





One Region

Welcoming New Americans to Northern Virginia



One Region: Welcoming New Americans to Northern Virginia

Prepared by the Partnership for a New American Economy Research Fund

CONTENTS

Introduction	1
A Growing Region	
—Spotlight On: Beatriz McNelly	
Immigrants and the Northern VA Economy	
The Role of Immigrants in the Labor Force	6
—Spotlight On: Carlos Castro Sr	
Immigrant Entrepreneurs in Northern VA	
—Spotlight On: Ki Ho Kang	
Becoming American	
Northern VA's Refugee Community	
Undocumented Immigrants in Northern VA	
—Spotlight On: Zuzana Steen	
Conclusion	
Methodology	
Endnotes	

Introduction

ne of the fastest growing and economically dynamic regions in the country, Northern Virginia¹ today attracts some of the most talented and highly skilled workers from across the United States and around the world. Its proximity to the nation's capital, the strength of its information, technology, and service industries, and its rich cultural offerings have made it an attractive place for businesses, workers, and families. The rapid growth of suburban communities and local business hubs that the area has seen since World War II has transformed what once was farmland and small towns into a prosperous region that is now home to almost 2.5 million people.

Immigrants² and immigration have played a significant role in Northern Virginia's success story. Today, nearly three out of 10 Northern Virginia residents are immigrants, making Northern Virginia one of the most diverse places in America.³ But how and to what extent immigrants contribute to Northern Virginia requires further examination beyond just their population numbers. To this end, New American Economy analyzed data from the American Community Survey and other national data sources to detail the myriad economic contributions of immigrants to the region. NAE also collected compelling stories of immigrants from around the region in order to bring these findings to life.

What emerges in this report is a comprehensive picture of new Americans in Northern Virginia. The evidence shows that immigrants are an indispensable part of the local Northern Virginia economy at all levels as workers, business owners, taxpayers, and consumers. They work in highly skilled STEM⁴ jobs, helping keep Northern Virginia companies and industries innovative and competitive, as well as in the construction industry, helping build and further develop the region. As taxpayers and consumers, immigrants help support public services, local infrastructure, and local businesses. Like immigrants throughout American history, those who choose to come to Northern Virginia come seeking greater opportunities and a better life for themselves and their families. Whether from El Salvador, Ethiopia, or Vietnam, the immigrants who have all come to call Northern Virginia home are doing their fair share to make a stronger, more prosperous region.

Immigrants are an indispensable part of the local Northern Virginia economy at all levels as workers, business owners, taxpayers, and consumers.

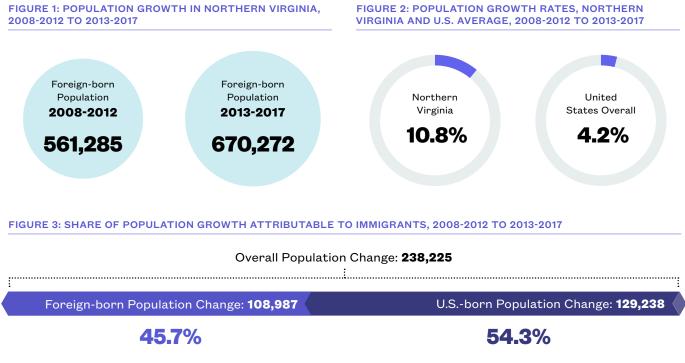
A Growing Region

Immigrants are **driving population growth** in Northern Virginia.

he rapid growth that Northern Virginia experienced in the second half of the twentieth century continues today. Between the 2008-2012 and 2013-2017 periods, the population of the region grew by 10.8 percent, or by more than 238,000 people. Northern Virginia is growing by more than twice as fast as the country as a whole.⁵

While Northern Virginia attracts thousands of new U.S.-born residents a year, the region has also been particularly successful in attracting and welcoming people from across the globe.

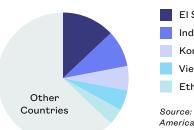
A closer look at the data bears this out: Of the 238,000 people who settled in Northern Virginia between 2008-2012 and 2013-2017, almost 109,000 were immigrants. The number of immigrants grew from 561,285 in 2008-2012 to 670,272 in 2013-2017, an increase of 19.4 percent, accounting for 27.4 percent of the overall population. In total, this impressive increase in the immigrant population means that more than 45.7 percent of the total population growth of Northern Virginia was due to new foreign-born residents. Put differently, without immigrants, Northern Virginia would have grown far slower, by only 5.9 percent between 2008-2012 to 2013-2017.



Sources for Figures 1-3: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

Data from the U.S. Census Bureau shows that immigration patterns to Northern Virginia differ significantly from the U.S. average. Whereas immigrants from Mexico make up more than one in four immigrants in the United States⁶—making Mexican immigrants the largest group of immigrants by country of birth—in Northern Virginia, Mexico does not even break the top five countries of birth for the immigrant population. Instead, El Salvador ranks as the most common country of birth for immigrants, followed by India, Korea, Vietnam, and Ethiopia.

FIGURE 4: TOP 5 COUNTRIES OF BIRTH OF THE FOREIGNBORN POPULATION



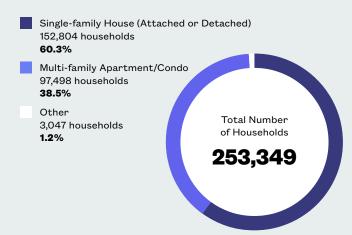
El Salvador	83,457	12.5 %
India	61,237	9.1 %
Korea	42,232	6.3%
Vietnam	33,692	5.0%
Ethiopia	25,270	3.8%

Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

SPOTLIGHT ON

IMMIGRANTS AND THE HOUSING MARKET IN NORTHERN VA

TYPE OF HOUSING UNIT FOR IMMIGRANT HOUSEHOLDS7



TENURE OF HOUSE FOR IMMIGRANT HOUSEHOLDS

U.S.-BORN

67.9%, or 409,215 U.S.-born households own or mortgage their own homes. **32.1%**, or 193,508 U.S.-born households are renters.

FOREIGN-BORN

56.7%, or 143,649 foreign-born households own or mortgage their own homes. **43.3%**, or 109,700 foreign-born households are renters.



Rent Own

NOVA IMMIGRANTS AND THE HOUSING MARKET, 2017 DOLLARS



Housing Value Owned, 2017



\$10.8B°

Five-Year Increase in Total Housing Value, 2012 to 2017⁹

Sources: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.



BEATRIZ MCNELLY President, BeLogic

n the mid 1990s, when the internet often moved at a snail's pace, Beatriz McNelly and a colleague had what proved to be a good idea: to provide fiber-optic cable to government agencies and businesses. So in 1995, she co-founded FiberGate from her basement, selling the company 17 years later for a sum that would turn her into a wealthy philanthropist.

Back when the business was growing, however, new clients would often direct their questions to Beatriz's male colleague, not to her.

Often when clients visited the office they thought I was the cleaning lady," she says. "I was Hispanic and female."

In fact, Beatriz did start her career in America as a cleaning lady. Born in Argentina, McNelly came to the United States at age 11 - in 1969. Her father, an engineer in Rosario, a large river-port city in the Santa Fe province, wanted his three daughters to have access to careers that were effectively unavailable to women in Argentina. "At that time, the only options were to be a teacher, nurse, or mom," Beatriz says.

Sponsored by a relative, the family settled in Vienna, Virginia. At Beatriz's new elementary school, no one spoke Spanish. "For months I didn't even go to the bathroom because I didn't know how to ask," she says. "By the end of the year — and I remember it distinctly, like it was yesterday — I was able to give an oral presentation on Rembrandt."

Beatriz credits her success to hard work and the opportunity America so often extends. When she entered the workforce after her children started school, for example, she cleaned houses, rang up fast food, and worked for United Airlines, helping to open new offices in Uruguay and Chile. But without a college degree she was blocked from advancement back in the States. Then an outside executive spotted something in her, and gave her a chance.

A day after Beatriz accompanied her husband to a dinner interview, the prospective employer called her with a job offer. The executive had admired how she helped her husband focus. "Our president needs that," he told her. "So they hired me as an executive secretary," she says. "I had never even been in front of a computer."

Almost two years later, Beatriz, her husband, and a colleague split off to form their own fiber-optics company, launching out of her basement with \$5,000. Seventeen years later, with 14 employees and contracts across Washington, D.C., Maryland, and Virginia, they sold the utility company for \$117 million.

"I worked extremely hard, when I didn't know how to do something I researched it and learned it," she says. "I was willing to work hard, but I was given the chance."

After some time off, Beatriz found herself helping friends with their own businesses, and so opened a consultancy, called BeLogic. Meanwhile, her money and extra time has allowed her to contribute to area causes, including the Community Foundation for Northern Virginia, a philanthropic organization where, among other things, grants help girls get involved in the sciences; The Arc of Loudoun, a nonprofit that helps people with disabilities and where she now serves on the board of directors; and Halcyon House, a Washington, D.C., incubator.

"I am a firm believer in giving back," Beatriz says. "And I am extremely blessed."

Immigrants and the Northern VA Economy

Immigrants hold tens of billions of dollars in economic power and **contribute billions to the regional economy**.

he size and the rapid growth in the immigrant population in Northern Virginia is important for the local economy for several reasons. Immigrants widen and deepen the labor market with a diverse array of skills and levels of expertise. They help businesses, farms, and factories fill workforce gaps at all levels of the labor market, allowing companies to reach their full potential, meet market demand, and expand their operations, eventually creating jobs for

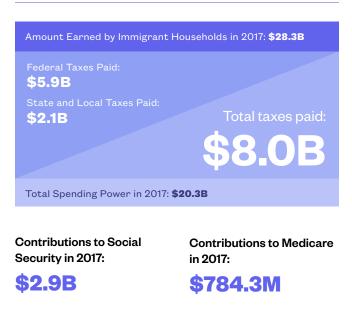
FIGURE 5: IMMIGRANT CONTRIBUTIONS TO NORTHERN VIRGINIA COUNTIES' GDP, 2017 DOLLARS

Area	Foreign-born Contribution to GDP
Arlington County	\$5.9B
Fairfax County, Fairfax City, and Falls Church	\$37.9B
Loudoun County	\$6.3B
Prince William County, Manassas, and Manassas Park City	\$4.7B
City of Alexandria	\$2.9B
Combined Total	\$57.7B

Source: National Association of Counties, Data Explorer, 2019. U.S. Bureau of Economic Analysis. NAE Analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org. more Americans. In turn, more productive wage-earners expand the economic base and inject more money into local businesses, property markets, and municipal budgets as consumers, homebuyers, and taxpayers. In short, their economic prosperity helps drive further prosperity in the region for all Americans.

In 2017 alone, immigrants contributed more than \$57 billion to Northern Virginia's economy (see Figure 5).

FIGURE 6: IMMIGRANT HOUSEHOLD INCOME, TAX CONTRIBUTIONS, AND SPENDING POWER, 2017 DOLLARS



Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org; ITEP, "Who Pays?"; Congressional Budget Office; U.S. Social Security Administration.

IMMIGRANTS AND HEALTHCARE COVERAGE IN NORTHERN VA

SHARE OF POPULATION WITH MEDICARE OR MEDICAID COVERAGE

SHARE OF POPULATION WITH VARIOUS LEVELS OF HEALTHCARE COVERAGE

17.2%	U.SBORN	Level	U.Sborn	Foreign-born
11.270		Only private healthcare coverage	76.9%	62.8 %
13.6%	FOREIGN-BORN	Only public healthcare coverage	7.6%	8.1%
		Both private and public healthcare coverage	10.8%	6.0%
		Uninsured	4.7%	23.0%

Sources: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

The Role of Immigrants in the Labor Force

s Northern Virginia's economy continues to expand, businesses and firms will require more workers across all skill levels to stay competitive and productive. As a tight labor market with some of the lowest levels of unemployment in the country,¹⁰ much of the labor needed to meet Northern Virginia's demand for workers comes from outside the region, U.S.-born and immigrant alike.

The data reveals that Northern Virginia's immigrant population is particularly well-suited to maintaining and expanding the region's labor force. This is important as businesses require a wide range of skills in order to thrive and fulfill their potential—from labor-intensive roles in service industries or in construction, to highly technical jobs that require extensive training and years of study.

In Northern Virginia, less than two-thirds, or 61.6 percent of the U.S.-born population are of working age—between 16 and 64 years old, the range considered to be working age by the Department of Labor. Meanwhile, more than four out of five, or 83.9 percent of the immigrant population in the region are of working age. This demographic difference means that while immigrants make up 27.4 percent of the overall population, they make up 34.0 percent of the region's working-age population. This has translated into immigrants also playing an outsize role among the active and employed workforce. In 2013-2017, immigrants made up 33.4 percent of all employed workers.

Immigrants who have settled in Northern Virginia also bring with them varying levels of work and educational experience. As a region with some of the highest rates of educational attainment in the United States, it is perhaps unsurprising that the area also attracts a disproportionately high number of high-skilled immigrants. In 2013-2017, 44.5 percent of immigrants in Northern Virginia age 25 and older had at least a bachelor's degree and 20.9 percent of immigrants had an advanced degree, either a master's, professional, or doctoral degree. This is significantly higher than the average proportion of immigrants with a bachelor's degree or higher in the United States (31.2 percent).¹¹ This high level of educational attainment is also certainly linked to the prevalence of foreign-born STEM workers in the region. Whereas overall in the United States, 22.8 percent of STEM workers are immigrant, in the Northern Virginia, 31.8 percent of STEM workers were immigrant, making Northern Virginia home to more than 61,000 immigrant STEM workers. Together these immigrant STEM workers in the region help hightech industries and businesses stay competitive and innovative.

While high-skilled workers often get the lion's share of attention, millions of jobs across the country require skills that are not taught in a classroom. Many businesses rely on these workers to keep the lights on, fill orders, and keep customers satisfied. The same is true for Northern Virginia, where immigrants play a crucial role in the hospitality, retail, and service industries, as cooks, cashiers, and construction workers.

FIGURE 7: NORTHERN VIRGINIA'S WORKING AGE POPULATION

U.S.-BORN SHARE, WORKING AGE

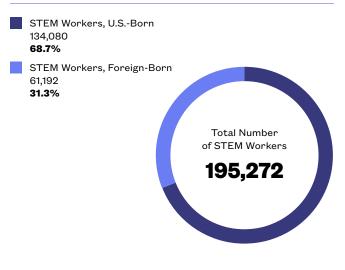


are to be working age: 36.2%

FIGURE 8: EDUCATIONAL ATTAINMENT IN NORTHERN VIRGINIA FOR RESIDENTS AGE 25 AND OLDER, BY NATIVITY

Level	U.Sborn	Foreign-born
Less than High School	2.9 %	19.0%
High School and Some College	32.2%	36.6%
Bachelor's Degree	33.8%	23.5%
Advanced Degrees	31.2%	20.9%

FIGURE 9: STEM WORKERS IN NORTHERN VIRGINIA BY NATIVITY



Sources for Figures 7-9: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.



arlos Castro originally opened a small grocery store so his wife could run it and quit working as a house cleaner. That was in 1990. The market was 2,500 square feet. Today, Todos Supermarket has two stores with a combined 75,000 square feet and 190 employees in Prince William County.

Is it a greater success than Castro ever imagined he would achieve? "Absolutely," he says. "That's why we try to make sure that other people enjoy some of the benefits."

Castro is active in charitable giving in and around the communities of Dumfries and Woodbridge, where his stores are located. Among other things, he buys school supplies, funds college scholarships, participates in summer camps, and gives what he hopes are inspirational speeches to students. "I tell them my story," he says, "To give them hope. So they know if it can happen to me it can happen to them."

Castro grew up in El Salvador, in poverty more extreme than most could ever expect to experience in America. His family of nine lived in a two-room house in Mejicanos, a suburb of the capital city of San Salvador. It had no running water or sewage. As the eldest child, Castro was expected to help take care of his siblings and his parents. "That is kind of the ongoing rule of the day there," he says.

To do so, he began working after sixth grade as a laborer, while continuing his studies at night. His father, a construction manager, instilled in his children the value of books and hard work. But despite Castro's commitment, life became increasingly difficult during the Salvadoran Civil War. By 1979, guerrillas and soldiers had overrun the town. There were kidnappings, gunfire.

That's when a friend's mother, in Washington, D.C., offered to help Castro get to the United States. "She knew that, as the eldest of my siblings, generally we're supposed to take on responsibility for the rest of the family. To do that, she thought it would be necessary for me to leave the country."

In 1980, at age 25, Castro traveled north, but he was apprehended at the border and deported. He returned several months later and made it to California, then east to D.C. Desperate for work, he told a prospective employer, "Please, it's been months that I haven't sent any money to my family." Castro got the job cleaning bathrooms. He would later work as a dishwasher, busboy, construction laborer, carpenter, and realtor. By 1990, when he became a U.S. citizen, he was able to open Todos Supermarket.

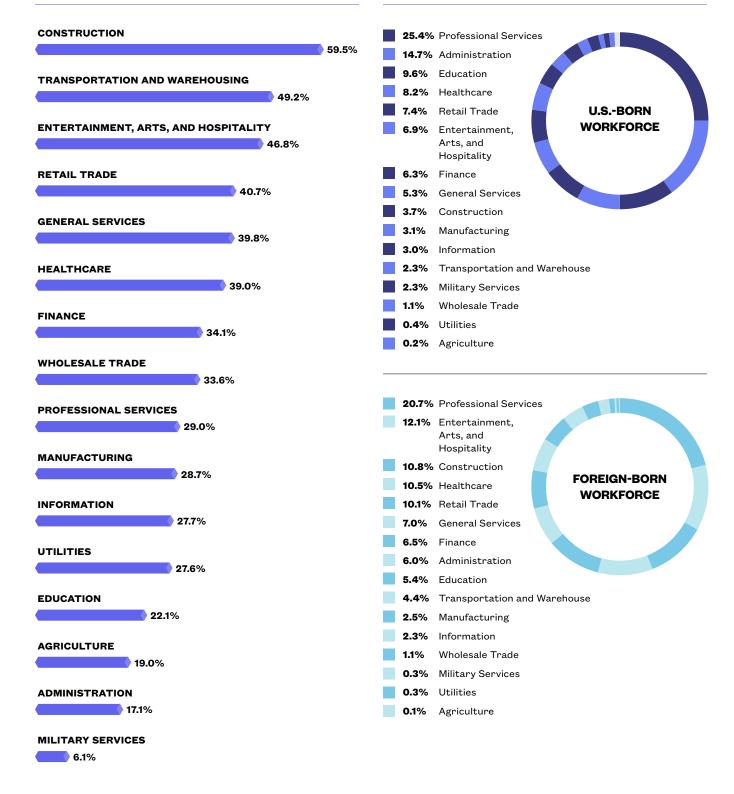
Castro takes particular pride not only in being able to provide jobs to so many people, but also in the fact that he trains and hires such a large number of women. About 80 percent of his staff, and his entire management team, are female.

"Men can find all kinds of jobs in construction, maintenance," he says. "For women, it's more limited."

Castro also opens his 100-seat training room to nonprofits, and is active in business, educational, and cultural organizations across Prince William County. Castro says, "I always prayed to God that if I had the opportunity to make money, that He would keep me humble and give me the strength to help other people succeed."

FIGURE 10: SHARE OF WORKFORCE THAT IS FOREIGN-BORN BY INDUSTRY SECTOR

FIGURE 11: DISTRIBUTION OF WORKFORCE IN NORTHERN VIRGINIA BY INDUSTRY SECTOR



Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org

INTERNATIONAL STUDENTS IN NORTHERN VA

INTERNATIONAL STUDENTS IN NORTHERN VIRGINIA, 2015-2016 SCHOOL YEAR

2,812 Number of International Students, 2015-16 \$153.2M

Spending by International Students, 2015-16

2,010 Jobs Supported by International

Students, 2015-16

Source: Department of Education, IPEDS, Survey of Enrollment, 2016

FIGURE 12: MOST POPULAR OCCUPATIONS BY SHARE OF WORKFORCE

Level	U.Sborn	Foreign-born
Managers	6.9%	3.5%
Software Developers, Applications, and Systems Software	2.5%	3.5%
Maids and Housekeeping Cleaners	0.1%	3.0%
Cashiers	1.5%	2.8%
Cooks	0.5%	2.5%

Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org

Immigrant Entrepreneurs[®] in Northern VA

tories of immigrants starting their own businesses and going on to build more prosperous lives for themselves have long been a part of the American canon. Data and research also support these stories. A 2012 study by NAE found that immigrants were twice as likely to start a new business than their U.S.-born counterparts.¹³ Nationally, some

of these immigrant-founded companies have become the largest names in business: 45 percent of all Fortune 500 companies in the United States were founded by an immigrant or the child of immigrants.¹⁴

In Northern Virginia, immigrant entrepreneurs—those who work for their own businesses, incorporated or not—

are also making their mark locally. In total, in the 2013-2017 period, there were 47,837 immigrant entrepreneurs, making up 42.5 percent of all entrepreneurs in the region. In general, immigrants in Northern Virginia are 46.9 percent more likely to own their own business than the U.S.-born population. Whereas only 7.2 percent of U.S.-born workers are entrepreneurs, 10.6 percent of immigrant workers are entrepreneurs.

FIGURE 14: DISTRIBUTION OF IMMIGRANT ENTREPRENEURS IN NORTHERN VIRGINIA BY INDUSTRY SECTOR

Industry Sector	U.Sborn	Foreign-born
Professional and Technical Services	39.3%	23.4%
Construction	9.2 %	17.1%
General Services	7.1%	15.4%
Transportation and Warehousing	1.8%	11.7%
Healthcare and Social Services	9.3%	10.0%
Other	33.3%	22.4%

FIGURE 13: IMMIGRANT ENTREPRENEURS IN NORTHERN VIRGINIA

Number of U.S.-born Entrepreneurs:

64,849



Share of Total Entrepreneurs, Foreign-born: **42.5%**

FIGURE 15: BUSINESS INCOME BY NATIVITY

Business Income Generated by Immigrant-owned Businesses:

Number of Foreign-Born

Entrepreneurs:

47,837





Total Business Income:

Share of Total Business Income Generated by Immigrant-owned Businesses: **33.5**%

Sources for Figures 13-15: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

SPOTLIGHT ON

MINORITY-OWNED BUSINESSES IN NORTHERN VA, 2012 DOLLARS

Minority-Owned Businesses

Hispanic, Revenues	\$5.6B
Hispanic, # of Employees	28,915
Asian, Revenues	\$13.6B
Asian, # of Employees	85,353
African-American, Revenues	\$4.5B
African-American, # of Employees	24,451

Source: 2012 Survey of Business Owners, U.S. Census Bureau

President and CEO, KIHOMAC

KI HO KANG

i Ho Kang arrived in the United States in 1978, at the age of 12. His parents had been living a modest working class life in Seoul, but uneducated and unconnected, they could not "grease the palms" of public school teachers, Kang says. As a result, they feared that not all of their four children would succeed.

"Both of my aunts on my mother's side were living in Baltimore. And one of the things they said is, 'If you work hard here, you can always have opportunity and good jobs," Kang says.

"They didn't come for them, they came for us," he adds. "They sacrificed. My dad was 46 years old. Imagine, you don't know the language, all your friends and family are back in Korea, and then you decide you're going to go."

Kang and his siblings, who landed knowing little more than the words yes and no, found kind teachers in the United States willing to give equal attention to all of their students, regardless of background. Kang's parents, meanwhile, saved enough money working low-wage jobs to open a small grocery store, where the children logged long hours helping out.

By the time Kang graduated from high school, he knew two things: He wanted to be an astronaut, and he wanted to serve his adopted country. Both steered him straight to the United States Air Force.

"Vietnam fell in '75. You had the Killing Fields in Cambodia. And we were taught to be anti-communist in Korea," he says. "Everything came together and I thought, I want to do my part to fight communism."

Kang joined the Air Force ROTC at Rensselaer Polytechnic Institute his freshman year and became an Air Force officer upon graduation. He thought he would serve his Cold War duty in a missile silo. "The Air Force had different ideas," he says. He was put to work in avionics, maintaining and updating old airplanes. "That's how I learned to do everything I know how to do today."

Kang earned a graduate degree in electrical engineering, and, after shifting from active duty into the Air Force Reserves, launched his company, KIHOMAC, which reverse engineers parts and integrates avionics systems into existing Air Force aircraft. The military is dependent on older airplanes, yet the planes require new technology. Kang's products save the U.S. government millions of dollars over the cost of buying new aircraft. Today KIHOMAC has more than 300 employees nationwide. "We like to say we extend and renew aerospace investment," he says.

Now, in addition to other volunteer work and monetary donations — including for the American Red Cross, the American Cancer Society, the Salvation Army, and more — Kang makes significant contributions to the National Museum of the Marine Corps, in Triangle, Virginia, and the National Museum of the United States Army, in Arlington.

"I have what I have because of what the Air Force taught me," he says. "Korean Americans would not even be free if it were not for the U.S. military, and I'm very grateful for that."

"Americans go to war all over the world and sometimes that's very controversial," he says. "But they go to war to keep the peace, or to try and save a country. I for one am grateful that America decided that Korea was in its interest to save."

Becoming American

Immigrants in Northern Virginia have **above** average rates of naturalization.

mmigrants in Northern Virginia stand out for their relatively high levels of naturalization. More than half, or 51.3 percent, of all immigrants in the region have earned their U.S. citizenship, a rate higher than the national average of 48 percent.

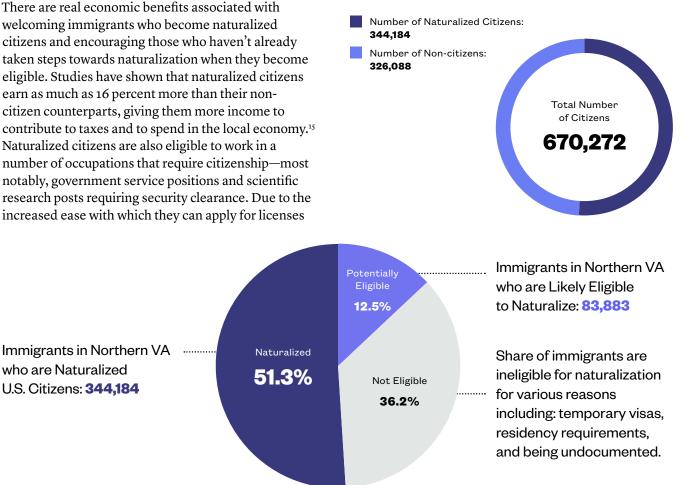
There are real economic benefits associated with welcoming immigrants who become naturalized citizens and encouraging those who haven't already taken steps towards naturalization when they become eligible. Studies have shown that naturalized citizens earn as much as 16 percent more than their noncitizen counterparts, giving them more income to contribute to taxes and to spend in the local economy.15 Naturalized citizens are also eligible to work in a number of occupations that require citizenship-most notably, government service positions and scientific research posts requiring security clearance. Due to the increased ease with which they can apply for licenses

who are Naturalized

U.S. Citizens: 344,184

and insurance, naturalized citizens are also more likely to establish local businesses, creating jobs that support the region's economy in the process.¹⁶

FIGURE 16: NATURALIZATION AND VOTING



Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

Northern VA's Refugee Community

hetoric about refugees in the United States is often a binary discussion divided between humanitarian obligations and public safety concerns. While both are important, this narrow focus misses what many American communities see as the most enduring legacy of these newcomers: the positive economic impact they have on the cities and towns that they ultimately come to call home. There are few places in the United States where this is clearer than in Northern Virginia, where there were more than 72,000 refugees in the 2013-2017 period, making up 10.8 percent of the foreign-born population.

Refugees come to the United States with little more than what they can carry in their arms—having fled war,

FIGURE 17: REFUGEE SHARE OF IMMIGRANT POPULATION, 2013-2017

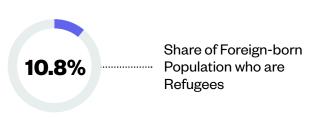


FIGURE 19: TOP INDUSTRIES FOR REFUGEES

Industry Sector	Refugees
Healthcare and Social Services	16.6 %
Professional and Technical Services	16.2 %
Retail Trade	11.7%
General Services	9.2%
Entertainment, Arts, and Hospitality	8.7%

conflict, and disaster in their home countries. Given safety from harm, they are able to gain a foothold in America, economic self-sufficiency, and eventually catch up to the rest of the population. An NAE report found that while new refugees who had been living in the United States for five years or less had household incomes of less than \$22,000, refugees who had spent more than 15 years in the country had incomes more than double that—a sign of this community's resilience and upward mobility. This pattern is reflected in the refugee population of Northern Virginia, where the median household income was \$80,667—significantly higher than the national median household income of \$57,652.¹⁷

FIGURE 18: EDUCATIONAL ATTAINMENT, REFUGEES

Level	Refugees
Less than High School	14.3%
High School and Some College	44.4%
Bachelor's Degree	26.1 %
Advanced Degrees	15.2%

FIGURE 20: REFUGEES AND NATURALIZATION

53,122

73.5%

Number of Naturalized Refugees Share of Refugees who have Naturalized

Sources for Figures 17-20: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

Undocumented **Immigrants in Northern VA**

hile the undocumented population frequently comes under fierce criticism, the data shows that a large number of the nearly 11 million undocumented immigrants in the United States work, pay taxes, and even run their own businesses. They also play an integral role in our economy, often filling jobs in agriculture, construction, and hospitality that would otherwise remain vacant.

FIGURE 21: THE UNDOCUMENTED POPULATION IN NORTHERN VIRGINIA, 2013-2017

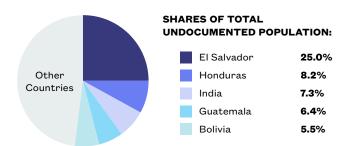
Number of Undocumented Immigrants in 2017: Share of Foreign-Born Population, Undocumented:

196,424

29.3%

Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

FIGURE 22: TOP COUNTRIES OF ORIGIN IN NORTHERN VIRGINIA, UNDOCUMENTED



Source: NAE analysis of the 2013-2017 American Community Survey 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org. FIGURE 23: INCOME, TAXES, AND SPENDING POWER OF THE UNDOCUMENTED POPULATION IN NORTHERN VIRGINIA, 2017 DOLLARS

Amount Earned by Undocumented Households in 2017: \$3.9B		
Federal Taxes Paid: \$320.7M		
State and Local Taxes Paid: \$150.9M	Total taxes paid: \$471.6M	
Total Spending Power in 2017: \$3.4B		

Source: NAE analysis of the 2013-2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums. org; Congressional Budget Office; Institute on Taxation and Economic Policy.





Source: NAE analysis of the 2013—2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.

ZUZANA STEEN Academic & Community Relations Director,

Micron Technology, Inc.

uzana Steen was 15 years old in 1989, when the Velvet Revolution brought the end of communist rule in Czechoslovakia.

"I just remember, not many days after, when it was clear the Soviet tanks were not going to come in and we were going to be freed, my history teacher saying, 'OK, put your books away. Now we are going to learn history the way it was. Now we are going to tell you what really happened,'" she says. "Like, for example, that the Americans helped save us during World War II. We didn't know that. For us it was always only the Soviets."

For Steen, democracy meant possibility, and travel. "The world opened up," she says. She traveled by bus and hitchhiked around Western Europe, often camping since her country's currency had little value. After college — Steen earned a degree in library science in the Czech Republic — she set out for England, taking a job as an au pair. There, she met an American man who ultimately proposed, leaving her with a difficult choice: should she marry, or return home? Her parents did not even own a phone, making communication limited.

"I had to call the neighbors and arrange a time, and they would get my parents there to talk," she says. "I didn't really want to leave my country, my family." "I cannot think of what people went through a hundred years ago when they got on a boat and knew they would never come back."

At age 23, Steen settled in the United States permanently, in Virginia. Her college degree, however, was not recognized here, and she took a receptionist job through a temp agency. But America, Steen says, is remarkable. Only here can a person without the right degree and connections be recognized for their talent alone. Thanks to her skill with languages and computer applications, she was promoted to editor. At her next job, with the Northern Virginia Technology Council (NVTC), she worked her way up from an administrative assistant to the head of international relations.

At NVTC, Steen arranged meetings between foreign ambassadors, presidents, and ministers with Virginia technology companies, facilitating partnerships and boosting the region's reputation both here and abroad.

"I feel like we put Northern Virginia on the map," she says. "We called it Techtopia — so it wasn't just Silicon Valley."

Steen also drove workforce development efforts, connecting technology professionals with high school students to promote careers in science and technology, work she continues through her current employer, Micron Technology, as well as with multiple regional and educational programs. She was recently honored by the Northern Virginia Community College (NOVA) as a Woman in Technology leader paving the way for students pursuing careers in science, technology, engineering and math (STEM). The governor appointed her to the Virginia Board of Workforce Development.

In a speech at a school recently, she told students: "No matter what you do, even if you clean houses, clean toilets, never ever think you are less. Be proud. Be respectful. And do not burn any bridges."

"America offered me all these different opportunities. I stand on shoulders of great mentors. Americans are very generous," Steen says. "I am very humbled. I can do a lot as an individual, but when you team up and serve with other like-minded individuals, you can make such a difference in other people's lives."

Conclusion

he data clearly show that immigrants play an important role in the Northern Virginia's economy. By filling critical jobs at both ends of the labor market, from engineers and research scientists to cooks and cleaners, immigrants have been vital to Northern Virginia's growth and continued vitality. As taxpayers contributing billions of dollars to federal, state, and local tax coffers, immigrants are helping fund necessary public programs, education services, and infrastructure projects that benefit all residents of the region. Immigrant households also pay back the local business community through their consumer activity or by starting their own businesses—increasing economic activity and increasing the amount of money and capital flowing through the local economy.

As the region continues to grow, welcoming immigrants to Northern Virginia will remain a smart strategy. Ever expanding demand for both high- and low-skilled workers means that cities and regions across the country will be in tight competition with each other to attract the right workers to meet the needs of their industries and businesses. Those that miss out, or fail to provide welcoming environments for immigrants and all residents risk falling behind and becoming unable to meet their full potential. However, through inclusive policies that lift up all residents, the communities that make up Northern Virginia can help immigrants create better lives for themselves and their families, building a stronger, more prosperous region for all.



Methodology

he majority of data that appears in this brief came from New American Economy (NAE)'s analysis of the microdata from the 2013-2017 American Community Survey (ACS), 5-year sample, downloaded from the Integrated Public Use Microdata Series (IPUMS) database. IPUMS uses the microdata from ACS samples and harmonizes variables across datasets, allowing users to conduct more detailed analysis on target populations. Estimates based on microdata from IPUMS might be slightly different from the summary tables from the American FactFinder, which are based on the original ACS samples. Any mention of the ACS as a data source in the report or this methodology refers then to the microdata sample downloaded from the IPUMS database as described above.

Unless otherwise noted, this IPUMS data is weighted using the personal weight for analysis at the individual level, and is weighted using the household weight for analysis at the household level.

Except where otherwise noted (e.g., "undocumented immigrant"), we define an immigrant as anyone born outside the country to non-U.S. citizen parents who is a resident in the United States. This includes naturalized citizens, green card holders, temporary visa holders, refugees, asylees, and undocumented immigrants, among others. We use "immigrant" and "foreign-born" interchangeably throughout this brief.

Demographics

The data points on the foreign-born population in the demographics section are calculated using microdata from both the 2008-2012 and 2013-2017 ACS, 5-year samples.

Income and Tax Contributions

We derive the figures of immigrants' contributions to GDP based on immigrants' share of wage income and self-employment income in the 2013-2017 ACS, 5-year sample. We use GDP statistics from the National Association of Counties, adjust them to 2017 dollars using the inflation calculator maintained by the U.S. Bureau of Labor Statistics, and apply the share as a proxy for productivity.

Consistent with past NAE research, we use the term "spending power." Here as elsewhere, we define spending power as the disposable income leftover after subtracting federal income, state, and local taxes from total annual household income.

Using the microdata from the 2013-2017 ACS, 5-year sample, we estimate the aggregate household income, tax contributions, and spending power of foreignborn households. A household is defined as a foreignborn household if the household head is foreign-born. For federal income tax rate estimates, we use data released by the Congressional Budget Office in 2018 and calculate federal tax contributions using federal tax brackets determined with adjusted household income. We estimate state and local taxes using the tax rates estimates produced by the Institute on Taxation and Economic Policy (ITEP) by state income quintiles.

Social Security and Medicare contributions are drawn from taxes on an individual's wage earnings and self-employed incomes. This is far different from a household's overall income, which may include other revenue streams such as rental income and returns on investments. To account for this difference between overall federal taxes and Social Security and Medicare contributions, we estimate Medicare and Social Security contributions based on income data provided at the individual level in the ACS. For wage workers, we use their wage earnings as their income base; for self-employed individuals, we use the total of their self-employed incomes and wage earnings as their income base.

The amount of earnings that can be taxed by the Social Security program is capped at \$117,000, while there is no such limit for the Medicare program. We use a flat tax rate of 12.4 percent to estimate Social Security contributions and 2.9 percent to capture Medicare contributions. This estimates the total amount that immigrants and their employers contributed in 2017.

It is also worth noting that half of the amount contributed to Social Security and Medicare (6.4 percent of the Social Security tax rate and 1.45 percent of the Medicare tax rate) comes from individual workers, while the other half comes directly from their employers. Selfemployed residents have to pay the full tax themselves. When estimating Social Security and Medicare contributions, we include all wage earners and selfemployed individuals in the households and aggregate the amount for the county and the city.

Housing Wealth

The data in the housing section comes from the NAE analysis of the microdata from the 2013-2017 ACS, 5-year sample. Immigrant homeowners are defined as foreign-born householders who reported living in their own home. We estimate the amount of housing wealth held by immigrant households by aggregating the total housing value of homes owned by immigrant-led households. We also estimate the amount of rent paid by immigrant-led households by aggregating the rent paid by such families. We then calculate the share of housing wealth and rent that immigrant households held or paid compared to the total population.

Our estimates of the increase in total housing value as a result of the rising immigrant population rely on the 2013 report by NAE and the Americas Society and Council of the Americas. That report found that each immigrant moving in a county increased the value of each housing unit in that county by 11.6 cents. We apply this multiplier to the change in the foreign-born population between 2012 and 2017 to produce our estimates.

Workforce

We use the microdata from the 2013-2017 ACS, 5-year sample, to estimate all data points in the workforce segment of the report.

We define the working-age population as those between 16 and 64 years old, inclusive. To calculate our estimates for different industries and occupations, we restrict the universe to employed individuals.

Educational attainment figures for the U.S.- and foreignborn ages 25 and up are calculated to examine the segment of the population most likely to have already completed their final level of educational attainment.

For industries and occupations, we include all individuals 16 years old and above in these calculations. We exclude industries with small sample sizes of workers to avoid reporting estimates with large margins of error. Estimates for occupations also follow the same restrictions—the universe is restricted to workers age 16 and above, and the occupations that fall under minimum threshold are excluded.

We use the STEM (Science, Technology, Engineering, and Math) occupation list released by U.S. Census Bureau to determine the number and share of foreignborn STEM workers. Per U.S. Census classification, healthcare workers such as physicians and dentists are not counted as working in the STEM occupations.

Entrepreneurship

The data on immigrant entrepreneurs and the business income generated by them comes from NAE analysis of the 2013-2017 ACS, 5-year sample. We define entrepreneur as any employed, active worker who reports working for their own business.

The estimates on minority-owned businesses come from the 2012 Survey of Business Owners, U.S. Census Bureau.

International Students

We obtain the size and share of postsecondary students who are international from the 2015 Integrated Postsecondary Education Data System (IPEDS) fall enrollment data. Those figures are then applied to preexisting work previously done by NAFSA, an organization representing professionals employed in the international offices of colleges and universities across the United States. NAFSA has developed an economic value tool and methodology that estimates the total economic benefit and jobs created or supported by international students and their dependents in each state. The economic contributions include the costs of higher education along with living expenses minus U.S.-based financial support that international students receive.

Because the enrollment data from IPEDS that we use is different from the underlying data used by NAFSA, our figures differ slightly from the NAFSA estimates of the economic contributions made by international students in the 2017-2018 academic year.

Eligible for Naturalization

Those who are "likely eligible" for naturalization are documented immigrants who have been in the United States for at least five years and speak English well or fluently, as well as immigrants in military service who meet certain requirements such as speaking English well. Those who do not fit these criteria are deemed to be not yet eligible or currently ineligible.

Undocumented Immigrants

Using microdata from the 2013-2017 ACS, 5-year sample, we apply the methodological approach outlined by Harvard University economist George Borjas to arrive at an estimate of the undocumented immigrant population in the overall United States and individual states. The foreign-born population is adjusted for misreporting in two ways. Foreign-born individuals who reported naturalization are reclassified as non-naturalized if the individual had resided in the United States for less than six years (as of 2017) or, if married to a U.S. citizen, for less than three years. We use the following criteria to code foreign-born individuals as legal U.S. residents:

- Arrived in the U.S. before 1980
- Citizens and children less than 18 years old reporting that at least one U.S.-born parent
- Recipients of Social Security benefits, Supplemental Security Income, Medicaid, Medicare, military insurance, or public assistance
- Households with at least one citizen that received SNAP benefits
- People in the Armed Forces and veterans
- Refugees
- · Working in occupations requiring a license
- Working in occupations that immigrants are likely to be on H-1B or other visas, including computer scientists, professors, engineers, and life scientists
- Government employees, and people working in the public administration sector
- Any of the above conditions applies to the householder's spouse

The remainder of the foreign-born population that do not meet these criteria are reclassified as undocumented. Estimates regarding the economic contribution of undocumented immigrants and the role they play in various industries are made using the same methods used to capture this information for the broader immigrant population in the broader brief.

When estimating the tax contributions of undocumented immigrants, we follow the methodology detailed by ITEP and discount the total amount by half, considering the fact that about 50 percent of undocumented immigrants pay taxes using false Social Security or Individual Tax Identification numbers.

Refugees

We use an imputation method to identify cases in the microdata from the 2013-2017 ACS, 5-year sample, that are likely to be refugees. This is similar to work of Kallick and Mathema as well as Capps et al.

We use each foreign-born respondent's country of birth and their year of arrival to identify those who are likely to be refugees. To identify the years that saw significant inflows of refugees from each country, we use data from the U.S. Department of Homeland Security (DHS), as well as the U.S Department of State Bureau of Population, Refugees, and Migrations WRAPS database and compare yearly totals with the ACS data showing how many people in the United States were born in each country and the year that each immigrated to the United States. Comparing the two, we assign refugee status to those born in a given country of origin who arrived during years when the number of refugee arrivals from that country according to DHS/WRAPS data exceeded 50 percent of the total population born in a given country who immigrated in each year. Additional work was done

to identify specific ancestry groups such as Assyrians (i.e. Iraqi Christians) and the Hmong.

Two groups are notably absent from our study: Cubans and Haitians. We chose to not include these groups as Cubans and Haitians have mainly been admitted through country-specific programs that confer upon them different benefits and statuses through different processes.

Inherently, our method does not capture every refugee living in the United States. Refugee flows from countries that have other more traditional immigration pathways to the United States are not counted here, nor are countries that have sent relatively few refugees or immigrants to the United States overall, since such populations are difficult to pick up in surveys such as the ACS due to small sample sizes. However, while the counts of refugees may not match the administrative data on resettled refugees, we are confident that our method gives reliable estimates of the characteristics of refugee populations in the United States and are comparable to similar estimates done by the Migration Policy Institute in Capps et al.

Endnotes

- 1 We define the region as Arlington, Fairfax, Loudoun, and Prince William counties along with the independent cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.
- 2 We define an immigrant as anyone who resides in the United States but who was not born a U.S. citizen. We use "immigrant" and "foreign-born" interchangeably throughout this report.
- 3 Estimates from the 2013—2017 American Community Survey, 5-Year Sample, downloaded from IPUMS USA, University of Minnesota, www.ipums.org.
- 4 STEM jobs are those occupations that require skills or expertise in Science, Technology, Engineering, and/ or Math. NAE uses the narrower definition of STEM occupations (i.e. excluding those categorized as solely STEM-related) that the U.S. Census Bureau employs. The list of those occupations can be found at: https:// www2.census.gov/programs-surveys/demo/guidance/ industry-occupation/stem-census-2010-occ-code-list. xls
- 5 Comparison based on U.S. Census Bureau estimates, which records a calculated growth rate of 4.2 percent from 2012-2017. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018." https:// factfinder.census.gov/bkmk/table/1.0/en/PEP/2018/ PEPANNRES
- 6 Migration Policy Institute, "Countries of Birth for U.S. Immigrants, 1960-Present." Available online: https:// www.migrationpolicy.org/programs/data-hub/charts/ immigrants-countries-birth-over-time
- 7 Consistent with the U.S. Census Bureau and the IPUMS. org database, we classify housing such as RVs, mobile homes, and boats, as "other." As such they are not included in the count for single-family homes nor for multi-family homes. We classify housing of two or more units as multi-family.

- 8 Vigdor, Jacob. 2013. "Immigration and the Revival of American Cities: From Preserving Manufacturing Jobs to Strengthening the Housing Market." Partnership for a New American Economy.
- **9** Increase based on arrival of immigrants to NOVA region during 5-year sample, from 2012 to 2017
- **10** Bureau of Labor Statistics, "Labor force data by county, 2017 annual averages," 2017. Available online: https://www.bls.gov/lau/laucnty17.xlsx
- **11** New American Economy, "Map the Impact: National," 2019. Available online: www.newamericaneconomy.org/ locations/national/
- **12** We define entrepreneur as any employed, active worker who reports working for their own business.
- 13 Robert W. Fairlie, "Open For Business: How Immigrants Are Driving Small Business Creation in the United States," New American Economy, August 2012. Available at: http://research.newamericaneconomy.org/ wp-content/uploads/2013/07/openforbusiness.pdf
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- **15** Lynch, R. and Oakford, P. 2013. "The Economic Effects of Granting Legal Status and Citizenship to Undocumented Immigrants," Center for American Progress, March 20.
- **16** Pastor, M. and Scoggins, J. 2012. "Citizen Gain: The Economic Benefits of Naturalization for Immigrants and the Economy," Center for the Study of Immigrant Integration, University of Southern California
- **17** U.S. Census Bureau, 2013-2017 American Community Survey, 5-Year Estimates.

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The **Northern Virginia Regional Commission** (NVRC) is a regional council of thirteen local governments in the Northern Virginia suburbs of Washington, D.C. NVRC has provided services to its local government members and citizens for more than 50 years in a wide variety of areas including environmental, health, demography, workforce, community/military relations and energy. Northern Virginia is the economic engine of the Commonwealth of Virginia generating nearly 40% of State GDP.

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