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Making the Mosaic: The Changing Face of NYC's (Im)migrant Students

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Introduction

Immigration and migration to New York City (NYC) collectively create a dynamic population of students.[1] In this brief we use a decade of detailed, longitudinal data on NYC's 1st-8th graders to explore both the *stock* of students enrolled and the *flow* of new entrants in each academic year. [2] Together, these paint a portrait of how newly entering immigrant students shape the ever evolving diversity of NYC public schools.

New York City's elementary and middle schools receive between 20,000-30,000 new students in grades 2-8 every year. These students come from all over the world, speak over 175 different languages, and differ from the stock of students previously enrolled. Although the composition of new students varies annually, the variation manifests itself in both predictable and surprising

Key Findings

- New York City's elementary and middle schools receive between 20,000-30,000 new students in grades 2-8 every year.
- Roughly half of the new entrants in any year are native-born.
- The new native-born students differ from the new foreign-born, particularly in language skills and exposure to English at home.
- Over the past decade, the flow of new entrants has changed in composition.
- While exposure to peers in schools differs by nativity, there is no evidence foreign-born students attend poorly resourced schools.

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[1] Students are defined as foreign-born if their birthplace is somewhere other than the U.S. The foreign-born population, therefore, includes students who are brand new to the U.S. as well as students whose parents emigrated when they were quite young and only know the U.S. Throughout this brief we use "immigrant" and "foreign-born" interchangeably.

[2] The "flow" of new students (also referred to as new entrants or new arrivals) are defined as students who are enrolled in 2nd-8th grade in NYC public schools for the first time as of October 31 of that academic year.

ways. We consistently see that roughly half of the new entrants in any year are native-born and that the flow of native-born students differs from the flow of foreign-born students, particularly in language skills and exposure to English at home. In the early grades, new entrants are disproportionately native-born, but as students age, the flow becomes increasingly foreign-born. Disentangling these groups and being more precise about *which* immigrants or *which* new students we examine is therefore important in determining appropriate policy interventions.[3]

In this brief, we address four questions:

1. How many new students are there?
2. How have immigrants changed in the past decade?
3. Do new immigrant students lag behind native-born entrants on standardized exams?
4. With whom do the new entrants go to school and are their schools different?

Our intention is to provide insight on this important group of newly entering students and to shed light on the variation in this population between nativity groups, over time, and across grades.

[3] One could imagine very different interventions for an inflow of immigrants from wealthy, English proficient, well-educated backgrounds versus an inflow of immigrants who are poor and speak little to no English. Immigrants with more privileged backgrounds might best be served by efforts aimed at acculturation, whereas immigrants with a greater array of needs might require more academic interventions and services. For schools, administrators, and teachers, therefore, understanding the population of immigrants could significantly shape how services are delivered and resources are allocated.

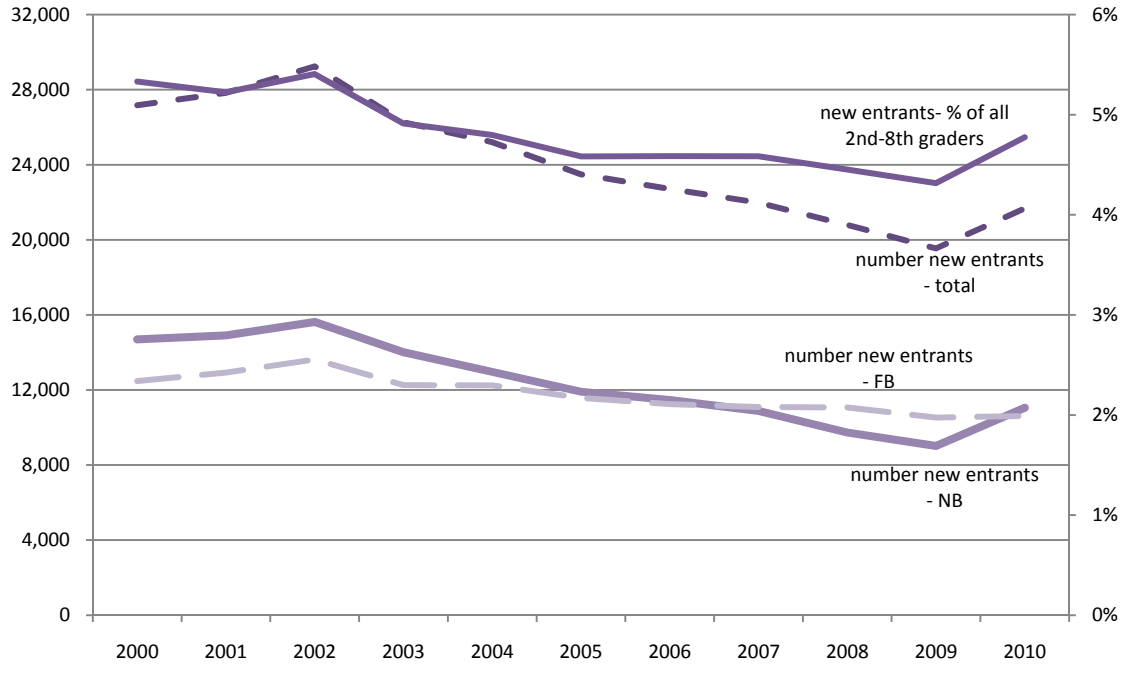
How Many New Students Are There?

As shown in Figure 1, more than 27,000 new students enrolled in grades 2-8 at the beginning of the 2000 academic year.

New entrants declined over the decade, reached a low of 19,500 in 2009, then climbed to above 21,600 (or almost 5 percent of the student population in grades 2-8) in 2010.[4, 5,6]

Importantly, almost half of new entrants are native-born.

Figure 1: Number and percent of new entrants, by nativity group, 2nd-8th graders, 2000-2010



[4] This decline over the decade is not surprising: total enrollment in NYC public schools decreased by over 70,000 students from 1.1 million in 2000 to 1.03 million in 2009. See Appendix Table 1.

[5] The growth of the foreign-born population in NYC has also slowed. While the foreign-born population grew by over 37 percent between 1990 and 2000 (from 2.08 million to 2.87 million), it grew by only slightly more than 4 percent between 2000 and 2009 (from 2.87 million to 2.99 million). Authors' calculations using data from the NYC Department of City Planning. See Appendix Table 2 and http://www.nyc.gov/html/dcp/pdf/census/1790-2000_nyc_total_foreign_birth.pdf and http://www.nyc.gov/html/dcp/pdf/census/acs_socio_2009.pdf.

[6] It may also be the case that the increase in school choice (charters, magnets, parochial, and private schools) means fewer students are enrolling in the traditional public schools.

In early grades, the majority of new entrants are native-born; in later grades, the majority are foreign-born.

Table 1: Number of new entrants and percentage of new entrants who are foreign-born, selected grades, 2000-2010

	2nd-8th grade		2nd grade		5th grade		8th grade	
	# entrants	% FB	# entrants	% FB	# entrants	% FB	# entrants	% FB
2000	27,172	46%	5,318	36%	3,352	60%	3,583	72%
2001	27,831	46%	5,476	36%	3,550	58%	3,322	71%
2002	29,245	47%	5,916	35%	3,694	57%	3,597	74%
2003	26,270	47%	5,284	35%	3,311	57%	3,021	75%
2004	25,207	49%	5,036	33%	3,157	56%	2,894	72%
2005	23,492	49%	4,784	34%	2,896	52%	2,723	73%
2006	22,712	50%	4,449	32%	2,863	53%	2,787	72%
2007	21,977	50%	4,334	32%	2,821	54%	2,647	71%
2008	20,798	53%	4,405	30%	2,559	51%	2,367	70%
2009	19,543	54%	4,054	29%	2,327	49%	2,126	69%
2010	21,675	49%	4,214	33%	2,708	55%	2,633	74%

How Have Immigrants Changed in the Past Decade?

The flow of new immigrant students varies over time.

- Nearly one-third of new immigrants are Asian in 2010, up seven percentage points from 2000.
- The flow of new foreign-born Hispanics increased 4 percentage points over the decade, peaking at 42 percent in 2004 before declining to 36 percent in 2010.
- The shares of new foreign-born students who are black or white are significantly smaller and fairly consistent over the decade.
- In 2010, nearly three-quarters of newly entering immigrant students are limited English proficient and over four-fifths are not exposed to English at home. Shares of both groups have increased since 2000.

The flow of new native-born students has changed over time as well.

- There are increasing shares of Asian and white students and declining shares of Hispanic and black students between 2000 and 2010.
- While the share of LEP native-born new entrants remained constant over the past decade (at roughly 14 percent), the share speaking a language other than English at home declined five percentage points.

Foreign-born new entrants have different characteristics than their newly entering native-born peers.

- The new foreign-born have much higher shares of Asian students (28% versus 8% in 2006) and lower shares of black students (20% versus 39% in 2006).
- For both the new foreign-born and the new native-born, the shares who are Asian consistently increased and the shares who are black consistently decreased between 2000 and 2010.
- Unsurprisingly, the foreign-born new entrants have higher shares of limited English proficient students and students speaking a language other than English at home than the native-born new entrants.

Table 2a: Race of 2nd-8th grade new entrants by nativity status, selected years

	New Entrants		Asian		Hispanic		Black		White	
	# NB	# FB	% of NB	% of FB	% of NB	% of FB	% of NB	% of FB	% of NB	% of FB
2000	14,699	12,473	7%	30%	38%	32%	41%	22%	15%	15%
2002	15,621	13,624	8%	31%	38%	35%	41%	23%	14%	12%
2004	12,964	12,243	9%	26%	36%	42%	40%	22%	15%	10%
2006	11,462	11,250	8%	28%	38%	41%	39%	20%	15%	11%
2008	9,734	11,064	9%	31%	38%	36%	39%	23%	14%	10%
2010	11,057	10,618	11%	37%	35%	36%	35%	17%	17%	9%

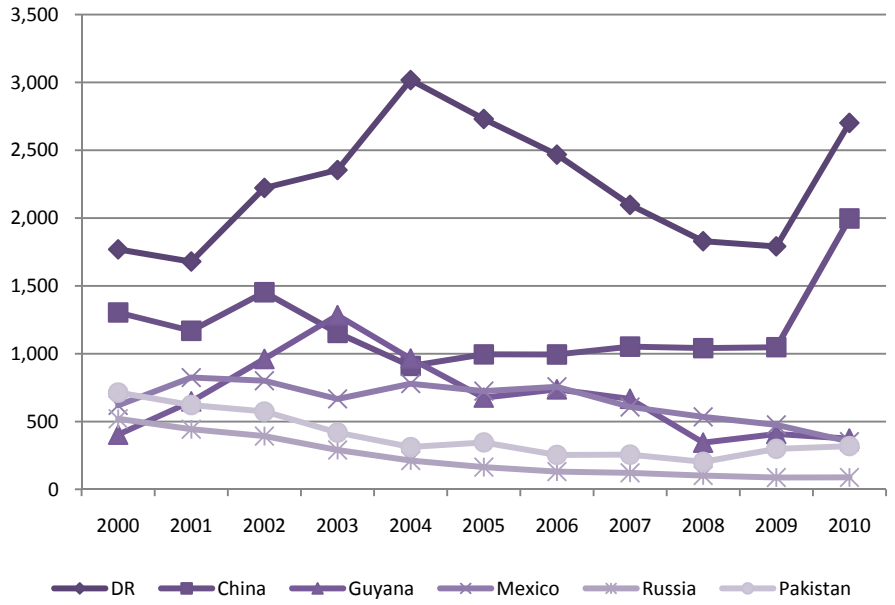
Table 2b: Poverty status, English proficiency, and home language of 2nd-8th grade new entrants by nativity status, selected years

	New Entrants		Poor		LEP		English not spoken at home	
	# NB	# FB	% of NB	% of FB	% of NB	% of FB	% of NB	% of FB
2000	14,699	12,473	69%	79%	14%	60%	32%	76%
2002	15,621	13,624	65%	75%	13%	57%	31%	74%
2004	12,964	12,243	70%	76%	14%	61%	29%	74%
2006	11,462	11,250	66%	71%	16%	62%	29%	76%
2008	9,734	11,064	79%	88%	14%	63%	28%	78%
2010	11,057	10,618	82%	91%	15%	73%	27%	83%

Newly entering immigrant students come from different countries and arrive in different patterns.

- The Dominican Republic is consistently the largest sending country ranging from 1,700 new arrivals in some years to over 3,000 in others.
- Some countries, such as Russia and Pakistan, smoothly declined in numbers sent in the past decade.
- Other countries sent fairly consistent numbers (e.g. Mexico).
- And yet others, such as China and Guyana, sent "waves" or shocks.

Figure 2: Number of new foreign-born entrants, selected countries, 2000-2010



In 2010, foreign-born students overall are disproportionately Asian, poor, limited English proficient, and speak a language other than English at home. The last decade saw increases in the representation of these students.

While immigrants performed above average on standardized English Language Arts (ELA) and math exams in 2000, in 2010 they performed well below average on the ELA exam and slightly below average on the math exam.[7,8]

Table 3: Characteristics of FB 1st-8th graders

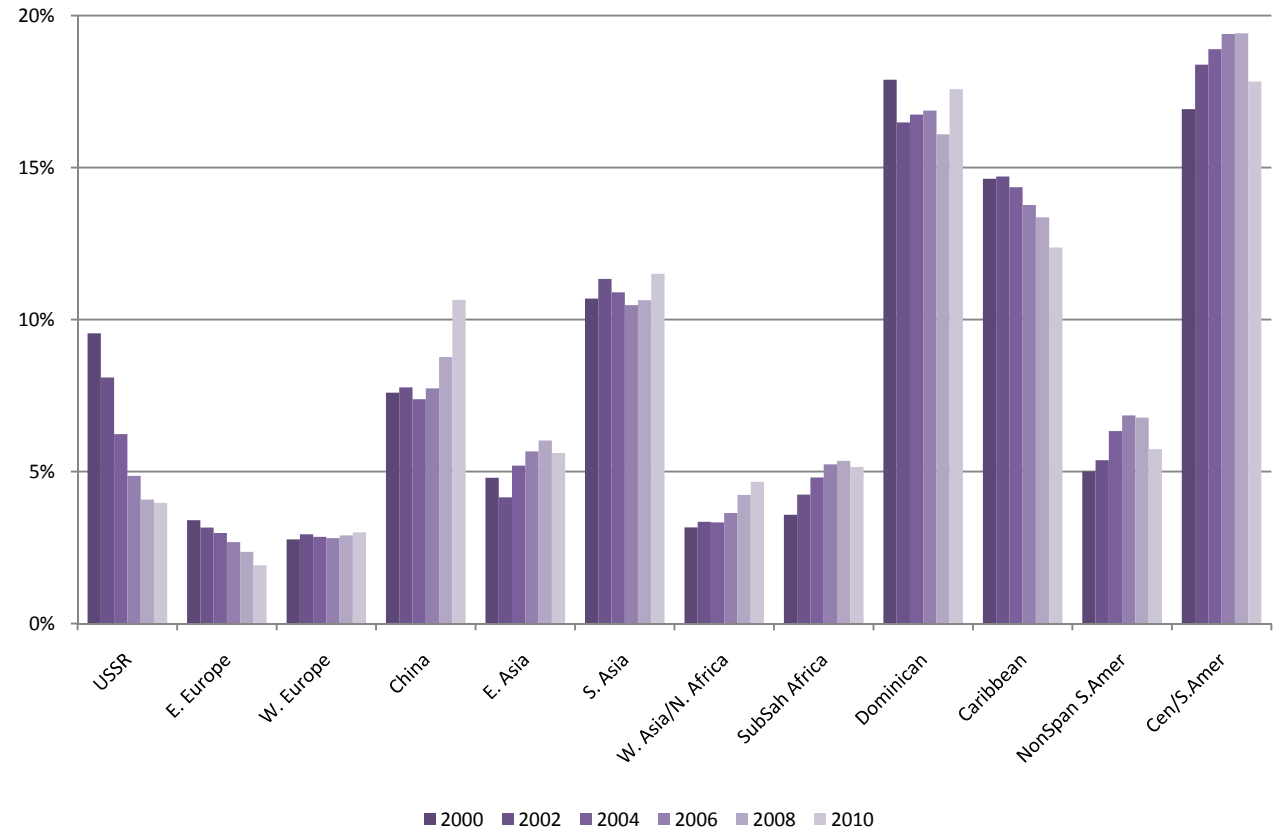
	2000	2010
Asian	28%	33%
Hispanic	35%	36%
Black	19%	19%
White	18%	12%
Poor	84%	90%
LEP	29%	35%
non-English	77%	77%
Special Ed.	3%	6%
ELA z-score	0.039	-0.128
ELA participation rate	68%	90%
math z-score	0.042	-0.020
math participation race	78%	99%

[7] Test scores are measured in z-scores, which are standardized across the city within a grade with a mean of zero and a standard deviation of one.
[8] This may be related to increases in test taking rates: in 2000 approximately 68 percent of foreign-born students in grades 3-8 took the ELA exam and 78 percent took the math exam, compared to 90 percent taking the ELA exam and 99 percent taking the math exam in 2010.Test taking participation rates for the native-born were approximately 94 percent on both exams in 2000 and 99 percent on both exams in 2010.

Over the past decade, the geographic composition of the stock of immigrants changed.

- There are smaller shares of the immigrant population from the former Soviet Union and Eastern Europe;
- Rising shares from China, the rest of Asia, and Africa;
- And continuing large shares from the Dominican, Caribbean, and Central and South America.

Figure 3: Percent of total immigrants, by origin region, grades 1-8, selected years



Do New Immigrant Students Lag Behind Native-Born Entrants on Standardized Exams?

Among students newly entering in the 3rd grade, native-born students initially outperform the foreign-born, but fall behind by 8th grade on the math exam and lose their advantage on the ELA exam. [9,10] Both new native-born and foreign-born entrants perform at or above average on both exams by 8th grade.

Figure 4: New native-born and new foreign-born performance on standardized math exams

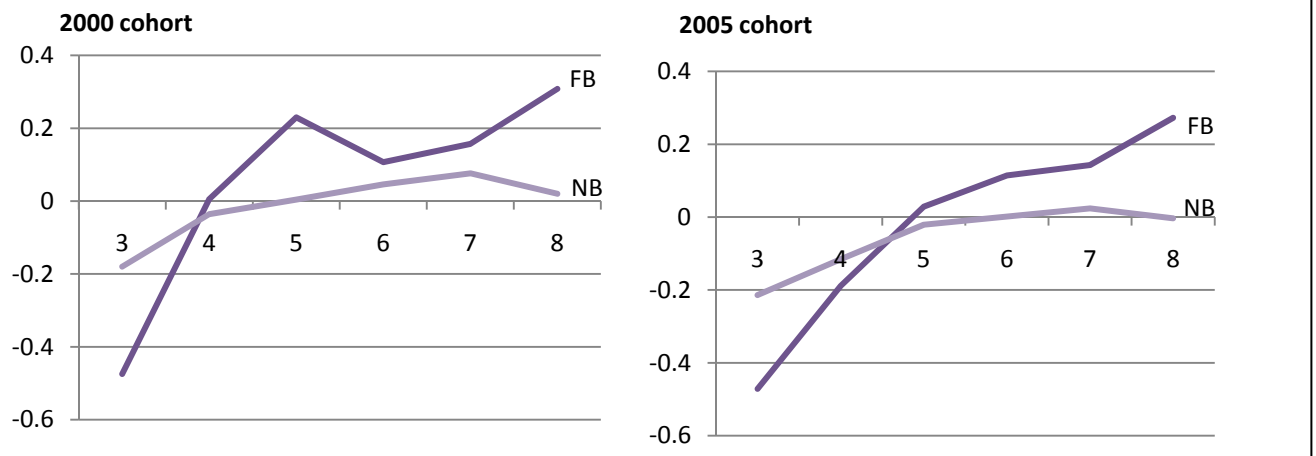
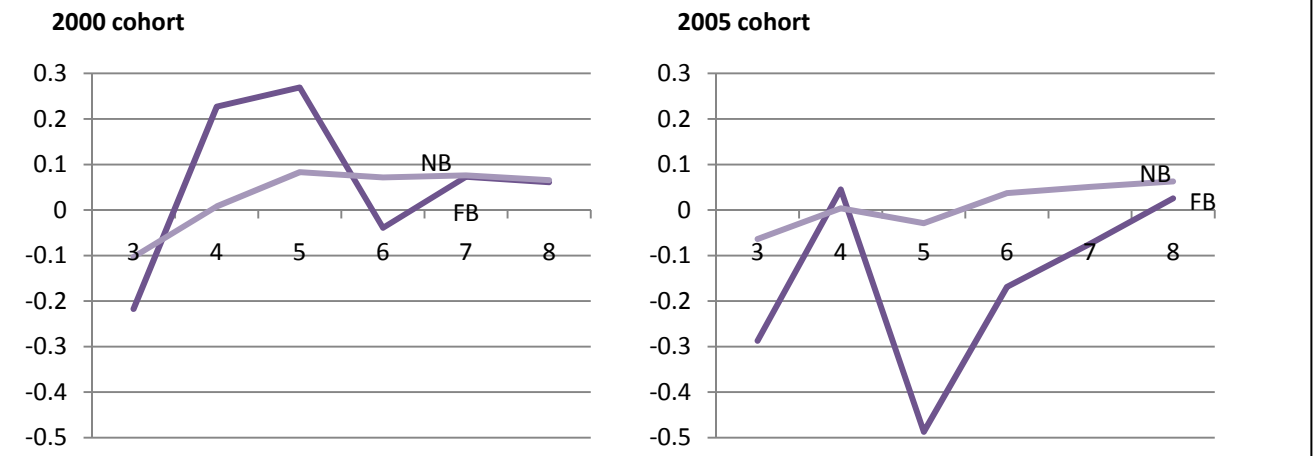


Figure 5: New native-born and new foreign-born performance on standardized ELA exams



[9] Specifically, these "cohorts" are constructed by identifying the students who are new in 3rd grade in 2000 (2005) and comparing their 3rd grade test scores in 2000 (2005), their 4th grade test scores in 2001 (2006), their 5th grade test scores in 2002 (2007), etc. Some students may not be tested in every year – if, for example, they were exempt in early grades due to a lack of language proficiency. This means the sample of students included in each grade is slightly different; however, it always represents the students who entered NYC public schools in third grade, made standard academic progress, and sat for the ELA or math exam in that year.

[10] On the ELA exam, the new entrant foreign-born students' scores plummet before slowly increasing again. This could be related to changes in NCLB regarding exemptions on standardized exams. For cohort 2005, more than twice the number of foreign-born students took the exam in 2007 (5th grade) compared to 2006 (4th grade). Up until 2007, schools were permitted to exempt ELLs who had been attending school in the U.S. for fewer than 3 years on the ELA exam. Presently, ELLs are only exempt if they have been attending school in the U.S. for the first time for less than one year. See: "New York City's English Language Learners: Demographics and Performance" (2007). Office of English Language Learners, New York City Department of Education. Accessed at: http://schools.nycenet.edu/offices/teachlearn/ell/DemoPerformanceFINAL_10_17.pdf

With Whom Do New Entrants Attend School and Are Their Schools Different?

The stock and flow of foreign-born students go to schools with larger shares of new, foreign-born, Asian, Hispanic, LEP and poor students than their native-born peers.

This suggests that students with different characteristics attend schools with different peers, which may have implications for the availability of programs and resources and contribute to socio-economic differences between schools.

Table 4: Exposure to peers at school, by nativity status and "new," 2010

	all	NB	FB	prev enrolled	new - all	new - NB	new - FB
% new	4.8	4.6	5.9	4.7	7.2	5.7	8.6
% FB	14.2	13.4	19.2	14.1	17.7	13.1	22.0
% new FB	2.4	2.2	3.8	2.3	4.4	2.5	6.2
% Asian	16.3	15.5	21.5	16.2	19.0	14.3	23.5
% Hispanic	39.6	39.4	41.1	39.6	40.3	37.5	42.9
% Black	28.7	29.4	24.6	28.7	28.2	33.3	23.2
% White	15.1	15.5	12.6	15.3	12.4	14.6	10.2
% LEP	11.6	11.1	14.5	11.4	15.5	11.6	19.3
% nonEng	42.1	40.7	50.7	41.8	46.9	38.1	55.4
% Poor	85.2	84.7	88.8	85.1	88.0	85.2	90.7
% Special Ed	11.7	11.8	10.8	11.7	11.3	11.9	10.8

Note: Exposure indices tell us for the average student of group A, the share of his/her school's population belonging to group B. If students were evenly distributed across schools, the exposure to a particular group would always equal that group's share of the population. For example, in the absence of sorting we would expect exposure to immigrants students to be 14.2 percent (the population average) for the average student of any nativity. As shown, however, the average native-born students attends schools where 13.4 percent of the students are foreign-born and the average foreign-born student attends schools where 19.2 percent of the students are foreign-born. Students in grades 2-8 are included.

There are some observable differences in resources between schools attended by native- and foreign-born students, which sometimes favor the native-born and sometimes favor the foreign-born.

Foreign-born students attend larger schools with slightly higher pupil-teacher ratios and teacher turnover rates, but also with higher percentages of experienced teachers and teachers with advanced degrees.

Table 5: Student weighted averages, school resources, NYC public schools, 2010

	all	NB	FB	prev enrolled	new - all	new - NB	new - FB
enrollment	808	793	896	807	820	766	872
# teachers	57.7	56.9	62.5	57.6	58.9	55.9	61.9
pupil teacher ratio	13.7	13.7	14.1	13.8	13.7	13.5	13.8
% teachers with < 3 yrs experience	8.4	8.4	8.1	8.4	7.8	7.8	7.8
% teachers with MA+30 credits or PhD	42.5	42.4	43.3	42.5	43.3	42.5	44.1
Turnover rate (less than 5 yrs experience)	18.2	18.1	18.5	18.2	18.2	17.6	18.7
Turnover rate (all teachers)	13.4	13.4	13.4	13.4	13.2	12.9	13.4

Note: data from 2010 NYS School Report Cards

Summary and Conclusions

Understanding changes in the NYC student population over the past decade requires examining changes in flows of students. (Im)migration to NYC and NYC public schools is varied: while the actual numbers and shares change, there are large numbers of both native- and foreign-born migrants every year and in every grade. This population of students has changed both in socio-demographic characteristics and geographic origin. Although some of these changes followed predictable trends, there were also unexpected waves and shocks that likely presented students, education administrators, and practitioners with unanticipated challenges. Despite the potential difficulties of adjusting to a new country and school system, foreign-born performance appears to improve with increased time in the U.S. Finally, while there is evidence of sorting across schools, it is difficult to make a normative claim as to whether this is troublesome. If sorting means that a child has built-in community supports or that there is a critical mass of students attending a school speaking a particular language, unequal concentrations may not necessarily be a “bad” thing, at least initially.

As the largest school district in the nation, the immigrant student experience in NYC is a significant piece of the story of immigrant students in the U.S. and has broader national implications, particularly with regard to education and immigration policy. Needs in terms of English proficiency, poverty, and prior educational preparation will affect schools differently and yield different strategies for stimulating greater integration. Understanding who these new students are, where they are from, what schools they attend, and how they have changed over time is necessary to determine appropriate policy responses and interventions. Similarly, it is important to remain aware of the diverse population of newly arriving native-born students. Our hope is that by providing insight into the continuously changing population of students, this brief will help guide policymakers and practitioners in their goal of providing quality education for all.

Appendix

Table A1: Total enrollment in NYC public schools

	number of students
2000	1,100,312
2001	1,105,045
2002	1,098,832
2003	1,091,717
2004	1,086,886
2005	1,075,338
2006	1,055,986
2007	1,042,078
2008	1,035,406
2009	1,029,459
2010	not available

Data from NYC school based expendture reports (SBERs)

Table A2: Foreign-born population in NYC

	number	% of total	% change
1950	1,784,206	22.6%	
1960	1,558,690	20.0%	-12.6%
1970	1,437,058	18.2%	-7.8%
1980	1,670,199	23.6%	16.2%
1990	2,082,931	28.4%	24.7%
2000	2,871,032	35.9%	37.8%
2009	2,996,580	35.7%	4.4%

Numbers from NYC Department of City Planning.

Authors' calcuations.

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