

Effects of Human Capital and Social Capital on Dropping Out of High School in the South

Mark H. Smith¹
Lionel J. Beaulieu²
Glenn D. Israel³
University of Florida

ABSTRACT

This paper assesses the effects of human capital and social capital on the probability of a person dropping out of high school, using the High School and Beyond data set. Utilizing logistic regression, predicted dropout rates are uncovered for students whose families and communities differ in human and social capital, controlling for financial capital, race, ethnicity, and rural-urban residence. The effects of human and social capital variables combine to make substantial differences in predicted dropout rates.

INTRODUCTION

The detrimental consequences of dropping out of high school have been recognized for decades. Repercussions to individuals of failure to complete high school include lower annual and lifetime earnings among dropouts (National Center for Education Statistics, 1982), higher unemployment rates for dropouts (Feldstein & Ellwood, 1982), lower self-esteem and restricted life opportunities. Consequences for society entail dampened productivity and reduced competitiveness in the global marketplace. Structural changes occurring in the national and international economy involving shifts away from low-skill jobs in favor of high technology production and service occupations are progressively increasing the individual and social costs of dropping out.

A review of the dropout literature by Pallas (1986) suggests that three broad theoretical orientations have emerged to account for dropping out behavior: (1) academic performance, (2) accelerated role transitions, and (3) social disability. The academic performance perspective contends that dropouts tend to lack the requisite ability for academic success. The acceler-

ated role transition view suggests that premature shouldering of adult responsibilities — as when taking on a full-time job or getting married while in school — creates role strain that precipitates dropping out. Deficient socialization in the family and school, in the social disability orientation, produces a deficiency in social skills and social integration necessary for successful school completion.

Within the context of the social disability framework, one of the more promising theoretical approaches to the study of the problem of high school dropouts is social capital theory. "Social capital" refers to social networks and social interaction that facilitates educational attainment. The focus of social capital research is on the nature of social capital existing in families as well as in communities. Social capital theorists suggest that social capital exists in greater amounts and is more effective in communities characterized by a high degree of social interaction and intergenerational closure. Using the *High School and Beyond* data set, James Coleman and his associates (1987, 1982) demonstrate that students attending private religious schools — notably Catholic schools — are less likely to drop out than students attending public high schools. An important

¹Mark H. Smith is a Doctoral Candidate in the Department of Sociology, University of Florida, Gainesville, FL 32611.

²Lionel J. Beaulieu is a Professor in the Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

³Glenn D. Israel is an Associate Professor in the Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

question that remains unanswered in the Coleman studies is whether residentially-based communities can exhibit the social capital attributed to the functional communities encompassing Catholic schools. Though these researchers acknowledge the possibility that such residential communities could exist, they have chosen not to pursue this avenue of inquiry (Coleman & Hoffer, 1987). Furthermore, they argue that the divergence between functional and residential communities in modern society renders the concept of geographically-based functional communities increasingly irrelevant.

However, there is ample evidence from studies exploring the community as a field of social interaction (Kaufman, 1959; Luloff & Wilkinson, 1979; Wilkinson, 1970, 1979) that residential communities retain, more or less depending on the community, the social organization and social interaction characteristic of functional communities. By applying the theory of social capital to residential communities surrounding public high schools, attention can be directed at determining whether variability in social capital in families and communities might influence the likelihood of public high school students remaining in school.

FAMILY AND COMMUNITY IN THE STUDY OF DROPPING OUT

Aside from the school itself, the social antecedent of educational performance receiving the most research attention has been the family. As early as the 1920's, psychologists were aware of important statistical associations between family variables and individual abilities (Marjoribanks, 1972). Researchers determined that sibsize — the number of children in the family — correlates about $-.3$ with the mean cognitive ability scores of the children in the family. The larger the family, the lower the cognitive ability scores, though the relationship only accounts for 9% of the explained variance. Parental socioeconomic status was determined to correlate $.4$ with children's cognitive abilities, accounting for 16% of the variance in ability scores.

Sibsize was taken up and incorporated with sibling spacing, birth order and parent's intellectual level to form the *confluence model* (Zajonc, 1976; Zajonc & Marcus, 1975) to account for variation in cognitive development. The explanation for the connection between family size and intellectual development is based on the *dilution hypothesis*, stated by Blake (1981, p. 422) as "the more children, the more parental resources are divided...and hence, the lower the quality of

output." The importance of family configuration to educational attainment is in the nature of the familial environment of support; whether parental attention is divided; whether older brothers or sisters are around to read to the younger children and encourage them, and so forth.

The literature reveals little disagreement on the importance of socioeconomic status to the educational attainment process. Family socioeconomic status is linked to educational attainment in terms of conditioning the environment of support for achievement. Children in families of lower socioeconomic status are less likely to have supports such as a private room, a computer in the home, tutoring, or residence in a district with well-funded schools. Children in families with higher socioeconomic status are more likely to be socialized in their families to value educational achievement (Wagenaar, 1987).

Patterns of *family interaction*, in addition to family configuration and family socioeconomic status, are linked to educational attainment. Studies pointing to the importance of family interaction variables (Kent & Davis, 1957; Marjoribanks, 1972) suggest that "about half the variance in verbal ability can be accounted for by sociopsychological assessments of the family environment" (Walberg & Marjoribanks, 1976, pp. 532-534). However, Widlak and Perrucci's (1988) study has been one of the few to examine family interaction along with family configuration in seeking to understand the relationships between family environment and intellectual development. The authors found empirical support for the hypothesis that intellectual development is positively related to parental and sibling support and encouragement.

Previous research on family environment proceeded upon the reasonable assumption that the "home produces the first and perhaps most subtle influence on the mental development of the child" (Marjoribanks, 1972, p. 324). However, Marjoribanks also notes the family environment is only part of the "total network of forces" acting upon the individual, a network that includes the home, the school and the community.¹ Wagenaar (1987) attributes the prominence of concern with personal background characteristics in the literature to the difficulty in obtaining structural data and in part to a "predilection" for individual-level explanations of dropping-out behavior. However, attention to community and other structural variables is useful in helping to situate "individual level correlates within a larger context, thereby showing how individual decisions can be affected substantially by social structure" (Wagenaar, 1987, p. 174).

One such structural factor is the degree of social integration. Ekstrom et al. (1986) and Wehlage and Rutter (1986) found that dropouts are more alienated than stayers. Wagenaar (1987) indicates that dropouts are characterized by normlessness and social isolation. This suggests that community interaction conveying norms and values consistent with educational achievement is likely to produce students with a greater sense of social integration and a smaller likelihood of dropping out. Community environment is implicated in educational outcomes not only in terms of tangibles such as investments in school facilities, but also in terms of patterns of social interaction.

Research in educational performance in general and dropping out in particular indicates an important role for family variables — socioeconomic status, family configuration and family interaction — and suggests an overlooked but potentially meaningful role for community environmental factors. Coleman and associates (Coleman, 1988a; Coleman & Hoffer, 1987; Coleman, Hoffer & Kilgore, 1982) have performed a service by bringing these factors together in a theoretical orientation incorporating both family and community processes through the use of **human capital** and **social capital** theory to account for differences in the propensity to drop out.

Social Interaction As Capital

Social capital theory is a conceptual extension of human capital theory, which is itself an abstract extension of the concepts of physical and financial capital. Human capital theory was first developed by the economists Schultz (1962) and Becker (1962) to account for increases in productivity that could not be explained by improvements in technology or financial capital. The idea behind human capital is that the skills, talents and knowledge of people amount to a kind of "capital" analogous to financial assets. The theory suggests that, assuming people are rational, individuals make investments in their human capital stock with the expectation of realizing benefits — higher income and a better job — in the future. The principal avenues of human capital enhancement are formal and informal schooling and job training.

Human capital comes into play in the dropping out problem in terms of the family and community intellectual environment. It is known that children of parents with high educational attainment — therefore high human capital — tend to do better in school than those with low educational attainment (Alexander et. al., 1975). This

effect probably results from the transmission of values and expectations from the parents to their children as well as from the general cognitive environment of the home.

While human capital consists of individual skills, talents and knowledge, social capital is comprised of the interactions and networks of interactions among individuals. It is important to recognize at the outset that "social capital" is an inherently imprecise concept. "If physical capital is wholly tangible, being embodied in observable material products, and human capital is less tangible, being embodied in the skills and knowledge acquired by an individual, social capital is still less tangible, for it exists in the relations between persons" (Coleman, 1988b, pp. 382-383).

Though social capital is described as existing in social interaction and social organization, not all types of interaction constitute social capital. "Social capital, like physical and human capital, facilitates productive activity" (Coleman, 1988b, p. 383). Social interaction that does not facilitate productive activity does not constitute social capital, just as physical objects that do not facilitate productive activity do not comprise physical capital. *Trust* and *trustworthiness* are examples of forms of social capital in as much as groups having those qualities can accomplish more than groups not possessing them.

In the context of the study of dropping-out behavior, social capital is defined in terms of *relations* conducive to the outcome deemed relevant to higher productivity — in this case, staying in school. "Social capital is a resource which aids students in remaining in high school and aids schools in achieving their goals of educating and graduating these students" (Coleman, 1988b, p. 382). By facilitating the educational attainment process, social capital contributes to the formation of human capital.

At the level of the family, social capital reflects the nature of the relations that exist among family members. The accessibility of parents' human capital to the child depends in part on the physical presence or absence of the parents in the home, and in part on the quantity and quality of the interaction between parents and child. A family can have high human capital, but if the parents do not interact with the children, the human capital is less effective.

At the community level, social capital exists in the norms, social networks, and interactions between adults that facilitate or support educational attainment. The form of interaction most conducive to the enhancement of social capital is referred to as *intergenerational closure* by Coleman. Intergenerational closure is a

relationship structure in which "a child's friends and associates in school are sons and daughters of friends and associates of the child's parents" (Coleman, 1990, p. 318). In such a situation, other adults in the community are available to reinforce norms and values consistent with educational attainment.

Can Residential Communities be Functional Communities?

Supportive social interaction defines for Coleman and his associates the critical attributes of *functional* communities as contrasted with *residential* communities where people live but do not generate much social capital in the form of interaction among parents. They suggest that private schools of a religious, ethnic or social-elite nature, are constituted as integral parts of functional communities. Using a large, national data set generated from the *High School and Beyond* study, Coleman (1982, 1988a, 1988b) demonstrates that schools based on religious community have lower dropout rates and higher educational attainment than is the case with public schools.

Coleman did not, however, ascertain the extent of variability in community social capital associated with residential communities surrounding public schools. He argues that while residential communities were once also functional communities, geographic mobility and the individualism of modern society has brought about the separation of these two types of communities (Coleman & Hoffer, 1987, Coleman, 1990).

Substantial theoretical, if not empirical, grounds exist to support this view. The theme of the "terminal eclipse" (Wilkinson, 1986, p. 4) of local functional community is based on the view that in modern mass society individuals' functional dependence on local community has been replaced by attachments to outside corporations, national culture and international markets (Warren, 1978). Electronic and satellite technology have contributed to "territory-free networks" of social interaction (Wilkinson, 1990, p. 155). Territorial based interaction represents only one pattern of community, "a pattern that becomes less and less evident over the course of American history" (Bender, 1978, p. 6).

The "demise of community" thesis has not gone unchallenged, however. Wilkinson (1990, p. 154) argues that: "Unless suppressed by barriers to authentic social interaction, community always occurs where people live together, whether or not they recognize it and whether or not they like it." Individuals have many connections to the larger society, yet these connections

are made principally through interactions at the local level.

The situation may be, as Wilkinson (1990) avers, that those pronouncing the end of community have been looking for an idealized community, the "myth" of the "functionally integrated whole" community. Such communities may never have existed in the first place.

Granting that modern social conditions tend to erode a sense of local community, we nevertheless suggest that the process is historical and transformative rather than a radical dissociation between residence and functional community. As Reiss (1955, p. 57) observed: "If the postulate 'there is no community now' is valid, then a study of community is necessary for an understanding of 'why no community now' and for a prediction of 'will there be communities in the future, and if so, under what conditions?'"

We take the approach of treating social capital as varying across residential communities, rather than simply assuming its nonexistence on a priori grounds. We wish to ascertain whether variability in social capital in residential communities surrounding public high schools is associated with variations in dropout rates.

Specifically, the questions to be addressed in this paper are:

- * Do the financial and human capital characteristics of families and communities (that is, its background or contextual attributes) affect dropout behavior among public high school students in the South?
- * What influence, if any, does the strength of a residential-based communities' social capital have on the dropout behavior of students from public sector high schools in the region?
- * Does community social capital supplement the impact of family social capital on dropout behavior of public high school students?

METHOD

Our analysis is based on data collected as part of the *High School and Beyond* study conducted by the National Opinion Research Center on behalf of the National Center for Education Statistics, U.S. Department of Education. The initial phase of the survey, conducted in the Spring of 1980, involved a stratified national probability sample of over 1,100 high schools. Within each school, 36 sophomores (and 36 seniors)

were randomly selected. In the end, over 30,000 sophomores from 1,015 public and private high schools took part in the study (84% of the eligible sample). Each student completed a set of questionnaires that were designed to elicit information on individual/family background characteristics, high school experiences, work experiences, and future plans.

A follow-up study conducted during the early part of 1982 was targeted to all 1980 sophomores (now seniors) who participated in the 1980 survey. The intent of the follow-up was to continue documentation of the secondary school experiences of high school students. For persons who remained in school, a near duplicate version of the survey instrument administered two years earlier was employed. For the 1980 sophomores who had dropped out of school during the course of the two years, a specialized survey questionnaire was used, one that focused on the reasons for dropping out of school and the perceived impacts of dropping out on the educational and career goals of the student.

In order to better ascertain the impact of the social capital characteristics of the residential community on the dropout activities of high school students, it was decided to restrict the study to the following individuals: (1) Persons who participated in both the 1980 and 1982 surveys; (2) Students who were enrolled in the same school in both 1980 and 1982; (3) Individuals who dropped out of the same school in which they were enrolled during the 1980 study, and (4) Those students (or dropouts) from public high school institutions. These restrictions facilitate the assessment of the degree to which the human and social capital found in residential communities in 1980 have any demonstrable impact on the dropout (or non-dropout) behavior of local public high school students over the course of the 1980-82 period.

Focusing On the South

In addition to the preceding stipulations, only individuals living in the South were included. Though education is a pressing national issue, deficits in educational attainment are not distributed evenly from region to region. The South, in particular, is deficient in a number of educational categories.

The proportion of persons with less than a high school education is considerably higher in the South than in the other three major regions of the nation (U.S. Statistical Abstract, 1988). For those who do go on to high school, the chances of not graduating are higher in the South. Of the ten states with the lowest high school

graduation rates, six are in the South (State Education Performance Chart, 1990). According to Ekstrom et al. (1986), whites in the South are more likely to drop out than whites in other regions, but blacks in the South are less likely to drop out than blacks in other regions. Educational attainment is lower among nonwhites than whites in the South, and is lower in nonmetropolitan than metropolitan areas. Non-white students in the South have a higher proportion failing to complete high school and a lower proportion going to college for four or more years (U.S. Census, 1988).

The residential distribution of educational achievement in the South is uneven as well. The percentage of persons twenty-five years of age and older who have not graduated from high school is 24% in metro areas but almost 39% in nonmetro areas. Blacks living in nonmetropolitan areas in the South fail to graduate from high school at rates twice those of whites living in metropolitan areas but nonmetropolitan whites also have higher rates of non-graduation than metro whites (Ross, 1989). The relatively poor educational performance of students in the South provides the impetus for examining the antecedents of dropping out in the region.

Measurement of Variables

Table 1 outlines the variables examined in this study and specifies the manner in which they were measured. All variables included under the headings *family human and financial capital* and *family social capital* were those included in Coleman's (1988) *American Journal of Sociology* article titled, "Social capital in the creation of human capital." Coleman effectively demonstrates through this research the crucial role of family social capital on dropout patterns of high school students. Emulating the Coleman model permits us to better address the unique contribution that may be provided by the social capital of the community on high school dropout rates beyond that provided by family social capital.

With the exception of the variable "number of moves since grade five", the community human, financial and social capital items presented in Table 1 are unique to this study. While drawn from the *High School and Beyond* (HS&B) data files, they have not been treated conceptually in the manner used in the present study. In our view, the set of three variables incorporated under the title of *community human and financial capital* represent the socioeconomic milieu of the locality in which respondents live. The percent of the county

Table 1
Variables and coding scheme included in the logistic regression analysis

Variables	Coding Scheme
Dropout Status (FUSTYPE)	0= Did not drop out of high school between Spring, Grade 10 and Spring, Grade 12; 1= Dropped out of school
FAMILY MEASURES	
<i>Human & Financial Capital</i>	
Socioeconomic Status (BYSES)	Represents a composite of five components: (1) father's occupation; (2) father's education; (3) mother's education; (4) family income; and (5) scale of eight household possession items.
Black (FY101)	1=Black; 0=non-Black
Hispanic (FY102)	1= Hispanic descent; 0= non-Hispanic
<i>Social Capital</i>	
Number of siblings (FY106)	0= no siblings; 1= one sibling; 2= two siblings; 3= three siblings; 4=four siblings; and 5= five siblings; 6= six or more siblings;
Mother worked while child was young (BB037C)	0= mother did not work before child was in elementary school; 1=worked part-time; 2= worked full-time;
Both parents in household (BB036B - BB036E)	1= father (or male guardian) and mother (or female guardian) are present in the household; 0= household does not have both parents present.
Mother's expectation for respondent to go to college (BB050B)	1= mother expects college; 0= mother has no college expectation for the respondent
Talk with parents about personal matters (BB047G)	1= rarely or never; 2= less than once a week; 3= once or twice a week; 4= every day or almost every day
COMMUNITY MEASURES	
<i>Human & Financial Capital</i>	
County employment rate (CUNEMR80)	Percent of the 1980 county population that was employed. County designation is based on the location of the schools that participated in the study.
County per capita income (CPCPI80)	Per capita income of the county as a percent of the national average.
Location of School (SCRURB)	1= school is located in urban area (central city of an SMSA); 2=suburban (in an SMSA, but not in a central city); 3= rural (not located in an SMSA area).
<i>Social Capital</i>	
Number of moves since grade 5 (BY011)	1= respondent has never changed schools since starting 5th grade; 2= have changed schools once because of family moving; 3= moved twice; 4= moved three or more times.
Involved in youth activities (BB032M)	0= have not participated in youth clubs or organizations in the community; 1= have participated actively
Involved in church activities (BB032N)	0= have not participated in church activities, including youth groups; 1= have participated actively
School bond/tax increase issue (SB050A, SB050B)	0= no school bond issue or school tax increase referendum voted on in the school district over the last five years (1976-1980); 1= bond issue/tax increase referendum voted on but not passed; 2= bond issue/tax increase referendum voted on and passed
Parental interest in school (SB056D)	1= parents have a serious lack of interest in high school affairs; 2= moderate lack of interest; 3= lack of interest is only minor; 4= no problem at all with parental lack of interest in high school matters

Note: Variable names in parentheses are from the High School and Beyond data tapes.

population employed and the per capita income of the county as a percent of the national average were used in the HS&B study as indicators of the local labor market. We have added a measure of the size of place which the school is located because human and financial resources are most likely to be constrained in certain places such as rural areas. People living in rural counties are more likely to suffer from poverty, unemployment and underemployment, and are less likely to have a high level of education (Beaulieu, 1989; O'Hare, 1988; Reid, 1989; Tweeten, 1988).

In essence, the *community social capital* variables represent the degree to which students are socially integrated into the community and the magnitude of the commitment that the community has to the activities of the local public high school. Number of moves since grade 5 does not measure community social capital directly, but reflects the student's access to community social capital. Students who move from school to school do not stay in a community long enough to become integrated into the social structure. Student's level of involvement in local youth and church activities reflects the youth's integration into the community's social structure. The placement and passage of a school bond referendum or tax increase over the past five years, coupled with the level of parent interest in school matters, are surrogate measures that are employed to represent community commitment to the school system.

Statistical Analysis

The analysis was conducted using SAS's multiple logistic regression procedure. Multiple logistic regression is the preferred method for estimating the probability of a certain event occurring, in this case dropping out of school, for a given individual. A major advantage of logistic regression is that the independent variables can be discrete, ordered, continuous, or a mixture of all three. Multiple logistic regression calculates parameter estimates which are similar in interpretation to those of multiple linear regression. Asymptotic standard errors are used to assess the significance of individual regression coefficients (BETAs) and to calculate confidence intervals. The overall fit of the model is indicated by the model chi-square, degrees of freedom, and probability levels. A large model chi-square and small probability level indicate that the model is a significant improvement over an intercept-only model. With the inclusion of 16 independent variables and the dichotomous dependent variable, the number of respondents in the

South was 3,796. Of that number, 405 were identified as dropping out of school during the 1980-82 time period.

Interpretation of the results were clarified by estimating probabilities based on selected levels of independent variables in the fitted model. These probabilities are derived from the logits (log odds) of dropping out given one or more characteristics (e.g., student participates actively in church organizations), while controlling for the effects of other factors. The latter were set at their mean in calculating the logits.

FINDINGS

The first of the three questions that we sought to examine in this paper is: "Do the financial and human capital characteristics of families and communities affect dropout levels among public high school students?" Table 2 indicates that, as expected, family socioeconomic status is negatively related to dropping out. That is, higher levels of SES are associated with lower dropout rates. When controlling for socioeconomic status and the human capital and social capital variables in the model, race and Hispanic ethnicity fail to account for differences in dropout rates, though race does approach significance at the .05 level.

Contrary to expectations, the community-level secondary measures (county employment rate and county per capita income) demonstrate virtually no impact on dropout behavior. Surprisingly, size of place — urban, suburban, or rural residence — also has no significant influence on dropout rates, in a departure from previous studies on dropping out (Ross, 1989).

The second question, and one central to this study is: "What influence, if any, does the strength of the social capital in a residential-based community have on dropout patterns?" As Table 2 reveals, the number of times a high school student has moved since grade five — an indicator of the degree of social integration of the child into the community — accounts for more of the variance in dropout rates than any other variable. Whether or not the community votes for a school bond issue or a tax increase has no bearing on dropping out behavior. Likewise, student participation in youth activities such as boy scouts, girls scouts, YMCA, etc., has no influence on dropping out. However, involvement in church activities on a regular basis is significantly related to dropping out behavior. Additionally, parental interest in school matters, as determined by school administrators, approaches, but does not achieve, statistical significance.

Table 2

Logistic regression coefficients, standard errors, chi-square statistics, and probability levels for effects of family human, financial and social capital, as well as community human and social capital, on dropping out of public high school between sophomore and senior years, for the South, 1980-82.

Variable	BETA	Std. Error	Chi-Square	Prob.
<i>Intercept</i>	-2.632	0.578	20.7	0.000
<i>Family Human & Financial Capital</i>				
Socioeconomic Status	-0.357	0.092	15.0	0.000
Black	-0.307	0.162	3.6	0.059
Hispanic	0.206	0.138	2.2	0.137
<i>Family Social Capital</i>				
Number of siblings	0.182	0.33	30.7	0.000
Mother worked	0.126	0.063	4.0	0.047
Both parents in household	-0.338	0.141	5.8	0.016
Mother's college expectations	-0.776	0.119	42.7	0.000
Student talks with parents	-0.048	0.049	1.0	0.329
<i>Community Human & Financial Capital</i>				
County employment rate	-0.0007	0.001	0.6	0.427
County per capita income	-0.0004	0.004	0.0	0.919
Location of School	-0.041	0.086	0.23	0.628
<i>Community Social Capital</i>				
Number of moves since grade 5	0.392	0.050	62.3	0.000
Involved in youth activities	0.045	0.158	0.1	0.773
Involved in church activities	-0.449	0.122	13.6	0.000
School bond/tax increase issue	0.000	0.061	0.0	0.998
Parent interest/ school matters	-0.146	0.061	3.3	0.070

-2 Log Likelihood (Intercept only model) = 2577.80

Model Chi-Square = 289.14 with 16 d.f., p = 0.0

Of the five indicators of family social capital, only one — whether student talks regularly with parents — fails to achieve statistical significance. On the other hand, student perceptions of mother's college expectations for the student is the second most powerful indicator of dropping out behavior in the model. Also of considerable impact on dropout behavior is the number of siblings. The larger the number of siblings, the higher the chance of dropping out, providing some support for the dilution hypothesis. Those students whose mother's expect them to go to college are less likely to drop out of high school. Those students whose parents both live in the same household are somewhat less likely to drop out, while those whose mothers had worked since the student was young were slightly more likely to drop out.

A meaningful way of understanding the role of community social capital on dropping out of school is presented in Table 3. Estimates reported in this table are calculated from the logistic regression data presented in Table 2. The differential in the proportion of students who drop out for students who changed schools three or more times since grade 5 because of family moves compared to students who never moved is 11.8 percent. The difference is 3.3 percentage points between students who are and those who are not active in church organizations. When both factors are considered simultaneously, the differential is 16.5 percentage points between students who have never moved and do participate in church activities and students who have moved three or more times and do not participate.

The final question that we wanted to address in our study was this: "Does community social capital supplement the impact of family social capital on dropout behavior of public high school students?" The predicted dropout rates in Table 4 are based on the statistically significant *family social capital* and *community social capital* variables as reported in Table 2. For students whose parents have a high level of social capital (that is, two parents, only one sibling, mother who did not work when child was young, and mother who has college expectations for student) and who live in a community with high levels of social capital (where child has not moved since grade 5 and child participates in church activities), the dropout rate is predicted to be only 2.6 percent. If family social capital is high, but community social capital is low, the percentage of students dropping out increases to 11.9%. A slightly higher percentage (15.2%) is estimated when community social capital is high but family social capital is low. In those cases in which both community and family social capital is low, the dropout rate rises to a sizable 47.7%. These results make a compelling case for the importance of high social capital being available to students both in the family and in the broader community in which they live.

CONCLUSION

We set out to answer several questions pertaining to the effects of the several forms of "capital" on the

likelihood of dropping out. Not surprisingly, the data indicate that the financial and human capital characteristics of families summed up in the measure of socioeconomic status does have a substantial influence on dropping out behavior. Students from lower status families have a greater likelihood of dropping out. Unexpectedly, none of the measures of community human and financial capital were shown to exert any effect on dropping out. Rural-urban residence, county employment rates and county per capita income are all non-significant. This may be due to the fact that these variables are measured on a county level and may not accurately reflect the population density of the local community or the composition of employment and income of families in sampled schools.

The second research question is whether the dropout behavior of public high school students in the South is affected by the strength of the social capital in the community. Analysis of *High School and Beyond* suggests that differences in community social capital can make a substantial difference in individual propensity to drop out. Students who have changed schools three times or more because of family moves are almost three times more likely to drop out than students who have never moved. Students who have moved three or more times and do not participate in church organizations are almost four times more likely to drop out than students who have never moved and do participate in church organizations.

The third question addressed in our study is whether the strength of community's social capital

Table 3
Predicted dropout rates in the South between Spring, Grade 10, and Spring, Grade 12, for students whose communities differ in social capital, controlling for the family's social, human and financial capital.

	Percentage Dropping Out	Difference in Percentage Points
1. Number Of Moves Since Grade 5:		
Never moved	6.4	
Moved three times or more	18.1	11.8
2. Level Of Participation In Church Organizations:		
Do not participate	9.6	
Participate actively	6.3	3.3
3. Child's Community Integration:		
Never moved, participate in church organizations	5.1	
Moved three or more times, don't participate	21.6	16.5
4. Overall dropout rate	7.8	

Table 4
**Predicted dropout rates in the South between Spring, Grade 10 and Spring, Grade 12,
 for students whose families and communities differ in social capital,
 controlling for human and financial capital.**

COMMUNITY SOCIAL CAPITAL ^b	FAMILY SOCIAL CAPITAL ^a	
	Low	High
Low	47.7%	11.9%
High	15.2%	2.6%

^aHigh family social capital is defined as: (1) two parents present; (2) one sibling; (3) mother did not work when child was young; and (4) mother expects child to go to college. Low family social capital is defined as: (1) one parent present; (2) four siblings; (3) mother worked full-time when child was young; and (4) mother has no expectation for college.

^bHigh community social capital is defined as: (1) child has never changed schools since grade 5 because of a family move; and (2) child participates actively in church activities. Low community social capital is defined as: (1) child has changed schools 3 or more times since grade 5 because of family moves; and (2) child does not participate in church activities.

supplements the effects of family social capital on dropout behavior of Southern high school students. The statistical analysis indicates that high levels of community social capital can compensate for low levels of family social capital and that high levels of family social capital can likewise compensate for low levels of community social capital. When both community and family social capital are low, the odds of dropping out rise to about 50-50. However, when both community and family social capital are high, students are virtually assured of graduating.

Until confirmatory primary research using social capital variables can be conducted, the conclusions reached must remain conditional. Due to the abstract nature of the concept of social capital and the fact that *High School and Beyond* is a secondary data set not designed to explore residentially-based social capital attributes, some uncertainty remains concerning the validity of the social capital indicators. For example, involvement in youth activities such as boy (and girl) scouts and YMCA is not significantly related to dropping out behavior, while involvement in church activities exerts a substantial impact on dropping out. What is the relevant difference in these two types of community activities? Is church attendance really an indicator of community social capital or perhaps something else? These questions cannot be answered using the *High School and Beyond* data set, though the results thus far are suggestive of the value of further investigation of social capital in families and communities.

Public Policy Implications

The analysis presented in this paper provides modest support for the idea that the quality of interaction in families and communities can exercise an effect on student decisions to stay in school or to drop out. The logic of the theory suggests that familial and community interaction is needed in order to adequately socialize children to adopt the values relating to educational attainment and to make children feel integrated into the life of the family and community.

Family social capital is dependent on both the structure of the family and the interaction within it. Among the obstacles to creation of family social capital, the rise in single-parent households and increasing labor force participation of women are particularly problematic. Public policy designed to facilitate family social capital would seek to maximize parental involvement with their children. Laws allowing parents the right to take parental leave from work in the event of childbirth or children's sickness would be a step in the right direction. On-site day-care centers at parents' workplaces and flex-time work arrangements would provide opportunities for parents to spend more time with their children and accordingly serve to minimize the reduction of family social capital.

Strengthening the social capital of the communities surrounding schools involves a process of establishing and strengthening the interactions among par-

ents of students, thus generating intergenerational closure. Parent Teacher Associations are one institution already in place that holds the potential for building social capital. School administrators and teachers can initiate school fund-raising and other collective activities that bring parents together. Community-based after-school care for children is another way that communities can demonstrate support for families and children. Along a similar line, child-care cooperatives are an idea that would not only foster parent-child interaction, but would also promote the parent-parent interaction that creates the intergenerational closure needed to engender community social capital.

Sensitizing community leaders to social capital issues is another important step. Leaders in the community can take a more active role in promoting and facilitating the social integration of youth, regarding schools and the education process as an integral part of the community, rather than an isolated institution. In addition to on-site day-care and flex-time for workers who are parents, apprenticeship programs are one way that businesses can work with schools in promoting achievement and reinforcing norms and values of educational attainment. Other innovative possibilities exist (Coleman, 1990), such as organizing schools by the workplace as in university laboratory schools. In such a school, parents of students are also friends and associates, providing the intergenerational closure conducive to the augmentation of social capital.

For individuals, the decision to drop out of high school increases the chances of economic deprivation and stunted life opportunities. For society, dropping out represents a failure to develop the human capital needed to sustain a prosperous economy. Social capital theory suggests that part of the answer lies in promoting the kind of supportive social arrangements that convey to children the message that society really cares about their well-being and values their full participation in the life of the community.

Notes

¹The decision to emulate the Coleman model of family and community human and social capital led to the neglect of school effects on dropping out. School context effects on educational outcomes are reported by Marsh (1991) using *High School and Beyond*. Also using HS&B, Bryk and Thum (1989) found that less internal differentiation and stronger normative environments in schools decrease the likelihood of dropping out. School environments are a likely candidate for future application of the social capital framework.

References

- Alexander, K. L., Eckland, B. K., & Griffin, L. J. (1975). The Wisconsin Model of Socioeconomic Achievement: A replication. *American Journal of Sociology, 81*, 324-342.
- Beaulieu, L. J. (1989). Building partnerships for people: Addressing the rural South's human capital needs. Southern Rural Development Center: Mississippi State University.
- Becker, G. S. (1962). *Human capital*. Chicago: University of Chicago Press.
- Bender, T. (1978). *Community and social change in America*. New Brunswick: Rutgers University Press.
- Blake, J. (1981). Family size and the quality of children. *Demography, 18*, 421-442.
- Bryk, A. S., & Thum, Y. M. (1989). The effects of high school organization on dropping out: An explanatory investigation. *American Educational Research Journal, 26*, 353-383.
- Coleman, J. S. (1988a). Social capital in the creation of human capital. *American Journal of Sociology, 94*(Suppl.), 95-120.
- Coleman, J. S. (1988b) The creation and destruction of social capital: Implications for the law. *Notre Dame Journal of Law, Ethics and Public Policy, 3*, 375-404.
- Coleman, J. S. (1990). *Equality and achievement in education*. Boulder: Westview.
- Coleman, J. S., & Hoffer, T. (1987). *Public and private high schools: The impact of communities*. New York: Basic Books.
- Coleman, J. S., Hoffer, T. & Kilgore S. (1982). *High school achievement*. New York: Basic Books.
- Ekstrom, R. B., Goertz, M. E., Pollack, J. M., & Rock D. A. (1986). Who drops out of high school and why? Findings from a national study. *Teachers College Record, 87*, 356-373.

- Feldstein, M. & Ellwood, D. T. (1982). Teenage unemployment: What is the problem? In R. B. Freeman & D. A. Wise (Eds.), *The youth labor market problem: Its nature, causes and consequences* (pp. 17-33). Chicago: University of Chicago Press.
- Kaufman, H. F. (1959). Toward an interactional conception of community. *Social Forces*, 38,(1), 8-17.
- Kent, N., & Davis, D. R. (1957). Discipline in the home and intellectual development. *Developmental Psychology*, 30, 27-33.
- Luloff, A. E., & Wilkinson, K. P. (1979). Participation in the national flood insurance program: A study of community activeness. *Rural Sociology*, 44, 137-152.
- Marjoribanks, K. (1972). Ethnic and environmental influences on mental abilities. *American Journal of Sociology*, 78, 323-337.
- Marsh, H. W. (1991). Failure of high-ability high schools to deliver academic benefits commensurate with their students' ability levels. *American Educational Research Journal*, 28, 445-480.
- National Center for Education Statistics. (1982). *Digest of educational statistics, 1982*. Washington, D.C.: U.S. Government Printing Office.
- O'Hare, W. P. (1988 July). The rise of poverty in rural America. Washington, D. C.: Population Reference Bureau, Inc.
- Pallas, A. M. (1986). *The determinants of high school dropout* (Report No. 364). Baltimore: Center for Social Organization of Schools.
- Reid, J. N. (1989). The rural economy and rural youth: Challenges for the future. *Research in Rural Education*, 6,(2) 17-23.
- Reiss, A. J. (1955). Some logical and methodological problems in community research. *Social Forces*, 51-57.
- Ross, P. J. (1989). Human resources in the South: Directions for rural sociology in the 1990's. Presidential Address presented at the 1989 Annual meeting of the Southern Rural Sociological Association, Nashville, TN.
- Schultz, T. W. (1962). *Investment in human capital: The role of education and research*. New York: The Free Press.
- State Education Performance Chart. (1990). Student performance, state reforms, and population characteristics, 1982 and 1989. Washington, D.C.: U.S. Department of Education, Office of Planning, Budget and Evaluation.
- Statistical Abstract of the United States*. (1988) Washington, D.C.: U.S. Government Printing Office.
- Tweeten, L. G. (1988) Elements of a sound rural development policy. *Research in Domestic and International Agribusiness Development*, 9, 103-111.
- U.S. Bureau of the Census (1988). Poverty in the United States 1986. *Current population reports* (Series P-60, No. 160.) Washington, D.C.: U.S. Government Printing Office.
- Wagenaar, T. C. (1987). What do we know about dropping out of high school? *Research in the Sociology of Education and Socialization*, 7, 161-190.
- Walberg, H. J., & Marjoribanks, K. (1976). Family configuration and cognitive development: Twelve analytic models. *Review of Educational Research*, 46, 526-551.
- Warren, R. (1978). *The community in America*. Chicago: Rand McNally and Co.
- Wehlage, G., & Rutter, R. A. (1986). Dropping out: How much do schools contribute to the problem? *Teachers College Record*, 87, 374-392.
- Widlak, P. A., & Perrucci, C. C. (1988). Family configuration, family interaction, and intellectual attainment. *Journal of Marriage and the Family*, 50, 33-44.

Wilkinson, K. P. (1970). The community as a social field. *Social Forces*, 48,(3), 311-322.

Wilkinson, K. P. (1979). Social well-being and community. *Journal of the Community Development Society*, 10,(1), 5-16.

Wilkinson, K. P. (1986). In search of the community in the changing countryside. *Rural Sociology*, 51, 1-17.

Wilkinson, K. P. (1990). Crime and community. In A. E. Luloff, E. Swanson (Eds.), *American rural communities*. Boulder: Westview Press.

Zajonc, R. B. (1976, April 16). Family configuration and intelligence. *Science*, 192, 227-235.

Zajonc, R. B., & Markus, G. B. (1975). Birth order and intellectual development. *Psychological Review*, 82, 74-88.