

# Student Transience in North Carolina: The Effect of School Mobility on Student Outcomes Using Longitudinal Data

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June 29, 2009

# [ Student Mobility in U.S. ]

## Non-promotional school change

- n 1/6 3rd-graders have attended at least 3 different schools since 1st grade (GAO 1994)
- n 34% of 4th-graders, 21% of 8th-graders and 10% of 12th-graders changed schools at least once in the previous 2 years (NAEP 1998)
- n 1/3 students made at least 1 non-promotional school change between grades 4 and 7 in Texas
- n 75% made non-promotional school changes between grades 1 and 12 in California

# Importance of Student Mobility

- n Effect of mobility on student achievement
  - i Direct impact of a school change
  - i Factors leading to a school change also affect student achievement—“Reactive moves” vs “Strategic moves”
  
- n Student mobility may perpetuate or widen existing education gaps between disadvantaged students and their peers
  - i Uneven distribution of student mobility
  - i Uneven distribution of “reactive moves” and “strategic moves”

# [ NC Context ]

- n Higher population mobility rate than national average (17% vs 14% in 2000)
- n Fast growing immigrant population (274% increase from 1990-2000)
- n Increasing school choices (choice-based enrollment, charter schools)

# Research Questions

- n School mobility rates among elementary and middle school students in North Carolina: trend, by student and family characteristics
- n The effect of school mobility on EOG test performance: by type of move and student characteristics

# Data

- n North Carolina administrative data from 1997-2005
- n Longitudinal data tracking students over time
- n Data include information on Free/Reduced Price lunch status, ethnicity, sex, school attended, LEP status, Special Education status,
- n Student score gains based on End-of-Grade tests in reading and math

# Samples

Grade	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
3	▲	▲	▲	▲	▲	▲	▲	▲	▲
4	▲	▲	▲	▲	▲	▲	▲	▲	▲
5	▲	▲	▲	▲	▲	▲	▲	▲	▲
6	▲	▲	▲	▲	▲	▲	▲	▲	▲
7	▲	▲	▲	▲	▲	▲	▲	▲	▲
8	▲	▲	▲	▲	▲	▲	▲	▲	▲

- ↔ Sample one: Yearly cross-sections of all 3rd through 8th-graders
- Sample two: Cohorts of 3rd-graders followed for 6 consecutive years

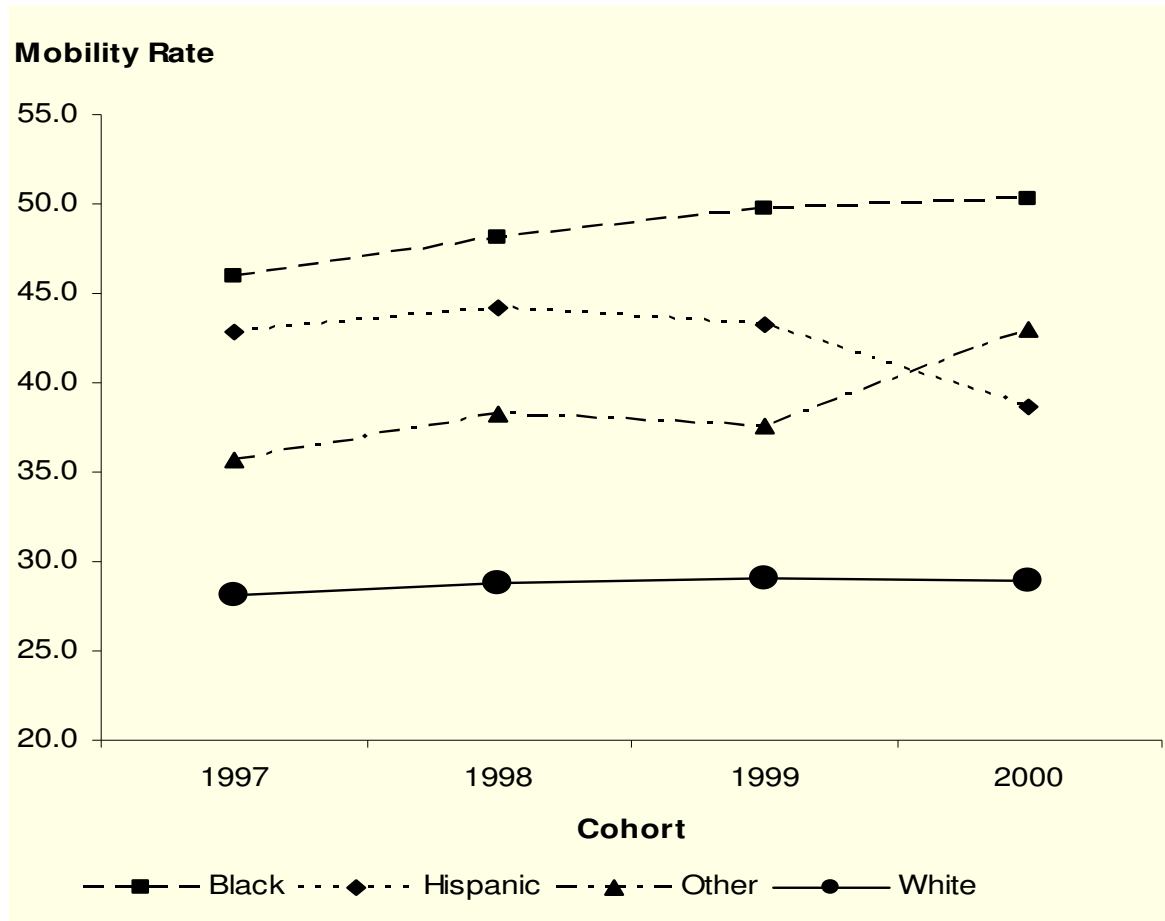
# Enrollment

- n 15% enrollment increase over the study period
- n Percentage of Hispanic students tripled to reach 8 percent
- n Percentage of LEP students doubled to reach 4 percent
- n FRPL students: 38% in 1999, 47% in 2005

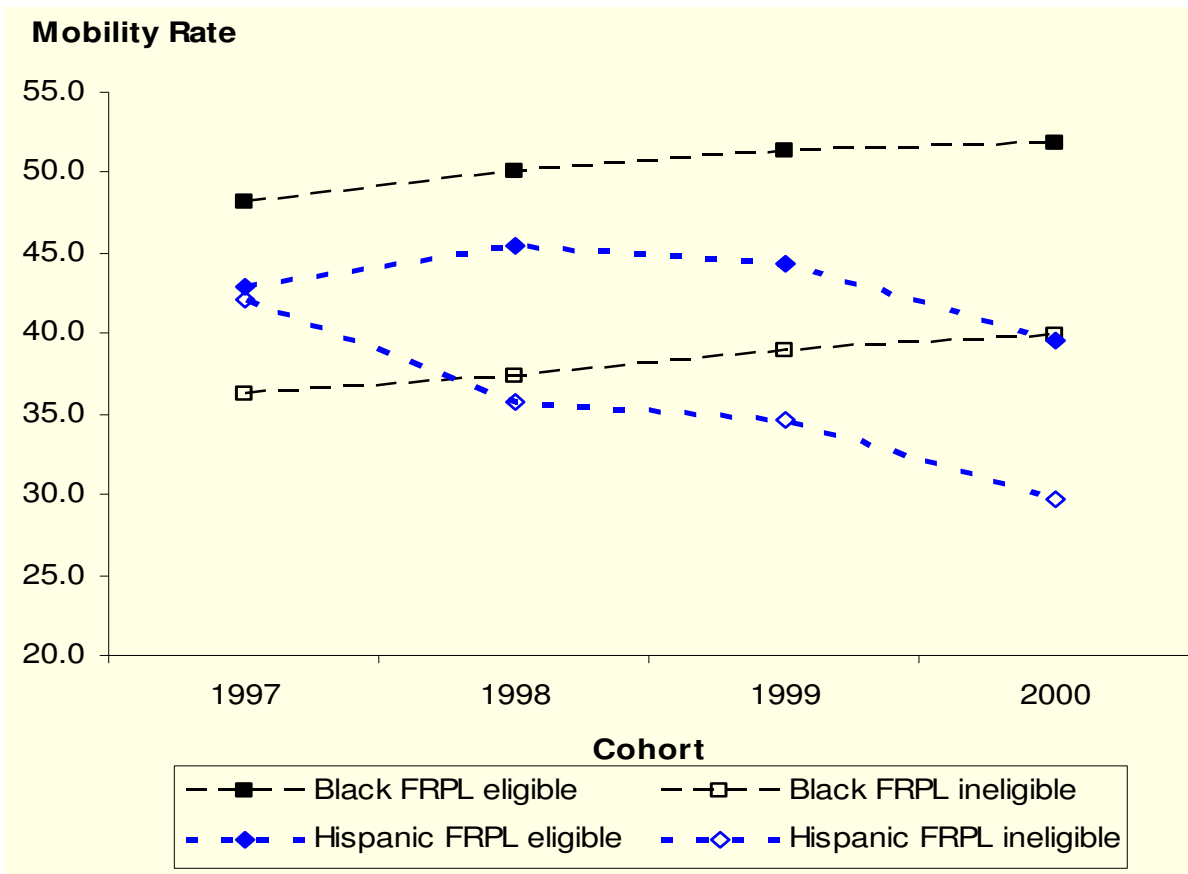
# School Turnover Rate

- n 3-4 percentage points increase between 1998 and 2004 for all schools
- n Urban schools: 33%, Rural schools: 16% in 2004
- n Charter schools: >30%, Traditional public schools: 22%
- n Turnover rate increases with % of minority and FRPL students

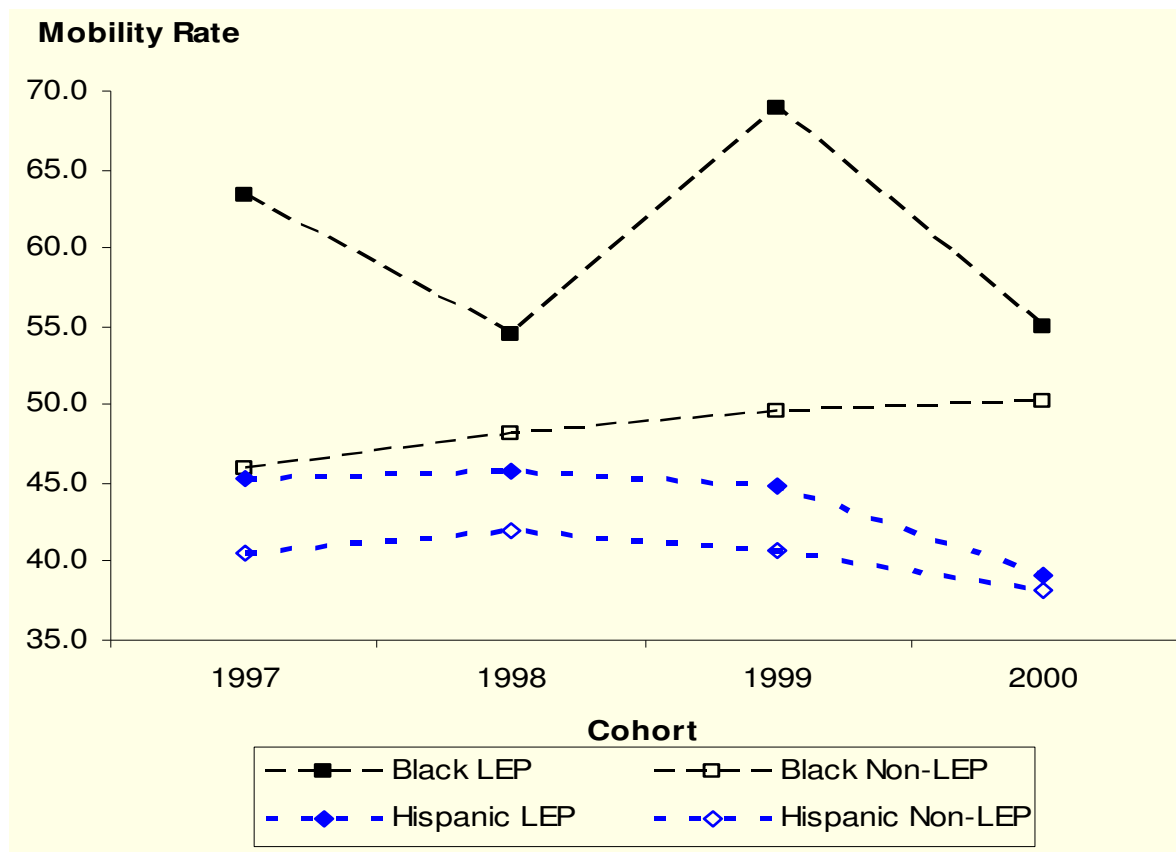
# Mobility rate, by race/ethnicity



# Mobility rate, by FRPL status



# Mobility rate, by LEP status



# Frequency of School Changes

- n 36-38% of all movers changed school twice or more
  
- n By FRPL status:
  - i FRPL: 45%; Non-FRPL: 22%
  - i Gap is widening: 21 (1997) vs 25 (2000) pct points
  
- n By race/ethnicity:
  - i White: 30%
  - i Black: 43-47%, increasing over time
  - i Hispanic: 37-34%, decreasing over time

# School Quality Change

More likely to move to a better school:

- n Higher parental education
- n Higher income families
- n White students

# The Effect of School Mobility—Key Considerations

- n Dependent variable: EOG Math and Reading score gains
- n Non-random moving decisions—Student fixed effects
- n School quality changes before and after a move
- n Score gains associated with promotional school changes
- n Type of move: Within-district vs Between-district

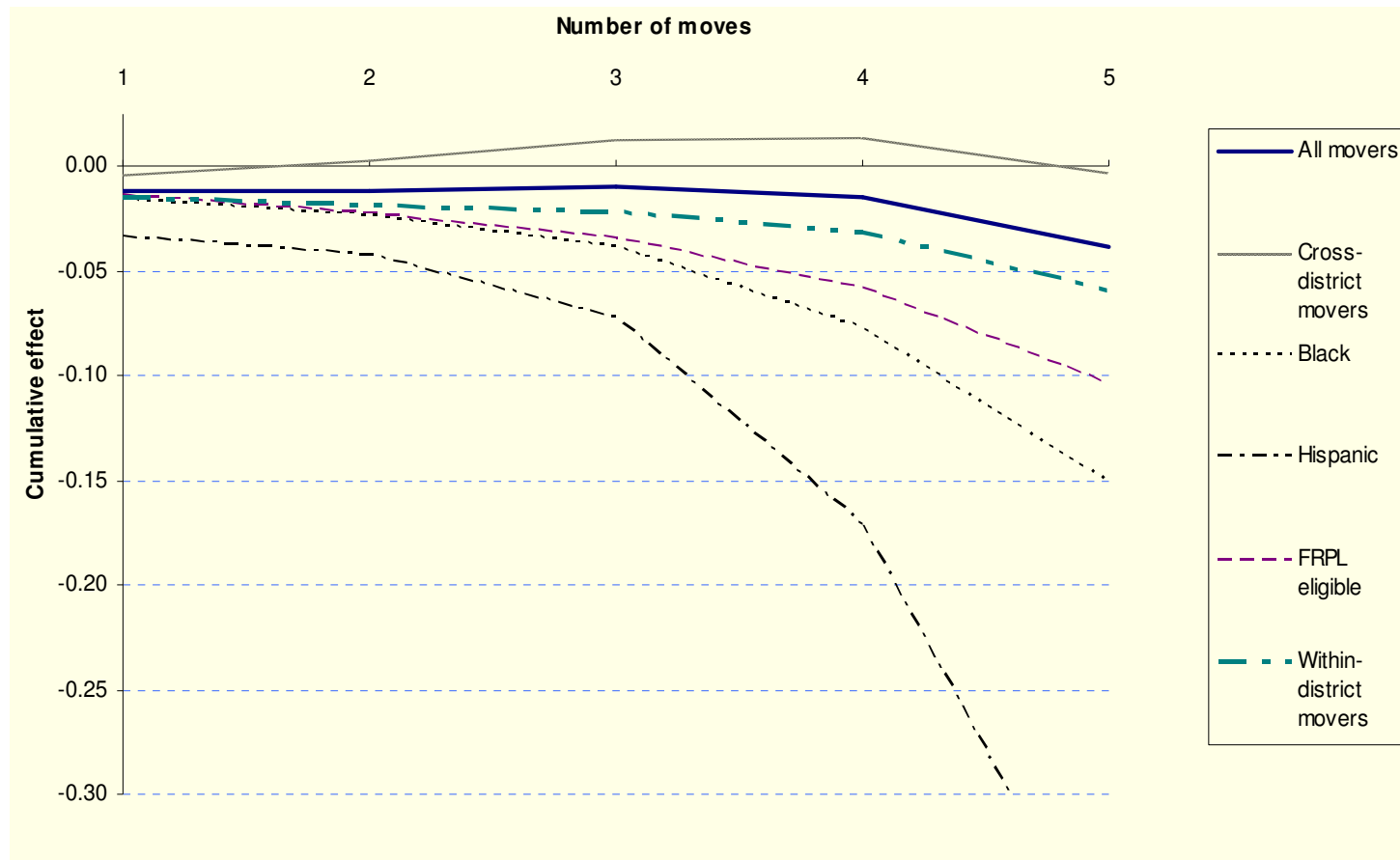
# The Effect of School Mobility— Findings for EOG Math

<b>Student subsamples</b>	All movers	Cross district movers	Within district movers
All students	-0.008 *	0.000	-0.012 *
<i>By student groups</i>			
<i>Race</i>			
White	-0.004	0.005	-0.010 *
Black	-0.014 *	-0.009	-0.016 *
Hispanic	-0.028 *	-0.026	-0.029 *
<i>LEP Status</i>			
LEP	-0.019	-0.018	-0.020
Non-LEP	-0.008 *	0.000	-0.012 *
<i>Free/Reduced Price Lunch Status</i>			
FRPL	-0.012 *	-0.008	-0.015 *
Non-FRPL	-0.002	0.013	-0.009 *

# The Effect of School Mobility— Findings for EOG Reading

<b>Student subsamples</b>	All movers	Cross district movers	Within district movers
All students	0.004	0.011 *	0.000
<i>By student groups</i>			
<i>Race</i>			
White	0.011 *	0.018 *	0.006
Black	-0.003	0.004	-0.005
Hispanic	-0.002	0.005	-0.004
<i>LEP Status</i>			
LEP	0.008	0.026	0.001
Non-LEP	0.003	0.010 *	0.000
<i>Free/Reduced Price Lunch Status</i>			
FRPL	0.001	0.006	-0.002
Non-FRPL	0.010 *	0.020 *	0.004

# The Effect of Multiple Moves, Math



# Summary

- n School mobility rates were highest for minority and disadvantaged students
- n Mobility rates for Hispanic students declined but increased for Black students
- n School mobility negatively affect math performance of Black, Hispanic, LEP and FRPL students
- n Cross-district moves have positive or no effect, but within-district moves have negative effect
- n Frequent school changes

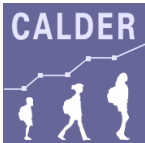
# North Carolina School Mobility Grades K-3 2007-2008

## *% of Students by Ethnicity Who Change Schools From 2007 to 2008*

	<b>In District</b>	<b>Out of District</b>	<b>Total</b>
<b>White</b>	10.70%	4.77%	15.47%
<b>Black</b>	19.31%	5.92%	25.23%
<b>Hispanic</b>	13.84%	3.62%	17.47%
<b>Other</b>	14.18%	4.88%	19.07%
<b>Total</b>	13.63%	4.95%	18.58%

In district movers changed schools within their 2007 district while out of district movers went to a new school district in 2008.

For more information contact Jane Hannaway, Urban Institute, [jhannaway@urban.org](mailto:jhannaway@urban.org)



Urban Institute

Prepared for the NRC/ IOM Workshop on the Impact of Mobility and Change on the Lives of Young Children, Schools, and Neighborhoods, June 28-29, 2009.



# North Carolina School Mobility Grades K-3 2007-2008

## *% of Students by Grade Who Change Schools From 2007 to 2008*

Grade in 2007	In District	Out of District	Total
K	12.52%	5.24%	17.75%
1	13.05%	5.07%	18.11%
2	15.25%	4.81%	20.07%
3	13.78%	4.66%	18.44%
<b>Total</b>	<b>13.63%</b>	<b>4.95%</b>	<b>18.58%</b>

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