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ABSTRACT

This report presents exploratory analyses of the relative effect of various individual, school, and family characteristics on Individual Adequacy and Social Adequacy--two of the summary variables developed to measure theoretical components of psychosocial maturity. Multivariate analyses were conducted using sex, parental education, racial composition of the school, and fathers' educational level of the school as independent variables. The study used samples of 5th, 8th, and 11th grade students in 29 South Carolina schools. Separate analyses were conducted for black and white students at each grade level. The results of the analyses indicate that individual, family, and school characteristics have different potency in explaining variations in students' individual and social adequacy, depending on the race, sex, and year in school of the students. The results suggest analyses and variables for future investigations with more diverse samples. (Author)

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AN EXPLORATORY EXAMINATION OF INDIVIDUAL, FAMILY AND SCHOOL INFLUENCES ON PSYCHOSOCIAL MATURITY

CONTRACT NO. NE-C-00-3-0113

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INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives--to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Schools and Maturity program is studying the effects of school, family, and peer group experiences on the development of attitudes consistent with psychosocial maturity. The objectives are to formulate, assess, and research important educational goals other than traditional academic achievement. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. The Careers program (formerly Careers and Curricula) bases its work upon a theory of career development. It has developed a self-administered vocational guidance device and a self-directed career program to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the Schools and Maturity program, explores the influences of individual, family, and school characteristics on the psychosocial maturity of samples of 5th, 8th, and 11th grade students.

Abstract

This report presents exploratory analyses of the relative effect of various individual, school, and family characteristics on Individual Adequacy and Social Adequacy -- two of the summary variables developed to measure theoretical components of psychosocial maturity. Multivariate analyses were conducted using sex, parental education, racial composition of the school, and fathers' educational level of the school as independent variables. The study used samples of 5th, 8th, and 11th grade students in 29 South Carolina schools. Separate analyses were conducted for black and white students at each grade level.

The results of the analyses indicate that individual, family and school characteristics have different potency in explaining variations in students' individual and social adequacy, depending on the race, sex, and year in school of the students. The results suggest analyses and variables for future investigations with more diverse samples.

Introduction

For a number of years sociologists and psychologists have been attempting to identify and interpret the relative socialization effect of school environments on young people. Paradoxically, while the methodological sophistication for measuring the school characteristics conceived of as socialization factors has increased, the interest of social scientists has continued to dwell primarily on one set of outcomes: cognitive ability and school achievement. The Equality of Educational Opportunity report (Coleman, et al., 1966) and ensuing criticism and research (Mosteller and Moynihan, 1972; Jencks et al., 1972; McDill and Rigsby, 1973) have all concentrated on academic or occupational outcomes of the educational process.

These social scientists acknowledge the importance of non-cognitive school outcomes such as social values and student attitudes toward self. However, few have systematically conceptualized the non-cognitive outcomes of schools or examined how different school environments might provide differential socialization experiences to develop these outcomes. Researchers in this area have generally borrowed and used psychological variables without clearly justifying why these characteristics are valued outcomes of schooling, or have justified their use by citing their relevance to academic success.

The following study reports on the initial exploration of the concept "psychosocial maturity" as an outcome of systematic differences in family and school characteristics. The concept of psychosocial maturity (PSM) and its theoretical relevance to valued outcomes of

socialization and development have been developed in a series of publications (Greenberger and Sørensen, 1973; Greenberger, et al., 1974a, 1974b, 1974c; Josselson, et al., 1974; and Bond, et al., 1974). This report presents exploratory analyses of the relative effects of various individual, school and family characteristics on Individual Adequacy and Social Adequacy--two of the summary variables developed to measure theoretical components of psychosocial maturity.

The Psychosocial Maturity Model

The model of psychosocial maturity specifies three general dimensions of behavior that are likely to be required of mature individuals in all societies--the capacity to function adequately on one's own (Individual Adequacy); the capacity to interact adequately with others (Interpersonal Adequacy); and the capacity to contribute to social cohesion (Social Adequacy). The model also defines a minimum set of nine attributes judged pertinent to these capacities in American society. Table 1 outlines the model of psychosocial maturity. A more complete description of the model and its development can be found in Greenberger and Sørensen (1973) and Greenberger, et al. (1974a & 1974c).

Insert Table 1 here

The concept of psychosocial maturity has been translated into a self-report inventory with nine subscales and two summary scales. The subscales and summary scales correspond, respectively, to the nine attributes and two of the three major dimensions listed in Table 1.

Summary scales for Individual and Social Adequacy are obtained by adding the scores for the three component subscales specified in Table 1. An Interpersonal Adequacy Summary Scale is not formed, because factor analyses of the Psychosocial Maturity Inventory did not support the coherence of the Interpersonal Adequacy subscales (Greenberger, et al., 1974). Psychometric refinement of the scales has produced an inventory that has demonstrated reliability and validity (Bond, et al., 1974; Greenberger, et al., 1974a & 1974c; Josselson, et al., 1974).

Theoretically, we have assumed that individual characteristics, acquired genetically and through previous social experiences, interact during late childhood and adolescence with new socialization experiences and maturing mental and physical capabilities to produce unique individual levels of psychosocial maturity. Because the social experiences of young people are patterned by the social structures of their culture, variations in their social environments should be important sources of variation in psychosocial maturity. One aspect of our investigation has therefore been a search for variations in individual and family characteristics (such as race, sex, and parental education) and school characteristics (such as racial composition) that are associated with systematic variations in psychosocial maturity.[1]

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[1] In future investigations each of these broad independent variables will be examined in closer detail to identify their components and the processes by which they affect the various dimensions of psychosocial maturity. For our present purposes we will use this type of variable as a "surface indicator" incorporating dimensions and processes which affect the distribution of PSM in the sample.

Method

Multivariate analyses were conducted using race, sex, parental education, racial composition of the school and fathers' educational level of the school as independent variables. The summary measures of the Psychosocial Maturity Inventory, Individual Adequacy and Social Adequacy, are the dependent variables. Multiple regression analysis is used to describe the relation of the independent variables to Individual Adequacy (IA) and Social Adequacy (SA) in samples of 5th, 8th, and 11th grade students in 29 South Carolina schools. The immediate purpose of examining the relative effect of these independent variables in a multivariate context is to uncover which of them, if any, are associated with systematic differences in IA and SA. The long-run purpose is to identify variables which, with further investigation, might help explain variations in the development of these two dimensions of psychosocial maturity. Figure 1 outlines the variables being investigated.

Insert Figure 1 here

Students in 29 South Carolina schools responded to a paper and pencil questionnaire which included the Psychosocial Maturity Inventory and items surveying selected individual and family characteristics. The principal of each school supplied additional information on school characteristics including the percentage of black children enrolled. The schools at each grade level were selected in a stratified random sample of public schools in South Carolina and within each school a sample of students was selected to take the questionnaire.[1] Stratification dimensions for selection of the schools were degree of urbanness

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[1] Sample selection and the state-wide administration of the questionnaire were co-ordinated by and under the aegis of the South Carolina State Department of Education.

and racial balance.[1] Overall characteristics of the three final samples are summarized in Table 2.

Insert Table 2 here

In general over one third of the sample at each grade level was black; girls were 5% to 10% more numerous than boys; and mean father's education for those who supplied this information had a value close to "4", which represents a completed high school education. Students in grade 8 were somewhat more likely than the others to be white and to have better educated fathers. A more complete description of sampling and a discussion of response rates and missing data at each grade level can be found in Greenberger, et al. (1974a, pp. 3-4, and Appendix A).

5th Grade Sample

The final 5th grade sample consisted of 729 students in 12 schools. Table 3 summarizes the principals' reports of selected school characteristics. The twelve schools included seven rural, three urban/rural schools and two urban elementary schools. Five of the schools had 24% or fewer black children, three had between 25% and 74% black children, and four had more than 75% black children.

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[1] "Urban" was defined as inclusion in one of the four Standard Metropolitan Statistical Areas (SMSA's) in South Carolina: Greenville, Charleston, Columbia or Spartanburg. "Urban/Rural included places with 2,500 inhabitants or more, but lying outside the SMSA's. "Rural" included all schools in places other than those defined Urgan or Urban/Rural.

The racial balance dimension used to select the schools included three broad categories:

0 - 24% black enrollment
25 - 74% black enrollment
75 - 100% black enrollment

Insert Table 3 here

On the variable racial composition of the school, students in 5th grade schools with less than 25% black students were classified as being in predominantly white schools. Thirty black students in schools of this kind were dropped from the analyses.[1] Students in schools where there were between 26% and 75% black students were classified as being in racially mixed schools. Students in schools which had over 75% black students were classified as being in predominantly black schools, and the few white students in such schools were dropped from the analyses.

Other school characteristics reported in Table 3 help provide a context for the examination of school, family and individual effects on IA and SA, but they are not incorporated in the reported multivariate analyses of the fifth grade data.

The distribution of father's education in each 5th grade school is shown in Table 4. Many 5th graders were unable to report the exact level of father's education. It is likely that many who did answer this question knew the general educational level of their parents, but guessed at the specific figure. The fine distinctions originally made in father's and mother's education were therefore collapsed into four broad categories.

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[1]The mean PSM scores of the small groups of students who were in a distinct racial minority at their school were usually quite different from those of like race in the other two categories of racial composition. Because there were so few students in these categories we were unable to ascertain whether the groups would continue to differ after personal and family characteristics were statistically controlled. We suspect these students were originally unlike their peers in other schools on socio-economic factors and were subject to different socialization experiences because they were in such distinct minorities. Armor (1972) has commented on the uniqueness of these groups and the need to analyze their experiences separately from those in more "mixed schools." Because we do not have enough students of either race who arein schools which are predominantly "different race" schools, we will defer such analyses until larger samples of these students can be obtained.

The variable fathers' educational level of the school, which is a measure of the parental education context of the school, was created by coding schools as high or low according to the percentage of fathers having a high school diploma or more. If 37% or more of the children reported that their fathers had at least a high school diploma, the school was coded as high. Those schools where 36% or fewer students reported that their fathers had at least a high school diploma were coded as low. Six 5th grade schools were coded as low on the fathers' educational level variable and six were coded as high.[1]

Insert Table 4 here

8th Grade Sample

Table 5 summarizes the characteristics of the eight schools included in the final sample of 8th grade schools. There were two urban schools, two urban/rural schools and four rural schools.

Three schools had 30% or fewer black students; three had between 31% and 75% black students, and two had over 76% black students. As with the 5th grade sample, students in schools in which more than 75% of their classmates were black were classified as being in predominantly black schools, and the few white students in such schools were dropped from the analyses. White students in schools with less than 30% black

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[1]Analyses of correlates of missing data on father's education showed that most of those with inadequate or no response on their individual report of father's education would most likely have been included in the low father's education categories. The proportion of those with high father's education in a particular school would therefore probably not change radically if more accurate information were available, while the proportion of those with lower father's education would be likely to increase.

students were classified on the variable racial composition as being in predominantly white schools, and the small number of black students in these schools were dropped from the analyses. Students in schools where between 31% and 75% of the students were black were classified as being in racially mixed schools.

Insert Tables 5 and 6 here

Table 6 reveals that there was considerable variation in father's education within each school grade as well as variation between schools. There was, as in the 5th grade sample, considerable missing data on father's education. Four 8th grade schools in which over 40% of the fathers had finished high school were coded as high fathers' educational level schools, and schools where less than 40% of the fathers had completed high school were coded as low fathers' educational level schools.

11th Grade Sample

The final 11th grade sample included nine schools: two urban, four urban/rural, and three rural. Four schools had fewer than 25% black students; two schools had between 25% and 74% black students; and two had more than 75% black students. Table 7 shows the profiles of the nine schools.

As in the 5th and 8th grades, the few students in high schools which were made up of 75% or more students of a different race than their own were dropped from the sample. Students in the four schools where there were fewer than 25% black students were coded as being in predominantly

white schools, while students in the two schools with 75% or more blacks were classified as being in predominantly black schools. All students in schools with between 26% and 75% black students were classified as being in racially mixed schools.

Table 8 shows the distribution of father's education in the 11th grade schools. Four schools where over 40% of the students reported that their fathers had at least completed high school were classified as high fathers' educational level schools. The other four, where less than 40% reported that their fathers had completed high school, were classified as low fathers' educational level schools.

Insert Tables 7 and 8 here

Limitations

Because of the unique geographical location and character of these three samples we have not attempted to generalize beyond the sample. These samples were designed to provide variation in racial composition and diversity in family and school context characteristics. The results should be seen as speculative and not as hypothesis-testing or as attempts to generalize to larger populations. The levels of significance that appear in various tables are provided as very rough indicators of the relative importance of the individual, family and school variables that we might expect to find in future samples.

Results

Parallel analyses of the relative influence of individual, family and school characteristics on IA and SA were conducted for each grade level separately, and results at one grade level have generally not been

compared with results at other grade levels.[1] This strategy was necessitated because the grade samples are not comparable in terms of community, racial and family characteristics. Second, it was considered possible that the psychosocial maturity dimensions would be affected by different factors in the 5th, 8th and 11th grades.

Analyses have also been conducted separately for black and white students at each grade level. This strategy was necessitated by the observed interrelation and interaction of race and several of the other independent variables. For example, white females consistently outscored white males on SA by wide margins. Black females generally scored above black males (although by lesser margins), but in certain cross-classifications they were outscored by the black males. This tendency for the correlates of IA and SA to differ depending on race suggests that there may be different origins of IA and SA for blacks and whites.

5th Grade

Individual Adequacy. Table 9 presents the standardized regression coefficients (betas) for IA and sex, father's education, and mother's education; and two school characteristics, racial composition and

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[1]Parallel analyses were conducted for each of the subscales of IA and SA. The results of the analyses of the Work Orientation, Self-Reliance and Identity Subscales are summarized in Tables 1, 2 and 3 of Appendix A. The results of the analyses of the Social Commitment, Tolerance, and Change Subscales are summarized in Tables 4, 5 and 6 of Appendix A. The relationship of the individual, family and school characteristics to these subscales were similar to those found for the more inclusive IA and SA summary scales. We will therefore focus on the IA and SA scales in the text of this paper and use the results of the subscale analyses only when they depart from the analysis of the parent summary scale or when the results of subscale analyses help clarify the relationship of the independent variables to the summary scale.

fathers' educational level of the school. The multiple R and the multiple R^2 for these individual, family and school characteristics are small for both black and white students. This corresponds to our expectations that Individual Adequacy is subject to a great many other current and prior influences not tapped by these indicators, and that these particular indicators are interacting among themselves and among as yet unidentified extraneous variables. The most notable characteristic of the correlations between family and school characteristics and IA is the different pattern of relationships between these variables for the black and white samples.

Insert Table 9 here

Sex is significantly related to IA for the white students, but not for the black students. White females outscored white males on IA and on each of the three IA subscales; Work, Self-Reliance and Identity.[1] Black females and males had approximately equally distributed scores on the IA summary measure and on each of the three IA subscales.

Father's education was positively and significantly related to IA for white students, but for black students the relationship between IA and father's education was either small or negative. Mother's education was not related to IA for either white or black students.

The racial composition of the school was significantly related to the IA scores for white students (-.10) but not for black students (.02).

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[1]Appendix A, Table 1 summarizes the multiple regression analyses run on the subscales of IA at the 5th grade.

With sex, family educational background and the fathers' educational level of the school statistically controlled, there was a significant although still small tendency for white students in the predominantly white 5th grade schools to score higher on IA than white students in the racially mixed schools of this sample.

For the black students, a closer examination of the relationship between IA and the racial composition of the school revealed an interaction between sex, racial composition and IA. Black females in racially mixed schools scored slightly lower than black females in predominantly black schools. In contrast, black males scored higher on IA when they were in racially mixed schools. None of the relationships between IA and the racial composition of the school were statistically significant for the black students; however, these trends are suggestive of possible relationships to explore and test systematically with larger and more adequate 5th grade samples.

The second school characteristic, fathers' educational level of the school, was not significantly related to IA for either white or black students.

Social Adequacy. Table 10 summarizes the multiple regression analyses of the individual, family and school characteristics and the measure Social Adequacy (SA) for the black and white students. Sex was significantly related to SA for both black (.18) and white (.34) students with the girls consistently outscoring the boys.

Insert Table 10 here

Father's education was not related to SA for either white or black students. Mother's education was positively and significantly related to SA for the white students but not for the black students. There was no direct relationship between SA and either of the two school characteristics, racial composition and fathers' educational level of school.

8th Grade

Individual Adequacy. Table 11 summarizes the multiple regression analyses of individual, family and school characteristics and IA in the 8th grade sample. The betas are small but there are again interesting differences in the variables related to IA for blacks and whites.

Sex was related to IA for both blacks and whites. The girls in

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Insert Table 11 here

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each racial group scored considerably higher than boys not only on the summary measure of IA, but on each of the component subscales: Work, Self-Reliance and Identity.[1]

For the white students, both parental education measures were significantly related to IA. For the black students, IA scores were not significantly related to either father's or mother's education.

The small beta coefficients of -.03 and .01 measuring the degree of association between IA and racial composition for whites and blacks are not significant. However, further examination of IA mean score values revealed that the IA mean scores of white females tended to be

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[1]Appendix B, Table 1 summarizes the multiple regression analyses run on the subscales of IA at the 8th grade.

slightly lower in racially mixed schools and higher in the predominantly white schools. The scores of the white males, on the other hand, tended to be higher in the racially mixed schools. Opposite effects for males and females also appeared in the relationship between racial composition and IA for the black students. The mean IA score for black males was higher in the predominantly black schools and the mean IA score for black females was higher in the racially mixed schools.

Fathers' educational level of the school was not related to IA for whites. However, there was a significant positive relationship between the fathers' educational level of the school and IA for the black students. The beta of .24 reflects fairly large differences in the IA scores of those black students who attendad schools where the fathers' education of their peers was high and those in schools where their peers had lower fathers' education.

Social Adequacy. Table 12 presents the standardized regression coefficients and the multiple correlation coefficients for sex, parental education and the two school characteristics and SA. Sex is significantly and positively related to SA for both white and black students, with the girls outscoring the boys. There were also significant sex differences for black and white students on each of the subscales which make up the SA summary measure (see Table 2, Appendix B).

Insert Table 12 here

Father's education and mother's education were related to SA for the white students but were not significantly related to SA for the black students.

The racial composition of the school was significantly related to SA for the white students but not for the black students. In another analysis (Greenberger, et al., 1974b) white male students in racially mixed schools were found to be more likely to score high on SA and on the SA subscales of Social Commitment, Tolerance and Change than were white male students in schools which were predominantly white. However, white girls scored higher on SA when in predominantly white schools. Our analyses produce similar results. Both male and female black students showed a consistent tendency to score higher on SA in schools of mixed racial composition. However, black students in racially mixed schools were significantly higher than black students in predominantly black schools on only one of the three separate components of the SA summary scales, the Change subscale. They were higher on the Social Commitment and Tolerance subscales and on the SA summary measure, but these relationships were not statistically significant.

The fathers' educational level of the school was not significantly related to the SA summary score for either white or black students although the beta coefficient of .14 for black students made it the second strongest predictor of SA in the regression formula. Fathers' educational level of the school was significantly related to the Tolerance subscale of SA for the black students (see Table 2, Appendix B).

11th Grade

Individual Adequacy. Table 13 presents the summary of IA regressed on the individual, family and school characteristics at the 11th grade. Unlike the results found at the 5th and 8th grades, sex was not related to IA for either the white or black students. Because these are cross-sectional samples of age groups, we cannot determine whether this change is the result of differences between the 11th grade age cohort and the other cohorts, or whether differences in the maturation and socialization of males and females are responsible for closing the gap on IA between males and females. We suspect, however, that low IA boys have probably been more likely to drop out of school and that developmental factors are reducing differences between the sexes on IA.

Insert Table 13 here

Father's education was significantly related to IA for black students but the relationship was statistically nonsignificant for white students. On the other hand, mother's education was significantly related to IA for the white students but not for the black students.

The racial composition of the school was not related to IA for the 11th grade white students. However, for the 11th grade black students, the racial composition of their school was significantly related to IA. Black students in predominantly black schools were consistently higher on IA and on each of the IA subscales--Work, Self-Reliance, and Identity--than black students in racially mixed schools.

The second school characteristic, fathers' educational level of the school, was not significantly related to IA for either the white or black 11th grade students.

Social Adequacy. Table 14 presents the results of the regression analysis of SA for the 11th grade black and white samples. Sex was significantly related to SA for the white students but not for the black students. White females continued to outscore the white males but the black females, who outscored the black males at the 5th and 8th grade, are no longer significantly higher on SA.

Insert Table 14 here

Father's education was significantly and positively related to SA for both the white and black students. Those whose fathers had higher education were more likely to have scored higher on SA. Mother's education, on the other hand, was not related to SA for either of the two samples.

There was a slight trend for the white students in predominantly white schools to score higher on SA than those in racially mixed schools although this relationship was not statistically significant. Black students in predominantly black schools scored statistically higher on SA than black students in racially mixed schools.

The fathers' educational level of the school did not have a statistically significant effect on the SA for either the black or white 11th grade students. There was a tendency, however, for black students in schools where the fathers' educational level was high to score higher on SA than those in low fathers' educational level schools.

Summary and Discussion

In discussing the results, several points need underscoring.

First, the nature of the three samples does not allow us to generalize beyond these immediate schools. The results, however, do suggest analyses and variables for future investigations with more diverse samples.

Selected individual, family and school characteristics have been examined to ascertain their relative association with the Individual and Social Adequacy scales of the Psychosocial Maturity Inventory and the subscales which make up these two summary scales. While the variables examined are plausible influences on a child's orientation toward himself and his society, they are only broad indicators of the actual influence processes at work.

For example, the student's sex is a gross indicator of differences in past, present and future socialization environments and personal characteristics that are often associated in this society with being male or female. We found sex differences in both IA and SA. In the 5th grade sample, sex was significantly related to both summary PSM measures for the white students, with girls scoring higher on IA, SA and all the subscales of these two measures. For the black students, sex was significantly related to SA but not to IA, girls again scoring higher than boys. In the 8th grade sample the girls outscored the boys on both IA and SA. The standardized beta coefficients between sex and the SA dimension at this grade level are the largest obtained for any variable at any grade level. In the 11th grade, however, sex was not strongly associated with IA or SA. White females continued to outscore

the white males on SA but the black females were no longer statistically higher than the black males on SA, and sex was not significantly related to IA for either the black or white sample. We will in the future explore particular socialization milieux associated with being male and female which may help account for these sex differences in PSM.

Further analyses will also need to examine which aspects of parental education are accounting for the differences in PSM associated with father's and mother's education. In this series of analyses we found that for white students those whose fathers had more education were more likely to score higher on IA at the 5th and 8th grade but not at the 11th grade. Mother's education was related to IA for white students at the 8th grade and 11th grade. For black students parental education in general was not related to IA at any grade. Only in the 11th grade was father's education significantly related to IA for the black students. Similarly, parental education appears to be more strongly related to SA for the white students than for the black students.

The impact of racially mixed vs. homogeneous schools on youngsters' psychosocial development obviously requires more careful investigation. In the 5th grade there was no apparent effect of school racial composition on either IA or SA. In the 8th grade, both black and white students generally scored higher on IA and SA when in racially mixed schools than students in predominantly same-race schools. In the 11th grade, however, both black and white students in same-race schools tended to score higher on IA and SA than their counterparts in racially mixed schools. These between-grade differences in the relationship of IA and SA to the racial

composition of the school make it clear that the racial composition of the school does not invariably lead to one or the other socialization outcome, but is being influenced by the climate and particular experiences of the students involved--for example, the conditions under which the 11th grade schools were desegregated, the age of the students when this happened, the years of experience each group has had with integrated schooling. The pattern of association between school racial composition and IA and SA indicates that different and often contradictory processes and experiences have been incorporated into this variable, and that further analyses of the particular student experiences associated with the social milieu of racially homogeneous and mixed schools should be examined as influences on PSM.

The second school characteristic, fathers' educational level of the school, was in general related to IA and SA for the black students but not for the white students. This relationship of fathers' educational level of the school to the PSM dimensions is somewhat similar to results of studies which have found the parental educational level of a student's school peers to be an independent influence on the academic plans and achievements of the individual student, and especially so with respect to the achievement of black students (Coleman et al., 1966; McDill and Rigsby, 1973; Mosteller and Moynihan, 1972; Rosenberg and Simmons, 1971). Further research which explores the importance of particular home characteristics needs to take into account this evidence that the black students seem to be responding to the educational quality of the school's peer

milieu while white students' IA and SA scores are more related to the parental education of their own homes.

The analyses described in this paper have illustrated the potential usefulness of school characteristics in "explaining" variation in a widely valued set of personal outcomes: the student's individual and social adequacy. The broad and admittedly crudely measured social structural variables of racial composition and fathers' educational level of the school were at least as helpful as parental education in explaining IA and SA. We anticipate from these analyses that the two summary measures will prove to be sensitive indicators of differential socialization experiences and will be useful in helping identify and measure the outcomes of different school experiences.

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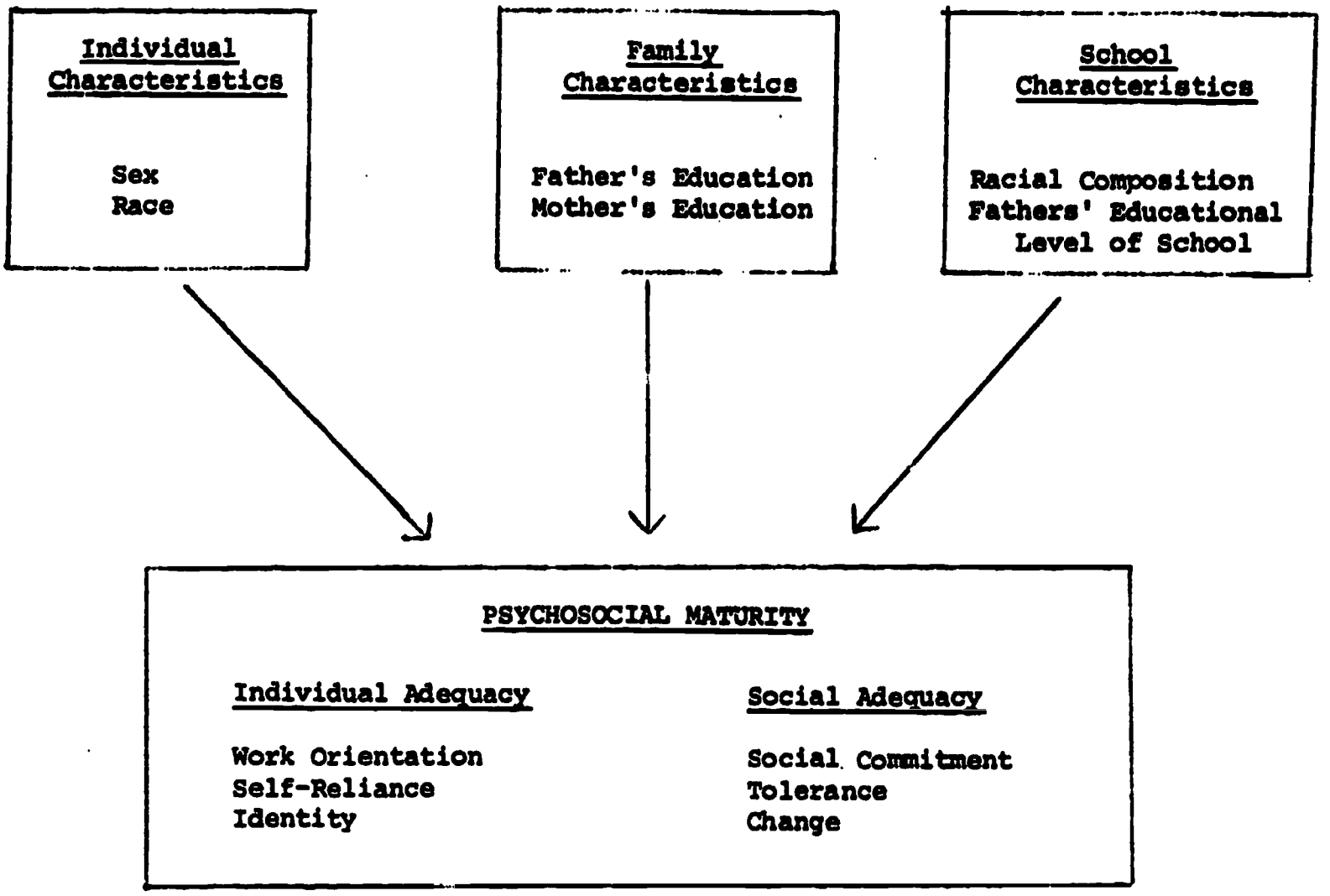

Fig. 1 - Variables influencing psychosocial maturity

Table 1[a]

Detailed Model of Psychosocial Maturity

Individual Adequacy

Self-Reliance

absence of excessive need for social validation
sense of control
initiative

Work-Orientation

general work skills
standards of competence
pleasure in work

Identity

clarity of self-concept
consideration of life goals
self-esteem
internalized values

Interpersonal Adequacy

Communication Skills

ability to encode messages
ability to decode messages
empathy

Enlightened Trust

rational dependence
rejection of simplistic views of human nature
awareness of constraints on trustworthiness

Knowledge of Major Roles

role-appropriate behavior
management of role conflict

Social Adequacy

Social Commitment

feelings of community
willingness to modify personal goals in favor of social goals
readiness to form alliances
interest in long-term social goals

Openness to Socio-political Change

general openness to change
recognition of costs of status quo
recognition of costs of change

Tolerance of Individual and Cultural Differences

willingness to interact with people who differ from the norm
sensitivity to the rights of people who differ from the norm
awareness of costs and benefits of tolerance

[a] Reprinted from Greenberger and Sørensen (1974)

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Table 2

Sample Characteristics

Grade Level	Race[a]			Sex		Father's Education[b,c]	
	% Black	% White	Other	% Male	% Female	Mean	S.D.
Grade 5	36.0	56.2	7.8	47.2	52.8	3.8	1.9
Grade 8	32.1	66.1	1.8	48.0	52.0	4.2	1.9
Grade 11	40.3	58.5	1.1	44.6	55.4	3.8	2.0

[a]Figures are for respondents who supplied this information. Response rates for grades 5,8, and 11, respectively, were 90.4%, 93.5% and 88.8%. Analyses conducted for this paper dropped "others" from the samples so the variable Race includes only black or white children.

[b]Figures are for respondents who supplied this information. Response rates for grades 5, 8, and 11, respectively, were 59%, 75.2% and 85.5%.

[c]Parental education was indicated by respondents according to the following scheme. (A "do not know" category was also provided, but is ignored for purposes of computing means.)

1 = some grade school
2 = finished grade school
3 = some high school
4 = finished high school
5 = technical or business school after high school
6 = some college
7 = finished college
8 = graduate or professional school

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Table 3

5th Grade School Profiles

School ID	N	% Black in School	% of Families Below $3000 Income Living in School District [a]	Per-Pupil Expenditure	Rural-Urban
04	91	78	54	$638	Rural
05	29	99	63	$638	Urban
06	68	6	14	$638	Urban
11	106	12	17	$637	Urban-Rural
12	18	24	15	$637	Rural
17	156	47	49	$707	Urban-Rural
19	37	51	44	$707	Rural
22	76	87	54	$625	Rural
24	24	19	20	$668	Rural
25	29	56	25	$668	Rural
28	61	23	17	$668	Rural
29	23	99	73	$661	Urban-Rural

[a] Percent of students in school district from families receiving less than $3,000 annual income. Information obtained from census data.

Table 4

Father's Education in 5th Grade Samples[a]

School ID	Per Cent Coded 1 (Low)	Per Cent Coded 2	Per Cent Coded 3	Per Cent Coded 4 (High)	Per Cent Missing Data	Per Cent Total	N
04	17	12	11	2	58	100	91
05	14	7	24	14	41	100	29
06	4	10	15	22	49	100	68
11	16	25	22	12	25	100	106
12	22	17	28	11	22	100	18
17	19	9	13	18	41	100	156
19	11	22	11	5	51	100	37
22	16	5	17	11	51	100	76
24	4	21	42	17	17	100	24
25	10	21	31	24	14	100	29
28	12	26	31	5	26	100	61
29	4	9	26	17	44	100	23

[a]The original eight categories of parental education were collapsed into four broad categories.

1. Some Grade School, finished Grade School.
2. Some High School.
3. Finished High School, Technical or Business School after High School.
4. Some college, finished College, Graduate or Professional School.

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Table 5

8th Grade School Profiles

School ID	N	% Black in School	% of Families Below $3000 Income Living in School District[a]	Per-Pupil Expenditure	Rural-Urban
02	115	30	26	$638	Urban
03	220	35	20	$638	Urban/Rural
09	249	23	24	$637	Urban
10	96	14	22	$637	Rural
15	30	84	37	$651	Urban/Rural
21	54	88	52	$625	Rural
26	63	58	20	$668	Rural
27	76	32	34	$668	Rural

[a]Per Cent of students in school district from families receiving less than $3,000 annual income. Information obtained from census data.

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Table 6

Father's Education in 8th Grade Samples[a]

School ID	Per Cent Coded 1 (Low)	Per Cent Coded 2	Per Cent Coded 3	Per Cent Coded 4 (High)	Per Cent Missing Data	Per Cent Total	N
02	5	24	35	18	18	100	115
03	8	15	34	13	30	100	220
09	7	10	24	42	17	100	249
10	23	22	25	10	20	100	96
15	17	13	17	3	50	100	30
21	26	13	18	2	41	100	54
26	19	24	25	8	24	100	63
27	16	15	34	14	21	100	76

[a]The original eight categories of parental education were collapsed into four broad categories.

1. Some Grade School, finished Grade School.
2. Some High School.
3. Finished High School, Technical or Business School after High School.
4. Some College, finished College, Graduate or Professional School.

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Table 7

11th Grade School Profiles

School ID	N	% Black in School	% of Families Below $3000 Income Living in School District[a]	Per Pupil Expenditure	Rural-Urban
01	31	99	62	$638	Urban
07	50	18	13	$637	Urban
08	32	12	20	$637	Urban/ Rural
13	45	17	13	$637	Rural
14	20	78	36	$651	Urban/ Rural
16	175	51	49	$707	Urban/ Rural
18	88	23	33	$707	Urban/ Rural
20	55	91	54	$625	Rural
23	136	39	29	$668	Rural

[a]Percent of students in school district from families receiving less than $3,000 annual income. Information obtained from census data.

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Table 8

Father's Education in 11th Grade Samples[a]

School ID	Per Cent Coded 1 (Low)	Per Cent Coded 2	Per Cent Coded 3	Per Cent Coded 4 (High)	Per Cent Missing Data	Per Cent Total	N
01	16	23	32	6	23	100	31
07	4	12	26	52	6	100	50
08	34	35	25	0	6	100	32
13	13	42	25	18	2	100	45
14	10	25	40	10	15	100	20
16	26	25	21	14	14	100	175
18	7	13	26	42	12	100	88
20	20	22	18	4	36	100	55
23	24	25	25	12	14	100	136

[a]The original eight categories of parental education were collapsed into four broad categories.

1. Some Grade School, finished Grade School.
2. Some High School.
3. Finished High School, Technical or Business School after High School.
4. Some College, finished College, Graduate or Professional School.

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Table 9

Summary of Multiple Regression of IA on Individual, Family and School Characteristics: 5th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.24	4.99	.001	.04	.60	N.S.
Father's Education	.16	2.62	.01	-.04	-.46	N.S.
Mother's Education	.07	1.17	N.S.	.06	.69	N.S.
Racial Composition of School	-.10	-2.00	.05	.02	.25	N.S.
Fathers' Educational Level of School	.07	1.42	N.S.	.05	.81	N.S.
R	.34			.08		
R^2	.12			.01		
N	400			255		

Table 10

Summary of Multiple Regression of SA on Individual, Family and School Characteristics: 5th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.34	7.25	.001	.18	2.75	.01
Father's Education	.04	.66	N.S.	.08	.94	N.S.
Mother's Education	.15	2.54	.01	-.06	-.79	N.S.
Racial Composition of School	-.02	-.34	N.S.	-.06	-.91	N.S.
Fathers' Educational Level of School	.05	1.05	N.S.	.07	1.00	N.S.
R	.38			.20		
R^2	.15			.04		
N	400			255		

Table 11

Summary of Multiple Regression of IA on Individual, Family and School Characteristics: 8th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.15	3.87	.001	.17	2.99	.005
Father's Education	.11	2.28	.05	-.03	-.50	N.S.
Mother's Education	.16	3.27	.005	.09	1.28	N.S.
Racial Composition of School	-.03	-.56	N.S.	.01	.16	N.S.
Fathers' Educational Level of School	.07	1.53	N.S.	.24	2.93	.005
R	.30			.30		
R^2	.09			.09		
N	598			276		

Table 12

Summary of Multiple Regression of SA on Individual, Family and School Characteristics: 8th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.44	11.98	.001	.25	4.29	.001
Father's Education	.12	2.55	.05	.01	.12	N.S.
Mother's Education	.11	2.56	.05	.10	1.46	N.S.
Racial Composition of School	.12	3.05	.005	-.06	-.69	N.S.
Fathers' Educational Level of School	-.06	-1.44	N.S.	.14	1.74	N.S.
		R	.47	.33		
		R^2	.22	.11		
		N	598	276		

Table 13

Summary of Multiple Regression of IA on Individual, Family and School Characteristics: 11th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.06	1.21	N.S.	.02	.27	N.S.
Father's Education	.11	1.51	N.S.	.19	2.59	.05
Mother's Education	.14	1.98	.05	.05	.68	N.S.
Racial Composition of School	.01	.07	N.S.	.24	3.75	.001
Fathers' Educational Level of School	.12	1.14	N.S.	-.04	-.62	N.S.
R	.28			.32		
R^2	.08			.10		
N	370			255		

Table 14

Summary of Multiple Regression of SA on Individual, Family and School Characteristics: 11th Grade

	White Students			Black Students		
	Beta	t	Significance Level	Beta	t	Significance Level
Sex	.30	6.21	.001	.07	1.25	N.S.
Father's Education	.15	2.27	.05	.33	4.62	.001
Mother's Education	.12	1.87	N.S.	-.04	-.63	N.S.
Racial Composition of School	-.18	-1.87	N.S.	.13	2.15	.05
Father's Educational Level of School	-.02	-.25	N.S.	.12	1.90	N.S.
R	.42			.41		
R^2	.18			.17		
N	370			255		

Appendix A

Summary of Multiple Regression on

IA and SA Subscales: Grade 5

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Table A-1

Summary of Multiple Regression on Subscales of IA

5th Grade

	Work Orientation				Self Reliance				Identity			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.21	4.27	.01	.20	.19	3.85	.01	.08	.19	3.88	.02	.35
Father's Education	.14	2.21	.10	1.16	.07	1.20	-.10	-1.21	.20	3.38	-.08	-.94
Mother's Education	-.03	-.53	-.04	-.54	.13	2.20	.23	2.95	.05	.84	.11	1.40
Racial Composition of School	-.09	-1.83	.02	.26	-.08	-1.65	-.04	-.63	-.06	-1.13	-.01	-.17
Fathers' Educational Level of School	.07	1.32	.08	1.15	.11	2.21	-.01	-.16	.04	.80	.11	1.61
R	.27		.12		.31		.19		.31		.14	
R^2	.07		.01		.10		.04		.10		.02	
N	400		255		400		255		400		255	

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Table A-2

Summary of Multiple Regression on Subscales of SA

5th Grade

	Social Commitment				Tolerance				Change			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.28	5.81	.17	2.74	.21	4.31	.06	.89	.22	4.58	.11	1.77
Father's Education	.11	1.75	.05	.63	.08	1.38	-.03	-.42	.06	.91	.20	2.53
Mother's Education	.05	.75	.03	.39	.05	.86	.03	.43	.15	2.56	-.05	-.61
Racial Composition of School	-.08	1.61	-.09	-1.39	-.06	-1.09	.01	.17	.08	1.55	-.10	1.62
Fathers' Educational Level of School	.01	.21	.04	.60	.03	.54	.07	1.03	.03	.51	.09	1.35
R	.32		.20		.25		.10		.30		.23	
R^2	.10		.04		.06		.01		.09		.05	
N	400		255		400		255		400		255	

Appendix B

Summary of Multiple Regression on IA and SA Subscales: Grade 8

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Table B-1

Summary of Multiple Regression on Subscales of IA

8th Grade

	Work Orientation				Self Reliance				Identity			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.12	3.00	.17	2.96	.18	4.58	.15	2.51	.08	1.94	.15	2.48
Father's Education	.06	1.25	.08	-1.13	.14	2.94	.00	-.03	.07	1.36	-.07	-.99
Mother's Education	.14	2.96	.04	.65	.15	3.05	.03	.50	.17	3.41	.11	1.59
Racial Composition of School	-.06	-1.35	-.06	-.74	-.01	-.29	.07	.90	-.06	-1.38	.03	.33
Fathers' Educational Level of School	.06	1.36	.18	2.27	.06	1.31	.23	2.82	.03	.74	.22	2.72
R	.25		.29		.32		.24		.25		.26	
R^2	.06		.09		.10		.06		.06		.07	
N	598		276		598		276		598		276	

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Table B-2

Summary of Multiple Regression on Subscales of SA

8th Grade

	Social Commitment				Tolerance				Change			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.38	10.08	.16	2.72	.31	8.06	.26	4.58	.33	8.57	.11	1.82
Father's Education	.13	2.77	.01	.16	.07	1.46	.10	1.51	.10	2.11	.00	.06
Mother's Education	.06	1.28	.06	.83	.06	1.29	.08	1.22	.10	2.11	.17	2.48
Racial Composition of School	.08	1.83	-.11	-1.40	.09	2.03	.07	.85	.15	3.44	-.20	-2.50
Fathers' Educational Level of School	-.08	-1.79	.06	.78	-.04	-1.00	.21	2.63	-.03	-.64	-.05	-.62
R	.40		.25		.33		.35		.37		.28	
R^2	.16		.06		.11		.12		.14		.08	
N	598		276		598		276		598		276	

Appendix C

Summary of Multiple Regression on IA and SA Subscales: Grade 11

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Table C-1

Summary of Multiple Regression on Subscales of IA

11th Grade

	Work Orientation				Self Reliance				Identity			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.01	.10	-.01	-.13	.09	1.71	.05	.80	.03	.50	.03	.46
Father's Education	.07	.89	.19	2.56	.19	2.66	.19	2.58	.09	1.25	.06	.82
Mother's Education	.13	1.87	.03	.44	.13	1.93	.10	1.37	.14	1.98	.09	1.18
Racial Composition of School	-.07	-.72	.20	3.02	-.10	-1.06	.23	3.64	.02	.23	.19	2.96
Fathers' Educational Level of School	.00	.03	-.11	-1.65	-.02	-.15	.01	.09	.16	1.59	-.03	-.42
R	.21		.27		.33		.36		.28		.23	
R^2	.04		.07		.11		.13		.08		.05	
N	370		255		370		255		370		255	

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Table C-2

Summary of Multiple Regression on Subscales of SA

11th Grade

	Social Commitment				Tolerance				Change			
	Whites		Blacks		Whites		Blacks		Whites		Blacks	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Sex	.33	6.62	.05	.78	.13	2.51	.10	1.63	.23	4.73	.03	.47
Father's Education	.09	1.27	.37	5.13	.12	1.72	.31	4.27	.09	1.35	.25	3.40
Mother's Education	.09	1.35	-.08	-1.15	.05	.70	.00	-.04	.23	3.38	.01	.12
Racial Composition of School	-.09	-.96	.07	1.18	-.27	-2.76	.09	1.39	-.18	-1.91	.14	2.15
Fathers' Educational Level of School	-.07	-.65	.05	.76	-.05	-.52	.08	1.29	-.06	-.64	.11	1.70
R	.36		.37		.31		.38		.39		.35	
R^2	.13		.13		.10		.14		.16		.12	
N	370		255		370		255		370		255	