

# *Swapping Desks:*

## **The Impact of Mobility on Student Achievement**

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### **The Impact of Mobility on Student Achievement**

What happens when students change schools? What happens within a school district if a third of its students either move into the district or out of the district within a given school year? Why is the flux of students more common in urban districts? What happens to the students who are not moving? How does student mobility affect the achievement and potential achievement of students? And, who are the students who seem always to be moving from one school to another?

“Student mobility” is the term that describes students’ movement in and out of classrooms, schools, and school districts throughout a school year. The impact of high student mobility plagues public school districts and is a primary contributor to the low academic achievement of many urban students. The correlation between students who move frequently and those who live below or near poverty is very high. There is also a high correlation between mobile students and immigrant students and students of limited English proficiency. When given the opportunity to move out of poverty and substandard housing, families seize it and become upwardly mobile. In many communities, however, mobility does not arise because of better economic opportunity; but, instead, families and students—and, in particular, immigrant families—become mobile because of financial difficulties or because of a need (often recurring) to revisit their country of origin. In immigrant gateway communities such as Chelsea, Massachusetts, where the population is predominantly poor and predominantly immigrant, student mobility dramatically impacts student achievement in the schools. The main causes of student mobility in Chelsea are typically related to housing, poverty, immigration, and family crises.

The constant flux of student populations caused by high rates of mobility in urban schools impedes schools’ attempts to engage in consistent educational reform and to provide coherent instruction both to mobile and non-mobile students. Because there is a correlation between high student mobility and lower student academic performance, a high percentage of mobile students within a district tends to depreciate a school’s or a district’s average student performance scores on state assessments.

The public school system in Chelsea, Massachusetts, is a prototypical urban district that educates a highly mobile, low-income, second-language student population. Chelsea is densely populated with a 2000 United States Census official population of 35,080. Most demographers believe this figure is underestimated due to significant numbers of unreported immigrants in the city. The median Chelsea household income in 2005 was \$33,100, compared to the state’s median income of \$57,176. Additional data indicate that 20.6 percent of Chelsea families live below the poverty line, compared to 6.7 percent statewide. In the 2007-2008 school year, 80.3 percent of Chelsea’s students qualified for free or reduced lunch, compared to the state’s average of 29.5 percent; 7.2 percent of Chelsea’s residents were unemployed in 2002, compared to 5.3 percent statewide. Finally, Chelsea’s schools average annually a 30.7 percent student mobility rate with the lowest rate (2004-2005) at 23.6 percent and the highest (2003-2004) at 37.5 percent (Boston University/Chelsea Partnership Annual

Legislative Report, 2008). There is no comparable tracking of student movement statewide although legislation proposed in the 2008 session of the state legislature called for a statewide study of student mobility.

The data that do exist about student mobility show two important relationships: 1) High student mobility correlates with schools and school districts with high rates of poverty, immigration, and residential mobility; and 2) student mobility impacts negatively the academic achievement of both the stable and the non-stable student populations in a school or district.

The United States has one of the most mobile populations of all developed countries. Almost one-fifth of all Americans move annually. In 1999-2000, 15 to 18 percent of school-age children changed residences from the previous year. According to the United States Census Bureau, for the year 1999-2000, people who moved were more likely to be among lower-income families; they tended to be renters, and they were more likely to be of Hispanic origin (United States Census, 2001). In Chelsea, Massachusetts, 48.4 percent of the population is Hispanic; and 71.1 percent of the population lives in renter-occupied housing units (Commonwealth of Massachusetts, Housing and Community Development, 2000). Within the public schools, the student population is 80 percent Hispanic, and 87 percent of the students qualify as students from low-income families (Commonwealth of Massachusetts, Department of Elementary and Secondary Education District Profiles, 2009).

One way to determine a student mobility rate is to add the number of students who enter a district's schools within the course of a school year to the number of students who depart during the year and divide that sum by the official school population on a given date (October 1 in Massachusetts). Most districts in Massachusetts track student mobility rates within a nine-month or ten-month school year as the range for the data. Therefore, most Massachusetts districts with high mobility rates actually undercount mobile students because those students who move in or out during the summer months do not figure into the algorithm. There currently is no state requirement placed on public school districts to track student mobility. School districts that do document student mobility are most often urban. The student mobility data in Table 1 provide a ten-month school-year snapshot of students entering and leaving four urban districts in Massachusetts.

**Table 1**  
**Annual Mobility Rates: School Year 2004-2005**

City	Chelsea	Holyoke	Worcester	Somerville
<b>Mobility Rate</b>	23.60%	17.30%	23.90%	25.50%

(Data submitted by individual school districts)

Mobility rates in any year for any one school district may vary markedly because of economic trends, housing and rental prices, new immigrant groups, and other variants. In Chelsea, for example, the mobility rate for the 2003-2004 school year reached an all-time high because of a large influx of Somali refugees. The following table summarizes the mobility trends over a ten-year period in Chelsea, Massachusetts:

**Table 2**  
**Chelsea Public Schools Annual Mobility Data**

<b>Year</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Mobility Rate</b>	33.7%	33.5%	23.9%	36.0%	28.6%	37.5%	23.6%	32.0%	28.5%	27.2%

(Boston University/Chelsea Partnership Annual Legislative Report, 2008)

For the school year 2005-2006, the Massachusetts Department of Elementary and Secondary Education Student Information Management System documented 390 educational units functioning as independent public school districts. Out of the 390 educational organizations, the Department identified 24 as meeting the criteria to be deemed “urban” school districts. All school districts not identified as urban are categorized as non-urban. Therefore, there were 366 school districts that are non-urban. To pare down that number for the sake of building a credible and comparable study between urban and non-urban districts, Chelsea Deputy Superintendent Mary Bourque in a controlled quantifiable research study excluded regional and charter school districts. Additionally, all non-urban school districts with a student enrollment less than 2,500 were excluded from the sample. The result was a control group of 91 non-urban districts for her study.

Overall, the 2005-2006 student enrollment for the 115 urban and non-urban school districts in the study was 646,761, about two-thirds of the total public school population in Massachusetts. From October 1 to June 30, a nine-month calculation, fully 69,122 students or 10 percent of all the students were mobile, that is, they moved from one residence to another, from one school to another. The total urban student population (47,202 students) that was mobile during the nine-month period was more than double that of the non-urban school districts (21,920 students). The average mobility rate, calculated in the aggregate, was 9.8 percentage points larger in the urban school districts compared to the non-urban school districts. Mobility rates in the sample year ranged in the urban school districts from a high of 26.2 percent (Holyoke) to a low of 9.6 percent (Pittsfield and Leominster). The non-urban school districts ranged from a high of 15.2 percent (Randolph and Gardner) to a low of 1.5 percent (Duxbury). The following table summarizes the comparisons:

**Table 3**  
**Student Mobility in Massachusetts Urban to Non-Urban Comparisons**  
**2005-2006: October 1<sup>st</sup> –June 30<sup>th</sup>**

9-Month ( <i>N=115</i> )	Urban <i>N=24</i>	Non-Urban <i>N=91</i>
Total students entered	28,485	12,343
Total students left	18,717	9,577
Total mobile students	47,202	21,920
Enrollment on October 1	278,259	368,502
Average mobility rate	15.6	5.8
Maximum mobility rate	26.2	15.2
Minimum mobility rate	9.6	1.5

(Bourque, 2008)

The data reveal that across Massachusetts there is a spectrum of mobility among students of some magnitude. All districts have some degree of student mobility. School districts have highly mobile students if the nine-month mobility rate is 10 percent to 19.9 percent. School districts have hypermobile populations if the annual student mobility rate is 20 percent or more<sup>1</sup>.

Of the 24 urban school districts in the data set, 21 documented mobility rates of more than 10 percent; and three documented a mobility rate of just under 10 percent. (Two districts had rates of 9.6 percent, and a third district had a rate of 9.7 percent.) The student mobility rates of the urban school districts in Massachusetts overwhelmingly indicate that in the vast majority of students are likely to be Highly Mobile (18 districts) or Hypermobile (3 districts).

Chelsea's nine-month student mobility rate for 2005-2006 was 25.4 percent; its overall twelve-year average mobility rate is 31 percent. The school district is consistently in the hypermobile category. Chelsea's mobile student population for the 2005-2006 school year was 28.4 percent Limited English Proficient, 76.1 percent First Language Not English, and 73.7 percent low income. Anyone of these socio-demographic characteristics places a student at-risk academically for lower performance. However, in Chelsea, most students in any one category also may be claimed in another. Adding a fragmented educational experience because of frequent school moves compounds the number of obstacles both the student and Chelsea educators must overcome in order to close gaps in achievement.

Of added concern is that few public school districts understand student mobility as a longitudinal problem. The mathematical calculation for student mobility does not address the cumulative impact of high mobility rates over time (Kerbow, 1996). Of the Chelsea High School graduating class of 2005, only 30 percent of the graduates began their schooling career in Chelsea's

<sup>1</sup> The collective student population of a school or school district is hypermobile if the nine-month, October 1<sup>st</sup>-June 30<sup>th</sup> student mobility rate exceeds 20 percent (Bourque, 2008). This research on hypermobile student populations builds upon the work of Popp, Strong, & Hindman, 2003, p. 12; Crowley, 2003, p. 24; and, Rhodes, 2007.

kindergarten. In the graduating class of 2006, only 31 percent of the graduates began their schooling career in Chelsea's kindergarten. Conversely, within the kindergarten class of 1992-1993 (the high school class of 2005), only 14.7 percent graduated from Chelsea High School thirteen years later. Within the kindergarten class of 1993-1994 (class of 2006), only 15.1 percent of kindergarteners graduated from Chelsea High School thirteen years later.

A closer examination of the mobile student population in Chelsea highlights another important issue: Mobile students are often also limited English proficient and therefore have second language learning needs. Between July 1, 2005, and June 30, 2006, the Chelsea Public Schools enrolled 503 students district-wide. Of the 503 students new to the district, 265 were immigrants. Of those 265 students, 251 (50 percent of all new enrollees) were not proficient in English at the time of registration. Traditionally, while adapting to the American way of life, families frequently move before they settle into one residence for any extended period of time. The instability that is a consequence of such frequent moves impacts the educational experience of the immigrant student, as well as the school or school district that the immigrant student enters and leaves. Further complicating matters for schools is the fact that modern immigrants may have a different view of immigration than their twentieth-century counterparts; many do not immigrate with a commitment to constructing a new and permanent life within the United States. In addition to sending money and goods to families in the home country, the modern immigrant family may frequently travel back to the home country and stay for long periods of time. Such extended leaves can disrupt the formal education of immigrant children. Moreover, such leaves fragment the school's and school district's ability to provide a coherent and longitudinal educational experience for all students. The movement undeniably also contributes to lower overall student performance scores.

**Table 4**  
**Students New To District During the 2005-2006 School Year**

<b>Chelsea Public Schools- Students New to District</b>			
	<b>Enrolled</b>	<b>From within the U.S.</b>	<b>From outside the U.S.</b>
<b>Grades 1-12 (new)</b>	503	238	265
<b>Fluent in English</b>	208 (41.3%)	194 (38.5% of the 503)	14 (2.7% of the 503)
<b>Not fluent in English</b>	295 (58.6%)	44 (8.7% of the 503)	251 (49.9% of the 503)

(Bourque & Lapuma, 2006)

There is extant research that establishes a causal relationship between mobility and lower student academic performance. In 1994 the federal Government Accountability Office (GAO) reported the following:

- Of the nation's third graders who have changed schools frequently, forty-one percent are low achievers, that is, below grade level in reading, compared with twenty-six percent of third-graders who have never changed schools.

- Results are similar for math; thirty-three percent of children who have changed schools frequently are below grade level, compared with seventeen percent of those who have never changed schools.
- Overall, third-graders who have changed schools frequently are two-and-a-half times as likely to repeat a grade as third-graders who have never changed schools.

In the two Massachusetts smaller urban public school districts of Chelsea and Somerville, comparative data establish a correlation between student mobility and academic achievement. The Performance Index (PI) for the stabile student cohort, the cohort of students enrolled in the Chelsea and Somerville Public Schools for a minimum of two years and who took the 2004 MCAS (Massachusetts Comprehensive Assessment System) exams in mathematics, was compared to the non-stabile (mobile) cohort of students. The non-stabile cohort consisted of students who were not in, and did not take, the 2004 mathematics MCAS in Chelsea or Somerville schools but who were registered as students to take the 2006 tests. The stabile cohort scored significantly higher than did the non-stabile cohort. The following table demonstrates the differences:

**Table 5**  
**Performance Index (PI) of Stabile Cohort Compared To Non-stabile Student Cohort:**  
**MCAS Mathematics**

<b>Chelsea-2006 MCAS-Mathematics</b>						
Stabile Cohort	Grade	PI	Non-stabile Cohort (new)	Grade	PI	Differential
227	10	69.6	138	10	48.4	-21.2
297	8	51.3	81	8	32.7	-18.6
274	6	50.3	70	6	32.1	-18.2

(Bourque & Lapuma, 2006)

<b>Somerville-2006 MCAS-Mathematics</b>						
Stabile Cohort	Grade	PI	Non-stabile Cohort (new)	Grade	PI	Differential
251	10	81.2	81	10	64.8	-16.4
291	8	62.3	81	8	55.6	-6.7

(Pierontozzi, 2006)

Most often, research about student mobility centers on the impact frequent school moves have on the academic achievement of the single mobile student. However, student mobility is detrimental to the academic achievement of non-mobile, or stabile, student populations as well. Test scores for non-mobile California students were significantly lower in high schools that had high mobility rates compared to high school test scores for non-mobile students attending high schools with high stability

rates (Rumberger, Larson, Ream, & Palardy, 1999). Educators in the highly mobile California high schools deemed the effect on both mobile and non-mobile student populations as a “chaos factor that impacts classroom learning activities, teacher morale, and administrative burdens—all of which can impact the learning and achievement of all students in the school” (Rumberger, Larson, Ream, & Palardy, 1999). In order to address the academic needs of all new students, teachers report that they frequently spend time “doubling-back,” reviewing and remediating course material in order to “integrate new students into the classroom” (Williams, 2003). This doubling-back slows curricula pacing and has an impact on the stable student population (Hirsch, 2006; Kerbow, 1996; Rumberger, Larson, Ream, & Palardy, 1999). Over time, this lag in curricular pacing impacts the vertical progression of subjects across the grades and the amount of academic material to which a student is exposed. This phenomenon is referred to as a “flattening of curriculum pacing” (Kerbow, 1996). In his 1996 study of the Chicago Public Schools, Kerbow concluded that distinct patterns of lags within the curriculum were evident by the end of second grade. By the end of fifth grade, the academic emphasis and rigor were “equal to a fourth grade emphasis in a stable school,” (Kerbow, 1996) a full year behind.

Urban school districts educating highly mobile students face financial burdens that are exacerbated by state policies and the federal Title I Act of 2002, *No Child Left Behind* (NCLB). Within state-implemented NCLB accountability measures, average student performance scores are the single most important factor that determines the amount of progress a school or district has made toward reaching 100 percent proficiency. Consequently, urban schools and school districts with highly mobile student populations have disproportionately failed to make significant annual gains in student achievement. The NCLB accountability framework unjustly and negatively sanctions highly mobile urban schools and school districts based upon population factors that are beyond the districts’ control.

NCLB sanctions for schools that fail to make adequate yearly progress in one or several categories result in punitive fiscal consequences that include the diversion of Title I funds; that is, when a school fails to make progress for a pre-determined amount of time, funds that could once be used to hire extra reading or math teachers for intervention or remediation with mobile students must be diverted to activities that NCLB requires, such as the provision of supplemental education services to students and families who may—or who may not—elect such services. For a variety of reasons, this diversion of Title I funds often exacerbates the difficult task of moving all students to proficiency by 2014 and impedes closing the achievement gap for minority and low-income students. In this sense, NCLB unintentionally penalizes the very students it was designed to help.

Furthermore, the accountability framework approved for Massachusetts and other states holds schools and school districts with highly mobile student populations liable for academic performance gains based on a measurement system that implicitly presumes stable student populations. Instead of evaluating individual student progress over an educational lifetime or from the moment a student arrives into the system until he or she leaves, the accountability framework measures the academic progress of student groups in any given year against student groups of the same grade level in previous years. The compared cohorts consist of entirely different individuals. This accountability framework, without any adjustment to take into account individual student mobility, disproportionately labels effective urban schools and school districts as failing and results in Title I funds being diverted from otherwise successful educational programs. Furthermore, in smaller urban districts like Chelsea, the

disparities among annual cohorts are magnified because of the smaller numbers of students in each annual group.

As part of its overall efforts to provide educational opportunities for its students and to increase academic achievement, the teachers and administrators of the Chelsea Public Schools have strived to design policies and programming that address the impact of student mobility. In addition to relying on a clearly articulated district-wide curriculum that is aligned with the Massachusetts Curriculum Frameworks (as required under the Massachusetts Education Reform Act and NCLB), the district has defined for teachers what they are to teach during each quarter of the year, when they are to teach it, and what constitutes student mastery of curricular content. Moreover, the district has continued to administer common quarterly benchmark assessments in all academic areas to measure student performance against common criteria. These assessments, coupled with core instructional practices that all teachers must adopt, provide a curricular coherence and consistency district-wide that allows educators to make as much headway as possible with mobile students in the short time that they may reside in the district. These efforts constitute a means to mitigate the already fragmented education that most mobile students receive.

Additionally, the district has adopted a model of central student registration and requires that all students be placed in a school and a classroom within 48 hours of registration. Students are no longer permitted to change schools for intra-district moves, and the registrars at the Parent Information Center place students in a school even if they lack full information about the student at the time of new registration. The district has adopted a philosophy of reassigning students if needed once full academic information is available. The district works from the premise that to have a student placed within a school system quickly is inevitably better than to deny a child's schooling for any period of time because of insufficient information about a student's academic background.

While the district cannot prevent students from transferring from or into other districts, it has adopted a policy that seeks to diminish the negative impacts of such a move on the mobile student. If, for example, parents indicate that they wish to transfer their students to another school district within the last half of the school year, district administrators make it a point to speak with parents and encourage them to stay in the district through the end of the year. Failing to persuade parents otherwise, district officers strive to convince parents and students to make changes only at the end of an academic quarter. While, as district administrators point out, this attempt to keep the mobile student within the district benefits the new, receiving school district more than it does Chelsea, administrators believe they have a moral obligation to do everything possible to soften the negative impact that an inter-district move can have on students. In this same vein, the district has adopted a policy of actively discouraging parents from taking extended vacations to their native country if the vacation would mean a student's extended absence from school. The district disenrolls students who have been absent from school for more than 15 straight days. The burden that parents face of having to re-register a child for school after an extended absence has convinced many parents to reconsider travel plans and to schedule extended vacations at times school is out of session. For many students, this policy has resulted in the provision of an education that is less fragmented and more coherent.

Despite these new policies, much remains to be done if the Chelsea School District and other urban districts in Massachusetts are to make headway in combating the negative effects of student mobility on both individual and overall student achievement. The Chelsea School District will

continue to employ techniques for triage with entering students to provide appropriate intervention and remediation for highly mobile students who are below appropriate levels of proficiency. At the same time, state and federal policies must change the ways present mandates effectively penalize urban districts by measuring student progress on a stable, suburban model. Furthermore, there needs to be an acknowledgment about the realities of urban migration and mobility and an appropriate redefinition of equitable educational funding that takes into account the real costs of mitigating the detrimental effects of high mobility for real urban students. The nearly half-century old Title I Program has long recognized the detrimental impact of poverty upon student achievement. Federal and state policies must now also recognize the impact of mobility on achievement.

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