

Mobility and School Functioning in the Early Grades

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ABSTRACT The relationship between initial school functioning and subsequent student mobility was examined among a sample of 2,524 early elementary school students from low-income families. Academic, behavioral, and school adjustment data were collected in the year of the study. The students then were trailed for 3 years, during which time their school mobility was observed. Analyses indicate that the most mobile students tended to have poorer initial school behavior ratings and school adjustment and to be from single-parent families. Implications for research and policy are discussed.

Ours is a highly mobile society. In the United States each year, approximately 20% of the population moves (U.S. Bureau of the Census, 1986) and between 20 to 30% of primary-grade children change schools (Berg-Cross & Flanagan, 1988; Lash & Kirkpatrick, 1990). Moreover, these figures probably underestimate mobility because of the inadequate systems for amassing data on this phenomenon. Clearly, a sizable number of children move from school to school each year.

Research has demonstrated that students who frequently change schools are more likely to experience academic, social, and emotional problems than students who do not change as often (Benson, Haycraft, Steyart, & Weigel, 1979; Calabrese, 1989; Ellickson, Bianca, & Schoeff, 1988; General Accounting Office, 1994; Ingersoll, Scamman, & Eckerling, 1989; Lash & Kirkpatrick, 1990; Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993; Schaller, 1974a, 1974b; Sloan, Jason, & Bogat, 1984). This has been especially true among low-income, ethnic minority students (Fenier, Primavera, & Cauce, 1981; Reynolds, 1991; Rodriguez, 1990) and appears to be related to the large rates of school dropouts found in this population (Fetler, 1989).

Most research dealing with mobility has focused on older children and has neglected early elementary school populations—especially those in lower socioeconomic groups who are likely to be most at risk. In addition, previous research

has been limited mainly to cross-sectional studies. In this study, we used a prospective design to determine whether diminished academic and behavioral functioning evident in the early elementary grades was actually related to later mobility. If so, this might point to a third factor affecting both mobility and functioning, for example, at-risk family traits such as low income.

In this study we examined (a) overall rates of mobility over a 3-year period, (b) demographic variables associated with mobility, (c) the relationship between initial social and academic functioning and mobility, and (d) the correlates of mobility among a subgroup of students identified as adjusting poorly to school. In keeping with previous work on older students, we predicted that poorer initial academic and behavioral ratings as well as overall poor adjustment to school would be related to high mobility. We also predicted that, using our demographic variables as measures of family social and economic status, high mobility would be associated with at-risk family traits.

Method

Sample

Participants were students from 24 elementary schools in a large urban school district that served predominantly Latino and African American families. Schools were chosen that served students from low-income households (an average of 84% of the children at these schools were in the free-lunch program).

Each of the principals at the 24 school sites was asked to nominate classrooms that were representative of their general student body in terms of academic and behavioral functioning. From those identified, two first-grade classrooms

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were selected from each of the 24 schools, and two kindergarten classrooms were selected from each of 23 of the schools, resulting in 1,301 (52%) first graders and 1,223 (48%) kindergarten students ($N = 2,524$). Of these, 1,242 (49%) were girls. With respect to ethnicity, 1,714 (67.9%) were Latino, 330 (13.1%) African American, 290 (11.5%) European American, 114 (4.5%) Asian American/Pacific Islander, and 76 (3.0%) of other or unknown ethnicity.

Measures

Mobility. The difficulties encountered in gathering longitudinal data on students are legion and are compounded in schools that do not have good trailing systems (Brook, Cohen, & Gordon, 1983; Ellickson, Bianca, & Schoeff, 1988). Because the participating schools did not have effective systems for following students who moved away, we worked with them to introduce a temporary process for the study.

The system involved two procedures. First, a pouch containing four postcards was attached to the front of the cumulative file of each participating student. A short description of the project was printed on the pouch along with directions to school clerks to fill out a postcard and send it to us whenever a student left or entered their school. If the pouch was empty, we asked the clerks to call or write the project for replacements. The postcards asked for the current school name and location and the date the student left or entered that school. When a student left without indicating where he or she was going, this was noted. Research staff reviewed these procedures yearly to ensure accurate reporting by the office staff at the 24 school sites. To the new schools that students were entering, we sent a letter and additional cards requesting verification of a student's subsequent enrollment and asking that the school use the system if the student moved again.

The second procedure involved having project staff go to each of the 24 participating schools at the end of the school year, check on the status of each student still enrolled, and update the status of those listed as unknown. This information was then used to update and correct current records and to check reliability of the postcard system.

The trailing system provided data on frequency of a student's leaving and entering and the location of new schools (i.e., within or outside the original school district). The following two measures of mobility were computed: (a) whether a student left the participating school during a particular academic year and (b) the total number of moves a student made during the 3-year period of the study.

Demographics. School records provided information on student age, gender, ethnicity, and student birthplace. In addition, language(s) spoken at home and with whom the student was living were determined from school records on over 85% of the sample. Information on the number of students in the free-lunch program was available for 19 of the 24 schools. These variables were selected based on their

ability to provide meaningful social and economic group distinctions.

Academic and behavioral functioning. At the end of the 1st year of the study, the most recent grades for reading, mathematics, and behavior were collected from report cards. Reading and mathematics grades were averaged to calculate an overall index of academic performance. A similar index was created for behavior by averaging grades for work habits and cooperation (eight ratings for kindergartners and nine for first graders). These two behavior ratings had high internal consistency—Cronbach's alpha was .96 for both. For each of the two general indices (academics and behavior), a three-level categorical variable was generated (i.e., "making below satisfactory progress," "making satisfactory progress," and "making above satisfactory progress").

Absenteeism and tardiness. Absenteeism was calculated from school records by dividing the number of school days absent by the total number of school days the child was registered. A similar percentage was created for tardies, but the number of actual days in attendance was used in place of the total number of days registered. By adjusting these percentages over a 9-month school year, we generated a three-level categorical variable for each measure (i.e., "once or less a month," "two to four times a month," and "more than four times a month").

School adjustment. As an indicator of which students were having the most difficulty adjusting to school, teachers of the participating kindergarten and first-grade students were asked during the 2nd month of the school year to identify 3 students in their class who were manifesting the greatest difficulty in terms of social, emotional, behavioral, and educational functioning.

Results

Overall Mobility Patterns

Over the 3 years, a total of 884 (35.0%) of the sample left participating schools—440 (35.9%) kindergartners and 444 (34.1%) first graders. During this time, 135 (5.4%) of the students (69, or 5.3%, of the kindergartners and 66 (5.4%) of the first graders) changed schools more than once. Yearly means for leaving were 13.4% overall, 13.8% for kindergarten, and 12.9% for first grade. These rates were lower than those of students in 7th to 12th grades within the district (23%); however, no comparable data are currently kept on mobility patterns among elementary students (Renfroe, 1993). Chi-square analyses revealed no significant differences between or within the two grade levels with respect to the number of students leaving yearly (see Table 1).

Demographic Correlates of Mobility

We analyzed the relationship between the two measures of mobility (still at the participating school vs left the

Table 1.—Rates of Student Mobility Over Three-Year Study Period

Year	Grade	Kindergarten (1,223)				First grade (1,301)				Overall (2,524)		
		Poor school adjusters (126)		Others (1,097)		Poor school adjusters (145)		Others (1,156)				
		n	%	n	%	n	%	n	%	n	%	
1988-89	K	16	13	129	12	1	16	11	148	13	309	12
1989-90	1	14	13	149	15	2	22	17	144	14	329	15
1990-91	2	13	14	119	15	3	23	22	91	11	246	13
All 3 years		43	34	397	36	61	42	383	33	884	35	

Note: Numbers and percentages represent students in each group who left their school in the year indicated and are based on the students remaining in the sample

school; less than two vs. two or more moves over the 3-year period) and the five demographic variables (birthplace, sex, ethnicity, English-language proficiency, and household composition). To account for possible alpha inflation from the use of multiple chi-square analyses, we adjusted the alpha level to .01 for each specific set of demographic variables.

Mobility was not found to differ by birthplace for either index. Mobility was related to sex in the 1st year of the study, but not subsequently; in the 1st year, more boys than girls changed schools (13.3% vs. 10.4%), $\chi^2(1, N = 2,524) = 8.18, p < .005$. There were two findings related to ethnicity. First, over the 3-year period, European Americans made significantly more multiple moves than Latinos did (8.6% vs. 5.2%), $\chi^2(1, N = 2,004) = 7.61, p < .006$. Also, Latinos were significantly more likely to attend another school within the district after making their first school change than European Americans were (58.6% vs. 38.3%) $\chi^2(1, N = 2,004) = 17.6100, p < .001$.

Although a variety of languages were reported spoken by students (e.g., Korean, Tagalog, Vietnamese), the majority of students spoke either English ($n = 1,065$; 42%) or Spanish ($n = 1,118$; 44%). Students who were native or proficient English speakers had significantly more multiple moves than Spanish-speaking students did (12.9% vs. 9.2%) $\chi^2(1, N = 2,183) = 7.06, p < .01$. This same language effect was found in Year 2 and overall for students leaving participating schools. Specifically, in Year 2 the percentage of English speakers who left one school was 15.2% vs. 10.8% for the Spanish speakers $\chi^2(1, N = 1,925) = 6.78, p < .01$. Across all 3 years, respective findings were 38.6% vs. 30.9%, $\chi^2(1, N = 2,183) = 14.07, p < .001$.

Data on family composition indicate that students from two-parent households ($n = 1,478$; 59%), were less mobile than those living with a single parent or with other relatives ($n = 872$; 35%). Specifically, significantly fewer students from two-parent households moved multiple times than those living with a single parent or with other relatives (3.5% vs. 7.8%, respectively), $\chi^2(1, N = 2,350) = 20.6, p < .001$. For students leaving participating schools over the 3-

year period, significant differences were found for Year 1 (9.9% vs. 15.1%) $\chi^2(1, N = 2,350) = 13.6, p < .001$, and for all 3 years 31.5% vs. 39.9% $\chi^2(1, N = 2,350) = 16.92, p < .001$. The same trend was evident for the 2nd (13.8% vs. 16.6%) and 3rd years (11.7% vs. 15.1%), although the differences were not statistically significant.

In addition to student-level analyses, we made comparisons among participating schools. The six schools with the highest proportion of students from low-income families (i.e., those with over 90% participation in the free-lunch program) had significantly higher rates of student mobility (i.e., students leaving the school over 3 years) than the 13 other schools (38.7% vs. 32.7%, respectively), $\chi^2(1, N = 2,008) = 6.35, p < .02$. A more detailed analysis of this finding revealed that within the schools with under 90% free-lunch participation, significantly more European Americans had multiple moves than Latinos did (9.3% vs. 4.9%); $\chi^2(1, N = 1,174) = 4.93, p < .03$. No significant racial differences were found within the schools serving the poorest samples.

Students from the 15 schools with populations over 1,000 had significantly higher rates of mobility than did students from the 9 schools with smaller populations (37.0% vs. 31.5%, respectively), $\chi^2(1, N = 2,524) = 7.71, p < .01$.

Mobility and Grade, Behavior, and Attendance Measures

Because of the study's prospective design, we were able to examine the association of academic and behavior performance during Year 1 with mobility over the next 3 years. Students who did not move or had made just one move were compared with those who had made multiple moves since they enrolled in the district. Because of the small sample size for multiple movers, kindergarten and first-grade report card data were combined for these analyses.

Significantly more students who did not move or moved only once were rated as above average in their behavior compared with students moving two or more times. This relationship was found when tested with numbers of moves made only after leaving the participating school (59% vs. 37%), $\chi^2(1, N = 1,170) = 5.14, p < .03$, and with all known

moves made while in school (59% vs. 47%), $\chi^2(1, N = 1,170) = 4.15, p < .05$. Although no differences were found between the groups on academic performance indices, one should note that for the total sample, 58% were graded by teachers as doing above-average work and only 18% were graded below average, implying limited variability within the sample.

Absentee and tardiness data were analyzed in a similar fashion. Students who did not move or who had moved only once were compared with those moving two or more times. Significantly more in the former group were absent less than once a month (68% vs. 51%), $\chi^2(1, N = 1,663) = 4.45, p < .05$. The same trend was found for all known moves made while in school (68% vs. 59%). Mobility was not related to tardiness.

Mobility and Poor School Adjustment

To look at the relationship between mobility and overall school adjustment, we contrasted the group of students selected by teachers as having made the poorest school adjustment ($n = 271$; 11%) with the rest of the sample ($n = 2,253$; 89%). The results indicate that the poor-school-adjustment group was more mobile than the rest of the sample. That is, comparisons made between those who moved once or less with those moving two or more times revealed significantly more multiple movers in the poor-adjustment group than among other students (8.9% vs. 4.9%), $\chi^2(1, N = 2,524) = 6.67, p < .01$. This relationship remained significant even when all known moves made prior to entering a participating school were included in the analysis (14.8% vs. 10.2%), $\chi^2(1, N = 2,524) = 4.89, p < .03$.

Comparisons in the kindergarten sample revealed no significant differences between the poor-adjustment group and other students with respect to the yearly mobility rate from participating schools during each of the 3 years. Among the first-grade sample, more students in the poor-adjustment group ($n = 145$; 11%) had left participating schools than other students had ($n = 1,156$; 89%) by the 3rd year, $\chi^2(1, N = 1,301) = 10.0, p < .002$. Finally, there were no significant differences between poor adjusters and other students with respect to the type of school students subsequently attended; 56% of all students moved to other schools within the district.

Discussion

The major finding in this study of 2,524 kindergarten and first-grade students was the relationship between initial poor school functioning (i.e., lower behavior ratings and higher absenteeism) and high mobility over the next 3 years. Although this relationship was not found for academic grades, there may be a reluctance to assign kindergarten and first-grade students below average academic grades, especially at schools such as those in this sample.

With respect to mobility per se, a sizable portion (35%) of children in the early grades changed schools over the 3-year period; 5% changed schools more than once. The overall yearly mean for leaving (13.4%) is somewhat lower than that reported for students in junior and senior high school within the district (23%), but no comparable figures were kept on elementary-aged students. It is noteworthy that the most mobile students did not live with two parents and attended crowded schools serving the poorest families. These factors have been frequently linked to school failure among older students (Berg-Cross & Flanagan, 1988; Ingersoll, Scamman, & Eckerling, 1989; Lash & Kirkpatrick, 1990; Reynolds, 1991; Wood et al., 1993). The findings suggest that poor school functioning and mobility may both be related to a third factor—at-risk family traits.

An unexpected finding was that Latino students changed schools less often than the European American students in the sample. When Latino students did change, it was usually within the school district. Perhaps many of the Latinos in our sample who were newly arrived immigrants lived initially with relatives and lacked the resources to move. When they did move, it was seldom outside the confines of the same neighborhood, thus allowing them to remain at the same school. European American students apparently had the resources to move further away. Finally, we found that a subgroup of students identified as adjusting poorly to school did not leave participating schools at a higher rate than other students; however, they made significantly more school changes over the 3-year period.

One limitation of the findings is that the strength of the associations was somewhat low (i.e., contingency coefficients ranged from .04–.10). However, most of the relative differences in the percentages were of practical significance. Another limitation is the instability of some of the findings (e.g., some relationships were found during Year 1 of the study but not during the following years). This may reflect the increased stability of the remaining students at the original schools. Despite this and other limitations (e.g., incomplete data, lack of long-term outcome measures), we suggest that student mobility warrants the careful attention of researchers, especially those designing school-based interventions.

Factors leading to high mobility among families with limited financial resources (e.g., unstable housing and employment) are beyond the scope of most psycho-educational interveners, but these factors need to be addressed, because they effect the interrelated problems of mobility and poor performance. Programs that assist single parents by providing before- and after-school day care to allow them to maintain stable employment may reduce student mobility. With respect to students who do move, we can design and evaluate the impact of programs aimed at minimizing the negative effects some of them experience in moving from school to school. It is somewhat surprising that, despite a general awareness of negative consequences related to frequent school changes, many schools do not

have systematic programs to assist students as they make the difficult transition into a new school.

One preventive approach worth studying is the policy shift in some school districts that eliminates mandated school changes when a student moves to another locale within the district. Another strategy to study involves efforts to establish social supports for new students. For example, we are developing and evaluating interventions designed to enhance a welcoming atmosphere and provide a variety of social support structures for newly enrolling students and their families (Adelman & Taylor, 1992; Simoni, 1993). Further insight into the impact of moving, transition problems, and intervention strategies also can be garnered from studying students who have just entered the country. Some schools receiving immigrant populations are experimenting with newcomer schools and programs designed to facilitate what is patently a complex socio-cultural and psychological transition.

Intervention programs and special populations provide significant opportunities to investigate how we can mitigate the effects of mobility on school functioning. This is especially important given the increased binational migration of children from Mexico and Central America into the U.S. school system (Rodriguez, 1990). At the same time, such activity can help clarify factors associated with moving and entering a new school, the degree to which mobility is causally linked to poor functioning, and the degree to which early poor school functioning leads to later dropping out.

NOTES

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