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**THE IMPACT OF MOBILITY ON ACADEMIC ACHIEVEMENT:
A REVIEW OF THE LITERATURE**

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BACKGROUND

MOBILITY AND THE RELATIONSHIP TO GROWTH

The United States has traditionally been a society on the move. In comparison to children in other industrialized nations, American students have one of the highest rates of mobility (Mao, et al., 1998; Temple and Reynolds, 1998). Between March 1998 and March 1999, almost 43 million Americans moved, accounting for 15.9% of the population one year of age and older (US. Bureau of the Census, 2000).

In the past 10 years, North Carolina's population has increased 16.5%, with Wake being one of the fastest growing counties. As a result, the Wake County Public School System (WCPSS), the second largest school district in North Carolina, expanded steadily throughout the 1990s, rising in 20th Day Enrollment from 64,243 in 1990 to 114,068 in 2004.

School Mobility

Given these numbers, it is not surprising that U.S. students frequently change schools. In 1988, a national longitudinal survey of eighth grade students in the U.S. found that between first and eighth grades, 31% of students had changed schools two or more times, and that between the eighth and twelfth grades, 10% of these students had changed schools four or more times. These percentages excluded regular promotions between elementary, middle, and high schools (Rumberger and Larson, 1998).

The rates of mobility may actually be increasing. In 1994, a national study found that more than 40% of all third grade students had moved schools one or more times between the first and third grade; of this group, 17% had changed schools two or more times. One 1993 study found that 50% of all students in the United States moved at least twice prior to their 8th birthday and, of this group, 10% moved six or more times (Rumberger and Larson, 1998).

Academic Achievement. Given the mobile nature of our society and our students, it is important to examine what mobility means to the academic performance of our students and our schools. Popular wisdom among educators maintains that: a) changing schools negatively impacts a student's learning, and b) schools with high rates of student mobility are adversely affected. Most research on mobility has found a negative association between student mobility and student performance (Mao, et al., 1998). It should be noted that correlational studies, however, do not prove a causal relationship between student mobility and academic achievement.

Since public policy (e.g., student assignment, school composition, and transfer decisions) can affect student mobility, gaining accurate estimates of the impact of student mobility is of interest to policymakers (Temple and Reynolds, 1998). The majority of empirical research documents the incidence of student mobility using descriptive statistics compiled by federal, state, and local education agencies. A few empirical studies have documented achievement differences between mobile and non-mobile students (Ingersoll et al. 1989). Relatively few studies, however, have addressed the causes or consequences of student mobility. The majority of studies examining the consequences of student mobility have focused on the educational effect of student mobility at the elementary or middle school level. Overall, the research findings (Benson et al. 1979; Crockett et al. 1989; Holland et al. 1974; Jason et al. 1992) suggest that mobile students experience problems adjusting both academically and socially to their new environment (Rumberger and Larson, 1998). Frequent mobility is associated with a delay in students' academic progress of an average six months (Temple and Reynolds, 1999). Before outlining the current research on the impact of student mobility on academic achievement, it is helpful to describe the variety of reasons for student mobility.

TYPES OF MOBILITY

School Selection / Choice

It should be noted that not all mobility is equal. For example, students who change schools and enter better quality schools (e.g., magnets or academic academies) experience fewer negative consequences than students who transfer into other public schools (Temple and Reynolds, 1998). Given the preliminary findings that students moving to better schools have fewer negative consequences of mobility, a closer examination of the effects of different types or reasons for mobility is needed. We found no studies comparing achievement after self-imposed moves, versus moves resulting from redistricting due to administrative or policy decisions by school districts.

Familial Reasons

Many Americans move due to reasons beyond their control such as marital disruption or separation, death, eviction, job termination, or other negative circumstances (Mao, et al., 1998; Rossi, 1995). Some low-income families move constantly in order to take advantage of "move-in specials" at apartment complexes. Students may attend a given school for only three or four months, until the family moves to the next apartment (Mao, et al., 1998). However, many families change residence voluntarily due to perceived needs of their family or to take advantage of improved employment opportunities. Many Americans change residence in search of larger homes following the birth of children, or to gain access to good schools and neighborhoods

(Rossi, 1995). Regardless of the positive outcomes for families that often accompany a change of residence, the impact of this change on children has long been a concern to parents, teachers, school counselors, and administrators (Tucker, Marx, and Long, 1998). As school districts become more aware of the impact of student mobility on a student's academic achievement, they are instituting programs with a goal of reducing school mobility (Temple and Reynolds, 1998).

TIMING OF MOBILITY

Timing of a move has also been found to impact on the degree to which mobility effects student achievement. The earlier in the school year the student moves, the higher their academic achievement. Mao, et al., (1998) research found that students who moved in the last six weeks of the school year had significantly lower TAAS (Texas Assessment of Academic Success) test scores on reading and mathematics than students moving earlier in the school year.

ACADEMIC ACHIEVEMENT

Student Level Effects

As previously mentioned, the more mobility students experience, the lower their academic success (Mao, et al., 1998; Reynolds and Wolfe, 1999). New students must not only adjust to new curriculum, new texts, and other material, or a different pace of instruction placing new students ahead or behind the rest of the class, but also to new teachers and classmates (Reynolds and Wolfe, 1999). Recent studies (e.g., Jason, Danner, & Kurasaki, 1993; Reynolds, 1991; Wood, Halfon, & Scarlata, 1993; GAO, 1994; Astone & McLanahan, 1994; Kerbow, 1996) have found that students who are frequent movers (four or more moves) are much more likely than their non-mobile counterparts to have poor academic performance (Temple and Reynolds, 1998). Reynolds and Wolfe (1999) found that, during the primary grades, school mobility significantly lowered reading and math achievement, even after controlling for prior achievement and other factors.

Results from several studies offer contradictory results about which grade levels of students are most likely to show the greatest negative impact of mobility. Ingersoll, Scamman, and Eckerling's (1989) research suggests that the negative impact of mobility is greater at the early grade levels, where the rates for mobility were also highest. Rumberger and Larson (1998) found that older students experienced greater problems adjusting academically and socially to their environment than younger students. Mao, et al.'s, (1998) research suggests that students at both ends of the continuum are at the greatest risk of being negatively affected by mobility, and are also most likely to move (K-2 and 8-12). However, negative effects of student mobility were found at all grade levels. At the majority of grade levels, the effect of student mobility was stronger in mathematics than in reading (Mao, et al., 1998).

School Level Effect

Figure 1: Percent Passing All Tests Taken As a Function of Declining Mobility Rates

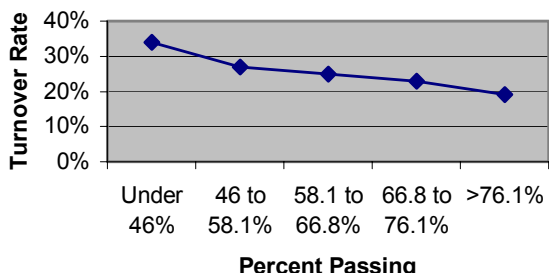


Figure 1 shows the relationship between student mobility (student turnover) and the percentage of students passing TAAS (Texas Assessment of Academic Skills) test. The percentage of students passing the TAAS increased as the student turnover rates decreased (Mao, et al., 1998).

Vandett’s research also found a significant impact of student mobility on the academic success of a school (Vandett, 1998). At the individual level, a student’s academic progress can be negatively impacted by frequent moves. At the aggregate level, high student mobility

has a negative impact on the average achievement scores for that school and/or school district. Thus, not only do individual students do worse if they change schools, but they also seem to do worse if they attend a school with a high student mobility rate—a greater proportion of students at their school changing schools in the past year (Reynolds and Wolf, 1999). This finding is important for school personnel who assert that student mobility negatively impacts the overall school performance rating when mobile students perform poorly on standardized tests (Mao et al, 1998).

Scollay and Everson (1985) suggest separating students into mobile and stable student groups when measuring school performance, rather than measuring the school’s performance using composite student achievement test scores. This disaggregation of the student data will prevent schools with high mobility rates from being seen as low achieving, regardless of the quality of the school’s or district’s instructional programs (Mao, et al., 1998). However, this in itself is not a solution to problems associated with mobility since it does not offer aid to students or schools adversely affected by mobility.

Figure 2: 1994-95 Student Mobility Rates by School Accountability Rating

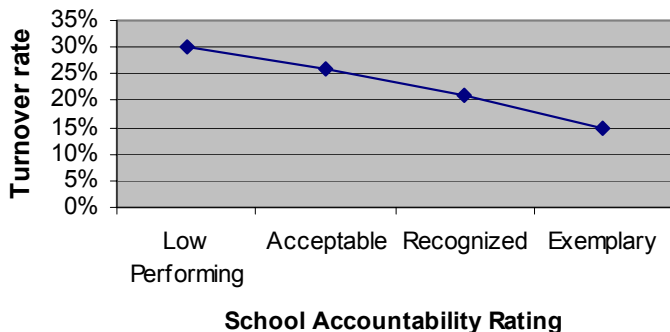


Figure 2 shows the relationship between the student turnover rates and the schools’ Accountability Rating. The rating based on the Texas Assessment of Academic Skills (TAAS) performance, dropout rate, and attendance rate, decreases as the student turnover rates increase. Schools rated as Exemplary had an average student turnover rate of 15% while Low-Performing schools’ average turnover rate was (30%); i.e., twice that of the Exemplary

schools. Those schools rated as Recognized or Acceptable experienced student turnover rates of 21 percent and 26 percent, respectively (Mao, et al., 1998). Moreover, attending schools with geographically mobile populations negatively impacts the average child’s performance on such

tests (Reynolds and Wolfe, 1999). Thus it appears that school mobility is not only disruptive to the mobile students, but to all children involved (Reynolds and Wolfe, 1999).

SOCIOECONOMIC STATUS

Studies have shown that mobility rates are higher for students who are economically disadvantaged than for those who are not economically disadvantaged (Mao, et al., 1998; Rumberger and Larson, 1998). A 1994 study of 15,000 third grade students found that economically disadvantaged children and children attending inner-city schools changed schools more frequently, had lower academic performance and were more likely to have repeated a grade than other students. Mao, et al's (1998) research found that of economically disadvantaged students, 15% changed schools at least once during the school year, while only 9% of other students had changed schools.

Mobility not only affects students academically, but behaviorally and developmentally as well. Wood, et al. (1993) reported that children who moved frequently (at least six times in the child's lifetime) were 50% to 100% more likely to experience a learning disorder, a delay in growth or development or have four or more behavioral problems than children who moved infrequently (few or no moves).

UNIQUE EFFECTS OF MOBILITY

Temple and Reynolds' (1999) research found that, even after controlling for background factors, multiple school changes (two or more) remained correlated with lower academic achievement. Tucker, Marx, and Long's (1998) research investigated the possibility that poor school performance and mobility have a spurious relationship and are really both products of Student Economic Status (SES). Their research also found that, after controlling for SES, race, sex, and family structure, mobility continued to have a statistically significant relationship to academic achievement.

RECOMMENDATIONS

Given the research findings that student mobility is generally damaging both to students and to the schools they attend, it is important that educators and policymakers examine the impacts of student mobility in their own communities (Rumberger and Larson, 1998). It is important to remember that the existence of a relationship between student mobility and student or school achievement does not prove a cause and effect relationship (Mao, et al., 1998), but some studies do suggest an independent contribution of mobility beyond that of socioeconomic status. Given the multitude of reasons for student mobility, there is also a multitude of tactics for decreasing the negative effects. Parents, communities and school districts can each take part in this effort.

Communities

Community leaders could organize cooperative efforts among schools, county governments, and local apartment owners. One example was the efforts of a local apartment owners' association to educate parents and landlords in Rochester, New York, and to offer them incentives with the goal of reducing student mobility (Kelley 1996; Schuler 1990). Social service agencies, schools,

and landlords could coordinate policies regarding starting and stopping services within the school calendar year (Temple and Reynolds, 1999).

School Systems

In order to mitigate the negative effects of mobility, districts may also adopt policies aimed at keeping children in the same school throughout the year (Mao, et al., 1998). A new open enrollment policy offers students in Spring Branch, Texas the opportunity to remain at their current school following a move out of their school's attendance area (Temple and Reynolds, 1999). Another policy solution previously stated is for school officials to inform parents on the importance of school stability and the school's precise attendance boundaries (Temple and Reynolds, 1999).

Educators could also provide resources and programs to aid mobile students in making smooth transitions into a new school. Orientation programs and family-school partnerships programs designed to counteract the negative effects of school mobility may prove beneficial (Reynolds and Wolfe, 1999). Therefore, school- and family-based interventions aimed at developing environmental stability during children's early school years may benefit student and school achievement (Reynolds, 1999).

Student Portfolios. Another method of smoothing student transitions between schools is the development of portfolios of students' work that can be transferred with the student to their new school (Kerbow, 1996). Lash and Kirkpatrick's (1990) study of a California elementary school found that of the 21 teachers interviewed, only two received any advance notification (one-day) of a new student. All 21 teachers identified information that would help prepare for a new student. Teachers in kindergarten were more interested in health issues, parental expectations, and any school experience of new students. Teachers in grades 1-6 were more interested in the academic performance – reading level, math skills, general performance level and previous curriculum. Teachers gathered information on personal lives and classroom behavior by interviewing parents, observing students' behavior, or reviewing student records. They gathered academic information from testing and unstructured interviews of students. Former and new teachers and/or schools could gather much of this information into a student's portfolio in advance of students entering a new classroom. Student portfolios would aid a student's new school in best placing that student in his/her new classroom and help to mediate the impact of mobility (Kerbow, 1996b). In the Lash and Kirkpatrick study (1990), records usually arrived several weeks after the new student.

Parents

Parents can mitigate the negative effects of student mobility on academic performance by limiting the number of school changes and by moving at the end of the school year (to the greatest extent possible) or early in the school year (Mao, et al., 1998). Rochester, NY, undertook a public information effort to ensure that parents realize that frequent school changes may have detrimental effects on students' educational success (Schuler, 1990).

CONCLUSIONS

Mobile students perform lower academically than their peers. Orientation programs and family-school partnership programs designed to counteract the negative effects of school mobility may prove beneficial (Reynolds and Wolfe, 1999). Community, school, and family interventions aimed at developing environmental stability during children's school years may benefit both student and school achievement (Temple and Reynolds, 1999).

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