A study examined the relationship between geographic mobility and school achievement. Subjects, 15 fourth-grade students who transferred more than twice and 47 fourth-grade students who did not transfer as often from a Chicago public school in a low socioeconomic area, had their scores on the Iowa Tests of Basic Skills compared. Results indicated that students who transferred more than twice during their school career had lower reading achievement scores than those students who did not transfer. (One table of data is included; 11 references are attached.) (RS)
Mobility is a way of life for many families living in the United States. The word "mobility" as used in this study, means any change of schools by school-age children. Schools and other agencies that deal with children need to recognize that relocation can become a risk factor for children. High mobility rates can effect the child's academic achievement and may cause multiple behavioral problems. Psychologists have also studied problems that may occur when children have to change schools. Smardo (1981) suggested there may be feelings of loss, abandonment, helplessness, and fear of the unknown. These feelings may have more of an impact on certain age groups. New curricular, teachers, school regulations, peers, and social adjustments can effect children's progress in school. As educators we need to be aware of any risk related factors such as mobility and knowledgeable in ways that we can help children adjust to minimize any negative effect that may occur in relocating.

The United States is a highly mobile society. According to the US Bureau of Census from 1989, approximately 19% of Americans move every year. Our country was built on the movement of immigrants across a nation that glorified relocation as a characteristic of social improvement and success.

Sociologists, who studied family mobility in the 1950's and 1960's, determined that these moves occurred mainly due to life cycle changes such as a new baby or grown children moving out of the home. During the same period, economists suggested that these moves occurred due to a change of employment and offered more positive advancement for all those involved. With these thoughts in mind, relocation during these years was thought to be a positive experience for the family, although not without some stress. The majority of studies conducted during these years dealt with financially well off, healthy, white families. Those studies conducted during the 1950's and 1960's also neglected the impact of the move on a child.

In recent years more research has been conducted on studying relocation
and its relation to race and poverty. Relocation that was made by poor and minority families were not usually done to improve financial or social advancement. These families were often forced to move for reasons such as economic deprivation, eviction, and racism, dramatically changing the nature and effect of the move on the parents and their children (Wood, 1993). This is an area that needs to be studied since families that are poor tend to move 50% to 100% more frequently than families that are not poor (US Bureau of the Census, 1989).

Research conducted by Straits (1987) gathered data from the 1967 Survey of Economic Opportunity (SEO). The analysis was limited to persons who were fifteen or sixteen in October of 1966. Total population of this age group involved in the survey numbered 3,334. Survey results indicate that the determined effect of mobility on children's age-grade progress is a positive function of the cultural difference between the current and previous places of residence, but only among those teenagers of less-educated parents. Also children of less-educated parents who have moved, tend to have a higher drop-out rate compared to children of parents that are better educated. Depending on the age, school withdrawal can be immediate or a late consequence of relocation. Straits results partly support findings of Longs (1975). Longs' studies also indicated that children of well-educated parents have a scholastic advantage over their peers and that this may be a factor that helps offset any adverse effects of mobility on school progress. His analysis of 1970 census data, showed the higher mobility rates increased age-grade retardation (except among children of college graduates) and decreased age-grade acceleration.

Levine's (1966) research suggested that the more frequent the change of school for a child in an inner city elementary school, the poorer the grades received on his/her report card. He noted that this conclusion does not necessarily hold true for other populations (such as the child of well-educated, higher socioeconomic parents). Levine's data has deficiencies which could not pin down the relationship any closer.

Whalen and Fried (1973) conducted a study of the effect of mobility on student achievement, and employed the variables of IQ and socioeconomic status. These two variables were added because they felt that mobility seems to be too broad of a variable to test independently. Their study was conducted in Livermore, CA during the 1971-72 school year. Questionnaires were distributed to all the eleventh grade students
attending their two high schools. From these questionnaires seventy-nine students were randomly selected for each of two groups, those with a high mobility rate and a group with a low mobility rate. These students were selected after considering the variables of IQ and socioeconomic status. The General Vocabulary Test was selected for use in analysis. They also found a relationship between mobility and achievement.

Research by Fernandez (1987) also suggested that there is a relationship between mobility and academic achievement, if other variables are considered. Her study was conducted on children in New Jersey where there was a significant number of mobile students. Data were collected from the student's performance on the High School Proficiency Test (HSPT), a state mandated graduation test in New Jersey. Data analysis suggested that if school and home factors are held constant, there will be little effect on achievement. Yet social conditions such as language proficiency, behavioral, attendance, considered with the mobility factor, did have a negative effect on children's academic performance.

An article presented by Schuler (1990) is a preliminary report of results obtained on a mobility study done in Rochester, New York where mobility rates have reached as high as 112% a year in some of their schools. This major study was conducted by the Apartment Owners Association of Rochester Inc. (A.O.A.R.) between February and June of 1988. At the date of this study the A.O.A.R. was the first organization in the country to conduct a study to determine if there is a correlation between excessive student mobility and academic achievement. Schuler suggested that his results would have major national implications and hopefully spark additional research in this area. Results of the study were only tentative since this is just a preliminary report. Data collected from the scores from the California Achievement Test (CAT) indicated a direct relationship between elementary student's math and reading scores and their families mobility. In response to these findings, programs were designed to help reduce the mobility rate and other agencies were enlisted to assist the school. The interaction of private industry and other public agencies with the schools has helped decrease the mobility rate of Elementary School #9 in Rochester City School District.

Current research conducted by Ingersall (1988) concluded that geographic mobility has a negative effect on a student's overall academic achievement. Ingersall's data were drawn from 58,400 students in Denver
Colorado Public Schools, a multiethnic urban school system. Composite ITBS and TAP scores served as the dependent variable for the analysis. Student's mobility rates were defined by their enrollment patterns during the period September 1985 through March of 1987. At the conclusion of the 1986-87 school year scores on the ITBS and TAP were analyzed. Findings from this study included the following: (1) the percentage of students classified as mobile decreases as grade level increases; (2) achievement levels of the more stable group were consistently higher than those students in the more mobile group; and (3) attempts to control for student socioeconomic status did not alter the correlation between mobility and achievement. While economic and socio-cultural forces impel higher mobility and instability among various groups, school administrators might discourage moves of a relatively small distance that place a child in a new assignment area.

A most recent study conducted by Wood (1993) dealt with the impact of frequent moves on reported rates of delay in growth development, learning disorders, school failure, and frequent behavioral problems in US school-age children. Data on approximately 10,000 children aged six to seventeen were analyzed. Information for this study was reported by parents on the 1988 National Health Interview Survey. The US Bureau of the Census conducts this nationwide cross-sectional household survey on a continual basis for the National Center of Health Statistics. In this 1988 survey a special supplement was included about child health topics. This supplement was administered to households with children under the age of 18 years. One child was selected from each household to be the subject of an interview. The results indicated that the menus of both family dysfunction and family relocation were independently associated with multiple sociodemographic characteristic such as race, family structure, and poverty. Frequent family relocation was associated with risk of children being retained in school and four or more frequently occurring behavioral problem.

A number of studies have been conducted on the relationship between geographic mobility and school achievement. If variables such as reason for the move, socioeconomic status, race, family structure, and parent's educational background are considered, research indicates a positive relationship between mobility and academic achievement. Research in the area needs to be continued with emphasis on ways schools and agencies can help ease the transition for the child.
**Procedures**

**Population/Sample:**

The population in this study will include 81 fifth grade students from Tonti Elementary School. Tonti is a Chicago public school located in the southwest area of the city. The school is located in a predominantly low socio-economic area known as West Lawn. The total population of the school is approximately 981 students of which 79% are Spanish. As indicated by the 1993 State School Report Card the mobility rate is 28% and the rate of attendance is 92%.

From the 81 fifth grade students, records established while the children were in fourth grade indicate that 15 have transferred twice or more during their school years. These 15 students will make up the mobile group. Of the remaining 66 students, complete records or scores were not available for 19 of the children which makes the non-mobile group consist of 47 students.

Each spring the Iowa Test of Basic Skills (ITBS) is administered to each student in Chicago's Public elementary schools. Two samples were identified from the school records of those fifth grade students who had transferred two or more times, and those students who had transferred less than two times during their school careers. The reading results of the ITBS administered during the spring of the 1993 school year, the fifth graders fourth grade scores, will be used in this study. The posttest control group design will be employed.

The findings will be tabulated in terms of means and standard deviation. The t test will be employed at the .05 level of confidence to determine if there is any statistical significance of the findings.

The samples for the study included present fifth grade students at Tonti Elementary School who were at the time of the posttest completing grade four. Each spring these students take the ITBS (Iowa Test of Basic Skills). From these students two groups were established. One group consisted of
fifteen students who had transferred more than twice during their school careers. The other group of forty seven was made up of students who had transferred less than two times during their school careers. Results from the 1993 ITBS cumulative reading scores were used as the posttest. A t test (p < .05) for independent samples was done for these sets of scores to determine if there was a statistically significant difference in reading achievement due to student's mobility. Table 1 summarizes the statistical analysis.

Table 1

Means, Standard Deviations, and t Test for the Mobile Group and the Non-Mobile Group for Reading Achievement Scores

<table>
<thead>
<tr>
<th>Test</th>
<th>Mobile Group N=15</th>
<th>Non-Mobile N=47</th>
<th>t</th>
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</thead>
<tbody>
<tr>
<td>Post Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>3.8</td>
<td>4.9</td>
<td>4.135*</td>
</tr>
<tr>
<td>SD</td>
<td>.82</td>
<td>1.1</td>
<td></td>
</tr>
</tbody>
</table>

df=60 p > .05
*significant at the .05 level

Examination of the 1993 mean post test scores indicate that there is a significant difference of a score of 1.1 in reading achievement. The t scores for the 1993 results (4.135) is significantly greater than the one at the .05 level (2.000).

Overall, the data from this study leads to the rejection of the null hypothesis and the acceptance of the research hypothesis; fourth grade students that have transferred more than twice during their school career, will have lower reading achievement scores than those students who have not transferred.

The results of this study are consistent with those of Longs (1975), Straits (1987), Whalen and Fried (1973), Fernandez (1987), and Ingersall
(1988) concerning mobility and its effect on academic achievement. When variables such as socioeconomic status, parent's educational background, and language proficiency etc. are considered along with that of mobility, previous research indicates there is a positive relationship between mobility and academic achievement. The population used in this study exhibited a number of these variables.

Research needs to be continued in this area with emphasis on ways that schools and agencies can help ease the transition for a child and hopefully decrease some of the negative impact of relocation on children's academic achievement.
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