



Annotated Bibliography: The Impacts of Affordable Housing on Education

July 2007

Annotated Bibliography: The Positive Impacts of Affordable Housing on Education

Aaronson, Daniel. 2000. A Note on the Benefits of Homeownership. *Journal of Urban Economics* 47(3): 356-369.

In this study, the author reports the results of a regression analysis of a subset from the Panel Study of Income Dynamics (PSID), with supplemental analysis of parental involvement conducted using the National Longitudinal Survey. The sample includes all children that (1) reached the age of 17 between 1975 and 1993, and (2) were observed for at least 6 years between the ages of 7 and 16. The dependent variable is whether the individual graduated from high school by age 19.

The study finds that homeownership is positively correlated with children's educational attainment, although some of the effect is likely due to difficult-to-measure family characteristics and much of the homeownership effect is due to lower rates of residential mobility among homeowners. Living in owner-occupied housing raises educational attainment by 9.6 percent for a base case child (a white male living in a household with two parents, two siblings, and a head of household who worked in the prior year). Residential stability accounts for nearly half of this impact, although the results suggest no significant mobility effect for children who cross state borders—therefore the reason for the move may be more important than the distance. Aaronson analyzes three other possible confounding factors: wealth, family status changes, and

parental involvement. He finds that home equity has a relatively strong contribution to the homeownership effect, possibly due to greater investments in their community or correlations with other family characteristics that impact child well being, but family status changes and parental involvement had little to no impact on the homeownership effect. Neighborhood stability is also important; the homeownership effect, net of household mobility, is stronger in neighborhoods where a smaller percentage of households moved during the prior five years.

The note (12 p. plus appendix) begins with a brief literature review on the nontraditional benefits of homeownership and concludes by calling for future research on why this correlation exists and whether it justifies subsidy policies.

Astone, Nan Marie and Sara S. McLanahan. 1994. Family Structure, Residential Mobility, and School Dropout: A Research Note. *Demography* 31(4): 574-584.

In this study, the authors conduct a regression on data from High School and Beyond (HSB), a study conducted by the National Opinion Research Center (NORC) biennially from 1980 to 1986 that surveyed randomly selected members of the sophomore or senior class at a nationally representative sample of 1,000 U.S. high schools. The sample used in this study has 10,434 cases (respondents who were sophomores in 1980; participated in all four waves of data collection; were either non-Hispanic white, black, Mexican, or Puerto Rican; and for whom data on the dropout status—the dependent variable—were not missing).

The paper examines the hypothesis that high levels of residential mobility (measured as moves that result in changing schools) among nonintact families account for part of the association between living in a nonintact family and dropping out of high school. The authors find that as much as 30 percent of the difference in the risk of dropping out between children from stepfamilies and children from intact families can be explained by differences in their respective rates of residential mobility. Residential mobility was associated with a smaller and not statistically significant increase in drop-out risk for children in single-parent households.

The authors also speculate that residential mobility leads to a loss of social capital in children.

Braconi, Frank. 2001. Housing and Schooling. *The Urban Prospect*. New York, NY: Citizen's Housing and Planning Council.

The Citizens Housing and Planning Council conducted a regression on a subset of respondents in New York City's 1991, 1993, and 1996 Housing and Vacancy Surveys (HVS) to analyze the

connection between housing conditions and educational attainment (measured as high school graduation) in New York City. The sample included 2,268 females and 2,107 males between the ages of 19 and 22, but was further restricted to only those respondents who still lived with their parents (62% of females; 69% of males) in order to have data on family characteristics.

The study finds that both overcrowding and the presence of deficient maintenance conditions in the home have a statistically significant, negative effect on educational attainment.

Homeownership (positive) had a statistically significant correlation with high school completion for boys, while neighborhood quality (positive) and residential mobility (negative) had statistically significant effects on high school completion among girls but not boys. Housing-related variables account for most of the differences in graduation rates among youth of different ethnicities.

This article (4 p.) also summarizes historical and modern arguments for housing quality improvements and critiques current research into the relationship between educational attainment and assisted housing, homelessness, and residential mobility.

Conley, Dalton. 2001. A Room with a View or a Room of One's Own? Housing and Social Stratification. *Sociological Forum* 16(2): 263-280.

In this study, the author uses two-generational data from the Panel Study of Income Dynamics (PSID) to assess how socioeconomic status and race affect housing and how housing affects children's educational attainment. Conley measured the independent variables over the 1968 through 1972 time period—the years in which the PSID asked in more detail about housing. Years of schooling completed were measured at age 25.

The study found that homeownership (positive) and household crowding (negative) have a significant effect on children's educational attainment net of socioeconomic characteristics but that housing quality does not. Note, however, that, due to limitations in the PSID, housing quality is defined by presence of running water and indoor toilet and "whether the dwelling unit needs major repairs" and does not include other potentially important factors such as the presence of roaches, rodents, and lead paint.

Crowley, Sheila. 2003. The Affordable Housing Crisis: Residential Mobility of Poor Families and School Mobility of Poor Children. *Journal of Negro Education* 72(1): 22-38.

Based on a broad literature review, Crowley posits that housing affordability problems, mediated by residential mobility, negatively affect education outcomes by low-income children and create unstable school environments that adversely affect not only highly mobile children but their teachers and stable classmates as well. She cites research that found a positive relationship between residential stability and receipt of federal rental assistance, and therefore argues that expanding rental subsidies may reduce problematic school mobility. Crowley recommends adopting school-based and housing-based strategies to increase low-income households' residential and school stability, so their children can perform better in school.

Currie, Janet and Aaron Yelowitz (2000). Are Public Housing Projects Good for Kids? *Journal of Public Economics* 75: 99-124.

The authors examine public housing participation's relationship with children's educational attainment by using the Survey of Income and Program Participation, the Current Population Survey, and the 1990 Census. They find that children living in public housing projects are 11 percentage points less likely to have been held back than children in income-eligible families who live in other rental housing. When comparing results separately by race, they find that living in public housing appears to reduce the risk of grade retention for black children by 19 percentage points, but has no significant effect on education for white children.

Enterprise Foundation and Neighborhood Reinvestment Corporation. 2005. *Real Investments, Real Results*. Published for the March 31, 2005 symposium "Resident Services: Linking Affordable Housing and Opportunities for Families" in Washington, DC.
http://www.nw.org/network/pubs/studies/documents/RealInvestmentsRealResults_000.pdf
f (accessed May 31, 2007).

The authors highlight 11 examples of affordable rental housing coupled with resident services including preschool classes, tutoring, afterschool and other out-of-school (OST) time programs. The authors feature descriptive statistics on the effectiveness of selected resident services at each complex. They also provide photographs of the apartment communities, contact information, and basic performance indicators such as target market, size and number of units, rent range, occupancy rates, average rent collection, or cash flow.

Evans, Gary W., Stephen J. Lepore, B.R. Shejwal, and M.N. Palsane. 1998. Chronic Residential Crowding and Children's Well-Being: An Ecological Perspective. *Child Development* 69(6): 1514-1523.

The authors (1) summarize literature which shows that residential crowding is correlated with children experiencing delayed cognitive development, lower reading skills, and behavioral adjustment problems at school and (2) propose that strained parent-child relationships may be a mediating factor. The new empirical data comes from a study of the effect of crowding on public school children in Poona, India. Based on a regression and chi-square, the authors find that crowding is correlated with behavioral problems at school (positive), academic standing (negative), and learned helplessness (positive, but found in girls only). Parent-child conflict accounts for some of the crowding effect. The results indicate that, even in cultures with a perceived tolerance for crowding, crowding adversely affects children's development.

Evans, Gary W., Heidi Saltzman, and Jana L. Cooperman. 2001. Housing Quality and Children's Socioemotional Health. *Environment and Behavior* 33(3): 389-399.

The authors examine the relationship between housing quality and psychological distress and learned helplessness by studying 277 elementary school children from five rural counties in upstate New York. Although their research does not directly address educational outcomes, learned helplessness (measured by persistence in attempting to complete an unsolvable puzzle) has clear implications for school performance. For this analysis, the authors use data from a larger study on poverty and children's development. They use a housing quality rating that incorporates children's access to resources, cleanliness/clutter, indoor climatic conditions, privacy, hazards, and structural quality. A regression on the data showed that housing quality is negatively correlated with psychological distress, behavioral problems, and learned helplessness. They posit that higher levels of chaos in poor-quality housing may be a mediating factor.

Fowler-Finn, Thomas. August 2001. Student Stability vs. Mobility – Factors that Contribute to Achievement Gaps – Statistical Data Included. *School Administrator* 36-40.

The author briefly describes the mobility-related challenges faced by mobile and stable children, their teachers, and school districts. He argues that school mobility, which is often caused by residential mobility, reduces mobile children's opportunity to learn from their teachers and requires teachers to develop special strategies to facilitate learning by both mobile and stable students. The article is primarily based on the author's experience as superintendent of the Fort Wayne Community Schools.

Gillespie, Karry and Robert Everhart. June 1999. *Student Mobility and Its Effects on Student Achievement: A Preliminary Study Prepared for the Leaders Roundtable*. Portland, OR: The Leaders Roundtable.

The authors conducted a literature review, series of focus groups, and best practices research on the effects of residential and school mobility on student achievement. They held four focus groups in the Portland, Oregon area with a total of 36 School Attendance Initiative (SAI) employees. The following themes emerged from the focus groups: frequent mobility has negative effects on student achievement; low income appears to be the major driver of local mobility; parental issues also contribute to mobility-related problems; high-mobility children with learning difficulties experience additional problems with school transitions; and the largest negative effects are seen in the middle school years due to the increasing importance of prerequisite knowledge and social networks. Focus group participants mentioned a lack of low-income housing in the Portland area as a problem that results in crowding/doubling-up, loss of utilities, and eviction. Gentrification also appears to be a driver of mobility in Portland.

Green, Richard K. and Michelle J. White. 1997. *Measuring the Benefits of Homeowning: Effects on Children*. *Journal of Urban Economics* 41: 441-461.

By conducting regressions on data from the Panel Study of Income Dynamics, the 1980 Census, and High School and Beyond, the authors examine the effects of parental homeownership on children. Of particular interest is their assessment of whether children of homeowners stay in school longer than children of renters. Even after controlling for numerous other family traits that may impact children's educational outcomes, they find that parental homeownership is associated with children staying in school longer in all three data sets. In addition, the benefit of homeownership appears to be stronger for children in low-income households. Therefore, the authors argue that housing policy should help low-income renters achieve homeownership rather than supporting higher income homeowners through the current system of tax deductions. The authors also project that the benefit of helping low-income renters become homeowners can be conservatively calculated as \$31,000.

Harkness, Joseph and Sandra Newman. 2003. *Differential Effects of Homeownership on Children from Higher- and Lower-Income Families*. *Journal of Housing Research* 14(1): 1-19.

The authors conduct a regression on data from the Panel Study of Income Dynamics (PSID) to test whether the effect of homeownership on children varies by household income. The sample

is a subset of individuals born between 1957 and 1973 and who had family data for each year between the ages 11 and 15. They divide low income and high income based on having parental earnings below or above 150 percent of federal poverty line for at least three of the five years between ages 11 and 15. After using instrumental variable analysis to isolate the homeownership effect, they find strong evidence of a causal relationship between years of homeownership and positive long-term educational outcomes for low-income children, but they do not find a statistically significant homeownership effect for children from high-income families.

Hartman, Chester and Alison Leff. May/June 2002. High Classroom Turnover: How Children Get Left Behind. *Poverty & Race*.
http://www.prrac.org/full_text.php?text_id=748&item_id=7789&newsletter_id=62&header=Search%20Results (accessed May 31, 2007).

The authors discuss the adverse effects of school mobility and emphasize that housing policy reform merits additional attention as a method of reducing the pressure to move. They mention specific goals of (1) increasing the supply of decent, affordable housing; (2) considering school relocation issues when relocating tenants in public and assisted housing; and (3) regulating privately owned housing to reduce evictions and other sources of residential instability.

Haurin, Donald R., Toby L. Parcel, and R. Jean Haurin. October 2001. *The Impact of Homeownership on Child Outcomes*. Low-Income Homeownership Working Paper Series. Joint Center for Housing Studies, Harvard University.

The authors conduct regressions on a national panel data set that links the National Longitudinal Survey of Youth (NLSY) and the NLSY-Child (NLSY-C; a longitudinal study of the children of NLSY79 mothers); the NSLY-C includes items from the Home Observation for Measurement of the Environment (HOME) scales. In this study, the authors observe that children of homeowners have better home environments, high cognitive test scores, and fewer behavior problems than do children of renters, even after accounting for socioeconomic and demographic variables. The independent impact of homeownership combined with its positive impact on the home environment results in the children of owners achieving math scores up to 9 percent higher than the children of renters, reading scores up to 7 percent higher, and reductions in children's behavior problems of 1-3 percent.

Havemen, Robert, Barbara Wolfe, and James Spaulding. 1991. Childhood Events and Circumstance Influencing High School Completion. *Demography* 28(1): 133-157.

The authors explore the effect of a variety of family and economic circumstances on high school completion by conducting a regression on Panel Study of Income Dynamics (PSID) data. The sample includes around 1,300 children who were age 4 or younger during the first wave of the PSID and were still in the survey in 1987 (between the ages of 19 and 23). Individuals aged 19 and still in high school are coded as having completed high school. They find that residential mobility has a significant, negative correlation with high school completion even after controlling for the effects of other variables. The timing of moves is also important; the mobility effect is stronger during early childhood (age 7 or younger) and adolescence (ages 12 to 15).

Howes, Carollee. 1988. Relations between Child Care and Schooling. *Developmental Psychology* 24: 53-57.

In this study, the author examines the relationship between early child care and school adjustment in 87 children who enrolled in a laboratory elementary school between the ages of 45 and 57 months (i.e., 3 years 9 months to 4 years 9 months). The sample was selected to match the U.S. population in terms of ethnicity and social class. After conducting a regression with family characteristics held constant, the author finds that both girls' and boys' academic skills are negatively associated with the number of different child care arrangements they experienced. The author does not report whether or how much residential mobility was a factor in children's child care mobility.

Howes, Carollee and Phyllis Stewart. 1987. Child's Play with Adults, Toys, and Peers: An Examination of Family and Child-Care Influences. *Developmental Psychology* 23: 423-430.

The authors assess the playing capacity of 55 children ages 11 to 30 months and its association with their day care environment and family influences. Among other variables, the authors test the impact of the number of different day care homes used and the level of family social support (which includes measures of residential stability). Based on t-tests and Pearson product-moment correlations, they find that the number of day care changes is negatively associated with the level of play with peers; for boys it is also negatively associated with the level of play with objects. They also find that having a more restricted and stressed family is negatively associated with children's level of play with objects, peers, and adults. However, since residential stability data were collapsed with other family social support factors and further

collapsed into a general family influence variable, there are no findings on the relationship between residential mobility and children's capacity to play.

Kaase, Kris. 2005. The Impact of Mobility on Academic Achievement: A Review of the Literature. *Research Watch*. Wake County Public School System Evaluation and Research Department. http://www.wcpss.net/evaluation-research/reports/2005/0439mobility_review.pdf (accessed May 31, 2007).

The author reviews the literature on the negative effect of school mobility on academic achievement and the additional negative impact of moves that occur late in the school year. He discusses the relationship between residential mobility and school mobility as well as the factors that contribute to families' residential mobility. His recommendations for ways to reduce residential and school mobility include: (1) offering incentives to apartment owners to reduce mobility; (2) coordinating between landlords, schools, and social service providers to avoid starting or stopping services or tenancies during the school year; (3) providing information to parents about the negative effects of school mobility; and (4) additional school-based strategies.

Kerbow, David. October 1996. Patterns of Urban Student Mobility and Local School Reform Technical Report. University of Chicago Center for Research on the Education of Students Placed At Risk, Report No. 5.

Using chi-square results and descriptive statistics, the author examines data from a stratified random sample of Chicago public elementary schools and sixth grade students in these schools during spring of 1994, including a two-year retrospective school history. The sample includes 13,908 students and 270 elementary schools. The author finds that 58 percent of school mobility is associated (positive) with residential mobility. The median distance of students' residential moves is 3.1 miles. By sixth grade, children who change schools four or more times are found to have an educational gap of about one year compared with children who do not change schools. He also found that schools with high levels of mobility have a slower curricular pace than schools with more stable student populations.

Kerbow, David, Carlos Azcoitia, and Barbara Buell. 2003. Student Mobility and Local School Improvement in Chicago. *Journal of Negro Education* 72(1): 158-164.

Using data from a study of Chicago sixth graders and their public elementary schools that were also the source of the Kerbow's 1996 report, the authors present some additional findings. For single-time movers, they find that the academic loss associated with moving is usually made up for in subsequent stable years, but mobility effects are cumulative for frequent movers. By

second grade, the authors discern a noticeable gap associated with a slower curricular pace at schools with high rates of student mobility. By fifth grade, the pacing gap has widened so that high-mobility schools have a math curriculum that would be presented at the fourth grade level at a more stable school.

Kids Mobility Project. 1988. *Kids Mobility Project Report*. Hennepin County, MN: Hennepin County Office of Planning and Development and Community Connections.

The Kids Mobility Project in Minneapolis presents the results of (1) a quantitative study of the relationship between residential mobility and elementary school achievement; (2) a qualitative study of 100 families, 75 percent of which had frequent and recent moves; and (3) a literature review.

For the quantitative study, the sample included 6,098 public school students in first through sixth grades during the 1994-1995 school year. The authors find that residential mobility is higher among children of color than among whites. During the 1994-1995 school year, one in three African American, Hispanic, or American Indian children moved; one in six Asian children moved; but just one in seventeen white children moved. The authors find higher mobility rates among children who do not live with both parents. They find that children with three or more moves have an average reading score on the California Achievement Test (CAT) that is 20 points lower (almost one standard deviation) than the score for children with zero moves. Among children who move but stay in the same school district (a district that prioritizes keeping children in the same school when possible), the data show that the average CAT score for reading is five points lower and in math is eight points lower than the scores of children who do not move.

The authors share numerous quotes from parents who participated in the qualitative study. These quotes often indicate that housing quality and affordability play a major role in residential mobility. The authors therefore recommend increasing the supply of safe, affordable housing as a means of improving children's educational outcomes.

Kinney, Patrick L., Mary E. Northridge, Ginger L. Chew, Erik Gronning, Evelyn Joseph, Juan C. Correa, Swati Prakash, and Inge Goldstein. January 2002. On the Front Lines: An Environmental Asthma Intervention in New York City. *American Journal of Public Health* 92(1): 24–26. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1447378> (accessed May 31, 2007).

The authors state that asthma is the leading cause of school absence among children of color in poor urban neighborhoods and that more frequent and severe asthma episodes occur with exposure to indoor allergens, such as roaches, rodents, and mold. They describe a study, from which results are not yet available, in which they apply an integrated pest management (IPM) intervention either at baseline or eight months later in the households of 30 asthmatic children between the ages of 5 and 18 years old with roach allergies who reside in roach-infested apartments. During the study, they find that poor housing quality and lack of enforcement of housing code violations contributes to the problem and complicates residents' ability to adhere to the pest-reducing intervention.

Mantzicopoulos, Panayota and Dana J. Knutson. 2000. Head Start Children: School Mobility and Achievement in the Early Grades. *Journal of Educational Research* 93(5): 305-311.

The authors study the effects of mobility on children who attended Head Start in a Midwestern suburb and had relocated at least one time between kindergarten and second grade. The sample includes 90 children and their mothers in three cohorts. Sixty-six percent of the mothers report that they move because they are “seeking a better place.” School secretaries work with the authors to track participants despite their high levels of school mobility. Only 28 percent of the children remain in the same school during the three-year period of the study.

To obtain baseline information on academic achievement, the authors use kindergarten results from the Peabody Picture Vocabulary Test – Revised (PPVT-R); at second grade, they use the Woodcock-Johnson Tests of Achievement – Revised (WJ-R) and have teachers provide ratings using the Academic Competence Scale of the Social Skills Rating System (SSRS). Based on a regression analysis, the authors find a negative association between school mobility and academic competence even after controlling for gender and prior academic achievement.

Mills, Gregory, Daniel Gubits, Larry Orr, David Long, Judie Feins, Bulbul Kaul, Michelle Wood, Amy Jones & Associates, Cloudburst Consulting, and QED Group LLC. 2006. *Effects of Housing Vouchers on Welfare Families*. Prepared by Abt Associates, Inc., for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

The authors evaluate how Housing Choice Vouchers (HCV) affect various aspects of low-income families' well-being including residential mobility, housing quality, crowding, homelessness, health, and child well-being. The sample includes 8,731 low-income families (with an average household size of four); within this sample, an experimental group received demonstration vouchers while a control group did not receive housing assistance. Among other findings, the authors report that families receiving HCV (1) move to a better quality neighborhood, (2) have fewer moves overall during the follow-up period, (3) are less likely to become homeless, and (4) experience less crowding than the control group; however, their children are more likely to have repeated a grade than children in control group households, perhaps due to enrolling in a new school in a better quality neighborhood. For children under 6 at the study's baseline, HCV is negatively correlated with absence from school.

Moore, Kristin Anderson, Sharon Vandivere, and Jennifer Ehrle. 2000. *Turbulence and Child Well-Being*. *New Federalism: National Survey of America's Families*. Series B, No. B-16.

The authors conduct two-tailed t-tests and the chi-square statistic on data from the 1997 National Survey of America's Families (NSAF) to assess childhood turbulence (including residential and school mobility) and its relationship to school engagement and emotional and behavioral problems. The NSAF sample includes parents of children ages 6 to 17 from 44,461 households. The authors classify a child as experiencing turbulence if he or she has experienced two or more of the following changes during the 12 months prior to the survey: (1) moving from one state to another, (2) moving to a different home, (3) moving in with another family, (4) two or more changes in employment by either a parent or a parent's spouse, (5) two or more school changes, or (6) a significant decline in the health of the child, parent, or parent's spouse.

The authors find that childhood turbulence is negatively correlated with school engagement levels, and the strength of the correlation increases with the child's age. Childhood turbulence is also associated with higher levels of emotional and behavioral problems. For children ages 12 to 17, turbulence is positively correlated with skipping school, suspension, and expulsion.

Newman, Sandra. 2006. How Housing Matters: A Critical Summary of Research and Issues Still to be Resolved [Discussion Draft]. Baltimore, MD: Johns Hopkins Institute for Policy Studies, mimeo.

In order to update a 1980 critique by John Weicher¹ which found insufficient evidence of the benefits of housing beyond the value of the actual units, the author examines subsequent research on the effects of housing. She limits the review to studies of the impact of housing unit itself and separately assesses the evidence regarding five features of housing: quality, crowding, affordability, subsidized housing, and homeownership. In the review, she carefully considers questions of causality and focuses on quantitative studies that meet the standards of scientific rigor. She concludes that while there have been a number of research studies since 1980 that are suggestive of a positive impact of housing on other social outcomes, the existing research has not been rigorous enough to justify departing from John Weicher's initial conclusion. In particular, she questions whether the existing research base has adequately proven that housing "causes" the outcomes that appear to be associated with it. She argues for holding a "consensus conference" to develop a comprehensive and rigorous research agenda on these questions, developing validated measures of housing-related variables, and creating a minimum housing dataset for inclusion in major surveys of child and family outcomes.

Newman, Sandra and Joseph Harkness. 2002. The Long-Term Effects of Public Housing on Self-Sufficiency. *Journal of Policy Analysis and Management* 21(1): 21-43.

The authors discuss the potential effects of public housing residence on children. They posit that public housing, which has been shown to improve the physical adequacy of a family's housing, may affect children's outcomes if housing quality in general has an impact. They further propose the possibility that children in public housing may have greater residential stability, although there is no empirical research on this relationship. Another connection they suggest between public housing and children's outcomes is through increasing the availability of residual income to spend on items that would benefit children's development. One negative association they propose is that children may be adversely affected by the concentrated poverty found in most neighborhoods with public housing. They authors cite literature, although sometimes very limited, in support of each of these theories.

The authors' new contribution to the literature does not relate to children's educational outcomes. The authors focus on long-term effects measured between the ages of 20 and 27

¹ Weicher, John. 1980. *Housing: Federal Policies and Programs*. Washington, DC: American Enterprise Institute for Public Policy Research.

including welfare receipt, income in relation to federal poverty level, and labor force participation.

Orr, Larry, Judith D. Feins, Robin Jacob, Erik Beecroft, Lisa Sanbonmatsu, Lawrence F. Katz, Jeffrey B. Leibman, and Jeffrey R. Kling. 2003. *Moving to Opportunity Interim Impacts Evaluation*. Washington, DC: U.S. Department of Housing and Urban Development.

The authors use t-tests to evaluate the Moving to Opportunity (MTO) demonstration program, a randomized experiment that provided an experimental group with housing vouchers for use only in low-poverty areas and compared results for this group with (1) a control group, and (2) a group that received unrestricted housing vouchers. A total of 4,608 families participated. Regarding effects on children's education, the authors find that children in the experimental group attend somewhat better schools than the control or voucher groups, but that the experiment has not affected children's educational performance. They expect that a positive effect on education may emerge over time as children catch up with their classmates at the better schools over time.

Popkin, Susan J., Michael Eiseman, and Elizabeth Cove. 2004. *How are HOPE VI Families Faring? Children*. Washington, DC: The Urban Institute.

The authors conduct regressions on data from the HOPE VI Panel Study—a study of the original residents at five distressed public housing developments that were demolished and redeveloped under the HOPE VI program—to evaluate the impact of HOPE VI on children. Prior to HOPE VI, a large share of the children were in special education (23%) classes or had been expelled or suspended from school (about 25%); nearly all of their classmates were poor and most performed below grade level on standardized tests. Regarding the outcomes after initiation of HOPE VI, the authors find that children of HOPE VI relocatees attend schools with a lower poverty rate than in their prior neighborhood and that their parents are less likely to believe that school quality is a problem. The authors cite parental observations that the children face difficulties adjusting to the new schools and support these observations with references to the literature on mobility, but they do not report statistical findings on the relationship between HOPE VI and educational achievement. In addition, although the authors find that parental engagement and education correlate positively with children's outcomes regardless of where families live, they do not report whether or to what degree the housing effects hold regardless of parental characteristics.

Pribesh, Shana and Douglas B. Downey. 1999. Why are Residential and School Moves Associated with Poor School Performance? *Demography* 36(4): 521-534.

In this paper, the authors argue that prior research into the relationship between moving and academic achievement may have overstated the negative effect of moving itself by failing to (1) make distinctions between different types of mobility (residential, school, or both), (2) examine the possibility that the apparent negative effect is not due to moving but rather to a loss of social capital, and (3) reliably account for associations between moving and other factors such as family background or parental involvement. The authors conduct a regression on data from the National Educational Longitudinal Study (NELS) of 1988 and 1992, a study which in 1988 included 24,000 eighth-graders. The sample used in this analysis includes 14,929 students who remained in the study in 1992 and answered two mobility-related questions on the 1992 questionnaire (one regarding the number of residential moves since 1988 and the other regarding the number of nonpromotional school changes during the same period). The authors collapse these data to look at school moves, residential moves, and combined moves without examining the frequency of moves.

The authors find that all of the mobility categories are negatively associated with most kinds of social capital; combined school-residential mobility has the largest negative effect. They further find that moving correlates negatively with educational performance and expectations, but that preexisting differences between movers and nonmovers (prior educational achievement and student and family characteristics) explain about 90 percent of the difference in educational outcomes between combined residential-school movers and others. Factors associated with the move, such as the presence of life stressors and the loss of social capital, account for an additional 5 percent of the educational difference.

Rhodes, Virginia L. 2005. Kids on the Move: The Effects of Student Mobility on NCLB School Accountability Ratings. *Penn GSE Perspectives in Urban Education* 3(3). <http://www.urbanedjournal.org/articles/article0020.html> (accessed May 31, 2007).

The author assesses the impact of school mobility on schools by examining the relationships between school ratings as required by the No Child Left Behind Act (NCLB), mobility, ethnicity, socioeconomic status, and school enrollment size. She uses predictive discriminant analysis on data from 527 urban Ohio schools for the 2003-2004 school year. The mean mobility rate of the schools in the sample is 29.5 percent (very high). Only 16 schools received the highest rating (Excellent); 127 schools received the lowest rating (Academic Emergency). The author finds that school ratings are negatively correlated with the mobility rate. She obtains significant

analysis of variance results for all four independent variables; the result is highest for mobility and lowest for enrollment size. She finds that mobility explains over 78 percent of the variance in school ratings and has a significant predictive influence.

Rhodes, Virginia L. 2006. Kids on the Move: School Mobility and NCLB. *NCA CASI e-News* 4(4). http://www.ncacasi.org/enews/articles_feb06/kids_on_move_mobility_nclb.pdf (accessed May 31, 2007).

The author summarizes her prior research which found that school ratings are negatively correlated with mobility rates. She reviews the literature on the effects of mobility on achievement, curriculum, staff morale, school records, amount of testing, and social issues, and summarizes views of teachers, parents, and students on mobility. She recommends establishing interagency relationships between school districts and housing officials, as well as between school districts and public and private landlords.

Rosenbaum, James E. 1995. Changing the Geography of Opportunity by Expanding Residential Choice: Lessons from the *Gautreaux* Program. *Housing Policy Debate* 6(1): 231–269.

The author compares outcomes for urban movers and suburban movers in the *Gautreaux* program, a residential relocation program in Chicago in which low-income black families are randomly assigned to middle-income majority-white suburbs or low-income majority-black urban areas. For the children's component of this study, the author selected at random one child between the ages of 8 and 18 from each of 114 families in 1982; he then assessed their educational and employment outcomes in 1989 when they were adolescents or young adults.

Overall he finds that the suburban moves are positively correlated with educational performance. By using chi-square and t-tests, the author finds that suburban moves are significantly correlated with school drop-out (negative), taking college preparatory classes (positive), attending college at all (positive), and attending a four-year college. Suburban movers experienced short-term grade declines perhaps due to difficulties adjusting to the new schools, but over time the author found no significant difference between grades for the city and suburban movers. He argues that suburban-city grade parity implies higher achievement by suburban movers because the High School and Beyond survey found that suburban students average a half-grade lower than city students with the same achievement test scores. The author's findings suggest that moving to a better neighborhood and better school can have a long-term positive effect on educational attainment.

Rothstein, Richard. October 2004. Class and the Classroom. *American School Board Journal* 191(10).

The author discusses the multiple factors—including the housing gap—that contribute to the achievement gap between low-income and middle-class black and white children. Regarding the housing gap, he presents multiple burdens faced disproportionately by low-income minority communities. According to Rothstein, the lack of affordable housing creates a lack of housing stability which in turn negatively affects students' educational performance. He states that low-income children are more likely to miss school for minor problems because the relative scarcity of doctors in low-income communities results in children not being treated promptly. He argues that low-income children are also more likely to miss school or attend school while drowsy due to asthma episodes—episodes that are related to contaminants in their housing and neighborhood environment.

Rumberger, Russell. June 2002. Student Mobility and Academic Achievement. *ERIC Digest*. Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.

The author discusses the state of the research on the academic consequences of mobility for elementary school students and recommends ways for schools, parents, and students to reduce school mobility. In this brief paper (2 p.), the author summarizes the school mobility literature as saying that (1) background characteristics account for much of the achievement differences between mobile and stable students, (2) frequent moves predict grade retention, (3) one move is negatively associated with achievement except in two-parent families, and (4) mobility in elementary school as well as in high school correlates negatively with high school graduation.

Scanlon, Edward and Kevin Devine. 2001. Residential Mobility and Youth Well-Being: Research, Policy, and Practice Issues. *Journal of Sociology and Social Welfare* 28(1): 119-138.

The authors review theoretical and empirical literature on the effect of residential mobility on child well-being. In the empirical literature, they find extensive evidence that residential mobility negatively affects children's education. The authors cite numerous studies that found declines in academic performance and other studies that indicate a possible overstatement of mobility's negative effects. They further report the findings of empirical studies related to mobility's correlation with children's likelihood of repeating a grade (positive), high school completion (negative), social and interpersonal functioning (negative), and psychological and behavioral

problems (positive), although for each of these outcomes some studies suggest that mediating factors need to be taken into consideration. The authors recommend altering federal social policy to enhance residential stability and suggest that social workers count mobility among the risk factors that may need evaluation and intervention.

Schafft, Kai A. August 2002. Low Income Student Transiency and Its Effects on Schools and School Districts in Upstate New York: The Perspective of School District Administrators: A Research Summary Report. Working Paper. Cornell University Department of Rural Sociology.

The author examines the impacts of student mobility on school districts based on the findings from a 2002 study of low-income student mobility in upstate New York. The sample includes 136 low-income school districts and 141 wealthier school districts. He finds that poor school districts have more student mobility than wealthier districts. Respondents from poor school districts indicate the presence of a highly mobile population of families with consistent poverty and a high level of needs. He finds that housing factors, such as eviction and the availability of affordable housing, are identified by school administrators as major factors influencing their school's mobility rate. The report (20 p.) includes quotes from school administrators regarding their belief that greater housing affordability and the presence of multifamily rental housing draw poor families to the district, increase the schools' mobility rates, and decrease the academic achievement of the student body.

Swanson, Christopher B. and Barbara Schneider. 1999. Students on the Move: Residential and Educational Mobility in America's Schools. *Sociology of Education* 72(1): 54-67.

By conducting regressions on data from the National Educational Longitudinal Study (NELS) of 1988 to 1994, the authors examine the timing and duration of the effects of residential and school mobility on students' educational achievement and social outcomes in high school. The sample includes about 25,000 students who were enrolled in eighth grade in 1988 in public and private schools. The authors look at three types of mobility independently: residential move only (movers), school change only (changers), and combined residential-school mobility (leavers).

Regarding mathematics achievement, they find no immediate impact on movers and changers in the early years of high school; however, they find a positive correlation between mobility early in high school and later mathematical achievement. According to this analysis, a school move in the final years of high school has a negative association with math achievement comparable to the impact of dropping out.

The authors find that movers, changers, leavers, and students with more mobility prior to eighth grade are significantly more likely than stable students to drop out of high school. This held true whether the mobility event occurred early or late in high school. However, the increased risk of drop-out is only a short-term for students with early mobility. If a student with an early move or school change can stay in school past tenth grade, the authors find a significant increase in their chances of completion.

Temple, Judy A. and Arthur J. Reynolds. 1999. School Mobility and Achievement: Longitudinal Findings from an Urban Cohort. *Journal of School Psychology* 37(4): 355-377.

By conducting a regression on data from the Chicago Longitudinal Study on over 1,000 African American children from low-income urban households, the authors assess the relationship between educational achievement and school mobility between kindergarten and seventh grade. Since the authors measure school mobility not more than annually, mobility may be undercounted. After accounting for socioeconomic differences, the authors find that children who move four or more times are about six months behind their peers in reading achievement and about five months behind their peers in math. The authors find that children who move two or three times also have lower average achievement than their peers; however there is no significant impact of moving only once. Overall, by the end of seventh grade, highly mobile children perform about one year behind their stable peers. When controlling for children's level of achievement in kindergarten, the mobility achievement gap drops to six months.

The study reports indications that school quality may counteract the detrimental impact of mobility. Mobile children who move into magnet schools with selective admissions policies have higher achievement scores than students who do not move at all.

Tucker, C. Jack, Jonathan Marx and Larry Long. 1998. Moving On: Residential Mobility and Children's School Lives. *Sociology of Education* 71(2): 111-129.

The authors review the literature and conduct a regression on data from the Child Health Supplement to the 1988 National Health Interview Survey (NHIS) to understand whether the effect of mobility on children aged 7 to 12 varies with family structure. This study uses data on 4,499 children obtained via interviews with a parent or other responsible adult in the household.

The authors find that hypermobile children (those who have moved eight or more times) are more likely to have problems in school including repeating a grade, performing at "below the

middle” or “near the bottom” of the class, classroom disobedience, trouble getting along with the teacher, suspension, or expulsion. For a hypermobile child, the odds of having problems in school increase almost 85 percent with each additional move; for a child who has moved only once, each additional move increases the chance of having problems at school 40 percent. When the authors account for family structure, moving only appears to affect school performance for children if they either (1) do not live with both biological parents, or (2) the child has been hypermobile. For children living in single-parent homes or other alternative family structures, the authors find that any amount of mobility has a negative effect on school performance.

Turner, Margery Austin and Dolores Acevedo-Garcia. 2005. The Benefits of Housing Mobility: A Review of the Research Evidence. In Philip Tegeler, Mary Cunningham, and Margery Austin Turner, Eds. *Keeping the Promise: Preserving and Enhancing Housing Mobility in the Section 8 Housing Choice Voucher Program. Conference Report of the Third National Conference on Housing Mobility.* Washington, D.C.: Poverty & Race Research Action Council.

The authors summarize the current state of the research on the benefits of mobility programs that help low-income families move from distressed neighborhoods to healthier areas with more opportunities. They discuss six ways that neighborhoods shape or constrain opportunities: (1) local service quality (especially the quality of local public schools), (2) shared norms and social control (such as common values that encourage or discourage education), (3) peer influences, (4) social networks (especially their knowledge of relevant opportunities), (5) crime and violence, and (6) job access. They discuss studies that show low-income neighborhoods are negatively correlated with educational outcomes; additional literature shows that mobility programs lead to improvements in the quality of the neighborhood environment and often in children’s schools. The effect of mobility programs on children’s educational achievement has been mixed. The *Gautreaux* research shows a large positive relationship between moving to the suburbs and educational success, and HOPE VI research shows improvements in behavior at school. But the Moving To Opportunity research has not demonstrated educational improvements for the movers, perhaps due to students staying in their old schools or because insufficient time has elapsed for educational impacts to be realized.

Vandivere, Sharon, Elizabeth C. Hair, Christina Theokas, Kevin Cleveland, Michelle McNamara, and Astrid Atienza. 2006. *How Housing Affects Child Well-Being*. Coral Gables, FL: Funders' Network for Smart Growth and Livable Communities. http://www.fundersnetwork.org/usr_doc/Housing_and_Child_Well_Being.pdf (accessed May 31, 2007).

In this paper, the authors examine the connection between children's housing characteristics and their health, social and emotional well-being, and cognitive development. They consider housing characteristics such as cost, physical quality, tenure, mobility, and neighborhood characteristics. In the area of cognitive development, they review the literature and find substantial intersections between housing and children's educational achievement. Parental homeownership is associated with higher educational achievement. Residential mobility can help or hinder children's education depending upon the reason, frequency, and timing of the move. Homeless children are more likely than others to experience developmental delays, poor test scores, and other educational problems. Children's educational outcomes are also related to the quality of their neighborhood, perhaps due to the presence of higher-quality schools, role models, and community resources.

The authors propose four ways that funders can apply this knowledge to improve outcomes for children: (1) "Target families' budget constraints: Broaden the range of housing choices available to families"; (2) "Target families' housing and neighborhood conditions: Reduce children's exposure to potentially harmful conditions"; (3) "Target parents' well-being: Provide services or implement conditions that counteract...negative effects of housing conditions or constrained budgets on parents"; and (4) "Target child well-being directly: Provide services or implement conditions that counteract...negative effects of housing conditions on children."