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Poor Rural Neighborhoods and Early School Achievement

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ABSTRACT

School consolidation and the search for economies of scale are threatening to render the neighborhood school obsolete. Nevertheless, students and their families do live in neighborhoods. Consequently, education researchers have asked if there are neighborhood-based advantages and disadvantages which influence student achievement. Research has yielded conflicting results. This may be due to failure to properly define and measure neighborhood, acknowledging variation in its nature from place to place. We use ethnographic material to help operationalize the concept neighborhood for use in quantitative research on two very poor, rural counties in West Virginia. We then do a contextual analysis to gauge neighborhood effects among kindergarten children in twelve randomly selected elementary schools. Poor, rural West Virginia neighborhoods turn out not to be the uniformly socially disorganized, culturally pernicious contexts which gave rise to the dubious concept culture of poverty. Instead, they can be sources of safety and stability, where extended families endure, like-minded neighbors are socially accessible and supportive, and early school achievement is enhanced.

KEY WORDS: RURAL POVERTY; NEIGHBORHOOD; SCHOOL ACHIEVEMENT

In an era of cult-of-efficiency institutional restructuring, questions as to the best size for any school are often expressed in the scientific management terms of organizational efficiency (Bickel and Howley, 2000). For many education policymakers and administrators, this has come to mean bigger-is-better, and school consolidation has proceeded apace (Stevenson, 1996; Boex and Martinez-Vasques, 1998; Lyons, 1999; also see Keller, 2000). The small, neighborhood school has recently acquired a growing group of proponents, but they remain a minority (see, for example, Funk and Bailey, 1999; Howley and Bickel, 1999; Stiefel, Berne, Iatarola, and Fruchter, 2000).

Consequently, as districts seek to reduce costs through consolidation, schools become geographically and socially removed from their constituents' everyday world (Howley and Harmon, 1996). When neighborhood schools are dismissed as romanticized historical artifacts, schools are isolated from the lives of students and their families (Howley, Bickel, and McDonough 1997). Some argue that this is a price we must pay for living in a rationally calculable modern world (Fleishman, 1994).

NEIGHBORHOOD EFFECTS

Whether or not the neighborhood school is obsolete, however, children and their parents do <u>live</u> in neighborhoods. A recurring issue concerns whether or not neighborhoods, as identifiable social entities, have measurable effects on school outcomes, especially student achievement. This holds whether schools are large or small, consolidated or local.

RESEARCH QUESTION

In the following, we critically examine the concept neighborhood, focusing on two contiguous, very poor counties in rural West Virginia. Using ethnographic data, we seek to describe the reality of neighborhood in poor, rural settings. Then, with two hundred ninety-two kindergarten students in a data set collected from twelve randomly selected elementary schools in the counties which occasioned our ethnographic work, we seek to operationalize our understanding of neighborhood for this time and location. With a judiciously selected complement of controls in place, we use contextual analysis in an effort to discern neighborhood effects on early student achievement (Boyd and Iversen, 1979; Singer, 1987; Iversen, 1991).

The primary question we are asking is as follows: can we identify independent, neighborhood-based advantages and disadvantages which students bring with them to school, or can such advantages and disadvantages invariably be reduced to the confounding of neighborhood with social class and family background? We pose this question specifically with regard to neighborhoods which are rural and quite poor, places where many observers think salutary neighborhood effects are least likely to occur (Barry and Gunn, 1996; Solon, Page, and Duncan, 2000).

BELIEVERS

Those who claim that neighborhood quality is related to school achievement are inclined to see neighborhoods as inevitably having a multi-faceted and consequential

influence on their residents (Garner and Raudenbush, 1991; Devine, 1996; Clampet-Lundquist, 1998). This seems to be especially true for young children, simply because their limited geographic mobility forces them to spend so much of their time and social energy in a neighborhood context (Furstenburg and Hughes, 1994; Ensminger, Lamkin, and Jacobson, 1996). Neighborhood is the locus of their world view, the place where they first establish out-of-family relationships, and neighborhood provides circumstances regulating the way they begin to think about the world at large (Pride, 2000). Believers in neighborhood effects acknowledge that the type of neighborhood one grows up in is powerfully affected by its members' social class, but they also argue that neighborhood cannot be reduced to social class (Vartanian and Gleason, 1999).

SKEPTICS

Others, however, have made compelling and influential empirical arguments that neighborhood effects are really family background and social class effects (Mayer and Jencks, 1989; Solon, Page, and Duncan, 2000). Thus, one conspicuous reason for the no-neighborhood-effects view is that evidence for such influences often can be interpreted as nothing more than an aggregate of individual outcomes. Children from the same neighborhood tend to achieve similarly because they have similar social class backgrounds (Fields and Smith, 1998). Variation in family economic resources, rather than neighborhood variation, accounts for misconstrued neighborhood effects (Vartanian and Gleason, 1999: 2403). In this view, given a suitable set of statistical controls for family background and social class, neighborhood effects disappear.

JOINING THE DEBATE

Whatever the prognosis for the neighborhood school, the existence of neighborhood effects on school achievement and other outcomes remains a subject of inquiry. As above, the central question can be stated as follows: can we identify independent, neighborhood-based advantages and disadvantages that students bring with them to school, or can such advantages and disadvantages invariably be attributed to confounding of neighborhood with family background and social class?

RURAL NEIGHBORHOODS

Almost all research on neighborhood effects has been limited to urban and suburban areas (Van Horn, 1999). In large measure this may be due to the fact that the concept neighborhood makes more geographical sense in non-rural areas, where rows of houses are located side by side along both sides of a street, or apartment complexes and public housing projects provide physically dense collections of residences (Brantlinger, 1993; Cummings, 1998; Van Horn, 1999). This stands in sharp contrast to the geographical dispersion, with occasional clusters of a few houses, which typifies rural areas, leading some to ask if rural neighorhoods can be identified (Howley, 1997; Spatig, Parrot, Carter, Kusimo, and Keyes, 2000).

POOR, RURAL NEIGHBORHOODS

When residents of rural areas are uniformly quite poor, most observers assume that neighborhood effects, if they exist, must take the form of debilitating disadvantages (Bickel, McDonough, and Williams, 1999; Petee and Kowalski, 1993). Neighborhood-based advantages, in this view, are undercut by a rural culture of poverty (Vartanian and Gleason, 1999). Presumed constituents of this culture of poverty include failure to value education, lack of interest in upward mobility, commitment to outmoded ways of making a living, excessive alcohol and tobacco consumption, poor diet, and reckless sexual promiscuity (Bickel and McDonough, 1997).

Even neighborhood-effects skeptics have acknowledged that when conditions as starkly adverse as these predominate, pernicious neighborhood effects may emerge (Solon, Page, and Duncan, 2000). If poor, rural neighborhoods exist, it seems, they have the same debilitating effects as those ascribed to the most socially disorganized inner-city slums (Spatig, Parrot, Carter, Kusimo, Keyes, 2000; also see Devine, 1996 and Anyon, 1997).

Given the uncertain status of the concept neighborhood in rural areas, and in view of wide-spread presumptions as to the existence of a culture of poverty, it is not surprising that variability in neighborhood effects on school achievement in poor, rural areas has not been investigated. The unspoken presumption seems to be that either the effects don't exist, or they don't vary, always being negative.

WHAT IS A POOR, RURAL NEIGHBORHOOD?

As the foregoing suggests, a useful answer to "What is a neighborhood?" varies with time and place. Research on neighborhood effects must acknowledge the context-specific nature of neighborhood if that construct is to be usefully conceptualized and neighborhood effects are to be accurately gauged (Furstenburg and Hughes, 1994).

AN ETHNOGRAPHICALLY GROUNDED DESCRIPTION

To formulate an empirically grounded description of an ideal-typical rural West Virginia neighborhood, we have used ethnographic research done over the past seven years in rural counties on the state's western border with Ohio and Kentucky, and in the southern coal fields. The ethnographic data is based largely on open-ended interviews and focus groups involving students, teachers, and parents in rural schools.

This fieldwork was done as part of various grant-funded projects. None, however, was explicitly intended to elicit information concerning the characteristics of rural West Virginia neighborhoods. As such, the ethnographic data is used as the basis for a secondary analysis.

PHYSICAL DISPERSION

Geographically, a rural West Virginia neighborhood is characterized by the absence of central place residential organization. The homes and families which constitute a rural

neighborhood are dispersed, singly and in occasional clusters of two or three dwellings, with the clustered houses often belonging to members of the same extended family.

Typically, moreover, whether because of distance or the interference of alternating hills and valleys, the nearest neighbors are out of sight and out of ear shot. Not infrequently, they are several miles removed.

In a focus group with parents of children attending a small rural elementary school in the impoverished southern coal fields, a mother of a kindergarten student made the reality of this unpatterned geographical dispersion clear:

> "People [from outside] don't know what neighborhoods are here. We know everybody on a first-name basis, but we don't live close by. I don't see many of my neighbors that often. The school is the only center of the community".

RURAL TRANSPORTATION

Geographic dispersion is exaggerated by roads which are difficult to navigate, bridges condemned by the state, and the absence of public transportation. Rural residents give voice to mixed feelings about barriers to travel. On the one hand, they like the uncluttered, unhurried rural environment where "traffic is not a problem," "people aren't going through all the time," and "you feel safe." On the other hand, access to valued activities is sometimes difficult.

For example, a rural district on West Virginia's border with Ohio has three high schools, the smallest of which is sometimes referred to as a "red-headed stepchild." This characterization reflects budget cutting and diminished academic offerings which follow from the expectation that the school will soon fall victim to consolidation. The district office seeks to minimize the importance of this issue with a free choice policy, whereby "if you can get to a bus stop you can go to any school you want," thereby avoiding the under-funded, poorly maintained facility. This rural district, however, covers nearly five hundred square miles, and its curvy, narrow, two-lane roads make for slow going. School buses leave early and arrive late. Practical transportation problems make school choice difficult or impossible for students to exercise.

Similarly, residents seeking employment that will enable them to live in the same rural neighborhood in which they were born and raised often face formidable commuting problems. A high school student from the southern coal fields put it this way:

> "Even if you get a decent paying mining job, you're worked to death and then you have to drive two or three hours one way on bad roads that the coal trucks tear up."

INFORMAL BUT PREDICTABLE FACE-TO-FACE ENCOUNTERS

In spite of the geographical dispersion and transportation difficulties, neighbors, for these rural West Virginians, are people with whom they have repeated and predictable, even though not frequent or formally scheduled, face-to-face encounters. Neighborhood is manifest in a network of informal social relationships which inheres in and reinforces a set of common expectations and routine behaviors.

Open-ended interviews with teachers at the smallest and most remote high school in a rural county near the western border with Ohio illustrate this. One of the participants, a soon-to-retire, life-long resident with more than thirty-five years as a teacher, coach, and principal replied as follows when asked to name the best things about the school:

"The best would be the size and the kids. If a student's academics or behavior are a problem, there's a good chance you'll run into their parents at the store. You can let them know, and they'll take care of it."

This holds even though dispersion, distance, and the limitations of rural transportation make such informal contact relatively infrequent.

SOCIAL STABILITY

Thus, in spite of obvious obstacles, casual, purposeful, person-to-person accessibility is taken for granted. The same is true for a common world view. Residents of rural West Virginia neighborhoods take it for granted that almost all of their social encounters will be with people whom they know, who have lived similar lives, and who see things much as they do. Informal social accessibility and common outlook provide invaluable guarantees of social order, "a common arena within which people arrive at a fairly standard code for deciphering and evaluating one another's behavior" (Cummings, 1998: 29).

Students, too, are sensitive to and value these traditional sources of stability, predictability, and safety. This, in addition to long bus roads, is a frequently given reason why students, much as their parents, are opposed to school consolidation. In one of the state's poorest rural districts, with only forty-eight residents per square mile, a high school sophomore responded to the prospect of consolidation in this way:

"No one knows your name ... There are more fights ... There are drugs and guns – kids bring guns to school! ... The individual does not matter."

Parents, too, told of "horror stories" about nearby counties' large, impersonal, "out of control" consolidated high schools. These accounts were given nearly a year before the killings at Columbine (also see Spatig, Parrot, Carte, Kusimo, Keyes, 2000).

LIMITED SOCIAL DENSITY

Rural residents do not share in the dense pattern of varied and frequent social encounters which characterizes modern life in cities and suburbs. Nevertheless, rural residents expect their comparatively infrequent encounters to be friendly, informal, almost familial, and socially useful. Most social interaction will occur, moreover, with experientially similar, like-minded people. Social relationships, in a real sense, are primary and wholistic, without the role specificity and impersonality which typifies much of non-rural life.

Similarly, rural residents expect their shared lives to be regulated by common cultural prescriptions and constraints. Again, this holds even though the frequency of their interactions with neighbors who are not also family members is limited.

RECIPROCITY OF PERSPECTIVES

A uniform worldview, based on a life of common experiences in a shared rural setting gives rise to a comfortable and unquestioned reciprocity of perspectives. Rural residents assume that their neighbors can put themselves in their place, unself-consciously behave as they do, and understand how they feel. The process of taking the role of the other has not been undermined by the exaggerated experiential diversity which characterizes the non-rural modern world. The mother of a student attending a small rural high school chronically threatened with consolidation put it this way:

"The educational benefits of a large school are not worth it if you lose your values. They feel real comfortable coming here, they're accepted ... they look after each other ... It's much easier to know what kids will do and keep track of what's going on.

MEASURING NEIGHBORHOOD QUALITY IN RURAL WEST VIRGINIA

Rural neighborhoods, however, vary in the degree to which they conform to the foregoing characterization. Actually measuring rural neighborhood quality in these two poor, rural counties was accomplished through use of quantitative data already collected as part of an evaluation of a federally funded early intervention pilot program, called Post-Head Start Transition (Bickel, and McDonough, 1997; Bickel and Spatig, 1999). For this evaluation, the Administration for Children, Youth, and Families had mandated application of a neighborhood scale developed by Furstenberg, Cook, Eccles, Elder, and Samerhoff (1999), made up of thirty-six Likert items divided into six subscales. Based on the ethnographic account presented above, we borrowed items from three of the subscales, Social Control, Negative Effects, and Rating of Neighborhood, for the present analysis of rural neighborhood effects.

The eleven items which we used are reproduced in Table II, and the psychometric properties of our scale are reported in Table III. While constrained by the thirty-six items available in the original instrument, the eleven items we selected come closest to

reflecting our ethnographically informed understanding of the distinctive qualities of rural neighborhoods: quiet privacy coupled with the knowledge that neighbors are there if you need them, though not in close proximity. Cultural homogeneity based on a common set of life experiences, providing a basis for everyday behavior. Social order and stability rooted in a shared world view, and a willingness to purposefully respond to threats to this world when the need is clear. A safe and secure neighborhood, worth the inconveniences the rural world may occasion.

If we had the opportunity to generate scale items of our own, the correspondence between the items and our ethnographic data would be a good deal closer, and face validity would be enhanced. Given that our data collection instruments were mandated by a funding agency, however, we will rely on our subset of eleven items, especially since this modified scale has desirable psychometric properties, as displayed in Table III.

DATA SET

Data were collected from two cohorts of students, the first entering kindergarten in 1992 and the second in 1993. The twelve elementary schools in which students enrolled were randomly selected from all elementary schools in these two contiguous, rural counties in western West Virginia. Seven schools were selected from the twenty-one elementary schools spread across the larger of the two counties, and five from the twelve elementary schools in the smaller county. The schools are small, with a mean

kindergarten enrollment of twenty-five students. Nine of the schools have only one kindergarten class, and three have two classes. One hundred ninety-six students were from schools in the larger of the two counties, and ninety-six from the smaller.

At the beginning of their kindergarten year, the two hundred ninety-two kindergarten students in the data set had a mean family income of $10,800. Eighty-five percent had a family income below $21,000. This included earnings from employment, AFDC, child support, SSI, and retirement benefits; the dollar value of food stamps was excluded. County-to-county differences in these figures were negligible.

Just over seventy-five percent of our parent respondents were high school graduates or had completed a GED program, and six percent were college graduates. Nine percent of the students were Black; all other students were White.

CONTEXTUAL ANALYSIS

The contextual analyses reported in Tables V through VII were done using ordinary least squares estimators, according to procedures presented in Boyd and Iversen (1979), Singer (1987), and Iversen (1991). Individual-level effects gauge the relationships between characteristics of students as individuals and student achievement. Group-level or contextual effects are measured by aggregating the same variables to the school level, and gauging the relationship between school context and student achievement.

Interaction effects measure variability in individual-level relationships from one school context to another.

As already explained, nine of the schools have only one kindergarten class, and three have two classes. This means that class and school are thoroughly confounded in the organization of these twelve elementary schools, so group-level effects are estimated for schools, but not for classrooms. After all, for the nine schools that have only one kindergarten class, school effects and classroom effects would be the same.

Residual intraclass correlation coefficients and their corrected effects on standard errors of regression coefficients are included for each analysis (Singer, 1987; Cook, 2000). Also reported are Condition Indices, all well below ten, indicating that the rather large number of independent variables has not given rise to troublesome multicollinearity (Chaterjee, Hadi, and Price, 2000: 247-249).

CENTERING

One important reason why multicollinearity does not pose a problem is that all individual-level variables are centered with respect to their group means, and all group-level variables are centered with respect to the overall mean. Centering helps us avoid intractable multicollinearity by eliminating associations among individual-level and group-level variables and the multiplicative interaction terms created from them (Iversen, 1991: 35-46).

DEPENDENT AND INDEPENDENT VARIABLES

The dependent variables in Tables V through VII are the Peabody Picture Vocabulary Test (SPEABODY), the Woodcock-Johnson 22-Revised (SWOOD22), and the Woodcock-Johnson25-Revised (SWOOD25), administered in the Spring, at the end of the kindergarten year. As with all other variables, use of these tests was mandated by the Administration for Children, Youth, and Families for evaluating Post-Head Start Transition.

TABLE I ABOUT HERE

SPEABODY is widely used as both a test of oral vocabulary achievement and verbal ability. SWOOD22 is widely used as a test of letter-word identification achievement. SWOOD25 is widely used as both a test of applied problem solving achievement and quantitative ability (Dunn and Dunn, 1981; Woodcock and Mather, 1990). In each of these analyses, students' scores on a Fall administration of the same test is used as a pretest, and included among the independent variables.

As noted above, the Rural Neighborhood Quality Scale score (NEIGHBOR) is the independent variable of primary interest. NEIGHBOR is described in Tables I and II, and its psychometric properties are reported in Table III.

TABLE II ABOUT HERE

TABLE III ABOUT HERE

The other independent variables are family income (INCOME), education of the adult

respondent (ED), respondent's ethnicity, whether Black or White (ETHNIC), a ten-item

parenting skills scale score (PARENT), and a five-level scale designed to assess each

student's general health level (HEALTH). Each of these independent variables is

described in Table I, and descriptive statistics for all variables appear in Table IV.

As with the pre-tests, these additional independent variables serve primarily as

controls. We are not indifferent to their effects, but we remain more interested in the

question of primary concern in this research: can we identify independent, neighborhood-

based advantages and disadvantages which students in these poor, rural areas bring with

them to school? Or can such advantages and disadvantages invariably be reduced to the

confounding of neighborhood with family background and social class? The additional independent variables, therefore, are primarily controls for family background, social class, and closely related factors. Neighborhoods in the counties we are studying are quite poor and rural, but not so homogeneously so that usual measures of social class and family background do not vary in consequential ways.

RESULTS: POSTTEST SCORES AS OUTCOME MEASURES

Tables V through VII report contextual analyses using the three posttests as dependent variables. As is almost always the case, pretest scores, in each instance, have strong relationships with the outcome measures. This applies at both the individual and group levels for all three tests, SPEABODY, SWOOD22, and SWOOD25. In each instance, individual students' Fall test scores are the most powerful predictors of their Spring scores on the same tests. In addition, the mean pretest score in the school context in

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TABLE V ABOUT HERE

TABLE VI ABOUT HERE

TABLE VII ABOUT HERE

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which a student participates also has substantial positive effects on Spring scores for all

three outcome measures. Being affiliated with high or low scoring peers tends to

enhance or diminish an individual students' performance.

NEIGHBORHOOD EFFECTS ON STUDENT ACHIEVEMENT

Our primary interest, of course, is in determining if there are neighborhood quality

effects on student achievement in these poor, rural neighborhoods. We find such effects

at the group level for all three outcome measures. For each of the dependent variables,

SPEABODY, SWOOD22, and SWOOD25, NEIGHBOR has a statistically significant

and positive group-level or contextual effect. On average, for each one-unit increment in

NEIGHBOR measured at the group level, SPEABODY increases by 1.035 points,

SWOOD22 increases by 0.271 points, and SWOOD25 increases by 0.405 points. This

holds, moreover, with all controls in place. Since NEIGHBOR measured at the group

level ranges in value from 29 to 41, this means that, on average, the posttest score

difference between kindergarten children in the best and worst poor, rural neighborhoods in our data set would be 12.42 points for the SPEABODY, 3.25 points for the SWOOD22, and 4.86 points for the SWOOD25. For each test, this is equivalent to roughly one standard deviation unit, a substantial amount, especially since this applies to the kindergarten year only.

The group-level effects of NEIGHBOR tell us that, in general, students' posttest scores are enhanced or diminished if they are in a school with students who, on average, are from high or low quality neighborhoods. Neighborhood effects on achievement, in other words, are products of the context provided by aggregations of students with varying values of NEIGHBOR in elementary school settings.

While there are a few other statistically significant regression coefficients, none of the other variables exhibits the analysis-to-analysis consistency we found with individual-level and group-level pretests, and with NEIGHBOR at the group-level.

GROUP-LEVEL NEIGHBORHOOD EFFECTS

In his ethnographic classic, The Urban Villagers, Herbert Gans (1962) describes an ethnically homogeneous, normatively cohesive neighborhood which provides a social and cultural home for its economically self-sufficient working class residents. Nevertheless, city officials with newly minted federal money off-handedly mistake it for a slum, and the neighborhood becomes a casualty of urban renewal.

Similarly ill-informed and misguided typifications seem also to apply to the poor, rural West Virginia neighborhoods which provide the focus for our research. These neighborhoods are not the sort of uniformly socially disorganized, culturally thin contexts which first gave rise to the dubious concept culture of poverty (cf. Auletta, 1982). Instead, they can be sources of safety and stability, where extended families endure and like-minded neighbors are socially accessible and supportive, even if usually out of sight.

Imagine, then, a group of kindergarten students starting off in a small elementary school. Most, by any conventional standard, are quite poor. All live in rural neighborhoods which, in varying degrees, approximate those described above. If a sense of safety, stability, social cohesion and shared world view pervades the neighborhood, students bring this with them to school. This provides the basis for an in-school neighborhood, a secure and hopeful environment where children are not socially isolated nor culturally adrift nor morally indifferent, as stereotypes of the poor and the rural would have it. Instead, this kind of neighborhood provides the social and cultural wherewithal for learning to occur. On the other hand, insofar as neighborhood quality is diminished, learning and measured achievement are undercut for these poor, rural children.

Throughout this paper we have emphasized one central question: can we identify independent, neighborhood-based advantages and disadvantages which students bring with them to school? We have found that in twelve elementary schools located in two poor, rural West Virginia counties we can. These neighborhood effects, moreover,

cannot be reduced to the confounding of neighborhood with family background and social class.

CONCLUSION

Education policymakers' enthusiastic commitment to consolidation and ever-larger schools may soon moderate. Faced with substantial empirical research which demonstrates that smaller schools, by most measures, are more productive than larger ones, the understandable appeal of economies of scale may become less compelling. Perhaps it is premature to relegate the small, neighborhood school to obsolescence, a quaint artifact of American educational history.

Whether or not this is the case, the foregoing analysis has joined ethnographic and quantitative research in an effort to dispel some of the ambiguity surrounding the concept neighborhood and its consequences. Having done so, we were able to demonstrate that neighborhood effects on early school achievement do, in fac, exist in what many take to be the most unlikely places. With controls for family background and social class in place, we found independent and positive group-level neighborhood effects with each of our three achievement test outcome measures. We found these effects in neighborhoods that are rural and, by any standard, quite poor.

These are the kinds of neighborhoods which, according to prevailing assumptions, might be expected to undercut early student achievement, but never to enhance it. Sometimes they are dismissed as not neighborhoods at all.

We have found that poor, rural neighborhoods do, indeed, exist, and their quality varies in ways which makes neighborhood effects discernible and measurable. As neighborhood more closely approximates the configuration we derived from our ethnographic data, early school achievement, on average, is enhanced. As neighborhood departs further from this configuration, achievement, on average, is diminished. Misguided typifications to the contrary, poor, rural West Virginia neighborhoods are not the sort of uniformly socially disorganized, culturally pernicious contexts which gave rise to the dubious concept culture of poverty. Instead, they can be sources of safety and stability, where extended families endure and like-minded neighbors are socially accessible and supportive.

There is no virtue in being poor, and rural life, when not perniciously stereotyped, is too often romanticized. Nevertheless, we have found that very poor, rural neighborhoods can -- and do -- contribute to a social and cultural foundation which has a surprisingly consistent and strong effect on early student achievement.

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Table I

Dependent Variables

SPEABODY   Peabody Picture Vocabulary Test. End of Kindergarten
            (Oral Vocabulary Achievement and Verbal Ability. Split-
            Half Reliability = .80*).

SWOOD22   Woodcock-Johnson 22. End of Kindergarten (Letter-Word
            Identification Achievement. Split-Half Reliability = .91*).

SWOOD25   Woodcock-Johnson 25. End of Kindergarten (Applied
            Problem Solving Achievement and Quantitative Ability.
            Split-Half Reliability = .84*).

Independent Variables

FPEABODY   Peabody Picture Vocabulary Test. Beginning of Kindergarten
            (Oral Vocabulary Achievement and Verbal Ability).

FWOOD22   Woodcock-Johnson 22. Beginning of Kindergarten (Letter-word
            Identification Achievement).

FWOOD25   Woodcock-Johnson 25. Beginning of Kindergarten (Applied
            Problem Solving Achievement and Quantitative Ability).

NEIGHBOR   Eleven Item Neighborhood Quality Scale, Adapted from Furstenberg,
            Eccles, Elder, and Samerhoff (1990). Cronbach's Alpha = .88.

PARENT   Ten Item Parenting Dimensions Inventory, Adapted from Slater
            and Power (1987). Cronbach's Alpha = .83.

INCOME   Family Income in Fifteen Levels.

ED   Education of Adult Respondent, in Twelve Levels.

ETHNIC   Ethnicity, Coded 1 if White and 0 if Black

HEALTH   Adult Respondent's Rating of Child's Health's, in Five Levels.

*Published reliabilities. All other reliabilities computed from sample data.

Table II

RURAL NEIGHBORHOOD QUALITY SCALE LIKERT ITEMS

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1	2	3	4	5

Your neighbors often ask too much of you.

People around here are more willing to ask for help than to give it.

If you are too friendly with your neighbors, people take advantage of you.

People in this neighborhood gossip too much about each other.

Your family would be better off if your neighbors stuck more to their own business.

Very Likely	Unlikely	Likely	Very Unlikely
4	3	2	1

How likely is it somebody would do something if …

… someone was breaking into your house in plain sight?

… someone was trying to sell drugs in plain sight?

… there was a fight in front of your house and someone was being beaten?

… your kids are getting into trouble?

Better Than Other Neighborhoods	About the Same	Worse Than Other Neighborhoods
3	2	1

Is your neighborhood …

… safer than most neighborhoods?

… a better place to live?

Table III

RURAL NEIGHBORHOOD QUALITY SCALE: PSYCHOMETRIC PROPERTIES

Principal Component Loadings

.552

.710

.746

.723

.737

.706

.636

.715

.628

.647

.645

Eigenvalue	5.072
Explained Variance	46.109

Bartlett's Test of Sphericity = 1832.553 p< .0001

Kaiser-Meyer-Ohlin Test of Sampling Adequacy = .840

Cronbach's Alpha = .878

N = 292

Table IV

DESCRIPTIVE STATISTICS

Means and (Standard Deviations)

SPEABODY	68.19 (12.53)
SWOOD22	12.92 (4.56)
SWOOD25	17.99 (4.01)
FPEABODY	58.13 (15.27)
FWOOD22	10.14 (4.27)
FWOOD25	16.66 (4.42)
NEIGHBOR	34.93 (7.22)
PARENT	51.68 (6.47)
INCOME	5.12 (2.42)
ED	4.83 (1.83)
ETHNIC	0.90 (0.30)
HEALTH	4.27 (0.89)

N=292

Table V

CENTERED REGRESSION RESULTS: SPEABODY

Unstandardized and (Standardized) Regression Coefficients

	Individual-Level	Group-Level	Interaction
FPEABODY	0.567***	0.982***	0.014
	(.658)	(.338)	(.065)
NEIGHBOR	0.099	1.035**	-0.049
	(.053)	(.229)	(-.069)
PARENT	-0.130	-0.612	-0.010
	(-.064)	(-.085)	(-.008)
INCOME	0.125	-2.333	0.125
	(.017)	(-.147)	(.017)
ED	0.108	1.000	0.108
	(.013)	(.043)	(.013)
ETHNIC	-9.966*	2.381	-42.019*
	(-.202)	(.053)	(-.187)
HEALTH	-0.027	1.680	2.694
	(-.002)	(.033)	(.043)

N=292

Residual Intraclass = .001!   Student/School = 24.3
  Correlation   Ratio

Standard Error Deflation = 2.372%!
(Corrected)

Condition Index = 5.231

*	$p < .05$
**	$p < .01$
***	$p < .001$
!	Rounded to three decimals.

Table VI

CENTERED REGRESSION RESULTS: SWOOD22

Unstandardized and (Standardized) Regression Coefficients

	Individual-Level	Group-Level	Interaction
FWOOD22	0.756***	1.021***	0.040
	(.594)	(.458)	(.091)
NEIGHBOR	0.017	0.271*	-0.002
	(.024)	(.158)	(-.001)
PARENT	-0.085	-0.004	-0.034
	(-.111)	(-.002)	(-.074)
INCOME	0.039	-0.734	0.010
	(.019)	(-.122)	(0.004)
ED	0.120	1.429*	-0.047
	(.038)	(.162)	(-.008)
ETHNIC	-3.115*	-0.388	-15.725*
	(-.173)	(-.023)	(-.185)
HEALTH	-0.048	2.908*	-0.101
	(-.009)	(.149)	(-.004)

N=292

Residual Intraclass = .011!   Student/School = 24.3
    Correlation   Ratio

Standard Error Inflation = 20.401%!
(Corrected)

Condition Index = 4.902

* $p < .05$
** $p < .01$
*** $p < .001$
!   Rounded to three decimals.

Table VII

CENTERED REGRESSION RESULTS: SWOOD25

Unstandardized and (Standardized) Regression Coefficients

	Individual-Level	Group-Level	Interaction
FWOOD25	0.512***	0.834**	-0.011
	(.547)	(.291)	(-.016)
NEIGHBOR	0.020	0.405**	-0.008
	(.033)	(.276)	(-.035)
PARENT	-0.010	-0.365	0.036
	(-.015)	(-.156)	(.099)
INCOME	-0.038	-0.710	0.173
	(-.022)	(-.138)	(.074)
ED	0.150	0.802	-0.231
	(.055)	(.106)	(-.047)
ETHNIC	-1.480	3.769**	-9.888
	(-.093)	(.256)	(-.136)
HEALTH	-0.025	2.633	1.146
	(-.005)	(.158)	(.056)

Residual Intraclass = .033!　　　　　　　　　Student/School = 24.3
　　Correlation　　　　　　　　　　　　　　　　　　Ratio

Standard Error Inflation = 43.468%!
(Corrected)

Condition Index = 5.273

*　　p< .05
**　　p< .01
***　p< .001
!　　Rounded to three decimals.