ABSTRACT

Socioeconomic (Dis)advantage, Contextual Risk and

Educational Outcomes in Early Adulthood

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ABSTRACT

A vast body of literature addresses the effects of poverty on adolescent outcomes, yet few researchers have examined how economic disadvantage shapes the transition to adulthood in the U.S.. If, as Furstenberg (2003; 2006) argues, family background creates divergent experiences for youth, then young adults from affluent, modest or limited means face different trajectories in the transition to adulthood. Understanding these differences and the factors which contribute to them has important implications for the reproduction of inequality as well as for policies to improve children's life chances. In this paper, I explore the relationship between family income and educational outcomes typically considered as markers in the transition to adulthood. Specifically, I address how family SES and changes in economic position in childhood influence educational outcomes in early adulthood. I also explore the extent to which family, peer, school and neighborhood contexts mediate the effects of family SES on educational outcomes.

INTRODUCTION

While a vast body of literature addresses the effects of poverty on adolescent outcomes in general[1], there has been little direct examination of how economic disadvantage shapes the transition to adulthood in the U.S. (See Wagmiller et al. (2006) for a recent exception). If, as Furstenberg (2003; 2006) argues, family background and economic position create highly divergent experiences for youth, one might expect that young adults from affluent, modest or limited means face different trajectories in the transition to adulthood and that these differences widen over time, echoing a process of cumulative disadvantage. Understanding these differences and the factors which contribute to them has important implications for the reproduction of inequality and for social mobility as well as for policies to alleviate the effects of economic deprivation and improve children's life chances.

In this paper, I explore the relationship between family income and educational outcomes typically considered as markers in the transition to adulthood. Specifically, I address the following questions:

(1) How does family SES throughout childhood affect academic outcomes in early adulthood?
(2) How do changes in family SES throughout childhood influence educational outcomes in early adulthood?
(3) To what extent do family, peer, school and neighborhood contexts mediate the effects of family SES and changes in family SES throughout childhood on educational outcomes in early adulthood?

While researchers agree that economic deprivation has adverse effects on later outcomes, there is less consensus concerning the mechanisms through which such effects operate. Typically researchers focus on family background, invoking family resources or family socialization, or neighborhood effects as potential pathways. Both the family background and neighborhood effects models highlight just one context (i.e. family or neighborhood). Individuals, however, are nested within multiple contexts (Bronfenbrenner 1979) -- children reside in families, attend schools, interact with peers and live and play in neighborhoods. To the extent that children are differentially distributed into these settings by family SES, it is important to consider the effects of multiple contexts of disadvantage.

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[1] In general, these studies find poverty to be negatively associated with adolescent educational achievement (Alexander, Entwisle & Olson 2007; Entwisle, Alexander & Olson 2005; Duncan, et al. 1998; Haveman, Wolfe & Wilson 1997; Peters & Mullis 1997).

In this paper, I explore the relationship between family income and educational outcomes early adulthood. Family income is directly related to educational attainment such that young adults from more affluent families will have greater odds of high school completion and college entry than those from economically disadvantaged families. But family income is associated with other contextual factors (e.g. the home environment and schools) and may affect educational attainment indirectly through its influence on these contexts. In addition, these contexts may themselves exert an independent effect on outcomes.

Differences in home environment by socioeconomic status have been documented in work by Brooks-Gunn, Duncan and Aber (1997), Hart and Risley (1995) and Lareau (2003). These family processes likely exert an independent effect on educational attainment as well. For example, research indicates that home environment in early childhood mediates the effects of poverty on cognitive development and later academic achievement (Guo and Harris 2000; Korenman, Miller & Sjastaad, 1995). Greater parental supervision and involvement in schooling may shape aspirations and thus positively impact educational attainment. Family income may influence school context through its effect on the type of school a child attends. To the extent that these schools differ in the opportunities they present, they may influence later educational trajectories. SES may also affect the type of high school program as more affluent parents may be more likely to guide their child to a college preparatory program thus having a positive effect on later educational attainment. If economically disadvantaged students are more likely to attend schools they consider unsafe, s/he may be less engaged, and this lack of engagement might negatively affect later outcomes. Finally, family income may exert an indirect effect on early adult educational outcomes through its influence on peer context, specifically peer aspirations and the youth's involvement in extracurricular activities. If peers are oriented toward higher education, they may have a positive influence on an individual's own academic achievement. Participation in extracurricular activities fosters confidence and reinforces time-management skills which may be transferable to academic settings.

DATA

In this paper, I use data from the NLSY1979-C, its Self-Administered Questionnaire (CSAS) and the Young Adult Interview (YA) to examine outcomes through early adulthood for children aged 20 to 24 years at the time of the 2004 YA interview born to mothers in the NLSY79 cohort.[2] There were 3,922 children born to the 6,283 young women in the NLSY 1979 cohort between 1979 and 1984, inclusive. Of these children, 2,664 were eligible to be interviewed in 2004; 36 young adults born between 1979 and 1984 were in the military; 43 were in prison. My analytic sample is 1,903, or 71% of those eligible for interview.[3]

Outcome Variables: I estimate the effect of family income and contextual risks on several measures of educational attainment in early adulthood, including continuous measures of years of schooling completed and dichotomous measures indicating whether or not the individual dropped out of school,

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[2] In 1979, NLSY began conducting interviews with 12,686 youth – including 6,283 young women -- between the ages of 14 and 22 at the time of initial interview in 1979. Annual interviews were conducted until 1994, and biennial interviews were conducted thereafter. Since 1986, the 11,428 children of NLSY79 female respondents have been assessed biennially (Child Supplement). These assessments include measures of cognitive ability, temperament, motor and social development, behavior problems, and self-competence of the children as well as the quality of their home environment. Since 1988, children aged 10 through 14 completed a Self-Administered Questionnaire biennially about their schooling, family, peers and attitudes and behaviors. Finally, since 1994, children aged 15 and older were interviewed biennially (Young Adult Interview) concerning their work experiences, schooling, health, attitudes and relationships.

[3] An additional 358 respondents born between 1979 and 1984 were either 19 or 24 years of age and thus were excluded from our sample. Age will be imputed for 403 young adults who did not report age in 2004, which will increase the size of the analytic sample.

graduated from high school or had ever enrolled in college reported at the time of the 2004 Young Adult interview. In addition, I will explore a measure of timing of college entry.[4]

Explanatory Variables:

Income: I plan to test several measures of income, including a continuous measure of income, a categorical measure of the ratio of average total net family income to poverty in each survey year; a categorical measure capturing family income trajectories defined as (1) Always in poverty; (2) Moved into poverty, or in and out of poverty; (3) Moved out of poverty; and (4) Never in poverty.

Contextual Domains

Family Structure: I calculate the proportion of time the child spent in a single parent household between ages 0 and 4, ages 5 and 9, and ages 10 and 14. I also include maternal marital status.

Family Process: I incorporate several measures of home context and family interaction from including the standardized score for the cognitive stimulation and emotional support subscales of the HOME inventory scale from the Mother Supplement for children ages 0-14. I also explore additional measures capturing parental supervision and parent-child communication about academics for 10-14 year olds and 15-19 year olds based on responses from the CSAS and the YA Interview.

School: I explore several aspects of school context, including the type of school (public, private, other) based on maternal responses to the Child Supplement, the type of high school program (College Preparatory, General or Other) based on responses to the Young Adult survey, and school rating/school satisfaction based on responses to the Mother Supplement, CSAS and the YA Interview.

Peers: I incorporate several measures of peer context, including peer pressure, peer aspirations, young adult's participation in extracurricular activities and involvement in volunteer work. I derive a peer pressure index based on responses to questions on the CSAS (for 10-14 year olds) and the YA Interview (for 15-19 year olds) regarding whether the youth felt pressure from peers to engage in a range of risky behaviors. I measure peer aspirations as the youth's report of the highest grade the his/hers closest friend wants to complete, based on responses to the YA Interview. I operationalize prosocial behavior using a measure of adolescent involvement in extracurricular activities based on responses to the youth's report from the NLSY CSAS regarding whether he/she participated in any clubs, teams or activities in or out of school and a measure of community involvement at ages 10-14 and 15-19 gleaned from responses from the CSAS and the YA interviews.

Control Variables

I attempt to account for individual agency by controlling for self-competence. I use summed responses to the Pearlin Mastery Scale from the first YA Interview completed by the individual. I also control for demographic characteristics (child's sex, race and the number of siblings, whether the individual had ever been convicted of a crime) as well as maternal characerics (mother's nativity; mother's age at birth; maternal mental health). Finally, I also include additional measures of SES, including maternal education and occupation.

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[4] Since the sample is comprised of 20-24 year olds, many of the young adults enrolled in college have not completed their education. Indeed, just 7% of the sample reported having an Associates, Bachelors or Graduate degree at the time of the 2004 interview.

METHODS

Research has shown that early childhood poverty and SES exerts an influence on academic outcomes. Yet, a family's economic fortunes may wax and wane over the course of child's life. Therefore, in this paper I employ a stage-specific approach to income dynamics as in Duncan, et al. (1998). In doing so, the outcome variables measured at the time of the 2004 Young Adult interview will be regressed on childhood stage-specific family income measures. In the stage-specific models, I consider the effects of family income in early childhood (0-4 years of age), middle childhood (5-9 years of age), early adolescence (10-14 years of age) and late adolescence (15-19 years of age) I also explore the relationship between changes in family income and later educational outcomes by using a categorical measure of income trajectories throughout childhood as a predictor.

I use logistic regression to estimate a series of nested regression models for educational attainment with school dropout, high school graduate and college entry defined as dichotomous variables and event history models to estimate timing of college entry. For each model, I examine the relative effects of the predictors in determining later educational attainment. I also analyze whether including measures of family, school and peer context mediates the effects of family income on educational attainment. For each set of models, Model 1 includes family income measures and a set of demographic control variables; Model 2 incorporate measures of family structure and family processes in addition to the family income measures and controls; Model 3 includes variables reflecting school context and engagement as well as family income and controls; Model 4 includes measures of peer context and family income on educational attainment in addition to controls; finally, Model 5 incorporates the family income measures and control variables as well as the potential mediating variables reflecting family processes, school and peer contexts.

PRELIMINARY DESCRIPTIVE RESULTS

I report preliminary sample characteristics in Tables 1 and 2. Table 1 reports weighted descriptive statistics for selected demographic characteristics and for educational outcomes for the young adult sample. Table 2 contains weighted descriptive statistics for educational outcomes by family income trajectory; and Table 3 includes descriptive statistics for the contextual measures I employ in the analysis.

As shown in Table 1, my young adult sample was born between 1981 and 1984 to mothers who were on average 21.2 years of age (s.d. 2.1). Thus, a relatively large proportion – of the sample -- 26.5% -- was born to teenage mothers. Over the course of childhood and adolescence, however, most families experienced an improvement in economic well-being, with family income increasing from an average of $36,398 in early childhood (0-4 years of age) to $51,524 in early adolescence (10-14 years of age).[5] In terms of educational outcomes at ages 20-24, Table 1 indicates that the majority (86.6%) of respondents had graduated from high school diploma or earned a GED and more than one-half (53%) had attended college. In Table 2, I present weighted descriptive statistics for educational outcomes by the poverty history throughout (10-14years of age).[6] These results reveal significant differences in educational attainment among young adults by family economic well-being. Young adults from economically disadvantaged families were less likely to have graduated from high school or to have attended college by age 20. Moreover, there is a clear gradient in educational attainment by poverty experience such that

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[5] Family income has been adjusted for inflation using the CPI-U.
[6] Family income-to-need ratios are highly correlated across childhood and adolescence. Correlations for family income-to-needs in early childhood (0-4 years of age); middle childhood (6-9 years of age); and early adolescence (10-14 years of age) range from 0.56 to 0.74. Therefore, I present only family income-to-need ratios in early childhood in Table 2.

individuals exposed to poverty at any point in childhood had significantly lower educational attainment and were less likely to have attended college than those who had not experienced poverty.

REFERENCES

Alexander, K; Entwisle, D.R.; and Olson, L.S. 2007. Lasting Consequences of the
    Summer Learning Gap. *American Sociological Review 72*(2): 167-180.
Bronfenbrenner, U. 1979. *The Ecology of Human Development.* Cambridge, MA: Harvard University
    Press.
Brooks-Gunn, J; Duncan, GJ; and Aber, JL. 1997. *Neighborhood Poverty: Context and Consequences for
    Children*. New York: Russell Sage.
Brooks-Gunn, J; Klebanov, PK; and Duncan, GJ. 1996. Ethnic Differences in Children's
    Intelligence Test Scores: Role of Economic Deprivation, Home Environment and Maternal
    Characteristics. *Child Development 67*: 396-408.
Duncan, GJ and Brooks-Gunn, J. (Eds.) 1997. *Consequences of Growing Up Poor*. New York: Russell
    Sage Foundation.
Duncan, GJ; Brooks-Gunn, J. and Klebanov, P. 1994. Economic Deprivation and Early-Childhood
    Development. *Child Development. 65*: 296-318.
Duncan, GJ; Yeung, WJ; Brooks-Gunn, J; and Smith, JR. 1998. How Much Does Childhood Poverty
    Affect the Life Chances of Children? *American Sociological Review 63*: 406-423.
Entwisle, DR; Alexander, KL; and Olson, LS. 2005. First Grade and Educational
    Attainment by Age 22: A New Story. *American Journal of Sociology 110*:1458-1502.
Entwisle, DR; Alexander, KL; and Olson, LS .1997. *Children, Schools & Inequality.*
    Boulder, CO: Westview Press.
Furstenberg, FF, Jr. 2006. Diverging Development: The Not-So-Invisible Hand of Social Class in the
    United States. Presented at the Society for Research on Adolescence Meeting, March 2006.
Furstenberg, FF, Jr. 2003. "Growing up in American Society: Income, Opportunities and Outcomes" In
    W.E. Heinz and V.W. Marshall (Eds.) *Social Dynamics of the Life Course: Transitions,
    Institutions and Interrelations*. Hawthorne, NY: Aldine de Gruyter. (pp. 211-233).
Furstenberg, FF, Jr.; Cook, TD; Eccles, J; Elder, GH Jr.; and Sameroff, A. 1999.
    Managing to Make It: Urban Families and Adolescent Success. Chicago: University of Chicago
    Press.
Guo, G and Harris, KM 2000. The Mechanisms Mediating the Effects of Poverty on Children's
    Intellectual Development. *Demography 37*: 431-447.
Hart, B; and Risley, TR. 1995. *Meaningful Differences in the Everyday Experience of
    Young American Children* Baltimore, MD: Paul H. Brookes Publishing Co.
Haveman, R. and Wolfe, B. 1995. The Determinants of Children's Attainments: A Review of Methods
    and Findings. *Journal of Economic Literature 33*: 1829-1878.
Haveman, R; Wolfe, B; and Wilson, K. 1997. "Childhood Poverty and Adolescent Schooling and Fertility
    Outcomes: Reduced-Form and Structural Estimates." In G.J. Duncan and J. Brooks-Gunn (Eds.)
    Consequences of Growing Up Poor. New York: Russell Sage Foundation. (pp.419-460).
Korenman, S; Miller, JE; and Sjaastad, JE.1995. Long-Term Poverty and Child Development in the
    United States: Results from the NLSY. *Children and Youth Services Review. 17*:127-155.
Lareau, A. 2003. *Unequal Childhoods: Class, Race and Family Life.* Berkeley: University of California
    Press.
Mayer, S. 1997. *What Money Can't Buy: The Effect of Parental Income on Children's Outcomes.*
    Cambridge, MA: Harvard University.
Peters, HE and Mullis, NC. 1997. "The Role of Family Income and Sources of Income in Adolescent
    Achievement." In G.J. Duncan and J. Brooks-Gunn (Eds.) *Consequences of Growing Up Poor*.
    New York: Russell Sage Foundation. (pp. 340-381).

Wagmiller, RL, Jr.; Lennon, MC; Kuang, L; Alberti, PM; and Aber, JL. 2006. Dynamics of Economic Disadvantage and Children's Life Chances. *American Sociological Review*. *71*: 847-866.

TABLE 1: Selected Descriptive Demographic Statistics and Educational Outcomes for Children of the NLSY, Aged 20-24 Years in 2004

	Percent
DEMOGRAPHIC CHARACTERISTICS	
Sex (% Male)	51.8
Race/Ethnicity	
% Non-Hispanic White	71.4
% Non-Hispanic Black	19.6
% Hispanic	9.0
Mother was teen mom	26.5
Mother's age at birth	21.2 (2.5) [A]
FAMILY INCOME[B]	
Family income (0-4 years)	$36,398 (21,614) [A]
Family income (5-9 years)	$47,372 (57,115) [A]
Family income (10-14 years)	$51,890 (79,863) [A]
POVERTY HISTORY (0 – 14 years)	
Persistent poverty	4.4
Moved into poverty	11.8
Moved out of poverty/Moved in and out of poverty	33.4
Poor only in early childhood (0-4 years)	13.3
Never in poverty	37.1
EDUCATIONAL OUTCOMES	
Highest grade completed	12.3 (1.7) [A]
Dropped out of high school	13.1
High school graduate/GED	86.6
Ever attended college	53.3

[A] Mean (Standard Deviation) reported
[B] Family income adjusted for inflation using CPI-U (2004 $)

TABLE 2: Educational Attainment in 2004 for Children of the NLSY79 (Ages 20-24) by Poverty History and Family Income-to-Needs Ratio in Early Childhood (Ages 0-4)

	Highest Grade Completed	Dropped out of High School	High School Graduate/GED	Ever Attended College
POVERTY HISTORY (0-14 yrs)				
Persistent poverty	11.2 (1.6)	43.3	56.6	23.1
Moved into poverty	11.8 (1.8)	24.0	76.0	37.8
Moved out of poverty/Moved in and out of poverty	12.2 (1.7)	16.9	82.6	44.4
Poor only in early childhood (0-4 years)	12.7 (1.6)	8.7	91.3	58.7
Never in poverty	13.1 (1.6)	5.1	94.9	68.3
INCOME-TO-NEEDS RATIO (at 0-4 yrs)				
Less than 100% of poverty level	11.7 (1.7)	27.1	72.9	31.3
100 – 174% of poverty level	12.3 (1.7)	15.6	84.4	48.2
175 – 299% of poverty level	13.0 (1.7)	6.2	93.7	62.5
300% or more of poverty level	13.4 (1.5)	3.1	96.7	76.1