The Economic Impact of Immigration on St. Louis

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Fact Sheet of the Economic Impact of Immigrants to the St. Louis Region

- The St. Louis Metro has approximately 126,500 immigrants, and immigrants comprise 4.5% of the region's population. Other metros in the top 20 average four to five times the number of foreign-born residents.
- The region's relative scarcity of immigrants largely explains our poor economic growth, and the St. Louis metro's fall from the 10th largest MSA in 1970 in the U.S. to 18th in population and 20th in economic output in 2010. Other metros in the top 20 averaged 40% faster economic growth over the past decade. This report statistically demonstrates that a lack of immigration explains a considerable portion of the region's slow income growth.
- If St. Louis had experienced inflows of immigrants similar to other large metros, income growth would have been 4-7% greater, and the region's income would be 7-11% larger.
- Encouraging an inflow of foreign-born to match other large metros would increase job growth 4-5%; thus, the region's lack of immigration explains in large part its poor job creation engine.
- Immigration is responsible for raising average wages by $600 in the region over the past decade; however, average immigration patterns imply wages should have risen by $2800.
- Increasing inflows of immigrants to St. Louis would markedly lower housing vacancies and boost housing prices. If St. Louis had matched the immigration inflow of other large metros, housing prices would be 26% higher in St. Louis City and 20% in St. Louis County over the last decade.
- The foreign-born community in the region is highly educated, with predominantly white collar jobs. They earn $83,000, 25% more than the average American born. Immigrants are three times more likely to be high-skilled than unskilled, one of the highest ratios in the country. The foreign-born tend to be scientists, professionals and managers, and are 44% more likely to have at least a college education and 130% more likely to have an advance degree.
- The foreign-born in St. Louis have higher labor force participation rates, and substantially lower unemployment rates than native-born in the region.
- Immigrants are 60% more likely to be entrepreneurs in the region, and therefore, the relative lack of immigrants is a major factor in explaining the region's shortage of new business startups.
- The region's poor immigrants are less likely to received food stamps and cash assistance; thus, they are not a burden to the system.
- Encouraging immigration can lower both the White and African-American unemployment rate by approximately 2%.

Executive Summary

Look at photographs of downtown St. Louis in the first decades of the 20th century and you'll see a bustling metropolis, a scene of economic prosperity that began in the years of the Civil War and continued, in spite of the Great Depression, to prosper well into the middle years of the 1900s. After 1950, however, the economic climate began to change. The economy of the region has performed poorly in recent decades, lagging significantly behind most major metros in employment, income and wage growth as well as entrepreneurial activity, an important driver of economic activity.

At the same time, the metro's population and percentage of foreign-born residents have both considerably trailed other large metropolitan areas.[1] Outward migration from the region and a surfeit of aging baby boomers indicate that the metro's workforce will shrink over the next decade. Without a plan to entice new workers to the region, our tax base, businesses and employment opportunities will decline. This report statistically demonstrates that the St. Louis economy and our demographic profile are intimately related. It shows that there is one clear and specific way to simultaneously redress the region's population stagnation, output slump, tepid employment growth, housing weakness and deficit in entrepreneurship - Immigration. This report provides considerable economic evidence and statistical analysis using U.S. Census data that increasing immigration will significantly raise employment and income growth as well as boost real wages in the St. Louis region. An influx of foreign-born could reverse the region's housing prices declines and lower unemployment rates for both whites and African Americans in our region.

A profile of the foreign-born in St. Louis reveals a highly trained workforce. More than 50% of immigrant occupations in the region are high paying white-collar jobs, and the number of high-skilled foreign-born workers outnumbers low-skilled by three to one. The foreign-born in the region are significantly more likely to have graduated college than native-born Americans, and twice as likely to hold advanced degrees, particularly as medical doctors and scientists. As a result of higher pay and

[1] The St. Louis region or metro (MSA, Metropolitan Statistical Area) includes 9 counties in Missouri and 8 counties in Illinois.

labor force participation rates, the average foreign-born contributes 29% more to the region's income than the average native-born in St. Louis; further, the foreign born possess substantially lower rates of unemployment, receive less food stamps and cash assistance and pay far more taxes than the average St. Louis worker. Further, a Brookings Report (Hall et al., 2011) shows the high educational levels of immigrants in St. Louis are compensating for the brain drain of native-born Americans due to negative net-migration. Influxes of immigrants hence are critical in maintaining advanced skill levels, which are critical to our premier companies and institutions.

Both economic theory and statistical analyses demonstrate that immigration expands a region's productive capacity by stimulating investment and promoting specialization. This in turn leads to efficiency gains, higher profits and raises wages for all workers. Economists have shown that American economic sectors with high exposure to immigration fared better in employment growth than more insulated sectors, even for low-skilled labor. One reason is that hiring immigrants can reverse off-shoring, which pulls away not only low-wage jobs but also many related occupations that include high-skilled managers, tech repairmen and others. Thus, by hiring immigrants, we make it more likely that a company will remain in the region than move overseas.

It is shortsighted in a globalized economy to expect we can fill all of our labor needs with a homegrown workforce from the St. Louis region or neighboring states. Increased globalization and changes in technology imply skill sets are substantially changing and companies need to hire world-wide to compete in a global market. For instance, a prominent 2011 study by Deloitte finds that 67% of more than 1,100 manufacturers report a moderate to severe shortage of available, qualified workers: "skilled production jobs – machinists, operators, craft workers, distributors, technicians, and more – are taking their toll on manufacturers' ability to expand operations, drive innovation, and improve productivity." Overall, nationwide 600,000 jobs, or 5% of manufacturing jobs, remain unfilled due to a lack of qualified candidates.

Hiring immigrants with specific skills supplement existing hiring over the entire skill spectrum from managers to office workers and janitors, and does not lead to higher unemployment. When hiring immigrants, companies have to register them with the Department of Labor and indicate no qualified U.S. applicant exists for H1 and H2 guest workers. This means the applicant has particular qualifications lacking in the local job market and the company is paying an appropriate wage. Companies that are hiring foreign-born workers then are not hiring them because they are cheaper. Rather firms are hiring immigrants due to particular expertise that is sometimes lacking in U.S. born individuals.

If St. Louis wishes to further cultivate clusters of biotech, financial services, healthcare or information systems, it must also attract the best talents to complement our existing workforce. Business location theory posits that the number one factor in establishing and promoting a successful cluster is a highly trained work force. Because immigrants often have technical and scientific skills in these areas, they should be part of the region's strategy to build on our strengths in these occupations. For example, Sigma Aldrich hires in bioinformatics, a highly specific profession that requires advanced knowledge of both biology and IT. This expertise is difficult to find in native St. Louis graduates, so the company must look elsewhere, often overseas to find the best qualified applicant. In this search process, the company, like all companies, has an obligation to both their customers and stockholders, to hire the most qualified.

The St. Louis Cardinals are the 2011 World Champions, not because their recruitment focuses on St. Louis. On the contrary, they recruit the best talent from everywhere, not just the local metropolitan area. This often includes players from Latin America, an area full of baseball talent such as Albert Pujols, Jaime Garcia, Fernando Salas, Eduardo Sanchez and Rafael Furcal. Without attracting the best players in the world to this region, it is unlikely the Cardinals would be World Champions.

This argument also extends to our businesses and educational institutions. For instance, Washington University's Business and Medical schools are world renowned as they hire the best possible faculty. Approximately half of the business school's

tenure-track faculty and its medical school's bioengineering, genetics and biostatistics departments are prominent foreign-born scholars.

A study by the University of Washington's Economic Policy Research Center shows that every job that Microsoft creates, supported 5.81 jobs elsewhere in the region – from bakers to butchers. A large multiplier also exists for high-skilled St. Louis firms such as Boeing, Sigma Aldrich, the Danforth Plant Science Center, Novus International, Monsanto, Washington University and Saint Louis University. Hiring immigrants has a multiplier effect on the economy, because these individuals spend their money in the region, which in turn leads to more local economic activity and supports jobs for native-born Americans in St. Louis retail shops and other service businesses.

St. Louis benefits not just from foreign-born doctors and scientists from India and China, information technology experts from Russia, and engineers from Latin America, but also from middle and low skilled immigrants arriving in our region. Skilled foreign-born electricians and plumbers make it easier for both businesses and consumers to build and maintain their properties, while low-skilled lawn workers save St. Louis consumers money, inexpensive high school janitors save the community tax revenue and cheap cleaning workers save businesses cash, boost their profits and encourage them to expand locally. Further, attracting immigrants of all skills is critical, as 2nd generation immigrants, including the children of low-skilled workers, have a long tradition of success in this region. For example, George Paz, the CEO of Express Scripts, is the son a blue-collar Mexican immigrant.

Foreign-born workers employed by St. Louis firms such as Monsanto expand export opportunities and commercial contacts as they possess strong business and social networks with the rest of the world, making it easier for Monsanto to trade with India, Brazil and other countries, which multiply business and employment opportunities for the region. The region, therefore, should recognize these individuals have the knowledge, experience, connections and drive to help St. Louis companies compete in the global marketplace.

The foreign-born have earned an entrepreneurial reputation, since we often attract both the risk-takers and the best these countries have to offer. To immigrate and to succeed, they have to pass through hurdles that only the most motivated and experienced can achieve. The foreign-born workers and their children have become successful small businesses owners here, and have created hundreds of other jobs for native-born Americans. These include dozens of small Bosnian and Chinese restaurants to the CEOs of Monsanto, Sigma Aldrich, Express Scripts and the local head of Citibank. The Horatio Alger stories of the American dream have prospered among foreign-born immigrants and include companies that are home-grown with millions in revenue, including the head of Rose International and Nextgen.

The St. Louis region had a good track record of integrating Bosnian immigrants in the 1990s into our region's social fabric. They revitalized parts of South St. Louis City and South St. Louis County by moving into older neighborhoods, opening businesses and rehabbing housing. Bosnians opened many thriving small businesses including bakeries, butcher shops, coffee shops, construction and heating and cooling companies, insurance companies and a truck-driving institute, and continue to be a key source of high skilled production work. The region in the 1990s also welcomed tens of thousands of Chinese, Russians and Indians who have integrated and prospered. St. Louis needs to build on these experiences as this influx was more than a decade ago, and now encourage a new wave of immigrants into our urban core.

While some regions are passing laws aimed at restricting immigration, the National League of Cities reports cities such as Boulder, Chattanooga, Columbus, Indianapolis, Louisville, Los Angeles, New York City, Philadelphia, Princeton, and Richmond have initiated innovative municipal polices to encourage immigrant integration. If St. Louis wishes to advance in future decades, it must take its cue from cities that are devising targeted welcoming strategies to attract immigrants through economic and social policies that embrace, rather than drive away, this vital workforce. What are these best practices? The most effective strategies include several simple components: a central organization that serves as an information clearinghouse, a welcoming mat network, and business/government partnerships.

The central organization in Louisville, for instance, help integrate immigrants and refugees by connecting them with government and nongovernmental resources, and providing them with services such as a community language bank, interpreters and translators as well as social services including resettlement agencies, English as a second language classes, and career and leadership opportunities. Philadelphia has a nine-member commission on immigrant affairs that encourages the development and implementation of effective policies and strategies that facilitate immigration's role in regional population growth, neighborhood revitalization, and economic development.

The National Conference of State Legislatures reports that Lowell, Nashville and Portland have effective central coalitions that coordinate immigration through government, NGOs and private partnerships. They recommend that a central organization implement immigrant integration policies that include: "English-language training; Credential recognition and assistance with meeting professional and trade licensing requirements; Strong vocational/professional skills development; Higher education opportunities; and upgrading courses; Youth-training and development services; Civic-participation training and opportunities for involvement in the wider community; Health care; and Adequate and affordable housing."

A welcoming campaign that creates "Welcoming Committees" is critical to engage local chambers of commerce, drive home the message that immigration can create opportunities through new businesses and create networks for immigrants to feel welcomed, facilitate their transition and become engaged in the local community. Many metros have adopted regional cultural ambassador programs such as G.L.I.P. (Greater Louisville International Professionals) that work to increase awareness of the international community's contributions to the region as well as provides international community and business connections. Philadelphia's Welcoming Center for New Pennsylvanians connects immigrants, employers, & communities and is designed to attract international talent by recruiting skilled immigrant professionals. This initiative is less about dollars, than a change in mind-set of our local business leaders and public: the region needs to view immigration as an opportunity, not as a threat - a chance to hire the best. We need clear messaging that immigration is a positive force

for economic development, and that local talent can be supplemented by hard-working, entrepreneurial individuals.

Many metros have created a range of government and business partnerships that help recruit immigrants to their regions. These include an EB5 Investor Visa program that can attract international investment and foreign talent; efforts in St. Louis should initially concentrate in promoting clusters in biotech, health science and IT, since the Brookings Institution reports that immigrants tend to cluster in these sectors due to having advanced scientific degrees. The metro should further promote initiatives to attract and retain foreign students at St. Louis and Missouri colleges and universities by providing mentors and internships that create incentives for retention. The region should expand its initiatives to organize small business mentorship and community bank funding for both domestic and foreign-born residents.

The region has much of the infrastructure in place to implement effective immigration strategies. These organizations include the International Institute of St. Louis, MIRA (Missouri Immigrants and Refugee Advocates), the World Trade Center and the Urban League. To facilitate these transitions, they need only moderate increases in core funding, and backing from both public and business leaders.

St. Louis has many positive attributes and resources to attract hard working, immigrants. We have affordable housing as well as some excellent public, private and Charter schools and Universities. Immigrants in St. Louis already have more than twice the small business success rate, and hence building on this achievement should not be difficult. St. Louis has premier companies in healthcare, biotech, engineering, finance and IT that should be allowed to attract the best so they flourish in a global environment. Globalization and economic development include attracting the foreign-born as well as foreign companies to our region.

The Economic Impact of Immigration on St. Louis

I. Introduction

The Saint Louis Metropolitan Area's Economy has struggled over the last decade. From 2001 to 2011, the region bled nearly 45,000 jobs, or more than 3.3% of its workforce -- compared to 2% gains in other large metro areas. Output in the region further has grown 40% slower than the nation, and wages have increased 14% less than other large metros. The St. Louis economy clearly has been stagnating for some time. Over the past two decades, the metropolitan area has expanded approximately 30% slower than the rest of the country, and over the past 5 years, output has been 40% below other metro areas.

The region's entrepreneurial activities ranked until recently far below the national average, and our housing sector has taken a significant hit as well, despite the absence of a housing bubble. The region's population growth over the last decade is 54% less than the nation's metropolitan areas, and over the past two decades, 60% less. To some extent, our economic foibles are well known to our elected officials and the public. The closings of several car plants over the last decade led to a crippling blow to manufacturing that had devastating multiplier effects through the region. Less clear, however is how the region's economy can recover to more "normal" growth.

This report provides considerable statistical evidence that immigration can reverse this region's population stagnation, and address weaknesses in output, employment growth, housing and entrepreneurship. It is a detailed economic study of the economic impact of immigrants on St. Louis, and a first step in informing the region's elected officials, civic leaders and public of the economic benefits of immigration to the St. Louis MSA (Metropolitan Statistical Area). The report details the academic work by prominent labor economists such as David Card (2007), who finds "In the past 25 years immigration has re-emerged as a driving force in the size and composition of U.S. cities." His work demonstrates that immigrants by positively affecting population growth, economic demand and skill sets, then raise a region's wages, housing prices, rents and cultural diversity.

Most economically and culturally vibrant communities in the U.S. including the Midwest metros of Chicago, Columbus, and Minneapolis are characterized by rising shares of immigrant populations. David Card reports that the 17 largest metro cities have an average share of foreign-born of approximately 27% – twice the U.S. average and more than five times St. Louis' immigrant share. In this study, we show that a low immigrant influx explains the poor economic performance in the St. Louis region compared to most large Metro areas.

In most cities, immigration, not migration, is a leading driver of population increases, and is closely tied to economic performance. St. Louis' has the 2nd lowest population growth and the lowest immigration growth among the top 20 cities.[2] The number of foreign-born in St. Louis dropped from 26th in the nation in 1970, to 42nd in 2010, approximately tied with Kansas City, but behind Columbus, Raleigh and Salt Lake City, which are much smaller cities. The latest 2011 Census reports that St. Louis population rank fell again, to 19th, as Tampa surpassed St. Louis due to a faster rate of immigration and both St. Louis County and City lost thousands in population. The fall in population and economic rank is important as larger cities benefit from agglomeration economies (Krugman, 1991; Glaeser and Gottlieb, 2009). Higher densities encourage economic dynamism through idea creation and lower transit costs, which ultimately lead to higher wages.

St. Louis like many Midwestern and Eastern cities is experiencing significant domestic out-migration patterns; immigrants can counter this trend and help revitalize neighborhoods by investing in homes and businesses. A Brookings Institution report by Wilson and Singer finds that immigration can reverse population losses, expand the workforce, and thereby boosts home values and reduce most vacancy and foreclosures problems. Increasing immigration can further strengthen a city's educational systems and lower African-American unemployment, which is particularly relevant for St. Louis

[2]Only Detroit has lost more people over the last decade. The Motor City has been unable to compensate by immigrant inflows as it possesses the 2nd lowest amount of immigration among large metros. Recent efforts by their city, however have attempted to redress these issues.

City, as it is suffering from both declining enrollment and high black unemployment rates.

If demographics determine destiny, the St. Louis economy faces a long and difficult road ahead. There are three basic sources of population growth that drive demographic movements – immigration, migration spurred by job seekers, and migration due to retirement to sunnier climates. St. Louis is experiencing problems with all three engines of growth. Over the past decade, the MSA attracted only 31,000 immigrants and lost 44,000 native-born Americans through domestic migration; further, over the next two decades, St. Louis is projected to lose more than a quarter of its workforce to retirement (aging baby boomers). Immigrants, however tend to be younger, employed and pay taxes; thus, they can rejuvenate an aging, slow growing region, reverse population declines spurred by domestic migration, and improve the tax base.

Immigration is credited with rejuvenating neighborhood vitality in cities including Boston, Chicago, Philadelphia and New York. In Massachusetts, immigrants accounted for 82% of the growth in the state's labor force. Two decades ago, Boston, similar to St. Louis, was struggling, having lost nearly 200,000 people in prior years, and so was Philadelphia which lost 120,000. Today, both cities are growing faster than St. Louis, and influxes of foreign-born have played a major part in their revitalization; in contrast to St. Louis, both Boston and Philadelphia have concentrated on attracting talented people to their region.

Immigrants tend to possess more entrepreneurial energy than domestic residents and the lack of immigrants is a prime reason this region lacks small businesses and entrepreneurship. The Kauffmann Foundation (Fairlie, 2011) reports that immigrants are responsible for a disproportionate number of successful high-growth companies including cutting edge U.S. industries in Silicon Valley, where over 50% of the startups had at least one key foreign-born founder (West, 2011).

Immigrants founded Google, Intel, eBay, Sun Microsystems, Yahoo!, Hotmail, PayPal, U.S. Steel, Dow Chemical, Dupont, Pfizer, Procter and Gamble, Bank of America and Carnival Cruises, as well as thousands of other companies that are driving

America's economic future by creating millions of American jobs. Immigrants have played a critical role in U.S. economic development and include business titans Levi Strauss, Andrew Carnegie, Andre Grove, Charles Wang, Sergey Brin, Jerry Yang, Liz Claiborne, scientists such as Enrico Fermi, Albert Einstein, Alexander Graham Bell, Hyman Rickover and Jonas Salk and many others. One quarter of American Nobel Prize winners since 1901 and 40% of the Ph.D. scientists currently working in the U.S. are foreign-born.

As policymakers search for approaches to revive moribund local economies, thereby replenishing government coffers with tax revenue, they should evoke a simple truth embraced by many economists and public policy experts: immigration is a key source of long-term economic vitality, particularly in urban areas. In MSAs experiencing urban decline due to population loss from negative migration and growing numbers of retirees, immigrants are a crucial source of new labor, business formation, tax revenue, revitalization, and economic development.

This policy paper will consist of five parts. Section II presents the demographic and immigrant profile in St. Louis. Section III considers prior academic literature on the topic. Section IV evaluates the statistical impact of immigration on employment, income, wages and unemployment. It presents estimates of how St. Louis' economy would be different if the region had immigration inflows similar to other cities in the top 20. Section V reviews best practices in other cities, and what St. Louis can do next to advance an immigration agenda.

II. St. Louis Immigrants: Who they are and What they Do.

The Region's Demographic Problems

Population growth drives employment and income growth as well as housing prices. Larger cities attract businesses because of manufacturing hub effects, local demand effects, and idea creation synergies that create clusters of positive reinforcing economic activity (Glaeser and Gottlieb, 2009). This section discusses the demographics of St. Louis and profiles the ethnicity and occupations of the foreign-born in the region.

The population of St. Louis City today is at its lowest level since 1880, after having declined to 320,000, representing a loss of 8.3% since 2000. This compares to over 450,000 in 1890, 575,000 in 1900 (when it ranked 4th largest in the country) and 850,000 by 1950, when it was the eighth largest city in the U.S. Over the last decade, St. Louis County's population fell by 1.7% and the overall metropolitan region has grown only 4.2%, largely buoyed by population growth in adjacent St. Charles County. This falls significantly short of the 9.7% growth in the U.S. population and 10.7% growth for the 50 largest metro areas.

Table I presents the demographic growth of the St. Louis Metro Area, the three largest counties in the St. Louis MSA, Missouri and the U.S. It also presents four other cities with similar economic makeup -- older industrial cities. The most important columns are on the right-hand side of the table, detailing how our region has grown over the last decade and how it is forecasted to fare over the next ten years. Table I shows that St. Louis County and City lost population over the past decade and these losses are forecasted to continue over the next ten years. The latest population figures released in April 2012, for instance, again revealed that both St. Louis County and City lost population last year.

In contrast, the United States as well as most urban areas have been growing steadily and are projected to continue to grow faster than the St. Louis region. In large part, we show this is attributable to substantially higher rates of immigration in these other metro areas. For instance, similar to St. Louis, cities such as Baltimore,

Cincinnati, Columbus and Minneapolis are all experiencing negative net migration flows; however, in contrast to St. Louis, these cities are experiencing faster population growth spurred by larger inflows of immigrants.

Table I Demographics of our Region

	2000	2010	2011	2020F	2000-2010	Δ2000-10	Δ2010-20F
USA	282171957	309418049	312097820	337084112	9.7%	27246092	8.94%
Missouri	5,595,211	5,922,078	6,034,597	6,199,882	7.0%	390752	4.69%
STL Metro	2701634	2815567	2826277	2924541	4.2%	113933	3.87%
St. Charles	286171	361944	367786	421767	26.5%	75773	16.53%
St. Louis County	1016364	998934	998855	996872	-1.7%	-17430	-0.21%
St. Louis City	346904	319181	318743	314109	-8.0%	-27723	-1.59%
Minneapolis	2981616	3288069	3320904	3623487	10.3%	306453	10.20%
Baltimore	2557501	2713525	2725778	2833608	6.1%	156024	4.43%
Columbus	1619514	1842055	1864228	2066801	13.7%	222541	12.20%
Cincinnati	2014665	2133384	2146257	2262254	5.9%	118719	6.04%

http://proximityone.com/demographics2020.htm 2020F and Δ2010-20F are the forecasted population for this period.

Figures I, III and IV illustrate population growth in St. Louis City, St. Louis metro area and U.S. Figures I shows that most of St. Louis City, particularly its north and south regions, is experiencing sizeable population losses, which contribute to housing price declines (See page 29). The area from Downtown to the Central West End and University City are notable exceptions. Figure II presents the foreign-born as a percentage of population and illustrates sizeable number of immigrants living in areas from Downtown to the Central West End, including near Saint Louis University, the Barnes-Jewish Hospital medical complex, Washington University, and the cities of University City and Olivette. Comparison between Figures I and II presents a strong visual relationship between immigration flows and population changes. It is clear that localities that are not experiencing an influx of immigrants are losing substantial population, while immigration is driving population increases throughout the central corridor of the city.

Figure III shows that St. Charles County and counties across the Mississippi in Illinois are experiencing population gains, albeit from a lower base. Most of St. Louis County is losing population, except for Creve Coeur, Town and Country, part of Maryland heights, Olivette and the northern half of Chesterfield. Figure IV illustrates

the immigrant pattern for most of the western section of the St. Louis metro area. Large parts of St. Louis County, particular the wealthy regions of Clayton, Creve Coeur, Town and Country as well as North Chesterfield, Maryland Heights and Olivette have relatively high immigrant shares. These are the same areas experiencing population increases. Both Figures III and IV also depict that neighborhoods without immigration inflows are losing population. Hence, although immigration inflows are relatively limited in the St. Louis MSA, they are closely related to population growth in many neighborhoods; further, it is also clear that without immigration, these regions would be suffering from population declines. Additionally, St. Louis County appears well diversified in terms of where immigrants have settled, particularly compared to St. Louis City. St. Charles is the one area gaining population not due to immigration.

Figure V illustrates that most of the urban areas in the U.S. are gaining population, particularly the coastal regions. Rural areas, including the Great Plains, interior South and Great Lakes regions, are losing population due to the decline of family farms, limited economic opportunities and sparse immigration, highlighted by Figure VI. Comparison between Figures V and VI once again present a strong visual connection between immigration flows and population.

Profile of Region's Immigrants

The U.S. currently is experiencing its second major wave of immigration. This influx began in the 1970s, and then accelerated in the late 1980s. Prior to this, immigrant flows had peaked around 1900, and then fell sharply during the 1920s and 1930s, when the country largely closed its borders. In contrast to European immigrants in prior decades (e.g., in 1960, Italian-born immigrants comprised 13.0% of all immigrants, followed by immigrants born in Germany and Canada which accounted for 10.2% and 9.8%, respectively), the new immigrants are largely from Latin America and Asia with an annual net in-migration of over one million individuals.

The combined Hispanic and Asian population currently represents about one-fifth of the population, compared to one-ninth in 1990. Although many metro areas are

experiencing increased immigration inflows, Figure VI indicates, not all areas of the country experienced this wave identically. There is a tendency for immigrants to cluster in a small number of areas, which is consistent with immigration preference laws that favor family reunification. Earlier research indicates that kinship ties give rise to chain migration that link family members and friends to common destinations (Massey, et al, 1994; Pedraza and Rumbaut, 1996).

St. Louis has a more distinctive immigrant cohort than many parts of the U.S. The foreign-born in the St. Louis MSA tend to be from diverse countries. No country of origin exceeds .4% of the population. St. Louis is known for the largest number of Bosnians of any U.S. metro, but this group comprises a relatively small portion of total U.S immigrants and is the third largest ethnic cohort in the metro, behind immigrants from India and Mexico.3 Compared to Missouri and the United States, the region's Hispanic population is relatively small. Overall, 44% of the foreign-born entered over the last decade and 29% between 1990-2000, a pattern fairly similar to most of the U.S.

Table II Origins of Foreign-born (2010 Census)

	STL	% of Pop	MO	% of Pop	US	% of Pop
Total	126,513	4.49%	216,698	3.87%	39,955,673	14.16%
Europe	30,177	1.12%	49,200	0.88%	4,817,437	1.71%
Bosnia and Herzegovina	8,491	0.31%	9,002	0.16%	125,793	0.04%
Russia & CIS economies	4,909	0.18%	8,472	0.15%	800,424	0.28%
China	7,557	0.28%	14,424	0.26%	2,166,526	0.77%
Korea	4,555	0.17%	8,261	0.15%	1,100,422	0.39%
India	10,420	0.39%	14,490	0.26%	1,780,322	0.63%
Philippines	3,443	0.13%	7,559	0.14%	1,777,588	0.63%
Vietnam	5,202	0.19%	10,811	0.19%	1,240,542	0.44%
Mexico	10,539	0.39%	44,584	0.80%	11,711,103	4.15%

Profile of the St. Louis Immigrants: Occupational Profiles

[3]The Census numbers however may substantially underreport the number of Bosnians in the metro area; the 2005 Census for instance reports 14,484 Bosnians. The International Institute and Fontbonne University report that there are 50-60,000 Bosnians in the area; this number however may include Bosnians from other former Yugoslavian countries as well as children of Bosnian immigrants who identify as Bosnian Americans, but are born in the U.S.

Table III presents the occupational profiles of immigrants living in St. Louis, as well as in similar old industrial cities, such as Boston, Baltimore, Chicago, Minneapolis and Milwaukee. Native-born Americans are more likely than the foreign-born to be aging Baby Boomers, and thus more likely to retire over the next 10 to 15 years.

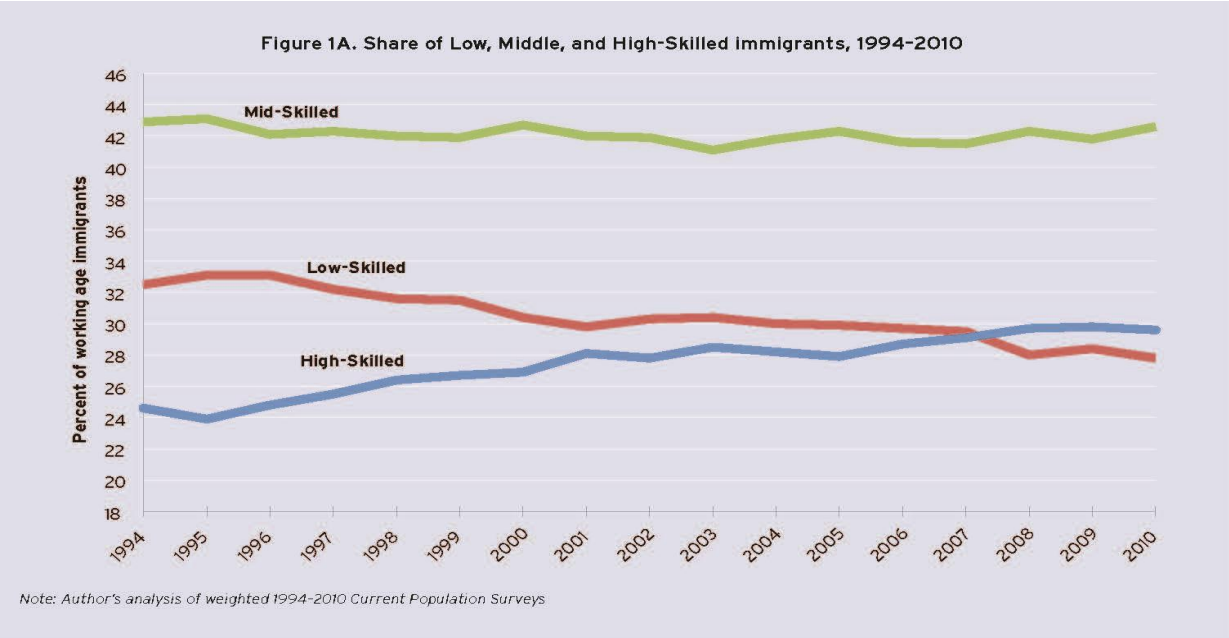
The foreign-born in St. Louis as well as other cities have different educational and occupation profiles than native-born Americans. Over two centuries ago, Adam Smith showed the importance of capitalism and the critical role of specialization as a source of efficiency gains. Peri (2008) shows that the different skill sets imply that immigrants complement rather than compete with native-born American workers; e.g., having more chefs implies you need more waiters, and this pushes up their wage. Different skill sets imply that immigration can increase both employment and wages, and not lead to unemployment as the foreign and native-born are often not in direct competition.

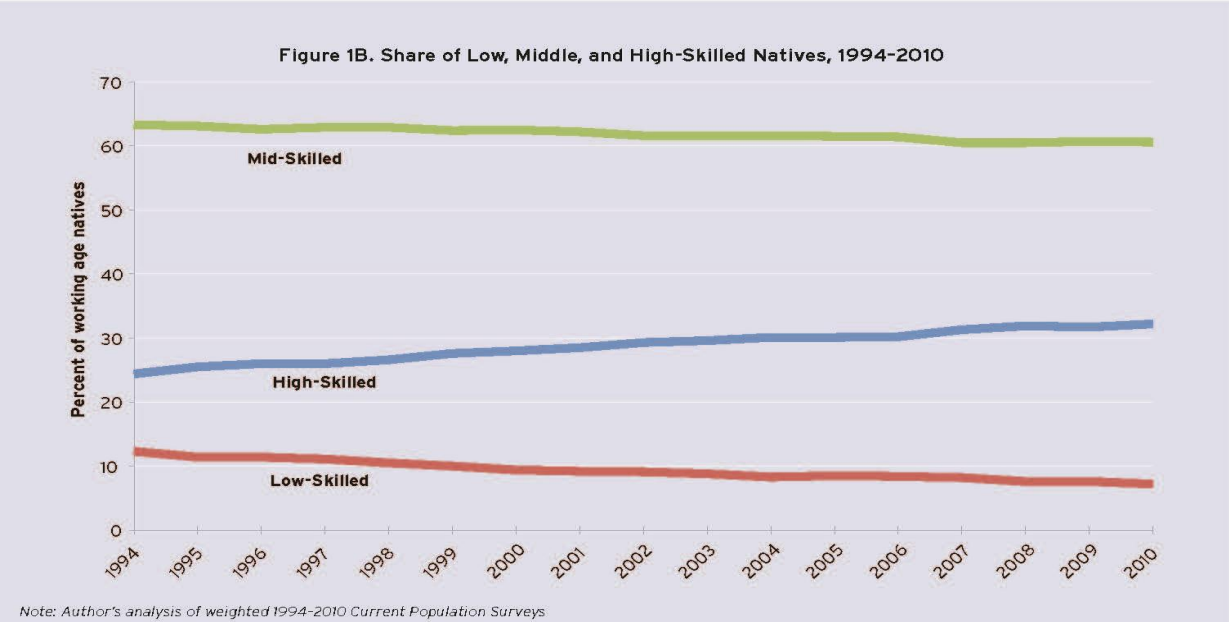
In St. Louis and elsewhere, immigrant groups tend to be both less educated (no high school degree) and better educated than native-born Americans (having college and advanced degrees). Hence, the perception that immigrants are predominantly uneducated, poorer individuals is incorrect and a misconception arising perhaps from decades old prejudices. For instance, "In 1980, there were more than twice as many low-skilled immigrants residing in the United States as high-skilled ones, and their respective shares of the working-age immigrant population differed by 20 percentage points (Hall et. al, 2011)." However, over recent years, the share of immigrants with college degrees has been increasing and the share without a high school education, declining. As a result, the low-skilled immigrant share dropped by more than 10 percentage points, while the high-skilled share increased by more than 10 percentage points. Those with "middle" skills (a high school diploma, some college, or an associate's degree) grew in absolute terms. The Figure below (Hall et. al.) illustrates these trends.

St. Louis, along with Baltimore, Milwaukee, Buffalo, Cleveland, Detroit and Pittsburgh, possesses a high skill pattern that is even more accentuated than this figure illustrates. These largely older industrial metro areas have the most highly skilled

Table III Native and Foreign-born Occupations and Income of St. Louis & Selected Cities (2010 Census)

		St. Louis	Baltimore	Boston	Chicago	Minneapolis	Milwaukee
		4.49%	9.26%	16.84%	17.62%	9.51%	6.43%
Population	Total	2815168	2714183	4560689	9474211	3286195	1557244
	Native	2688655	2462923	3792844	7804459	2973712	1457059
	Foreign-born	126513	251260	767845	1669752	312483	100185
Age 55-65	Native	12.3%	12.3%	12.1%	10.7%	11.8%	11.8%
	Foreign-born	10.2%	11.1%	11.6%	13.2%	8.1%	12.4%
Less than	Native	10.8%	11.5%	6.2%	8.6%	4.8%	8.6%
High school	Foreign-born	15.8%	18.1%	21.5%	30.3%	24.7%	32.9%
College &	Native	29.2%	33.9%	44.6%	35.8%	38.5%	31.6%
Adv. Degrees	Foreign-born	42.2%	44.7%	37.2%	28.0%	32.9%	33.0%
Graduate or	Native	10.8%	14.4%	18.9%	13.3%	12.2%	10.7%
Professional	Foreign-born	23.3%	21.6%	19.3%	11.2%	14.7%	16.2%
Self-employed	Native	4.4%	4.3%	6.2%	4.5%	4.9%	4.2%
	Foreign-born	7.1%	4.9%	6.7%	5.6%	4.4%	6.2%
Professional &	Native	10.5%	13.1%	14.5%	12.4%	11.4%	10.5%
Scientific	Foreign-born	13.6%	15.6%	16.5%	13.1%	11.7%	13.2%
Production &	Native	12.1%	22.4%	13.8%	14.3%	12.3%	11.3%
Transportation	Foreign-born	4.4%	12.3%	6.8%	5.5%	8.5%	8.5%
Government	Native	12.1%	22.4%	13.8%	14.3%	12.3%	11.3%
	Foreign-born	4.4%	12.3%	6.8%	5.5%	8.5%	8.5%
Construction	Native	5.7%	6.0%	4.9%	4.5%	4.9%	4.3%
	Foreign-born	3.5%	8.2%	5.7%	6.8%	3.9%	4.0%
Average	Native	$67619	$86955	$98135	$82053	$82270	$68571
Income	Foreign-born	$83312	$81938	$84371	$66964	$68576	$63967
Income Over	Native	18.9%	28.6%	33.0%	27.1%	25.3%	19.4%
75000	Foreign-born	22.5%	23.9%	24.6%	15.8%	17.7%	19.3%
Employed/	Native	59.3%	60.5%	62.7%	58.3%	61.1%	66.3%
Labor Force	Foreign-born	62.3%	67.7%	63.1%	63.0%	62.1%	65.7%
Unemployed	Native	7.2%	6.2%	6.5%	8.6%	6.4%	7.3%
	Foreign-born	4.4%	4.3%	7.2%	6.9%	6.5%	4.7%
Poverty rates	Native	13.2%	10.8%	9.3%	13.2%	9.9%	15.1%
Families	Foreign-born	15.9%	13.0%	15.1%	15.4%	20.1%	20.2%
Cash Public	Native	3117	3914	5034	4296	3969	4354
	Foreign-born	2253	3260	4825	3612	3739	1970
Income Mils	Foreign-born	$598985	$1282136	$3888170	$6706653	$1276928	$367152
FB/natives	Foreign-born	5.9%	11.1%	17.5%	19.5%	9.3%	6.6%





immigrant populations in the country, with a median skill ratio of 166, implying that immigrants with college degrees outnumber those without high school diplomas by 66%. In St. Louis, this ratio is even larger, as there is a 3 to 1 ratio between high-skilled (college degree and above) and unskilled (no high school diploma). Further, these 'former gateway cities', including St. Louis, are experiencing substantial native out-migration—particularly among adults with high levels of education. Immigration then has compensated for the 'brain drain' in these metropolitan areas (Frey, 1995).

For instance, Table III shows that immigrants in St. Louis similar to other large metros are 25%-30% more likely to be professionals, scientists and managers compared to native-born workers (13.6% vs. 10.5%), and 50% more likely to be production workers (16.6% vs. 10.9%). Further, the foreign-born in the St. Louis region as well as elsewhere are substantially less likely to work in sales and office occupations (15.4% of foreign-born vs. 26.6% for native-born) as well as government (4.4% of immigrants compared to 12.2% for native workers). One difference between immigrants in St. Louis and most cities is that the foreign-born in other metros are 50% more likely than native-born Americans to work in construction - this pattern is reversed in St. Louis. These different specialty patterns are important, and support the academic literature in the next section.

The foreign-born in St. Louis further are 60% more likely to be small business entrepreneurs than native-born in the region. This is consistent with a Kauffman Foundation report (Fairlie, 2010) that finds the foreign-born start significantly more new business ventures than native-born Americans. Further, while new business startups rates have been declining for native-born Americans, startup rates for immigrants have been increasing steadily. As a result, in 1996, immigrants comprised 14% of new businesses but this has risen to 29.5% by 2010, nearly twice their share of population. As a result of low immigration, St. Louis has a relative paucity of entrepreneurs or self-employed. If St. Louis had the same immigration share as other cities in the top 20, we would have roughly 25,000 foreign-born entrepreneurs, increasing the total share of entrepreneurs from 4.7% to 5.7% of the workforce. Since the U.S. average is 6.3%, higher immigration could eliminate more than half the region's entrepreneurial shortage.

Due to their high skill and education levels, immigrants in the St. Louis region earn $15,000 more than native-born Americans ($83,312 compared to $67,619). Their labor force participation rates are higher, and their unemployment rates lower than native-born Americans. Further, while a higher percentage is poor, immigrants receive less cash assistance from the government.

Additionally, the last two rows document that immigrant earnings in St. Louis total $6 billion dollars or 6.4% of the region's income. Since they comprise 4.5% of the population, they contribute 29% more to the region's income than the average native-born American. If St. Louis had the same immigrant share as other cities in the top 20, its income would be $24 billion higher in the region. This implies substantially greater spending on products produced by St. Louis businesses would have occurred if the region had more foreign-born. Overall, the Census data presents a very positive picture of the economic contribution of immigrants in the St. Louis region, and they contribute more to the system then they receive in benefits.

Table IV details the economic contribution of immigrants to Missouri and the three largest counties in the region. Immigrants are a higher percentage in St. Louis City and County than the rest of the metro area or Missouri. Immigrants in all regions tend to be production workers, and have families whose members work with earnings. They are less likely to be aging baby boomers.

Immigrant patterns however tend to differ in several ways throughout the region. The ratio of naturalized to non-citizens for both the U.S and the overall St. Louis MSA is 40%-45%, but in St. Charles, it is 53% and only 35% in St. Louis City. Naturalization implies the foreign-born have become United States citizens and have all the rights and privileges of native-born Americans including the right to vote. It is highly related to when immigrants arrive in the U.S., and indicates that St. Louis City has relatively new arrivals compared to the rest of the region. Naturalized citizens in the St. Louis County and metro area tend to be fairly well off, with an average income exceeding $100,000. Further, 37.1% of St. Louis County's naturalized citizens, compared to 23.5% of its native-born, exceed $75,000, and provides convincing evidence that the foreign-born in St. Louis have succeeded and are significantly and positively contributing to the metro's business environment.

In St. Charles, native-born Americans are more than three times more likely to have construction jobs than foreign-born; whereas, in St. Louis City, like the nation (but unlike St. Louis County), immigrants are more likely to be employed in construction. St. Louis City is currently experiencing a dearth of self-employed among

both foreign and native-born Americans. It further has a relative shortage of foreign-born professionals, scientists and managers and less immigrants earning over $75,000 than native-born Americans. In St. Charles, the foreign-born are relatively scarce, tend to have lower incomes and are more likely to be unemployed.

Table IV Native and Foreign-born Occupations and Income of St. Louis

		Missouri	St. Charles County	St. Louis County	Saint Louis City	Saint Louis Metro
Foreign-born Population		216,698	12,034	62,114	21,256	126,258
% of Population		3.8%	3.6%	6.6%	7.1%	4.6%
Naturalized		90,473	6,254	29,384	7,418	59659
Not a Citizen		126,225	5,780	32,730	13,838	66854
Boomers 55-64	Native	11.6%	10.9%	12.2%	10.1%	11.5%
	Foreign-born	9.1%	8.4%	10.1%	8.6%	9.5%
Employment	Native	59.8%	68.7%	61.5%	57.1%	62.2%
	Foreign-born	63.6%	66.5%	66.0%	61.1%	65.2%
Unemployment	Native	7.5%	5.6%	7.3%	13.2%	7.8%
	Foreign-born	5.6%	6.8%	4.5%	6.2%	4.7%
Production, Trans.	Native	12.9%	9.2%	8.2%	10.5%	10.9%
	Foreign-born	19.7%	13.1%	15.4%	19.9%	16.6%
Self-Employed	Native	6.2%	4.1%	4.7%	4.4%	4.5%
	Foreign-born	7.5%	6.9%	6.8%	4.4%	6.4%
Professionals, Scientists	Native	8.6%	10.2%	11.9%	11.2%	11.4%
	Foreign-born	12.1%	19.8%	14.9%	9.7%	14.9%
Construction	Native	7.0%	7.2%	4.9%	4.1%	5.2%
	Foreign-born	6.0%	2.0%	2.5%	7.7%	3.4%
% of Families	Native	78.4%	84.9%	80.1%	76.8%	80.5%
With Earnings	Foreign-born	86.3%	89.3%	85.6%	82.3%	85.8%
Mean Earnings	Native	$61,929	$81,906	$80,842	$50,552	$67619
	Foreign-born	$84,670	$74,791	$86,256	$53,859	$83312
Earnings Over	Native	14.0%	23.4%	24.3%	11.6%	18.9%
$ 75000	Foreign-born	16.1%	25.2%	26.6%	10.6%	22.5%
Poverty rates	Native	13.8%	4.9%	9.4%	25.9%	13.2%
	Foreign-born	18.5%	8.7%	11.7%	28.0%	15.9%
Food Stamps	Native	11.4%	4.2%	7.9%	21.9%	9.8%
	Foreign-born	10.4%	5.1%	6.7%	19.8%	8.8%

III. Economic Research

The academic literature has focused on the impact of immigration on wages, unemployment, entrepreneurship and housing. As a result of specialization encouraging different skill patterns, most studies -- including Card and DiNardo (2000), Card (2001, 2007), Card and Lewis (2005), Toussaint-Comeau (2006) and Shierhotz (2010) -- find either positive effects of immigration on wages or little impact of immigration on less educated workers, and contradict the work of Borjas (2003) and Lawrence F. Katz (2007).

David Card (2007) finds that immigration's influence on wages depends on skill level, and that overall, there are modest positive effects. Card and Dinardo show "our point estimates suggest that, if anything, increases in immigrant population in specific skill groups lead to small increases in the population of native-born individuals of the same skill group. Indeed, we find that immigration has had quite significant impacts on the skill distribution of various MSA's." West (2011) reports that immigration has created wage gains for "90 percent of native-born Americans with at least a high-school diploma."

Immigrants increase both the supply of labor, which tends to depress wages for workers with similar skill profiles, and also increases the demand of workers as they consume goods and services, which creates more jobs and increases wages. Ultimately, the effect of immigration therefore depends on which is greater, increases in supply or demand. Note, both increases in supply and demand for labor boost income and job creation for the region.

Ottaviano and Peri (2006, 2008), Peri (2007, 2009) Peri and Sparber (2009) show that the demand effect dominates, as the increased supply's impact on lower wages tends to be relatively modest. This occurs because of an important phenomenon, the presence of what are known as "complementary" workers, namely those who add value to the work of others. Immigrants tend to be complementary workers since they tend to be low-skilled or high-skilled, and as a result do not compete for the same jobs. Peri finds that low-skilled immigrants usually fill gaps in American labor markets and generally enhance domestic business prospects rather than destroy jobs. For example,

an immigrant will often take a job as a construction worker, a drywall installer or a taxi driver, while a native-born worker may wind up being promoted to supervisor. The less educated foreign-born workers specialize in occupations intensive in manual physical labor skills while natives pursue jobs more intensive in communication-language tasks. This pattern of production versus sales/office work is also observed in the St. Louis region. In contrast, the demand effect of immigrants tends to be large, as they work and consume their income largely in the local region; the demand effect often has multiplier effects, which means the immigrant's purchase of pizza at the local restaurant, leads to jobs for cooks, and other service employees throughout the region. As a result, the evidence demonstrates that increases in immigration leads to higher wages for all employees in the region.

A recent study by Brookings Institution (2012) using new Census data confirms these arguments:

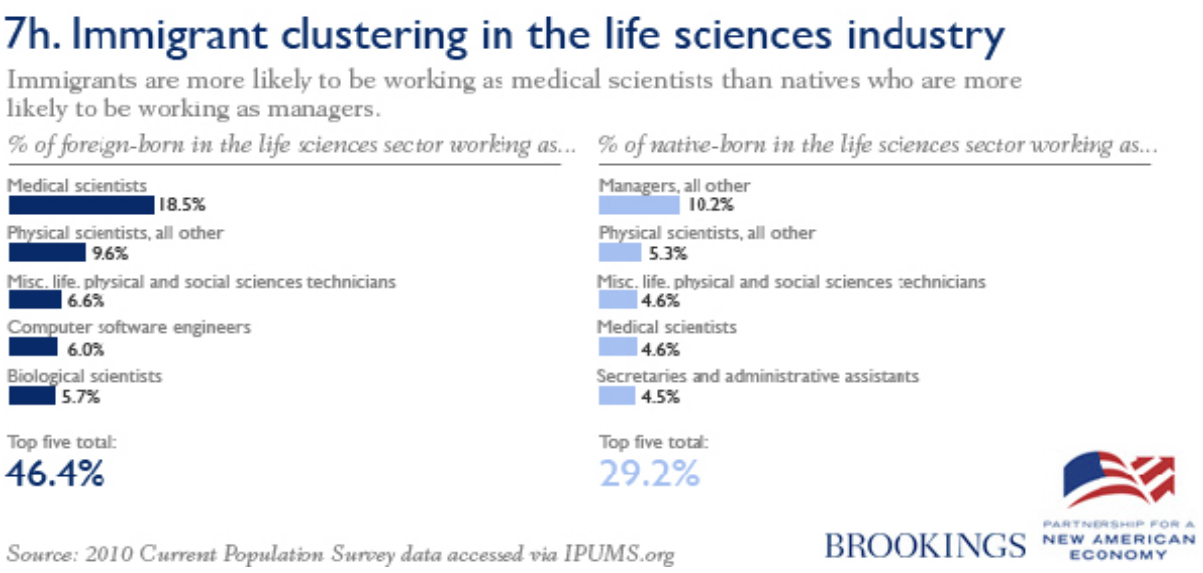
Immigrants and native-born workers tend to work in different jobs within both high- and low-skilled industries.

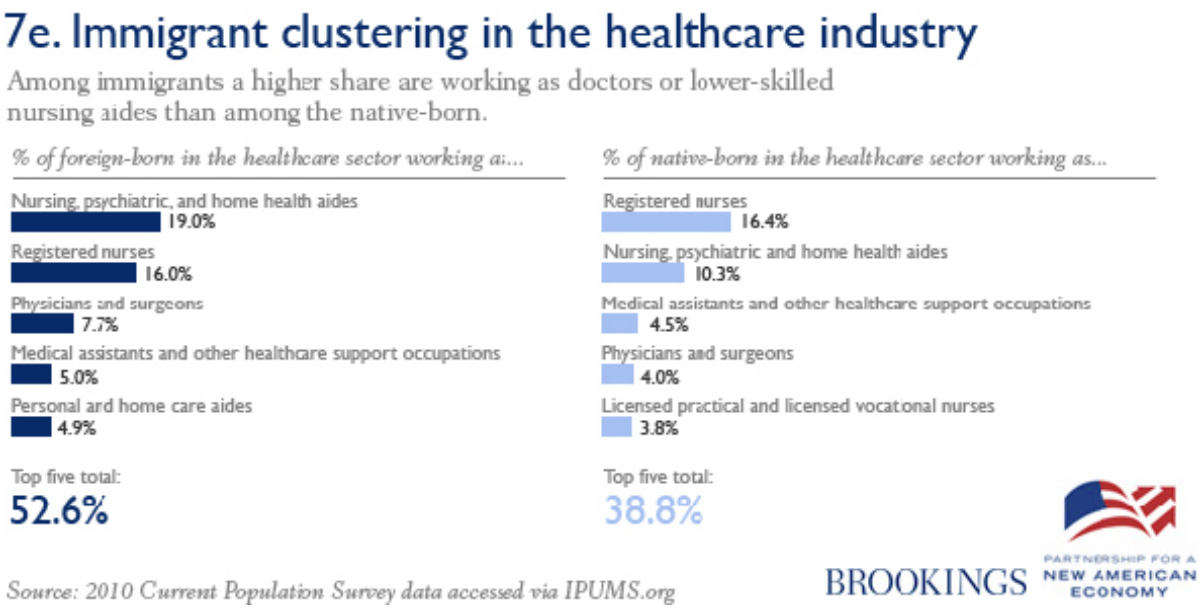
- In the healthcare industry, immigrants are nearly twice as likely as native-born workers to work as physicians and surgeons (7.7% and 4.0%, respectively), but also nearly twice as likely as native-born workers to work as home health aides. (19.0% and 10.3%, respectively)
- In construction, immigrant workers are most likely to work as laborers (25.6% of all immigrants) while native-born workers are most likely to work as managers. (14.3% of all native-born)
- In the food service industry, immigrants are more than twice as likely as native-born workers to work as cooks (31.5% and 14.2%, respectively), but more than 40 percent less likely than native-born workers to work as waiters or waitresses. (15.7% and 24.5%, respectively)
- In the life sciences industry, immigrant workers are most likely to work as medical scientists (18.5% of all immigrants) while native-born workers are most likely to work as managers. (10.2% of all native-born)
- In the accommodations sector, immigrant workers are nearly three times as likely as native-born workers to work as maids and housekeeping cleaners. (39.7% and 15.9%, respectively)

Immigrants and native-born workers have different levels of education.

- In the high-skilled sectors studied, immigrants are slightly more educated than native-born workers, including in the information technology industry, where 87.2% of immigrant workers have a bachelor's degree or higher, compared with 72.5% of native-born workers.

- In the low-skilled sectors studied, immigrants are less educated than native-born workers, including in the agriculture industry, where 74.6% of immigrant workers lack a high school diploma, compared with 30.1% of native-born workers.
- Overall, immigrants are far more likely to lack a high school diploma, with 28.9% of immigrants lacking a high school diploma compared with 7.4% of the native-born, and they are equally likely to have a graduate degree, with 11.0% of immigrants and 10.7% of native born holding graduate degrees.





St. Louis has a comparative advantage in both health care and life sciences, and wants to further develop these sectors into large-scale clusters. As Brookings shows, immigrants cluster in these industries. To encourage companies to move here, then it is clear, we have to attract manpower, which includes foreign-born workers.

Card and Dinardo (2000) reject the "demographic balkanization" theory that immigrant inflows lead to native outflows. This work contrasts earlier findings by Frey (1995, 1996) as well as Borjas, Katz and Freeman (1997) who report a strong correlation between immigrant inflows and native outflows. Wright et al., (1997) also reexamine Frey's specifications and conclude that native outflows from large metropolitan areas are unrelated to immigrant inflows. Likewise, Kristin F. Butcher and Card (1991) find no evidence that native population flows are related to immigration inflows. The next section also provides more recent evidence of this lack of causation – as a result, immigration increases population growth.

The Kauffman Institute (Fairlie, 2011) finds that immigrants tend to be more entrepreneurial and start their own businesses at nearly twice the rate of other Americans. Recent work at the Brookings Institution (Greenstone and Looney, 2010) shows that "on average, immigrants raise the overall standard of living of American workers by boosting wages and lowering prices", and that on average, "Immigrants are both better and worse educated than U.S.-born citizens. At one end of the spectrum, more than 11% of foreign-born workers have advanced degrees —slightly above the fraction of Americans with post-college degrees. Even more striking, more than 1.9% of immigrants have Ph.D.s almost twice the share of U.S.-born citizens with doctorates (1.1%). At the other end of the spectrum, however, immigrants are much more likely than U.S.-born citizens to have less than a high school education." As we discussed earlier, St. Louis displays this similar pattern: foreign-born workers tend to either possess college/advanced degrees or no high school diploma.

Hunt and Gauthier-Loiselle (2010) determine that skilled immigrants increase innovation in the United States. Immigrants patent at double the native rate, due to their disproportionately high share of science and engineering degrees. Using a 1940–2000 state panel, they find that a 1% increase in the share of immigrants with college degrees increases patents per capita by 9–18%. They also offer some tantalizing facts on the importance of these effects for the United States: 50% of all new Ph.Ds. in engineering; 45% of all new Ph.Ds. in life sciences, physical sciences, and computer sciences, and 40% of all new master's degrees in computer sciences, physical sciences, and engineering are awarded nationally to foreign-born students. Immigrants in the

U.S. were twice as likely to have received Nobel prizes from 1990–2000 (Peri, 2007), to be physicians (Hunt and Gauthier-Loiselle, 2010), or to be founders of public venture-backed companies in 1990–2005 period (Anderson and Platzer, 2006), or to be entrepreneurs of new high-tech companies with sales exceeding $1 million (Vivek Wadhwa et al., 2007). Immigrants are further heavily over-represented among members of the National Academy of Sciences and the National Academy of Engineering, among authors of highly cited science and engineering journal articles, and among founders of biotech companies (Stephan and Levin, 2001).

An American Enterprise Institute study (2011) finds that immigrants with advanced degrees boost employment for native-born Americans. This effect is most dramatic for immigrants with advanced degrees from U.S. universities working in science, technology, engineering, and mathematics (STEM) fields. An additional 100 foreign-born workers in STEM fields with advanced degrees from U.S. universities is associated with an additional 262 jobs among U.S. native-born. Temporary foreign-born workers—both skilled and less skilled—boost U.S. employment. States with greater numbers of temporary workers in the H-1B program for skilled workers and H-2B program for less-skilled nonagricultural workers had higher employment among U.S. native-born. Specifically: adding 100 H-1B workers results in an additional 183 for U.S. native-born, and adding 100-H-2B workers leads to 463 jobs for native-born workers.

Additionally, highly educated immigrants pay far more in taxes than they receive in benefits. In 2009, the average foreign-born adult with an advanced degree paid over $22,500 in federal, state, and FICA (Social Security and Medicare) taxes, while their families received benefits one-tenth that size through government transfer programs like cash welfare, unemployment benefits, and Medicaid.

Immigration boosts housing prices in all metro areas (Saiz, 2003, 2006; Greulich et al., 2004). Follain (2010) shows that home prices decline sharply in markets that suffer substantial and persistent decreases in population or employment. Such decreases in population and employment trigger declines in the demand for housing, and because people are more mobile than houses, it takes many years for supply and demand to become balanced again, and for house prices to return to prior levels.

Follain estimates a 1% decrease in population reduces home prices by 4.32% over a three-year period, whereas a 1% increase in population leads to 1.8% higher home prices. Using these estimates, if the St. Louis region experiences immigrant inflows similar to other cities in the top 20, it would over the next three years eliminate more than half the vacancies in the region, and over five years most vacancies would be occupied. Overall, this increased immigration inflow would not only reverse the housing slide, but over a decade lead to housing prices rising 26% in St. Louis city and 20% in St. Louis County relative to no immigration flows.

Glaeser and Gottlieb (2009) offer an extensive literature survey and new empirical evidence that emphasize the critical role agglomeration economies play in a city's economic development. "The largest body of evidence supports the view that cities succeed by spurring the transfer of information", and thus bigger cities tend to attract big companies, and a well-educated highly trained work force. Paul Krugman, who won the 2008 Nobel Prize in Economics, argues that cities thrive on density, and that agglomeration economies are an important driver of regional economic growth and decline. Population decline in one city can lead to a substantial and irreversible shift from the previous 'king' city to the new one."

Work by Fennelly and Huart (2010) highlights the economic impact of immigrants in a number of regions. The foreign-born contribute $331 million in net income to Minnesota in 2010, $37 billion to the U.S., $940 million in positive net fiscal impact to Arizona, $1.4 billion to Arkansas and billions of federal, state and social security taxes to California. Further, in Florida, immigrants contribute a net sum (taxes – benefits) of $1500, fueled $1.6 billion in total production in Nebraska and $229 billion in New York. Undocumented workers in Texas contributed $17.7 billion and paid more than 25% in taxes than they received in payments, while in Chicago, undocumented workers contributed more than $5 billion to the local economy.

The sharp loss of population in St. Louis City and the decline of population in the County thus has strong implications for the economic vitality of the region; in the next section, we clearly show that the lack of immigration and population growth in St. Louis leads to lower wages for everyone.

IV. Economic Impact of Immigration

What is the economic impact of immigrants on a city?

We answer this question by first examining demographic changes, including net immigration and migration flows over the last decade for the largest 50 cities, and then proceed to statistically analyze the relationship between immigration and economic activity. The top 50 cities comprise 166 million people, including 30 million immigrants, which represents 75% of immigrants in the U.S.

The Fiscal Policy Institute of Brookings (2009) reports that between 1990 and 2006, the metropolitan areas with the fastest economic growth were also the areas with the greatest increase in immigrant share of the labor force. The economies of Phoenix, Dallas, and Houston, for instance, experienced the fastest growth in immigration and averaged economic growth substantially above par during these years. By contrast, the metro areas of Cleveland, Detroit, Pittsburgh and St. Louis experienced the slowest economic growth among large metros and relatively low inflows of immigrants. Note, these examples do not provide evidence that immigration causes economic growth; however, they do suggest that healthy economies are characterized by or associated with influxes of immigrants. To provide statistical evidence of causation (e.g., that an increase in immigration leads to more job creation or higher wages), a regression needs to be estimated that controls for both domestic migration flows and simultaneity; we perform this statistical analysis in equations (1)-(16).

Table V presents the Data, and utilizes decennial Census data that represent changes over the decade, 2000-2010. Economists frequently use decennial data to examine immigration. Although most studies have examined the period 1980-1990 or 1990-2000, this study represents one of the first to use the new 2010 Census data. Employment data are from the U.S. government's BLS and income data from the BEA. Immigrants in the 50 largest metropolitan areas increased more than 25% over the decade from 2000-2010. St. Louis increase of 31,000 was less than one-fourth the average of large metros; that is, the average top 25 or 50 city experienced influxes of

Table V Largest 50 Metro Areas 2000-2010

	Net Change	Birth-Death	Net Foreign	Net Migration	Population % Change	Change for. born	Jobs created	Income Increase
Atlanta	122719	45846	21460	428620	28.9%	5.1%	85971	4248021
Austin	455329	15755	68321	234239	36.4%	5.5%	129116	1249746
Baltimore	137864	10618	45803	-36407	5.4%	1.8%	4950	2553022
Birmingham	79770	38250	14898	26934	7.6%	1.4%	-44898	1051300
Boston	196331	18995	19746	-235915	4.5%	4.5%	-47497	4392349
Buffalo	-46305	5905	10092	-55162	-4.0%	0.9%	-24037	1170109
Charlotte	414972	12274	49984	248379	31.2%	3.8%	51732	1330552
Chicago	481937	66172	37795	-561670	5.3%	4.2%	-179928	9098630
Cincinnati	162245	10939	23125	-17648	8.1%	1.2%	1290	2009651
Cleveland	-56731	48854	28922	-136943	-2.6%	1.3%	-1355	2148017
Columbus	189005	12015	40896	34204	11.7%	2.5%	29352	1612843
Dallas	128607	61114	33520	317062	24.9%	6.5%	203653	5161537
Denver	372852	21458	97814	66269	17.1%	4.5%	45249	2179343
Detroit	-49121	17997	96955	-366790	-1.1%	2.2%	-410463	4452558
Hartford	47376	32917	31312	-9349	4.1%	2.7%	11459	1148622
Houston	115207	55206	29963	243567	24.4%	6.4%	366999	4715417
Indianapolis	218555	11772	28606	72517	14.3%	1.9%	6477	1525103
Jacksonville	205394	68191	15968	126766	18.3%	1.4%	40606	1122750
Kansas City	231160	12682	35669	31747	12.6%	1.9%	-23128	1836425
Las Vegas	527096	13484	88439	311463	38.3%	6.4%	127664	1375738
Los Angeles	509169	11041	83267	-1365120	4.1%	6.7%	-162048	1236562
Louisville	96163	48692	17024	34381	8.3%	1.5%	-16939	1162414
Memphis	99730	85501	20490	-8583	8.3%	1.7%	-22417	1205196
Miami	539059	21142	52200	-287135	10.8%	10.4%	157033	5007992
Milwaukee	58924	79960	27832	-74453	3.9%	1.9%	-53409	1500743
Minneapolis	301002	24826	87393	-19731	10.1%	2.9%	5105	2968812
Nashville	270475	92538	37656	123199	20.6%	2.9%	50860	1311789
New Orleans	-126531	50577	14730	-301731	-9.6%	1.1%	-92538	1316512
NY-NJ	746357	10674	11161	-1962055	4.1%	6.1%	102616	1832343
Oklahoma	131856	72812	24686	41082	12.0%	2.3%	-6128	1095422
Orlando	437863	11876	98233	225259	26.6%	6.0%	126188	1644558
Philadelphia	281094	20774	12705	-115890	4.9%	2.2%	-46370	5687158
Phoenix	111220	35622	22045	543409	34.2%	6.8%	320850	3251888
Pittsburgh	-76129	-28994	19792	-52028	-3.1%	0.8%	-24324	2431086
Portland	313958	12942	73697	121957	16.3%	3.8%	35497	1927883
Providence	17645	40116	36178	-49168	1.1%	2.3%	-15592	1582997
Raleigh-Cary	328717	91627	38323	194361	41.2%	4.8%	70264	797110
Richmond	141243	53649	17712	75886	12.9%	1.6%	51295	1096944
Riverside	888296	34081	94356	469093	27.3%	2.9%	165058	3254817
Sacramento	330503	13210	66774	141117	18.4%	3.7%	39730	1796852
St. Louis	130326	10567	31067	-43750	4.8%	1.2%	-79687	2698664
Salt Lake	161410	13654	42771	-34428	16.7%	4.4%	-197772	968883
San Antonio	360412	15944	33261	177447	21.1%	1.9%	130999	1711716
San Diego	239959	24182	10344	-126860	8.5%	3.7%	71622	2813834
San Francisco	194108	25134	26651	-347375	4.7%	6.5%	-197772	4123745
San Jose	103882	17443	17643	-240012	6.0%	10.2%	-139219	1735818
Seattle-	363951	19679	13136	40741	12.0%	4.3%	137619	3043897
Tampa-St.	351258	27635	76592	260333	14.7%	3.2%	-14309	2396014
Virginia	97573	10704	2013	-20005	6.2%	0.1%	60909	1576925
Washington	680167	44110	32047	-107305	14.2%	6.7%	276626	4796074
AVERAGE	326354	20804	13557	-39710	12.9%	3.7%	22139	2999531

approximately 225,000 or 136,000 immigrants, respectively.

A significant 49% correlation exists between increases in immigration and increases in population (columns 2 and 4), but a fairly weak, 15% relationship occurs between migration and population changes (columns 2 and 5). Many of the nation's largest cities, including New York, Los Angeles, Chicago and Philadelphia, suffered from negative migration, but still gained people, largely due to immigration.

St. Louis's increase of 130,000 residents --including 31000 immigrants, which represented 1.2% of the population -- was relatively small. Cities that lost population: Buffalo, Cleveland, Detroit, Pittsburgh and New Orleans all received relatively few immigrants as a share of population. Columbus, Kansas City and Nashville, with populations substantially smaller than St. Louis, experienced net changes in population approximately double St. Louis. All three cities also had larger influxes of immigration. A number of cities including Indianapolis, Louisville and Nashville doubled their foreign-born over the decade, and passed 100,000 for the first time.

Job Impact of Immigration

Immigration increases Employment

The statistical evidence shown below in equations (1A)-(1D) establish that both domestic migration (MIG) and immigration (IMG) changes are very significant factors in explaining job creation (EMP) over the last decade. Equation (1A) implies that an increase of 1000 immigrants leads to 660 jobs in a city, and equation (1B) shows that a 1% increase in immigration leads to a .76% increase in job creation.

$$\Delta EMP = \underset{(17621)}{-47259} + \underset{(0.11)}{.66}\Delta IMG + \underset{(0.07)}{.37}\Delta MIG \qquad \text{Adj. } R^2=52\% \qquad (1A)$$

$$\%\Delta EMP = \underset{(0.01)}{-.023} + \underset{(0.13)}{.76\%}\Delta IMG + \underset{(0.08)}{.70\%}\Delta MIG \qquad \text{Adj. } R^2=62\% \qquad (1B)$$

The regression results support the observation that a central reason for lackluster employment growth in St. Louis over the past decade is due to low immigration inflows. Average immigration for other large cities (in the top 20) is 5.3% over this period. If St. Louis had received immigrants at this rate, the region would

have experienced an influx of 144,000 immigrants. In this case, the regions' employment growth rate is estimated to have grown 91-95000 using (1A) or (1C); employment growth would have increased 4%-7.4% using (IB) or (ID).4 Instead, over the past decade, employment growth for St. Louis was -3.2% compared to +2% for the country. Therefore, below average immigration significantly explains the low employment growth in the region.

$$\Delta EMP = \underset{(17621)}{-45227} + \underset{(0.11)}{.62}\Delta IMG + \underset{(0.06)}{.41}\Delta MIG \quad \text{IV Estimation} \quad (1C)$$

$$\%\Delta EMP = \underset{(0.01)}{-.05} + \underset{(0.36)}{1.51}\%\Delta IMG + \underset{(0.09)}{.69}\%\Delta MIG \quad \text{IV Estimation} \quad (1D)$$

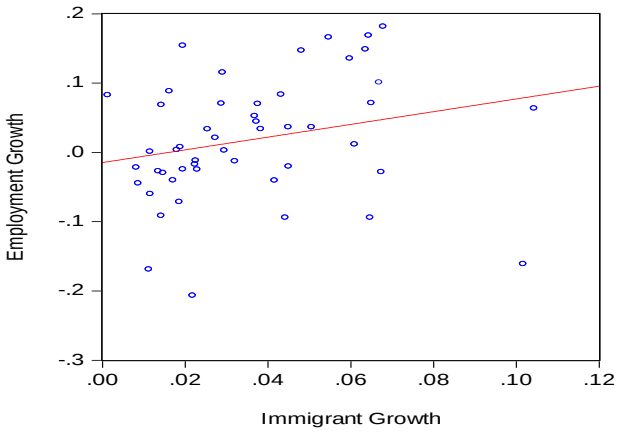
Equations (1C) and (1D) use an instrumental variables (IV) estimation approach.[5] An IV approach is appropriate when feedback or simultaneity can occur between the right hand side variable, immigration, and the left-hand side variable. This happens when there is simultaneity between immigration and economic growth due for instance to a common shock that affects both at the same time. For instance, a negative shock to the car industry implies that Detroit concurrently will suffer both an outflow of people and lower growth, while booming cities on the West Coast simultaneously attract immigrants and increases in growth. This regression approach controls for these simultaneous effects.

The IV estimates tend to be relatively close to the standard regression results, and provides evidence that the OLS regression estimates are relatively accurate and unbiased. The close relationship across the 50 largest metro areas between immigration and employment growth is illustrated in Figure 2.

[4]White heteroskedastic-consistent standard errors are reported in parenthesis, and the variables are significant if the coefficient is more than double the standard error. The *t* statistics for immigration for both equations are above 6, and significant at the 99% level.

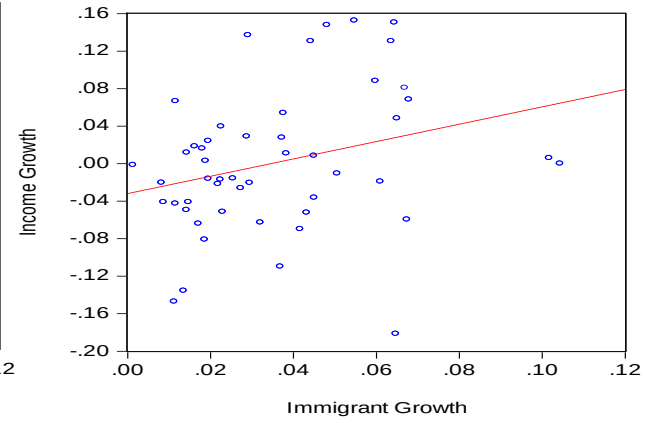
[5] In this case, R^2 statistics are not applicable. Similar to the academic literature (see Card and Dinardo, 2000), population growth and immigrant share from the last decade serve as instruments; additionally, we also use the unemployment rate in 2000 to control for initial economic conditions.

Figure 2
Relationship between Immigration and Employment Growth



Correlation=43%

Figure 3
Relationship between Immigration and Income Growth



Correlation=45%

Immigration increases Income Growth of a Metro

Equations (2A)-(2D) present the relationship between immigration and income (INC). A 1000 person increase in immigration raises the personal income of a metro area by $11,570 (income is in 1000s). The coefficient estimates are very significant and the adjusted R^2 statistics high, indicating that immigration and migration changes are closely related to changes in income.

The IV estimates again are very close to the standard regression estimates, and support the robustness of the findings. If St. Louis experiences immigrant inflows equivalent to other cities in the top 20, our income would increase by $1.7 billion due to immigration. A 1% increase in immigration implies a .8% increase in personal income. An immigration growth comparable to other large metros indicates that St. Louis income would be 4% higher over the decade. This would close approximately 20% of the gap between the region's slow income growth and the rest of the country. Figure 3 illustrates the strong positive relationship between income and immigration growth.

$$\Delta INC = \underset{(17621)}{1366489} + \underset{(0.99)}{11.57}\Delta IMG - \underset{(0.52)}{1.62}\Delta MIG \qquad \text{Adj. } R^2=91\% \qquad (2A)$$

$$\%\Delta INC = \underset{(0.014)}{-.046} + \underset{(0.34)}{.82}\%\Delta IMG + \underset{(0.084)}{.57}\%\Delta MIG \qquad \text{Adj. } R^2=52\% \qquad (2B)$$

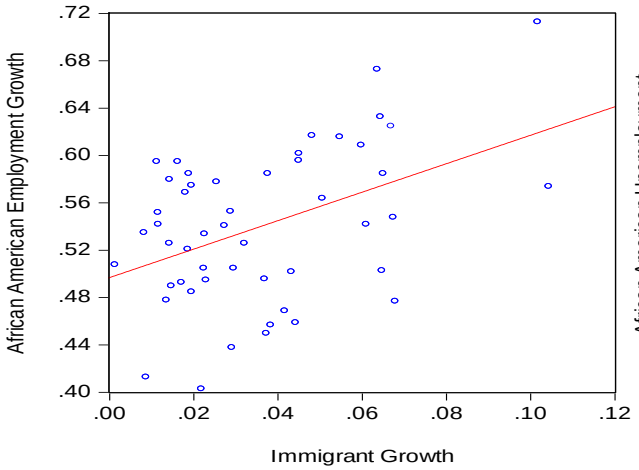
$$\Delta INC = 1685128 + 9.96\Delta IMG - 1.61\Delta MIG \quad \text{IV} \quad (2C)$$
$$(22613) \quad (1.66) \quad (0.68)$$
$$\%\Delta INC = -.041 + .77\%\Delta IMG + .61\%\Delta MIG \quad \text{IV} \quad (2D)$$
$$(0.015) \quad (0.39) \quad (0.08)$$

Immigration increases Jobs and Lower Unemployment for African Africans

Equations (3A)-(3D) delineate the relationship between immigration and African-American economic welfare. Due to data availability, we have 31 cities and report only percent changes. Equations (3A) and (3C) as well as Figure 4 show that a significant positive relationship exists between immigration and employment growth for African Americans.

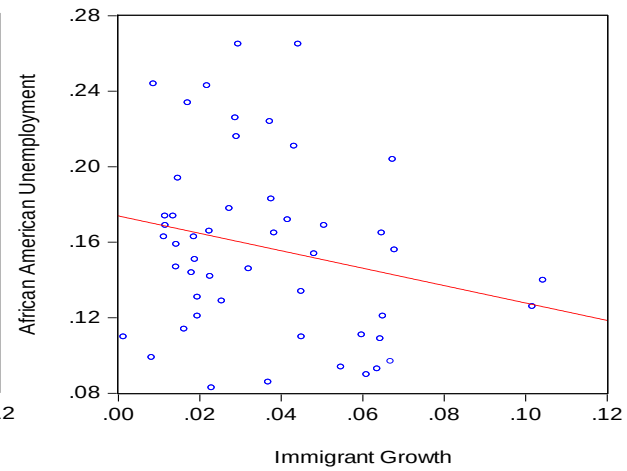
$$\%\Delta AAEMP = .50 + 1.18\%\Delta IMG + .08\%\Delta MIG \quad \text{Adj. } R^2=17\% \quad (3A)$$
$$(0.02) \quad (0.36) \quad (0.08)$$
$$\%\Delta AAUN = .17 + -.45\%\Delta IMG - .03\%\Delta MIG \quad \text{Adj. } R^2=4\% \quad (3B)$$
$$(0.02) \quad (0.22) \quad (0.06)$$
$$\%\Delta AAEMP = .48 + 1.59\%\Delta IMG + .08\%\Delta MIG \quad \text{IV} \quad (3C)$$
$$(0.02) \quad (0.44) \quad (0.11)$$
$$\%\Delta AAUN = .18 + -.63\%\Delta IMG - .04\%\Delta MIG \quad \text{IV} \quad (3D)$$
$$(0.01) \quad (0.31) \quad (0.06)$$

Figure 4
African-American Job Growth and Immigration Growth



Correlation=44%

Figure 5
African-American Unemployment and Immigration Growth



Correlation=-22%

Equations (3B) and (3D) along with Figure 5 illustrate that immigration decreases unemployment in the African American community. Expanding immigration by 4%

(typical of most large cities) can lower the unemployment rate for African Americans by a significant 2.5% in St. Louis.

Additional Economic Impact

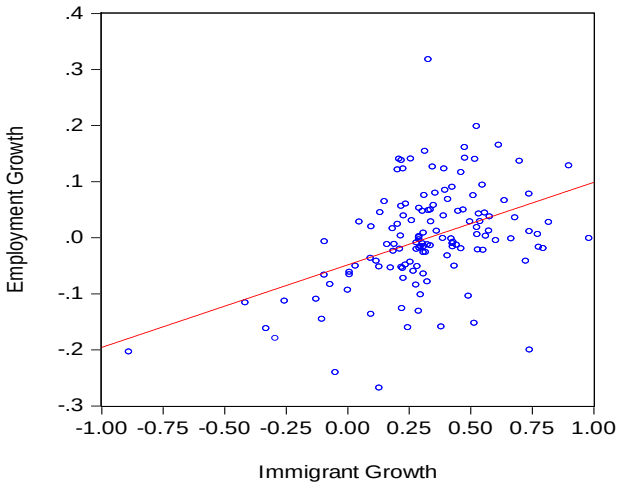
The economic effects of immigration are further explored with two larger samples. We present these two additional datasets for several reasons. The second dataset uses 134 cities and represents more than 85% of all immigrants in the U.S. This larger sample allows for more accurate estimation, but data are not available on domestic migration flows. The BLS provides data on wages, unemployment and labor force participation rates. The third dataset considers a much larger annual dataset of 363 cities from 2005-2010, and for 198 cities from 2000-2010. This dataset has 1960 observations and its advantages are that it uses annual data, has migration information and is substantially larger. Very few academic studies have employed a sample of cities this large, and none have used recent annual data as the Census only began reporting annual immigration flows in 2000 for some cities, and most metros by 2005.

Equations (4A)-(4B) demonstrate a significant, positive and economically large impact of immigration on employment. An increase of 1000 workers creates 1970 jobs; according, if St. Louis had immigration of 144,000 (not 31,000), our region is estimated to have created 262,000 more jobs over the decade. If St. Louis had more typical immigration patterns, it would have experienced an 3-5% increase in job creation. Figure 6 illustrates this positive significant relationship across cities. Equations (5A) and (5B) and Figure 7 demonstrate that increases in immigration raises the labor force participation rate considerably, and implies that immigration leads to more jobs for native-born Americans.

$\Delta EMP = 532425 + 1.97\Delta IMG$ (64640) (0.15)	Adj. R^2=53%	(4A)
$\%\Delta EMP = -.03 + .61\%\Delta IMG$ (.01) (0.27)	Adj. R^2=12%	(4B)
$\Delta EMP = 217422 + 5.26\Delta IMG$ (16919) (2.28)	IV	(4C)
$\%\Delta EMP = -.06 + 1.31\%\Delta IMG$ (.01) (0.34)	IV	(4D)
$DLFP = -.002 + .62\%\Delta IMG$ (.001) (0.26)	Adj. R^2=13%	(5A)

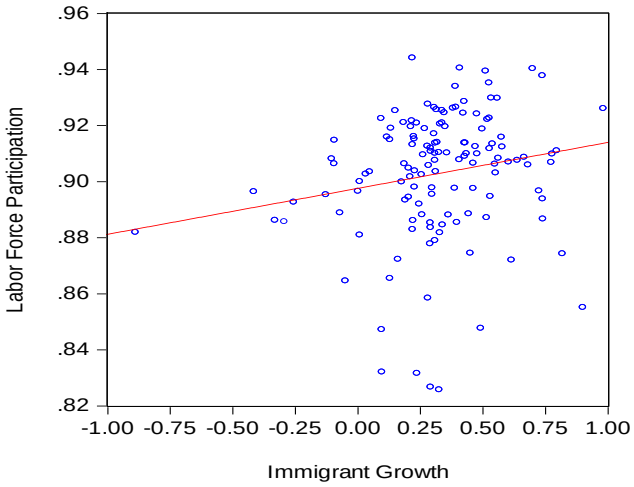
DLFP = -.024 + 1.07%ΔIMG IV (5B)
(.001) (0.32)

Figure 6
Employment Growth
and Immigration Growth



Correlation=43%

Figure 7
Labor Force Participation Growth
and Immigration Growth



Correlation=19%

Equations (6A)-(6D) indicate that an increase in immigration significantly augments income. The coefficient estimates show that an increase in immigration increases a cities GDP by $30,700-74,240 person. These estimates are larger than 2A-2D and are more consistent with the data, as average immigrant earnings approximate these estimates. A 1% increase in immigration increases income by .7%, implying that if St. Louis had an immigration rate of other large cities, its income over the past decade would be 7% higher (using the IV estimates in 6D) and income would be $11.4 billion higher (using the IV estimates in 6C). These are economically substantial estimates, and imply that immigration has very sizeable positive effects on a metro's output.

ΔINC = 5947530 + 30.70ΔIMG Adj. R^2=59% (6A)
(839583) (3.22)

%ΔINC = .27 + . 70%ΔIMG Adj. R^2=7% (6B)
(.01) (0.20)

ΔINC = 1774619 + 74.24ΔIMG IV (6C)
(21691) (34.01)

%ΔINC = .23 + 1.52%ΔIMG IV (6D)
(.02) (0.04)

Immigration Increases Wages

Consistent with the academic literature, we also find that immigration has modest positive effects on wages. An increase in 1000 immigrants will raise the wage rate by $20. Low immigrant inflows over the last decade in St. Louis led to an increase of $600 per person. However, given comparable immigration rates of other large metros, wages would have increased by $2800; a very significant sizeable amount of money. Equation (7B) and (7C) shows that cities with a higher immigrant share in 2000 had greater wage increases from 2000-2010; e.g., (7C) finds that if St. Louis had an immigrant share equal to other large cities, its wage increases would be 14% higher.

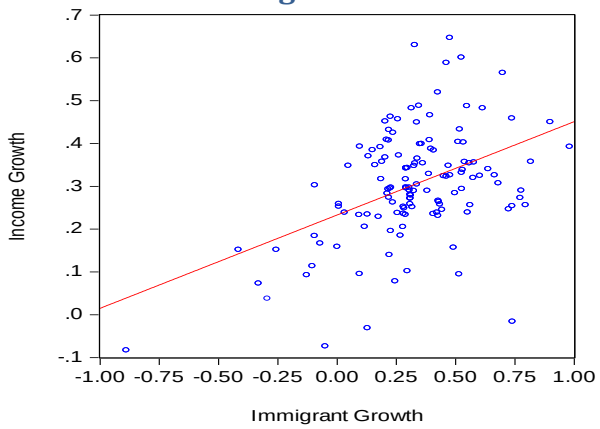
$$\Delta WAGE = \underset{(216)}{11286} + \underset{(0.006)}{.02}\Delta IMG \qquad \text{Adj. } R^2=6\% \qquad (7A)$$

$$\Delta WAGE = \underset{(315)}{11286} + \underset{(2810)}{7104}IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=3\% \qquad (7B)$$

$$Log(Wage2010) = \underset{(.02)}{10.62} + \underset{(.22)}{.46}IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=8\% \qquad (7C)$$

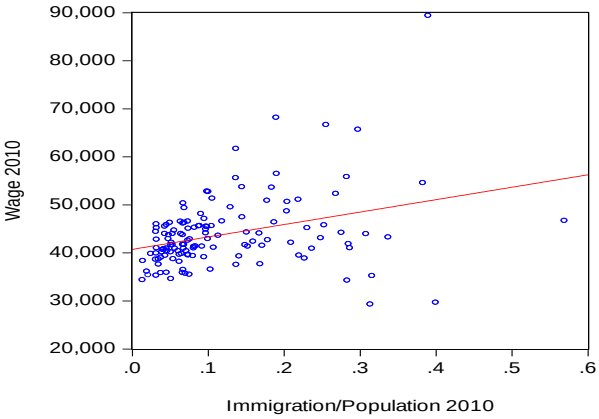
$$DLFP = \underset{(.001)}{-.002} + \underset{(0.26)}{.62}\%\Delta IMG \qquad \text{Adj. } R^2=13\% \qquad (7D)$$

Figure 8
Income Growth and Immigration Growth



Correlation=45%

Figure 9
Wages in 2010 and Immigration share of Population



Correlation =32%

Figures 8 and 9 illustrate the positive relationship between immigration and wages; higher immigration is strongly correlated with higher wage growth, and more immigrants in a city are significantly related to higher wages. Lastly, higher

immigration growth leads to higher labor force participation rates, which means higher employment for everyone. For conciseness, we do not report the IV results.

Results further highlight that metros with higher immigrant shares in 2000 had higher employment and income growth over the next decade, implying that cities with plenty of immigrants are more likely to grow faster than other cities. This relationship is significant and shown in Figures 9 and 10, and Equations: (8A)-(9B). The relationship further is not subject to endogeneity problems as IV estimation (not shown for conciseness) also reveals a significant relationship between employment, income and immigration.

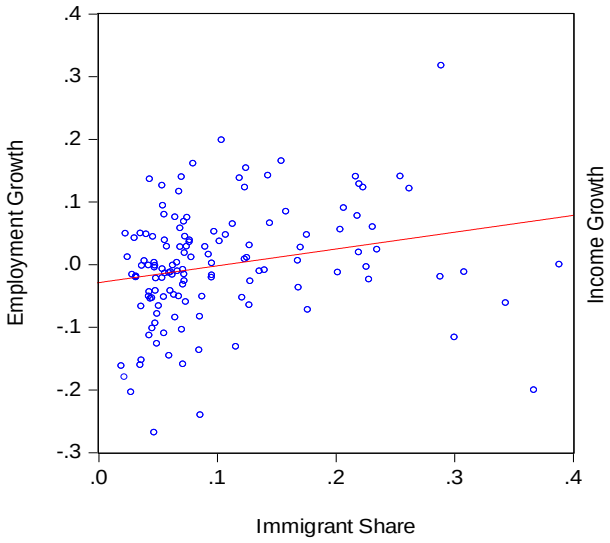
$$\Delta EMP = \underset{(13560)}{38849} + \underset{(104460)}{659505} IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=23\% \qquad (8A)$$

$$\%\Delta EMP = \underset{(.01)}{-.030} + \underset{(0.10)}{.27} IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=5\% \qquad (8B)$$

$$\Delta INC = \underset{(2008953)}{-1059581} + \underset{(15475558)}{96110752} IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=22\% \qquad (9A)$$

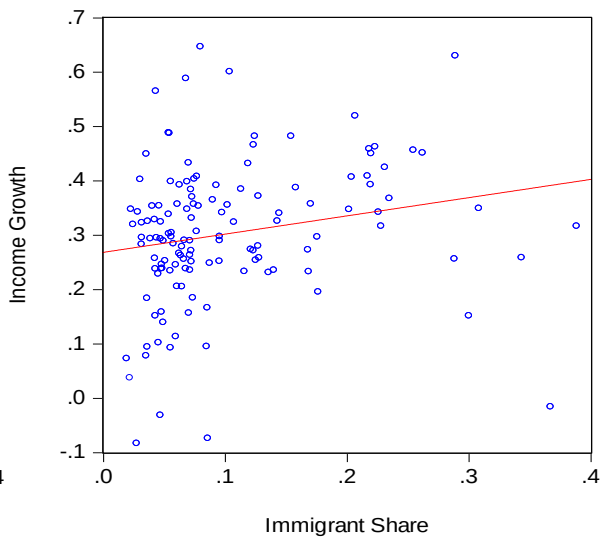
$$\%\Delta INC = \underset{(.02)}{.27} + \underset{(0.14)}{.37\%\%} IMG_{2000}/POP_{2000} \qquad \text{Adj. } R^2=4\% \qquad (9B)$$

Figure 9
Employment Growth and Immigration Share



Correlation = .32

Figure 10
Income Growth and Immigration Share



Correlation = .21

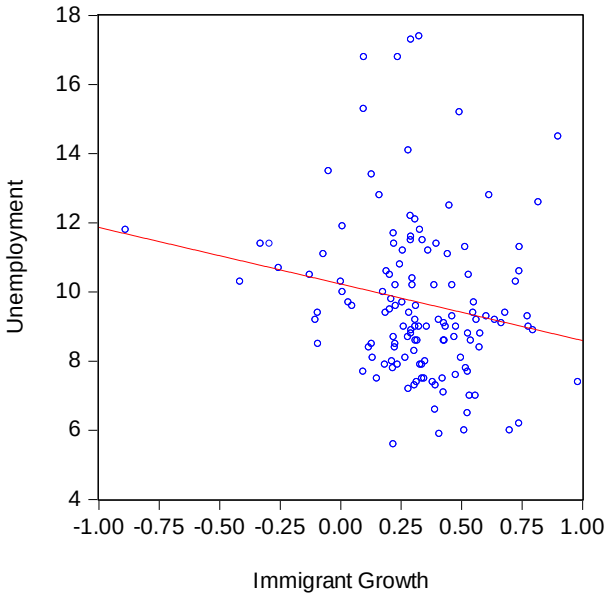
Immigration Lowers Unemployment

Increases in immigration further lead to lower unemployment rates, and hence that data supports the hypothesis that St. Louis can lower both its white and African American unemployment rates by encouraging more immigration. This result is consistent with the literature that finds that immigrants through their spending patterns and their entrepreneurship lead to additional employment and lower unemployment for individuals born in the U.S. Figures 11 and 12 clearly illustrate the negative relationship between immigration and unemployment, and significantly refutes the myth that immigration increases unemployment rates.

$$\%UNEMP = \underset{(.26)}{10.2} - \underset{(.63)}{1.60}\%\Delta IMG \qquad \text{Adj. } R^2=3\% \qquad (10A)$$

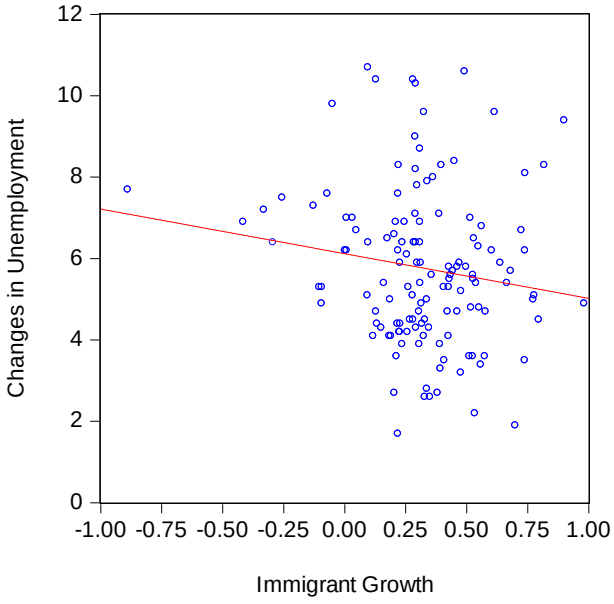
$$\Delta UNEMP = \underset{(.22)}{6.11} - \underset{(.53)}{1.09}\%\Delta IMG \qquad \text{Adj. } R^2=2\% \qquad (10B)$$

Figure 11
Unemployment Rate and Immigration Growth



Correlation = -19%

Figure 12
Change in Unemployment Rate and Immigration Growth



Correlation = -15%

Next, we turn to the annual database, and for conciseness report only the IV results as endogeneity between annual economic flows could be high. We control for

initial population, initial immigration share, and economic conditions (unemployment and low wages). Results in equations (11)-(12) show that a 1% increase in immigration over two years significantly increases employment by .8%. New immigrants lead to sizeable employment gains over a two year period; e.g., an increase of 20,000 immigrants to St. Louis, or 0.0074% of our population, would over two years lead to an increase in employment of 21,600 workers. If this were repeated over a decade, St. Louis' immigrant share would climb to 386,000 or 12% (still less than most metros in the top 25), and the region would create more than 200,000 jobs over 10 years. These results again confirm the importance of immigration in generating job growth, and the reason for our region's job losses over the last several years or decade.

Income estimates indicate that an inflow of 20,000 immigrations leads to .75% rise in income over two years. Over a decade, higher immigration could boost income by 7% in the region. This is equivalent to $8 billion of spending, and similar to our estimates in equation (5). Immigration further has significant positive effects on labor force participation rates and wages, and also leads to significant reductions in unemployment. The statistical evidence indicates that immigration affects economic activity not only over a decade, but also on a yearly basis.

Lastly, (16) shows that increases of immigration have positive effects on migration flows not negative; hence, it supports the work of Card and Dinardo (2000) among others that indicate that immigration does not induce negative domestic migration. Overall, the statistical analyses paint a very clear picture:

Immigration significantly and substantially increases Jobs, Income & Wages.

Immigration reduces Unemployment for both Whites and African-Americans.

$$\Delta EMP_t = \underset{(.002)}{-4912} + \underset{(.08)}{.42}\Delta IMG_t + \underset{(.12)}{0.66}\Delta IMG_{t-1} \underset{(.46)}{-1.45}\Delta MIG_t \underset{(.10)}{- .20}\Delta MIG_{t-1} \quad (11A)$$

$$\%\Delta EMP_t = \underset{(.002)}{-0.02} + \underset{(.08)}{0.14}\%\Delta IMG_t + \underset{(.12)}{0.66}\%\Delta IMG_{t-1} \underset{(.46)}{-1.45}\%\Delta MIG_t \underset{(.10)}{- .20}\%\Delta MIG_{t-1} \quad (11B)$$

$$\Delta INC_t = \underset{(.002)}{-.01} + \underset{(80)}{318}\Delta IMG_t + \underset{(82)}{335}\Delta IMG_{t-1} \underset{(4.2)}{-3.2}\Delta MIG_t + \underset{(1.09)}{6.8}\Delta MIG_{t-1} \quad (12A)$$

$$\%\Delta INC_t = \underset{(.002)}{-.01} + \underset{(.06)}{0.64\%\Delta IMG_t} + \underset{(.03)}{0.34\%\Delta IMG_{t-1}} + \underset{(.02)}{0.03\%\Delta MIG_t} + \underset{(.05)}{.04\%\Delta MIG_{t-1}} \quad (12B)$$

$$\Delta EMP/\Delta LF_t = \underset{(.002)}{-0.03} + \underset{(.04)}{0.27\%\Delta IMG_t} + \underset{(.07)}{0.50\%\Delta IMG_{t-1}} \underset{(.30)}{-0.70\%\Delta MIG_t} \underset{(.07)}{- .07\Delta MIG_{t-1}} \quad (13)$$

$$\%\Delta Wage_t = \underset{(.002)}{0.1} + \underset{(.02)}{0.23\%\Delta IMG_t} + \underset{(.01)}{0.12\%\Delta IMG_{t-1}} + \underset{(.01)}{0.01\%\Delta MIG_t} + \underset{(.01)}{.01\Delta MIG_{t-1}} \quad (14)$$

$$\Delta UN_t = \underset{(.26)}{2.81} - \underset{(4.04)}{25.2\%\Delta IMG_t} - \underset{(7.06)}{45.9\%\Delta IMG_{t-1}} + \underset{(27.53)}{65.4\%\Delta MIG_t} - \underset{(6.3)}{6.7\Delta MIG_{t-1}} \quad (15)$$

$$\%\Delta MIG_t = \underset{(.004)}{-.001} + \underset{(.05)}{.23\%\Delta IMG_{t-1}} - \underset{(.04)}{.14\%\Delta MIG_{t-1}} + \underset{(.001)}{.001\Delta UN_t} \quad (16)$$

V Best Practices to Promote Immigration: What Can St. Louis Do?

Across the country, dozens of metropolitan areas are initiating plans to improve opportunities for all immigrants by creating networks that link immigrants to each other and employers, hiring interpreters and translators, making important documents available in foreign languages, and streamlining business processes. Many metros efforts are promoting economic development through initiatives aim at attracting both foreign companies and workers. Local leaders hold the key by setting a welcoming environment for immigrants through successfully integrating them in neighborhoods, schools and the local economy. The local chambers of commerce should be engaged in setting up networks to connect the foreign-born to other immigrants, local businesses, possible mentors and community banks to facilitate funding.

Nashville has half the population of St. Louis, but the same number of immigrants, most of them relatively new arrivals. Hence, unlike St. Louis over the last decade, Nashville has experienced both significant job growth and a sharp influx of immigrants. To encourage and accommodate the foreign-born, Nashville has introduced the "New American Coalition" that promotes the "two-way integration of foreign-born and native-born Nashville communities and institutions." The Coalition is sponsored by the Greater Nashville Regional Community Foundation in partnership with a range of local immigration resource service providers, and offers primary leadership on integration processes. Coalition efforts include promoting citizenship and civic engagement, training immigrants in strategic communications and nonprofit management, and developing the area workforce through tactics including advocating for needed vocational classes.

According to the National League of Cities, Louisville has also been successful in integrating immigrants. Louisville's Office of International Affairs (OIA) works to create a multicultural community and to serve all members of the community, particularly new residents. The OIA works to integrate immigrants and refugees into Louisville by connecting them to governmental and non-governmental resources and by serving as an information clearinghouse. Greater Louisville International Professional (GLIP) expedites connections between international professionals, their peers and local business leaders.

These relationships help navigation through the assimilation process, mentor progress, open new lines of communication and celebrate success. Louisville also hosts an annual two-day WorldFest every Labor Day weekend that is the largest collection of local ethnic restaurants, vendors and exhibitors at any one event in the state of Kentucky. The Louisville plan targets four groups to increase the pool of immigrant professionals: (i) foreign-born students studying in local colleges and universities, (ii) foreign-born students eager to come to study in Louisville, (iii) foreign professionals living in the U.S., and (iv) professionals living abroad, but interested in coming to work in the U.S.

One suggestion by Dean Gupta of the Olin Business School at Washington University is to build housing solely for foreign-born students, and encourage them to attend our region's universities by making it easy for them to obtain unpaid, but for credit internships in our local area businesses. After graduation, these students would be encouraged to remain in St. Louis by providing them with jobs. This strategy benefits everyone. The region has already invested in them, by providing both education and skills, and the students can enjoy the fruits of their past hard work, and reinvest in St. Louis with their human and physical capital.

Columbus's immigrant initiative focuses on improving access to education, housing and healthcare by limiting language barriers. Princeton residents issue ID cards that can be used as forms of identification by check cashing companies, banks, retail stores and other establishments.

The National League of Cities (NLC) is partnering with the city of Indianapolis and the International Center of Indianapolis to promote immigrant integration throughout the city of Indianapolis. It reports that policy actions of the mayor's office have led to a cohesive community that boosts business and international trade. The city is working together to improve public safety and better access to city services, including Spanish translation, a welcome center, ESL programs, public transportation information, bilingual tax preparation assistance and lists of city regulations. It coordinates activities with the business community through private and public initiatives that strengthened Mexico-U.S. trade relations in Indianapolis, neighborhood beautification programs and city-wide recreational and cultural events.

Here are some examples that the NLC reports (Gambetta and Gedrimaite, 2010) as effective practices in promoting immigration:

- **Cooperate with municipal agencies.** As a part of their local immigrant integration plan, cities should develop a comprehensive cross-sectional immigrant integration strategy among local government and municipal agencies and make sure that their city's strategy for immigrant integration is compatible with its broader social inclusion plan.
- **Engage the host community.** Cities should engage the host community, including immigrant organizations, faith-based organizations and the business sector, in establishing key partnerships regarding immigrant integration programs and initiatives.
- **Establish mayoral advisory boards and immigrant affairs offices.** Cities should consider the establishment of mayoral immigrant advisory commissions and Immigrant affairs offices to address local immigrant integration challenges in addition to designating a senior city official to lead and coordinate city and community efforts to improve communication between the local government and the immigrant community.
- **Recognize immigrant contributions to the economy.** Cities should maximize the contributions of the immigrant community to their local economies while facilitating their integration into the civic and political life of their communities by developing a strategy to encourage civic engagement and naturalization among their local immigrant population.
- **Eliminate language barriers.** Language barriers are significant obstacles in the life of immigrant residents, and cities should develop a strategy to eliminate these barriers as well as promote adult literacy in their communities.

For instance, the NLC reports that Richmond's Hispanic Liaison Office offers multiple essential services including oral interpretation assistance for city departments and services and translation of written documents and forms, a network system of contacts for everything from medical clinics to legal assistance to cultural groups, and information on educational classes such as English classes or Spanish classes. Richmond's office "also provides free tax assistance programs and supports new Americans in obtaining passports and identification documents. In addition, this office sponsors the Imagine Festival, which highlights Richmond's diverse community and promotes public safety among minority communities."

Additionally, Cleveland, Detroit, Louisville, Minneapolis and Philadelphia have published interesting policy papers that detail the important contributions that immigrants make to the community, and suggestions that their cities can implement to

improve immigration. Cities such as Dayton recently have unanimously approved plans to help immigrants navigate the system and to establish themselves in the community. The Dayton plan includes recommendations to create an international marketplace and to increase language services and English classes. Detroit and Cleveland, furthermore are jumpstarting campaigns to combat their population and economic declines by encouraging immigration.

For instance, Cleveland's plan (Gaylord, 2010) includes seven concrete steps to support immigrants and their families, to ease immigrant's transition into the economy and link public and private partners. Cleveland's welcome strategy calls for art and cultural initiatives, minority and immigrant regional business alliances, mentor program/network for international business people, increasing the EB-5 Investor Visa Program, Coordinating Foreign Investment and Trade Missions and Micro-Loans and Technical help for immigrant, minority-owned business. A Cleveland Plus International Economy Center is planned, and designed to increase networking opportunities by bringing together business people from local and international chambers of commerce and ethnic and minority business groups. Cleveland further plans Urban Youth Knowledge Initiatives, similar to Philadelphia, manned largely by local volunteers that help immigrant children in school.

Detroit's blueprint (Global Detroit, 2010) is designed to encourage the untapped potential immigrants possess for revitalizing regional populations and economies, including more entrepreneurship, diversity and multi-national connectivity. Their plan includes efforts to make the region friendlier to both immigrants and the international community, which would then attract international investment and businesses to the region. Global Detroit embraces eleven initiatives including attracting and retaining foreign students at local universities along with implementing an EB-5 investor visa program. The EB-B program allows foreign investors who invest $1 million in an American business that creates 10 jobs to receive permanent legal residency for themselves and their immediate family.

Detroit has further created a regional cultural ambassadors program that serves as a "Welcome Mat" to help integrate foreign-born workers and their families. This

initiative relies on volunteer "teams" of business people, students, expatriates, and those doing business with different foreign cultures. The Welcome Mat committee recruits and trains individuals to do public engagement and maintains contact with the growing number of supporters it has identified in its community. Their function is to communicate to the public the successes of immigrants. This strategy centers on engaging members of the U.S.-born community in venues that are convenient and comfortable for them. Some examples include places of worship, community centers, civic clubs, local schools, and universities. Ideal presentations and dialogue sessions are facilitated by at least one native-born resident and one recent immigrant from the community. Individuals who facilitate such conversations are called "welcoming ambassadors," and are trained by local Welcoming affiliates or Welcoming Committee.

Philadelphia's Welcoming Center for New Pennsylvanians is an immigration resource center committed to raising awareness and advancing public policy on the contribution of immigrants in creating a prosperous Philadelphia. The Welcoming Center advocates for strategies that facilitate immigration's role in regional population growth, neighborhood revitalization, and economic development. They have produced an interesting report that lists best practices that highlights innovations and achievements from around the nation for assisting immigrants to better assimilate and contribute to urban civic life. Their document includes practices of other cities and includes a long list of recommendations.

Overall, many cities have shown the positive economic effects of immigration on their community and have concrete plans or are in the process of initiating strategies to welcome immigrants as a way to rebuild downturn and improve their economy. A successful immigration strategy is less about dollars, than reducing bureaucratic hurdles plus a change in mind-set of our local business leaders and public. Licenses to open small businesses should be easy to obtain, a single window counter with simple rules. The region should campaign against hurdles such as strict language requirements for driver's licenses.

St. Louis has survived for decades with low immigrant inflows, and is often known as the smallest big town in America. Inertia is a powerful force. To overcome

this lethargy and reverse our poor job creation prospects, companies should not be encouraged to hire immigrants, but be "immigrant agnostic" – not care about the birthplace of their applicant. The public should not view immigrants with suspicion, but realize they contribute tax revenue to the community. A successful immigrant strategy can build on itself through social-based media. Once immigrants find that St. Louis is providing a welcoming, pro-business environment regardless of origin, news will spread and St. Louis can expect more more-qualified workers, consumers and taxpayers.

Immigration is about people. To grow and thrive, cities, like companies, need both workers and customers to produce and consume their products. Given aging demographics and outward migration, St. Louis population, both its workforce and consumers, are shrinking. The economic and statistical evidence clearly shows that for St. Louis to reverse its decade of job losses and poor economic progress, it needs to promote immigration as an important part of a pro-growth economic agenda. Immigrants improve our local economy by working here, pay taxes and spending on local business, thereby enlarging the economic base for everyone, both native and foreign-born. Immigration can jumpstart St. Louis' job engine, encourage large companies to expand or relocate here and fuel new small business formation.

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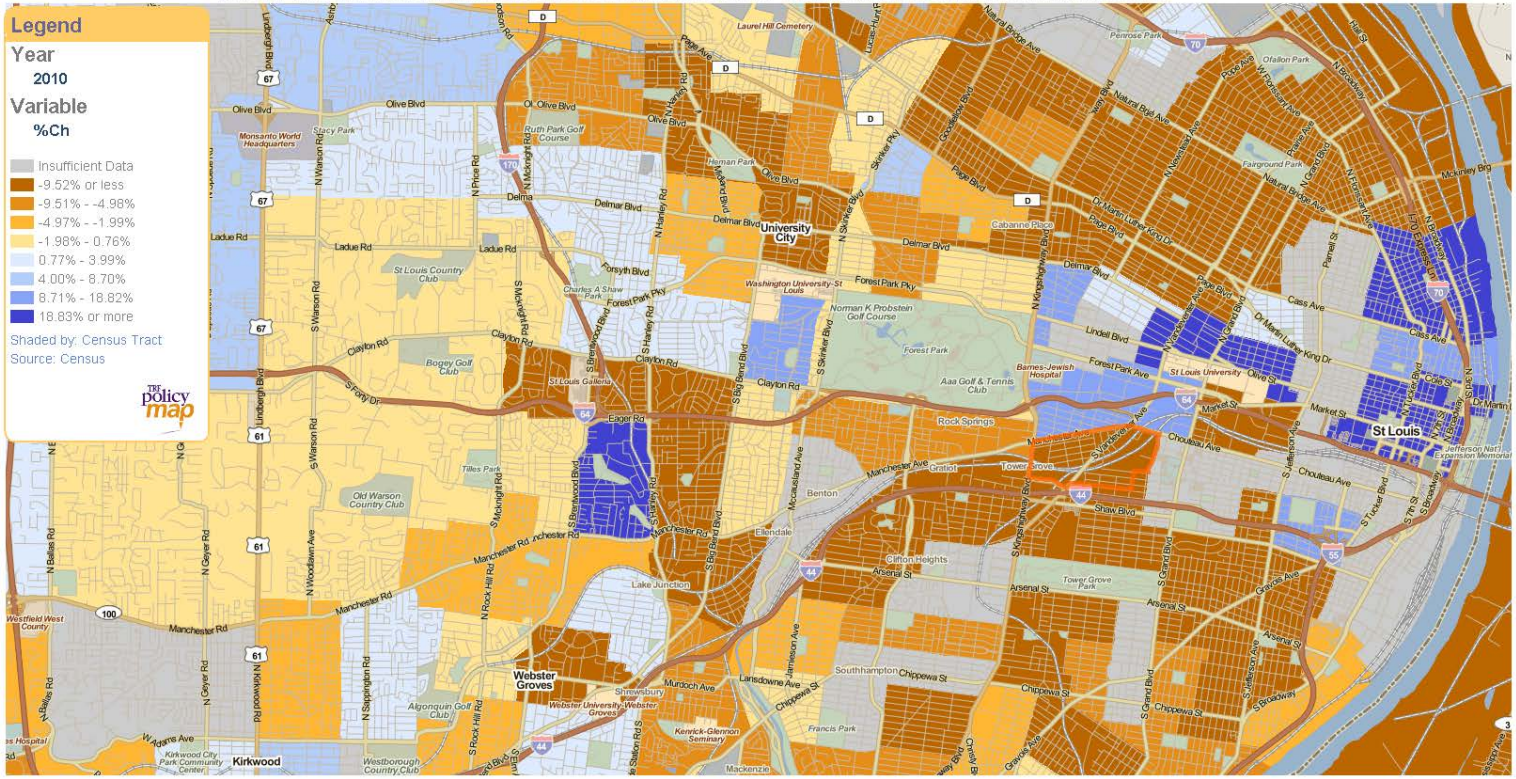
Figure I Population Growth in St. Louis City

PolicyMap. Good Data. Smart Decisions.

Map of Census Tract (118100, MO) with Percent change in the number of people between 2000 and 2010.

Percent change in the number of people between 2000 and 2010.

Percent change in the count of population between 2000 and 2010. Percent change calculations showing change between two years were suppressed in cases where the population or household count in either year was less than 10. These areas are represented as having "Insufficient Data" in the map. Census tracts that have split, merged or otherwise significantly changed from 2000 to 2010 are also shown as having "Insufficient Data." For Census block group data, TRF created a bridge table between 2010 and 2000 block geographies in order to accurately display the 2010 data on 2000 block group boundaries.



PolicyMap is a service of The Reinvestment Fund

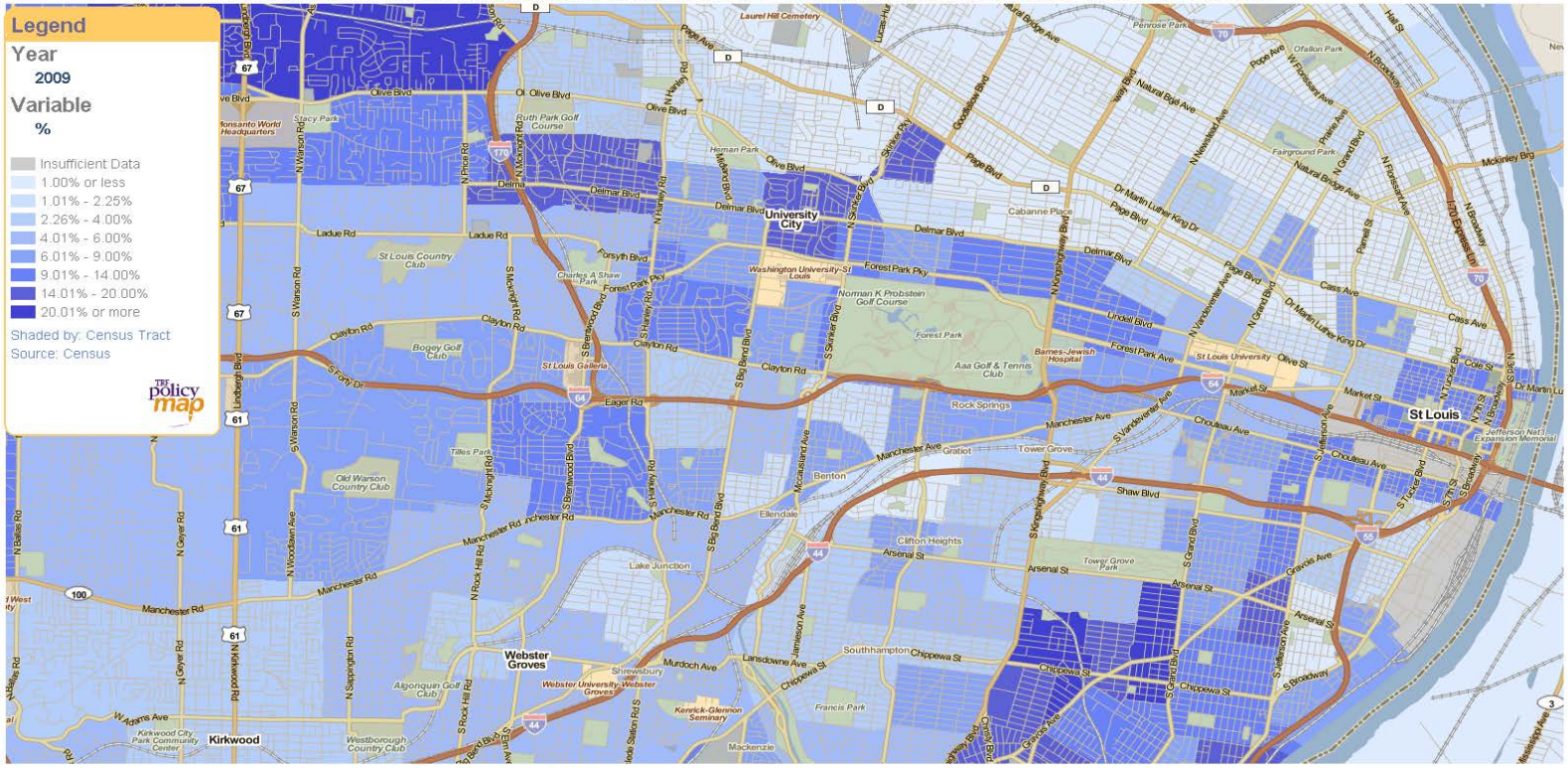
Figure II Immigration Growth in St. Loius City

PolicyMap. Good Data. Smart Decisions.

Map of Census Tract (312202, MO) with Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of population who are foreign born, as reported between 2005-2009. The U.S. Census defines "foreign born" to refer to anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as students), humanitarian migrants (such as refugees), and persons illegally present in the United States.



PolicyMap is a service of The Reinvestment Fund

Figure III Population Growth in St. Louis Metro Area

PolicyMap. Good Data. Smart Decisions.

Map of Census Tract (312202, MO) with Percent change in the number of people between 2000 and 2010.

Percent change in the number of people between 2000 and 2010.

Percent change in the count of population between 2000 and 2010. Percent change calculations showing change between two years were suppressed in cases where the population or household count in either year was less than 10. These areas are represented as having "Insufficient Data" in the map. Census tracts that have split, merged or otherwise significantly changed from 2000 to 2010 are also shown as having "Insufficient Data." For Census block group data, TRF created a bridge table between 2010 and 2000 block geographies in order to accurately display the 2010 data on 2000 block group boundaries.

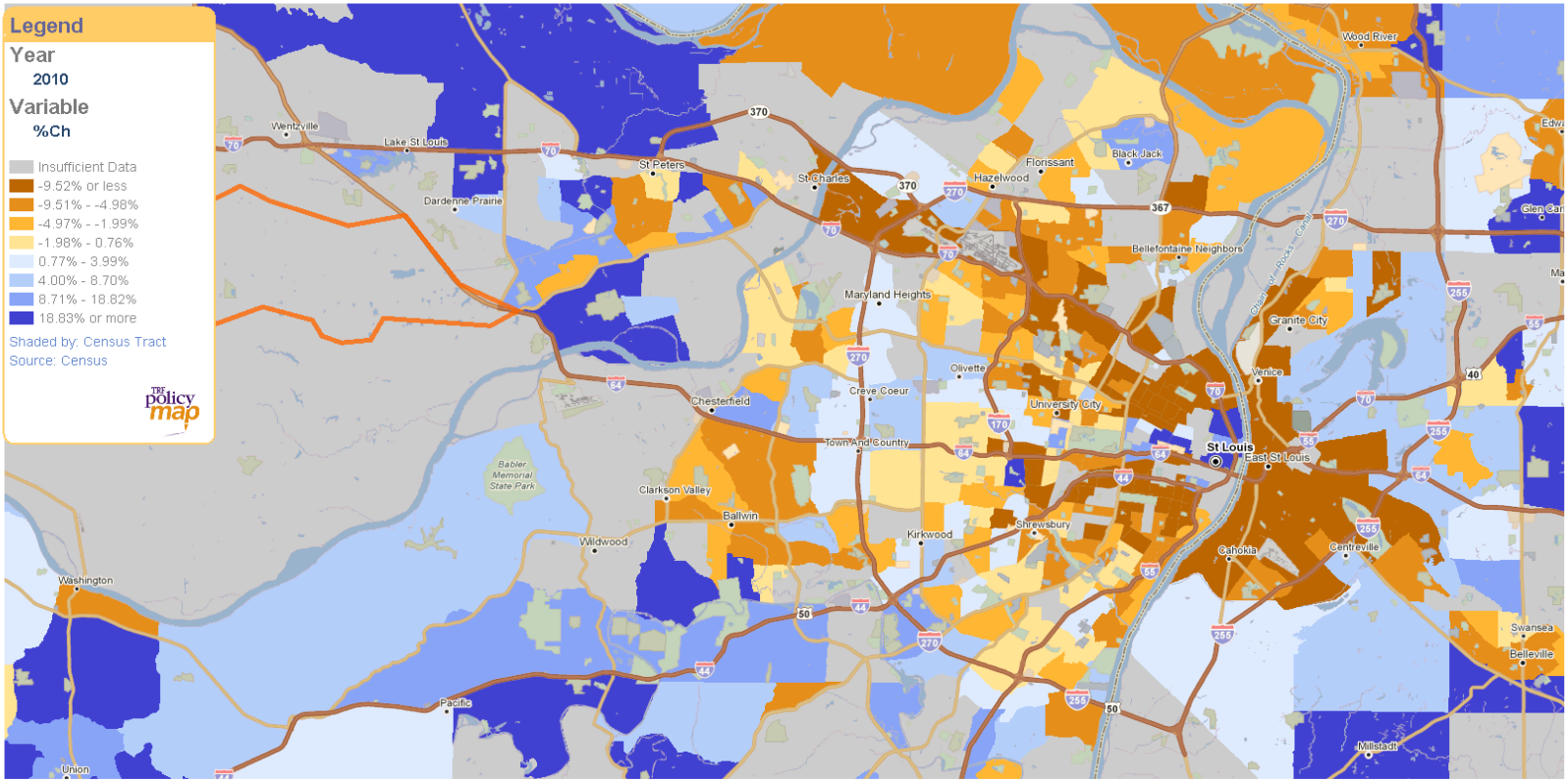


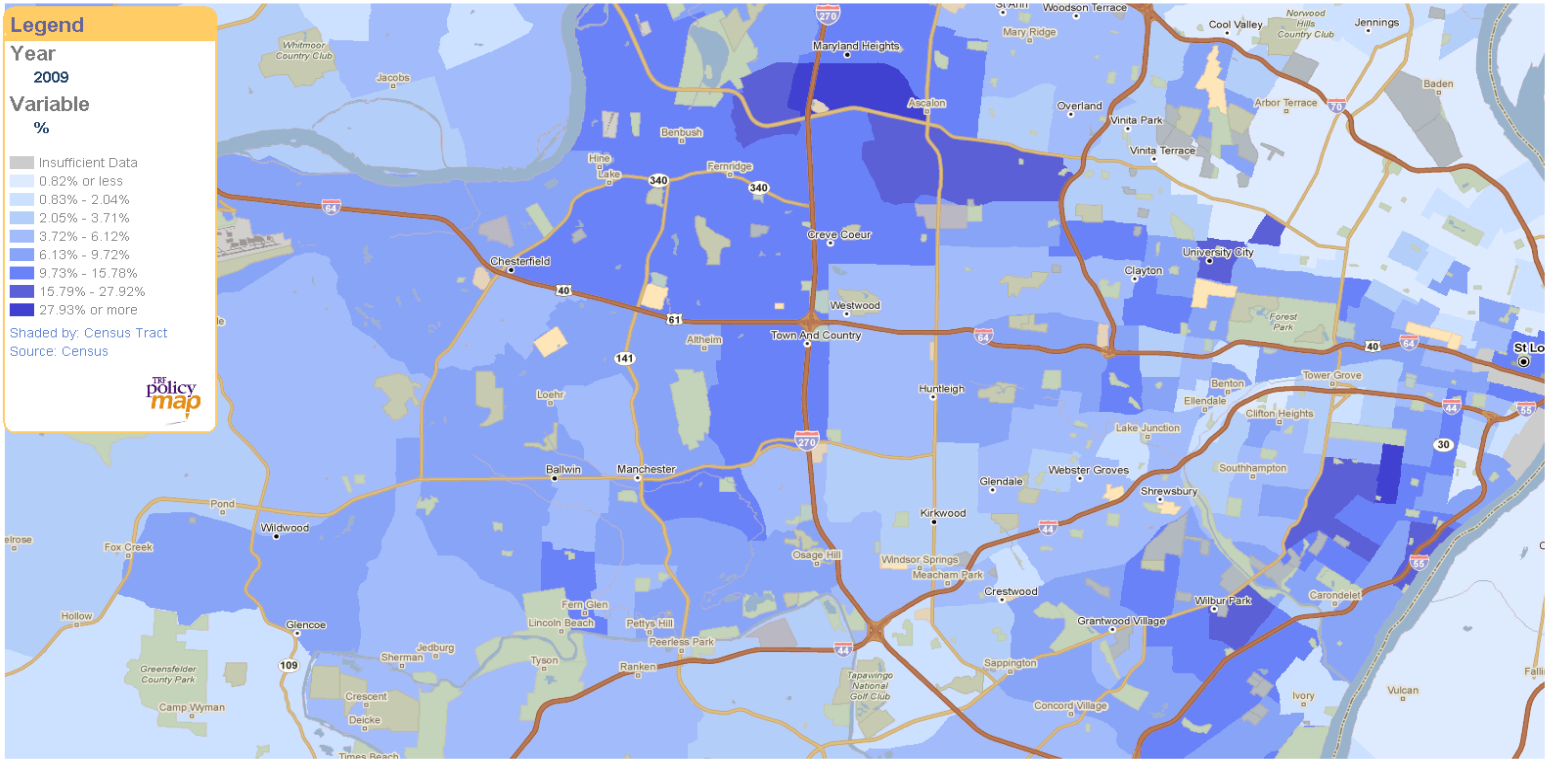
Figure IV Immigration Growth in St. Louis Metro Area

PolicyMap. Good Data. Smart Decisions.

Map with Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of population who are foreign born, as reported between 2005-2009. The U.S. Census defines "foreign born" to refer to anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as students), humanitarian migrants (such as refugees), and persons illegally present in the United States.



V. Population Growth in the United States

PolicyMap. Good Data. Smart Decisions.

Map with Percent change in the number of people between 2000 and 2010.

Percent change in the number of people between 2000 and 2010.

Percent change in the count of population between 2000 and 2010. Percent change calculations showing change between two years were suppressed in cases where the population or household count in either year was less than 10. These areas are represented as having "Insufficient Data" in the map. Census tracts that have split, merged or otherwise significantly changed from 2000 to 2010 are also shown as having "Insufficient Data." For Census block group data, TRF created a bridge table between 2010 and 2000 block geographies in order to accurately display the 2010 data on 2000 block group boundaries.

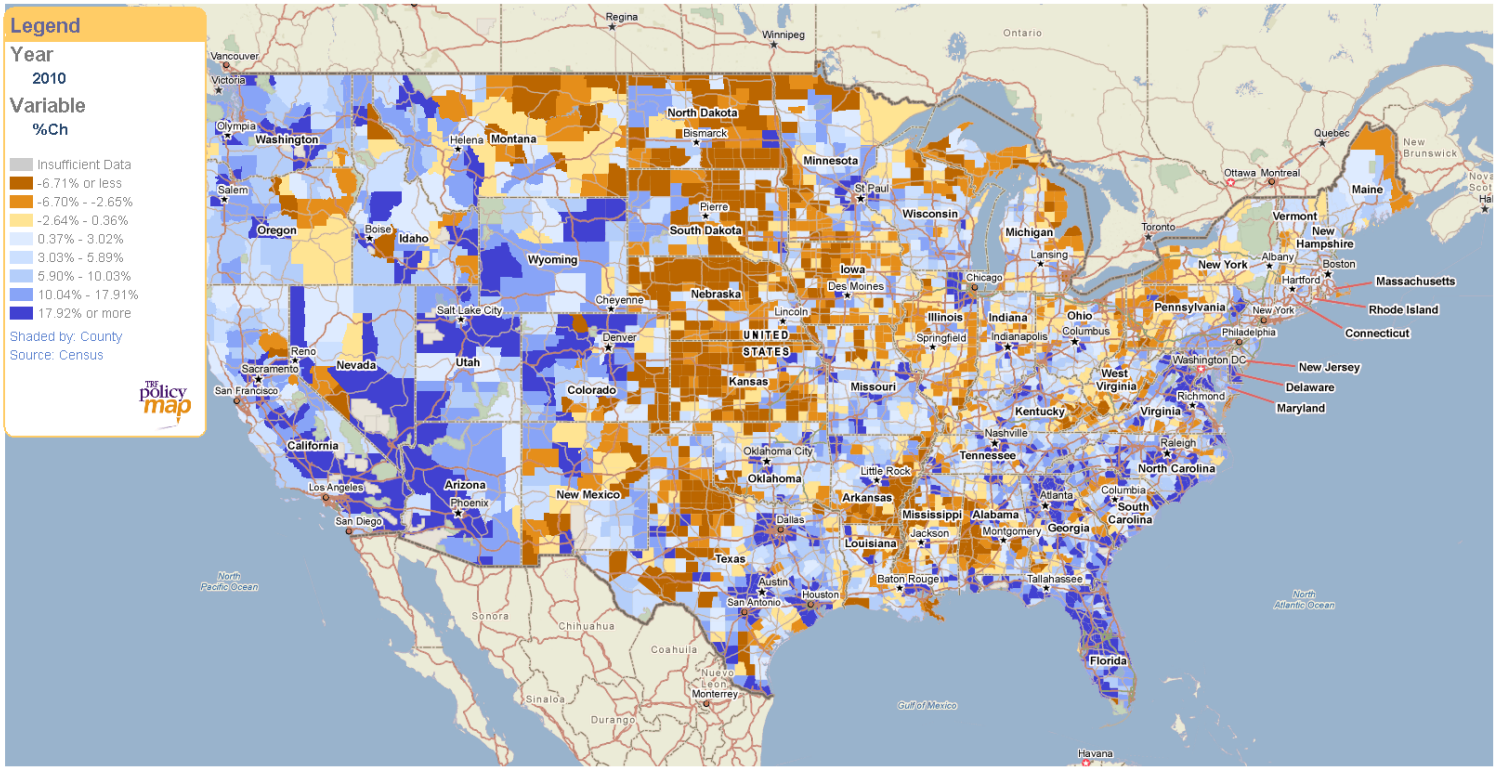


Figure VI Immigration Growth in the United States

PolicyMap. Good Data. Smart Decisions.

Map with Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of all people who were "foreign born" as of 2005-2009.

Estimated percent of population who are foreign born, as reported between 2005-2009. The U.S. Census defines "foreign born" to refer to anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as students), humanitarian migrants (such as refugees), and persons illegally present in the United States.