

## Briefing Book- Education and the Foreign-Born in Boston

There are two broad aspects to consider when looking at education in the foreign-born population. First is the difference in educational attainment between the native-born and foreign-born populations. Included in this are the related income differences typically associated with education. Second are the ways in which the recent increase in the size of the immigrant population presents new and unique challenges to public schools in the city. We will discuss both of these issues as they relate to the foreign-born population in Boston.

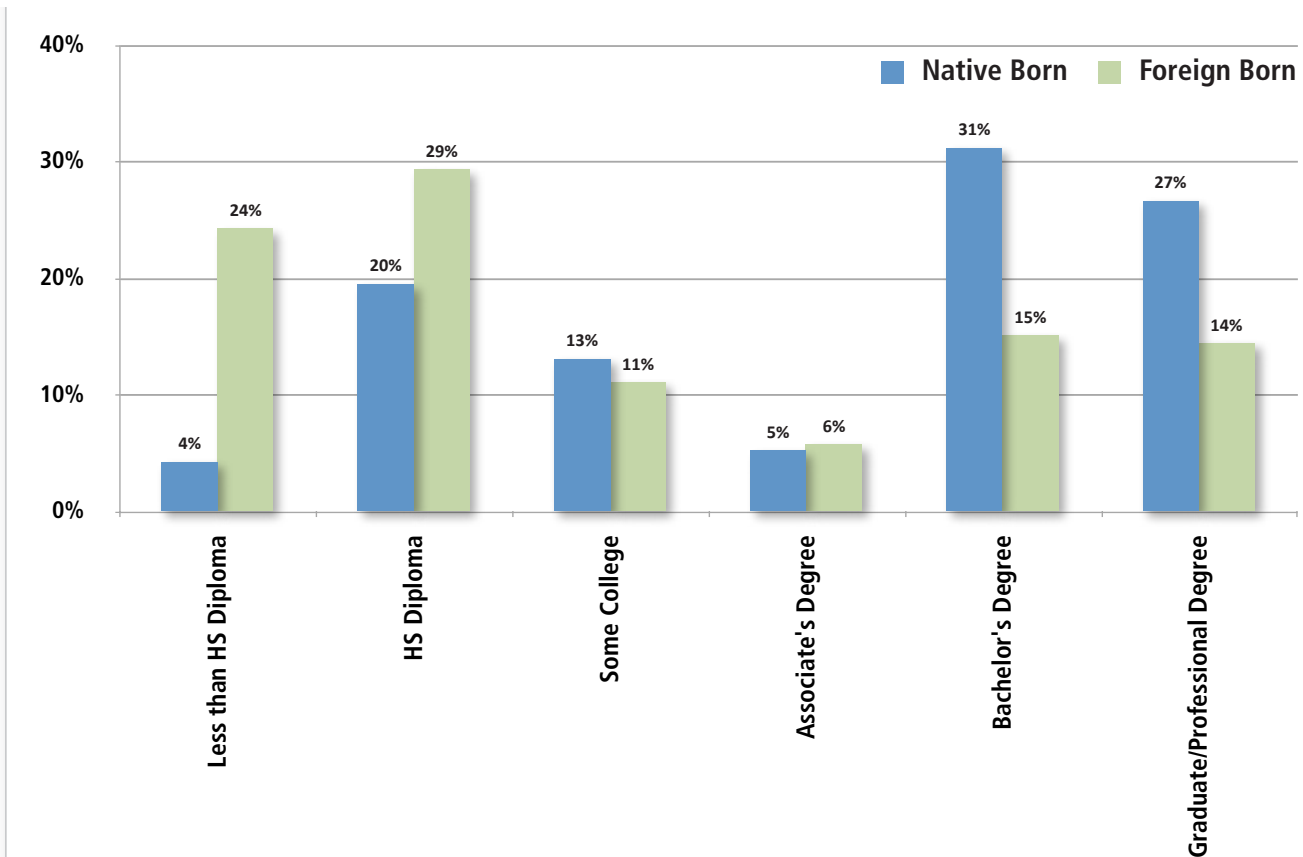
### Educational Attainment and Income

Educational attainment is one of the most typically used measures for “quality of life” in a community. One reason is that education is closely associated with personal income. Together, education and income are important predictors in understanding life chances, neighborhood quality, and labor market opportunities.

As **Figure 1** below reveals, there are significant differences in the educational attainment between the native-born and foreign-born populations in Boston. Of particular interest is the fact that 24% of foreign-born adult residents in Boston have less than a high school diploma, compared to 4% of the native-born population. On the other end of the educational spectrum, 58% of Boston’s native-born population has acquired a bachelor’s degree or higher, compared to just 29% of the foreign-born.

**Figure 1:**

**Educational Attainment**



Source: American Community Survey 2005-2007; BRA Research Division Analysis<sup>1</sup>

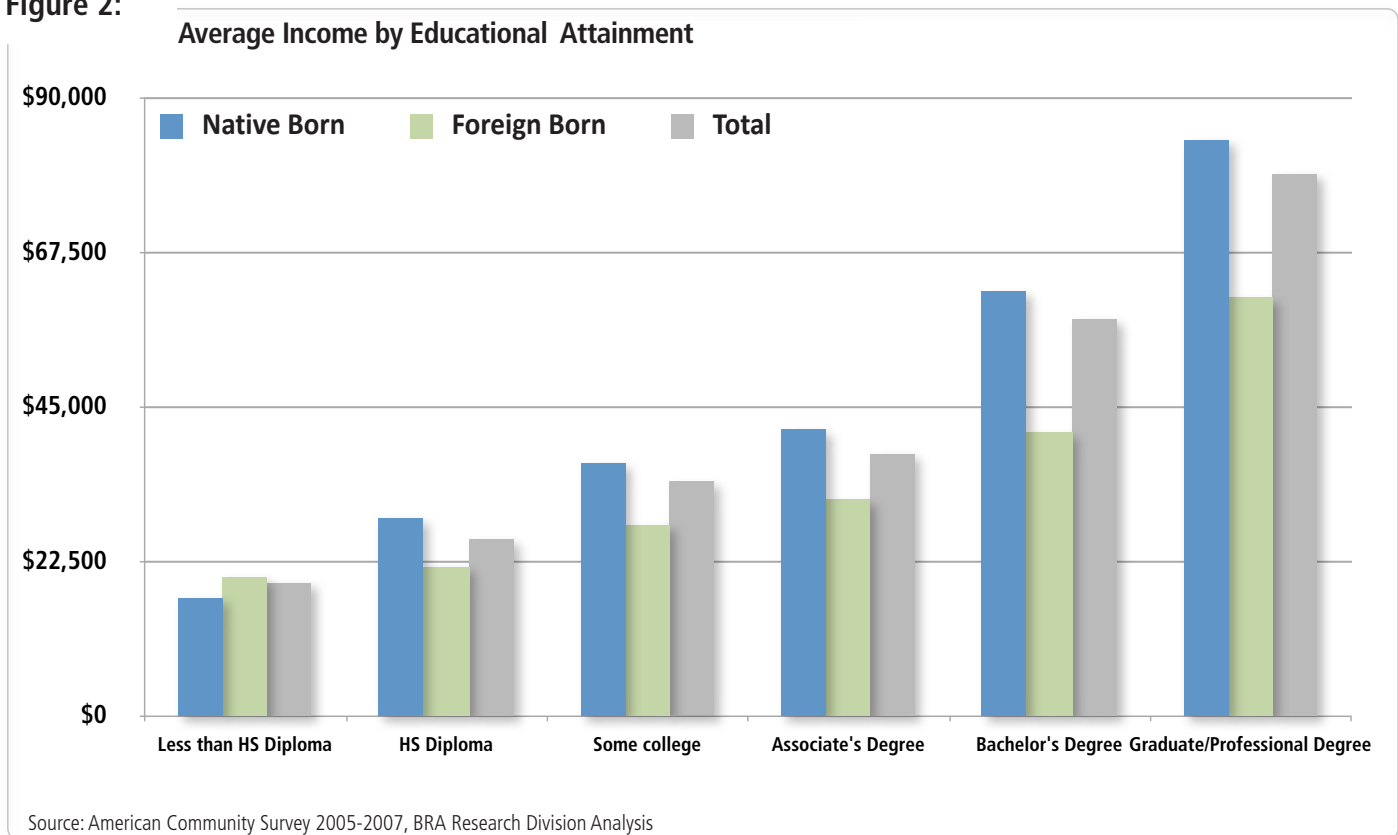
<sup>1</sup> All data referring to educational attainment levels are for Boston residents 25 years of age or older.

In recent years, much has been made about the changing make up of the U.S. economy. Researchers and analysts typically argue that the economy has fundamentally shifted from a manufacturing-based to a service and knowledge-based economy. With this change comes an increased need for advanced education and skills. These data signal significant human capital issues within the foreign-born population. As the Baby Boomers approach retirement age, the foreign-born population in Boston will be relied on heavily to fill critical job vacancies. As a result, improving the educational attainment of Boston's foreign-born population is a critical issue for our local economy moving forward.

It is important to note, however, that there is a large segment of the immigrant population in Boston with advanced education. The college-educated proportion of the foreign-born population approaches 30%. While this is smaller than the proportion of college-educated native-born residents (58%), it is still a large portion of the foreign-born population. This indicates that there are significant human capital assets in Boston's foreign-born population.

Given that the native-born population in Boston has a higher level of educational attainment on average than the foreign-born population, it is not surprising to see that the average personal income of the native-born workforce in Boston is higher than the foreign-born workforce (over \$55,000 to just over \$31,000 respectively<sup>2</sup>). However, there are some very interesting variations in income both within and between educational attainment levels when comparing the native-born and foreign-born workforces in Boston.

Figure 2:



First, **Figure 2** shows that income increases for both groups as education increases. Interestingly, foreign-born workers with less than a high school diploma tend to make slightly more money on average than native-born workers with less than a high school diploma. What is particularly striking about these data, though, is that income inequality between the native-born and foreign-born appears to increase with education. Foreign-born residents with a bachelor's degree earn about 67% of what native-born residents earn with the same level of education. Boston's foreign-born residents with a master's degree or higher make roughly 73% of what native-born residents make with the same level of education. While education is critical in improving a person's income, it is

<sup>2</sup> Average personal wages for Boston's labor force 16 years of age or older.

important to consider what other factors may explain the increase in income inequality with educational attainment between the native-born and foreign-born populations in Boston. Possible explanations include English language proficiency, social networks, issues with certification and credentialing, and discrimination in the job market.

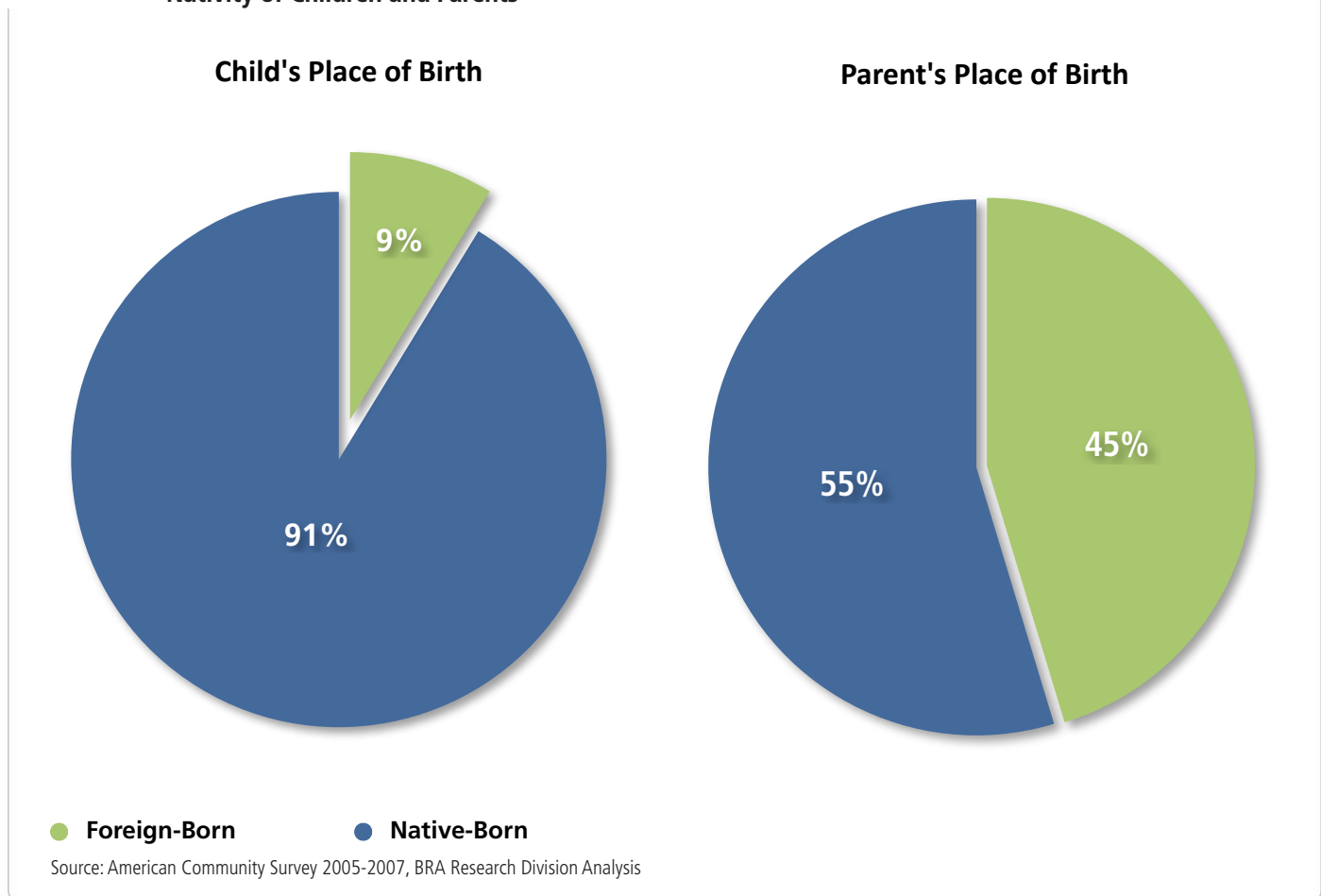
### Foreign-Born Children and the Boston Public School System

While educational attainment and earnings are important factors when considering quality of life issues in Boston's immigrant community, an equally important issue are the ways in which the growing foreign-born population in Boston affects the character of the city's K-12 educational system.

As we demonstrated in the Demographics briefing, immigration in Boston is very much a family issue. The marriage rate in Boston's foreign-born population is higher than in the native-born population (41% and 24%, respectively)<sup>3</sup>. In fact, only 9% of Boston's children are foreign-born. At first glance, these data are very surprising. However, when focusing on the nativity of parents, the data reveal that 45% of children in Boston have at least one parent who is a foreign-born resident (see **Figure 3**). Growing up in a household with foreign-born parents may create a number of challenges unique to this group of children in Boston, especially if one or both of their parents are unfamiliar with the English language.

Figure 3:

#### Nativity of Children and Parents

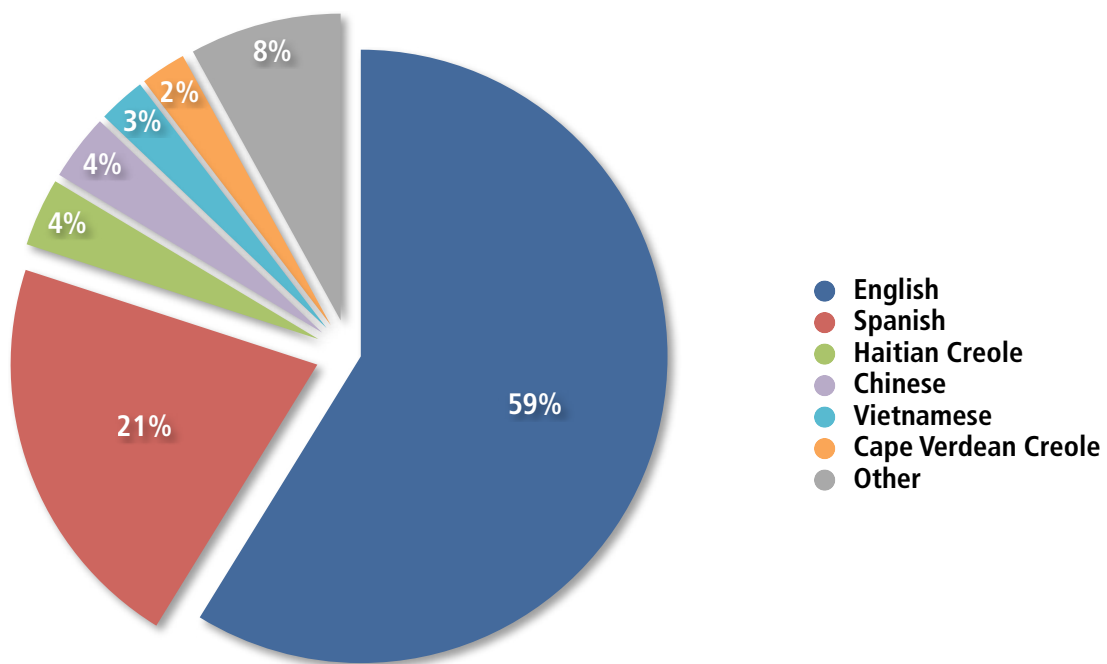


<sup>3</sup> Analysis limited to residents 15 years of age or older.

Together, the increased number of foreign-born residents, their higher marriage rate as compared to native-born residents, and the large number of children living in households headed by foreign-born parents suggest that immigration in Boston is an important family issue and therefore an important consideration for public schools. One indication of this is found in the foreign language composition of the Boston Public School System (BPS).

Figure 4:

Languages Spoken in Boston Public Schools

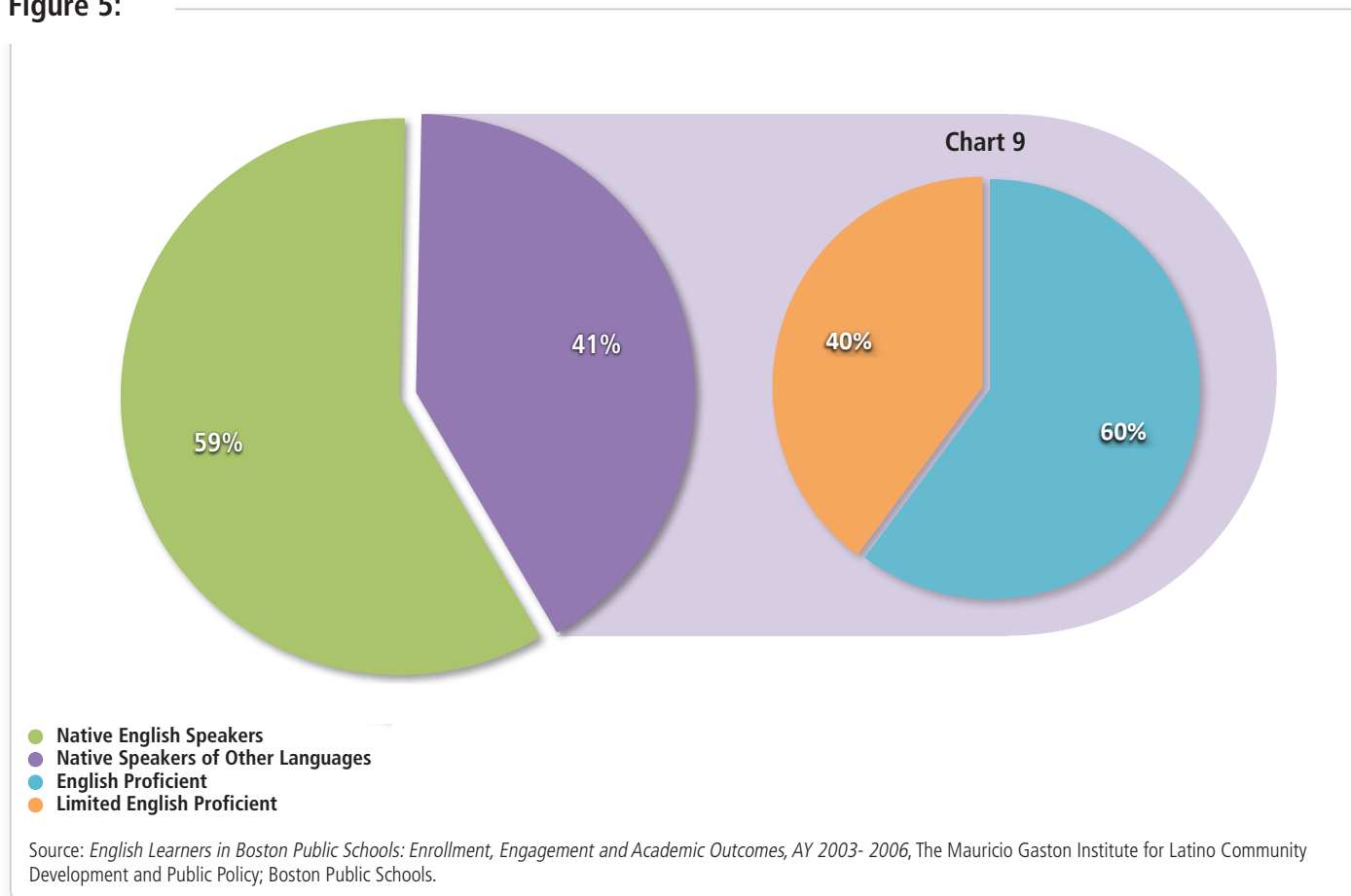


Source: *English Learners in Boston Public Schools: Enrollment, Engagement and Academic Outcomes, AY 2003- 2006*, The Mauricio Gaston Institute for Latino Community Development and Public Policy; Boston Public Schools.

As **Figure 4** shows, the majority of students in BPS speak English as their “first language”. That said, a large proportion of BPS student (over 40%) speak a language other than English. While the majority of foreign language speakers in the BPS speak Spanish, a substantial number of students speak Haitian Creole, Chinese, Vietnamese, Cape Verdean Creole, or Portuguese.

BPS uses information on language background and ability to help categorize students. According to a 2009 report released by The Mauricio Gaston Institute for Latino Community Development and Public Policy at UMass-Boston, of the over 59,000 students in BPS in 2006, 59% were *Native English Speakers* (NES), while 41% were *Native Speakers of Other Languages* (NSOL) (see **Figure 5**). Many of the *Native Speakers of Other Languages* (NSOL) also speak English, though the level of attainment in English proficiency varies. Of BPS's NSOL student population, 60% are classified as *English Proficient* (EP), with the remaining 40% being classified as *Limited English Proficient* (LEP). The majority of NSOL-LEP students participate in *English Learner* (EL) programs (89% or 8,614 students). The remaining LEP students in BPS opted out of EL programming and participate in general education programs. In total, of the over 59,000 students in BPS, 16.4% are LEP. LEP-EL students make up 14.5% of the entire BPS student population.

**Figure 5:**



### Demographic Differences between NES and LEP-EL Students

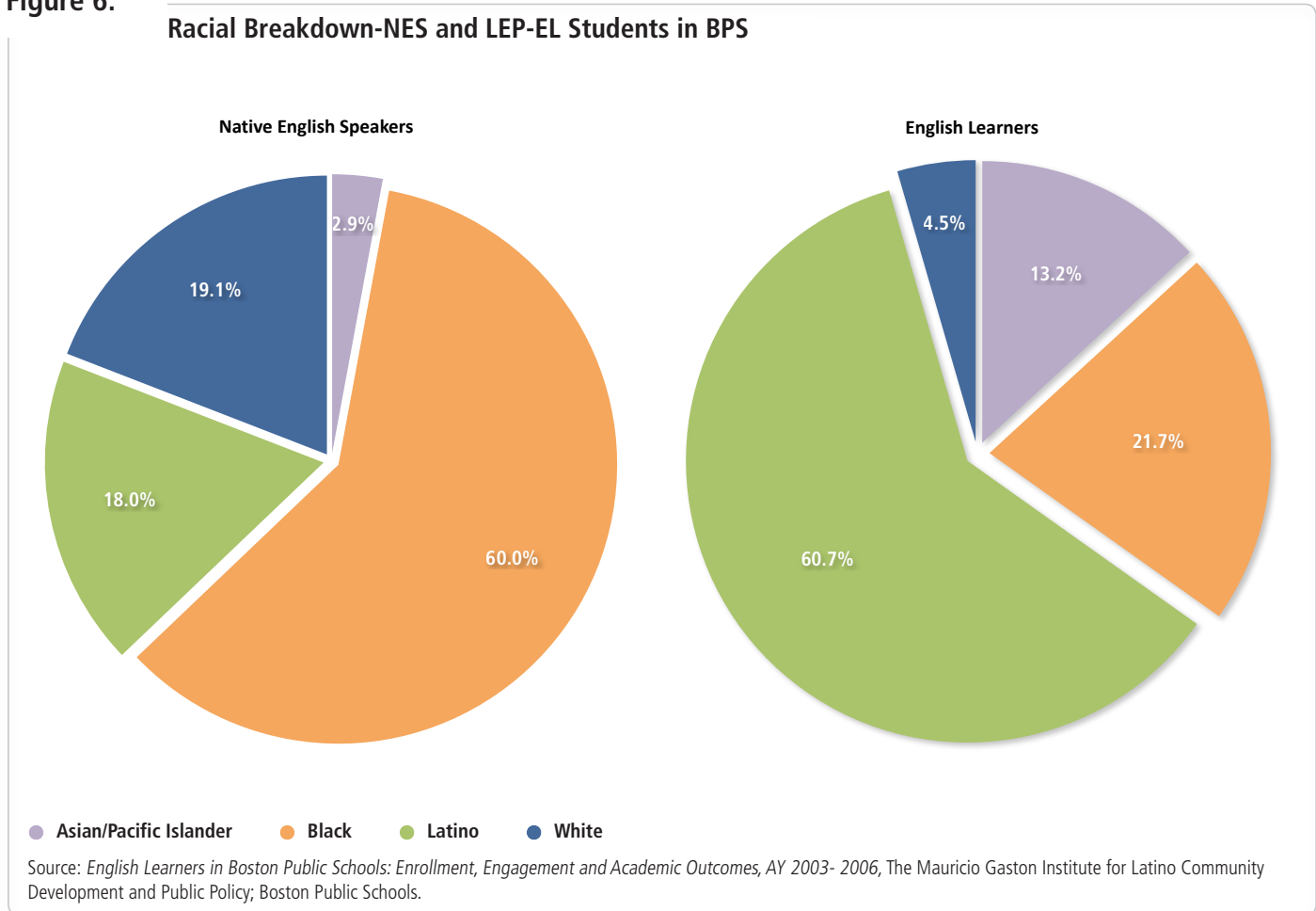
For the purposes of this research, we will focus primarily on differences in the demographic makeup and the educational achievement of NES students and LEP-EL students<sup>4</sup>. First, in terms of race we see that participants in the LEP-EL population are significantly different from the NES population (see **Figure 6**). Amongst NES students, the majority of students are Black (59.6%), followed by White (19%) and Latino students (17.9%), with Asian students making up a relatively small proportion of the population (2.9%). In contrast, Latino students form the majority of the LEP-EL population (60.8%). Asian students are also a significantly higher proportion of the LEP-EL population than the NES population (13.2% vs. 2.9%). Both Black and White students, on the other hand, form a smaller proportion of the LEP-EL population than of the NES population (21.7% vs. 59.6% for Black students and 4.5% vs. 19% for White students). These results are consistent with current patterns in immigration, as the recent influx of immigrants to the region hail from Latin America and Asia. Interestingly, the Hispanic/Latino proportion of LEP-EL is significantly larger than the proportion Hispanic/Latino students in DOE sponsored ESOL courses for adults.

<sup>4</sup> For a more detailed look at performance between the various language categories, as well as a comprehensive look at student performance and language in BPS since the end of Transitional Bilingual Education (TBE) in Massachusetts, see *English Learners in Boston Public Schools: Enrollment, Engagement and Academic Outcomes, AY 2003-2006*, The Mauricio Gaston Institute for Latino Community Development and Public Policy.

Another significant difference between the NES and LEP-EL populations is economic. The LEP-EL population demonstrates a significantly higher level of poverty. In the BPS system, poverty is measured by the number of students who are eligible to receive a free or reduced price lunch. Nearly 85% of the LEP-EL students are eligible to receive free or reduced price lunches, compared to 70.2% of NES students.

**Figure 6:**

**Racial Breakdown-NES and LEP-EL Students in BPS**



### MCAS Performance Differences between Native English Speakers and English Learners

The Massachusetts Comprehensive Assessment System (MCAS) is a standardized test used to gauge the level of competency public school students have achieved in key subject areas. While the establishment and implementation of the MCAS exams has been extremely controversial, it remains a very important assessment of Massachusetts students. For example, a student cannot graduate high school without achieving passing marks on the MCAS examination. As a result, despite the controversy that surrounds the MCAS, it is important to understand the differences between how *Native English Speakers* (NES) and *Limited English Proficiency English Learners* (LEP-EL) perform on the test and how they compare to the BPS averages.

There are some important differences in MCAS performance between *Native English Speakers* (NES) and *Limited English Proficiency English Learners* (LEP-EL) in the Boston Public Schools (see **Figure 7**). The results on the English Language Arts portion of the exam offer the most interesting differences between these students. At grade four, only slightly more than half of the LEP-EL students (56.9%) passed the English Language Arts section of the test, while nearly three-quarters of NES students (72%) passed. Interestingly, the average pass rate of all BPS students is slightly higher than the NES pass rate, 73.2% in comparison to 72%. This indicates that Native Speakers of Other Languages (NSOL) tend to perform better than NES students if they are English proficient (86.3% pass rate in comparison to 72%).

The achievement gap between NES and LEP-EL students is even wider at the tenth grade level. In the tenth grade MCAS, only 43.2% of LEP-EL students passed the English Language Arts section, while NES students achieved a pass rate of 73.4%. Between the fourth and tenth grades the achievement gap between NES student and LEP-EL students doubled, increasing from 15.1% in grade four to 30.2% in grade ten.

**Figure 7:**

**MCAS Test Proficiency-2006**

	Grade 4 Pass Rate		Grade 10 Pass Rate	
	English Language Arts	Math	English Language Arts	Math
<b>All BPS Students</b>	<b>73.2%</b>	<b>73.7%</b>	<b>77.4%</b>	<b>67.9%</b>
<b>Native English Speakers (NES)</b>	<b>72.0%</b>	<b>71.2%</b>	<b>73.4%</b>	<b>69.3%</b>
<b>Limited English Proficiency - English Learners (LEP-EL)</b>	<b>56.9%</b>	<b>63.0%</b>	<b>43.2%</b>	<b>45.4%</b>

Source: *English Learners in Boston Public Schools: Enrollment, Engagement and Academic Outcomes, AY 2003- 2006*, The Mauricio Gaston Institute for Latino Community Development and Public Policy; Boston Public Schools.

There is also a significant difference between NES and LEP-EL students' performance on the math portions of the MCAS. At grade four, 71.2% of NES students passed the Math section of the MCAS, in comparison to 63% of the LEP-EL students. The achievement level dropped slightly in both groups at grade ten, with only 69.3% of NES students and 45.4% of LEP-EL students attaining passing scores. The achievement gap between NES and LEP-EL widened even more significantly in the math section, nearly tripling from 8.2% in grade four to 22.5% in grade ten.

### Mother's Educational Attainment

Family characteristics also play a significant factor in the school performance of children. One of the most often cited predictors for student achievement is the educational attainment of the mother (examples of such research include Haveman and Wolfe 1995, Magnuson 2003, Weissbourd 1997). Researchers argue a number of possible explanations for why this relationship may exist, including parental role modeling and the development of higher quality learning environments in the home<sup>5</sup>.

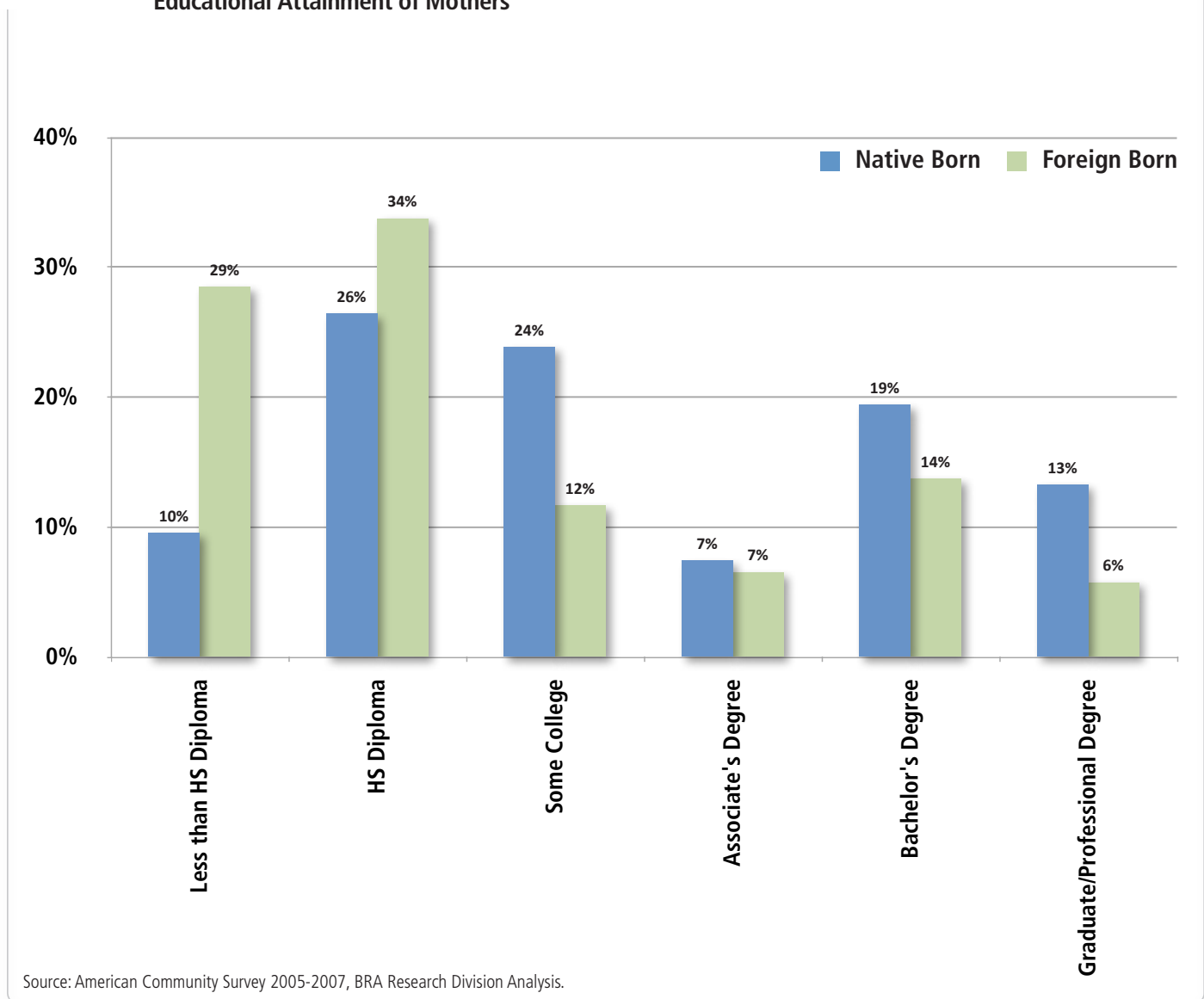
Overall, there are large differences in the educational attainment levels of native-born mothers and foreign-born mothers (See **Figure 8**). Specifically, a larger proportion of foreign-born mothers have attained less than a high school diploma (29%) compared to native-born mothers (10%). Conversely, a greater percentage of native-born mothers have attended at least some college courses (63%) compared to foreign-born mothers (39%).

<sup>5</sup> For a more detailed discussion of the background research on the role of mother's educational attainment on a child's school performance, please see Magnuson's 2003 report entitled *The Effect of Increases in Welfare Mothers' Education on Their Young Children's Academic and Behavioral Outcomes: Evidence from the National Evaluation of Welfare-to-Work Strategies Child Outcomes Study*.

The data above is another signal of significant human capital concerns within immigrant families. First, of course, is the established link between educational attainment and income. Native-born mothers earn more personal income than foreign-born mothers (over \$27,000 to just under \$18,000, respectively). Children of immigrant mothers are more likely to grow up in a home with less financial resources than the children of native-born mothers.

Taken together, we can see that the issue of childhood education in Boston's immigrant community is not solely about services provided by the Boston Public Schools. It is important to also consider the human capital of foreign-born parents. Issues of language spoken in the home, as well as the educational attainment of foreign-born mothers, play significant factors in how students perform in school.

**Figure 8:** Educational Attainment of Mothers





## Summary

In this section we examined the role of education on quality of life issues for immigrants in Boston. We focused on two main aspects of the relationship between immigration and education. First, we looked at differences in educational attainment and income between the native-born and foreign-born populations. Second, we considered the ways in which the recent increase in the size of the immigrant population presents new and unique challenges to the Boston Public School System.

Overall, we see significant differences in educational attainment and income between the native-born and foreign-born populations in Boston. The native-born adult population is more educated on average than the foreign-born. The most striking variations between the two groups exist on the two ends of the educational spectrum. Approximately 24% of Boston's foreign-born adult residents have not completed high school, compared to only 4% of the native-born. On the other hand, roughly 58% of the native-born have earned a bachelor's degree or higher, compared to 29% of the foreign-born.

As a result, it is not surprising to see that the average personal income for native-born residents in Boston is higher than the foreign-born. What is surprising is the degree of difference within educational attainment categories when comparing the native and foreign-born. In short, as educational attainment increases, income inequality between the two groups increases. This indicates that there may be other important factors influencing income differences between the native-born and foreign-born besides educational attainment, such as familiarity with English, social networks, and issues with certification and credentialing.

Next, we highlighted the degree to which immigration in Boston is a family issue. The immigrant community boasts a higher marriage rate than the native population. While the actual proportion of children who are foreign-born is modest (9%), the proportion of children who have at least one foreign-born parent is substantial (approximately 45%). In the BPS, over 40% of students speak a language other than English<sup>6</sup>. Among those students, we see a great deal of diversity in the foreign languages they speak. While the majority of foreign language speakers in the BPS speak Spanish, a substantial number of students speak Haitian Creole, Chinese, Vietnamese, Cape Verdean Creole, or Portuguese. The racial breakdown of the participants in the LEP-EL population is very different from the NES population, with Latino and Asian populations forming a larger proportion of the LEP-EL population than the NES population. Economically, LEP-EL students are more likely to be eligible to receive a free or reduced price lunch than NES students.

We reviewed differences in MCAS performance between *Native English Speakers* (NES) and *Limited English Proficiency English Learners* (LEP-EL) in the BPS during the 2006 exam period. There were significant differences in achievement between the two groups at both grades four and ten in the English Language Arts and Math, with NES students consistently achieving a substantially higher pass rate. In addition, the achievement gap between NES and LEP-EL students widened between grades four and ten. In English Language Arts, the achievement gap doubled from 15.1% in grade four to 30.2% in grade ten, while the gap nearly tripled in Math, increasing from 8.2% to 22.5%.

Lastly, we compared the educational attainment of native-born and foreign-born mothers in Boston. Previous research suggests that mother's education plays an important factor in the school performance of their children. We found that, on

<sup>6</sup> It should be noted these students may speak English *in addition to* a foreign language.

average, native-born mothers have attained higher levels of education than foreign-born mothers. Related to this is that native-born mothers earn more personal income and live in households with greater total income than foreign-born mothers. This information signals important human capital concerns in immigrant families, specifically in terms of the availability of resources for children of foreign-born mothers and the importance placed on education in the home. In short, when thinking of the educational experience of children in Boston, it is important to not only think about the role of the public schools, but also to consider the human capital characteristics of household members. These characteristics go a long way in determining how young people perform in school and to what extent they value the importance of education.



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