

Does Losing Your Home Mean Losing Your School? Effects of Foreclosures on the School Mobility of Children in New York City

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Three-City Study of Impact of Foreclosures on Children's School Mobility

- New York City, Baltimore, MD, Washington, DC
 - New York City: NYU
 - Baltimore: Baltimore Neighborhood Indicators Alliance
 - Washington, DC: Urban Institute
- Two School Years: 2003-2004 and 2006-2007
- Supported by Open Society Institute
- This presentation highlights New York City.

Motivation

- Foreclosures continue to mount nationally.
- Little understanding about children who live in foreclosed properties.
 - Even less attention paid to the costs that these foreclosures may impose on children.
- By linking addresses of foreclosed properties in New York City to school records, we gain insight into important questions.

Research Questions

- How many students live in buildings in foreclosure?
- What are the characteristics of the students and the schools they attend?
- Do children living in properties in foreclosure switch schools more often?
- Do students who move post-foreclosure move to lower-performing schools?

Why Should Foreclosures Matter to Academic Success?

- May lead to mobility, which may
 - Force children to move residences
 - Force children to move schools
 - Force children to move neighborhoods
 - Foreclosures may cause parental stress
 - Even if owners resolve the foreclosure ,families may cut spending on educational activities
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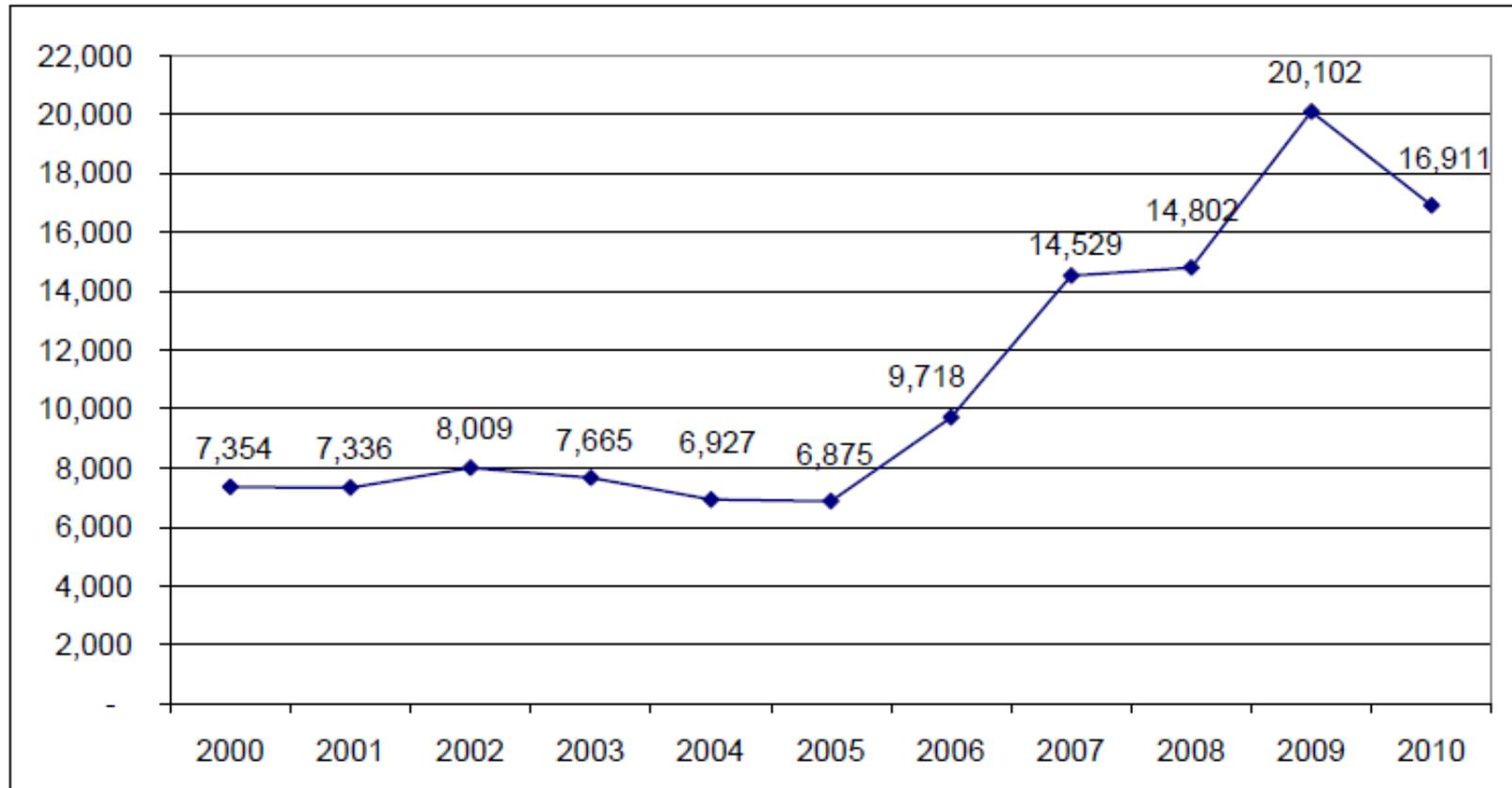
How Foreclosures Affect School Moves

- Owners pay back arrearages/receive modification
 - Homeowners may opt for public rather than private schools
 - Tenants may leave as owners reduce maintenance/utilities
- Owners sell property to pay off mortgage debt
 - Residents will move to new homes and perhaps schools
- Bank completes foreclosure/takes ownership
 - Residents will move to new homes and perhaps schools

Data

- Student-level data from the NYC Department of Education (NYC DOE)
 - 2003-04 and 2006-07
 - Demographic and education information, school attended, and home addresses
- School level data from NYC DOE
 - Test scores, student composition
- Building-level foreclosure notice or *lis pendens* (LP) filings, 2003-2007

NYC Foreclosure Property Starts (LP filings), 2000-2010

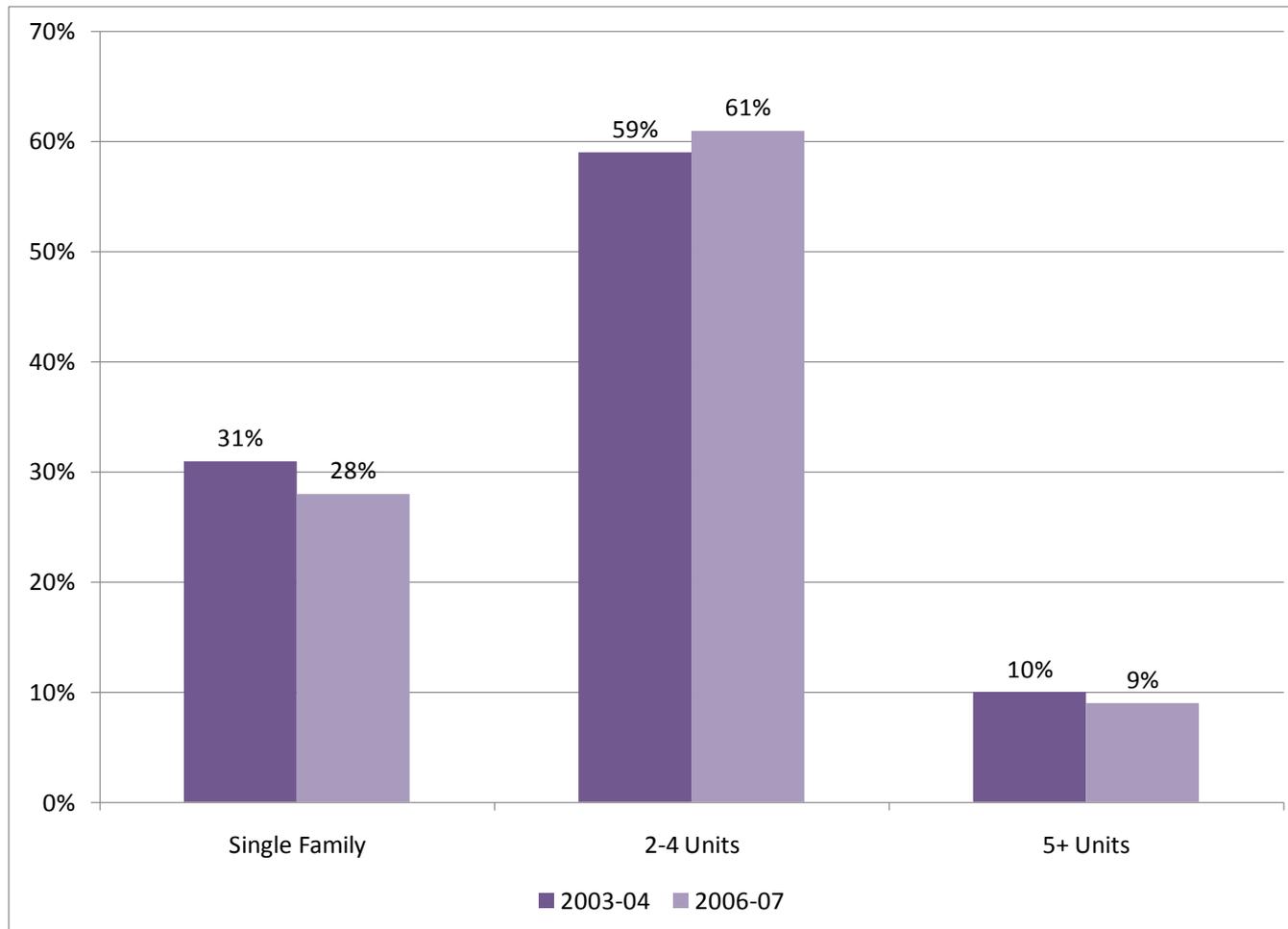


Sample

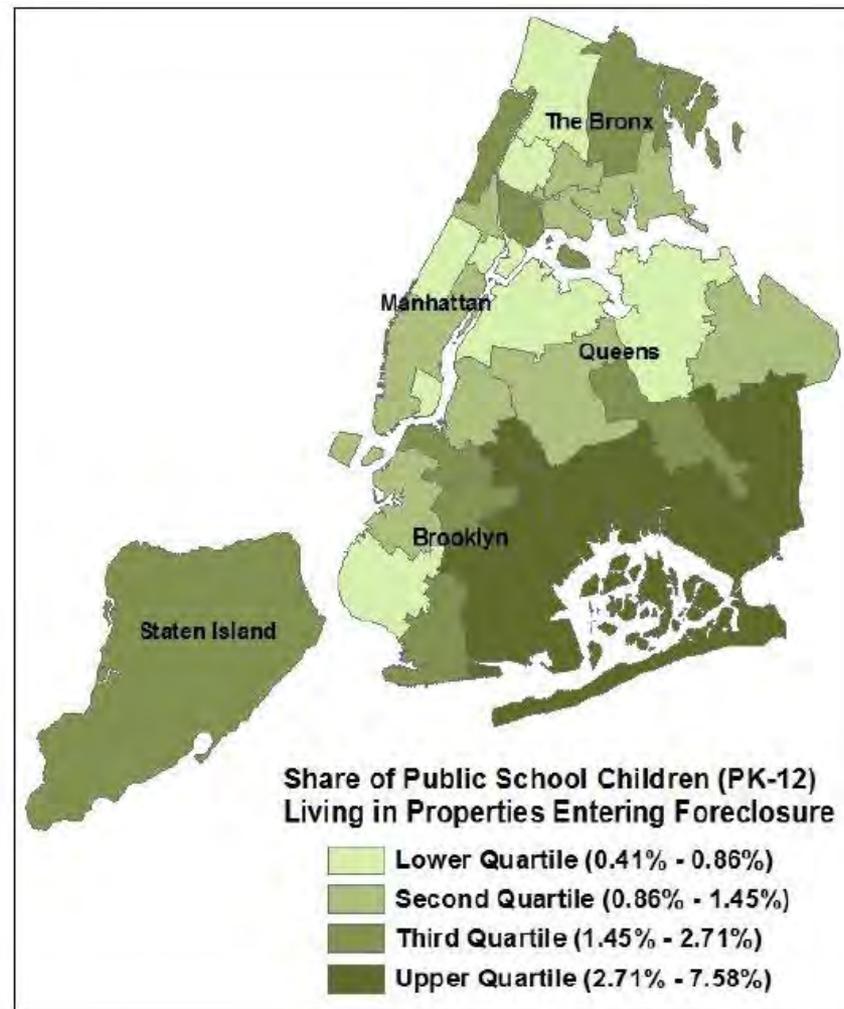
- Foreclosed students are students with *lis pendens* filings in a particular year (PK-12)

	2003-04	2006-07
Total Students	1,068,115	1,110,780
# Foreclosed	12,067	20,453
% Foreclosed	1%	1.8%
Total K-8	601,759	609,054
# Foreclosed K-8	5292	7,714
% Foreclosed K-8	0.9%	1.3%

Percent of Foreclosed Students by Property Type, 2003-04 and 2006-07 (PK-12)



Share of Public School Children (PK-12) living in properties entering foreclosure, New York City community school district, 2006-07



Grade Distribution of Students by Foreclosure Status, Grades PK-12

	2003-04		2006-07	
	Foreclosed (n=12,067)	Not Foreclosed (n=1,068,115)	Foreclosed (n=20,453)	Not Foreclosed (n=1,110,780)
% Grades 1-8,	57%	57%	53%	52%
% Grades 9-12,	24%	24%	27%	29%
% PreK/K	10%	10%	10%	11%

Characteristics of Students by Foreclosure Status, Grades PK-12

	2003-04		2006-07	
	Foreclosed (n=12,067)	Not Foreclosed (n=1,068,115)	Foreclosed (n=20,453)	Not Foreclosed (n=1,110,780)
% Free/Reduced Lunch	78%	75%	89%	79%
% Black	56%	32%	57%	33%
% Hispanic	30%	39%	29%	39%
% White	9%	15%	8%	14%
% Asian/Other	6%	13%	7%	14%
% Special Ed	10%	9%	9%	8%

Elementary/Middle Schools, by quartile of foreclosure incidence, 2003-04 & 2006-07

	2003-04			2006-07		
	All schools	Top quartile	Bottom quartile	All schools	Top quartile	Bottom quartile
% black	33%	54%	18%	31%	56%	16%
% Hispanic	40%	31%	47%	40%	30%	44%
% white	14%	9%	16%	14%	5%	18%
% Asian/other	13%	7%	19%	14%	8%	22%
% Eligible for free or reduced price lunch	83%	87%	81%	83%	89%	80%
% LEP	14%	9%	19%	16%	11%	21%
% Testing proficient or advanced on reading	45%	41%	49%	55%	50%	61%
% Testing proficient or advanced on math	54%	48%	58%	71%	67%	79%
Number of schools	960	240	240	1085	271	271
Number of students	721,387	194,294	151,663	665,496	168,037	162,434

Percent of Students Switching Schools and Exiting System, by Foreclosure Status, 2006-07

	Students living in foreclosed property	Students not living in foreclosed property
Grades 1-4		
Stayed in same school	84%	83%
Changed school	13%	10%
Exited system	3%	7%
Grade 5		
Stayed in same school	23%	22%
Changed school	74%	71%
Exited system	4%	8%
Grade 6-7		
Stayed in same school	85%	83%
Changed school	12%	10%
Exited system	3%	7%
Grade 8		
Stayed in same school	6%	7%
Changed school	92%	85%
Exited system	3%	8%

Regression of Student School Mobility on Foreclosures

- $Y_{ij} = \beta_0 + \beta_1 X_i + \beta_2 F_i + \varphi_j + \varepsilon_{ij}$
 - Y_{ij} : whether a student i in original school j moved to a new school between school years
 - X_i : set of student characteristics (race, poverty, gender, and grade)
 - F_i : dummy variable indicating whether student i lived in a building that entered foreclosure in the initial school year
 - Φ_j : series of school fixed effects, defined by the student's 'origin' school

Regression Results: Moving to a new school between 2006-07 and 2007-08, property type and outcome interactions

	Model 1	Model 2	Model 3
Foreclosure	.022*** (0.004)		
Foreclosure by property type			
Foreclosure * single family		.011** (0.006)	
Foreclosure * 2-4 unit building		.027*** (0.005)	
Foreclosure * 5 or more building		.026* (0.011)	
Foreclosure by outcome			
Sold			.012* (0.006)
Auctioned			.061*** (0.013)
Unknown outcome			.18*** (0.004)
School fixed effects	Yes	Yes	Yes
N	543,749	543,749	543,749
Adjusted R-squared	0.59	0.59	0.59

(1) Robust, standard errors in parentheses

(2) Controls included but not shown: white, Hispanic, Asian/other, female, nor poor

* p<0.05

** p<0.01

*** p<0.001

Summary Regression Results: Do Students in Buildings in Foreclosure Move More Often?

- The probability of moving to a new school is more than 2 percentage points higher for students living in buildings in foreclosure.
- *Property Type?* Foreclosure effect tends to be somewhat stronger for students living in 2-4 unit and larger multifamily buildings (i.e., renters).
- *Foreclosure Outcome?* Foreclosure effects tend to be somewhat stronger for children living in foreclosed properties that went all the way to auction.

Comparison of Origin and Destination Schools for Students Who Move, by foreclosure status, grades 1-7

	2006-07	2007-08	Change between
Characteristics of pre- and post-move schools of children in buildings in foreclosure			
% African-American	50%	46%	-4%
% Hispanic	34%	35%	1%
% Free/Reduced price lunch	81%	77%	-4%***
% LEP	13%	11%	-2%***
% Special Education	13%	14%	1%
% Testing proficient/advanced in math	74%	62%	-12%***
% Testing proficient/advanced in readin	53%	48%	-5%***
Number of students	1998	1956	
Characteristics of pre- and post-move schools of children in buildings NOT in foreclosure			
% African-American	30%	31%	1%
% Hispanic	41%	40%	-1%
% Free/Reduced price lunch	77%	74%	-3%**
% LEP	18%	13%	-5%***
% Special Education	14%	14%	0%
% Testing proficient/advanced in math	77%	65%	-12%***
% Testing proficient/advanced in readin	57%	51%	-6%***
Number of students	89,395	89,258	

Summary Results: Do Students who Move Post-Foreclosure Suffer Larger Decline in School Quality?

- Little evidence that students living in properties that entered foreclosure moved to worse schools, on average, than other students who move.
- Modest evidence that students who lived in 2-4 unit buildings that entered foreclosure moved to relatively worse schools.

Regression of School Performance (test scores) on Foreclosures

$$T_{ij} = \beta_0 + \beta_1 X_i + \beta_2 F_i + \varphi_j + \varepsilon_{ij}$$

- T_{ij} is a variable capturing the difference in test scores between the origin and destination schools for student i initially in school j .
- X_i : set of student characteristics (race, poverty, gender, and original grade)
- F_i : dummy variable indicating whether student i lived in a building that entered foreclosure in the initial school year
- Φ_j : series of school fixed effects, defined by the student's 'origin' school

Regression Results: Change in percent proficient between 2006-07 and 2007-08 school years

	Math			Reading		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Foreclosure	-.003 (0.003)			-.005 (0.003)		
Foreclosure by property type						
Foreclosure * single family		-.002 (.006)			.005 (.006)	
Foreclosure * 2-4 unit building		-.007 (.004)			-.010** (.004)	
Foreclosure *5 or more building		.014 (.010)			.009 (.011)	
Foreclosure by outcome						
Sold			-.006 (.006)			-.004 (.006)
Auctioned			-.005 (.009)			-.010 (.008)
Unknown outcome			.000 (.004)			-.001 (.004)
School fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	892,288	892,288	892,288	891,131	891,131	891,131
Adjusted R-squared	.47	.47	.47	.35	.35	.35

Summary Regression Results: Do Students who Move Post-Foreclosure Suffer Larger Decline in School Quality?

- Using regression rather than descriptive statistics.
- Little evidence that students living in properties that entered foreclosure moved to worse schools, on average, than other students.
- Modest evidence that students who lived in 2-4 unit buildings that entered foreclosure moved to relatively worse schools as compared to other students who move, as measured by share proficient.

Conclusions

- The number of students facing foreclosure has increased over time
- Students living in buildings that entered foreclosure were more likely to be black and attended lower-performing schools.
- Controlling for these differences, students living in buildings that entered foreclosure were *more* likely to move to different public schools in the year after the foreclosure (especially when the building went all the way through the foreclosure process)
- However, they were *less* likely to exit the public school system altogether.

Conclusions

- Students who moved to new schools after a foreclosure tended to move to lower-performing schools.
- However, the change in school quality was no more dramatic than that for other students who moved schools who hadn't experienced a foreclosure.

OLS Regression: Student level Z-scores on living in a foreclosed property or not living in one

	2006-07			2007-08		
	Foreclosed	Not Foreclosed	Diff	Foreclosed	Not Foreclosed	Diff
3 rd Grade	-0.332*** (0.031)	-0.322*** (0.015)	NS	-0.341*** (0.030)	-0.320*** (0.014)	NS
4 th Grade	-0.373*** (0.030)	-0.326*** (0.014)	NS	-0.362*** (0.029)	-0.309*** (0.014)	*
5 th Grade	-0.362*** (0.031)	-0.327*** (0.015)	NS	-0.346*** (0.033)	-0.310*** (0.014)	NS
6 th Grade	-0.398*** (0.031)	-0.325*** (0.020)	**	-0.345*** (0.036)	-0.302*** (0.019)	NS
7 th Grade	-0.407*** (0.034)	-0.312*** (0.020)	**	-0.387*** (0.035)	-0.297*** (0.019)	**
8 th Grade	-0.370*** (0.035)	-0.311*** (0.021)	*	-0.406*** (0.035)	-0.303*** (0.020)	***
School FE		NO			NO	
R-square		0.16			0.17	
N		405914			377935	

1) Robust clustered standard errors in parentheses

2) Model 4 control variables not shown: white, Hispanic, Asian, Not Poor, Female

3) * p<0.05, ** p<0.01, *** p<0.001

4) Diff = Foreclosed – Not foreclosed

Summary Regression Results: Foreclosure and Academic Outcomes

- There are few statistically significant performance differences between students who receive foreclosure notices and those who do not.
- When there are statistically significant differences, they consistently point to foreclosed students having lower performance.

Regression Equation

- Regression models include interactions of grade*foreclosed and grade*not foreclosed. All of the grade by foreclosed/not foreclosed categories are included and we do not include the constant.
- Example: In the 2006-07 data, the 3rd grade foreclosure variable includes students who are in grade 3 in 2006-07 who received a LP notice in 2006-07 while the 3rd grade not foreclosed variables are those students in 3rd grade who did not received a LP in that year. Similarly, in the 2007-08 analysis the 3rd grade foreclosure variable includes students who are in 3rd grade in 2007-08, but received a foreclosure notice in 2006-07, meaning they were most likely in 2nd grade in 2006-07. The 3rd grade not foreclosed variable captures those students in 3rd grade in 2007-08 who did not receive a LP in the 2006-07 year.
- These analyses do not include school fixed effects.