Disruptive Change:
Student Mobility and the Influence of Neighborhoods, Schools and Peers on Educational Achievement*

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September 21, 2015

Abstract
Student mobility is pervasive and has important implications for the social integration of students in peer groups. Yet previous research on neighborhood, school, and peer effects largely ignores the role of changes in family residence and related school transitions, despite the fact that most theories of peer influence attribute a critical role to the social integration of students. This paper integrates research on student mobility with work on neighborhood, school and peer effects. It argues that student mobility not only has a negative effect on test-score growth, but that it also temporarily alters the influence of neighborhoods, schools and peers. To examine this adjustment process, I use a large-scale panel dataset that follows over 180,000 students as they progress through school. The analyses are based on a difference-in-difference matching approach that compares the test-score growth of students who change schools or move to a different neighborhood with the growth of similar students who remain in the original school. The findings contribute to our understanding of the lack of positive effects for many residential relocation or school desegregation programs, and speak to educational policy that relies on school transfers such as school choice or desegregation and voucher programs.

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Ever since the publication of landmark studies such as William Julius Wilson’s *The Truly Disadvantaged* (1987) or the Coleman report (Coleman 1966), neighborhood and school effects have been a central research topic across the social sciences. At the core of this agenda is the argument that exposure to high poverty neighborhoods places teens at risk (Sampson et al. 2002) and peers in school shape educational outcomes (Epple and Romano 2011; Sacerdote 2010). At the same time, the empirical evidence for the success of policy interventions that aim to place families in low-poverty neighborhoods or move students to better schools is mixed. Prominent programs such as the Moving to Opportunity experiment or school vouchers show small and partly gender-specific effects. Some claim that this lack of clear benefits contradicts the long tradition of research on the importance of context effects, which has provoked an ongoing debate about the findings from these interventions (Johnson 2012; Kling et al. 2005; Sampson 2008; Clampet-Lundquist and Massey 2008; Angrist and Lang 2004; Armor 2002; Cullen et al. 2005).

This study integrates the literatures on student mobility and neighborhood, school and peer effects to move beyond this ongoing controversy and broaden our understanding of context effects. Most theories of context effects describe mechanisms that are based on social integration and relations to peers in the local environment as well as knowledge about available resources. Student mobility arguably disrupts existing relations and exposes students to an entirely new environment. Considering that student mobility is pervasive across urban school districts in the U.S., the disruptive nature of student mobility has fundamental implications for our understanding of context effects. Based on this argument, I propose that student mobility not only has a temporary negative effect on test-score growth itself, but that it also alters context effects in the years after students move to a new school. Accordingly, student mobility initially reduces the benefits of transferring to a school or neighborhood with higher achieving peers. It is only with time that students begin to experience the positive effect that is commonly associated with
higher quality schools and neighborhoods. At the same time, mobility might initially buffer students who change to worse schools from the influence of lower-achieving peers.

To evaluate my argument about the temporal adjustment process of mobile students, I use a large-scale administrative dataset from North Carolina (NC). This dataset includes all students enrolled in NC public schools between 1997 and 2014 so that I can track students when they transfer between public schools and move to a different neighborhood as long as they remain in NC public schools. The analyses focuses on transfers to better schools but are supplemented with equivalent results for static and downward mobility. Using a combined difference-in-difference, matching approach, I first estimate the overall effect of changing schools and/or neighborhoods over several years. These overall estimates reflect the total impact of student mobility and include both the effect of mobility itself and the context effect related to the new environment. In the second step of my analysis, I separate the effect of mobility from exposure to the new environment and examine how student mobility alters peer effects. The findings show that the effect of peers is substantially smaller for mobile students with a clear temporal adjustment process for boys and to a lesser extent for girls: Boys who transfer to a school with higher achieving peers initially learn at the same rate as their peers in the previous school, despite the improved learning environment. Only after several years, they begin to experience the benefits associated with higher performing peers. For girls, this temporal adjustment process is less pronounced, with a positive effect almost immediately after transferring to a higher quality school – measured by peer performance – but only a small increase in this positive effect over time. Although less pronounced, downward mobility shows a similar temporal adjustment process initially isolating mobile students from the negative influence of lower performing peers.

These findings support my central argument about the temporal adjustment processes and contribute to several research areas. First, the study broadens our understanding of context effects by highlighting the important role of student mobility and exposure dy-
namics. It also extends the literature on student mobility itself, which largely ignores the change in school quality after students transfer to a different school. Second, understanding the temporal adjustment process helps us to move beyond the ongoing controversy about the lack of positive effects for many residential relocation or school desegregation programs. In particular, the findings describe how programs that aim to place families in low-poverty neighborhoods or move students to better schools (e.g. MTO or voucher programs) juxtapose the influence of context effects and the role of student mobility. Finally, my findings have important policy implications related to school closures and policy initiatives that encourage student mobility such as the No Child Left Behind Act or voucher programs.
References


