



Effects of Bussing on Urban School Students

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IN ITS recent decision of *Swann et al. v. Charlotte-Mecklenburg Board of Education et al.*,¹ the U.S. Supreme Court unanimously endorsed the use of bussing to achieve racial balance in the public schools. Although the decision was aimed directly at *de jure* segregation in the South, the implications of the decision for the *de facto* segregation of the North can readily be seen. The decision not only permitted, but encouraged bussing for desegregation purposes. The legality of bussing having been firmly established, the way is now open for its increased use.

The term bussing, for many people, has become closely intertwined in meaning with the word desegregation. A more comprehensive term, public school transportation, includes desegregation, isolated-location, and safety-convenience bussing of students. The major concern of parents is not with isolated-location or safety-convenience bussing. These types of transportation are approved of and sought after by parents. The quarrel over transportation comes when public school buses are used to achieve school desegregation.

A study of the history of public school transportation reveals that parents of the 1920's and 1930's were equally as concerned

as today's parents over the use of the school bus. Parental passions were aroused when children had to ride buses to consolidated schools. The increased use of the automobile, the rural to urban population shift, school consolidation, improvement of roads, and statutory provisions for public school transportation were all forces which contributed to the increased use of transportation.² The growing demand for better educational opportunity was a basic force for the use of the school bus, just as it is today.

Earlier studies conducted on the effects of public school transportation were primarily concerned with the differences between urban and rural students³ of high school age.⁴ Current research on how public

² M. C. S. Noble. *Pupil Transportation in the United States*. Scranton, Pennsylvania: International Textbook Company, 1940. p. 25.

³ Everard Blanchard. "A Social Acceptance Study of Transported and Non-Transported Pupils in a Rural Secondary School." *Journal of Experimental Education* 15 (4): 291-303; June 1947.

⁴ Harry G. Straley. "A Comparative Study of the Academic Achievement and Social Adjustment of Transported and Non-Transported High School Seniors." Unpublished Ed.D. dissertation, University of Virginia, 1956. *Dissertation Abstracts* 17 (5-8): 1495; 1957.

¹ *Swann et al. v. Charlotte-Mecklenburg Board of Education et al.*, U.S. Supreme Court, No. 281, argued Oct. 12, 1970, decided April 20, 1971.

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school transportation affects students has been concerned with the results of public school transportation when it is used as a means to improve educational conditions for low socioeconomic groups. So many variables other than transportation enter into this type of research that it is almost impossible to identify the effects of transportation, per se, upon students.

Ausubel and Robinson⁵ point out a number of the variables, such as socioeconomic level and cultural patterns, which intervene in investigations of the use of transportation. Due in part to these intervening variables, current research has not been directed toward the study of the effects which transportation, as such, has on today's urban student.

Parents and educators are concerned with the possible negative effects which transporting a child out of his immediate neighborhood will have on that child's school success. This concern is focused on the elementary student in the urban school. Is this a false concern? Or is this concern grounded in reality? Does the fact that a child is transported to school affect his adjustment to the elementary school environment? Can we assume that transportation, per se, will affect the school adjustment of urban elementary school students? The study noted here⁶ addresses itself to these concerns.

Purpose and Procedures

The purpose of this investigation was to study the effects of public school transportation upon the school adjustment of urban elementary school students. School adjustment was defined as an estimate of a student's adjustment to the school experience, consisting of the composite achievement test score, teacher grades, attendance, extraclass

activities, and peer acceptance. The problem of this study was to determine if there were statistically significant differences between the means of the transported and non-transported groups on these components.

The population used in this study consisted of the fourth, fifth, and sixth grade students of a large urban elementary school. The racial group of 98 percent of the student population of the school was Caucasian.

The nature of the statistical analysis to be used necessitated the classification of the students into transported and non-transported groups. A transported student was defined as a student who rode a public school bus approximately one mile or more to school. Although time spent on the bus was not considered in establishing the transported group, the time range was from 10 to 45 minutes one way. Non-transported students lived within one mile of school and did not ride the bus.

Only those students who were enrolled in the cooperating school for the entire school year were included for study. The non-transported group was reduced by discarding the names of those students who lived in a six square block area of obviously different socioeconomic level housing.

Then 120 transported and 120 non-transported students were randomly selected for study. Care was taken during this selection to ensure that the sex and grade level of the transported and non-transported subjects were in the same proportion.

In order to complete the *t* tests required to ascertain statistically significant differences between the transported and non-transported subjects of this study, arithmetic means of the various components of school adjustment were determined. The means of the achievement test scores for each group were established on the basis of the composite score of each subject on the Iowa Test of Basic Skills. The attendance means for each group were computed on the basis of the number of days the subject attended school during the first three reporting periods of the school year.

The number of extraclass activities in which a subject participated during the school

⁵ David P. Ausubel and Floyd G. Robinson. *School Learning*. New York: Holt, Rinehart and Winston, Inc., 1969. pp. 432-39.

⁶ Dan A. White. "The Effects of Public School Transportation Upon the Overall School Adjustment of Urban Elementary School Students." Unpublished Ed.D. dissertation, University of Oklahoma, 1970. *Dissertation Abstracts* 31 (7): 3430A-31A; January 1971.

year was the basis for the determination of the means of participation for the two groups. Extraclass activities included: football, wrestling, choir, pep club, band, bowling, basketball, volleyball, softball, and gymnastics. The means of peer acceptance scores for the two groups were determined on the basis of the number of times a subject was named by classmates in response to a sociometric question. Computation of the means of teacher grades for each group required that the letter grades for each subject in the areas of language, reading, social studies, mathematics, and science, for the first three reporting periods of the school year, be converted to numerical equivalents; then the means of the average grades of each group were determined.

Findings

The analysis of the data collected for the study resulted in these findings:

1. There was no statistically significant difference between the transported and non-transported groups on means of composite achievement test scores.
2. There was no statistically significant difference between the transported and non-transported groups on means of the averages of teacher grades.
3. There was no statistically significant difference between the transported and non-transported groups on means of daily attendance.
4. There was a statistically significant difference between the transported and non-transported groups on means of participation in extraclass activities in favor of the non-transported group.
5. There was no statistically significant difference between the transported and non-transported groups on means of peer acceptance scores.

These findings indicate that transportation does affect the amount of participation in extraclass activities of urban elementary students. If a school system considers participation in extraclass activities to be important, that school system should consider the

possibility of providing the transportation necessary for all students to participate in these activities.

The findings of this study do not substantiate the degree of concern which some parents and educators have expressed regarding the effects of transportation on the urban student. This research does not support the contention that school work will suffer or that attendance will decrease as a result of transportation. Neither does the research support the contention that transported students will have fewer friends than their non-transported peers.

Needed Research

Several areas of needed research became apparent as a result of this investigation:

1. A longitudinal study of the effects of public school transportation upon the school adjustment of urban elementary school students should be conducted in order to detect any cumulative effects which public school transportation may produce.
2. A research study should be conducted to determine the relationship of parental attitudes toward public school transportation to the school adjustment of urban elementary school students.
3. It is recommended that a study be undertaken to determine the effect of public school transportation upon students of different racial groups who have been matched on selected intra-individual variables.
4. A replication of this study should be conducted using first, second, and third grade students as subjects.
5. A study of the effects of transportation upon the urban elementary students under increased time and distance conditions should be conducted.

Due to safety considerations and the legal mandate for desegregation of the public school, the use of public school transportation will undoubtedly increase. Whether or not these reasons for the use of transportation are worthy remains debatable; however, transportation, as such, should not be condemned. □

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