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Research Background Paper

Inequality and Child Well-Being: Implications for Research

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INTRODUCTION

There are 72.3 million children under the age of 18 in the United States as of April 2000 (U.S. Census Bureau, 2001). They will become the country's next generation of adults. According to 1990 census data, 19% of children lived in households with incomes below the poverty line while 14% lived comfortably in households with pretax incomes five times the poverty line (Farley, 1996). The distribution of wealth is even more unequal. In 1998, median family wealth was $60,700 in the United States, but the top quintile of wealth owners held 83.4% of wealth while 18% of the population had zero or negative net worth (Wolff, 2000).

What is the impact of such unequal beginnings? Will the social and economic inequalities of today be simply handed down to the next generation? Will disparities in educational attainment, earnings, employment status, and family formation continue to mean that some children enter young adulthood with multiple options for a meaningful future while others must simply seek ways to survive?

There are many ways to approach these questions. There are moral/philosophical aspects, political aspects, economic aspects, and empirical aspects. This paper will review theories from several academic perspectives then summarize a series of empirical studies that attempt to pinpoint variables that predict children's attainment and/or adult outcomes. The main question considered is how much factors associated with family resources (primarily measured by household income and wealth) influence child outcomes.

ACADEMIC THEORIES

Economic Perspective

From an economic perspective, family and society choose to invest time and money in their children. Given the level of investment and their own ability, children have a set of opportunities available to them that constrain their choices about school, occupation, and other behaviors. Thus, measuring income, education, and ability of parents in conjunction with the impact of social policy regarding taxes, benefits, and regulation helps to predict child outcomes (Haveman & Wolfe, 1995). The idea is that families and society make a rational choice about how to invest their resources and these investment choices set limits on opportunities available to children. Given income and wealth inequality, an economic deprivation hypothesis suggests that families living in poverty could not afford to provide the resources and environment necessary for children to develop their abilities and potential (Haveman & Wolfe, 1994).

Some economic research (e.g. Leibowitz, 1974) tries to quantify the quality and quantity of time and goods provided by parents to measure the level of home investments and its subsequent effect on children's outcomes. Economists (Chiswick, 1988; Becker, 1991) even hypothesize a trade-off between the quality and quantity of children themselves, supposing that families can choose to have fewer children and invest more in each one. Becker (1991) tries to model the genetic endowment from parents that results in natural ability, the propensity to invest in

children, and "market luck" as they interact with family income and preferences to determine the adult wealth of children.

Socialization/Role Model Perspective

From a socialization/role model perspective, the adults or peers to whom children relate are the key variables. Measurements include the aspirations, values, and expectations these relations hold which are thought to directly influence child outcomes. Although the channels of transmission might differ, the potential effects of parent's education, income, and ability are similar to the economic model (Haveman & Wolfe, 1995). However, since siblings, peers, or adults other than parents also could model behaviors and exert influence (particularly in households without both parents), indirect measures are also used. This might include neighborhood characteristics, school quality, and participation in extracurricular activities. The idea is that children with "good" role models are socialized more appropriately and thus are able to develop cognitively and psychologically in expected manners.

An impact study of the Big Brothers/Big Sisters program (Tierney, Grossman, & Resch, 1995) shows that providing adolescents with a caring adult role model makes a difference in several outcome measures. A group of 10 to 16 year olds that were randomly assigned to either a treatment group with Big Brother/Big Sister matches or a waiting list were compared after 18 months. The youth that were matched with a role model were less likely to start using drugs or alcohol, less likely to hit someone, had improved school attendance and performance, improved attitudes toward completing schoolwork, and improved peer and family relationships. Big Brothers/Big Sisters is a nationally recognized mentoring program carefully supervised by trained professionals, so their matches might work particularly well. However, such evidence suggests that an ongoing relationship with an adult other than one's parent can be an important influence and provide significant additional support.

Life-span Perspective

The life-span developmental approach considers the context and timing of events. The child is continuously adjusting and adapting to exogenous forces with the nature of adjustments depending on such things as age and availability of appropriate support. Thus a divorce in early childhood may have a different impact than the same phenomenon in adolescence (Haveman & Wolfe, 1995). The idea is that children develop in generally predictable ways and that one's stage in life should be taken into account when considering unique events or long-term outcomes. If children have adequate support or can be shielded from the more damaging life events, especially during key stages of development, they are more likely to experience better outcomes.

Psychological Perspective

A more psychological perspective focuses on stress and coping. As events occur that disrupt one's equilibrium, there are risk factors and protective factors that either prevent or help one to adapt and get back on developmental course. The more resources available to a child, the more ability there can be to cope (Haveman & Wolfe, 1995). Some children are naturally more vulnerable than others, but regardless, the more one is able to avoid a mal-adaptive path, the

better the outcomes. Stressors may be external to the child or related to individual characteristics. The idea is that children who have less risk factors and more protective factors in their caregiving environment will have better outcomes (Werner & Smith, 1982). This interaction among factors can shift at different developmental stages and even in adulthood, with stressful events increasing vulnerability and protective factors enhancing resilience (Werner & Smith, 1992).

An Asset Holding Perspective

An asset holding perspective would suggest considering more than simply labor market income and the money entering a household used for consumption. This perspective would also include the assets a family commands as important variables. Assets can be invested to make more money or at least provide security to deal with future needs and/or aspirations. As Michael Sherraden describes in Assets and the Poor, assets are a command over resources across time that can have multiple beneficial effects for a household. He proposes nine welfare effects of assets: improve household stability, create an orientation toward the future, stimulate the development of other assets, enable focus and specialization, provide a foundation for risk-taking, increase personal efficacy, increase social influence, increase political participation, and enhance the welfare of offspring. Although any combination of these could be good for a household and thus provide benefits and security for children, the last point emphasizes the intergenerational connection that comes from household assets. Parents often desire to leave an inheritance for their children to assure their future well-being and use financial capital and other assets as a mechanism through which this can be done (Sherraden, 1991).

Using data from Great Britian, the United States, and Israel, Spilerman (Spilerman, Lewin-Epstein, & Semyonov, 1993) argues for the importance of considering wealth or family assets over income as a determinant of life chances. In a country like Israel where housing and consumer goods are very expensive, it is difficult for a young couple to get established and start to build assets without assistance from their parents or other relatives. He argues that even in the United States, when housing prices rise, it becomes less likely that younger people (<34 years old) can purchase homes on their own. Having parents with wealth who are able to loan or give money can make the initial starts in life easier (education, first home, etc.) and thus improve overall adult outcomes.

Neighborhood Effects/Social Disorganization Perspective

Recent studies have tried to link neighborhood characteristics to children's outcomes. In particular, the decline in urban neighborhoods has been shown to have a negative impact on children of color (Jargowsky, 1997). A study by Furstenburg (1993) concludes that strong local institutions that support urban families help ensure a better future for their children. Another study suggests that students in better-off neighborhoods make more progress in the summer when school is out than those in poorer neighborhoods because there are more organized activities and resources available and less hazards to avoid (Entwisle, Alexander, and Olson, 1997). Case and Katz (1991) note that "residence in a neighborhood in which many other youths are involved in crime, use illegal drugs, or are out of work and out of school is associated with an increase in an individual's probability of the analogous outcome even after controlling for a

variety of family background and personal characteristics" (p.3). Crane (1991) found nonlinear neighborhood effects, where the lowest quality neighborhoods experienced increased or even "epidemic" amounts of social problems. In his contagion model, when the incidence of school dropout or teen pregnancy stays below a critical point, the problem maintains a low equilibrium, but once that point is passed, the problem spreads through peer influence and the equilibrium rises to a much higher level.

William Julius Wilson (1987) wrote the classic theoretical framework for neighborhood effects in *The Truly Disadvantaged*. He argues that as black populations migrated to northern cities through the 1960s, structural changes in the economy led to a relocation of manufacturing industries out of the central cities leaving increasing numbers of unemployed. Such joblessness meant more men dropping out of the labor force and young people receiving little or no job experience. Thus, the social fabric of these previously poor, but working communities changed. He maintains that the black middle class exited and the residents became comprised exclusively of those who were disadvantaged. With increasing social isolation, these urban communities began to have higher rates of crime, out-of-wedlock births, and welfare dependency. Thus, children living in urban neighborhoods with high unemployment rates (particularly for males), few middle-class residents, high concentrations of poverty and a difficult isolated environment would be less likely to have successful adult outcomes.

Individual theories such as the ones cited above help to pinpoint need, select populations at risk, and suggest starting points for intervention when considering childhood attainment. These theories may provide partial explanations as to why children from disadvantaged backgrounds experience worse outcomes, although the strength of neighborhood effects also imply environmental influences. The next two theoretical perspectives are less individual in focus and suggest more structural factors.

An Ecological Perspective

In this approach, children are seen as existing within multiple contexts: first as part of a family system, which is nested within various community systems, which are nested within political systems at the city, state, national, and even global levels. In this social systems view, it is the family that is healthy or unhealthy, accomplishing or not accomplishing key functions, and attaining outcomes. Each of the larger systems can either support or deter a particular family's health and functioning. There is a plurality of possible strategies and combinations as the child, family and social environment interact (Garbarino, 1992).

There may be aspects of the family or community system that produce patterns that allow a child to develop competencies as they mature to adulthood, but there may also be aspects that consistently result in negative outcomes for children. During maternity, this may mean inadequate pre-natal services or persistent substance abuse that results in birth defects or low birth weight. Before entering school, this may mean low quality day care or insufficient mental stimulation at home that results in a young child entering kindergarten not ready to learn. At adolescence this may mean lack of supervised activities after-school and on the weekends or disinterest by parents that allows for experimentation with drugs and sex. During high school,

this may mean intense peer pressure or family conflict that results in school dropout or unintended pregnancy.

This type of analysis shifts the focus from the inputs of parents and children to examine patterns of family and community interaction. It then becomes possible to notice that there are common patterns in poor, non-wealthy families with children and another set of common patterns in middle class families with children, and perhaps even different patterns in wealthy families with children. For example, all families may face similar difficulties caring for children while a parent or both parents work. But while one common resolution might be to leave the children with older children or relatives, a family with more resources might put the children into a private daycare program, while another might hire a live-in nanny. These differing ecological patterns and their corresponding choice sets likely have consequences for early childhood development as well as the possibility of future attainment.

Class Conflict Perspective

The basic ideas of conflict theory can be linked to Karl Marx and Friedrich Engels, who conceived of society as divided into classes based on property. Within capitalist society, there are those that own the means of production and workers who own no property and must sell their labor to survive. Capitalists are thus in a position to exploit the labor of others, taking surplus profit for themselves. Dominant classes seek to work within the political and economic system to obtain laws, regulations, norms, etc. that promote their own material interests. The unequal distribution of resources and competing interests can lead to each class having its own outlook and recurring conflict. Power and change, however, depend largely on the ability to shape ideology and control means of mobilization (Collins, 1994).

Taking what is called a neo-Marxian approach, Wright (1985) conceptualizes class as the differential distribution of three productive assets: property, expertise/skills, and organizational resources. This perspective continues to distinguish owners from non-owners or wage earners, but in order to adequately describe more complex economic relationships he further divides experts from non-experts, and managers from non-managers. Additional income based on credentials or position within an organizational structure can also be exploitive when there is a causal link between one group's situation and another's. Thus, if a group seeks licensure or regulation to exclude others, leading to higher earnings with little substantive difference in the actual work being done, the group would be receiving benefits at someone else's expense.

The means of transmission, however, may vary with each type of productive asset (Western, 1994). Property or financial capital can be passed directly to children through inheritance or transfers. Skills or human capital can be inherited through parental investment in education and training. In addition, expert employee parents are in a better position to be aware of requirements for academic success or how to create an environment conducive to facilitating such success. Family socialization also may lead children to prefer self-employment or professional/technical employment, making them more likely to choose similar paths as their parents. But unlike productive property and skills, organizational control is more difficult to directly transfer to children. Thus, non-expert managers may not be able to easily create a similar situation for their children (Western, 1994). For example a plant foreman who has

worked his or her way up a hierarchical business structure wouldn't likely be able to create a similar position of control for a child.

Perhaps the human capital, social capital, and financial capital variables are important in and of themselves in that they influence economic decisionmaking within the household, they influence the type of socialization and role modeling that occurs within the household, they affect how well the child masters the crises and challenges of each stage of the life cycle, they shape the natural resiliency of the child as well as the number of stressful life events faced, and they influence the type of neighborhood the family can afford or be comfortable living. The various individual influences above can also interact with one another as well as social systems and class identities to create a particular caregiving environment. Some environments are more likely to support a child by creating opportunities for growth and positive development while others might rather inhibit a child by creating obstacles and disappointments.

EMPIRICAL FINDINGS

Research demonstrates that children with multiple risk factors face additional obstacles and are less likely over time to attain the same outcomes as children who grow up with access to more resources. A child growing up in deep poverty (in a household with income less than one half the poverty threshold) with a young, never married mother who has little education or assets begins life in difficult circumstances. The question that some researchers have attempted to address empirically is which family and contextual conditions matter most. If a child born into the above family situation could change one or two things, which would most improve the likelihood of better adult outcomes? The variables often considered are money, education, family status, and more recently wealth. Charts summarizing six studies that attempt to assess the relative importance of multiple variables utilizing primarily longitudinal data can be found in the Appendix.

Social Mobility Literature

One empirical approach used frequently is the social or occupational mobility study. Here the occupation or income of the parent is compared with the occupation or income of the child to measure how closely linked social status is between generations. The apparent ease at which persons can move from one social class to another has implications for the structure of opportunity in a society or nation. If correlations are low, a society is thought to be more meritocractic, where the likelihood of successful adult outcomes is not closely linked to the wealth or social status of one's parents, but on individual talent or ability (or as some might claim—luck).

Looking specifically at income mobility, most early studies (prior to the 1980s) found low correlations in income between generations, typically less than 20 percent (Sewell & Hauser, 1975; Behrman & Taubman, 1985). Such a small intergenerational influence would imply high mobility and substantial economic opportunity. But as several recent writers have commented (Behrman & Taubman, 1990; Solon, 1992; Haveman & Wolfe, 1995), these earlier studies had two major problems: (1) they typically used homogeneous or unrepresentative samples and (2) the measurements were prone to bias, such as using income data from only one year or asking participants to recollect their parent's income during childhood. There seems to be agreement in

the more recent estimates that when averaging both parental income and children's income over several years, the correlation tends to be much higher -- between .40 and .60 (Mayer, 1997).

Going from an intergenerational correlation of .20 to more than .40 has a huge impact on likely outcomes for children. With a correlation of .20, a child born to parents in the lowest income quintile has a 30% chance of remaining in the lowest quintile, a 37% chance of rising above the median and a 12% chance of reaching the top quintile. In contrast, when the correlation is .50, the same child born to parents in the lowest quintile has a 49% chance to remain at the bottom, a 17% chance of rising above the median and a 3% chance of reaching the top quintile (Solon, 1992). Given that more recent results estimate higher intergenerational correlations, social mobility is not as high as once expected and the economic situation of one's family is an increasingly accurate predictor of a child's own economic situation.

There seem to be differences in income mobility with respect to demographic characteristics. Behrman and Taubman (1990) found that correlations to parent's income are higher for sons than daughters and for nonwhites than for whites and seem to increase slightly with age. They report, "[t]he elasticity of children's earnings with respect to parents' income is about .80 for white sons at the age of 58, which is high in comparison with the median from previous estimates" (p.126).

There is also evidence for nonlinearity in that the amount of intergenerational correlation differs according to where one falls on the income scale. Solon (1992) finds lower correlation (.34) for those two standard deviations below the mean of father's log earnings and higher correlations (.48) for those two standard deviations above the mean of father's log earnings. Behrman and Taubman (1990) and Zimmerman (1992) also found evidence of higher elasticities (correlations) for wealthier parents. Thus, it is quite unlikely for someone with wealthy parents to have very poor outcomes. Children growing up in households with very high incomes have consistently better outcomes although children growing up in poverty may have multiple risks and barriers, but occasionally do better than expected.

An example of how income results appear in a mobility study using a recent nationally representative sample can be seen in the table below. Although the majority of children considered (Black or white) did not experience income poverty as adults, those who experienced more years of poverty while young were more likely to be poor themselves. Conversely, those never experiencing poverty in childhood were less likely to be poor as adults.

Table 1 Transitions from Childhood to Early Adulthood Poverty, by Race

	Early Adult Outcome		
Race and Poverty Status during Childhood	Never Poor	Poor 1-50% of years	Poor 51-100% of years
Black:			
Never Poor	73.8	17.9	8.3
Poor 1-50% of years	63.3	17.0	19.8
Poor 51-100% of years	53.7	19.9	26.4
White:			
Never Poor	89.8	9.0	1.2
Poor 1-50% of years	77.9	18.6	3.7
Poor 51-100% of years	75.9	14.3	9.8

Taken from Corcoran & Adams (1997)

Longitudinal Survey Data On Determinants of Children's Attainments

Simple correlation studies provide one type of data responding to the issue of how important family income is to child outcomes. Another approach is to use survey data to examine outcomes and better pinpoint the strength of particular antecedents. Some factors consistently seem important with respect to children's attainment. Parent's education is one example. When parents graduate from high school and complete more years of education, it has a positive effect on their children, particularly their educational choices (Haveman & Wolfe, 1995). This affirms a human capital perspective in that parents who have attained success by means of expertise and schooling are able to provide a means for similar attainment in their children.

Economic factors are obviously important also, but there is some debate as to how and why that is so. When considering income, the question becomes whether it really is a proxy for other unobserved household characteristics and environmental factors (such as parental education or neighborhood and school quality). Poverty, however, does seem to exacerbate other disadvantages, leading to significant differences in outcomes when children living in poverty are compared with non-poor children over time (Duncan & Brooks-Gunn, 1997). One set of researchers found that children from poor families need additional protective factors to counterbalance any stressful events or negative circumstances they may face and to reduce the likelihood of learning and behavior problems (Werner & Smith, 1982, 1992).

Susan Mayer (1997) uses data from the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth (NLSY) to study differences between rich and poor children in an attempt to determine whether additional income would make a difference in outcomes for the children in poor families. In her view, conventional models overstate the importance of income to children's outcomes and once children's basic needs are met, characteristics of parents are more important than additional economic assistance.
Her findings clearly indicate that children in the poorest quintile by income have worse outcomes than children in the richest quintile. They score lower on standard academic achievement tests,

their caregivers report more behavior problems, they are more likely to drop out of high school and have less years of overall education. The girls are more likely to give birth as teen-agers or become single mothers by 24 while the males have lower hourly wages and annual earnings and are more likely to be idle. The households formed by children who were raised by parents in the lowest income quintile earn less income and are more likely to receive welfare than households formed by children raised by parents in the highest income quintile. Yet according to her analysis, even doubling parental income for those at the poverty line would only lead to modest change in child outcomes: a few points gain on standardized test scores, an expected decline of 10-15 percent for teen-age childbearing and 5-13 percent for high school dropout, an increase of 1/5 a year in educational attainment, and a slight improvement in male workers' wages and earnings, with perhaps an increase in men's chances of being idle.

Mayer (1997) finds that income matters, but its source is also important. For example, welfare income seems to be harmful. Overall, permanent income (averaged over 5 or more years) was more important than the timing of income or fluctuations, even though a large drop in income (> 35%) can be harmful, especially when unexpected. She also finds that additional income might lead to better living conditions (a private vehicle, eating outside the home more, better clothing, etc.), but that serious housing problems are rare and most children don't experience a lack of medical care or low food expenditures. In other words, the things money buys should not have much impact on outcomes because government expenditures (such as Food stamps and Medicaid) takes care of many basic necessities. In addition, although parent-child interactions are important to later outcomes, her results "provide little evidence that parents' income has a large influence on parenting practices" nor… "on parents' psychological attributes other than their feelings of efficacy" (p.124).

Mayer does acknowledge that income support policies are a "multi-purpose" instrument and as such even when the effect on any one outcome is small; the cumulative effect may in fact be larger. Thus, removing income transfers and non-economic support could lead to larger gaps between the poor and non-poor with even worse consequences. In addition, she argues that the social context of poverty is important. A recent immigrant, divorced mother, or graduate student may be temporarily poor, but with time and resources can get out of poverty fairly easily. On the other hand, someone with low cognitive skills, severe depression, or a drug addiction may have difficulty making more money even with assistance. She argues that the long-term poor tend to be different than the short-term poor and often need help beyond economic support. How to define and intervene within the context of non-economic characteristics is problematic, however, so Mayer recommends further study in this area.

Dalton Conley (1999) tests the hypothesis that most of the differences attributed to race are actually differences in socioeconomic status. He argues that to understand the life chances of children it is necessary to take into account accumulated wealth, which would include property, assets, and net worth. In this type of analysis, issues of intergenerational inequality become much more salient compared to research considering gaps as measured by only education, occupation, or income. Wealth is more stable across generations and the possibility of inheriting gifts of large asset amounts makes it seem less meritocratic than these other parental characteristics.

In his analysis using PSID data, wealth measures had higher predictive importance than parents' permanent income for every childhood outcome considered other than number of hours worked and hourly wages. Thus, parental wealth was a stronger predictor than income with respect to a child's adult net worth, high school graduation, college completion, unemployment/labor force nonparticipation, risk of pre-marital childbearing, and welfare usage.

Although income, parental education, and wealth are the household characteristics consistently found to influence children's outcomes, other variables are also considered. One issue is whether the child spends time in a single parent or female-headed household. The effect of parental marital status seems to boil down to whether children grow up in a household with both biological parents (McLanahan & Sandefur, 1994). When Conley (1999) controls for wealth, income, parental education and other key characteristics, he finds that being in a female-headed household is only a significant predictor of number of hours worked and whether children use welfare. Haveman and Wolfe (1995) find that being in a single parent family or stepfamily also has a negative effect on total years of education (particularly for African Americans) and increases the likelihood of a non-marital birth. Whether the mother was married at the child's birth and whether the biological parents stay together seem to be more important than the fact of being in a single-parent family itself.

Another issue is the impact of welfare dependence. Growing up in a family that received welfare might have some effect on children's attainment, but the results are mixed and inconsistent (Corcoran, 1995). Controlling for wealth, income, parental education and other things, Conley (1999) finds that welfare receipt was only a predictor of unemployment. Haveman and Wolfe (1995) don't find it to be a significant predictor of teen-age childbearing either, but they note if a young girl does become a single mother, growing up in a family that has received welfare increases the probability that she too will receive welfare.

Most of the variables consistently reported are household level variables, but individual and contextual variables also prove to be important. As evidenced in Werner and Smith (1982), constitutional factors early on predict later learning and behavior problems, which can in turn affect educational, labor market, and other adult outcomes. Whether the respondent graduates from high school and pursues further education is consistently important as well.

Race is interesting in that it seems to interact with several variables to predict outcomes, but is less significant than one would imagine simply looking at raw averages. When controlling for wealth, income, parental education and other key variables, Conley (1999) finds race to be significant only in predicting pre-marital childbearing and to have a marginal effect on hours worked. In addition, multiple studies find that African Americans are more likely to graduate from high school than whites when other factors are taken into account (Haveman & Wolfe, 1995).

In terms of the larger context, there is evidence that stressful events such as residential moves or divorce, an extensive social network, religious participation, and neighborhoods also affect child outcomes (Haveman & Wolfe, 1995; Werner & Smith, 1992). For example, living in a neighborhood with high dropout rates, high unemployment, and a large percentage of single-parent households can influence high school graduation, earnings, and teen childbearing. The characteristics of the other students and parents in a child's school can also be an influence.

Empirical Data for Intermediary Outcomes

Supplementing the type of research summarized thus far, some studies try to further pinpoint the intermediary processes that lead to differential outcomes for children from poor households or that face other risk factors. They incorporate information about the child's health and cognitive development, providing comparable indicators of how the child fares over time.

At birth, poverty increases the odds of infant mortality and the incidence of low birth weight (LBW). And even once LBW babies survive, they are more likely to experience neurological deficits and abnormalities, which could affect language comprehension and cognitive development. LBW babies are also more likely to have other health problems such as iron deficiencies and reduced stature. LBW babies also tend to exhibit greater classroom behavior problems (Aber, Bennett, Conley, & Li, 1997).

Aside from problems associated with low birth weight, children who are poor have higher morbidity rates. Poverty increases the risk of accidental death, school absences, hospital visits, acute illness, not being up-to-date on immunizations, asthma, lower respiratory illness, middle-ear infections, high blood lead levels, and lack of early intervention and medical coverage (Aber et al., 1997). Children in poverty or living in low-income neighborhoods also face additional risks for child abuse and neglect (Drake & Pandey, 1996; Kotch et al., 1995). Thus, sometimes the influence of poverty works indirectly through poor health, illness, and lack of safety to limit a child's later adult outcomes.

Cognitive development is another intermediary variable affected by poverty that then can have a lasting effect on a child's outcomes. Children, as early as four years of age, begin to exhibit statistically different levels of literacy according to the economic situation of their parents (Smith & Dixon, 1995). Although middle-class children have better literacy scores at 48 months than low-income children, this is mostly due to their parents reading to them regularly and exposure to written texts. The study demonstrates this by analyzing exceptions. The five middle-class children (out of 31) who fell in the lowest quartiles of the literacy strands had parents who didn't read them storybooks, few literacy materials available to them at home, and limited interaction during any story reading that did occur. The three poor children (out of 34) who earned literacy scores in the highest quartile, had parents who read to them every day for long periods and took responsibility for teaching child to read rather than expecting the school to do so (Smith & Dixon, 1995).

One set of authors found that poverty has no direct effect on intellectual development, but rather was completed mediated by five latent factors (Guo & Harris, 2000). These latent factors were the physical environment at home, mother's involvement with child, cognitive stimulation at home, child health, and childcare quality. The first three are subsets of the Home Observation for Measurement of the Environment (HOME) scale and the latter two are derived from questions answered by the parent concerning birth height, birth weight, medical history in the past year, and characteristics of any child care used. The most important mediating variable by far was cognitive stimulation, as measured by items similar to the study mentioned above: how often mother reads to child, number of books child has, number of magazines family receives, child has record/tape player, and how often child is taken to museums per year. The second important mediating variable was parenting style as measured by four ways the mother was observed interacting with the child. This variable was also both influenced by poverty and found to be a significant predictor of intellectual development. Ill health at birth and childhood had a negative effect on intellectual development, but poverty only predicted health at birth. Thus, perhaps intervening to improve the situation of children in intermediary areas, such as cognitive stimulation and parenting style, could positively impact their intellectual development without requiring a change in parent's income level.

Another topic considering intermediary variables helps address is the issue of timing. Does poverty in early childhood have a more devastating effect on adult outcomes than when the child grows older? One study addressed this question with NLSY data that includes test scores of developed ability and achievement tests connected with instruction for each child in two time periods, both childhood (3-8) and early adolescence (9-14) (Guo, 1998). Exploratory results confirmed the hypothesis that childhood poverty has a greater effect on ability while poverty in adolescence has the greater effect on achievement. The latter is likely because having less material resources and facing additional stress might impact motivation and opportunity, which become more important in adolescence, even if basic ability exists.

A major report on early childhood development sponsored by the National Research Council and the Institute of Medicine provides insight that supports the findings above (Shonkoff & Phillips, 2000). Its authors conclude that during the time from birth to age five, "children rapidly develop foundational capabilities on which subsequent development builds" (Shonkoff et al., 2000, p. 5). Yet, even though these early developmental specialists understand that "sensitive periods" exist, they also recognize that "the developing child remains vulnerable to risks and open to protective influences throughout…life…and into adulthood" (p. 31). Therefore, their best guiding principle is that although developmental progress may be more likely during certain periods, "advances can occur at virtually any age" (p. 31).

Thus, it is very feasible that not having resources, facing health problems and a lack of cognitive stimulation could damage a child's developmental foundation early in life, while a change of circumstances might put the child back on track by adolescence. In addition, a child could develop appropriately in early childhood, but face a change of circumstances that limits resources and opportunities, leading to difficulty achieving in adolescence. Being sensitive to the duration and timing of poverty along with the other important factors can provide additional insight into understanding children's outcomes.

Limitations and Conclusion

In longitudinal studies that don't utilize an experimental design, it is difficult to claim causality. Families may find themselves in similar circumstances for very different reasons and factors assumed to be independent could actually be interrelated. With such observational data, being able to pinpoint a single most important factor for child attainments is not necessarily the goal. Simply understanding likely relationships and typical combinations of factors can also be useful information. A child has personal characteristics, typically lives with a family, and interacts within a contextual environment. Static models of the variables at all these levels can help create a picture of the overall dynamic a child faces in development.

Considering current trends also helps supplement the overall picture. In the United States, educational attainment has been increasing over the past two decades, with more people graduating from high school and obtaining college and other post-secondary degrees. During this same period, the number of two-parent households has been declining, with more children spending time not living with both biological parents. The passage of the welfare reform law in 1996 has led to more women coming off welfare rolls and going to work. Yet income and wealth inequality remains, so those without high incomes, post-secondary education or positive net worth continue to struggle. Whether these trends in combination add up to better overall outcomes for the nation's children is hard to predict. From the evidence presented thus far, however, more educated parents and less welfare recipiency are positive trends while the change in household composition is a negative trend. For those who are at the high end of income and wealth distributions, their children's futures should be good. For those at the low end of income and wealth distributions, their children's futures are less hopeful.

Having examined theoretical perspectives and empirical data on children's attainment provides some background about the personal, family, and contextual factors that seem to make a difference in children's outcomes—both early on and as they develop into adults. The next set of issues is whether the factors linked to better outcomes can be duplicated while those factors linked to worse outcomes can be alleviated. Factors such as race, cognitive ability, basic physical capacity, and even one's initial economic status may be difficult if not impossible to manipulate and change. But if the consequences of permanent conditions can be equalized, the duration of poverty shortened, and the opportunity for educational attainment, beneficial social relationships, and wealth creation broadened, these would be worthwhile goals to aspire if they help more children be nurtured toward positive outcomes.

Implications for CYSAPD

The information addressed in this paper is useful for the Children and Youth Savings Account Policy Demonstration in several ways. It provides a theoretical and empirical rationale for how household characteristics, including assets, can impact outcomes for children. It also addresses some of the possible mechanisms through which these household characteristics might work. In addition, the information provides insight into possible ways to assist a child attain better outcomes in spite of a parent's poor economic situation.

Although the primary intervention would be to open accounts for children and measure the impact over time of having an asset accumulate in their name, there are also other research

possibilities. One useful area of study is considering whether asset accumulation might affect the intermediary mechanisms between a family's economic situation and final outcomes. When accepting requests for proposals, consider working in the possibility of incentives or requirements that encourage participant households to do things demonstrated by research to make a difference in child outcomes. These may include things such as the following:

- ?? Enrollment in whatever health care benefits child is eligible.
- ?? Reading age-appropriate books to preschool children, maintaining a time log.
- ?? Taking trips to museums or other learning activities with the child
- ?? Community service
- ?? Completing educational goals (perhaps a G.E.D., certification, or post-secondary degree for parents and attendance and passing grade level for children in school).
- ?? Receipt of regular child support payments for divorced or never-married parents
- ?? Accumulation of personal savings.

Discovering whether financial incentives to accumulate more money in a savings vehicle for one's child can motivate participants to do any of the above things more than a control group would be interesting to know.

Another issue to consider is whether children participating in the program demonstration begin to have outcomes and expectations that are not as tightly linked to the characteristics of their household's economic and social characteristics. Can a savings instrument and asset accumulation in the child's own name (perhaps along with financial education, counseling, and structured goal setting) begin to supersede a parent's lack of assets, income, or education?

In the real world, a children's savings account policy might begin at birth and continue to be active past what is considered adulthood. In such a reality, whatever initial impact is made can be built upon throughout a child's life with continued guidance in adulthood in terms of investing and making use of funds. But for the purposes of a demonstration, we have to pick a starting age and specify a time frame within which to begin evaluating results. Although early childhood is an important time with "sensitive" periods for development, understanding how youth closer to adulthood might think about having assets and respond to incentives with respect to those assets is also relevant. Thus, having an early childhood cohort (before age 3) and an adolescent cohort (before entrance to high school) would permit research in two distinct areas with potential relevance to policy development around children's savings account.

Although much empirical work has been done studying the consequences of poverty on child outcomes, not as much has been done on the benefits of wealth. With a Children and Youth Savings Account Policy Demonstration, interesting research can be done in this arena. For young children, focusing attention on what is best for the child at each stage of development and allowing parents along with supporting institutions to engage in long range planning around an asset instrument are important potential benefits. For the older children beginning adolescence, focusing attention on achievement and developing capacities with the knowledge that additional resources will be available through an asset instrument are important potential benefits. In addition, engaging the young person in being an active participant, making decisions for the future and planning how to best use (or continue to invest) that asset, will also be a goal.

A static look at how the resources of a family (whether income, education, assets, or social relationships) influence child outcomes is informative. A dynamic demonstration where initial resources are acknowledged, but the possibility of the infusion of new resources that might change circumstances to influence child outcomes in unexpected ways is novel and exciting. Lessons learned from such a demonstration would contribute to academic research and inform social policy.

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