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THE FOREIGN-BORN POPULATION IN GREATER FRAMINGHAM



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INTRODUCTION

Migration has, and continues to be a core component of our social fabric in Greater Framingham (GFR)—a geographical region with a population of about 147,000 individuals, as seen in Figure 1. The different waves of migrants who have called our region home share some fundamental characteristics and are all part of a long, unified tradition of migration. That being said, the origin and some characteristics of today's migrants differ from those in the past. Gaining a better understanding of who our foreign-born population is, and what their needs and potential economic contributions are, will allow our region to capitalize on the dynamism of this key sector of our population. Understanding the local dynamics of migration is especially relevant in light of the recent demographic changes taking place nationally, which include a stagnant working-age population. Unfortunately, the structure of the US decennial census does not allow for the tabulation of foreign-born population data at the regional level. This report uses data retrieved primarily from the 5-year, 2018 American Community Survey (ACS) Public Use Microdata Sample (PUMS) files to overcome these challenges. It reviews key demographic and economic variables for the foreign-born population in Greater Framingham. Moreover, to the extent possible, it places these data in context by comparing the foreign-born population to the native-born population in GFR, Massachusetts, and the nation.

Data from the 2018 ACS suggests that the foreign-born accounts for over **25%** of the entire population in the Greater Framingham Region—one out of every four residents. Moreover, of all children in the region living with parents, 43% do so with at least one parent who was born outside the United States. These numbers alone suggest that this is a significant sector of the population, and one that we can learn much more about by exploring the resources afforded by the ACS.

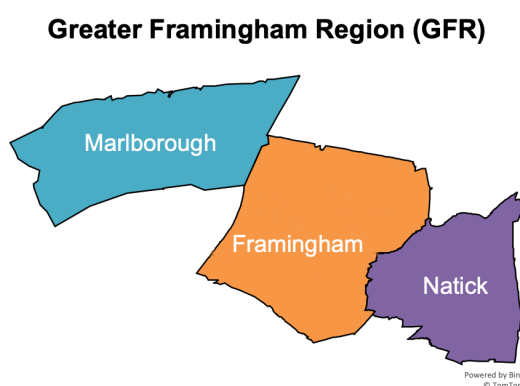


Figure 1

Note: This region coincides with PUMA 25 00504.

GENDER

Contrary to traditional expectations of gender dynamics and migration—migrants are generally assumed to be young and male—the foreign-born in the Greater Framingham region are slightly more likely to be female. Women comprise 51.1% of all the foreign-born in the region. This distribution is more or less in line with the gender breakdown for the overall population, in which women make-up slightly more than half of all individuals.

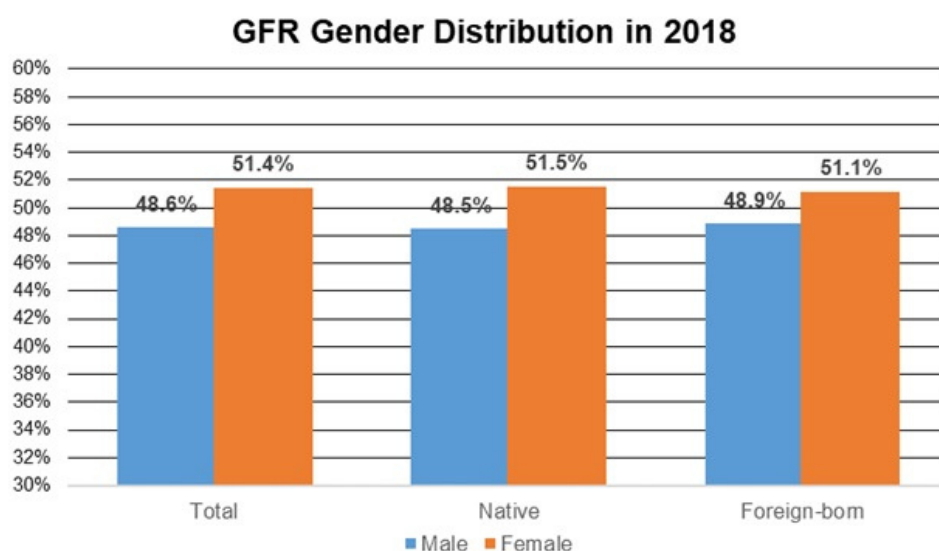


Figure 2

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey

AGE

As shown in Table 1, 79.5% of the foreign-born population is between the ages of 15 and 59-years-old—a key age group in terms of an area's labor force. This number is slightly higher than the 55.5% of the native-born population that is in this age group. As expected, the percentage of the foreign-born population that is 15-years-old or younger is relatively small. This can be mostly accounted for by the fact that the children of the foreign-born are, by and large, considered part of the native population. At the other end of the spectrum, it is also important to note that a significant share of the foreign-born population is 70-years-old or older. This is perhaps a reflection of an earlier wave of migration.

GFR Age Distribution: 2018			
Age Distribution (%)	Total	Native	Foreign-born
Under 15	17.2%	22.0%	2.7%
15-19	6.2%	7.2%	3.3%
20-24	5.1%	5.5%	3.9%
25-29	7.0%	5.6%	11.4%
30-34	7.5%	5.7%	12.6%
35-39	7.3%	6.0%	11.1%
40-44	6.6%	5.3%	10.6%
45-49	7.3%	6.4%	9.8%
50-54	7.5%	6.7%	9.6%
55-59	7.1%	7.1%	7.2%
60-64	6.3%	6.2%	6.7%
65-69	5.0%	5.5%	3.5%
70-74	3.6%	3.9%	3.0%
75 and Over	6.3%	6.9%	4.7%

Table 1

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey Estimates

PLACE OF BIRTH AND CITIZENSHIP STATUS

While the initial focus of this report is on the foreign-born population, it is important to clarify that this definition does not include individuals born in Puerto Rico. Officially a U.S. territory, following the Jones-Shafroth Act of 1917, Puerto Ricans are considered U.S. citizens, and thus are not counted as part of the foreign-born population. Despite not being included in the foreign-born population, individuals born in Puerto Rico make up a significant portion of the population in our region. Puerto Rico occupies the eighth place when it comes to the top place of birth of residents in the Greater Framingham area.

Table 2 illustrates how the foreign-born population in this region hails from all corners of the world. In particular, it is important to note that individuals born in Brazil, make up 26% of all foreign-born in GFR. In fact, Brazil was the second most common place of birth for the overall population in GFR. Only Massachusetts surpasses Brazil as the top place of birth. Individuals born in India represented the second largest group of foreign-born individuals in GFR at 13.4%. India was the fourth most common place of birth for all residents in Greater Framingham, and its share was almost equivalent to the combined share for Connecticut, Maine, and New Hampshire.

Top 15 Places of Foreign-born Population (% of Foreign-born Population)								
United States			Massachusetts			Greater Framingham		
1	Mexico	26.2%		China	8.2%		Brazil	26.0%
2	China	6.2%		Dominican Republic	7.7%		India	13.4%
3	India	5.7%		Brazil	6.2%		Guatemala	5.1%
4	Philippines	4.5%		India	6.2%		China	4.8%
5	El Salvador	3.1%		Haiti	5.1%		Mexico	4.1%
6	Vietnam	3.0%		El Salvador	3.6%		El Salvador	3.3%
7	Cuba	2.9%		Portugal	3.5%		Russia	3.0%
8	Dominican Republic	2.5%		Vietnam	3.3%		Canada	2.9%
9	Korea	2.4%		Guatemala	2.7%		Dominican Republic	2.2%
10	Guatemala	2.2%		Canada	2.7%		Colombia	1.5%
11	Canada	1.9%		Cabo Verde	2.7%		Ghana	1.5%
12	Colombia	1.7%		Colombia	2.1%		Philippines	1.2%
13	Jamaica	1.7%		Russia	1.8%		Vietnam	1.2%
14	United Kingdom	1.6%		Jamaica	1.7%		Poland	1.2%
15	Haiti	1.5%		Italy	1.6%		Venezuela	1.2%

Table 2

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey Estimates



Citizenship Status of the Foreign-born Population in GFR in 2018

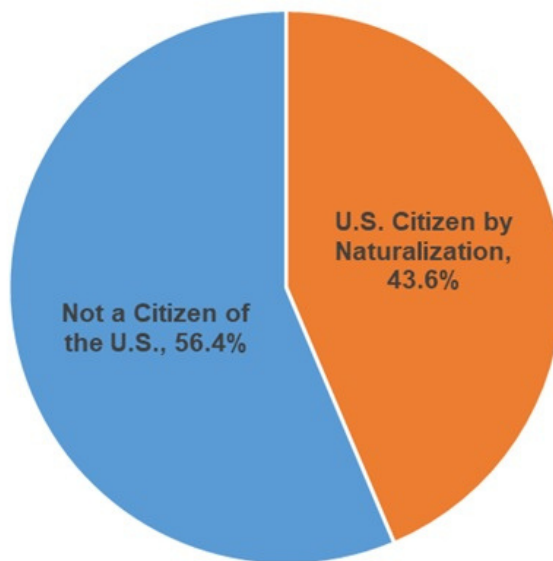


Figure 3

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey



Despite having been born in different parts of the world, the foreign-born in the Greater Framingham area are highly assimilated to their new country. This is supported by the findings presented in Figure 3. Nearly 44% of the foreign-born in our region have chosen to become U.S. citizens through the process of naturalization.

LANGUAGE

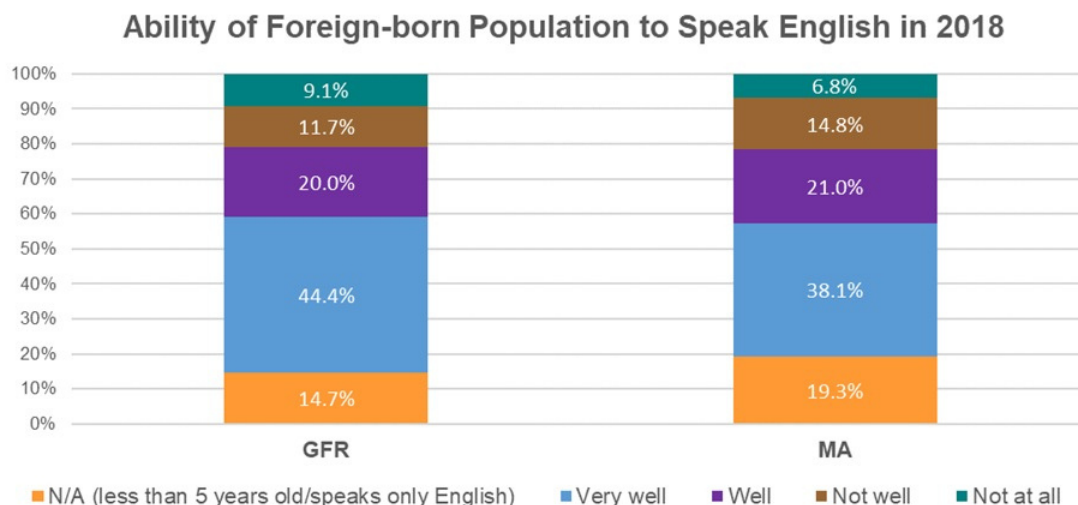


Figure 4

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey

Of the foreign-born population in GFR, the overwhelming majority (79.1%) speaks English well, very well, or at the native level. While a process of assimilation is evident, it is also clear that most of those born abroad retain their native language. Table 3 presents the Top 10 languages spoken at home by the foreign-born. Portuguese is the language most widely spoken at home by those born abroad (25.4%). The second most spoken language at home by the foreign-born population in GFR is Spanish, which is spoken by 20.2% of the foreign-born. A significant portion (14.7%) of the foreign-born population speaks only English at home.

Top Languages Spoken at Home by the Foreign-born Population (%)		
	MA	GFR
1	Spanish 21.1%	Portuguese 25.4%
2	English-Only 19.3%	Spanish 20.2%
3	Portuguese 10.4%	English-Only 14.7%
4	Chinese 6.0%	Russian 5.0%
5	Haitian 5.3%	Chinese 3.8%
6	Russian 3.0%	Hindi 3.5%
7	Vietnamese 2.9%	Gujarati 2.2%
8	Arabic 2.4%	Tamil 2.2%
9	French 2.1%	Telugu 2.0%
10	Hindi 1.9%	Arabic 1.5%

Table 3

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey Estimates

EDUCATIONAL ATTAINMENT AND WORKFORCE PARTICIPATION

As an important component of the Greater Framingham population, the foreign-born population can inject dynamism into its local labor market and local economy in general. Therefore, it is important to explore the skills that this sector of the population brings to the table when it comes to meeting the labor needs of the local economy.

Figure 5 captures the educational attainment for those 25-years and older in both the native and foreign-born populations in Greater Framingham and Massachusetts. The educational attainment distribution among the foreign-born in GFR is roughly characterized by a bifurcated distribution, with relative high concentrations on the tails of the distribution. Relative to the native population in the Greater Framingham area, the foreign-born population is slightly more likely to have either a master's or doctoral degree (20.4% versus 18.6%). Moreover, the data suggests that nearly one out of every four foreign-born residents in Greater Framingham (22.7%) has completed a post-baccalaureate degree—a significant injection of human capital into the local economy. On the other hand, it is also important to note that the foreign-born are also significantly more likely to have relatively higher prevalence of individuals with high school or less as their highest level of educational attainment. While 24% of the native-born population in GFR has no formal college training, the same can be said of 42.3% of the foreign-born population considered here. This includes nearly 5,000 foreign-born individuals who have not formally completed high school or obtained a GED equivalent. Thus, there is a large share of the foreign-born population that could be targeted to increase regional productivity through formal training and education.

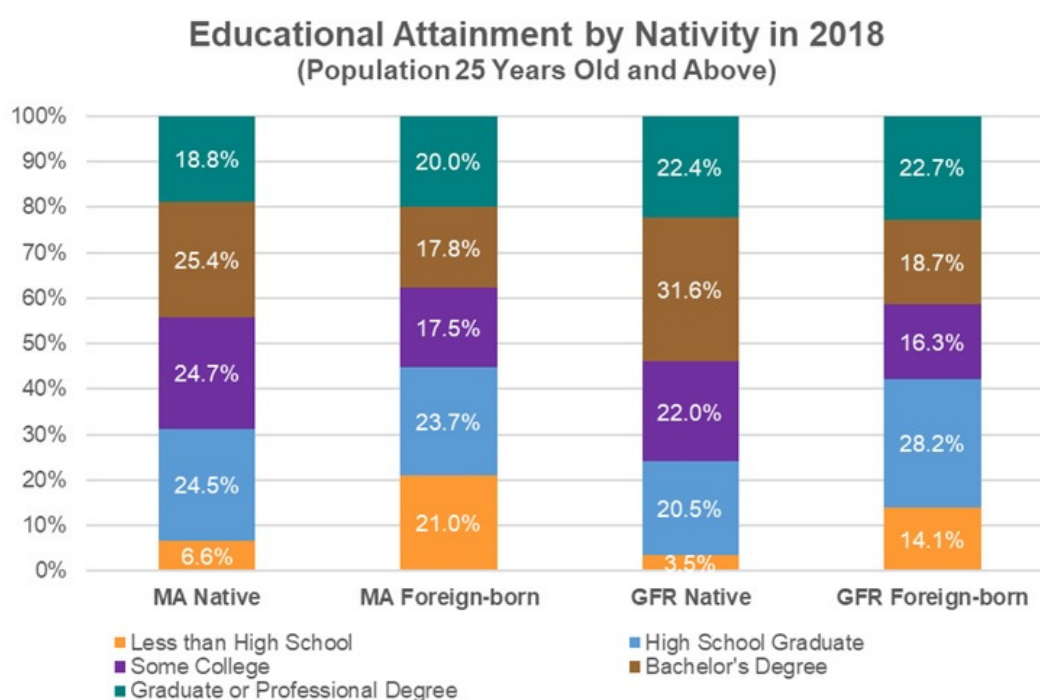


Figure 5

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey

While overall levels of education attainment are important, it is also critical to consider the skills that the foreign-born population brings to our local labor markets. Table 4 shows the Top 12 concentrations for those members of the population who have a bachelor's degree, and who are 25 years of age or older. The most prevalent concentration among the foreign-born population is Electrical Engineering, which accounts for 9.2% of all the bachelor's degrees held by the foreign-born. In contrast, the most popular concentration among the native population is Psychology with 7.1% of all bachelor-degree holders.

Top 12 Bachelor's Degrees by Concentration Among GFR Population in 2018*			
Foreign-born		Native-born	
Electrical Engineering	9.2%	Psychology	7.1%
Computer Science	5.3%	Business Management And Administration	6.2%
Biology	4.8%	General Business	5.3%
Economics	4.4%	General Education	3.9%
Mechanical Engineering	3.9%	Nursing	3.8%
Business Management And Administration	3.3%	English Language And Literature	3.8%
General Business	3.2%	Economics	3.2%
Computer Engineering	3.0%	Biology	3.1%
Accounting	2.7%	Political Science And Government	2.9%
General Education	2.5%	Electrical Engineering	2.9%
Finance	2.5%	Elementary Education	2.7%
Chemical Engineering	2.5%	Communications	2.7%

Table 4

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey Estimates

*As a percentage of sub-group population with a bachelor's degree or higher.

A broader way of analyzing the labor market contributions of the foreign-born population, regardless of educational attainment, is by looking at the industries in which they are employed. Using 2-digit North American Industrial Classification System (NAICS) code aggregates, we find that foreign-born workers are more likely than native-born workers to be employed in supersectors like Other Services, Construction, Manufacturing, and Professional and Business Services (PBS). On the other hand, the foreign-born population in GFR tends to be underrepresented in supersectors like Public Administration, Education and Health Services, Leisure and Hospitality, and Financial Activities.



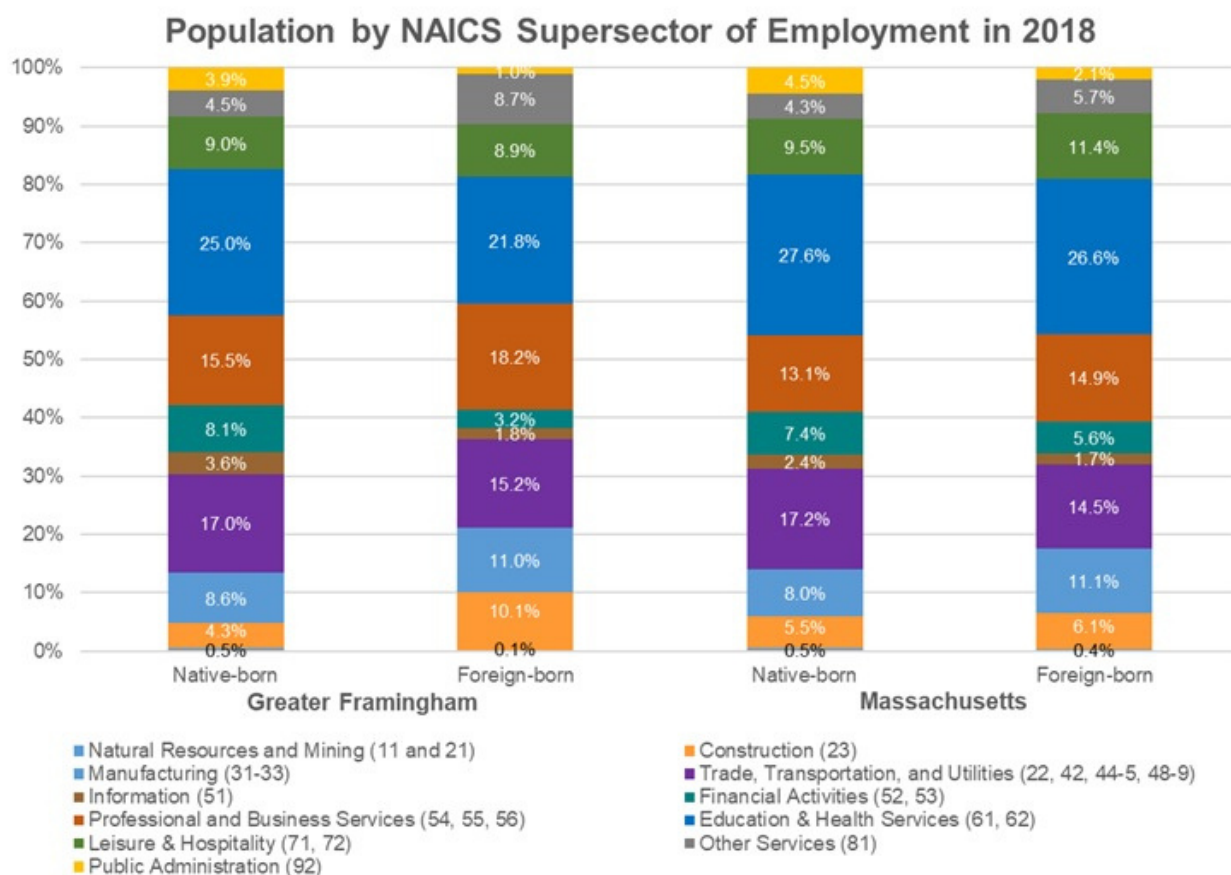


Figure 6

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey
 Note: North American Industrial Classification System (NAICS) 2013 codes in parentheses.

The characteristics of the foreign-born labor force in the Greater Framingham area—in terms of their education and type of supersectors for which they work—provide a glimpse at the supply-side of a key section of our domestic labor market. Moreover, by contrasting these characteristics with the sectors of the local economy that are growing in terms of employment (i.e. the demand-side), we are better equipped to address the degree to which the foreign-born match the industrial needs of our local economy, and identify potential areas where a mismatch of skills may arise. Table 5 on page 10 shows employment changes (between 2009 and 2018) by industrial supersectors of the economy for Massachusetts, Greater MetroWest, and the Greater Framingham region. By comparing the Great Recession with the recovery periods, these figures provide a good sense of which industries in our region are thriving and which are either stagnating or contracting—at least in terms of number of workers they employ.



% Change in Employment by Supersector (2009-2018)

Supersector	Massachusetts	Greater MetroWest*	Greater Framingham
Natural Resources and Mining	24.5%	32.8%	35.7%
Construction	42.5%	57.4%	36.7%
Manufacturing	-5.4%	-16.0%	1.9%
Trade, Transportation and Utilities	7.0%	4.0%	-10.7%
Information	8.5%	0.3%	2.0%
Financial Activities	1.8%	11.6%	-2.5%
Professional and Business Services	27.7%	20.1%	18.5%
Education and Health Services	25.4%	24.3%	13.8%
Leisure and Hospitality	25.4%	18.4%	10.6%
Other Services	-7.0%	13.8%	4.8%
Public	3.4%	6.9%	14.4%
Total, All Industries	14.3%	10.2%	7.4%

Table 5

Source: Author's calculations based on MERC data and the Massachusetts EOLWD, ES-202 Dataset.

* The Greater MetroWest (GMW) is regularly tracked by MERC, and consists of the following thirteen communities: Ashland, Framingham, Holliston, Hopkinton, Hudson, Marlborough, Natick, Northborough, Sherborn, Southborough, Sudbury, Wayland, and Westborough.

Table 5 suggests a slower growth rate in employment in the Greater Framingham region, relative to the state and GMW. While overall employment levels are up by 14.3% and 10.2% in Massachusetts and GMW respectively, Greater Framingham has seen the overall number of jobs increase at a more modest, but healthy, rate of 7.4% relative to 2009. Aside from this overall trend, it is also important to identify key industrial supersectors that may be of particular promise or concern. Relative to the state, the Greater Framingham region's job growth underperformed in seven of the eleven supersectors considered. However, it outperformed the state in key supersectors like Manufacturing, and Other Services—two areas in which the foreign-born tend to be overrepresented in our region's employment.

Figure 7 on page 11 illustrates the changing shares of total employment by supersector for the Greater Framingham Region. Two of the supersectors that experienced the largest growth in terms of the number of jobs between 2009 and 2018 in GFR were Professional and Business Services, and Education and Health Services. These two growing supersectors accounted for nearly 41% of all jobs in Greater Framingham in 2018. Similarly, and as shown in Figure 6 on page 9, about 40% of the foreign-born in the region were employed in these two supersectors. The Construction supersector was the fastest growing supersector during this period—with 36.7% more jobs in 2018 than in 2009. It is important to note that about 10% of the foreign-born workers in GFR are employed in construction jobs. These findings highlight the symbiotic relationship between this section of the population and the most dynamic industrial supersectors of the GFR economy.

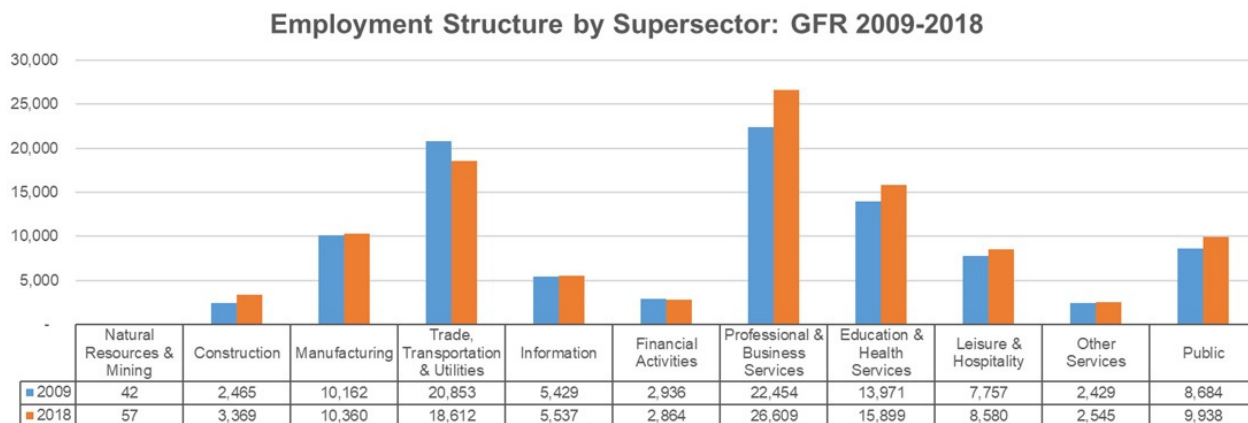


Figure 7

Source: Author's calculations based on MERC data and the Massachusetts EOLWD, ES-202 Dataset.

Along with a longstanding tradition of migration, the Greater Framingham area has a proud and evolving history of manufacturing. However, the region has not been immune to emerging global dynamics under which comparative advantage in low-skill manufacturing has shifted away from the region and been replaced by high-skill (albeit reduced labor) manufacturing. As shown in Table 5 and Figure 6, employment in the manufacturing sector in Greater MetroWest shrank by 16% during the 2009-2018 period. It grew only slightly (by 1.9%) in Greater Framingham during this same period. The less-than-impressive growth in manufacturing is a concerning trend for the area in general, but it is of particular concern with regards to the foreign-born population. According to the findings in this report, 11% of the foreign-born in Greater Framingham were employed in manufacturing in 2018—a significantly larger concentration than that of the native population. The main implication of this is that the fortune of a significant portion of Greater Framingham's foreign-born population is closely tied to the ability of the manufacturing sector to recover. Alternatively, this also highlights the importance of extending efforts to retrain and equip this section of the labor force with skills that will be in demand by the expanding industrial sectors of the local economy.



EMPLOYMENT OUTCOMES

Having examined the areas in which the native and foreign-born are employed, it is also important to look at the outcomes they receive for their participation in the local economy. In Table 6, we can see how the average worker in the Greater Framingham area is compensated for their work, and how much time they invest per week working, WKHP, or the average work hours per week.

**Employment Outcomes of GFR Population in 2018
(Based on Previous 12 Months)**

	Native-born	Foreign-born	% Difference
Average Usual Number of Hours Worked Weekly	34.1	36.5	7.0%
Average Annual Wage or Salary Income	\$55,014	\$47,515	-13.6%
Average Total Person's Earnings	\$58,139	\$50,795	-12.6%

Table 6

Source: Author's calculations based on data from the U.S. Census Bureau 2018, 5-year American Community Survey Estimates

Note: These figures are based on those employed either as civilian or military workers, and are 16 years or older.

The average foreign-born worker spends more than two additional hours per week at work than their native counterpart, at 36.5 hours compared to 34.1 hours, yet the gains received from employment are substantially lower. These outcomes from employment differ depending on the type of compensation that is examined, although in all cases the native-born population receives higher average returns on their labor. Looking at the Income obtained from wages, we see that GFR's foreign-born population commands an average wage/salary income 13.6% lower than the native-born population in this region. Similarly, when considering a more comprehensive measure of income, as captured by the average annual total earnings per person, a similar pattern emerges. The native-born population in GFR had annual average total earnings of \$58,139, while the foreign-born had annual average earnings of \$50,795. The gains the native population receives for the input is notably greater in scope than the foreign-born in all cases, although some of this could result from the difference in the areas of employment that the populations have, as addressed earlier in Table 5.



CONCLUSION

Observing the impact of migration in the Greater Framingham region through this examination of the foreign-born population, especially in comparison to the native-born population, reveals substantial differences between the two populations and how they both contribute to and shape the economy of the area. The foreign-born population, predominantly originating from Brazil and India, is a demographically diverse group, with the majority (79.5%) of all immigrants being of working age and around 1 in 2 eventually becoming naturalized citizens. Children of this foreign-born population born within the United States are not counted as members of this population, due to the fact that they are not born outside of the United States, and therefore are part of the native population. Today, more than ever, the future of Greater Framingham is closely tied to the success of its foreign-born population.



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