Immigrant Population Change and Skill Profiles in 21st Century Gateways: A Human Capital-Based Typology of Metropolitan Destinations, 2000-2007

Matthew Hall*
Deborah Roempke Graefe
Gordon De Jong
Shelley Irving

Pennsylvania State University
Department of Sociology and Population Research Institute

Background and Motivation: The sharp rise in the foreign born population over the past four decades has generated great interest and concern regarding the ability of local areas to incorporate new arrivals. And, as the immigrant population increasingly diffuses out of traditional immigrant stopping points into more homogenous communities with shorter immigration histories, concerns regarding the impact of immigration spread across America. These anxieties are compounded by the fact that the labor demands among U.S. industries for service-oriented and high-tech workers along with moderately permissive immigration policies have resulted in a bifurcated immigrant skill structure with one stream of new arrivals being dominated by low-skill immigrants and another by well-educated, high-skill immigrants. As a consequence, the proportion of the low-skill labor force that is foreign born has grown dramatically, as has the representation of immigrants in high-tech industries. But these parallel migration streams are not flowing into the same places; that is, labor market areas are not attracting both high and low skill immigrants in equal proportions. Rather, some regions draw on immigrants to fill vacancies in construction or food services while other areas attract immigrants for computing or medical services.

This lack of attention to the variation in human capital configurations of immigrant destinations is problematic because the set of skills immigrants arrive in the U.S. with relates directly not only to individual mobility, but also to the ability of municipalities to support population change. Specifically, theoretical models of immigrant assimilation place heavy emphasis on the educational levels and job skills the recently arrived bring with them in distinguishing between divergent paths of incorporation (Alba and Nee 2002; Portes and Rumbaut 2001). Lower-skilled immigrants earn considerably less than native workers, hold less desirable occupations, and suffer from institutional barriers and constraints that limit their economic prospects (Hall and Farkas 2008; Waldinger and Lichter 2003). While higher-skilled immigrants, on the other hand, may face some of the same occupation hurdles (e.g., limited access to welfare services; employment discrimination), they generally compete more openly with natives in labor markets (Borjas 2005; Stephen and Levin 2001). The skill profile of new arrivals also has tangible consequences for labor markets and metropolitan areas themselves, including its effect on regulating the tax base, the provision of public welfare services, the need for multilingual education, competition for housing and jobs, as well as more social concerns, such as tolerance, conflict, and interaction. A large stock of low-skill immigrants in local economies is related to native job loss and out-migration (Borjas 1999; Frey 1996) and

* Matthew Hall, 211 Oswald Tower, University Park, PA 16802; Email: hall@pop.psu.edu

heightened residential segregation (Iceland and Scopilliti 2008). These arguments, therefore, highlight the importance of locating "skill" in immigrant settlement research.

This study seeks to fill this void, focusing on inequalities in human capital between a wide range of immigrant destination areas. Our work is motivated by Singer and colleagues' (2004; Suro and Singer 2003; Singer, et al 2008) research on "new" immigrant gateways that has drawn scholarly attention to the rapid recent growth in the foreign-born population in communities with little previous history of immigration. More specifically, this research has demonstrated that during the 1990s, not only did the gross number of immigrants rapidly increase, but that much of this growth was occurring in places with previously small immigrant populations, such as Atlanta, Greensboro, Las Vegas, Minneapolis, and Portland. Our research builds on Singer's (and others') work in several ways. First, we expand the sample of metropolitan areas to include medium-sized metropolises. Second, our research updates immigrant settlement research by examining post-2000 patterns of growth and change in metropolitan immigrant populations. Most importantly, this work goes beyond previous investigations of new destinations by developing a typology of immigrant settlement that is sensitive to the distribution of immigrant human capital in each metro area. While the first two goals represent important additions to existing research, our third – crossing population growth with skill profiles – signifies the major contribution of this study. Guiding our efforts are the following key questions: (1) What is the post-2000 patterning of immigrant population change in medium- and large-sized metropolitan areas? (2) Do inequalities in the distribution of immigrants' human capital exist across immigrant settlement areas? (3) To what extent do metropolitan characteristics of the immigrant population and housing and labor markets in 2000 explain total and recent immigrant education-inequality ratios in 2007?

To address these issues and enhance our collective understanding of new immigrant settlements, we use data from the 2000 Census five-percent and the 2007 American Community Survey one-percent public-use microdata samples (consolidated by and extracted from IPUMS [see http://usa.ipums.org/usa/ for more information]) to assemble a sample of 150 metropolitan statistical areas that each boast a total population of at least 250,000 and an unweighted immigrant sample of 100 or more. This metro sample was selected after disaggregated consolidated metropolitan statistical areas (CMSAs) into their component parts (PMSAs), and follows 1990 OMB metropolitan-boundary standards. With this data, we gauge the stock of the total, low-skill (less than a high school education) and high-skill (college or more) immigrant populations in sampled metros between 2000 and 2007. We use this information to calculate measures of immigrant population change and ratios of low- to high-skilled immigrants, what we refer to as the "education-inequality ratio," for each metropolitan area.

Preliminary Findings: While this research remains in the exploratory phase, initial model results have theoretically- and policy-relevant implications. Table P1 shows immigrant population in 2000 and 2006, total change and percent change in the immigrant population during the two periods, and total and recent immigrant education-inequality ratios in 2006. (At the time of preparing this proposal, the 2007 ACS microdata were not available. This data is scheduled to be released in October 2008 and will be utilized in the presentable paper.) In the total sample of 150 metro areas, the immigrant population grew by more than 5.6 million between 2000 and 2006 – an increase of nearly one-fifth. There is considerable variation, however, in the magnitude of these changes across cities. Some metro areas, such as Des Moines and Lexington-Fayette, experienced enormous relative growth in their immigrant population. In other areas,

including Salinas-Seaside-Monterey and Toledo, the immigrant population declined over the six year period. Consistent with Singer and colleagues, the places witnessing the greatest relative change in the foreign-born were places with historically small immigrant populations. (The correlation between total immigrant population in 2000 and percent change between 2000 and 2006 is -.18). In fact, the immigrant population in the major gateways – New York and Los Angeles – grew by only 6.6 and 2.1 percent, respectively, continuing the slow-growth trend observed in the 1990s.

While these findings suggest that immigrant dispersion has continued to define contemporary geographic patterns of the foreign-born are interesting, the more important observation from the table for this research is the substantial diversity in human capital configurations across metropolitan areas – indicated by the educational-inequality ratios in the final two columns. (These ratios can be interpreted as the number of low-skill immigrants for every 100 high-skill immigrants. Thus, values greater than 100 represent low-skill immigrant destinations and values less than 100 to high-skill areas.) The recent immigrant ratios range from a very low (indicative of high-skill) of 7.7 in Kalamazoo-Portage to a large low-skill ratio of 1240.6 in Visalia-Tulare-Porterville.

A striking feature of the distribution of human capital across these areas is the lack of a coherent relationship with immigrant population change. In fact, the correlation coefficient between the recent immigrant educational-inequality ratio and percent change in the foreign born population is zero ($r = .00$). Thus, while the nearly singular focus in the research literature and in the popular press on low-skill immigrants is essential to understanding the character of these new places, it appears to only be part of the story. For example, a number of the often studied new destinations, such as Atlanta, Dallas, and Charlotte, fit the low-skill new gateway label well with educational-inequality ratios well above 100. Other new destinations, including Minneapolis, Seattle, and Washington, can be characterized by a high-skill classification.

An examination of the educational-inequality ratios in the "former" immigrant gateways (Singer 2004) – places such as Baltimore, Cleveland, Detroit, Pittsburgh, and St. Louis – reveals an illustrative hole in current scholarship: while the immigrant population in these areas is growing more slowly than in other cities, the skill profile in these areas is heavily skewed toward high-skilled immigrants. And, as indicated by examining the total and recent immigrant education inequality ratios, this observation is not simply explained by a holdover of well-educated old immigrants, but is apparent (in some cases, *more* apparent) for the newly arrived.

Ongoing Research: The descriptive results discussed here represent the first part of this study. A central feature of our research will be to develop a typology of immigrant destinations that is sensitive to both population change and skill distributions. While we are still in the relatively early stages of generating this classification, the findings in Table P1 demonstrate the considerable variation in these two processes – immigrant population growth and human capital – across our sample of medium- and large-sized metropolitan areas. Attention will also be dedicated toward understanding the antecedents of these classifications. We incorporate a variety of pre-period (lagged) metropolitan structural characteristics, including ones that capture the distinctiveness of the metropolitan immigrant population (e.g., the percent of immigrants speaking English, the percent in multifamily homes, the percent of Mexican-origin), as well as the character of housing (e.g., rent-to-income ratios) and labor markets (e.g., employment rates, job growth in key industries).

Proposal Table P1: Immigrant Educational-Inequality Ratios for Metropolitan Areas, 2000 and 2006

Metropolitan area	Total immigrant population, 2000	Total immigrant population, 2006	Total immigrant population change, 2000-2006	Total immigrant population percent change, 2000-2006	Immigrant Eductional-Inequality Ratio, 2006	Recent Immigrant Eductional-Inequality Ratio, 2006
All sampled metropolitan areas	**30,241,242**	**35,850,947**	**5,609,705**	**18.5**	**86.9**	**97.7**
Akron, OH	23,904	30,461	6,557	27.4	21.2	13.2
Albany-Schenectady-Troy, NY	46,548	60,152	13,604	29.2	48.2	47.4
Albuquerque, NM	64,571	91,489	26,918	41.7	220.2	239.2
Allentown-Bethlehem-Easton, PA/NJ	49,643	71,549	21,906	44.1	116.0	118.8
Anchorage, AK	25,514	33,668	8,154	32.0	71.2	116.6
Ann Arbor, MI	38,898	47,603	8,705	22.4	34.3	56.2
Atlanta, GA	460,159	693,315	233,156	50.7	77.1	149.5
Atlantic City, NJ	42,521	50,745	8,224	19.3	61.2	69.5
Augusta-Aiken, GA-SC	22,219	27,662	5,443	24.5	47.5	139.6
Austin, TX	164,494	234,050	69,556	42.3	108.7	206.9
Bakersfield, CA	112,512	159,924	47,412	42.1	485.4	385.5
Baltimore, MD	170,813	229,842	59,029	34.6	32.2	49.4
Baton Rouge, LA	20,224	29,641	9,417	46.6	59.6	73.8
Beaumont-Port Arthur-Orange,TX	19,793	25,962	6,169	31.2	281.2	191.8
Biloxi-Gulfport, MS	12,703	16,228	3,525	27.7	94.0	227.0
Birmingham, AL	23,246	32,891	9,645	41.5	84.6	124.1
Boise City, ID	25,787	36,681	10,894	42.2	142.7	218.6
Boston, MA-NH	633,211	732,630	99,419	15.7	60.2	61.6
Bridgeport, CT	61,586	81,816	20,230	32.8	76.7	39.5
Brockton, MA	28,081	34,894	6,813	24.3	91.2	117.6
Brownsville-Harlingen-San Benito, TX	87,047	99,394	12,347	14.2	353.4	409.6
Buffalo-Niagara Falls, NY	62,838	69,949	7,111	11.3	50.4	22.0
Charleston-N.Charleston,SC	20,453	25,389	4,936	24.1	62.1	152.5
Charlotte-Gastonia-Rock Hill, NC-SC	112,391	168,886	56,495	50.3	101.3	242.0
Chattanooga, TN/GA	14,827	15,796	969	6.5	52.9	611.2
Chicago, IL	1,552,153	1,763,367	211,214	13.6	91.2	70.9
Cincinnati-Hamilton, OH/KY/IN	46,832	62,075	15,243	32.5	36.9	27.1
Cleveland, OH	139,126	145,606	6,480	4.7	45.2	26.8
Colorado Springs, CO	48,890	57,268	8,378	17.1	46.6	64.6
Columbia, SC	26,090	32,358	6,268	24.0	39.4	48.3
Columbus, OH	80,083	107,180	27,097	33.8	40.6	46.1
Corpus Christi, TX	14,821	19,505	4,684	31.6	125.6	26.2
Dallas-Fort Worth, TX	824,082	1,117,580	293,498	35.6	178.0	201.8
Davenport, IA-Rock Island -Moline, IL	11,592	15,598	4,006	34.6	110.7	111.6
Dayton-Springfield, OH	29,792	29,773	-19	-0.1	29.5	28.6
Daytona Beach, FL	38,588	51,691	13,103	34.0	44.4	44.8
Denver-Boulder, CO	274,122	354,272	80,150	29.2	123.5	102.5
Des Moines, IA	22,697	35,608	12,911	56.9	100.4	159.4
Detroit, MI	358,708	411,418	52,710	14.7	45.3	41.5
Dutchess Co., NY	23,774	31,908	8,134	34.2	66.9	95.8
El Paso, TX	196,508	214,212	17,704	9.0	227.3	175.7
Eugene-Springfield, OR	17,950	22,087	4,137	23.0	108.3	44.9
Fayetteville, NC	27,575	21,102	-6,473	-23.5	37.8	96.4
Fayetteville-Springdale, AR	23,140	42,099	18,959	81.9	256.5	221.0
Fort Collins-Loveland, CO	12,153	16,959	4,806	39.5	67.5	72.2
Fort Lauderdale-Hollywood-Pompano Beach, FL	448,274	569,945	121,671	27.1	34.8	39.3
Fort Myers-Cape Coral, FL	47,876	99,290	51,414	107.4	157.2	238.8
Fort Pierce, FL	35,146	60,164	25,018	71.2	103.2	117.7
Fort Wayne, IN	17,506	18,438	932	5.3	110.6	82.1
Fresno, CA	204,036	219,370	15,334	7.5	345.7	561.5
Galveston-Texas City, TX	21,808	29,360	7,552	34.6	101.5	69.2
Grand Rapids, MI	59,983	65,668	5,685	9.5	135.5	173.9
Greensboro-Winston Salem-High Point, NC	75,714	103,375	27,661	36.5	200.7	264.6
Greenville-Spartanburg-Anderson SC	35,606	56,651	21,045	59.1	100.3	110.2
Hamilton-Middleton, OH	10,215	14,105	3,890	38.1	28.6	207.1
Harrisburg-Lebanon--Carlisle, PA	28,383	33,885	5,502	19.4	41.4	24.2
Hartford-Bristol-Middleton- New Britain, CT	127,790	150,942	23,152	18.1	70.5	77.5
Honolulu, HI	190,876	187,370	-3,506	-1.8	38.0	51.3
Houston-Brazoria, TX	904,453	1,182,308	277,855	30.7	156.8	134.7
Huntsville, AL	16,351	24,970	8,619	52.7	51.1	123.2
Indianapolis, IN	60,718	101,742	41,024	67.6	80.0	150.7
Jacksonville, FL	77,513	114,333	36,820	47.5	35.1	115.6
Kalamazoo-Portage, MI	16,517	21,961	5,444	33.0	43.5	7.7
Kansas City, MO-KS	92,738	121,333	28,595	30.8	92.1	188.4
Kileen-Temple, TX	35,454	37,219	1,765	5.0	85.6	86.4
Knoxville, TN	14,944	23,072	8,128	54.4	48.6	46.6
Lakeland-Winterhaven, FL	39,161	69,769	30,608	78.2	173.3	247.5
Lancaster, PA	25,389	34,056	8,667	34.1	105.2	78.3
Lansing-E. Lansing, MI	20,317	26,856	6,539	32.2	29.6	12.5
Las Vegas, NV	266,202	409,196	142,994	53.7	154.9	219.4
Lexington-Fayette, KY	14,935	25,440	10,505	70.3	43.8	37.1
Lincoln, NE	14,561	20,306	5,745	39.5	45.8	19.2
Little Rock--North Little Rock, AR	18,066	25,928	7,862	43.5	68.2	91.9

(continued)

(Table P1, continued)

Metropolitan area	Total immigrant population, 2000	Total immigrant population, 2006	Total immigrant population change, 2000-2006	Total immigrant population percent change, 2000-2006	Immigrant Eductional-Inequality Ratio, 2006	Recent Immigrant Eductional-Inequality Ratio, 2006
Los Angeles-Long Beach, CA	4,391,186	4,481,856	90,670	2.1	121.6	119.9
Louisville, KY/IN	32,116	41,951	9,835	30.6	43.1	72.0
Macon-Warner Robins, GA	11,737	16,056	4,319	36.8	67.7	69.5
Madison, WI	29,649	35,512	5,863	19.8	39.2	53.9
McAllen-Edinburg-Pharr-Mission, TX	170,444	199,559	29,115	17.1	374.6	307.8
Melbourne-Titusville-Cocoa-Palm Bay, FL	41,542	54,092	12,550	30.2	23.2	39.4
Memphis, TN/AR/MS	42,020	58,001	15,981	38.0	91.5	216.3
Miami-Hialeah, FL	1,193,074	1,258,637	65,563	5.5	53.5	53.4
Milwaukee, WI	92,375	110,889	18,514	20.0	116.3	165.5
Minneapolis-St. Paul, MN	220,249	292,688	72,439	32.9	55.5	54.3
Mobile, AL	15,816	18,853	3,037	19.2	83.5	29.0
Modesto, CA	85,472	111,207	25,735	30.1	343.8	221.5
Monmouth-Ocean, NJ	112,111	134,675	22,564	20.1	61.5	232.2
Montgomery, AL	9,638	10,656	1,018	10.6	22.1	60.4
Naples, FL	47,962	76,375	28,413	59.2	174.2	164.0
Nashville, TN	66,905	106,081	39,176	58.6	85.9	149.5
New Haven-Meriden, CT	45,537	54,356	8,819	19.4	73.8	35.4
New Orleans, LA	70,854	61,566	-9,288	-13.1	78.3	68.7
New York-Northeastern NJ	5,254,343	5,601,564	347,221	6.6	61.9	73.1
Newburgh-Middletown, NY	36,868	52,507	15,639	42.4	84.4	50.5
Norfolk-VA Beach--Newport News, VA	96,524	119,343	22,819	23.6	33.6	82.4
Ocala, FL	17,951	26,227	8,276	46.1	84.5	125.2
Oklahoma City, OK	66,056	94,819	28,763	43.5	138.1	150.8
Omaha, NE/IA	34,603	49,714	15,111	43.7	150.0	134.5
Orlando, FL	297,482	458,879	161,397	54.3	46.5	53.5
Pensacola, FL	20,543	23,780	3,237	15.8	54.8	102.1
Philadelphia, PA/NJ	441,398	515,700	74,302	16.8	58.6	86.8
Phoenix, AZ	473,141	690,860	217,719	46.0	190.7	267.1
Pittsburgh, PA	68,302	75,543	7,241	10.6	21.7	25.7
Portland, OR-WA	216,437	270,957	54,520	25.2	76.0	109.9
Providence-Fall River-Pawtucket, MA/RI	150,101	164,040	13,939	9.3	148.2	121.9
Provo-Orem, UT	26,279	38,577	12,298	46.8	98.0	95.6
Raleigh-Durham, NC	118,912	173,467	54,555	45.9	79.0	107.3
Reading, PA	25,033	35,715	10,682	42.7	246.7	148.9
Reno, NV	49,968	67,750	17,782	35.6	128.3	89.9
Richmond-Petersburg, VA	54,713	79,862	25,149	46.0	57.2	128.5
Riverside-San Bernadino, CA	634,896	924,746	289,850	45.7	191.0	205.2
Rochester, NY	75,203	82,090	6,887	9.2	45.1	53.5
Rockford, IL	20,908	29,329	8,421	40.3	189.9	202.4
Sacramento, CA	244,796	339,206	94,410	38.6	74.1	91.0
St. Louis, MO-IL	95,925	125,296	29,371	30.6	37.6	34.5
Salem, OR	34,596	47,999	13,403	38.7	376.5	732.0
Salinas-Sea Side-Monterey, CA	83,236	80,885	-2,351	-2.8	252.6	173.1
Salt Lake City-Ogden, UT	124,983	158,744	33,761	27.0	121.0	94.1
San Antonio, TX	190,024	225,205	35,181	18.5	148.1	132.9
San Diego, CA	640,252	722,370	82,118	12.8	92.4	86.8
San Francisco-Oakland-Vallejo, CA	1,275,629	1,392,206	116,577	9.1	55.0	89.9
San Jose, CA	591,020	645,838	54,818	9.3	42.4	45.8
Santa Barbara-Santa Maria-Lompoc, CA	88,887	97,778	8,891	10.0	277.2	398.0
Santa Rosa-Petaluma, CA	67,902	82,626	14,724	21.7	189.1	285.6
Sarasota, FL	59,761	93,698	33,937	56.8	86.7	63.2
Scranton-Wilkes-Barre, PA	14,858	17,574	2,716	18.3	79.0	186.6
Seattle-Everett, WA	354,277	489,180	134,903	38.1	41.0	43.2
South Bend-Mishawaka, IN	12,306	13,146	840	6.8	185.8	248.5
Spokane, WA	21,870	25,249	3,379	15.5	28.0	19.6
Springfield-Holyoke-Chicopee, MA	74,965	83,911	8,946	11.9	90.6	149.4
Stamford, CT	76,660	82,424	5,764	7.5	33.6	27.0
Stockton, CA	116,095	161,580	45,485	39.2	185.8	295.4
Syracuse, NY	34,617	36,538	1,921	5.5	43.6	34.1
Tacoma, WA	74,885	83,592	8,707	11.6	65.6	97.1
Tallahassee, FL	17,085	19,911	2,826	16.5	34.6	45.1
Tampa-St. Petersburg-Clearwater, FL	290,148	407,050	116,902	40.3	51.1	72.3
Toledo, OH/MI	20,153	13,290	-6,863	-34.1	42.3	12.3
Trenton, NJ	56,800	73,128	16,328	28.7	62.5	101.1
Tucson, AZ	111,228	137,627	26,399	23.7	98.2	113.8
Tulsa, OK	36,303	47,339	11,036	30.4	111.9	243.7
Utica-Rome, NY	14,912	17,614	2,702	18.1	45.6	7.9
Ventura-Oxnard-Simi Valley, CA	163,051	184,304	21,253	13.0	152.8	261.9
Visalia-Tulare-Porterville, CA	85,003	98,350	13,347	15.7	973.5	1240.6
Washington, DC/MD/VA	901,105	1,145,444	244,339	27.1	46.3	67.7
West Palm Beach-Boca Raton-Delray Beach, FL	216,334	299,746	83,412	38.6	83.0	167.5
Wichita, KS	37,363	44,570	7,207	19.3	127.7	48.4
Wilmington, DE/NJ/MD	41,329	56,611	15,282	37.0	59.3	63.0
Wilmington, NC	9,378	12,500	3,122	33.3	44.6	218.1
Worcester, MA	41,785	55,634	13,849	33.1	68.4	55.2
York, PA	14,825	20,791	5,966	40.2	101.3	118.0
Youngstown-Warren, OH-PA	15,357	14,179	-1,178	-7.7	49.4	23.7

Notes: Data aggregated from weighted Census 2000 5-percent and 2006 ACS public-use microdata samples (IPUMS, 2008). Metro areas (MSAs and PMSAs) with 250,000+ total population and 100 unweighted immigrants are included in sample.