

# Current Issues

IN ECONOMICS AND FINANCE

## SECOND DISTRICT HIGHLIGHTS



### The Foreign-Born Population in Upstate New York *James Orr, Susan Wieler, and Joseph Pereira*

*An analysis of upstate New York's foreign-born residents suggests that they contribute to the region's human capital in important ways. This population boasts a greater concentration of college graduates than either the region's native-born population or immigrants downstate. While some immigrants upstate may compete with U.S.-born workers for jobs, the more highly educated appear to be entering skilled occupations—in medicine, science, and research particularly—that complement those of native-born residents.*

For immigrants coming to New York State, New York City has traditionally been the gateway, the area where many first arrive and settle. Since the large number of foreign-born city residents has contributed significantly to population growth in the area, it is not surprising that downstate immigration trends have been well documented.<sup>1</sup> Less often recognized, however, is the fact that a substantial number of immigrants—more than 200,000—make their home in the upstate metropolitan areas of Buffalo, Rochester, Syracuse, Albany, Glens Falls, and Utica. This influx of immigrants upstate has gone relatively unnoticed—masked, no doubt, by the negligible growth in the region's overall population.<sup>2</sup>

In this issue of *Second District Highlights*, we use data from the 2000 census to create a profile of the upstate immigrants and to shed light on the role they play in the region's population growth and economy. We compare the demographic characteristics of this group with those of the foreign-born in New York City. We also investigate the extent to which the immigrants' education and occupational skills put them in competition for jobs with U.S.-

born residents or enable them to fill jobs that complement those held by the native-born.

Our study reveals that the upstate immigrants have come from a very different set of countries than their downstate counterparts and represent a more varied mix of backgrounds and skills. While the foreign-born population upstate includes a significant number of adults who lack a high school degree, the percentage who have a college or post-graduate degree is substantially higher than the percentage of either native-born residents or immigrants in New York City who have higher degrees. The analysis also shows that the foreign- and native-born populations in the major metro areas upstate have generally expanded and contracted together—an indication that the immigrants are drawn by the same amenities and employment opportunities as the native-born.

Finally, our employment profile of the area reveals that highly educated immigrants play a somewhat unique role in the upstate workforce: Unlike native-born residents with college and post-graduate degrees, these immigrants are less dispersed across sectors and are employed disproportionately in scientific, medical, and computer-related fields.

Table 1

**Changes in Total, Foreign-Born, and Native-Born Populations**

Thousands, Except as Noted

Area	Population		Change in Population, 1990-2000		
	Total, 2000	Foreign-Born, 2000	Total <sup>a</sup>	Native-Born	Foreign-Born
United States	281,422	31,108	32,712 (13.2)	21,371	11,341
New York State	18,976	3,868	986 (5.5)	-30	1,016
New York City	8,008	2,871	686 (9.4)	-102	788
Upstate New York	4,300	203	10 (0.2)	-10	20
Albany	1,000	44	20 (2.0)	16	4
Buffalo	1,170	51	-19 (-1.6)	-18	-1
Rochester	1,098	63	36 (3.4)	26	10
Syracuse	1,032	45	-27 (-2.5)	-34	7

Source: U.S. Census Bureau, SF-1, SF-3, and Census 1990, STF-1, STF-3.

Note: Albany includes the Albany-Schenectady-Troy and Glens Falls metropolitan statistical areas (MSAs); Buffalo is the Buffalo-Niagara MSA; Rochester is the Rochester MSA; Syracuse includes the Syracuse and Utica-Rome MSAs; upstate New York includes all six MSAs.

<sup>a</sup>Percentage change in population appears in parentheses.

This distribution suggests that upstate firms are taking advantage of the specialized skills of the more highly educated immigrants in ways that potentially complement the skills of native-born workers. By contrast, the less educated immigrants upstate—including relatively large numbers of refugees—are more likely to be competing for job opportunities with native-born workers.

**Upstate Immigration and Population Change**

The expansion in the foreign-born population has been a key element in overall population growth since 1990, both nationally and in New York State. Of the country's estimated 31 million foreign-born residents in 2003, roughly half had arrived after 1990.<sup>3</sup> The rising number of foreign-born was even more important to New York State's population growth: while the state's residents increased during this period by 5.5 percent, or just under 1 million, to almost 19 million, the foreign-born increased by 30.0 percent, or slightly more than 1 million, to almost 4 million (Table 1). In 1990, one in six New York State residents was born abroad; by 2000, that figure was one in five.<sup>4</sup>

In the 1990s, New York City and the surrounding metropolitan area accounted for most of the state's foreign-born workers and most of the flows of these workers. Nevertheless,

upstate New York did see a modest expansion of its immigrant population. In fact, an increase in the foreign-born accounted for what little net population growth took place between 1990 and 2000 in the four upstate metro areas we study: Albany, Buffalo, Rochester, and Syracuse/ Utica-Rome (see the box for an explanation of how we define these areas). Overall, the native-born population in the four areas declined by about 10,000, or 0.3 percent, while the foreign-born population increased by about 20,000, or 10.0 percent. In 2000, the foreign-born accounted for roughly 5.0 percent of the total upstate population.

The relationship between growth in the foreign-born and overall populations between 1990 and 2000 differed across these four upstate areas. In the Rochester and Albany areas, expansion in foreign-born residents was accompanied by a rise in overall population. Rochester's total population grew by almost 36,000 (3.4 percent), including an increase of about 10,000 (19.0 percent) in the foreign-born; Albany's total population rose by approximately 20,000 (2.0 percent), with an increase of roughly 4,000 (10.0 percent) in the foreign-born. In contrast, in the Buffalo area, both the foreign-born and overall populations failed to grow between 1990 and 2000. Syracuse/Utica-Rome is the only one of the four areas where the foreign-born population expanded while the total population shrank. The exception appears to be attributable largely to the extensive refugee resettlement program in the Utica-Rome area conducted by the Mohawk Valley Resource Center for Refugees. Between 1979 and 2000, more than 8,000 refugees were resettled in Utica, with nearly 3,500 arriving from Bosnia and Herzegovina and another 2,000 each from Asia and the former Soviet Union.<sup>5</sup>

<sup>1</sup>"Immigrant" and "foreign-born," used interchangeably in this article, include all people who indicated they were either a U.S. citizen by naturalization or they were not a U.S. citizen. Persons born abroad of American parents, in Puerto Rico, or in other U.S. Island Areas are not considered foreign-born.

<sup>2</sup>See Rosen, Wieler, and Pereira (2005), New York City Department of City Planning (2005), and Deitz (2005).

<sup>3</sup>See Congressional Budget Office (2004).

<sup>4</sup>Authors' calculations, based on U.S. Census Bureau, 2000 Census, SF-1, SF-3, and 1990 Census, STF-1, STF-3.

<sup>5</sup>See the studies at <[http://www.hamilton.edu/Levitt/levitt\\_reports.html](http://www.hamilton.edu/Levitt/levitt_reports.html)>.

## Selected Upstate New York Metropolitan Statistical Areas (MSAs)

Across the upstate metropolitan areas, the smallest numbers of foreign-born arrivals between 1980 and 2000 were in Binghamton, Glens Falls, and Utica-Rome. Because two of the smaller areas, Glens Falls and Utica-Rome, are adjacent to larger metropolitan areas, we combine Glens Falls with the Albany-Schenectady-Troy area and Utica-Rome with the Syracuse area.<sup>a</sup> We exclude Binghamton because of its relatively small number of foreign-born arrivals. Therefore, we define upstate New York as four MSAs: Albany-Schenectady-Troy and Glens Falls (referred to as Albany), Buffalo-Niagara (referred to as Buffalo), Rochester, and Syracuse/Utica-Rome.<sup>b</sup>

For a map showing the metro areas examined in this article, see Appendix A, available at [http://www.newyorkfed.org/research/current\\_issues/ci13-9\\_appendixA.pdf](http://www.newyorkfed.org/research/current_issues/ci13-9_appendixA.pdf).

<sup>a</sup>We use the “year of entry” variable from the 2000 census to identify immigrants who arrived in the United States between 1980 and 2000 and who lived in these four areas in 2000. For our analysis of detailed occupations of the foreign-born (Tables 2 and 3), we combine the four areas to ensure an adequate sample size.

<sup>b</sup>We adjust 1990 MSA definitions where necessary to conform to the 2000 definitions.

From 1990 to 2000, the pattern of growth in upstate’s foreign-born population differed from the downstate pattern. The net increase in the foreign-born in New York City and the upstate region as a whole more than offset the decline in the native-born population. However, the net changes in the foreign-born population in three of the four upstate areas, which together account for about 75 percent of the total foreign-born population considered here, tended to move in the same direction as the net changes in the native-born population. This trend suggests that in the upstate areas, native-born and immigrant population flows were responding similarly to developments such as changing employment opportunities and local amenities.

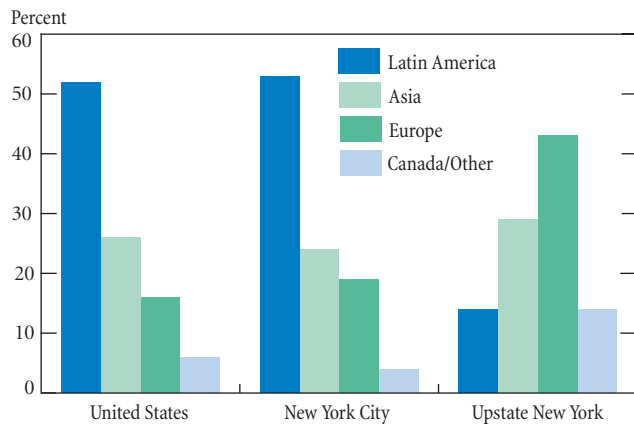
### Characteristics of the Upstate Foreign-Born Population

The expansion in the foreign-born population in upstate New York was considerably smaller than the expansion that occurred in New York City during the 1990-2000 period. Nevertheless, the gains in the foreign-born population in three of the four upstate areas studied suggest a potential role for immigrants in the local demography and economy.

### Region of Origin

The source countries of immigrants upstate differ markedly from those of immigrants who dominate the downstate and

Chart 1  
Region of Origin of Foreign-Born Residents, 2000  
All Persons



Source: U.S. Census Bureau, Census 2000, STF-3.

Note: Upstate includes six metropolitan statistical areas: Albany-Schenectady-Troy, Buffalo-Niagara, Glens Falls, Rochester, Syracuse, and Utica-Rome.

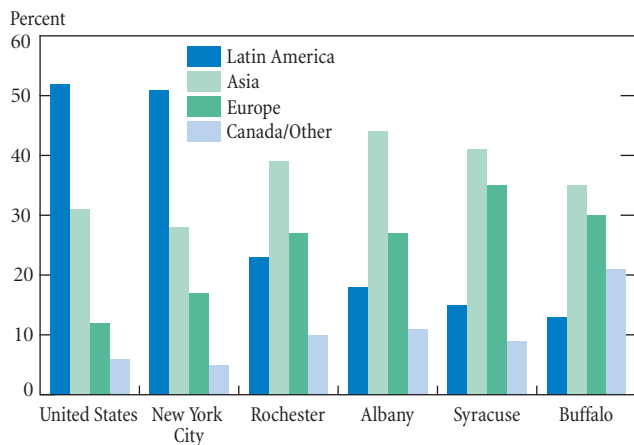
national flows. Whereas more than 50 percent of the foreign-born in the nation and in New York City are from Latin America, only 13 percent of the foreign-born upstate originate there (Chart 1). Indeed, more than 40 percent of the foreign-born upstate are from Europe, and include both long-time U.S. residents from countries such as Germany and Poland as well as newer arrivals from Eastern Europe and former Soviet states. The roughly 30 percent share of upstate immigrants from Asia only slightly exceeds the percentage observed in the nation and in New York City. Immigrants in the U.S. Census Bureau category “Canada/Other” represent more than 10 percent of upstate immigrants, but account for only a trivial percentage of those in New York City.<sup>6</sup>

A somewhat different picture emerges when we compare the total number of foreign-born residents with more recent flows of immigrants. Europe has traditionally been the dominant source area for upstate’s immigrant population; however, since 1980, Asia has assumed that role (Chart 2). This shift is seen in all four metropolitan areas. Since 1980, immigrants from Asia also increased modestly as a share of total arrivals in New York City and the nation—but the rise was not as high as it was upstate. Downstate and nationally, flows from Latin America still dominate.

A review of the principal countries of origin for each upstate area underscores the importance of Canada’s proximity; Canada is among the top ten for all four areas and the

<sup>6</sup>“Canada/Other” includes Canada, Oceania, Africa, and Other Northern America (Greenland, Bermuda, St. Pierre, and Miquelon), but most upstate immigrants in this category are from Canada.

Chart 2  
Region of Origin of Foreign-Born Arrivals, 1980-2000



Source: U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

Notes: Arrivals were aged twenty-five and over as of 2000. See note to Table 1 for a description of upstate metro areas.

number one country of origin of immigrants to nearby Buffalo.<sup>7</sup> For each of the four upstate areas, five of the top ten countries of origin are in Asia, and India is among the top three. In contrast, only China is among the top ten for New York City. Europe is still a “feeder” area for upstate, yet three of the primary countries of origin—Bosnia and Herzegovina, Russia, and Ukraine—have replaced the countries that dominated earlier waves of European immigration.<sup>8</sup> Furthermore, many recent arrivals from these countries are refugees; more than 10,000 refugees were resettled in the four upstate areas between 1996 and 2000.<sup>9</sup>

#### *Educational Attainment of Recent Foreign-Born Arrivals*

The educational attainment of the native- and foreign-born populations differs among each of the upstate areas, New York City, and the nation. We consider these varying patterns in greater detail by examining the characteristics of immigrants who were twenty-five or older at the time of the 2000 census and who arrived in the United States between 1980 and 2000.<sup>10</sup>

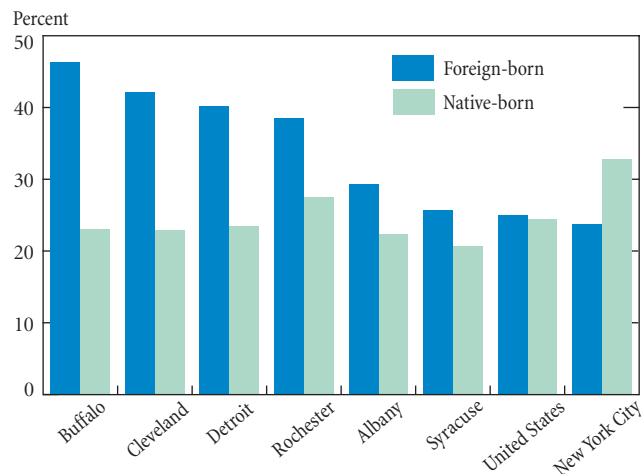
<sup>7</sup>The rankings, calculated by the authors, are based on U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

<sup>8</sup>Although recent (1980-2000) arrivals to all four upstate areas include immigrants from these three countries, there are also substantial numbers of recent arrivals from Poland and Germany (to Albany) and Poland (to Buffalo).

<sup>9</sup>See <[http://www.otda.state.ny.us/MAIN/bria/quarterlymeeting/2004-08-Attachment\\_04\\_2004\\_August\\_WRAPS.xls](http://www.otda.state.ny.us/MAIN/bria/quarterlymeeting/2004-08-Attachment_04_2004_August_WRAPS.xls)>.

<sup>10</sup>The percentages of foreign-born residents in the following metropolitan areas who were twenty-five or older in 2000 and arrived in the United States between 1980 and 2000 are: Albany, 42 percent; Buffalo, 37 percent; Rochester, 42 percent; Syracuse/Utica-Rome, 47 percent; New York City, 60 percent; Detroit, 51 percent; Cleveland, 41 percent.

Chart 3  
Foreign- and Native-Born Residents Aged Twenty-Five and Over with a Bachelor’s Degree or Higher, 2000



Source: U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

Notes: The foreign-born are arrivals from 1980 to 2000. Cleveland is the Cleveland-Akron consolidated metropolitan statistical area (CMSA); Detroit is the Detroit-Ann-Arbor-Flint CMSA. See note to Table 1 for a description of upstate metro areas.

By restricting our sample this way, we focus on more recent arrivals who for the most part have completed their formal education. For perspective, we also include Detroit and Cleveland: two areas similar to upstate New York in that they are located in the nation’s manufacturing belt, are not considered immigrant gateways, and have experienced both a loss of urban population and a declining industrial base. In all six areas, we find sharp differences between the shares of the native- and foreign-born populations made up of college graduates (those with a bachelor’s degree or higher) and those without a high school degree.

Each of the six areas—the four upstate areas plus Detroit and Cleveland—shows a higher share of foreign-born residents with at least a college degree than either New York City or the nation (Chart 3). Moreover, the college graduation rate is considerably higher among the foreign-born than among the native-born in each of the six areas.<sup>11</sup> By contrast, New York City’s native-born college graduation rate exceeds that of its foreign-born population; the city also has the highest native-born graduation rate, 32 percent, of the seven areas and the nation.

While all four upstate areas show a high share of foreign-born residents with college or post-graduate degrees, Buffalo’s 46 percent share is perhaps most surprising given the area’s ongoing deindustrialization and absence of growth in either the native- or the foreign-born population

<sup>11</sup> Although New York is considered a gateway state for immigrants, the relatively high educational attainment rates of the upstate foreign-born are similar to rates reported for immigrants to non-gateway states. See Hempstead (2007).



in the 1990s. One study shows that among the sixty largest metropolitan statistical areas in the country, Buffalo has the sixth highest graduate full-time-equivalent enrollment per capita, suggesting that some of these college graduates may be graduate students.<sup>12</sup> However, our data indicate that 81 percent of foreign-born college graduates in the Buffalo area over twenty-five are working full time, a figure close to the 88 percent rate for native-born college graduates.<sup>13</sup>

Although there is a higher percentage of college graduates among the foreign-born than among the native-born across upstate metropolitan areas, there is also a higher percentage of residents without a high school degree among the foreign-born. About 15 percent of native-born residents in the nation and across the metropolitan areas we study do not have a high school degree (Chart 4). In all cases, the share of foreign-born residents without a high school degree exceeds the native-born share. However, the relatively low educational attainment varies across these upstate areas. Relative to the nation and to New York City, the percentage of foreign-born residents without a high school degree and the gap between the native- and foreign-born dropout shares tend to be larger in Syracuse and Albany but smaller in Buffalo and Rochester. In sum, the foreign-born population in upstate New York is distinguished primarily by greater shares of highly educated individuals than the immigrant population in New York City or the nation.

### *Industrial and Occupational Employment Profiles of Recent Arrivals*

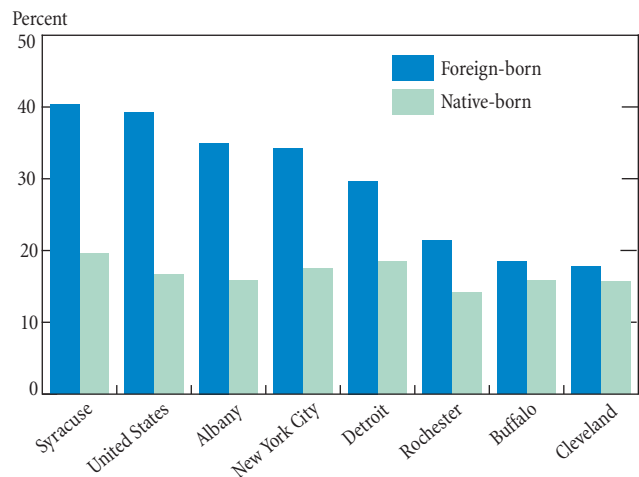
The distribution of recent immigrants to upstate New York across industries and occupations indicates how they are being absorbed into the regional economy. In particular, it suggests how the education and skills of immigrants are being utilized by employers and the unique role immigrants are playing in the upstate workforce. Among foreign-born workers upstate over age twenty-five who had positive earnings, more than half were employed in three sectors in 2000: manufacturing, health care and social assistance, and educational services.<sup>14</sup> These same sectors employed about 44 percent of similarly aged native-born workers, although only 31 percent of all workers. Foreign-born workers are not employed to a significant extent in several of the larger sectors in the area, such as government, retail trade, and professional and business services.

<sup>12</sup>See data at <[http://www.atlantahighered.org/archereports/msa3/msa3extra\\_gradfte.asp](http://www.atlantahighered.org/archereports/msa3/msa3extra_gradfte.asp)>.

<sup>13</sup>Authors' estimates are based on U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

<sup>14</sup>For a table supporting this finding and a similar table focusing on workers with a bachelor's degree or higher, see Appendix B, available at <[http://www.newyorkfed.org/research/current\\_issues/ci13-9\\_appendixB.pdf](http://www.newyorkfed.org/research/current_issues/ci13-9_appendixB.pdf)>.

Chart 4  
Foreign- and Native-Born Residents Aged Twenty-Five and Over without a High School Degree, 2000



Source: U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

Notes: The foreign-born are arrivals from 1980 to 2000. Detroit is the Detroit–Ann-Arbor–Flint consolidated metropolitan statistical area (CMSA); Cleveland is the Cleveland-Akron CMSA. See note to Table 1 for a description of upstate metro areas.

Although the sectors employing relatively large shares of both native- and foreign-born workers over age twenty-five are fairly similar, there are several key differences in the employment of the native- and foreign-born by occupation. While about half of each group works in manufacturing, health care and social assistance, or educational services, only three of the ten largest employing occupations—registered nurses; nursing, psychiatric, and home health aides; and janitors and building cleaners—are common to both groups (Table 2). The foreign-born are more likely to work in three relatively low-skilled occupations in the manufacturing sector—assemblers and fabricators, laborers and materials movers, and other production workers. This concentration likely reflects a combination of the higher percentages of immigrants without high school diplomas and the concentration of refugees in the Syracuse/Utica-Rome area as operators, fabricators, or laborers in light manufacturing. At the same time, there are three highly skilled professional/technical occupations—physicians and surgeons, post-secondary teachers, and computer software engineers—that appear among the top ten for the foreign-born only. This is consistent with the higher percentage of college graduates among the foreign-born; native-born workers are more likely to be in sales, administrative, or supervisory occupations.

Focusing on workers with a bachelor's degree or higher, we observe that the same three sectors—manufacturing, health care and social assistance, and educational services—dominate. Once again, however, there are several notable differences by occupation. Of the top ten occupations for college graduates, five are common to both native- and foreign-

Table 2  
**Top Ten Occupations of Foreign- and Native-Born Workers Aged Twenty-Five and Over in Upstate New York, 2000**

Foreign-Born	Native-Born
<b>Post-secondary teachers</b>	Secretaries and administrative assistants
Nursing, psychiatric, and home health aides	Elementary and middle school teachers
<b>Physicians and surgeons</b>	Registered nurses
<b>Miscellaneous assemblers and fabricators</b>	Drivers/sales workers and truck drivers
Registered nurses	Managers of retail sales workers
<b>Computer software engineers</b>	Retail salespersons
Janitors and building cleaners	Nursing, psychiatric, and home health aides
<b>Cooks</b>	Janitors and building cleaners
<b>Laborers and materials movers</b>	Customer service representatives
<b>Other production workers</b>	Managers of offices and administrative support workers

Source: U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

Notes: Occupations in bold are unique to the foreign-born. The foreign-born are arrivals from 1980 to 2000. Individuals without earnings are excluded. Upstate New York includes six metropolitan statistical areas: Albany-Schenectady-Troy, Buffalo-Niagara, Glens Falls, Rochester, Syracuse, and Utica-Rome.

born workers: elementary and middle school teachers, post-secondary teachers, registered nurses, managers, and physicians and surgeons (Table 3). Still, there are differences: the native-born are more likely to be elementary and middle school teachers, while the foreign-born are more likely to be post-secondary teachers; the native-born are more apt to be registered nurses, while the foreign-born tend to be physicians and surgeons. In fact, although the foreign-born represent only 4 percent of college graduates, they account for 18 percent of all physicians and surgeons upstate.<sup>15</sup>

The disparities in the major occupational distributions suggest some complementarities between the relatively highly educated immigrants and the native-born workforce. Foreign-born college graduates gravitate to occupations that emphasize quantitative skills and scientific knowledge, such as doctors, scientists, and computer professionals, while native-born college graduates are more concentrated in occupations that require English fluency and knowledge of the local culture and/or legal system, such as elementary and middle school teachers, lawyers, and social workers. Indeed, four of the five occupations exclusive to the native-born—accountants and auditors, lawyers, social workers, and education administrators—require knowledge of the local culture and/or legal system. In contrast, of the top occupations exclusive to the foreign-born, two are scientists (medical and

<sup>15</sup>There were 2,017 foreign-born and 9,187 native-born physicians and surgeons in the four upstate areas studied. Overall, there were 25,387 foreign-born college graduates and 572,389 native-born college graduates. (Figures are based on U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.)

Table 3  
**Top Ten Occupations of Foreign- and Native-Born Workers with a Bachelor's Degree or Higher and Aged Twenty-Five and Over in Upstate New York, 2000**

Foreign-Born	Native-Born
Post-secondary teachers	Elementary and middle school teachers
Physicians and surgeons	Registered nurses
<b>Computer software engineers</b>	Post-secondary teachers
Elementary and middle school teachers	Accountants and auditors
Registered nurses	Secondary-school teachers
<b>Computer programmers</b>	Lawyers
Managers, all other	Managers, all other
<b>Physical scientists, all other</b>	Social workers
<b>Medical scientists</b>	Physicians and surgeons
<b>Computer scientists and systems analysts</b>	Education administrators

Source: U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.

Note: See note to Table 2.

physical) and three are computer professionals (software engineers, computer scientists, and systems analysts<sup>16</sup>).

Upstate's concentration of highly educated foreign-born workers in health care and, to a lesser extent, manufacturing, is likely associated with the area's key role in medical manufacturing. The industry, which includes the production and research-and-development arms of the medical device and pharmaceuticals industry, employs a relatively high percentage of workers in positions requiring specialized skills and advanced education.<sup>17</sup> Each of the metropolitan areas in our study specializes in at least two subindustries within the medical manufacturing industry, and the upstate area is home to several medical schools, an array of general medical and specialty hospitals, and a number of biomedical research institutions. While medical manufacturing employs only about 19,000 workers upstate, jobs in the industry increased more than 7 percent in the 1990s, indicating at least a modest source of expanded opportunities for highly educated immigrants.

## Conclusion

Recent immigration trends in upstate New York reveal that the foreign-born represent a relatively small share of the population, and suggest that even a substantial increase in their growth rate may not assuage concern about the weak expansion in the overall upstate population. Notably, both

<sup>16</sup>There were 2,169 foreign-born and 15,540 native-born workers in these three occupations in the four upstate areas. The foreign-born represent 14 percent of computer professionals upstate. (Figures are based on U.S. Census Bureau, Census 2000, Five Percent Public Use Microdata Sample.)

<sup>17</sup>See Deitz and Garcia (2002).

the foreign- and native-born populations in individual upstate areas have experienced changes in the same direction between 1990 and 2000, suggesting that immigrants and the native-born have responded similarly to educational and employment opportunities as well as to local amenities. The exception is the Syracuse/Utica-Rome area, where refugee resettlement has been a significant component of immigrant flows in Utica-Rome.

Much of the literature on immigration trends has focused on the impact of an expanded foreign-born workforce on the earnings and employment opportunities of native-born workers. Because the majority of recent immigrants to the nation have been predominantly low-skilled, studies have emphasized how an influx of these types of immigrants affect competing native workers.<sup>18</sup>

Upstate immigrant flows contrast with inflows to the nation and to New York City in that they combine low-skilled workers with a notably large share of workers who have a bachelor's degree or higher. The employment profiles we present in this study do not quantify the economic impact of the foreign-born. However, they reveal some concentration of upstate immigrants, including refugees, in relatively low-skilled manufacturing occupations who are potentially in competition with native-born workers. Our profiles of highly educated immigrants, though, reveal a concentration in certain highly skilled occupations in a narrow set of industries that differ markedly from those employing the immigrants' native-born counterparts. Accordingly, it appears that these highly educated immigrants are being absorbed relatively smoothly into the upstate economy.<sup>19</sup>

<sup>18</sup>See Levine (2006) for a summary of the studies.

<sup>19</sup>Deitz (2007) points to the relatively low immigration rates of college-educated workers in upstate New York as a key reason for the area's weak population growth; Orrenius and Zavodny (2003) find no adverse wage effects on native-born workers in metropolitan areas following an increase in the supply of immigrants in relatively highly skilled occupations.

Over time, the effects on native-born workers and on the broader economy may change as new immigrants arrive, acquire skills, and assimilate more generally into the larger population. Further study of how these changes play out in upstate New York will thus be warranted. Nevertheless, the rising share of highly educated foreign-born workers and their relative concentration in highly skilled occupations imply that these immigrants are contributing disproportionately more to the region's growth in human capital than to its growth in population.

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