

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

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## **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)**

<u>Metropolitan Area</u>	<u>Total Population</u>			<u>Hispanic Population</u>						
	1990	2000	Change	1990	2000	Change				
	#	%	#	%	#	%				
<b>Traditional Gateways</b>										
Boston--Worcester-Lawrence, MA-NH-ME-CT	5,258	5.819	561	11%	232	4%	358	6%	126	54%
Chicago-Gary-Kenosha, IL-IN-WI	8,162	9,158	996	12%	895	11%	1,499	16%	603	67%
Los Angeles-Riverside-Orange County, CA	14,532	16,374	1,842	13%	4,779	33%	6,598	40%	1,819	38%
Miami--Fort Lauderdale, FL	3,193	3,876	684	21%	1,062	33%	1,563	40%	502	47%
New York--Northern NJ-Long Island, NY-NJ-CT-PA	19,550	21,200	1,650	8%	2,845	15%	3,852	18%	1,007	35%
San Diego, CA	2,498	2,814	316	13%	499	20%	751	27%	252	51%
San Francisco-Oakland-San Jose, CA	6,253	7,039	786	13%	970	16%	1,384	20%	413	43%
<b>Emerging Destinations</b>										
Austin--San Marcos, TX	846	1,250	404	48%	174	21%	328	26%	153	88%
Dallas--Fort Worth, TX	4,037	5,222	1,185	29%	512	13%	1,120	21%	609	119%
Denver-Boulder-Greeley, CO	1,980	2,582	601	30%	234	12%	477	18%	243	104%
Houston-Galveston-Brazoria, TX	3,711	4,670	959	26%	772	21%	1,349	29%	576	75%
Phoenix-Mesa, AZ	2,238	3,252	1,013	45%	374	17%	817	25%	443	118%
Portland-Salem, OR-WA	1,756	2,265	509	29%	71	4%	197	9%	126	177%
Sacramento-Yolo, CA	1,481	1,797	316	21%	172	12%	278	15%	106	61%
Salt Lake City-Ogden, UT	1,072	1,334	262	24%	61	6%	145	11%	83	136%
Seattle-Tacoma-Bremerton, WA	2,970	3,555	584	20%	82	3%	184	5%	103	126%
Tampa-St. Petersburg-Clearwater, FL	2,068	2,396	328	16%	136	7%	249	10%	113	83%
Washington--Baltimore, DC-MD-VA-WV	6,427	7,608	1,181	18%	256	4%	485	6%	229	90%
West Palm Beach-Boca Raton, FL	864	1,131	268	31%	65	8%	141	12%	76	116%
<b>New Magnets</b>										
Atlanta, GA	2,960	4,112	1,152	39%	55	2%	269	7%	214	388%
Charlotte-Gastonia-Rock Hill, NC-SC	1,162	1,499	337	29%	10	1%	77	5%	67	685%
Greensboro-Winston-Salem-High Point, NC	1,050	1,252	201	19%	7	1%	62	5%	55	809%
Indianapolis, IN	1,380	1,607	227	16%	12	1%	43	3%	31	261%
Las Vegas, NV-AZ	853	1,563	711	83%	87	10%	322	21%	235	272%
Minneapolis-St. Paul, MN-WI	2,539	2,969	430	17%	34	1%	99	3%	65	189%
Nashville, TN	985	1,231	246	25%	7	1%	40	3%	33	454%
Orlando, FL	1,225	1,645	420	34%	99	8%	272	17%	173	175%
Raleigh-Durham-Chapel Hill, NC	856	1,188	332	39%	10	1%	73	6%	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**

<b>Variables</b>	<b>Description</b>	<b>Measurement Scale</b>
<b>DEPENDENT VARIABLE</b>		
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
<b>HUMAN CAPITAL INDEPENDENT VARIABLES</b>		
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
<b>IMMIGRANT-SPECIFIC INDEPENDENT VARIABLES</b>		
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
<b>METRO AREA-LEVEL INDEPENDENT VARIABLES</b>		
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>
<b><u>GATEWAY TYPE</u></b>								
<b>Gateway type (<i>traditional gateway omitted</i>)</b>								
Established destination	-0.083		-0.011	x	0.004	xxx	-0.114	
New Magnet	-0.086		-0.007	xxx	0.017	x	-0.133	
<b><u>HUMAN CAPITAL</u></b>								
<b>Current Age (<i>18-24 omitted</i>)</b>								
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	
<b>Education (<i>8th grade or lower omitted</i>)</b>								
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	
<b>Occupation Group (<i>Unskilled group omitted</i>)</b>								
Semi-skilled and skilled			0.182		0.170		0.181	
High-skilled			0.301		0.253		0.268	
<b><u>IMMIGRANT-SPECIFIC</u></b>								
<b>Country of Origin (<i>Mexico omitted</i>)</b>								
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	
<b>Age at migration (<i>Age 22 and older omitted</i>)</b>								
10-21 years					0.119		0.119	
Younger than 10 years					0.120		0.122	
<b>Citizenship</b>								
					0.151		0.149	
<b>Strong English speaking ability</b>								
					0.109		0.106	
<b><u>METRO AREA-LEVEL</u></b>								
% 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 <sup>2</sup>	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.	
<b><u>METROPOLITAN AREA</u> (Trad'l Gateways omitted)</b>								
<b>Emerging Destinations</b>								
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	+
<b>New Magnets</b>								
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	+
<b>Constant</b>	<b>2.396</b>		<b>1.793</b>			<b>1.657</b>		
<b>Sample Size</b>	<b>182,714</b>		<b>182,714</b>			<b>182,714</b>		
<b>Degrees of freedom</b>	<b>21</b>		<b>29</b>			<b>38</b>		
<b>Adjusted r<sup>2</sup></b>	<b>0.013</b>		<b>0.114</b>			<b>0.139</b>		

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.
<b><u>GATEWAY TYPE</u></b>		
<b>Gateway type (<i>traditional gateway omitted</i>)</b>		
Established destination	-0.013	
New Magnet	-0.085	
<b><u>HUMAN CAPITAL</u></b>		
<b>Current Age (<i>18-24 omitted</i>)</b>		
Age 25 - 34	0.278	
Age 35 - 49	0.431	
Age 50 and over	0.476	
<b>Education (<i>8th grade or lower omitted</i>)</b>		
Some high school	0.015	x
<i>Some high school*Established destination</i>	0.015	xxx
<i>Some high school*New Magnet</i>	-0.001	xxx
High school graduate	0.058	
<i>High school graduate*Established destination</i>	0.001	xxx
<i>High school graduate*New Magnet</i>	-0.019	xxx
Some college and higher	0.238	
<i>Some college or more*Established destination</i>	-0.045	
<i>Some college or more*New Magnet</i>	-0.096	
<b>Occupation Group (<i>Unskilled group omitted</i>)</b>		
Semi-skilled and skilled occupations	0.170	
<i>Semi and Skilled*Established destination</i>	0.042	
<i>Semi and Skilled*New Magnet</i>	-0.011	xxx
High-skilled	0.246	
<i>High-skilled*Established destination</i>	0.086	
<i>High-skilled*New Magnet</i>	0.068	
<b><u>IMMIGRANT SPECIFIC</u></b>		
<b>Country of Origin (<i>Mexico omitted</i>)</b>		
Central America	0.008	xxx
South America	0.054	
Cuba	0.075	
Puerto Rico	-0.056	
Caribbean	-0.031	
<b>Age at migration (<i>Age 22 and older omitted</i>)</b>		
10-21 years	0.121	
Younger than 10 years	0.118	
<b>Citizenship</b>		
Citizenship*Established Destination	0.165	
Citizenship*New Magnet	-0.056	
Citizenship*New Magnet	-0.087	
<b>Strong English speaking ability</b>		
Strong English*Established Destination	0.112	
Strong English*Established Destination	-0.018	xx
Strong English*New Magnet	-0.007	x
<b><u>METRO AREA-LEVEL</u></b>		
% 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 <sup>2</sup>	.1429	

x = not significant at p<.001

xx = not significant at p<.01

xxx = not significant at p<.05