

**Does Place Matter? Metropolitan Area Differences in the Gains to
Human Capital for Male Hispanic Immigrants in the U.S.**

Kyle Anne Nelson and Joan R. Kahn
University of Maryland

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Contact Information:

Kyle Anne Nelson

Department of Sociology, University of Maryland

2112 Art-Sociology Building

College Park, MD 20742

knelson@socy.umd.edu

Extended Abstract and Results

The unprecedented movement of Hispanic immigrants to new growth areas raises important questions about the opportunity for immigrants to succeed in labor markets that have little history of incorporating immigrants. In this study we ask whether wages of male Hispanic immigrants vary by the type of gateway city in which they live, and whether the gains to human capital investments for these workers vary by gateway city type. Our multivariate work examines the role of individual human capital factors (such as education level and English language ability) as well as metro area level characteristics (such as percent of workforce employed in manufacturing) in shaping the earnings profiles of male Hispanic immigrants. We use Census 2000 data to compare wages of male Hispanic immigrants across 28 metropolitan areas grouped into “immigrant gateway types” derived from Singer (2004). Findings suggest that male Hispanic immigrants earn higher wages and gain more from human capital investments in traditional gateway areas than in newer growth areas with less historical presence of Hispanics. Human capital and immigrant-specific characteristics explain much of the wage advantage for male Hispanic immigrants in the traditional gateway areas; however, metropolitan area characteristics benefit newer growth areas, reflecting booms in the construction and service sectors in these areas.

Analysis of differences in the wages and the gains to human capital for Hispanic immigrant workers across gateway types highlights the value of examining sub-national data towards a better understanding of the determinants of economic incorporation of immigrants. Table 1 below lists information about the 28 study metropolitan areas and the corresponding immigrant gateway categories. Table 2 lists the study variables while Table 3 provides descriptive information about the study sample. Tables 4, 5, and 6 present stepwise OLS regression results predicting the log of wages for Hispanic immigrant workers by gateway type and by metropolitan area, controlling for individual and metropolitan area characteristics.

Table 1. 28 Study Metropolitan Areas: Total Population and Hispanic Population, 1990-2000* (in thousands)

Metropolitan Area	Total Population			Hispanic Population		
	1990	2000	Change	1990	2000	Change
	#	%	#	%	#	%
Traditional Gateways						
Boston--Worcester-Lawrence, MA-NH-ME-CT	5,258	5.819	561	11%	232	4%
Chicago-Gary-Kenosha, IL-IN-WI	8,162	9,158	996	12%	895	11%
Los Angeles-Riverside-Orange County, CA	14,532	16,374	1,842	13%	4,779	33%
Miami--Fort Lauderdale, FL	3,193	3,876	684	21%	1,062	33%
New York--Northern NJ-Long Island, NY-NJ-CT-PA	19,550	21,200	1,650	8%	2,845	15%
San Diego, CA	2,498	2,814	316	13%	499	20%
San Francisco-Oakland-San Jose, CA	6,253	7,039	786	13%	970	16%
Emerging Destinations						
Austin--San Marcos, TX	846	1,250	404	48%	174	21%
Dallas--Fort Worth, TX	4,037	5,222	1,185	29%	512	13%
Denver-Boulder-Greeley, CO	1,980	2,582	601	30%	234	12%
Houston-Galveston-Brazoria, TX	3,711	4,670	959	26%	772	21%
Phoenix-Mesa, AZ	2,238	3,252	1,013	45%	374	17%
Portland-Salem, OR-WA	1,756	2,265	509	29%	71	4%
Sacramento-Yolo, CA	1,481	1,797	316	21%	172	12%
Salt Lake City-Ogden, UT	1,072	1,334	262	24%	61	6%
Seattle-Tacoma-Bremerton, WA	2,970	3,555	584	20%	82	3%
Tampa-St. Petersburg-Clearwater, FL	2,068	2,396	328	16%	136	7%
Washington--Baltimore, DC-MD-VA-WV	6,427	7,608	1,181	18%	256	4%
West Palm Beach-Boca Raton, FL	864	1,131	268	31%	65	8%
New Magnets						
Atlanta, GA	2,960	4,112	1,152	39%	55	2%
Charlotte-Gastonia-Rock Hill, NC-SC	1,162	1,499	337	29%	10	1%
Greensboro-Winston-Salem-High Point, NC	1,050	1,252	201	19%	7	1%
Indianapolis, IN	1,380	1,607	227	16%	12	1%
Las Vegas, NV-AZ	853	1,563	711	83%	87	10%
Minneapolis-St. Paul, MN-WI	2,539	2,969	430	17%	34	1%
Nashville, TN	985	1,231	246	25%	7	1%
Orlando, FL	1,225	1,645	420	34%	99	8%
Raleigh-Durham-Chapel Hill, NC	856	1,188	332	39%	10	1%
					73	6%
					141	12%
					485	6%
					229	90%
					76	116%
					214	388%
					67	685%
					55	809%
					31	261%
					235	272%
					65	189%
					33	454%
					173	175%
					63	631%

*While every effort was made to present comparable counts for the metropolitan areas in 1990 and 2000, the geography boundaries change from one census to the next. In some cases, the 1990 geographies may not exactly match the boundaries of the 2000 data.

Sources: a) Census 2000 Table PHC-T-3. Ranking Tables for Metropolitan Areas: 1990 and 2000. b) 2000 P4. Hispanic or Latino, and not Hispanic or Latino by Race. c) Census 1990 Table P008. Persons of Hispanic Origin. d) Suro, Roberto and Audrey Singer. 2002. "Latino Growth in Metropolitan America: Changing Patterns, New Locations." Washington D.C.: The Brookings Institution and Pew Hispanic Center. e) Singer, Audrey. 2004. "The Rise of New Immigrant Gateways." The Living Cities Census Series. Washington D.C.: The Brookings Institution Center on Urban and Metropolitan Policy.

Table 2. Study Variables

Variables	Description	Measurement Scale
DEPENDENT VARIABLE		
Log hourly wages	Hourly wages from work, derived from reported annual income and number of hours worked in previous year	Natural log implemented to limit variance
HUMAN CAPITAL INDEPENDENT VARIABLES		
Current Age	Age 18-64	Years
Education	Years of formal education completed and milestones achieved	4 dummy variables for: No formal education through Grade 8 (omitted), Grade 9-11, High school graduate, and Some college or more
Occupation Group	Categorization of occupations based on skill level.	3 dummy variables: Unskilled (omitted), Semi-Skilled/Skilled, and High-skilled
IMMIGRANT-SPECIFIC INDEPENDENT VARIABLES		
Country/Region of Origin	Country of birth	6 dummy variables: Mexico (omitted), Central America, South America, Cuba, Puerto Rico, and Caribbean
Age at Migration	Age at migration to the U.S. determined from current age and year of arrival	3 dummy variable: Younger than 10 years old, 10-21 years old, and Over age 21 (omitted)
Citizenship Status	United States citizenship status (not detailed)	0 = Not a citizen 1 = Naturalized citizen/Puerto Rican
English Speaking Ability	Ability to speak English if not primary language spoken at home	0 = Not Well, Not at all 1 = Well, Very Well
METRO AREA-LEVEL INDEPENDENT VARIABLES		
Gateway type	Categorization of metro areas based on Singer (2004) as well as size historical presence, and recent growth of Hispanic immigrant population	3 dummy variables: Traditional gateway (omitted), Established destination, and New magnet
Unemployment rate	% unemployed working age adults, from Bureau of Labor Statistics (2001)	Percent
Native Hispanic concentration	% of total population who are U.S.-born Hispanics, based on Census 2000 data	Percent
Foreign-born concentration	% of total population who are foreign-born, based on Census 2000 data	Percent
Manufacturing concentration	% of all workers employed within manufacturing sector, based on 2000 Census data.	Percent

Table 3. Descriptive Characteristics of Sample: Male Hispanic immigrant workers

<u>Mean/Percentage</u>	<u>Total Sample</u>	<u>Traditional</u>	<u>Established</u>	<u>New</u>
<u>Sample size</u>	182,714	126,428	43,532	12,902
<u>% of sample</u>	100.0	69.2	23.8	7.1
<u>Median Annual Earnings</u>	19,200	20,000	18,400	18,000
<u>Median Hourly Wages</u>	10.04	10.42	9.62	9.53
<u>Mean Annual Earnings</u>	25,264	25,954	23,868	23,215
<u>Mean Hourly Wages</u>	15.86	16.48	14.59	14.09
<u>Age</u>				
Mean Age, years	35.7	36.6	33.9	33.0
% Age 18-24	16.8	14.6	21.1	24.3
% Age 25-34	33.9	32.6	36.5	37.8
% Age 35-49	36.2	38.0	33.1	28.9
% Age 50+	13.2	14.9	9.4	9.1
<u>Time in U.S.</u>				
Mean Years in U.S.	14.9	16.1	12.8	10.9
% in U.S. < 5 years	16.7	13.0	22.8	32.6
% in U.S. 5-9 years	17.5	16.0	20.7	22.2
% in U.S. 10-19 years	34.6	36.1	32.2	27.3
% in U.S. 20+ years	31.2	34.9	24.3	17.9
Mean Age at Migration, years	20.8	20.5	21.1	22.1
% Migrated before age 10	10.8	11.9	8.7	7.2
% Migrated between ages 10-21	48.9	48.4	50.5	48.6
% Migrated age 22 or older	40.3	39.7	40.8	44.2
<u>Origin-%</u>				
Mexico	59.4	54.6	71.7	65.4
Central America	15.4	15.6	16.0	12.0
South America	9.9	11.5	6.0	7.4
Cuba	5.9	7.3	2.4	3.7
Puerto Rico	5.3	5.6	3.1	10.1
Caribbean	4.1	5.6	0.7	1.4
<u>Citizenship</u>				
% Naturalized or from Puerto Rico	30.2	32.7	24.0	26.4
<u>English Ability -%</u>				
Well/Very Well	57.2	59.9	51.5	51.0
<u>Education-%</u>				
None – Grade 8	33.6	31.5	39.9	33.5
Grade 9-11	15.9	15.0	18.1	16.8
High School Graduate	28.5	29.8	24.4	29.0
Some college or higher	22.1	23.8	17.6	20.7
<u>Occupation Group</u>				
Unskilled	21.2	20.5	22.2	24.8
Skilled, Semi-skilled	26.1	54.2	60.9	59.2
High-skilled	22.7	25.4	16.9	16.0

Table 4. Stepwise OLS Coefficients of a Model Predicting Hispanic Immigrant Hourly Wages (Natural log) by Gateway Type

	<u>Model 1:</u> <u>Gateway</u> <u>Type</u>		<u>Model 2:</u> <u>+Human</u> <u>Capital</u>		<u>Model 3:</u> <u>+Immigrant</u> <u>Specific</u>		<u>Model 4:</u> <u>+Metro Area</u>	
	<i>Coeff.</i>	<i>Sig.</i>	<i>Coeff.</i>	<i>Sig.</i>	<i>Coeff.</i>	<i>Sig.</i>	<i>Coeff.</i>	<i>Sig.</i>
<u>GATEWAY TYPE</u>								
Gateway type (<i>traditional gateway omitted</i>)								
Established destination	-0.083		-0.011	x	0.004	xxx	-0.114	
New Magnet	-0.086		-0.007	xxx	0.017	x	-0.133	
<u>HUMAN CAPITAL</u>								
Current Age (<i>18-24 omitted</i>)								
Age 25 - 34			0.260		0.275		0.277	
Age 35 - 49			0.415		0.427		0.430	
Age 50 and over			0.457		0.473		0.476	
Education (<i>8th grade or lower omitted</i>)								
Some high school			0.057		0.018		0.019	
High school graduate			0.116		0.059		0.056	
Some college and higher			0.312		0.224		0.223	
Occupation Group (<i>Unskilled group omitted</i>)								
Semi-skilled and skilled			0.182		0.170		0.181	
High-skilled			0.301		0.253		0.268	
<u>IMMIGRANT-SPECIFIC</u>								
Country of Origin (<i>Mexico omitted</i>)								
Central America					0.002	xxx	0.006	xxx
South America					0.050		0.052	
Cuba					0.007	xxx	0.073	
Puerto Rico					-0.053		-0.064	
Caribbean					-0.015	xxx	-0.035	
Age at migration (<i>Age 22 and older omitted</i>)								
10-21 years					0.119		0.119	
Younger than 10 years					0.120		0.122	
Citizenship								
					0.151		0.149	
Strong English speaking ability								
					0.109		0.106	
<u>METRO AREA-LEVEL</u>								
% Population, Unemployed							0.026	
% Population, Native Hispanic							0.001	x
% Population, Foreign Born							-0.012	
% Employed in Manufacturing Industry							-0.010	
Constant	2.396		1.794		1.655		1.902	
Sample Size (unweighted)	182,714		182,714		182,714		182,714	
Degrees of freedom	2		10		19		23	
Adjusted r ²	0.003		0.112		0.137		0.142	

x = not significant at p<.001
 xx = not significant at p<.01
 xxx = not significant at p<.05

Table 5. Stepwise OLS Coefficients of a Model Predicting Hispanic Immigrant Hourly Wages (Natural log) by Metropolitan Area

	<u>Model 1:</u> <u>Metropolitan</u> <u>Area</u>		<u>Model 2:</u> <u>+Human</u> <u>Capital</u>		Direction of Change (+/-)	<u>Model 3:</u> <u>+Immigrant</u> <u>Specific</u>		Direction of Change (+/-)
	Coeff.	Sig.	Coeff.	Sig.		Coeff.	Sig.	
<u>METROPOLITAN AREA</u> (Trad'l Gateways omitted)								
Emerging Destinations								
Austin--San Marcos, TX	-0.102		-0.025	xxx	+	-0.005	xxx	+
Dallas--Fort Worth, TX	-0.146		-0.043		+	-0.025		+
Denver-Boulder-Greeley, CO	-0.087		0.023	xxx	+	0.046		+
Houston-Galveston-Brazoria, TX	-0.083		-0.021	x	+	-0.013	xxx	+
Phoenix-Mesa, AZ	-0.157		-0.051		+	-0.025	x	+
Portland-Salem, OR-WA	-0.212		-0.032	xxx	+	-0.018	xxx	+
Sacramento-Yolo, CA	0.012	xxx	0.073		+	0.061		+
Salt Lake City-Ogden, UT	-0.149		-0.058	xx	+	-0.038	xxx	+
Seattle-Tacoma-Bremerton, WA	-0.031	xxx	0.032	xxx	+	0.048	xx	+
Tampa-St. Petersburg-Clearwater, FL	-0.039	xx	-0.076		-	-0.086		+
Washington--Baltimore, DC-MD-VA-WV	0.065		0.097		+	0.119		+
West Palm Beach-Boca Raton, FL	-0.027	xxx	-0.037	xx	-	-0.038	xx	+
New Magnets								
Atlanta, GA	-0.122		-0.024	xx	+	0.023	xxx	+
Charlotte-Gastonia-Rock Hill, NC-SC	-0.170		-0.060	x	+	-0.015	xxx	+
Greensboro-Winston-Salem-High Point, NC	-0.243		-0.117		+	-0.074	x	+
Indianapolis, IN	-0.077	xxx	0.025	xxx	+	0.059	xxx	+
Las Vegas, NV-AZ	0.031	xx	0.140		+	0.144		+
Minneapolis-St. Paul, MN-WI	-0.111		-0.005	xxx	+	0.027	xxx	+
Nashville, TN	-0.211		-0.102	x	+	-0.066	xx	+
Orlando, FL	0.000	xxx	-0.059		-	-0.084		-
Raleigh-Durham-Chapel Hill, NC	-0.234		-0.094		+	-0.040	xxx	+
Constant	2.396		1.793			1.657		
Sample Size	182,714		182,714			182,714		
Degrees of freedom	21		29			38		
Adjusted r²	0.013		0.114			0.139		

x = not significant at p<.001
xx = not significant at p<.01
xxx = not significant at p<.05

Table 6. OLS Coefficients of a Model with Interaction Terms Predicting Hispanic Immigrant Hourly Wages (Natural log) by Gateway Type

	Full Model + Gateway Type Interaction Terms	
	Coeff.	Sig.
<u>GATEWAY TYPE</u>		
Gateway type (traditional gateway omitted)		
Established destination	-0.013	
New Magnet	-0.085	
<u>HUMAN CAPITAL</u>		
Current Age (18-24 omitted)		
Age 25 - 34	0.278	
Age 35 - 49	0.431	
Age 50 and over	0.476	
Education (8th grade or lower omitted)		
Some high school	0.015	x
Some high school*Established destination	0.015	xxx
Some high school*New Magnet	-0.001	xxx
High school graduate	0.058	
High school graduate*Established destination	0.001	xxx
High school graduate*New Magnet	-0.019	xxx
Some college and higher	0.238	
Some college or more*Established destination	-0.045	
Some college or more*New Magnet	-0.096	
Occupation Group (Unskilled group omitted)		
Semi-skilled and skilled occupations	0.170	
Semi and Skilled*Established destination	0.042	
Semi and Skilled*New Magnet	-0.011	xxx
High-skilled	0.246	
High-skilled*Established destination	0.086	
High-skilled*New Magnet	0.068	
<u>IMMIGRANT SPECIFIC</u>		
Country of Origin (Mexico omitted)		
Central America	0.008	xxx
South America	0.054	
Cuba	0.075	
Puerto Rico	-0.056	
Caribbean	-0.031	
Age at migration (Age 22 and older omitted)		
10-21 years	0.121	
Younger than 10 years	0.118	
Citizenship		
Citizenship*Established Destination	-0.056	
Citizenship*New Magnet	-0.087	
Strong English speaking ability		
Strong English*Established Destination	-0.018	xx
Strong English*New Magnet	-0.007	x
<u>METRO AREA-LEVEL</u>		
% Population, Unemployed	0.026	
% Population, Native Hispanic	0.002	
% Population, Foreign Born	-0.012	
% Employed in Manufacturing Industry	-0.010	
Constant	1.904	
Sample Size (unweighted)	182,714	
Degrees of freedom	37	
Adjusted r ²	.1429	

x = not significant at p<.001

xx = not significant at p<.01

xxx = not significant at p<.05