Korenman, Miller, & Sjaastad, 1995; Smith, Brooks-Gunn, & Klebanov, 1997). Most studies in this area are cross-sectional and correlational. Further empirical investigations are required to establish the causality between poverty and parental stress (Kessler, 1982; McLoyd, 1990; Mayer, 1997).

By 1980, the increase in crime, family breakups and welfare dependency, especially in black poor neighborhoods, widely spread the notion that the lifestyles of poor people are different than those in mainstream society (Wilson, 1987; Patterson, 1994). Conservative critics gained popularity by providing a plausible cultural explanation about welfare dependency. The welfare culture hypothesis posits that welfare adversely affects what poor parents and children believe. Murray (1984) argues that the welfare system rewards not working and family breakups by targeting benefits to nonworking single-parent families. More importantly, he maintains that the incentives of welfare generate different rules of behaviors for the poor, which in turn change conceptions of desirable

behaviors among the poor. Economic independence through hard work loses its moral appeal. He emphasizes that the debilitating effects of welfare on values among the poor are especially salient for adolescents, since adolescents' values are more malleable. The stigma attached to welfare drops or disappears among children in welfare families. This position implies that elimination of welfare or, at least, imposition of a time limit on welfare receipt is a necessary step for curing 'pathologies' among welfare parents and children.

Mead (1986; 1992; 1997a; 1997b) raises an alternative view about the cultural effect of welfare. He contends that welfare creates a deviant culture not because it produces the negative incentives but because it reduces the pressure to work. To him, welfare is a

problem mainly because it permits recipients not to work. He argues that children are not well socialized to be disciplined workers by non-working parents. This theory suggests that non-working parents on welfare may adversely affect children's preferences for work and economic independence. If children from welfare families put less value on the benefits of work and education, this would make a difference in their educational attainment. According to his argument, government should assume the socializing role by imposing work requirements on recipients.

Some scholars from a liberal perspective also adopt cultural models to explain poor children's socio-economic attainments.[3] Liberal versions

---

[3] Wilson (1987, 1996) shows some negative aspects of a culture in ghetto neighborhoods, but attributes the culture to lack of jobs in those neighborhoods. The absence of role models which exhibit the relationship between schooling and employment adversely affects children. Ogbu (1981) argues that ghetto people believe less in the sufficiency of education as a means to successful adult life because of a long experience of racial and economic barriers.

of cultural models emphasize that the deviant culture is promoted by lack of economic opportunities. The liberal perspective suggests that the 'abnormal' subculture can be modified by improving more fundamental opportunity structures around the poor, rather than by removing welfare (Wilson, 1987; 1996).

While the welfare culture hypothesis is theoretically plausible, there is little supporting evidence. Most proponents of the welfare culture hypothesis seem to infer the existence of welfare culture from observed behaviors among welfare recipients. Little research has been done on intergenerational transmission of values and attitudes.

In addition, some key assumptions of the welfare culture hypothesis are subject to criticism. Basic assumptions underlying the welfare culture

hypothesis are the lack of work motivation among welfare recipients and the availability of jobs making economic independence feasible. Yet, studies have found that there is considerable work effort among welfare mothers (Edin & Lein, 1996; Harris, 1993; 1996). These studies document that many welfare mothers combine work and welfare to make ends meet. Research also has shown that for many years job opportunities for low-skill workers were not improving and wages were deteriorating (Blank, 1997; Burtless, 1997). Another indicator of the existence of the welfare culture is the disappearance of welfare stigma. However, studies have shown that welfare parents and children suffer from severe stigma (Goodban, 1985; Elliot, 1996; Seccombe, James, & Walters, 1999; Edin et al., 1999).

Although the welfare culture hypothesis mainly focuses on moral or ideational characteristics of welfare recipients, it is often understood as an argument about the effect of welfare on both cultural and psychological traits of welfare recipients (for example, see Macaulay, 1977). Part of the reason is that, until relatively recently, there was no alternative approach to the role of attitudinal factors in the welfare research. Social psychological theories provide alternative explanations about the complex interplay between welfare and the well-being of poor families and children.

Ellwood (1994) applies Atkinson's (1964) expectancy model to explain the psychological effects of welfare participation on recipients. The

expectancy model emphasizes the effect of being on welfare on self-efficacy. This model posits that although welfare may enable a family to survive a crisis, the welfare system closes opportunities for some families to regain control over lives. At least before TANF, the system seemed to discourage welfare recipients from attempting to move off welfare, since work was subject to humiliating scrutiny and often results in a reduced welfare check and a medical risk for their children. This barrier to work is important, not only because it incurs economic costs but because it deprives welfare mothers of opportunities to regain a sense of control (Ellwood, 1994).

Goodban (1985) reports that almost 60 percent of teenage mothers in a local area felt that the reasons they were on welfare were beyond their control. Many

recipients think they were victims of circumstances out of their control (Seccombe, James, & Walters, 1998). The length of time on welfare is an important predictor of self-efficacy (Popkin, 1990).

Some researchers have emphasized the devastating effect of welfare stigma on a recipient's self-esteem (Rainwater, 1982; Goodban, 1985; Nichols-Casebolt, 1986; Elliot, 1996). This approach contends that welfare receipt imposes social and psychological burdens on recipients since society defines it as deviant. Maternal work has become a norm and mothers on welfare are scorned as idle and morally deficient. Recipients may share in society's negative evaluations of themselves. They feel inferior and personally responsible for being on welfare when comparing themselves

with women who work and achieve economic independence (Elliot, 1996). Stigmatized individuals may choose to alienate themselves from the society or restrain themselves from developing an attachment to the society in the first place (Goffman, 1963). Parents on welfare become isolated from the society voluntarily or involuntarily (Ellwood, 1994; Seccombe, James, & Walters, 1998). This may diminish social capital or social support available to welfare families. Note that welfare stigma in this framework is seen to undermine initiative and motivation, while, in the welfare culture hypothesis, welfare stigma is considered a spur for promoting economic independence.

Several empirical studies have documented the negative effects of welfare receipt on self-esteem. Earlier studies find that the majority of welfare

mothers report feeling stigmatized or at least bothered by being on welfare (Macauly, 1977). Research shows that most welfare recipients feel stigmatized by their friends and neighbors, and the society (Goodban, 1985; Edin & Lein, 1997; Seccombe, James, & Walters, 1998).[4] Studies report that the majority of black mothers on welfare internalized the negative social image of welfare recipients and showed lower self-esteem and helplessness (Goodban, 1985; Nichols-Casebolt, 1986). Although findings from many studies are unclear about the direction of the relationship between welfare and self-esteem, Elliot (1996) reports that welfare receipt increasingly lowers self-esteem of young women over time, after

---

[4] It has been believed that welfare recipients, especially long-term welfare recipients, are less sensitive to welfare stigma than nonwelfare adults or short-term welfare recipients (Ellwood, 1994). On the contrary, Goodban (1985) suggests that short-term recipients avoid feeling stigmatized by defining themselves as transitory users while long-term welfare users can not. Long-term welfare recipients may accept the societal notion that reliance on welfare marks their personal defects.

controlling for a previous level of self-esteem.

Parental welfare receipt may have negative effects on children's self-concept. Children may internalize parental failures in achieving economic independence and be conscious of negative societal attitudes toward welfare receipt. Some studies have suggested that welfare children are stigmatized by other children and teachers (Rainwater, 1982; Popkin, 1990; Seccombe, 1999, Edin et al., 1999). Children's self-concept has been indicated as a key determinant of their behaviors (Rutter, 1987; Rosenberg, Schooler, & Schoenbach, 1989). In addition, if welfare parents and children lose social capital, this may also have adverse effects on children's educational attainment. Coleman (1989) argues that social capital outside a

family, such as collective supervision and information provided for children in a community, is critical in improving children's education.

Summary

Two traditional views have provided general guides to empirical research on the effects of welfare on children; one stressing structural constraints around the poor and the other focusing on attitudinal deficits of the poor. This review of theories reveals that welfare may have significant implications for children's well-being and educational attainment in more complex and sometimes conflicting ways. All the theories except for the welfare culture hypothesis suggest that welfare has positive effects by protecting children from extreme poverty. On the other hand, most theories also imply that

welfare, as a significant institutional factor, imposes economic, cultural, or psychological burdens on poor families. The welfare culture hypothesis and the social psychological approaches suggest that welfare has negative consequences for children especially if welfare receipt is long-term. Although inconclusive, available evidence inclines toward the social psychological approaches.

METHODS, DATA, AND VARIABLES

Methods

Previous studies of the effect of welfare on children's educational attainment show a fairly consistent and negative correlation after taking into account a wide range of socio-economic backgrounds. [5] Still, there remains a

---

[5] These studies include McLanahan (1985), Hill & Duncan (1987), Haveman, Wolfe, & Spaulding (1991), Brooks-Gunn et al. (1993), Duncan (1994), Duncan & Yeung (1995), Peters & Mullis (1997), and Bogess

concern that the negative correlation may be driven by unobserved disadvantages of welfare families, which affect both welfare use and child outcomes. The fixed-effect approach is a useful way to control for unobserved family background characteristics by comparing siblings in a family (Griliches, 1979).[6] In this approach, the effect of welfare is estimated by relating the differences in the exposure to welfare between siblings to the differences in educational attainment. I also estimate conventional cross-section models for comparison.

The fixed-effect methods control for unobserved family characteristics that are constant over time. Yet, the

(1998). A few exceptions which find no significant effect are Haveman & Wolfe (1994) and Teachman et al. (1997). For a review, see Ku (2000).

[6] This approach has been used in other areas (Duncan et al. 1998, Aaronson, 1999; Plotnick & Hoffman, 1999; to name a few recent studies). Only two studies on the intergenerational effects of welfare have used the methods (Currie & Cole, 1993; Levine & Zimmerman, 2000). These studies estimate the fixed-effect models for outcomes of infants or young children. No study has applied the fixed-effect methods to studies on children's adulthood outcomes.

methods do not take into account unobserved family conditions which vary across siblings. To the extent that changes in unobserved family environments are correlated with parental welfare participation and siblings' educational outcomes, the fixed-effect estimates would be biased. In addition, if parental welfare participation is correlated with a child's characteristics, such as health problems, the estimates of welfare's effect would be biased.

I estimate linear regression models for the number of years of completed schooling by age 23 and logit models for high school graduation by age 19. I also estimate linear regression models for years of completed schooling by age 19. Although the variation in the years of completed schooling by age 19 should be smaller, it may be possible to

detect more subtle effects of welfare in the fixed-effect models, given that the increased number of sibling pairs can be used in the estimation with a younger age limit.

Data

The data come from the Panel Study of Income Dynamics (PSID) 1968-1997. The PSID is a longitudinal study of a nationally representative sample of U.S. families conducted by the Survey Research Center at the University of Michigan (Hill, 1992). The PSID is the only available survey data which enable us to observe annually the whole childhood history of individuals and their adulthood educational attainment, with a relatively large sample size.

The basic sample for conventional cross-section analyses includes those individuals who remained in the survey

for each year from birth to age 15 and whose years of schooling are observed at age 23 or at age 19.[7] The sample for models of completed schooling years by age 23 consists of 1,219 children who were born between 1967 and 1974 and became the age of 23 between 1990 and 1997. The sample for models of high school graduation by age 19 includes 2,512 children who were born between 1967 and 1978 and became age 19 between 1986 and 1997.[8] The sample for models of completed schooling years by age 19 includes 2,249 children.[9]

---

[7] In this study, the sample is restricted to children who are the PSID 'sample members'. 'Nonsample member' children are not tracked when they move out from the PSID sample families (Hill, 1992). Initially, 4,284 children born between 1967 and 1978 were the PSID 'sample members'. They were age 19 or older by 1997. While some of them are dropped from the sample due to nonresponse for one or more years, many of them are dropped due to attrition. Fitzgerald, Gottschalk, & Moffitt (1998) show that the attrition bias in an intergenerational study using the PSID is quite small and usually not significant. Falaris & Peters (1998) also report that attrition does not affect estimates of the effects of family background variables on schooling in the PSID.

[8] The sample size for the models of schooling by age 23 is less than a half of the sample size for the models of high school graduation by age 19. About a 40 percent reduction is due to the reduced range of birth cohorts. The rest is due to attrition between the age of 19 and 23.

[9] Some children in the high school graduation sample are dropped from this sample. These children did not have information on the number of schooling years at age 19. It is possible to determine whether they graduated from high school using information from the surveys at adjacent years. Determining the number of years of schooling using this method, however, involves much ambiguity. For example, if children reported 12 years of schooling at age 18, we know they are high school graduates by age 19. Yet, we don't know whether they attained 12 or 13

The sibling sample includes children drawn from the basic sample who have at least one sibling. The sibling sample consists of all the possible sibling pairs in a family.[10] Some of the pairs have the same birth year or are only a year apart in age. Those pairs should share almost the same family environments and welfare backgrounds. Therefore, sibling pairs are included in the analyses only if the difference in age is at least two years. The sibling sample for models of completed schooling years by age 23 consists of 269 pairs. The sample for models of high school graduation by age 19 includes 218 sibling pairs.[11] The corresponding sample size for models of schooling years by age 19 is 796.

years of schooling by age 19. These children are dropped from the sample for the models of the number of schooling years by age 19.

[10] For example, if a family has four children, the number of pairs in the sibling sample is six. The sibling pairs in a family may not be independent observations since they share common family characteristics. In the fixed effect estimation, standard errors are adjusted accordingly.

[11] When one estimates logit models like high school graduation models, the effect of unobserved family characteristics is swept away only by conditioning on sibling pairs with different outcomes (Chamberlain, 1980). This restriction reduces the sample size, since sibling pairs with the same outcome must be dropped.

Variables

The central dependent variables are the number of years of completed education by age 23, the probability of high school graduation by age 19, and the number of years of completed schooling by age 19. The independent variable, parental welfare receipt during childhood, is measured as the number of years on welfare during the first 15 years of childhood. If a mother reported any welfare income in a given year, the year is counted as a year on welfare.[12] In addition, I estimate the models using annual real welfare income (in 1992 dollars) averaged over the 15 years as another measure of parental welfare receipt. I discuss the results only when estimates using annual welfare income

---

[12] I follow Bane & Ellwood (1994), with minor changes, to construct the welfare measure in this study. This study restricts welfare income to that of female heads with children. The PSID includes separate questions for AFDC income, Supplementary Security Income, Social Security, and other welfare. This study includes other welfare income as AFDC income. It is known that respondents often confused "other welfare" with AFDC and reported considerable amount of AFDC income as "other welfare" (Bane & Ellwood, 1994; Gottschalk, 1996).

substantially differ from the estimates using the number of years on welfare.[13] The models include as controls many family and individual characteristics. These include basic individual characteristics, such as race, gender, birth order, and the number of siblings averaged over childhood years. Basic family characteristics include grandparents' poverty status and parents' education.[14] Family income is measured as family cash income plus AFDC and Food Stamp benefits averaged over the childhood period (in 1992 dollars). Combined with the variable of average family size, the income measure represents monetary resources available for children's education.

---

[13] The results are reported in Ku (2000).

[14] Information on father's education and other characteristics, such as annual work hours, is not available for some children. A main reason is that those children were born to a single mother. I gave a value of –1 to children with missing information for all the variables, including father's education and work hours, and include dummy variables indicating children with missing information, following Cohen & Cohen (1983).

The models also include other variables which have been reported to affect children's education. I include mother's age at a child's birth, proportion of years in childhood when a child lived with a single parent, proportion of years when parent's marital status changed, father's and mother's annual work hours averaged over the childhood years, proportion of years when the mother worked, and proportion of years when the family moved. Other control variables include county unemployment rates averaged over the childhood years, proportion of years when the household head was disabled, proportion of years when a child lived in a region and a residential location. Region is categorized as south, west, northeast, and northcentral. Residential location is measured as a dummy variable indicating whether the child

lived in SMSA or not. Finally, a linear control for birth cohort is included in all the models. It may be necessary to control for secular trends in education levels because the data include children from 12 birth cohorts.

The average number of completed schooling years by age 23, weighted by the PSID sample weights, is 13.1.[15] The high school graduation rate by age 19 is .80. About 14 percent of children were ever on welfare between birth and age15. The average number of years on welfare is less than .9 (5.8 for children who ever were on welfare). Children's educational outcomes and individual and family characteristics in the sibling sample are very similar to those in the cross-family sample. (The descriptive

---

[15] The PSID oversampled low-income families. This unequal selection probability problem can be adjusted to by using the PSID sample weights assigned to individuals (Hill, 1992). I used the weights at a child's age 19. The unweighted statistics show that blacks are over-represented (38 percent) in the sample for this study. The weighted statistics, however, suggest that the sample does not have a problem of representativeness. African-Americans are slightly over-represented (14 percent).

statistics are described in an appendix available from the author upon request.)

RESULTS

Basic Results

Table 1 shows the coefficients from the models of years of schooling by age 23. Columns (1) through (3) show results from the cross-sectional analyses, while columns (4) through (6) present results from the fixed-effect analyses. Column (1) shows results from the base models, which include the number of years on welfare in childhood and most exogenous variables. In columns (2) and (3), additional control variables are added in a hierarchical manner, since those are important correlates of children's educational attainment but may also be endogenous to maternal welfare use. Column (2) adds parental

education, family income, and family size. Column (3) adds proportion of years when a child lived with one parent, proportion of years when parental marital status changed, and the number of siblings, annual work hours of father and mother, proportion of years when the mother worked during childhood, and proportion of years when the family moved.

The model specifications in the fixed-effect analyses are the same as those in the cross-sectional analyses, except that all the variables in the fixed-effect models are constructed as the differences between two children in a sibling pair. Race, religion, mother's and father's education, and grandparent's poverty status are dropped since those are the same for siblings. Mother's age at a child's birth is also dropped, since the difference between siblings is the

same as the difference in values of the birth cohort variable.

The first row in columns (1) through (3) shows coefficients on the number of years on welfare estimated from the cross-sectional models of schooling years by age 23. The coefficients are highly significant and negative, even after controlling for a wide range of variables. Coefficients on control variables show signs and significance levels as generally expected. Mothers' and fathers' education levels have a large positive effect. Family income has a significant and positive effect but its marginal effect is not large. A $10,000 increase in family income is associated with less than .1 years increase in schooling. Black children show a higher education level, after family income is controlled for. Female children attain a significantly higher education level. The

frequency of family moves has a large negative effect. Significant effects are also found for mother's age at the birth of a child, proportion of years when the head of household was disabled, the unemployment rate, religion, and region of residency. All these results are consistent with findings from previous research on children's educational attainment (for a review, see Haveman & Wolfe, 1995). Contrary to conventional wisdom, however, two family structure variables, proportion of years when parental marital status changed and proportion of years when a child lived with single parent, are not significant.[16] Overall, the estimates from

---

[16] In the models of high school graduation and of the number of schooling years by age 19, proportion of years when parental marital status changed is significant. Yet, proportion of years when a child lived with single parent is not significant. To examine whether extensive controls for family background variables remove the effect of family structure, I estimated a simpler version of the models comparable to models in other studies, which drops poverty status of grandparent, father's education, and the measure of welfare use. In those models, family structure variables show a negative and significant effect but the coefficients usually become insignificant after controlling for family income. This study uses a measure of family income during the whole childhood period, while most other studies use an income measure at one point in time or averaged over two or three years during adolescence. It is possible that a more accurate income control eliminates apparent effects of family structure. This issue needs to be further investigated in future research.

the models of high school graduation and of the number of schooling years by age 19 show similar patterns.

Columns (4) through (6) in Table 1 reports full results from the fixed effect models of schooling years by age 23. Only a small number of variables show significant effects on the number of schooling years attained by children. This is reasonable since sibling comparison may already eliminate effects of common background characteristics. Coefficients on the number of years on welfare are significant at the 10 percent level in the first two models. Proportion of years when the family moved in childhood, proportion of years when the household head was disabled, region, and location of residency are significant and have expected directions. Notably, family income has no significant effect. The

finding of no significant effect of family income is consistent with past studies on child outcomes estimating a family fixed effect model (Aaronson, 1999; Currie & Cole, 1993). Yet, this finding is a contrast to Duncan et al.'s (1998) study which finds a significant effect using a sibling sample.

Table 2 presents basic results from analyses of the effects of parental welfare receipt on three educational outcomes. The first panel shows coefficients on the number of years on welfare in childhood from the models of completed schooling years by age 23, which was reported in the previous table. The second and third panel provide the results from the models of high school graduation by age 19 and of completed schooling years by age 19. The model numbers correspond to those in the previous table. To simplify

the exposition, I omit the coefficients on all control variables.

In all the cross-sectional models, the relationship between parental welfare receipt and adulthood educational attainment is negative and significant. Column 1 shows that an additional year on welfare is associated with about .1 year decrease in completed schooling. When parental education and family income are added in the models in column (2), the magnitude of the effect falls by about a third in all the cross-sectional models. Adding the other observed family characteristics in column (3) does not change the size of effect very much. [17]

The first panel in the fixed effect models shows that the negative effect of the number of years on welfare on schooling years by age 23, shown in the

---

[17] The estimates from the cross-sectional analyses using the sibling sample are very similar to those from the cross-sectional analyses using the basic sample. All the coefficients have the same directions, and the magnitudes of the coefficients are almost the same as those of the coefficients estimated using the basic sample.

cross-sectional models, becomes marginally significant in two models out of three. The number of years on welfare has a marginally significant effect on the probability of high school graduation by age 19 in only one model, while it has a consistently significant effect on schooling years by age 19. Overall, the results show that the negative relationship between parental welfare receipt and children's educational attainment becomes weaker but remains significant after unobserved family characteristics are controlled for.

Estimates by Race and Gender

Table 3 present the results from models estimated on the white sample. In the models of schooling years by age 23 shown in the first panel, all the coefficients on the number of years on

welfare are significant and negative, although the coefficients estimated from the fixed-effect models are only marginally significant at the 10 percent level. In the models of high school graduation models by age 19 and of schooling years by age 19, all the cross-sectional results show significant effects of parental welfare use, while most coefficients become insignificant in the fixed-effect analyses.

Table 4 provides the results for black children. The cross-sectional results for all the three outcomes show consistently significant and negative effects of parental welfare use. In the fixed-effect analyses, most coefficients on the number of welfare years become insignificant.

The estimates by race are somewhat sensitive to the different measures of parental welfare receipt. I estimated the

same models using annual welfare income as a measure of receipt. In the white sample, the results show almost the same picture. In the black models of the number of schooling years by age 23, coefficients on annual welfare income are now significant. However, the effects of parental welfare use on black children in the models of schooling years by age 23 are still weaker than those in the white sample. For white children, parental welfare receipt has consistently significant effects regardless of measures of welfare. In addition, the coefficients for whites are bigger than for blacks.

Table 5 shows the results from models estimated separately by gender of child. The cross-sectional results in panel 1 and 3 show that the effects of parental welfare use on children's years of schooling for female children are similar

to those estimated on the male sample. In contrast, panel 2 shows that the effects of welfare use on high school graduation are much smaller for females than for males. The fixed-effect results show that the coefficients on the number of years on welfare for female children are insignificant in all the models, while those for male children are consistently significant in the models of schooling years by age 23.[18]

Estimates by Developmental Stages

There is no reason to assume that parental welfare receipt has the same effect on children across developmental ages. Therefore, I allow the effect of welfare to vary by children's ages in the following analyses. The fifteen years of

---

[18] The results from the cross-sectional models and the fixed-effect models are not directly comparable since the fixed-effect models naturally control for race. To further investigate the gender difference, I estimate the cross-sectional models separately by race and gender. The number of years on welfare has a significant and negative relationship with children's education, regardless of gender and outcomes. The gender difference in the white sample is small. In the black sample, the number of years on welfare is more strongly associated with male children's education, and the relationship is weaker for female children.

the childhood period are divided into three subperiods with equal lengths; from birth to age 5, from age 5 to age 10, and from age 10 to age 15. These periods roughly correspond to early childhood, middle childhood, and young adolescence. Parental welfare receipt is measured separately during the three stages. Those three stage-specific measures are jointly included in each model. Other controls, which are not childhood-specific, are added in the hierarchical manner as in the previous analyses.

Table 6 presents the childhood-stage-specific effects of parental welfare receipt on the three educational outcomes. Columns (1) through (3) in the first panel show that the number of years on welfare during early childhood and young adolescence have a negative and significant effect on the

schooling years by age 23 in two models out of three. The number of years during middle childhood does not have a significant effect at all. Columns (1) through (3) in the second panel show that only the number of years on welfare during young adolescence has a consistently significant effect on the probability of high school graduation by age 19. In the models of schooling years by age 19, all the coefficients on the number of years on welfare are significant. The coefficients on welfare during early childhood and middle childhood are similar in magnitude, while the coefficients during adolescence are the largest in two models out of three. Overall, the results suggest that welfare during early childhood and adolescence has a stronger negative correlation with later educational attainment. This finding is

consistent with results from previous cross-sectional research (Furstenberg, Brooks-Gunn, & Morgan, 1987; Furstenberg, Levine, & Brooks-Gunn, 1990; Brooks-Gunn, Guo, & Furstenberg, 1993; Haveman, Wolfe, & Spaulding, 1991).

Results from the same models estimated separately by race show consistently negative effects of welfare during adolescence. Among both whites and blacks, parental welfare use between age 10-15 has the biggest and most consistently significant effects on children's educational outcomes. Parental welfare use between age 0-5 and 5-10 does not have significant effects in most models, regardless of outcome. (The results are available from the author upon request.)

Results from the fixed-effect analyses provide a somewhat different picture.

Coefficients on welfare during early childhood are not significant in all models of the three educational outcomes. Conversely, welfare during adolescence has consistently significant effects on the three educational outcomes, and the coefficients are the largest in all the models. Welfare during middle childhood has a significant effect on schooling years by age 23 and high school graduation by age 19.

Results from fixed-effect models estimated separately by race show that the patterns in both samples are similar to that in the full sample. In both samples, parental welfare use during adolescence has consistently significant effects across three educational outcomes. [19] On the other hand, the coefficients on parental welfare receipt during early childhood are usually the

---

[19] Unfortunately, the high school graduation models can not be estimated due to little variation in the number of years on welfare during middle childhood and adolescence in the white sample.

least negative and not significant in both samples. Interestingly, the coefficients are consistently positive and significant in the models of years of school by age 19 in the white sample. (The results are available from the author upon request.)

DISCUSSION AND CONCLUSION

This study estimates the effect of parental welfare on children's adulthood educational outcomes using both conventional and fixed-effect regression methods. The results show that welfare has consistently significant and negative effects on children's educational attainment regardless of race and gender. The negative relationship between parental welfare receipt and children's educational outcomes becomes weaker after controlling for unobserved family

characteristics. Yet, the fixed-effect estimation does not eliminate all the negative relationships found in the cross-sectional analyses.

It is of note that the negative relationship between parental welfare receipt and children's educational attainment is not uniform across race, gender, and developmental stages of children when controlling for unobserved family characteristics. The fixed-effect results confirm the strong negative effect of parental welfare receipt during adolescence in both white and black samples shown in the cross-sectional estimates. Yet, the negative effect of welfare during early childhood, often found in the cross-sectional analyses, becomes insignificant in most models, while welfare during middle childhood becomes stronger in many models.

Controlling for unobserved family characteristics makes a larger difference for blacks than for whites. The negative effects on children's educational outcomes found in the cross-sectional analyses become less significant for blacks, compared to those for whites. This finding makes sense in that children in black families may face more socio-economic disadvantages including adverse neighborhood environments, which are correlated with both parental welfare receipt and children's education. Strikingly, the negative effect on female children, shown in the cross-sectional analyses, completely disappears in the fixed effect analyses. The gender difference in the effects of welfare needs to be further investigated.

The finding that parental welfare use during early childhood may have no

effect on children's later educational attainment is consistent with studies which have examined the effect of parental welfare receipt on young children's cognitive development (Hill & O'Neill, 1994; Levine & Zimmerman, 2000). Studies have found that family income during early childhood has a bigger positive effect (Shea, 1997; Duncan et al., 1998) on children's educational attainment. Combined with this evidence, the finding of no effect of welfare during early childhood suggests that while welfare has some positive effects on children's education by increasing family income, the effect is not easily detectable due to the low level of welfare benefits.

The interpretation of the findings of the negative relationship between welfare during adolescence and later educational attainment is not

straightforward. If children from welfare families set a career goal which deviates from economic independence, those children would be less motivated to attain a higher education level. Alternatively, welfare receipt may adversely affect children's educational attainment by reducing the psychological resources of welfare families. Welfare stigma may isolate welfare families from the rest of society. Reduced social capital due to social isolation may also adversely affect children's attainment.

Although inconclusive, this study provides some circumstantial evidence which is more consistent with the social psychological approaches than the welfare culture theory. First, if welfare causes a deviant culture, the negative effect of welfare is more likely to be stronger among black children. Black

children experience welfare more often and longer and have less access to other economic opportunities. Yet, the results show stronger negative effects of welfare on white children. It may be that white children on welfare suffer more from welfare stigma and are socially more isolated. Only a small number of children experience welfare among whites. Thus, they are more likely to experience the stigma from the white middle class culture. Second, the welfare culture hypothesis also suggests that the effect of maternal welfare receipt is stronger among female children. Welfare is a more viable option for female children and a role model effect may be stronger among the same sex parent-children pairs. Yet, the results show the opposite.

The adverse effects of welfare found in this study should be weighed within a broader context of welfare's effects on child well-being. Parental welfare receipt reduces extreme poverty. It should also be kept in mind that educational attainment is only one measure of child well-being. As research suggests (Currie & Cole, 1993), parental welfare receipt may have a positive impact on children's health and other fundamental outcomes. Considering the low level of welfare benefit, additional resources from welfare may be exhausted to meet fundamental needs, such as food and housing and thus, may not have a major impact on children's education. Further research on welfare's effect on other measures of child well-being is warranted.

<REFERENCES>

Atkinson, J. W. (1964). An Introduction to Motivation. Princeton, N. J.: D. Van
      Nostrand.

Administration for Children and Families. (1999). Temporary Assistance for Needy
      Families 1936-1999 Table taken from the website:
      [http://www.acf.dhhs.gov/news/stats/3697.htr], US Department of Health and
      Human Services.

Aaronson, D. (1998). Using sibling data to estimate the impact of neighborhoods on
      children's educational outcomes. Journal of Human Resources, 33(4), 915-946.

Bane, M. J., & Ellwood, D. T. (1994). Welfare Realities: From Rhetoric to Reform.
      Cambridge, Mass: Harvard University Press.

Becker, G. S. (1981). A Treatise on the Family. Cambridge, MA: Harvard University
      Press.

Becker, G. S., & Tomes, N. (1986). Human capital and the rise and fall of families.
      Journal of Labor Economics, 4(3), S1-S39.

Blake, J. (1989). Family Size and Achievement. Berkeley: University of California Press.

Blank, R. (1989). The effect of medical need and Medicaid on AFDC participation.
      Journal of Human Resources, 24(1), 54-87.

Blank, R. (1997). It Takes a Nation: A new agenda for fighting poverty. New York:
      Russell Sage Foundation.

Blau, D. M. (1999). The effect of income on child development. Review of Economics
      and Statistics, 81(2), 261-276.

Boggess, S. (1998). Family structure, economic status, and educational attainemnt.
      Journal of Population Economics, 11, 205-222.

Brooks-Gunn, J., Duncan, G. J., Klebanov, P. K., & Sealand, N. (1993). Do
      neighborhoods influence child and adolescent development? American Journal of
      Sociology, 99(2), 353-395.

Brooks-Gunn, J., Guo, G., & Furstenberg, F. (1993). Who drops out of and who

continues beyond high school?: A 20-year follow-up of black urban youth. Journal of Research on Adolescence, 3(3), 271-294.

Burtless, G. T. (1997). Welfare recipients' job skills and employment prospects. The Future of Children, 7(1), 39-51.

Chamberlain, G. (1980). Analysis of covariance with qualitative data. Review of Economic Stduies, 47(1), 225-238.

Chase-Lansdale, P. L., & Hetherington, E. M. (1990). The impact of divorce on life-span development: Short and Long term effects. In P. Baltes, D. Featherman, & R. Lerner (Eds.), Life-Span Development and Behavior (Vol. 10,). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Cohen, J., & Cohen, P. (1983). Applied Muliple Regression/Correlation Analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Assoicates.

Coleman, J. S. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94 Supplement, S95-S120.

Collins, A., & Aber, J. L. (1997). Issue Brief 1: How welfare reform can help or hurt children . New York: Columbia University: National Center for Children in Poverty.

Conger, R. D., Conger, K. J., & Elder, G. (1997). Family economic hardship and adolescent adjustment: Mediating and moderating processes. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of Growing Up Poor (pp. 288-310). New York: Russell Sage Foundation.

Conger, R. D., Ge, X., Glen H. Elder, J., Lorenz, F. O., & Simons, R. L. (1994). Economic stress, coersive family process, and developmental problems of adolescents. Child Development, 65, 541-561.

Corcoran, M. (1995). Rags to rags: Poverty and mobility in the United States. Annual Review of Sociology, 21, 237-267.

Currie, J., & Cole, N. (1993). Welfare and child health: The link between AFDC participation and birth weight. American Economic Review, 83(4), 971-985.

Currie, J. (1995). Welfare and the Well-Being of Children. Chur Switzerland: Harwood Academic Publishers.

Currie, J. (1998). The effect of welfare on child outcomes. In R. Moffitt (Ed.), <u>Welfare, the Family, and Reproductive Behavior: Research perspective</u> . Washington, D.C.: National Academy Press.

Danziger, S., Haveman, R., & Plotnick, R. (1981). How income transfer programs affect work, savings, and the income distribution: A critical review. <u>Journal of Economic Literature, 19</u>, 975-1028.

Danziger, S., Corcoran, M., Danziger, S., Heflin, C., Kalil, A., Levine, J., Rosen, D., Seefeldt, K., Siefert, K., & Tolman, R. (1999). Barriers to the employment of welfare recipients. Discussion Paper no. 1193-99, Institute for Research on Poverty, University of Wisconsin-Madison.

Derek, N., & Johnson, W. (1996) The role of premarket factors in black-white wage differences. <u>Journal of Political Economy, 104</u>(5), 869-895.

Duncan, G. J. (1994). Families and neighbors as sources of disadvantage in the schooling decisions of white and black Adolescents. <u>American Journal of Education, 103</u>, 21-53.

Duncan, G. J., & Yeung, J. (1995). Extent and consequences of welfare dependence among America's children. <u>Children and Youth Service Review, 17</u>(1/2), 157-182.

Duncan, G. J., & Brooks-Gunn, J. (1997). Income effects across the life span: Integration and interpretation. In G. J. Duncan & J. Brooks-Gunn (Eds.), <u>Consequences of Growing Up Poor</u> . New York: Russell Sage Foundation.

Duncan, G. J., Yeung, J., Brooks-Gunn, J., & Smith, J. (1998). How much deos childhood poverty affect the life chances of children. <u>American Sociological review, 63</u>(3), 406-423.

Edin, K., & Lein, L. (1996). <u>Making Ends Meet: How Single Mothers Survive Welfare and Low-wage Work</u>. New York: Russell Sage Foundation.

Edin, K., & Lein, L. (1997). Work, welfare, and single mothers' economic survival strategies. <u>American Sociological Review, 62</u>(2), 253-266.

Edin, K., London, A. S., Mazelis, J. M., & Scott, E. K. (1999). My children come first: Welfare-reliant women's post-TANF views of work-family tradeoffs,

neighborhoods, and marriage. Working Paper no. 115, Joint center for Poverty Research.

Elliott, M. (1996). Impact of work, family, and welfare receipt on women's self-esteem in young adulthood. Social Psychology Quarterly, 59, 80-95.

Ellwood, D. T. (1994). Understanding dependency. In M. J. Bane & D. T. Ellwood (Eds.), Welfare Realities: From Rhetoric to Reform (pp. 67-123). Cambridge, Mass: Harvard University Press.

Ellwood, D. T. (2000). Anti-poverty policy for families in the next century: From welfare to work and worries Journal pf Economic Perspectives, 14 (1). 187-198.

Falaris, E. M., & Peters, H. E. (1998). Survey attrition and schooling choices. Journal of Human Resources, 33(2), 531-554.

Fitzgerald, J., Gottschalk, P., & Moffitt, R. (1998). An analysis of the impact of sample attrition on the second generation of respondents in the Michigan Panel Study of Income Dynamics. Journal of Human Resources, 33(2), 300-344.

Furstenberg, F., Brooks-Gunn, J., & Morgan, S. P. (1987). Adolescent mothers and their children in later life. Family Planning Perspective, 19(4), 142-151.

Furstenberg, F., Levine, J., & Brooks-Gunn, J. (1990). The children of teenage mothers: Patterns of childbearing in two generations. Family Planning Perspective, 22, 54-61.

Garfinkel, I., & McLanahan, S. (1986). Single Mothers and Their Children: A new American Dilemma. Washington, D.C.: The Urban Institute.

Goffman, E. (1963). Stigma: Notes on the management of spoiled identity. Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Goodban, N. (1985). The psychological impact of being on welfare. Social Service Review, 59, 403-422.

Gottschalk, P. (1996). Is the correlation in welfare participation across generations spurious? Journal of Public Economics, 63, 1-25.

Griliches, Z. (1979). Sibling models and data in economics: Beginnings of a survey. Journal of Political Economy, 87(5), S37-S64.

Gruber, J. (2000). Cash welfare as a consumption smoothing mechanism for divorced

mothers. Journal of Public Economics, 75(2), 157-182.

Harris, K. M. (1993). Work and welfare among single mothers in poverty. American Journal of Sociology, 99, 317-352.

Harris, K. M. (1996). Life after welfare; Women, work and repeat dependency. American Sociological Review, 61(3), 407-426.

Haveman, R., & Wolfe, B. (1994). Succeeding Generations: On the Effects of Investments in Children. (Vol. 33). New York: Russell Sage Foundation.

Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. Journal of Economic Literature, 33(1), 133-157.

Haveman, R., & Wolfe, B. & Spaulding, J. (1995). Childhood events and circumstances influencing high school completion. Demography, 28, 1829-1878.

Hill, M., & Duncan, G. (1987). Parental family income and the socioeconomic attainment of children. Social Science Research, 16(1), 39-73.

Hill, M. (1992). The Panel Study of Income Dynamics: A user's guide. Newbury Park: Sage Publications.

Hill, M., & O'Neill, J. (1994). Family endowments and the acheivement of young children with special reference to the underclass. Journal of Human Resources, 29(4), 1064-1100.

Huston, A. C., McLoyd, V. C., & Coll, C. G. (1994). Children and poverty: Issues in contemporary research. Child Development, 65, 275-282.

Kane, T. J. (1987). Giving back control: Long-term poverty and motivation. Social Service Review, 61, 405-419.

Kessler, R. (1982). A disaggregation of the relatiohsip between socioeconomic status and psychological distress. American Soicological Review, 47(6), 752-764.

Klebanov, P. K., Brooks-Gunn, J., & Duncan, G. (1994). Does neighborhood and family poverty affect mothers' parenting, mental health, and social support? Journal of Marriage and the Family, 56(2), 441-455.

Korenman, S., Miller, J., & Sjaastad, J. (1995). Long-term poverty and child development in the United States: Results from the NLSY. Children and Youth Services Review, 17, 127-155.

68

Ku, I. (2000) Consequences of Parental Welfare Receipt for Children: The case of educational attainment in young adulthood. Unpublished doctoral dissertation. University of Washington.

Levine, P. B., & Zimmerman, D. J. (2000). Children's welfare exposure and subsequent development. Working Paper no. 130, Joint Center for Poverty Research.

Macauley, J. (1977). Stereotyping child welfare. Society, 13, 47-51.

Mayer, S. (1997). What Money Can't Buy: Family Income and Children's Life Chances. Cambridge, MA: Harvard University Press.

McLanahan, S. (1985). Family Structure and the reproduction of poverty. American journal of sociology, 90(4), 873-901.

McLanahan, S. (1997). Parent absence or poverty: Which matters more? In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of Growing Up Poor . New York: Russell Sage Foundation.

McLanahan, S., & Sandefur, G. D. (1994). Growing Up with a Single Parent: Whar Hurts, What helps? Cambridge, Mass.: Harvard University Press.

McLeod, J. D., & Shanahan, M. J. (1993). Poverty, parenting, and children's mental health. American Soicological Review, 58(3), 351-366.

McLoyd, V. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. Child Development, 61, 311-346.

McLoyd, V. (1998). Socioeconomic disadvantage and child development. American Psychologist, 53(2), 185-204.

McLoyd, V. C., Jayaratne, T. E., Ceballo, R., & Borquez, J. (1994). Unemployment and work interruption among African American single mothers: Effects on parenting and adolescent socioemotional functioning. Child Development, 65, 562-589.

Mead, L. (1986). Beyond Entitlement: The Social Obligations of Citizenship. New York: Free Press.

Mead, L. (1992). The New Politics of Poverty: The Non-Working Poor in America. New York: Basic Books.

Mead, L. (1997a). The rise of paternalism. In L. Mead (Ed.), The New Paternalism:

Supervisory approaches to poverty . Washington, D.C.: Brookings Institution
Press.

Mead, L. (1997b). From welfare to work: Lessons from America. In A. Deacon (Ed.),
From Welfare to Work: Lessons from America . London: IEA Health and
Welfare Unit.

Moffitt, R. (1992). Incentive effects of the U.S. welfare system: A review. Journal of
Economic Literature, 30, 1-61.

Moffitt, R., & Wolfe, B. (1992). The effect of the Medicaid program on welfare
participation and labor supply. Review of Economics and Statistics, 74(4), 615-
626.

Moffitt, R. A. (1998). The effect of welfare on marriage and fertility. In R. Moffitt (Ed.),
Welfare, the Family, and Reproductive Behavior: Research Perspective .
Washington, D.C.: National Academy Press.

Moore, K. A., & Driscoll, A. K. (1997). Low-wage maternal employment and outcomes
for children: A study. The Future of Children, 7(1), 122-127.

Murray, C. (1984). Losing Ground: American Social Policy, 1950-1980. New York:
Basic Books.

Nicholas-Casebolt, A. (1986). The psychological effects of income testing income-
support benefits. Social Service Review, 60, 287-302.

Ogbu, J. U. (1981). Origins of human competence: A cultural-ecological perspective.
Child Development, 52, 413-429.

Parker, S., Greer, S., & Zuckerman, B. (1988). Double jeopardy: The imapct of poverty
on early child development. The Pedatric Clinics of North America, 35(6), 1227-
1240.

Patterson, J. T. (1994) America's Struggle Against Poverty: 1900-1994. Cambridge,
Mass: Harvard University Press.

Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress
process. Journal of Health and Social Behavior, 22(4), 337-356.

Peters, H. E., & Mullis, N. C. (1997). The role of family income and sources of income in
adolescent achievement. In G. J. Duncan & J. Brooks-Gunn (Eds.),

Consequences of Growing Up Poor . New York: Russell Sage Foundation.

Plotnick, R. D., & Hoffman, S. (1999). The effect of neighborhood characteristics on young adult outcomes: Alternative estimates. Social Science Quarterly, 80(1): 1-18

Popkin, S. J. (1990). Welfare: Views from the bottom. Social Problems, 37(1), 64-79.

Rainwater, L. (1982). Stigma in income tested programs. In I. Garfinkel (Ed.), Income-Tested Transfer Programs (pp. 19-46). New York: Academic Press.

Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. American Sociological Review, 54(6), 1004-1018.

Rutter, M. (1987). Psychological resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 316-331.

Seccombe, K., James, D., & Walters, K. B. (1998). "They think you ain't much of nothing": The social construction of the welfare mother. Journal of marriage and the family, 60(4), 849-865.

Seccombe, K. (1999). "So You Think I Drive a Cadillac?": Welfare recipients' perspectives on the system and its reform. Boston: Allyn and Bacon.

Shea, J. (1997). Does parents' money matter? NBER Working Paper 6206.

Smith, J. R., Brooks-Gunn, J., & Kevanov, P. K. (1997). Consequences of living in poverty for young children's cognitive and verbak ability and early school achievement. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of Growing Up Poor (pp. 132-189). New York: Russell Sage Foundation.

Teachman, J. D., Paasch, K. M., Day, R. D., & Carver, K. P. (1997) Poverty during adolescence and subsequent educational attainment. In G. J. Duncan & J. Brooks-Gunn (Eds.), Consequences of Growing Up Poor (pp. 132-189). New York: Russell Sage Foundation.

Wilson, W. J. (1987). The Truly Disadvantaged: The inner city, the underclass, and public policy. Chicago: University of Chicago Press.

Wilson, W. J. (1996). When Work Disappears: The world of the urban poor. New York: Knopf.

Zaslow, M. J., & Emig, C. A. (1997). When low-income mothers go to work: Implications for children. The Future of Children, 7(1), 110-115.