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to investigate the simultaneous effects of the rank of students'
reading groups in first grade and their first grade achievement on
their assignment to reading groups at the beginning of second grade.
The twelve first grade classrooms analyzed in the study came from six
schools in three Chicago-area school districts. During the 1981-82
school year, researchers gathered information on first grade
organization, instruction, and learning. Follow-up data were gathered
during the next school year. Data analysis revealed two patterns: one
in wh. a student's reading group level in second grade depended on
his or her first grade position, and the other in which achievement
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THE INSTITUTIONALIZATION OF EDUCATIONAL STRATIFICATION*

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ABSTRACT

Because the stratified levels in schools and school systems bear widely accepted symbolic statuses, a student's position in the hierarchy may influence the pattern of his educational career, independently of his scholastic achievement. This paper measures the simultaneous effects of the rank of a student's reading group in first grade and his first grade achievement on his assignment to a reading group at the beginning of second grade. Two patterns are discovered: one in which a student's reading group level in second grade depends on his first grade position, and a second in which achievement appears to be the criterion used for placement. However, examination of the composition of first and second grade reading groups reveals that in both cases, teachers attempt to reduce the heterogeneity of low and middle reading groups between first and second grade.

THE INSTITUTIONALIZATION OF EDUCATIONAL STRATIFICATION

Recent writers have suggested that symbolic characteristics of schools, rather than their productive technology, govern the outcomes of schooling (Meyer 1970, 1977, 1980; Meyer and Rowan 1978; Kamens 1977). Schools, and their subdivisions such as grades, tracks, classes and instructional groups, bear symbolic designations that transcend the boundaries of local school systems and are widely accepted in society. These institutionalized categories are said to affect students, both in their learning and in the pattern of their educational careers.

This study focuses on the interplay of symbolic and organizational forces and their effects on student positions within the hierarchy of educational levels. I will argue that while a student's progress through the school system is influenced by institutionally meaningful categories, it is also affected by the needs of teachers to organize students for effective instruction. Our first step is to explore the view of schools and s looling that is offered by the institutional perspective.

Institutional Effects

Meyer (1977, 1980) suggests that educational categories such as "third grade" and "vocational track" are institutionalized: they are imbued with symbolic meaning that is defined through broad societal agreement about their various roles in the national system of education. Institutionalized educational categories bear socially

defined missions, or "charters," that specify the outcomes that the educational institution confers upon its graduates (Meyer 1970, 1977). For example, some schools are expected to prepare high achieving students bound for college, while others aim to send students directly into the workforce after high school graduation. The college/vocational distinction, while highly pronounced, is but one of many institutionally recognized divisions. Others include grade levels, ability grouped classrooms, and ability groups within classrooms.

The symbolic status of an educational category influences students in two ways, by addressing two different audiences simultaneously. The students themselves may recognize the symbolic status of their school and group within the school. This recognition need not be conscious, but may be absorbed from environmental cues. Because students anticipate a future commensurate with the charter of their present educational category, students in schools of higher status may be more highly motivated to achieve greater learning (Meyer 1980). Distinct from patterns of social interaction occurring within specific classrooms, institutional forces motivate students by affecting their expectations for the future (Gamoran 1984). In the institutional perspective, the charter of a student's school is expected to affect his or her learning, over and above localized interactional effects and independently of the productive workings of the school such as the instructional efforts of teachers.

The teachers and administrators who select and allocate students to future educational levels are also aware of the

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institutional status of a student's current position. Students in high status schools or groups within schools are more likely to be directed to high status positions in advanced levels of schooling. Holding constant students' actual achievement in school, their educational mobility may be constrained by the symbolic status of their educational institution (Meyer 1977; Kamens 1977).

. The foregoing exposition contains two propositions. First, it suggests that the symbolic status of a student's school, track, class, or group will influence his or her learning, independently of the instruction he or she receives while in school. Second, the institutional perspective predicts that the charter of a student's school or group within the school will influence his or her placement into the next level of schooling independently of the student's achievement within the school.

The results of a previous study failed to confirm the first proposition (Gamoran 1984). Using data on classroom organization and instruction in twelve first grade classrooms, I measured the effect of the ranks of students' reading groups on their learning, after controlling for the number of words and phonics concepts they were taught (as well as for initial aptitude). While instructional factors had a major impact on learning during first grade, reading group rank exerted almost no influence. The slight independent grouping effect that did appear early in the school year was attributed to social processes of reference group comparisons rather than to institutional forces.

The rank of an ability group in first grade does not seem to affect individual students by influencing their motivation to

learn.* Nevertheless, groups and tracks may carry symbolic meanings that affect individual students through their influence on selective and allocative processes.

The second proposition suggests that institutional processes affect a student's progress from one year of schooling to the next. The symbolic designation of the group or track in which a student learns in one year should direct him to a specific location for learning in the next school year. This institutionalization of a student's position in the educational stratification system may operate independently of the student's achievement. Using the same sample of first graders along with second grade data, the current study will examine institutional effects on students' educational careers.

Institutional Effects and the Conventional Wisdom

The institutional perspective actually follows the conventional wisdom about mobility between groups and tracks: once a student is placed in a low group, he languishes there for the remainder of his educational career. A strong performance in a low reading group cannot help him shake off his designation as a "low group student."

Because most educational research is carried out cross-sectionally, few authors have investigated mobility between groups or tracks from year to year. In his study of a high school,

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* Institutional factors may affect learning in higher grades, when students may be more cognizant of the importance of institution-alized distinctions.

Rosenbaum (1976) discovered that students rarely changed tracks, and the mobility that did occur was invariably downward. Groff (1962) and Hawkins (1966) studied mobility patterns between reading groups within one school year. Both were dismayed to find that students did not constantly shift from one group to another.

Yet Groff and Hawkins did find some movement between groups, especially in the lower grades and at the beginning of the year. More recently, Barr and Dreeben (1983) found that thirty percent of a sample of first graders changed groups during the year, about half moving upward and half downward. These movements included both transfers to existing groups, and mobility that occurred when new groups were formed during the year. Moreover, of those students who transferred to a higher group, seventy-five percent were above their group mean in learning, while about seventy-four percent who moved downward were below their group mean in learning (1983:96). Thus there is some evidence contrary to the chartering notion and the conventional wisdom, at least for transfers within a school year: placement in a reading group by the year's end may be affected by achievement during the year as well as by placement at the beginning of the year. However, one might expect group positions to be more rigidly institutionalized from one year to the next.

Procedures

The twelve first grade classrooms analyzed in this study come from six schools in three Chicago-area school districts. During

1981-82, researchers gathered information on first grade organization, instruction, and learning. Investigators returned to the schools in 1982-83 for other purposes, and while there recorded follow-up data on the second grade reading group assignments of the previous year's first graders.

Only students who were members of a reading group at the end of first grade, and who remained in the school to be placed in a reading group in second grade, were retained in this study's sample. Of the 294 students in first grade reading groups, 228 were placed into second grade reading groups and comprise the sample for this study.

The analysis will be conducted in two stages. First, least squares regression will be used to measure the simultaneous effects of first grade group level and first grade achievement on second grade group level. Then, the composition of second grade reading groups will be evaluated to look more closely at what institutional and organizational processes are involved in their formation.

Reading Group Assignment

Each first grade classroom was divided into small groups for reading instruction. Teacher perceptions of student ability served as the main criterion for differentiating students into groups. Researchers administered a test of ability early in first grade, and the results confirmed that groups varied in ability within classrooms (Dreeben 1983). However, substantial variation within

groups exists, and teachers may use other criteria when forming groups in addition to ability, such as effort and behavior (Barr and Dreeben 1983). The researchers made no attempt to influence teacher grouping decisions at any time.

In order to assess each student's group position quantitatively, a scale was constructed and applied to all twelve classrooms. Each class was divided into as many portions as there were groups, and each group was given a score equidistant from the adjacent groups, on a six-point scale with six as high.* The more groups in a classroom, the smaller the intervals between groups. Also, the more groups in a class the higher the score of the top group and the lower the score of the bottom group. Thus in classes of three groups, the values used for ranking were 1.5, 3.5, and 5.5, while when there were four groups in a class, the groups were rated at 1.25, 2.75, 4.25, and 5.75.

Students were assigned scores for final first grade Group Rank according to the score of their reading group at the end of first grade. Seven students who belonged to two reading groups were scored at the mean of their two groups. Second grade classrooms were scaled in the same way, and students were assigned scores for initial second grade Group Placement according to the position of their reading group at the beginning of second grade. School B was the lone exception to the usual scoring procedure. The classes in

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* The six-point scale was chosen because six was the greatest num-
ber of initial groups in any one class. For further details on
the construction of the Group Rank scale, see Gamoran (1984).

school B were tracked by ability, as well as divided into ability-based reading groups. Instead of ranking the groups in each of school B's four second grade classes separately, I considered school B as a single stratification system, and ranked each group as a unique level.

Student Achievement

Two tests measured student achievement at the end of first grade.* Both tests were administered to students individually.

In the first test, students were asked to read individual words which had been randomly sampled from the words they had been taught during the year. Because the reading curricula varied across the districts, and because reading groups covered varying amounts of material, each reading group received a different test. Word reading success rate, or Word Rate, was scored as the proportion of words a student read correctly out of the total he was given to read. This value constitutes a measure of the student's success at learning the curricular material covered in his reading group.

In addition, all students completed the Interactive Reading Assessment System, a test of General Reading Achievement (Calfee and Calfee, 1982). This test required students to read a series of graded passages aloud and to answer questions of comprehension. Students who completed all the oral passages read additional passages silently and answered further questions. Scores were based

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* Three students did not take the tests and were dropped from the sample.

on the speed and number of mistakes made on the oral passages, and on the number of comprehension questions answered correctly.

Because the achievement of some students rises during the summer while that of others declines (Heyns 1979), a test at the beginning of second grade might have provided a better predictor of assignments to reading groups made by second grade teachers. Lacking such a test we must make do with achievement at the end of first grade. Some unexplained variance in Group Placement may be due to summer learning. However, because elementary schools are fairly homogeneous in terms of ho: background, summer learning should not favor students from higher or lower reading groups. Furthermore, because first grade teachers often make recommendations for second grade grouping, first grade achievement is a meaningful criterion in its own right. Achievement criteria that affect the allocation of students to classrooms can only involve only first grade achievement, since allocation to classrooms takes place before second grade begins.

Just as as ability is not the sole instructionally relevant criterion first grade teachers use to place their students, second grade teachers may also attend to effort, behavior, and other non-cognitive characteristics when assigning students to second grade reading groups. Still, achievement is likely to be the most important consideration, if any criteria other than institutional ones are taken into account.

Socioeconomic Background

To control for the possibility that biases in favor of students of higher socioeconomic status affect grouping decisions, a measure

of SES was included in the model. This variable was estimated by rating the higher of father's and mother's occupation on a nine point scale.* Missing values were assigned the class average. In one school (school B) information on parental occupation could not be obtained. SES scores for students in this school, located in a rather homogeneously populated neighborhood, were estimated using census tract data.

Levels of Aggregation

Because of potential variation in assignment criteria between schools and classes (Barr and Dreeben 1983), it would be unwise to pool the data for a single analysis. However, choosing the proper level of aggregation is somewhat problematic. The appropriate level would be that at which decisions on how to group students are made. Each second grade teacher has the final word on her reading groups, but the groups are formed to some extent on a school-wide basis when students are allocated to classrooms.

Conducting regression analyses by school involves a methodological problem. Because classes within the same school may contain different numbers of reading groups, one student may have a

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* The following scale was used: 9=professional, technical, kindred; 8=managers, officials, proprietors - large; 7=higher level white collar, clerical, clergy, semi-professions; 6=managers, officials, proprietors - small; 5=sales; 4=craftsmen, foremen, kindred, public service, lower white collar; 3=operatives, semi-skilled; 2=laborers, unskilled, domestic service; 1=unemployed, welfare recipients.
  Intercoder reliability of assigning scores to occupations was calculated at 83 percent.

higher Group Placement score than another as an artifact of the classroom grouping structure rather than because of some causal variable. Consequently OLS regressions were conducted by class and then summarized to the school level, using weighted regression coefficients and standard errors to produce the school level data. The original class level data and the formulae used in summation can be found in the appendix.

Results

Recall that if institutional processes determine the placement of students into reading groups, then final first grade Group Rank should determine initial second grade Group Placement, regardless of first grade achievement. Table 1 presents the results of the test of this formulation.*

In four of the six schools, the rank of a student's first grade reading group is the only variable in the regression model that affected his or her second grade group placement. In schools A and E, where Group Rank did not influence Group Placement, student assignment evidently corresponds to first grade achievement.

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* A glance at Table B in the appendix reveals that while the regression coefficients vary greatly between classes, the variation tends to occur between rather than within schools. Group Placement is unaffected by Group Rank in classes 1, 2, and 3, all in school A, but is entirely determined by Group Rank in classes 12 and 13 (school D) and in classes 9, 10, and 11 of school C. Class 8 of school C appears to be an exception, for Group Rank is unrelated to the dependent variable. Actually, however, there are only six cases in this class, and five advanced to equivalent second grade groups. This class fits the mold of school C. The summation to the school level appears substantively justified; statistical confirmation is found in the appendix.

Table 1 - Regression of initial second grade Group Placement on first grade Group Rank, Achievement, word reading success rate, and SES, summarized by school: Unstandardized regression coefficients (standard errors in parentheses).

Independent Variable	DISTRICT I SCHOOL A		SCHOOL B	
Group Rank	.04	(.17)	.47**	(.17)
SES	.008	(.07)	.04	(.12)
Word Rate	.51	(1.51)	.50	(.90)
Achievement	.15**	(.04)	.06	(.06)

Independent Variable	DISTRICT II SCHOOL C		SCHOOL D	
Group Rank	.80**	(.24)	1.25**	(0)
SES	-.005	(.08)	0	(0)
Word Rate	.57	(.52)	0	(0)
Achievement	.02	(.06)	0	(0)

Independent Variable	DISTRICT III SCHOOL E		SCHOOL F	
Group Rank	.20	(.23)	.74**	(.13)
SES	.01	(.20)	.04	(.07)
Word Rate	2.53	(3.67)	1.23	(1.78)
Achievement	.20*	(.09)	.04	(.05)

*p<.05 **p<.01

SES had no effect on Group Placement in any of the schools. Surprisingly, neither did Word Rate. It appears that in schools where teachers do take achievement criteria into account, a student's oral reading and comprehension skills are more important than his mastery of the specific words he or she was taught. Alternatively, the significant effects of Achievement may reflect the importance not of the skills measured by the test, but of the schools' use of their own standardized achievement tests, with which our test is likely to be correlated.

Two patterns of group placement appear in the regressions. Schools B, C, D, and F evidently follow institutional signals when assigning students to reading groups; in these schools only prior

group rank had a statistically significant influence on group placement. The institutional hypothesis correctly predicts the relationships among the variables in these four schools. Yet in schools A and E it was Achievement, rather than Group Rank, that had the statistically significant effect on group assignment. The higher a student's achievement, the higher his or her second grade placement, regardless of the level of his or her first grade reading group. This between school difference in the salience of assignment criteria is not consistent with the institutional perspective.

The independent variables first grade Group Rank and Achievement are highly correlated in nearly every class (see appendix, Table A), reflecting the higher initial aptitudes of students in higher reading groups as well as their greater progress due to the instruction they receive (Dreeben 1983). Fortunately the collinearity does not seem to have affected the regression coefficients adversely.* This collinearity indicates that whichever factor teachers use as the criterion to place students, the other criterion is served at the same time. The mean correlation of first grade Group Rank and Achievement in all the classes of schools A and E is .66, with a corresponding value of .67 in the classes of schools B, C, D, and F. There is similar variation between the independent variables first grade achievement and first grade group

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* Signs of damaging multicollinearity such as large standard stan-
dard errors and volatile coefficients are absent. The exception
is class 8, where the correlation between Group Rank and Achieve-
ment is .92 and neither appears to have a significant effect on
Group Placement though the R2 is .96. However this result is
less problematic after class 8 is combined with classes 9, 10,
and 11 to create the data for school C in Table 1.

position in both sets of schools, but the teachers of schools A and E appear to attend to that variation, while the other teachers do not.

What can account for the differing assignment criteria? Perhaps some schools are more inclined to conform to institutional rules than others. The regression analysis does not provide sufficient information to interpret the differing patterns in greater detail. A more thorough study of the procedures underlying group formation may permit us to understand the emergence of the two patterns.

Institutional Processes and Organizational Procedures

What organizational procedures would one expect to find when group placement is determined institutionally? Because they respond to institutionalized rules rather than to the demands of work activities, institutional organizations function through rituals and ceremonies (Meyer and Rowan 1977). Schools classify students in order to maintain their institutionally legitimate structure. Classification, including the assignment of students to ability groups, is seen as a ritual in the institutional perspective in that it fulfills the ceremonial requirements of legitimate structure although it may have no bearing on the activities that take place in different structural units such as ability groups (Meyer and Rowan 1977). With regard to reading group formation, one would expect to find that institutionalized rules require teachers to transform first grade reading groups into second grade groups without reevaluating individual students or reconsidering the composition of

the groups. This procedure would adhere to the ritual of creating second grade reading groups without considering the instructional needs of second grade students and teachers. If grouping is a ritual, then the institutionally recognized status of groups is far more important than their actual composition. Our results to this point appear to confirm this expectation in four of the six schools. Yet in order to discover the processes through which educational stratification is \ institutionalized, it is necessary to investigate the composition of groups and their transformation from first to second grade.

The homogeneity of reading groups with respect to first grade achievement provides a criterion for evaluating the organizational procedures used to form reading groups.* Ability groups are putatively created to allow teachers to instruct groups of students that are smaller and more homogeneous than the entire class (Sørensen 1970; Barr and Dreeben 1983). By comparing the standard deviations of achievement in first and second grade reading groups it is possible to judge whether teachers consider such instructional criteria when forming second grade reading groups. If creating reading groups is more than a ceremonial activity, then we should observe teachers attempting to make reading groups more homogeneous at the beginning of second grade than they were by the end of first grade. A finding of second grade groups that are no more homogeneous than first grade groups, indicating that the supposedly

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* Again, it would be desirable to have a direct measure of initial second grade ability as well.

critical criterion of homogeneity is being ignored, would serve as evidence that ritual bureaucratic procedures underlie the institutionalization of reading groups within schools.

The charts in Figure 1 on the following three pages depict the standard deviation of achievement for each reading group in all the schools. The groups are arranged within schools by levels - low, middle, and high. Groups in the bottom third of a class were designated as low, in the top third as high, and all others as middle. Thus the two lowest groups were counted as low in a class of six groups, while only the bottom group appears in the lowest category in classes that had three, four, and five groups.* Students who belonged to two groups are counted twice.

These charts reveal a single pattern of reading group formation, not two. In every school the standard deviation of achievement decreases significantly in low groups from first to second grade. In every school but one, the standard deviation of achievement also decreases in middle groups from first to second grade. And in every school but one, high groups become more variable over time.

Teachers in all the schools appear to reorganize the groups in order to make the lower ability groups more homogeneous. They appear less concerned with reducing the variance in the higher

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* In a class of two groups the higher was categorized as a high group and the second as a middle group, because this occured in a first grade class where the low and middle groups had been combined late in the year, and in a second grade class where students had been directly transferred from first grade middle and high groups.

SCHOOL A

first grade   second gr.   first grade   second grade   first grade   second grade
   LOW GROUPS   MIDDLE GROUPS   HIGH GROUPS

SCHOOL B

first grade   second grade   first grade   second grade   first grade   second gr.
   LOW GROUPS   MIDDLE GROUPS   HIGH GROUPS
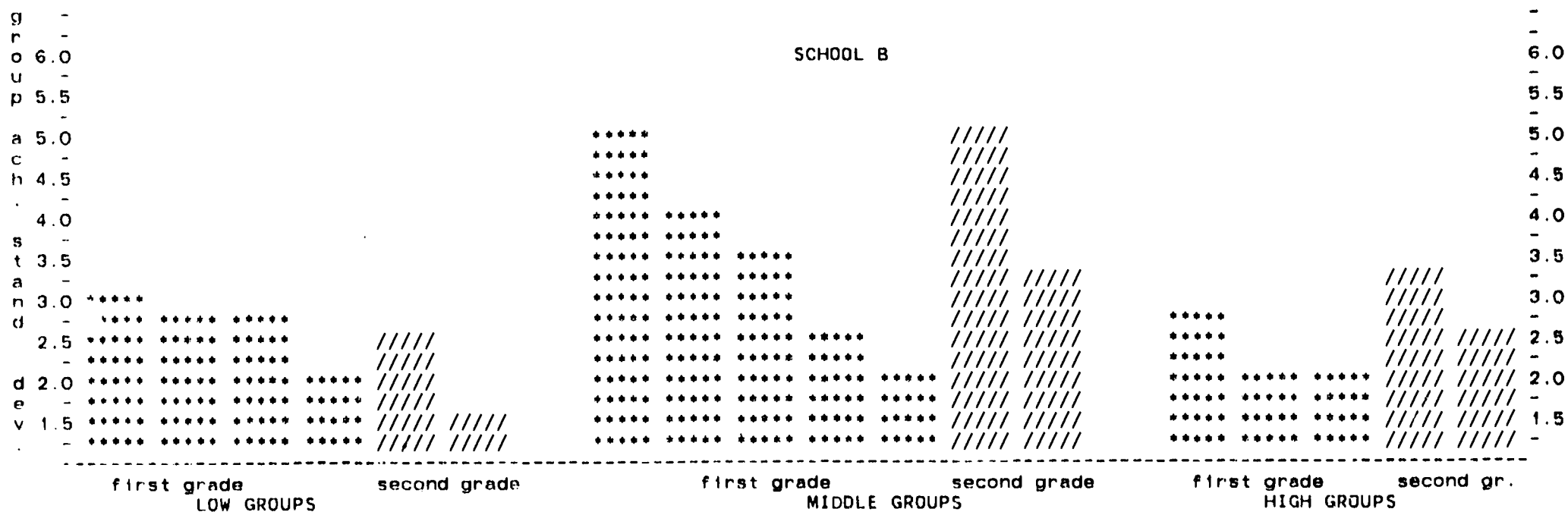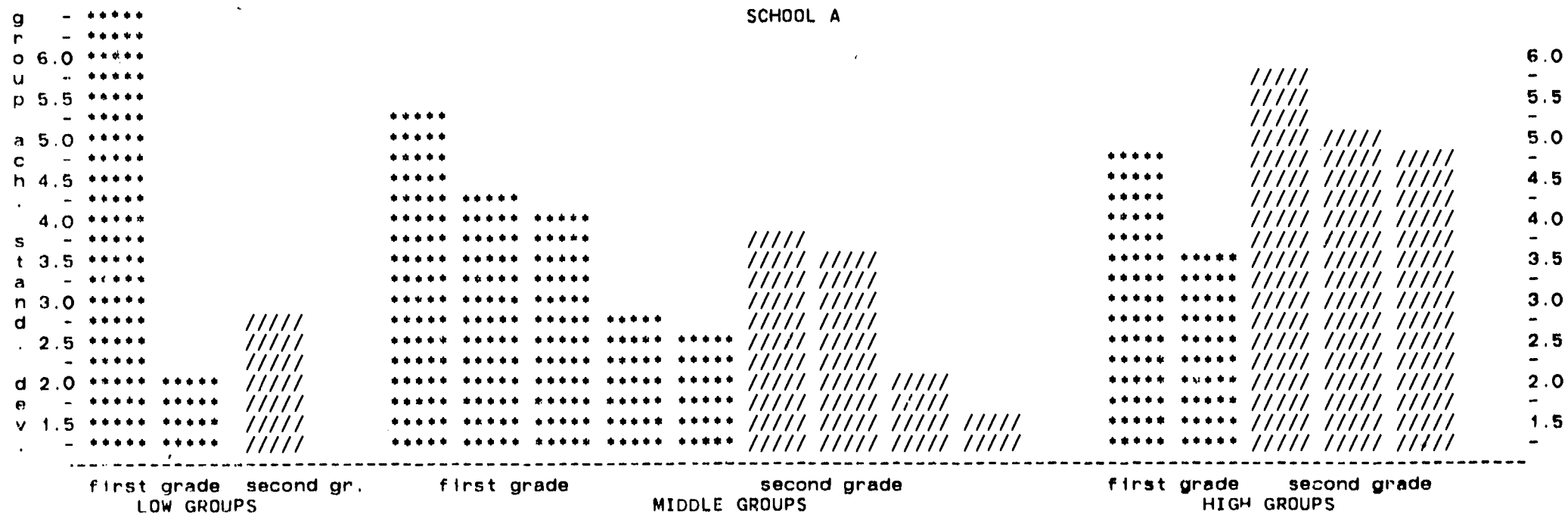
KEY: ***** = first grade
     ///// = second grade
     Each column represents one group.

20

SCHOOL C

g   -
r   -
o 6.0
u   -
p 5.5
    -
a 5.0
c   -
h 4.5
.   -
    4.0
s   -
t 3.5
a   -
n 3.0
d   -
.   2.5
    -
d 2.0
e   -
v 1.5
    -

first grade   second grade
    LOW GROUPS

first grade second gr.
    MIDDLE GROUPS

first grade   second grade
    HIGH GROUPS

12.42

6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5

SCHOOL D

g   -
r   -
o 6.0
u   -
p 5.5
    -
a 5.0
c   -
h 4.5
.   -
    4.0
s   -
t 3.5
A   -
n 3.0
d   -
.   2.5
    -
d 2.0
e   -
v 1.5
    -

first grade|second gr.
    LOW GROUPS

first grade|second gr.
    MIDDLE GROUPS

first grade|second grade
    HIGH GROUPS

6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5

-8I-

22

23

SCHOOL E

```
g  -                                                              -
r  -                                                              -
o 6.0                                                            6.0
u  - *****                                                        -
p 5.5 *****                                                      5.5
   - *****                                                        -
a 5.0 *****                           SCHOOL E                   5.0
c  - *****                                                        -
h 4.5 *****                      /////                           4.5
.  - *****                       /////                            -
   4.0 *****                     /////                           4.0
s  - *****                       /////                            -
t 3.5 *****       *****          /////              /////        3.5
a  - *****        *****          /////              /////         -
n 3.0 *****       *****          /////              /////        3.0
d  - *****        *****          /////              /////         -
. 2.5 ***** /////  ***** ***** ***** /////    ***** ***** /////  2.5
   - ***** /////  ***** ***** ***** /////    ***** ***** /////    -
d 2.0 ***** /////  ***** ***** ***** ///// /////  ***** ***** ///// 2.0
e  - ***** /////  ***** ***** ***** ///// /////  ***** ***** /////  -
v 1.5 ***** /////  ***** ***** ***** ///// /////  ***** ***** ///// 1.5
.  - ***** /////  ***** ***** ***** ///// /////  ***** ***** /////  -
```

    first|second   first grade   second grade   first grade   second grade
    LOW GROUPS   MIDDLE GROUPS   HIGH GROUPS

SCHOOL F

```
g  -                                                              -
r  -                                                              -
o 6.0                                                            6.0
u  -                                                              -
p 5.5                                                            5.5
   -                                                              -
a 5.0                             SCHOOL F                       5.0
c  -                                                              -
h 4.5                                                            4.5
.  - *****                                 *****                  -
   4.0 *****                               *****                 4.0
s  - *****                *****            *****                  -
t 3.5 *****       /////   *****            *****      /////      3.5
a  - *****       /////    *****            *****      /////       -
n 3.0 *****       /////   *****     /////  ***** ***** /////     3.0
d  - *****       /////    *****     /////  ***** ***** /////       -
. 2.5 *****       /////   *****     /////  ***** ***** /////     2.5
   - *****       /////    *****     /////  ***** ***** /////       -
d 2.0 ***** ***** /////   *****     /////  ***** ***** ///// ///// 2.0
e  - ***** ***** /////    ***** ***** ///// /////  ***** ***** ///// /////  -
v 1.5 ***** ***** ///// /////  ***** ***** ///// ///// ***** ***** ///// ///// 1.5
.  - ***** ***** ///// /////  ***** ***** ///// ///// ***** ***** ///// /////  -
```

    first grade   second grade   first grade   second grade   first grade   second grade
    LOW GROUPS   MIDDLE GROUPS   HIGH GROUPS

-19-

groups. Creating a group with a narrow range of prior achievement may be a central issue in providing appropriate instruction for low ability students, while the issue may not be critical for teaching students at the higher end of the ability spectrum. In any case the groups do not appear to be formed through ritualistic procedures, for the teachers modify the distribution of student achievement among the reading groups in a consistent manner, showing concern for homogeneity in lower groups.*

Reorganizing reading groups on the basis of student achievement is just what we expect to find in schools A and E. High achieving low and middle group students were moved up while low achieving middle and high group students were dropped down. These findings simply restate the results of the regression analyses. The crucial question here is how group heterogeneity in achievement can appear to decrease in schools B, C, D, and F as well, where achievement did not affect group placement in the regression results. If individual achievement was not a significant criterion for group assignment in these schools, then how were the teachers consistently able to reduce the heterogeneity of low and middle second grade reading groups?

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* Distributional properties of second grade reading groups must be evaluated cautiously, for the data includes only those second graders who had been part of the first grade study. Data on schools D, E, and F are nearly complete, lacking only students who were new to their schools in second grade. However schools A, B, and C contained first grade classes that were not included in the original study and whose students were mixed in with the others for second grade. The sampled portion of the reading groups can be considered randomly generated because the first grade classes were chosen arbitrarily. Moreover, the same pattern of results is evident in the (nearly) fully sampled classes as in the partially sampled ones.

School D will be used to reveal how student achievement can affect group formation, even when it does not influence individual mobility. School D provides an excellent case for three reasons. First, we have data on every second grader there, other than those who were new to the school. Second, first grade Group Rank and second grade Group Placement were perfectly correlated in the classrooms of school D. If students are ritualistically assigned anywhere, it would be in this school. Finally, the teachers' assignment procedures happen to be quite straightforward and thus amenable to description.

In school D the teachers assigned students to reading groups _at the same time_ as they allocated students to classrooms. This procedure permitted the teachers to regroup students on the basis of their first grade achievement while still assigning them to groups of the same relative rank within the classes as in first grade. For example, the middle groups of both first grade classes were divided in half with the high achieving halves (mean achievement 17.3 and 19) comprising the middle group of one second grade class and the lower achieving middle group students (mean achievement 14 and 11.75) entering the middle group of the other second grade classroom. Thus all the students remained in a middle group, but the composition of each group was readjusted. The classes are not tracked as in school B, for one class contained the only low group, the lower middle group, and the higher top group, while the highest middle group and the lower high group were in the other class. Schools B, C, and F also used the method of regrouping across classes in order to reduce low group heterogeneity, with the

addition of a few shifts between group levels as well.

The information from the charts in Figure 1 is summarized in Table 2, which presents the group level means of achievement standard deviations. The largest reductions in low group heterogeneity occur in schools A (41.9%) and E (56.6%), which had highly variable low groups to begin with. In fact, the greatest declines in low and middle group standard deviations tend to occur

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Table 2 - **Mean group standard deviations, by group level, school, and grade.**

					GROUP LEVEL					
	LOW		%		MIDDLE		%		HIGH		%
GRADE school	1	2	change	1	2	change	1	2	change
A	4.56	2.65	-41.9%	3.74	2.71	-38.0%	4.02	5.13	27.6%
B	2.63	2.03	-22.8	3.33	4.18	25.5	2.13	2.78	30.1
C	2.06	1.72	-16.5	4.03	3.36	-16.6	4.40	5.42	23.2
D	4.77	4.15	-13.0	4.87	3.15	-35.3	4.51	4.79	6.2
E	5.71	2.48	-56.6	2.89	2.35	-18.7	2.42	3.82	57.9
F	3.12	2.53	-18.9	2.73	2.𝘤4	-14.3	3.45	2.73	-20.9

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where heterogeneity is highest in first grade. School D, whose low groups were highly variable and changed only slightly, also contained the most variable middle groups, whose standard deviations declined a sharp 35.3 percent.

The high variability of the low groups in schools A and E may have induced teachers to choose the method of adjusting reading groups by transferring students between levels. Only this procedure could produce the significant effect of individual achievement on individual placement found in these same schools. Moreover, because only one second grade class was formed in school E, any modification of the ading groups had to shift students between group levels.

Such transfers must have been guided by student achievement. Similarly, students were moved to new reading group levels in school A, though some achievement differences between groups of similar rank in different classes also appear. In school D the low reading group might have been made less variable had the teachers been willing to move a low group student into a middle group.

Yet even in school D, reading groups are not formed through a ritual process which ignores criteria related to the work of teaching. There, as in the other schools, the goal of reading group homogeneity guided teachers as they transformed first into second grade reading groups.

Conclusions

Barr and Dreeben (1983) report that when creating reading groups, teachers deal not merely with the aptitudes of individual students, but with distributions of aptitude. When analyzing why students are treated as they are, therefore, it is necessary to consider the organizational characteristics of schools, classes, and groups. The findings of this chapter support their conclusion.

Although a strong performance in a middle group will not necessarily cause a student to be moved to a high group, it may lead to placement in a "higher" middle group, where the student's level of prior achievement is similar to that of the other students. In this setting the child's teacher can provide instruction geared to the level of his or her group. While many students may be locked into a group bearing a certain label, they are not necessarily locked in to their particular groups. This distinction is critical

because, as I have argued elsewhere, what a student learns depends on what he is taught rather than on the rank of his reading group (Gamoran 1984).

Ability grouping is institutionalized first in the sense that it is accepted and implemented year after year in all six schools. More importantly, an institutionally relevant criterion affects second grade group placement in four of the six schools. Yet the groups are not formed through the ritualistic assignment procedures one expects to find in institutional organizations. Teachers appear to consider the distribution of prior achievement among students carefully when assigning students to second grade reading groups.

These schools are characterized by an interplay of institutional processes and organizational procedures. Ceremonial behavior does not describe their procedures for assigning students to reading groups. Where a student's group rank is institutionalized, the composition of his group need not be. The institutionalization of educational stratification is neither as rigid nor as predetermined as the institutional perspective and the conventional wisdom suggest.

TABLE A
MEANS, STANDARD DEVIATIONS, AND CORRELATION COEFFICIENTS OF VARIABLES, BY SECOND GRADE CLASS

DISTRICT I

SCHOOL A

CLASS 01 (n=18)

	1	2	3	4	5
1. Group Rank		.36	.28	.54	.33
2. SES			.43	.06	.43
3. Word Rate				.60	.63
4. Achievement					.53
5. Group Placement					
mean	4.5	7.0	.79	21.9	3.9
s.d.	1.3	1.8	.24	3.8	1.7

CLASS 02 (n=19)

	1	2	3	4	5
1. Group Rank		.29	.83	.80	.52
2. SES			.17	.09	-.29
3. Word Rate				.72	.44
4. Achievement					.77
5. Group Placement					
mean	4.5	7.9	.85	22.8	4.7
s.d.	1.4	2.1	.21	6.2	1.1

CLASS 03 (n=11)

	1	2	3	4	5
1. Group Rank		-.05	.29	.67	.64
2. SES			.53	.29	.34
3. Word Rate				.83	.73
4. Achievement					.86
5. Group Placement					
mean	4.0	7.4	.73	22.2	4.7
s.d.	1.5	.89	.34	8.3	1.5

SCHOOL B

CLASSES 04-07 (n=38)

	1	2	3	4	5
1. Group Rank		.09	.09	.68	.73
2. SES			.08	.09	.12
3. Word Rate				.66	.33
4. Achievement					.70
5. Group Placement					
mean	3.4	2.1	.68	11.6	4.0
s.d.	1.6	1.3	.31	5.8	1.4

DISTRICT II

SCHOOL C

CLASS 08 (n=6)

	1	2	3	4	5
1. Group Rank		.74	.84	.92	.91
2. SES			.63	.53	.61
3. Word Rate				.88	.95
4. Achievement					.95
5. Group Placement					
mean	3.5	3.8	.60	10.5	3.8
s.d.	1.7	2.7	.45	6.8	2.0

CLASS 09 (n=8)

	1	2	3	4	5
1. Group Rank		.14	.57	.89	1.0
2. SES			.31	-.12	.14
3. Word Rate				.62	.57
4. Achievement					.89
5. Group Placement					
mean	4.3	3.6	.90	13.3	4.3
s.d.	1.8	1.2	.18	6.2	1.8

CLASS 10 (n=19)

	1	2	3	4	5
1. Group Rank		.39	.77	.87	1.0
2. SES			.58	.18	.39
3. Word Rate				.78	.77
4. Achievement					.87
5. Group Placement					
mean	3.9	3.0	.76	11.5	3.9
s.d.	1.6	.82	.22	7.0	1.6

CLASS 11 (n=13)

	1	2	3	4	5
1. Group Rank		.11	.43	.61	1.0
2. SES			.09	.43	.11
3. Word Rate				.71	.43
4. Achievement					.61
5. Group Placement					
mean	3.0	2.6	.66	9.2	3.0
s.d.	1.7	1.2	.27	6.8	1.7

SCHOOL D

CLASS 12 (n=18)

	1	2	3	4	5
1. Group Rank		.11	.22	.76	1.0
2. SES			-.02	.19	.11
3. Word Rate				.59	.22
4. Achievement					.76
5. Group Placement					
mean	3.5	4.6	.77	14.1	3.5
s.d.	1.5	4.6	.77	6.8	1.5

CLASS 13 (n=13)

	1	2	3	4	5
1. Group Rank		.18	-.05	-.16	1.0
2. SES			.26	.50	.18
3. Word Rate				.65	-.05
4. Achievement					-.16
5. Group Placement					
mean	4.6	4.4	.88	18.6	3.6
s.d.	1.0	1.3	.16	3.2	1.6

DISTRICT III

SCHOOL E

CLASS 14 (n=30)

	1	2	3	4	5
1. Group Rank		-.25	.29	.51	.50
2. SES			-.18	-.50	-.34
3. Word Rate				.42	.37
4. Achievement					.65
5. Group Placement					
mean	3.8	7.7	.94	24.5	3.6
s.d.	1.3	1.6	.07	4.1	1.7

SCHOOL F

CLASS 15 (n=15)

	1	2	3	4	5
1. Group Rank		.09	.36	.74	.83
2. SES			.23	-.01	.10
3. Word Rate				.42	.36
4. Achievement					.77
5. Group Placement					
mean	4.2	5.6	.90	24.3	4.2
s.d.	1.7	1.8	.07	5.5	1.4

CLASS 16 (n=17)

	1	2	3	4	5
1. Group Rank		.18	.32	.69	.93
2. SES			-.02	-.10	.23
3. Word Rate				.58	.40
4. Achievement					.64
5. Group Placement					
mean	4.0	7.1	.93	22.9	4.1
s.d.	1.4	1.9	.09	3.6	1.5

APPENDIX

Table B - Regression of initial second grade Group Placement on
first grade Group Rank, Achievement, word reading success rate,
and SES, by classroom: Unstandardized regression coefficients
(standard errors in parentheses).

Independent Variable	DISTRICT I SCHOOL A			SCHOOL B
	CLASS 01	CLASS 02	CLASS 03	CLASSES 04-07
Group Rank	-.07 (.34)	.12 (.24)	.21 (.33)	.47 (.17)
SES	.27 (.24)	-.19 (.08)	.18 (.41)	.04 (.12)
Word Rate	2.09 (2.10)	-1.32 (1.36)	.59 (2.19)	.50 (.86)
Achievement	.16 (.14)	.16 (.04)	.10 (.11)	.06 (.06)
R2	.49	.74	.76	.61
n	18	19	11	38

Independent Variable	DISTRICT II SCHOOL C			
	CLASS 08	CLASS 09	CLASS 10	CLASS 11
Group Rank	.20 (.95)	1.00 (0)	1.00 (0)	1.00 (0)
SES	-.02 (.31)	0 (0)	0 (0)	0 (0)
Word Rate	2.27 (2.07)	0 (0)	0 (0)	0 (0)
Achievement	.10 (.24)	0 (0)	0 (0)	0 (0)
R2	.96	1.00	1.00	1.00
n	6	8	19	13

	SCHOOL D	
	CLASS 12	CLASS 13
Group Rank	1.00 (0)	1.50 (0)
SES	0 (0)	0 (0)
Word Rate	0 (0)	0 (0)
Achievement	0 (0)	0 (0)
R2	1.00	1.00
n	19	13

Independent Variable	DISTRICT III SCHOOL E	SCHOOL F	
	CLASS 14	CLASS 15	CLASS 16
Group Rank	.20 (.23)	.47 (.21)	1.03 (.16)
SES	.01 (.20)	.04 (.13)	.04 (.08)
Word Rate	2.53 (3.67)	.01 (3.46)	2.62 (2.02)
Achievement	.20 (.09)	.10 (.07)	-.04 (.07)
R2	.45	.74	.89
n	30	15	17

Formula for summarizing to the school level: $\bar{b} = \dfrac{\sum b_i/c_i}{\sum 1/c_i}$, where

$c_i = \dfrac{var(\hat{b})}{MSerror}$. Also, $s.e.\bar{b} = \sqrt{\dfrac{1}{\sum \frac{1}{(s.e.b)^2}}}$.

This formula cannot be utilized when s.e.= 0. In those cases
(schools C and D) simple means were used.

To confirm that it is reasonable to summarize to the school level,
one can test the null hypothesis that within each school,

HO: $b_{class1} = b_{class2} = \ldots b_{classk}$ with an F-test:

$\dfrac{\sum (n-k)}{(k-1)} \dfrac{\sum (b_i - b)^2}{\sum (s.e.b_i)^2}$, where k is the number of classes in the school.

This summation is greater in every case than an $F(k-1, \sum n-2k)$,
so the null hypothesis cannot be rejected in any of the schools.

REFERENCES

Barr, Rebecca and Robert Dreeben; How Schools Work
    Chicago: University of Chicago Press 1983

Calfee, Robert, and Kathryn Hoover Calfee; Interactive Reading
    Assessment System (copyright 1974, revised 1981) Austin:
    Southwest Educational Development Laboratory 1982

Dreeben, Robert; "Aptitude, Instructional Organization, and Reading
    Achievement." Paper presented at the Annual Meeting of the
    American Educational Research Association, April 1983.

Gamoran, Adam; "Instructional, Institutional, and Social Effects of
    Ability Grouping." Paper presented at the Annual Meeting
    of the Midwest Sociological Society, April 1984.

Groff, Patrick; "A Survey of Basal Reading Practices"
    Reading Teacher 15:232-235 (1962)

Hawkins, Michael; "Mobility of Students in Reading Groups"
    Reading Teacher 20:136-140 (1966)

Heyns, Barbara; Summer Learning and the Effects of Schooling
    New York: Academic 1978

Kamens, David; "Legitimating Myth and Educational Organizations:
    The relationship between Organizational Ideology and Formal
    Structure" American Sociological Review 42:208-219 (1977)

Meyer, John W.; "The Charter: Conditions of Diffuse Socialization
    in Schools" in W. Scott, ed. Social Processes and Social
    Structures New York: Holt, Reinhart, and Winston 1970 p.
    564-578

Meyer, John W.; "The Effects of Education as an Institution"
    American Journal of Sociology 83:55-77 (1977)

Meyer, John W.; "Levels of the Educational System and Schooling
    Effects" in C. E. Bidwell and D. M. Windham, eds. The Analysis
    of Educational Productivity, vol. 2: Issues in Macroanalysis
    Cambridge, Mass.: Ballinger 1980 p. 15-63

Meyer, John W., and Brian Rowan; "Institutionalized Organizations:
    Formal Structure as Myth and Ceremony" American Journal of
    Sociology 83:340-363 (1977)

Meyer, John W., and Brian Rowan; "The Structure of Educational
    Organizations" in M. Meyer et. al., eds. Environments and
    Organizations San Francisco: Jossey-Bass 1978 p. 78-109

Rosenbaum, James E.; Making Inequality New York: Wiley 1976

Sørensen,Aage B.; "Organizational Differentiation of Students and
    Educational Opportunity" Sociology of Education 43:335-376
    (1970)