

Shifts in Puerto Rican Population in the Continental U. S.: 1990-2010

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Introduction and Purpose

- Puerto Rican migration to the continental United States created a significant New York City concentration expressed early as barrios, such as the Brooklyn Colonia and the Harlem community (or el barrio) prior to WWII (Sanchez, 1994).
- Early social institutions, such as the Puerto Rican Brotherhood, supplied the necessary socio-cultural and political support, which along with the importance of the enclaves, provided place-based ethnicity that persisted. (Sanchez, 1994).
- Puerto Rican labor migration increased dramatically after WWII (Santiago, 1991).
- In more recent decades, Puerto Rican population dispersed out of New York City, especially to nearby communities in New York, Connecticut and Pennsylvania (Reisinger, et al., 2006; Galligano and Frazier, 2006).
- This has led to more diverse Latino settlements with a large Puerto Rican presence and a "Latinization" of small cities such as Allentown, PA (Reisinger, et al., 2010).
- Similarly, direct migration and secondary Puerto Rican migrants have settled in gateway states, especially in Florida, where they constitute the largest percentage of the Hispanic population.
- The purpose of this research is to illustrate the U.S. national and regional trends of the Hispanic population since 1990 with an emphasis on Puerto Ricans.
- Models are presented to explain the percent increase in the Puerto Rican populations in selected U.S. counties, 1990-2000 and 2000-2010.

Hypothesis

Our hypotheses are expressed as regression models for the two time periods. The dependent variable is the "Percentage Increase in the County Puerto Rican Population, 1990-2000 (second model is 2000-2010).

The independent variables are as follows:

Model 1 (1990-2000)

Economic Potential of County

- % Population Change, 1980-1990
- % Unemployed, 1990
- % Manufacturing Employment, 1990
- % Technical and Managerial Employment, 1990

Socio-Economic Status by County

- Median Household Income, 1990
- % High School Education
- % College Education, 1990
- % Owner Occupied Housing Units, 1990

Cultural Niche by County

- % Hispanic Population Change, 1980-1990

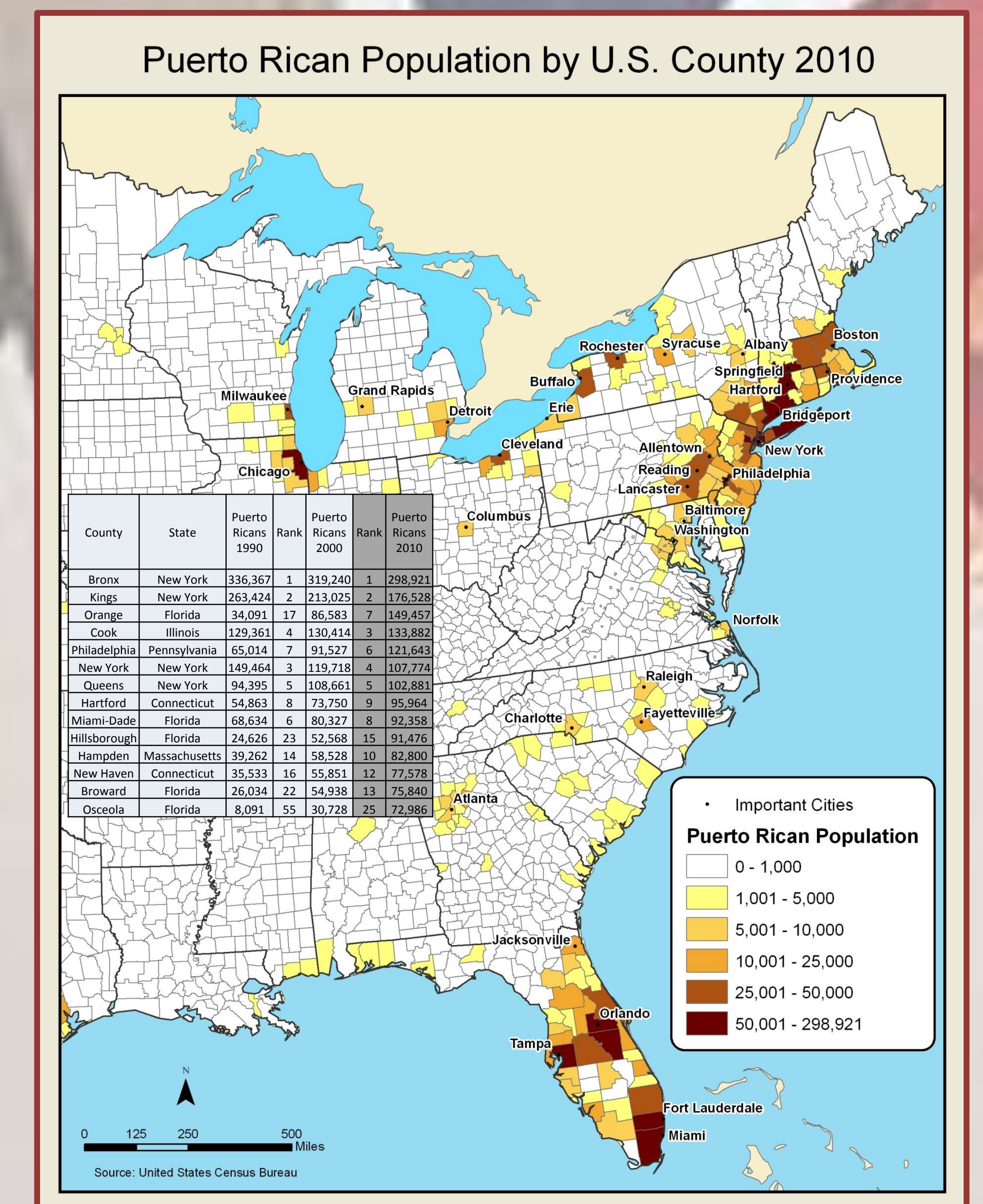
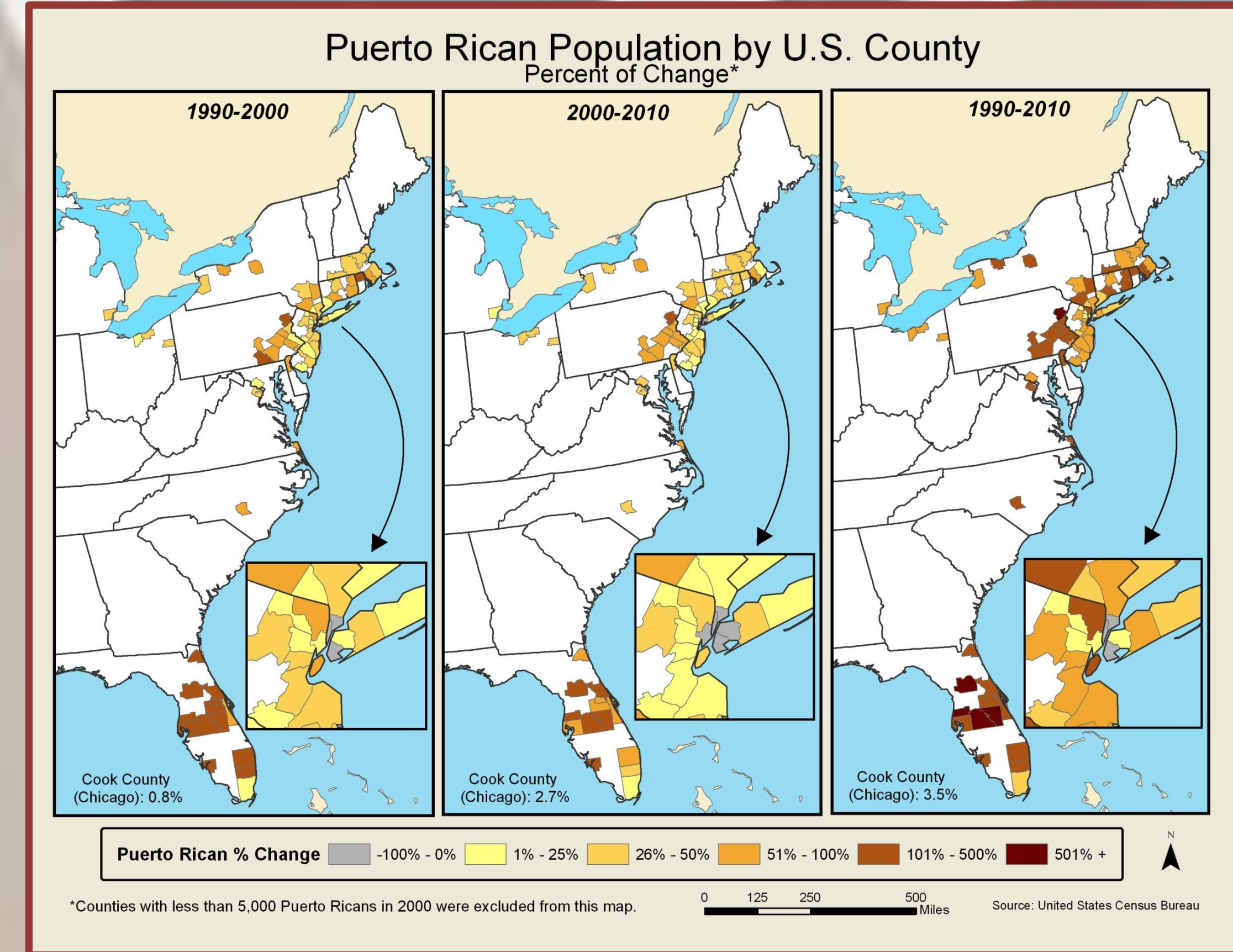
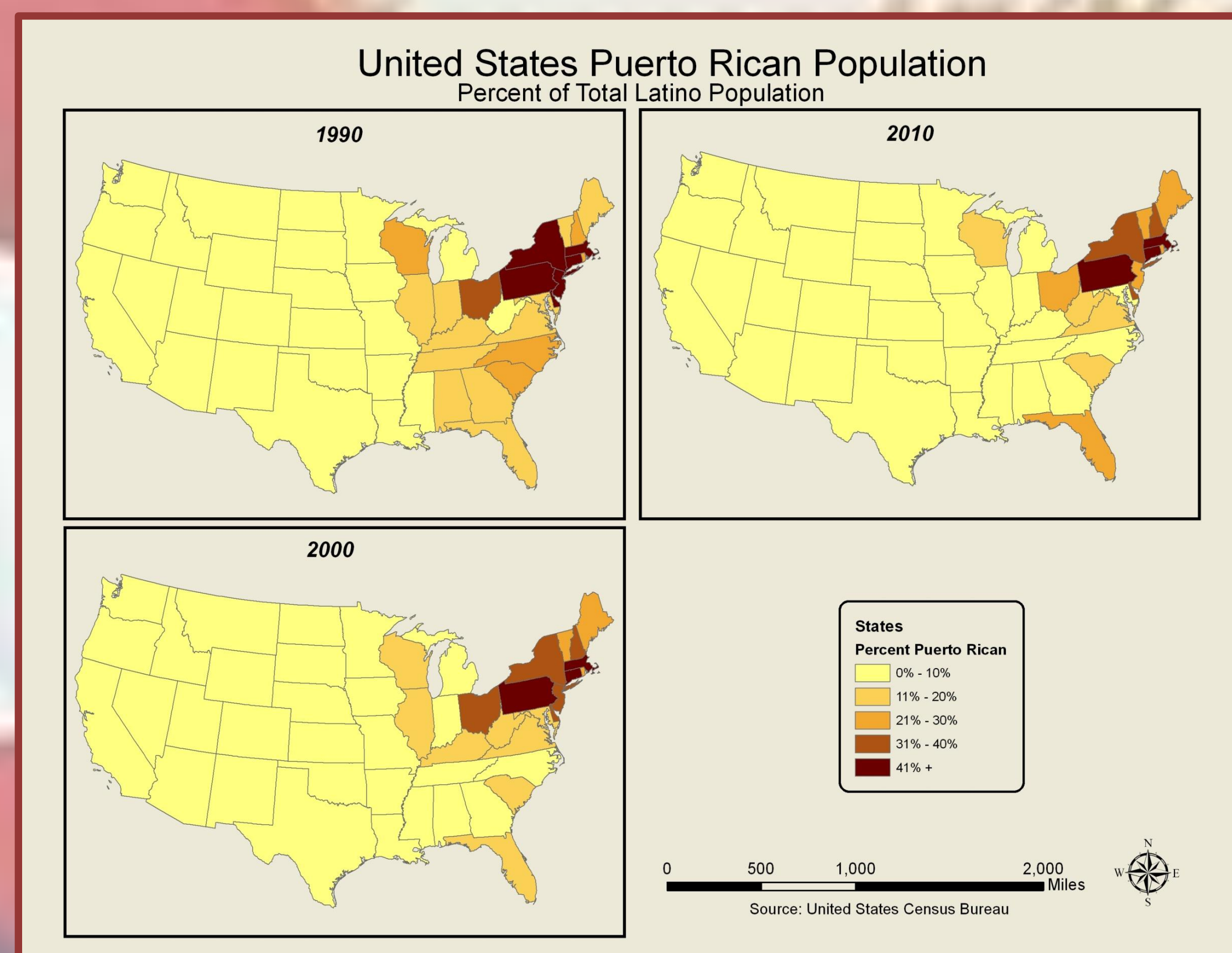
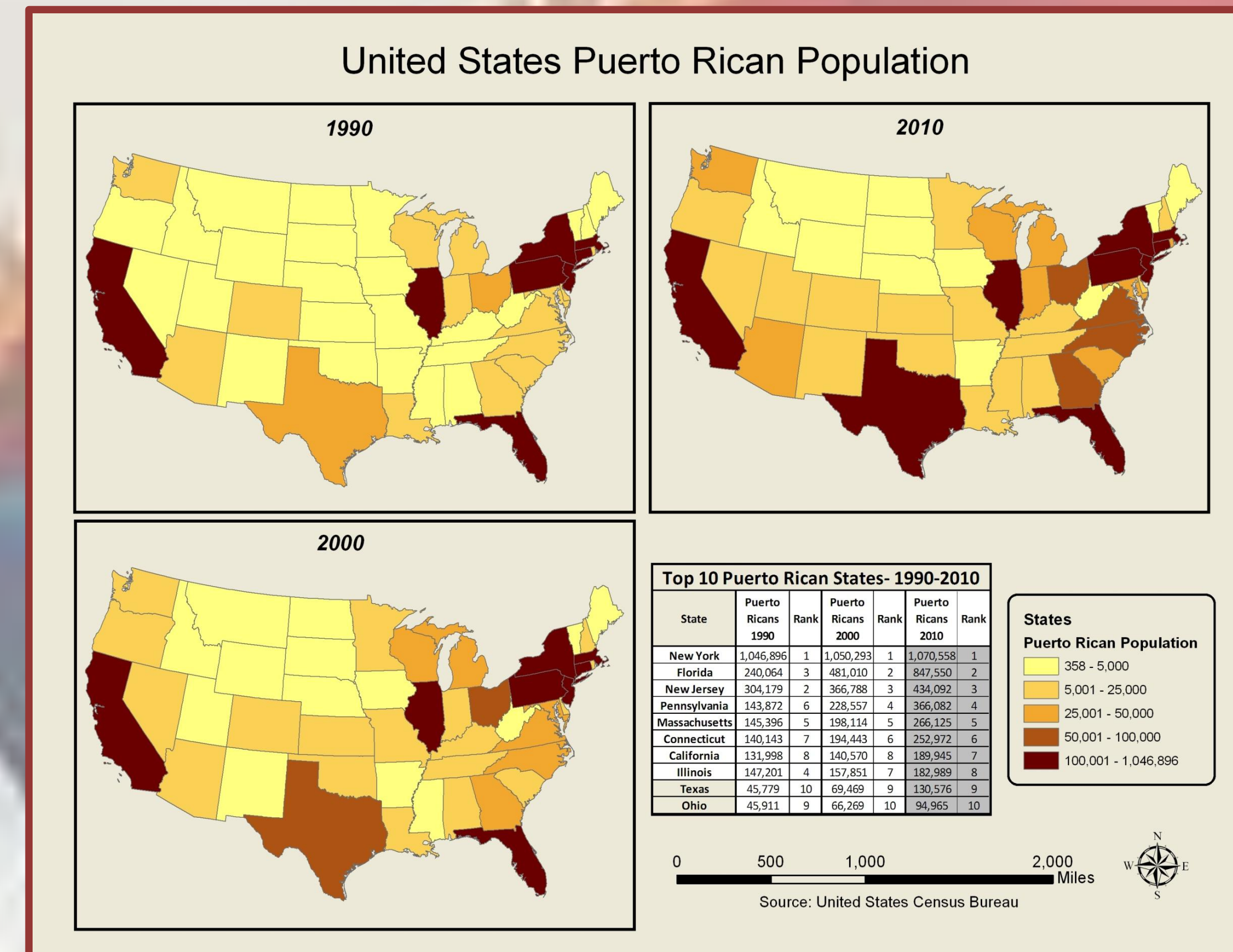
Model 2 (2000-2010)

Independent variables from Model 1, plus

Amenity Variables

- Crimes per 1,000, 2000 (disamenity)
- Doctors per 1,000, 2000

Results and Analysis



Regression Analysis

Model 1:

Percent Change in Puerto Rican Population by County, 1990-2000

Stepwise Regression Results-

Four (4) independent variables were significant at the .05 level or better and explained 39.3% of the variance.

Independent Variables	Beta Values*	Significant F Values	df 1,2	Adjusted R ² (% Explained Variance)
Percent Total Population Change, 1980-1990	0.534	0.000	1,141	0.280
Percent of Population with a High School Diploma, 1990- added, Step 2	0.293 (.550)	0.000	1,140	0.360
Percent Change in the Hispanic Population, 1980-1990- added, Step 3	0.207 (.406, .263)	0.028	1,139	0.381
Percent of the Population Unemployed, 1990- added, Step 4	-0.136 (.406, .263, .210)	0.048	1,138	0.393

N = 143

* All t-values significant for the variables reported
+ All changes in F-Values significant

Model 2:

Percent Change in Puerto Rican Population by County, 2000-2010

Stepwise Regression Results-

Four (4) independent variables were significant at the .05 level or better and explained 50% of the variance.

Independent Variables	Beta Values*	Significant F Values	df 1,2	Adjusted R ² (% Explained Variance)
Percent Change in the Hispanic Population, 1990-2000	0.546	59.8	1,141	0.293
Percent of Population with a High School Diploma, 2000- added, Step 2	0.287 (.575)	42.8	2,140	0.370
Percent of the Population Unemployed, 2000- added, Step 3	-0.228 (.520, .272)	34.7	3,139	0.416
Median Household Income, 2000- added, Step 4	-0.386 (.489, .186, -.415)	36.3	4,138	0.500

N = 143

* All t-values significant for the variables reported
+ All changes in F-Values significant

Discussion

Model 1- Percent Change in Puerto Rican Population (1990-2000)

4 major variables explain 40% of the variance.

- U.S. counties with an increase in Puerto Rican population 1990-2000 experienced:
- 1) an increase in total population during the prior decade (1980-1990)- Adjusted R² = 28%
 - 2) a greater proportion of their populations holding high school diplomas- Adjusted R² = 36%
 - 3) an increase in the Hispanic population in the prior decade- Adjusted R² = 38%
 - 4) lower unemployment rates in 1990- Adjusted R² = 39%

Core variable- increase in total population in the prior decade contributed the greatest explanation.

Model 2- Percent Change in Puerto Rican Population (2000-2010)

4 major variables explain 50% of the variance, but these are not the same variables that were important for the previous decade.

- U.S. counties with an increase in Puerto Rican population 2000-2010 experienced:
- 1) an increase in the Hispanic population in the prior decade (1990-2000)- Adjusted R² = 29%
 - 2) a greater proportion of their populations holding high school diplomas- Adjusted R² = 37%
 - 3) lower unemployment- Adjusted R² = 42%
 - 4) lower median household income- Adjusted R² = 50%

This most likely indicates that Puerto Rican migrants are attracted to central counties and inner suburbs or older cities.

Summary and Conclusions

- Puerto Ricans have a long history of settlement on the U.S. mainland that focused on New York City until recent decades, when they dispersed to other regions in the U.S., both by suburbanization and long-distance migration. They remain largely an Eastern U.S. population.
- The trend of Mexican ancestry dominance in the U.S. Hispanic population continues. However, Puerto Ricans remain a strong second in the Hispanic U.S. rankings.
- There is a continued dominance of certain American gateway states and communities but emerging and traditional gateway cities have also attracted growing numbers of Hispanics, including Orlando, Tampa, Miami-Ft. Lauderdale, and Jacksonville, FL.
- We ran regression models to analyze the influence of certain independent variables on the percentage change in the Puerto Rican population in selected U. S. counties, for 1990-2000 and 2000-2010. Our first series of models selected those with at least 1,000 Puerto Ricans in 2000 but these were generally not significant (not reported here).
- However, our models for counties with a minimum of 5,000 Puerto Ricans provided modest but useful results. The model for 1990-2000 illustrated the importance of population growth in the previous period (1980-1990) as the most important independent variable, explaining 28% of the variance. The model for 2000-2010 also was significant but demonstrated that the growth of the Hispanic Diaspora in the previous decade contributed most to the explanation, 29% of the variance was explained by this simple independent variable. Other contributing factors included educational attainment, unemployment rates, and annual household incomes.

Data Sources and Methods

Data Sources:

- 1980, 1990, 2000, 2010 U.S. Census
- U.S. Crime Statistics, 2000

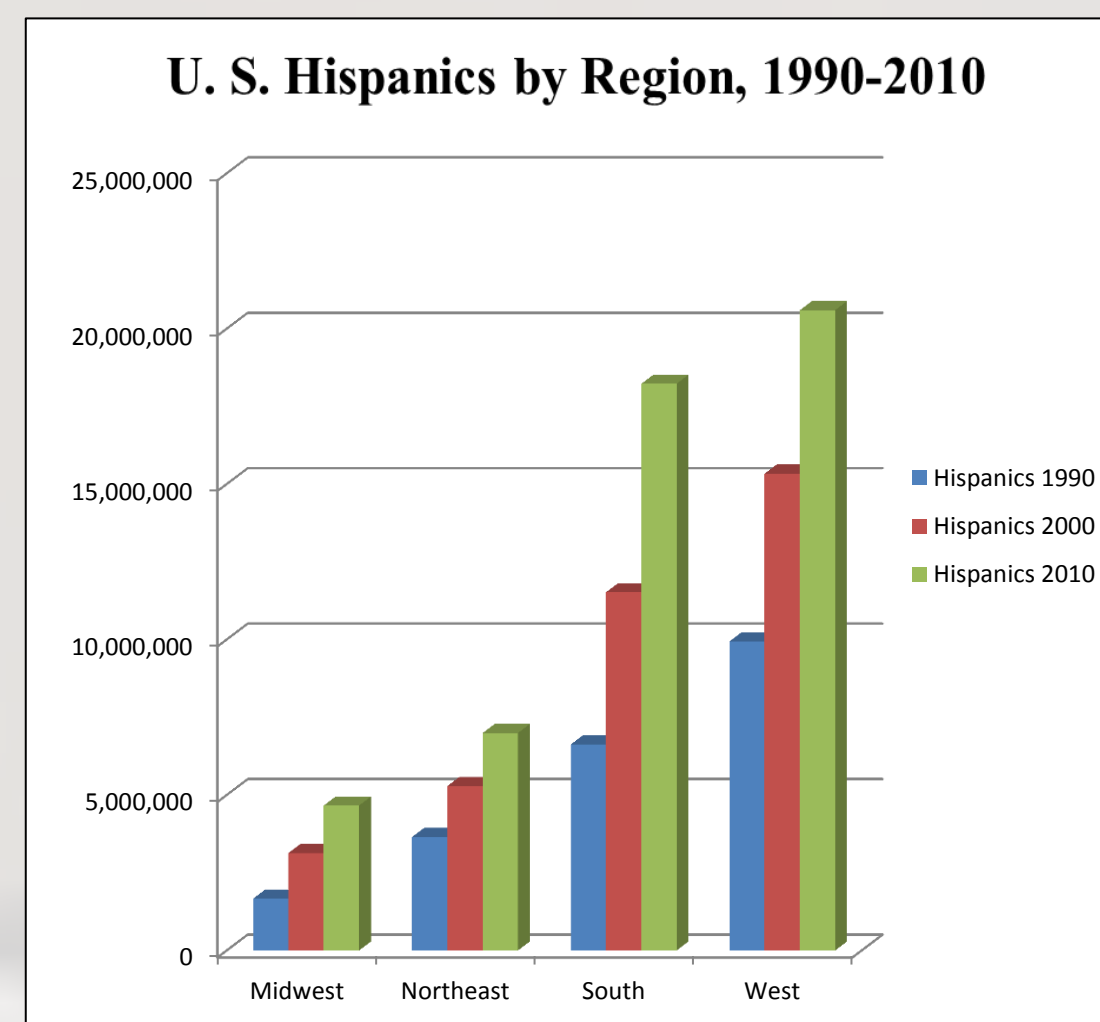
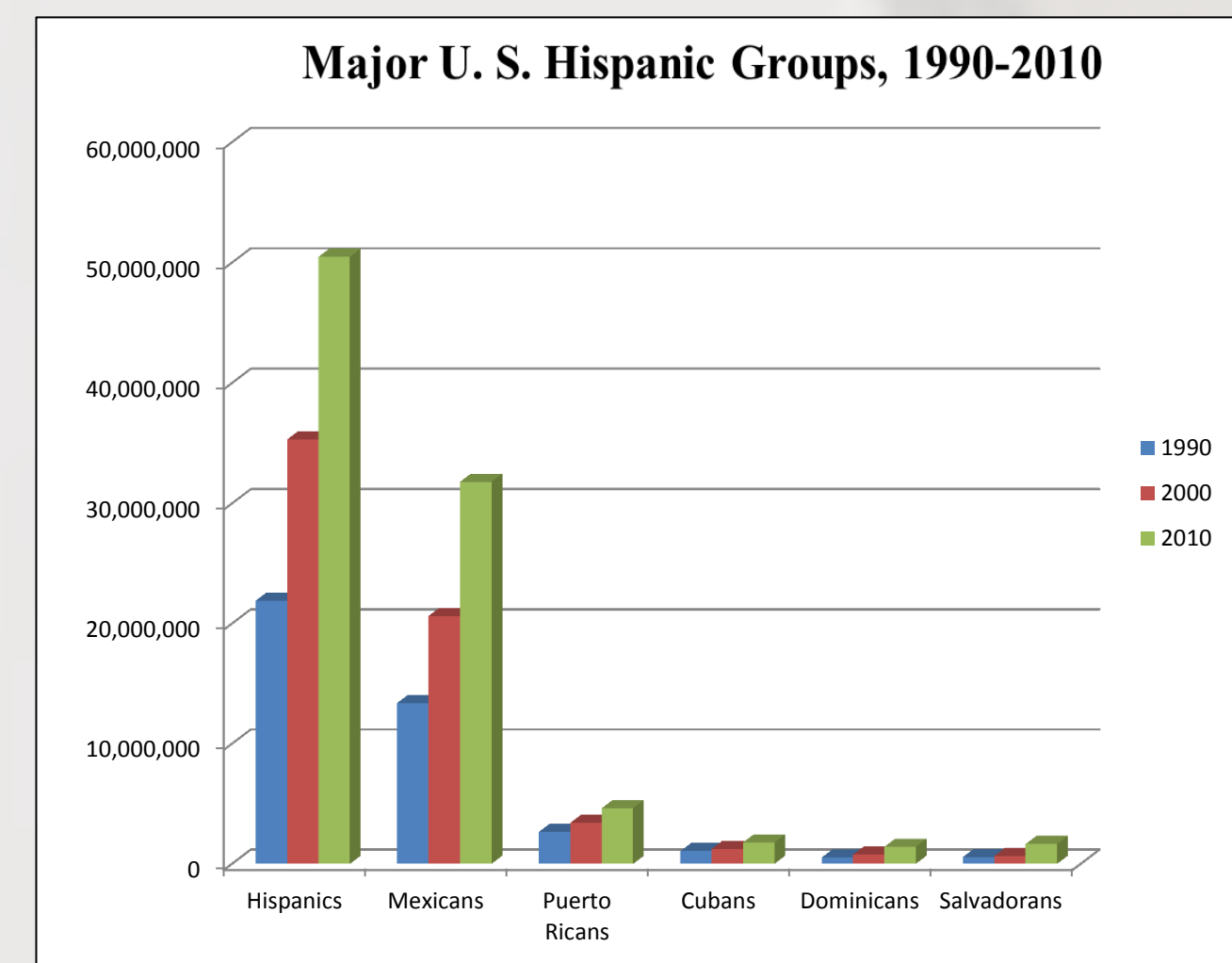
Methods:

- ArcGIS
- Excel
- Stepwise Multiple Regression

References

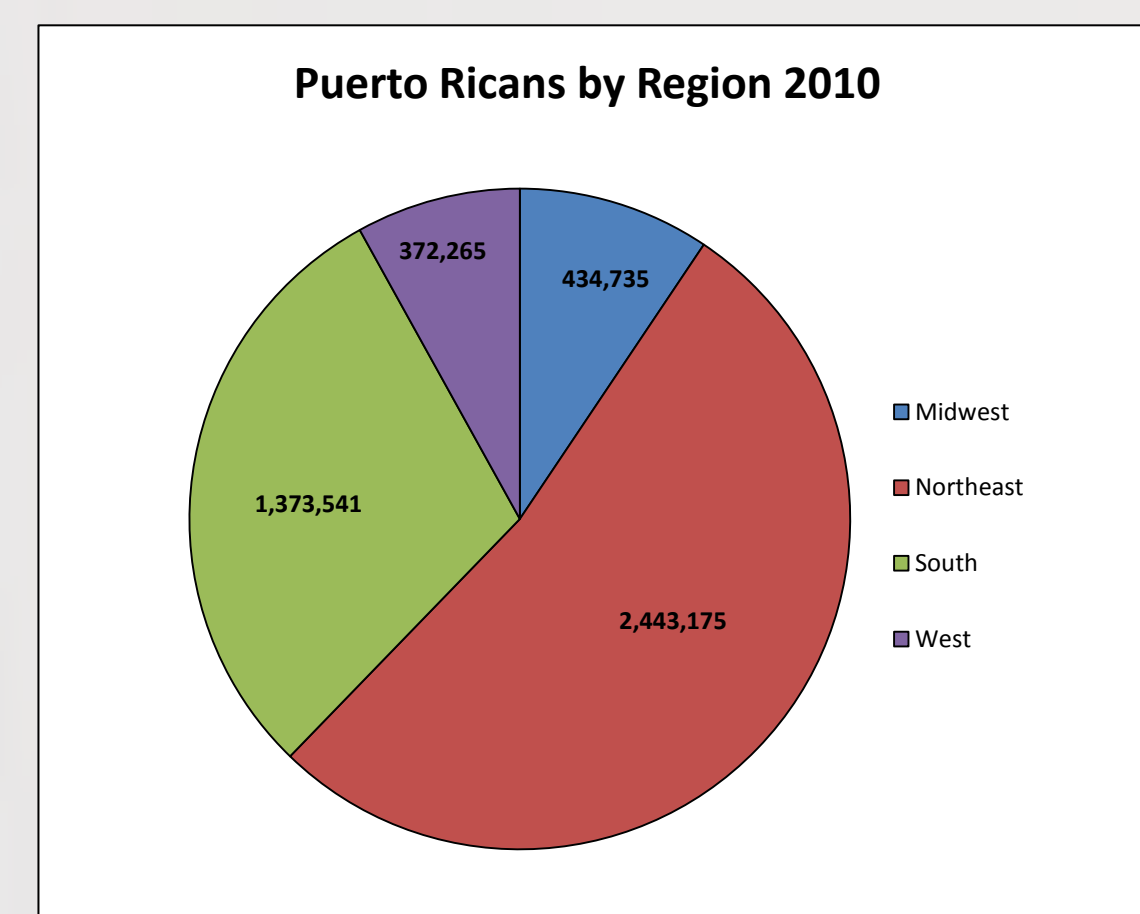
- 1) Galligano, K.D. and Frazier, J.W., "Latinos in New York City: Ethnic Diversity, Changing Settlement Patterns, and Settlement Experiences". *Race, Ethnicity and Place in a Changing America*, pages 199-208. Global Academic Publishing, 2006
- 2) Reisinger, M.E. et al., "Patterns and Issues in the Latinization of Allentown, Pennsylvania". *Race, Ethnicity and Place in a Changing America*, pages 233-250. Global Academic Publishing, 2006
- 3) Reisinger, M.E. et al., "The Latinization of Allentown, Pennsylvania". *1970-2000 Race, Ethnicity and Place in a Changing America*, pages 235-254. Global Academic Publishing, 2010
- 4) Sanchez, V.E., "From Colonia to Community". LA: University Press, 1994
- 5) Santiago, C.E., "Wage Politics, Employment, and Puerto Rican Migration". *Latinos in the Labor Force: Issues and Policies*. New York: Plenum, 1991

National and Regional Trends

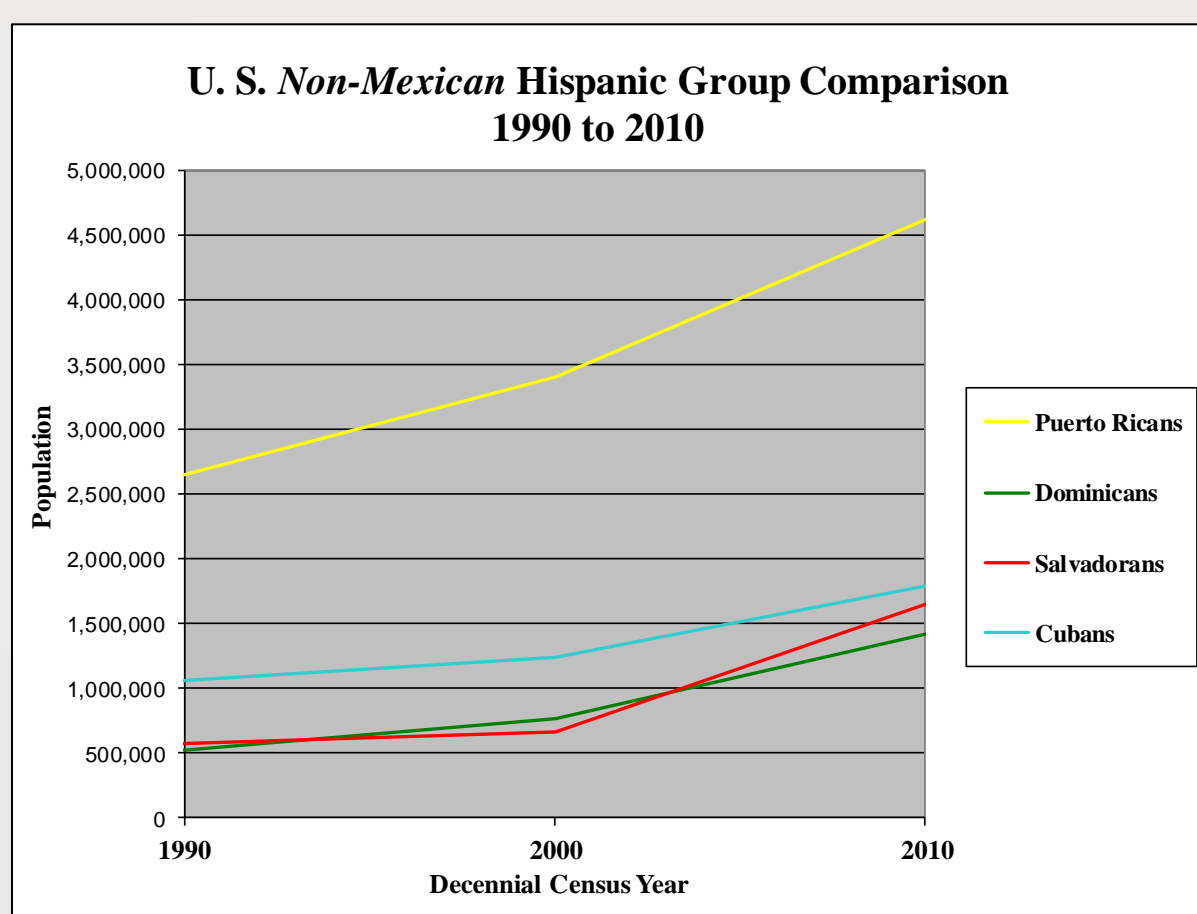


- Mexicans dominated the numbers of U.S. Hispanics in 2000, with a 54.1% increase from 1990.
- Puerto Ricans were second, with a 28.4% increase from 1990.
- Mexicans continued to dominate the numbers of U.S. Hispanics in 2010 with a 130.5% increase from 1990.
- Puerto Ricans were still second, with 74.4% increase from 1990.

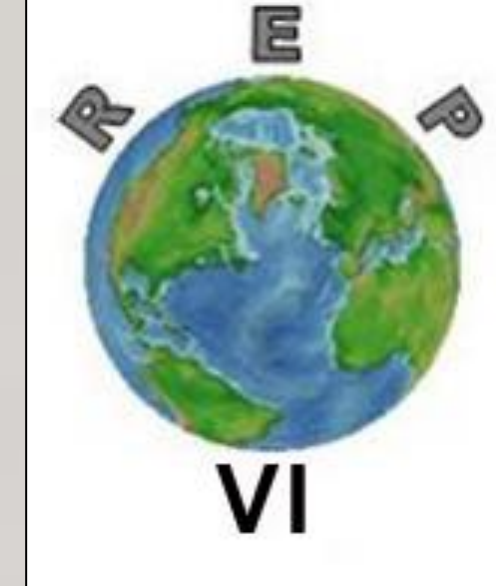
- The West and the South have the largest Hispanic populations in 1990; the West had nearly 10 million (45%) South had nearly 7 million (30%).
- In 2010 the West continued to have the greatest Hispanic total population, but has decreased its percent. The South has increased its percent; the Northeast decreased.



- Most Puerto Ricans live in the Northeast (53% or the South (30%).
- The West has many Hispanics, but few Puerto Ricans (8%).



- Puerto Ricans are second-largest group far exceed others or the South (30%).
- All Hispanic groups grow throughout time period
- Dominicans steady growth throughout
- Salvadorans most rapid 2000 to 2010



SES in Selected Puerto Rican Settlements in the Continental U. S.: 1990-2010

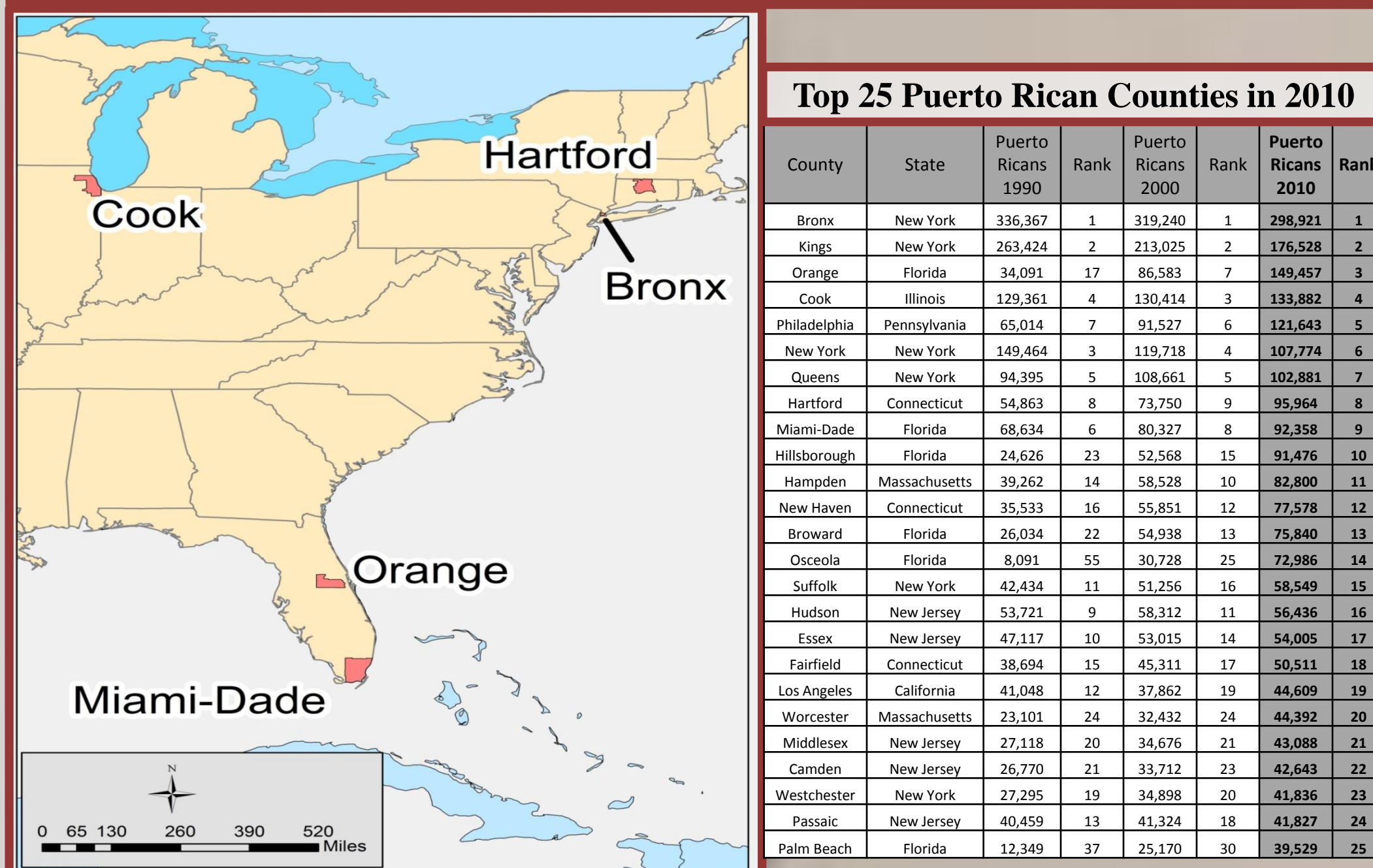
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Introduction and Purpose

- As the U.S. Hispanic/Latino Diaspora increases and becomes increasingly dispersed, settlement structures and Socio-Economic Status patterns become more complex.
- While gateways and other urban counties lead the changes, little is known about how Puerto Ricans compare to other Hispanics in different settlement structures.
- The purpose of this poster is to examine 5 urban counties with relatively large Puerto Rican populations in different regions of the U.S. These communities house Puerto Ricans in differing ethnic proportions with other Hispanics.
- We examine demographic and Socio-Economic Status variables from the 5-Year PUMS (Public Use Microdata Series) estimates from the 2010 ACS (American Community Survey) Data. We are aware of the limitations of the ACS data concerning MOE (Margin of Error). However, given the data are for large counties with generally high numbers of Hispanics, we believe the unreported error is less at this scale.
- Our goal, then, is to shed some light on Puerto Rican status in varying settlements when compared to other Hispanics.

Focus Area Maps



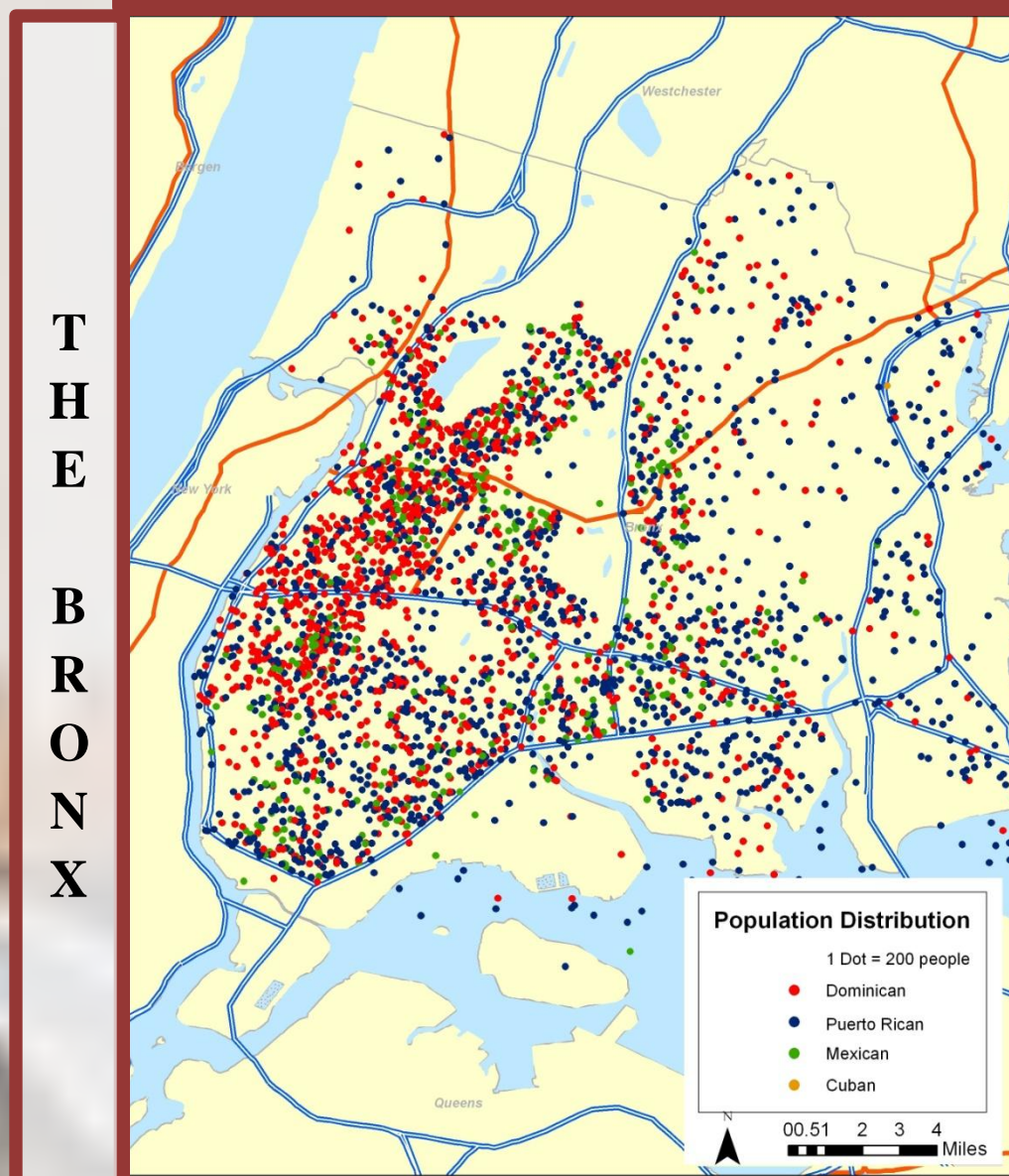
Study Area and Context

- Each of these communities has a different mix of Hispanic ancestry. However, Puerto Ricans rank either first or second among Hispanics groups.
- Bronx County** (New York City Borough) = 40% Puerto Ricans, 32% Dominicans
 - Cook County** (contains the City of Chicago, IL) = 77% Mexicans, 5% Puerto Ricans
 - Hartford County** (contains the City of Hartford, CT) = 70% Puerto Ricans, 5% Mexicans
 - Orange County** (contains the City of Orlando, FL) = 48% Puerto Ricans, 12% Mexicans
 - Miami-Dade County** (contains the City of Miami, FL) = 52% Cuban, 6% Puerto Rican

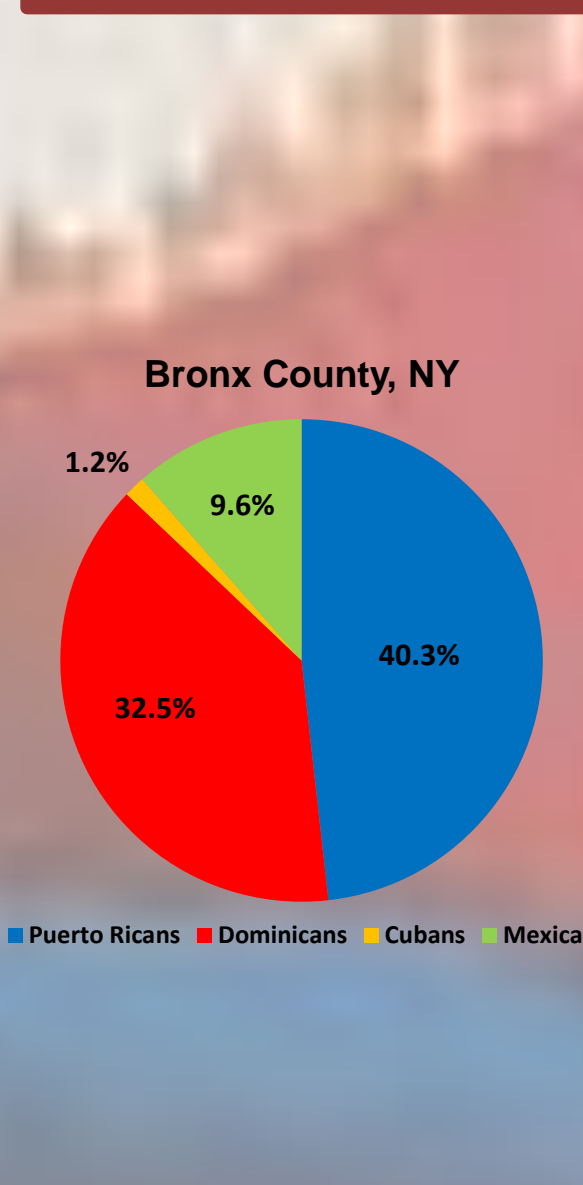
- Demographics:**
Age Distributions among the Four (4) Hispanic Groups (Foreign Born sample is too small)
- Bronx County:** The Foreign Born Mexican and Dominican are strikingly youthful. The have populations of 96% and 92% under the age of 30 respectively.
 - Cook County:** All four (4) groups are youthful, led by the Mexicans and Dominicans.
 - Hartford County:** Mexicans and Dominicans are also youthful in this county. However, a notable difference from the others. Here the Mexicans' largest number and percent is in the ages 19-30, or young working ages. The Cuban populations are split between youthful categories and near retirement ages.
 - Miami-Dade County:** The Mexican, Cuban, and Dominican populations are youthful. However, the Puerto Rican population has larger percent, Native Born and Foreign Born, in the near retirement ages.
 - Orange County:** As in other areas, Mexicans and Dominicans, Native Born and Foreign Born, are youthful; so are the Native Born Cubans (77%). The majority of the Foreign Born Cubans are also in the two (2) oldest categories. However, there also are differences in age structures of Puerto Ricans and Dominicans in Orange County when compared to the other counties. Here the Puerto Rican age distribution is much younger (53% with the largest percent in the 0-18 year category. Dominican Foreign Born here also display a difference; nearly one-half (48%) are in the oldest two(2) age categories.

Results and Analysis

Hispanic Group Maps



Group Charts

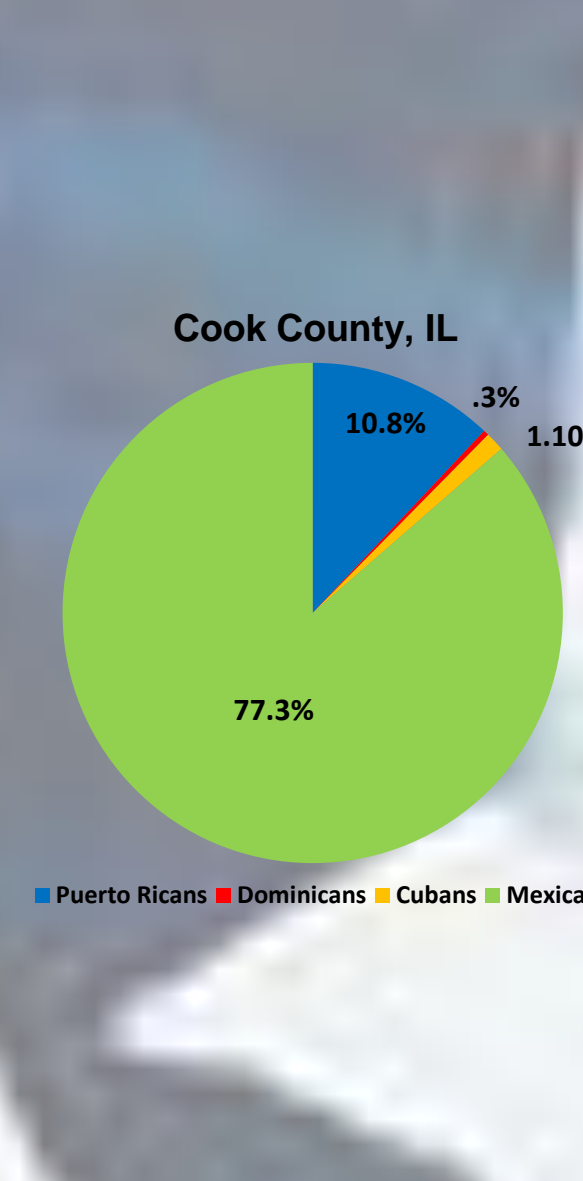
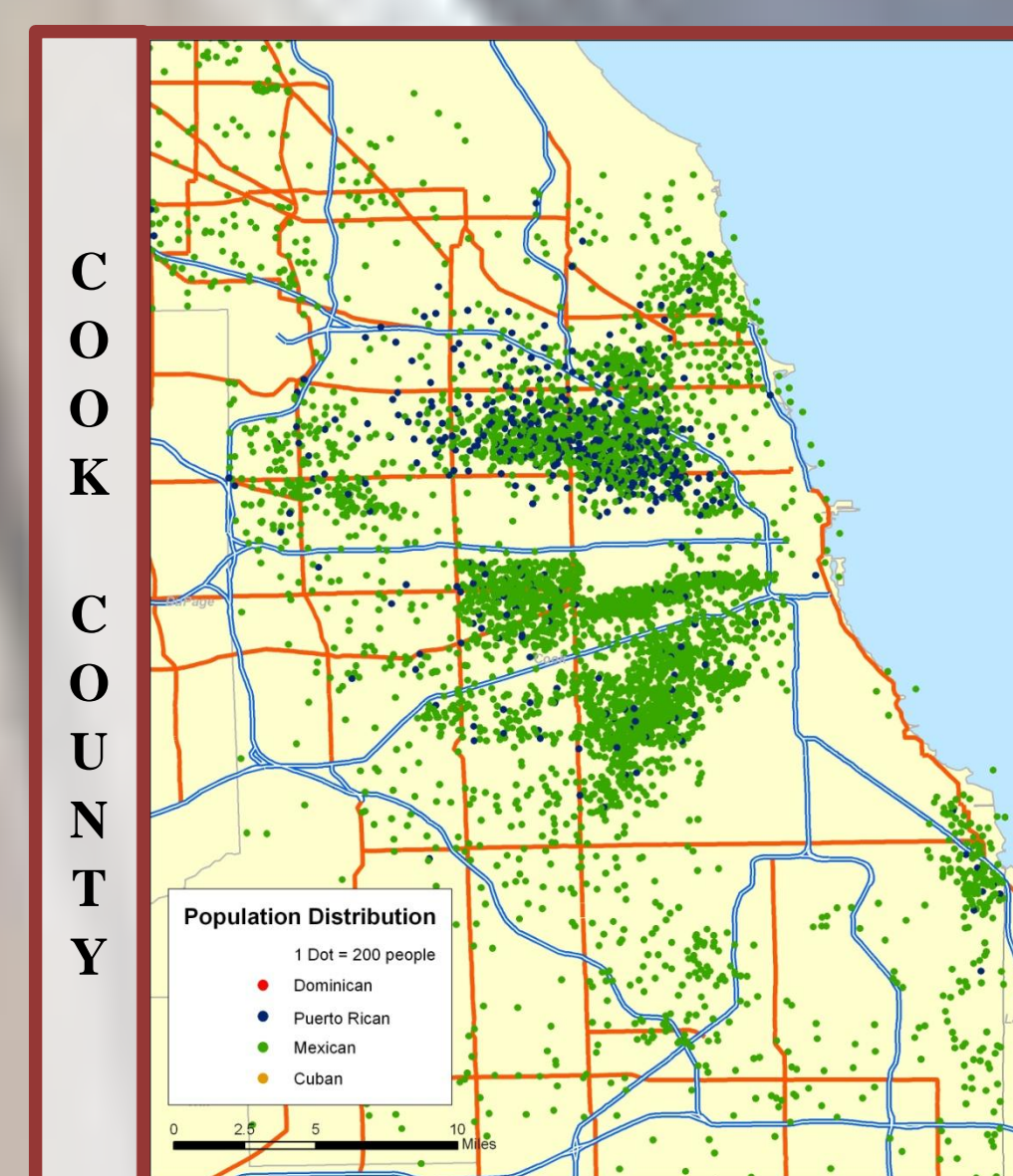


Hispanic Age Tables

Ancestry	Native Born		Foreign Born		
	Age	% By Age Group	Count	% By Age Group	
Mexican	0-18	17,705	88	3,163	5
	19-30	1,699	8	16,000	42
	31-44	671	3	13,451	35
	45-64	100	0	5,053	13
	65+	5	0	476	1
Puerto Rican	0-18	83,008	32	168	22
	19-30	45,596	17	159	20
	31-44	46,588	19	357	46
	45-64	59,148	23	39	5
	65+	25,658	10	55	7
Cuban	0-18	1,349	38	102	3
	19-30	666	19	135	4
	31-44	845	24	393	12
	45-64	561	16	1,270	38
	65+	134	4	1,409	43
Dominican	0-18	62,523	72	15,374	11
	19-30	17,723	20	28,728	21
	31-44	5,640	7	39,440	28
	45-64	623	1	44,975	32
	65+	148	0	10,753	8

Significant PUMS Variables

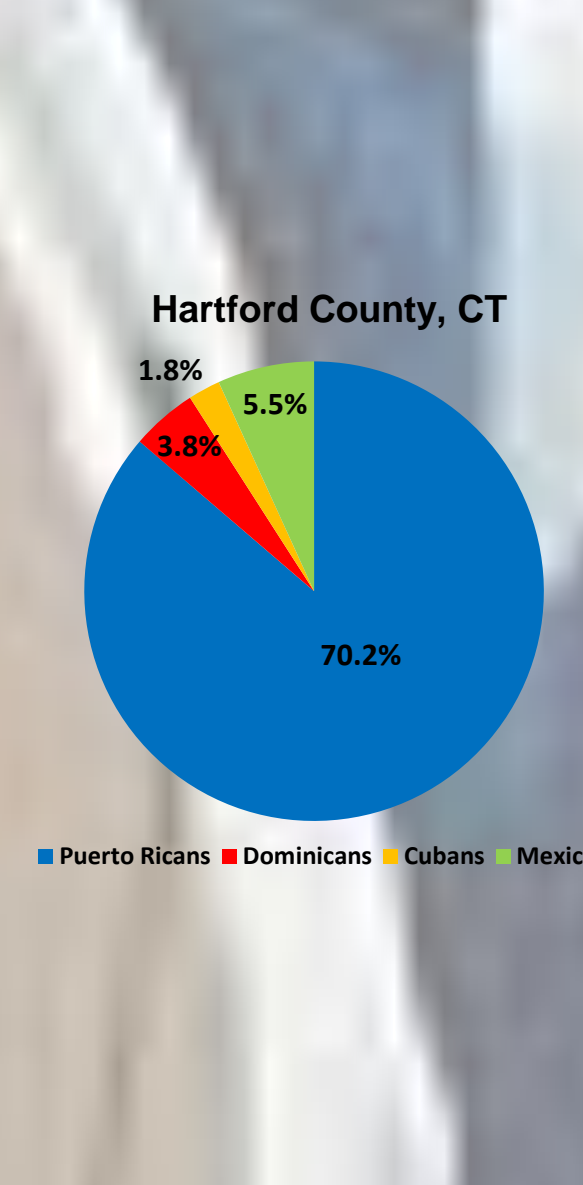
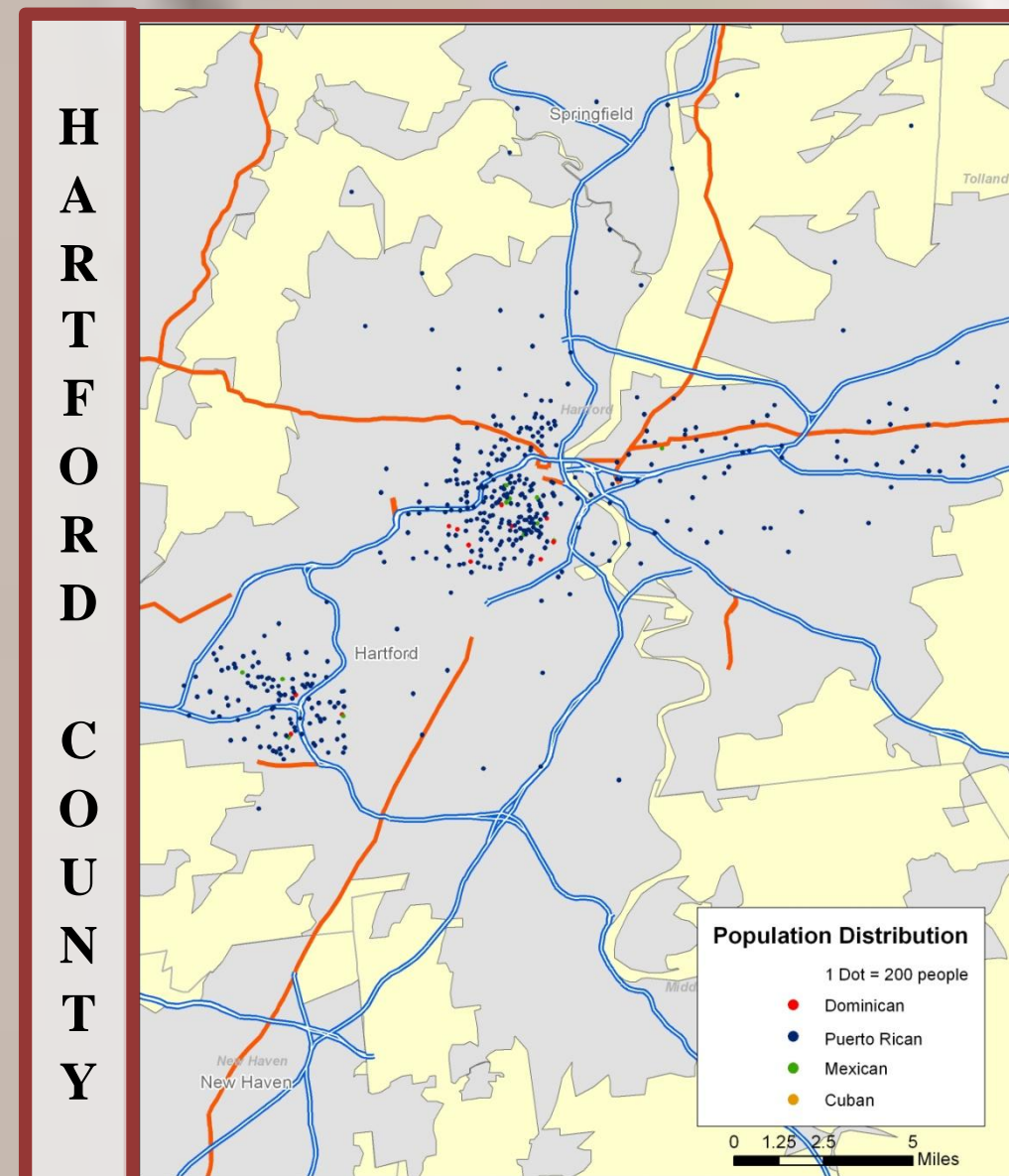
Variable	Variable Details	Puerto Rico		Mexican		Cuban		Dominican					
		Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group				
Ownership of dwelling	Owned	39,882	16	585,683	2,686	5	570,794	1,339	21	570,030	18,776	8	573,933
	Rented	214,846	84	525,000	55,099	95	536,997	5,145	79	540,226	205,667	92	529,067
Educational attainment	Less Than HS	120,893	51	520,901	32,059	65	537,246	2,330	37	522,767	102,751	51	524,833
	HS Grad	61,547	26	239,499	12,518	25	541,600	2,010	32	552,853	49,980	24	534,435
	Some College	38,461	16	547,994	3,200	7	547,466	988	16	547,660	33,510	17	540,974
Employment status	College Grad	18,257	8	571,300	1,377	3	551,837	1,242	16	563,525	16,849	8	554,886
	Employed	86,155	44	556,909	26,435	66	547,888	2,025	37	563,299	92,149	57	541,822
	Unemployed	14,182	7	520,256	1,503	4	531,100	409	7	528,500	13,286	8	529,168
Occupation	Not in labor force	93,998	48	517,116	12,074	30	530,435	3,285	56	532,903	56,560	35	522,361
	Managerial, Professional and Related	31,444	27	560,984	1,647	5	562,000	874	26	563,525	24,153	20	543,550
	Service	27,419	24	537,607	12,311	40	542,181	817	24	540,226	35,696	30	533,131



Ancestry	Native Born		Foreign Born		
	Age	% By Age Group	Count	% By Age Group	
Mexican	0-18	243,182	63	34,261	8
	19-30	78,279	20	99,266	24
	31-44	36,678	10	125,453	37
	45-64	17,930	5	104,446	26
	65+	7,009	2	21,405	5
Puerto Rican	0-18	34,155	30	191	41
	19-30	22,557	20	96	21
	31-44	22,769	20	17	4
	45-64	25,248	22	103	22
	65+	7,679	40	11	3
Cuban	0-18	3,009	40	111	9
	19-30	2,050	27	135	3
	31-44	1,740	23	671	16
	45-64	626	8	1,812	44
	65+	73	1	1,385	34
Dominican	0-18	549	50	160	8
	19-30	407	37	364	18
	31-44	145	13	207	14
	45-64	N/A	N/A	992	48
	65+	N/A	N/A	250	12

Significant PUMS Variables

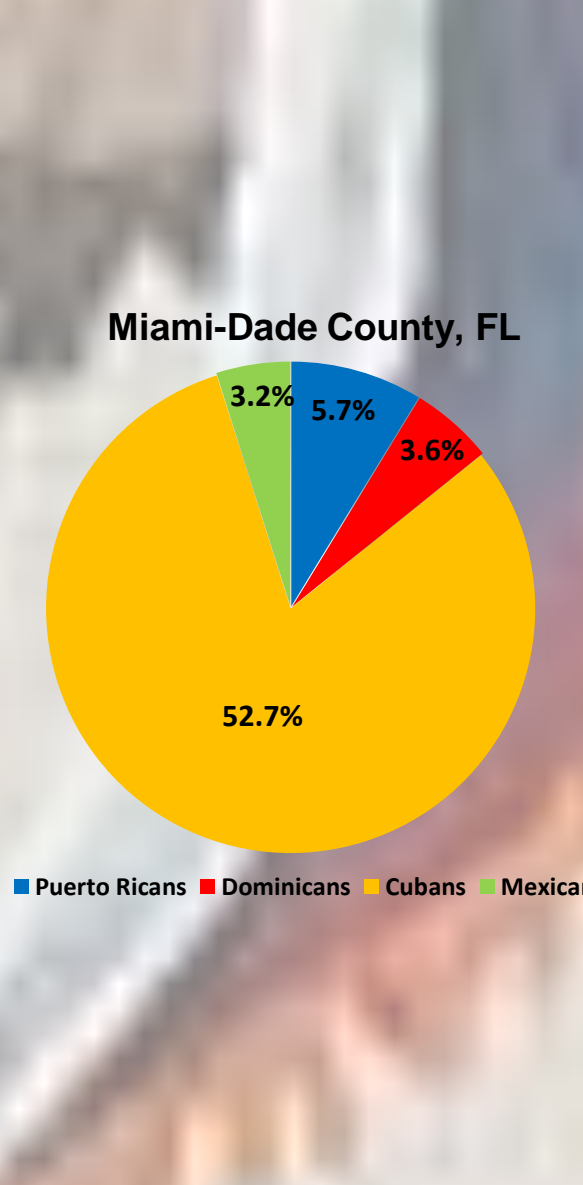
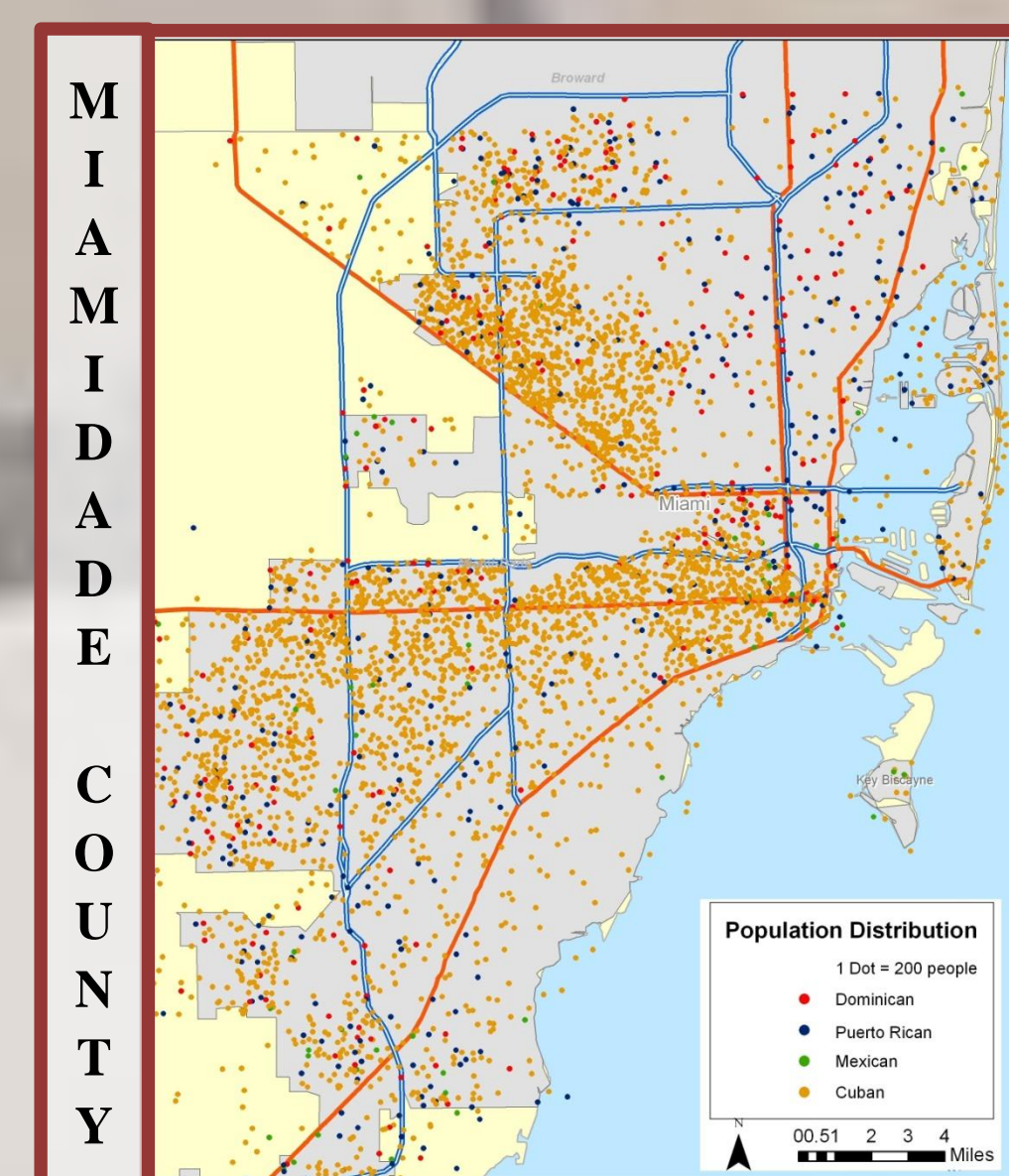
Variable	Variable Details	Puerto Rico		Mexican		Cuban		Dominican					
		Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group				
Ownership of dwelling	Owned	49,946	45	575,959	443,918	56	561,000	7,564	66	577,377	1,418	46	570,235
	Rented	61,692	55	530,574	344,721	44	534,600	3,827	34	536,600	1,682	54	529,080
Educational attainment	Less Than HS	42,504	41	536,714	378,220	55	544,695	3,333	31	563,850	1,124	37	529,000
	HS Grad	32,793	32	549,804	195,820	28	552,040	2,448	22	548,991	817	27	529,000
	Some College	18,118	18	558,944	77,829	11	564,033	2,504	23	563,850	620	20	527,247
Employment status	College Grad	9,176	9	585,100	40,074	6	579,500	2,606	24	591,054	473	16	533,033
	Employed	47,367	56	566,979	358,467	65	557,891	5,220	56	572,110	1,272	50	566,702
	Unemployed	6,958	8	537,249	37,997	7	544,500	561	6	555,703	384	15	547,804
Occupation	Not in labor force	30,760	36	531,499	159,151	29	541,300	3,548	38	547,196	903	35	532,728
	Managerial, Professional and Related	15,219	25	575,556	54,866	13	575,556	2,278	33	572,035	431	25	591,476
	Service	14,811	16	548,209	99,958	23	548,300	1,109	16	584,061	209	12	557,223



Ancestry	Native Born		Foreign Born		
	Age	% By Age Group	Count	% By Age Group	
Mexican	0-18	1,287	58	214	7
	19-30	409	18	1,308	44
	31-44	346	16	811	20
	45-64	182	8	530	18
	65+	N/A	N/A	52	2
Puerto Rican	0-18	31,185	38	11	0
	19-30	16,290	20	66	53
	31-44	16,259	20	47	38
	45-64	14,176	17	N/A	N/A
	65+	3,343	4	N/A	N/A
Cuban	0-18	363	51	16	9
	19-30	133	19	45	8
	31-44	180	25	107	19
	45-64	18	5	215	38
	65+	N/A	N/A	187	33
Dominican	0-18	1,186	74	301	12
	19-30	249	15	597	23
	31-44	137	9	944	26
	45-64	36	2	591	23
	65+	N/A	N/A	171	7

Significant PUMS Variables

Variable	Variable Details	Puerto Rico		Mexican		Cuban		Dominican					
		Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group				
Ownership of dwelling	Owned	20,157	26	568,000	1,313	26	592,781	277	60	5140,426	1,758	43	590,500
	Rented	58,801	74	524,263	3,827	74	542,400	426	40	542,689	2,342	57	533,695
Educational attainment	Less Than HS	39,359	55	526,935	2,210	47	544,722	413	34	514,645	1,861	47	546,685
	HS Grad	20,888	29	539,623	1,414	30	550,897	294	24	548,633	744	19	552,057
	Some College	8,576	12	552,361	479	10	576,568	302	25	588,113	968	25	562,082
Employment status	College Grad	2,853	4	585,074	559	12	580,000	213	17	5140,000	365	9	587,130
	Employed	29,086	53	548,000	2,548	64	565,000	678	70	588,113	2,131	70	561,780
	Unemployed	6,995	13	523,500	409	10	544,722	40	4	552,400	405	13	552,770
Occupation	Not in labor force	19,259	35	520,432	1,025	26	548,631	249	26	552,783	514	17	517,600
	Managerial, Professional and Related	7,726	19	558,978	500	15	580,000	195	24	5140,000	510	19	552,770
	Service	11,201	27	534,800	1,166	35	542,400	120	15	594,300	713	26	551,500



Ancestry	Native Born		Foreign Born		
	Age	% By Age Group	Count	% By Age Group	
Mexican	0-18	11,227	66	1,914	30
	19-30	2,660	16	6,007	31
	31-44	1,981	12	6,728	35
	45-64	867	5	3,927	20
	65+	298	2	956	5
Puerto Rican	0-18	20,565	27	181	18
	19-30	13,368	18	211	21
	31-44	17,100	23	211	11
	45-64	16,735	22	236	24
	65+	8,110	11	159	16
Cuban	0-18	118,993	54	30,190	6
	19-30	51,557	23	84,238	17
	31-44	38,975	18	115,201	23
	45-64	10,249	5	172,977	34
	65+	1,187	1	179,122	28
Dominican	0-18	11,889	62	2,406	7
	19-30	4,887	25	6,213	19
	31-44	2,144	11	8,927	27
	45-64	310	2	11,214	24
	65+	58	0	4,083	12

Significant PUMS Variables

Variable	Variable Details	Puerto Rico		Mexican		Cuban		Dominican	
		Count	% By Variable Group	Count	% By Variable Group	Count	% By Variable Group	Count	