Hispanics and Recent Latino Immigrants Locate Disproportionally in Places with Spanish Names

Albert Saiz

-

University of Pennsylvania (The Wharton School). 1466 Steinberg-Dietrich Hall; 3620 locust Walk. Philadelphia, PA 19104.6302. Phone: 215-898 28 59. Fax: 215-573 22 20. Email: saiz@wharton.upenn.edu

Abstract

There is a strong demographic association between Spanish place-names and the share of the Hispanic population in Arizona, California, New Mexico, Nevada, and Texas. After controlling for county fixed effects and a host of observable variables, two otherwise observably-similar and geographically-proximate communities that only differ by Spanish-name origin can be expected to contain a share of Hispanics that differs by 3 percentage points. This implies an increment in the population of Hispanic origin of 10 percent in Spanish-named towns. The association between Spanish toponymy and Hispanic demographics was already strong 40 years ago. However, recent Latino immigrants were also more likely to locate in places with Spanish names. Conventional naming patterns had strong social impacts 150 years after the Mexican-American War and subsequent acquisition of these territories. These results with respect to a seemingly irrelevant local attribute, toponymy, underline the historical resilience of culturally-driven demographic settlement patterns.

1 Introduction

A large number of cities, towns, villages, and inhabited places in Texas and the Southwestern United States bear Spanish names, usually remarked upon as silent witnesses of a bygone era. Current demographic research acknowledges the importance of direct kinship and community networks to account for immigration decisions and destinations [1]. However, there is less evidence on whether past cultural and historic attributes influence current demographic patterns. This research shows that a seemingly irrelevant cultural attribute, toponymy, has a direct social legacy in contemporaneous America. Using 2000 Census data, we show that Spanish-named communities in Texas, New Mexico, Arizona, Nevada, and California were more attractive to Hispanics and recent Latino immigrants vis-à-vis other places in geographic proximity. In these communities, Spanish-speaking families had already been more prevalent in the 1970 Census. However recent immigrants were also disproportionally more likely to locate in them, which points to the attractiveness of Spanish-named locales to Hispanic families, beyond and above organic links through Mexican-American shared history. The results are present in all regions, and very robust to controlling for a host of geographic, housing, and social variables.

We focus on census-designated places in 2000, defined by the US Census as clusters of population identifiable by name. Table 1 displays descriptive statistics for the variables that we use in the statistical analysis. Panel A focuses on the number of communities with Spanish names. To avoid subjective biases, the classification of Spanish-name status was conducted by a non-Spanish-speaking research assistant using existing reference books about place-name origins. The descriptions and origins of all places in Arizona, California, Nevada, and New Mexico were taken from [2], [3], [4], and [5]. Texas place information was taken from [6], supplemented by the Texas Town Database of the Texas Historical Association (http://www.tshaonline.org/), in the cases where this was necessary.

The share of census places with a Spanish name is 44.87 percent in New Mexico and 14.97 percent in Texas. Due to sample sizes and historical similarity, in all subsequent analysis

we join all observations in the States of California, Nevada, and Arizona into a Southwest group. In these states 20.53 percent of census places had a Spanish name. Panel B offers descriptive statistics for other variables. We focus on housing characteristics because we are trying to explain residential choices and because the attributes of the housing stock change very slowly in time. Other demographic socio-economic measurements (e.g. percentage of individuals with a bachelor's degree) are direct consequences, as opposed to causes, of Hispanic settlement patterns.

2 Results

Table 2 displays results of ordinary least squares regressions where the dependent variable on the left-hand side is the percentage of the census-place population that self-identified as Hispanic in the 2000 Census. The main explanatory variable on the right-hand-side of the regressions is a dummy variable that equals one if the place has a Spanish-origin name. In places with a composite Spanish-English name, commonly obtained by hyphenating the names of two local geographic features, we assign a value of 0.5 to this variable (results do not change if we simply omit these observations). Because the left-hand-side (dependent) variable is always expressed as a percentage of the place's population, the coefficient of interest can be interpreted as the effect of Spanish-toponymy in percentage points.

The distribution of population by place in these states is extremely skewed, with the inter-quartile range between 737 and 9,027 (median 2,356), but with most of the population living in a relatively small number of places with more than 50,000 inhabitants. The absence of weights would signify giving the same importance to a place with 100 inhabitants, for which Hispanic shares are measured with a great deal of error, than to a place of 10,000. However, given the large skew in the distributions, using full population weights would in practice limit the sample to almost only a couple dozen observations with very large populations. From Figure 1, the distribution of log-populations is largely a symmetric one; therefore log-

population weights assign less importance to very small towns while avoiding focusing on the variance of only a few large cities, and as such will be used trough out. Nevertheless, in this application, un-weighted or population-weighted results were found to be quite similar.

In column 1 of Table 2 the OLS model is saturated with 369 county fixed-effects. The total number of places is 3,140. However a disproportionate number of places are contained in the largest counties, and the median number of places by county is only 5. Consequently, this is a quite demanding specification that compares the outcomes of places within relatively small geographic areas.

The results indicate that, within these groups of proximate communities, places that have Spanish names attracted a share of Hispanic population that was about 3 percentage points larger than other places in the 2000 census. In our sample, the average Hispanic share per place was 29.03 or 32.86 population-weighted. Therefore, places with Spanish names were associated with a substantive 10 percent increase in the relative size of the Hispanic population.

Nonetheless it is conceivable that, within counties, the patterns of early Spanish or Mexican settlement or later naming conventions be correlated with environmental attributes that tended to attract Hispanics regardless of the cultural importance of place names per se. For instance, it is possible that early settlers chose locations with more fertile soil or more propitious climate. Current amenities, such as proximity to the ocean, weather conditions, or agricultural productivity may also drive the current residential decisions of Hispanics and immigrants.

To control for these environmental attributes I use GIS software to match the centroid of each place to their corresponding Level III ecological regions. The national Atlas of the United States explains that "*the Omernik's Level III Ecoregions of the Continental United States [are] based on common patterns of geology, physiography, vegetation, climate, soils, land use, wildlife, water quality, and hydrology.*" There are 28 such ecological regions in the 5 states under consideration, examples of which are the "Chihuahuan deserts," "Mojave

Basin," "Southern Texas Plains," or the "Sierra Nevada."

In Figure 2, we present a map with the overlay of state boundaries (thicker borders), county boundaries, and eco-regions (in color). It is apparent that the combination of county and ecological-region fixed-effects produces a very comprehensive set of controls for geographic location in Texas and the Southwest: We are effectively looking at the variance in Spanish toponymy within small and environmentally homogeneous areas.

Note that the county fixed-effects subsume all differences in Hispanic and immigrant density as well as any other observable or unobservable characteristics across Metropolitan Statistical Areas, which are defined as collections of counties. Note further that environmental area fixed-effects also add an additional layer of controls for local amenities and labor market conditions. For instance, a fine sliver of land along the Pacific coast is classified as "Coast Range" according to the Level 3 definitions, and therefore we are controlling for local accessibility to coastal areas within the counties that also extend inland.

Furthermore, in column 2 we use the centroids of all census places in the sample and of all Mexican municipalities (municipios) to calculate the distance to the closest Mexican populated place, and include the log of this variable and its square in subsequent specifications. Presumably, places that are closer to the border may have experienced more intense migratory inflows from Mexico. Column 2 in Table 2 also adds two dummy variables – one for whether the census place was also an incorporated city or town (as opposed to being in an unincorporated section of a county) and another for whether the place was a county seat.

Finally, an additional geographic control accounts for the share of the place's area that is covered by water. This latter variable could account for differences in agricultural productivity, availability of drinking water, and exogenous amenity characteristics of the place. Previous research has shown the share of water to be a significant predictor of the location of high-income families: Water views, associated greenery and open spaces, and recreational opportunities tend to command real estate premia in these areas. Indeed, this latter control variable is a strong negative predictor of Hispanic settlement, as expected, due to the

relatively lower average income of this ethnic group. Hispanic individuals also tended to be more likely to reside in the community that served as a county seat. However, none of the environmental and geographic controls have a statistically significant impact on the variable of interest.

Because we are modeling residential choice we next focus on the residential attributes of the housing stock. These could certainly be endogenous to the location of Hispanics. For instance, Hispanic families are larger on average, which could foster the construction of larger homes in areas where this population is more prevalent. However, these are natural controls since the quality of the housing stock changes only very slowly. I include them subject to the proper interpretation of the relevant coefficients as a partial effect of the treatment excluding hypothetical indirect effects via the affected covariates ([7]).

In Table 2, column 3, the regressions control for the share of housing units built before 1939, median number of housing rooms, percentage of multifamily buildings, and percentage of rental housing units. The regressions also control for a key attribute of a place - its population - by including the log of this variable and its square. In column 4, we further control for the log of median housing values in the census. This is perhaps the key indicator of the socioeconomic status of a place as perceived by the participants in the housing market, albeit this is the variable most likely to be reverse-caused by ethnic composition [8].

None of these regressions yield coefficients that are statistically different from the previous ones. A lower-bound estimate of the impact of Spanish names is of around 3.1 percentage points. Table 2, columns 5 and 6 further show this impact to mostly correspond to individuals who described themselves as Hispanics of Mexican background (75% of the effect), as expected given the Mexican origin of these territories and their proximity to the Mexico border.

Table 3 repeats the regressions by regional grouping. Sample sizes are much smaller in some of the groups, which implies that the coefficients of the large number of covariates included in the more saturated specifications are bound to be estimated more inefficiently.

In order to show that the coefficients of interest are basically unaffected by the large number of controls in smaller samples we present a set of regressions controlling only for geography (fixed-effects, distance to Mexico, water, and place type) in panel A, and another with all controls in Panel B. The results show that the Spanish-name effect is very unlikely to be spurious, as it is separately present in New Mexico, South-West, and Texas. While the parameter estimates are different, one cannot rule out statistical equivalence.

Table 4 repeats the specifications in Table 2, this time focusing on the share of the foreign-born populace of Latin American origin, also obtained from Census counts. A hypothesis to explain the Spanish-toponymy demographic effect is based on the existence of "founder effects:" Families under the Spanish and Mexican rules may have tended to live disproportionally in locations that currently feature Spanish names; in addition, the location patterns of descendant families could have been extremely persistent within each county in the 150 years after the Guadalupe-Hidalgo treaty. This is a less plausible explanation for California and adjacent states given the relatively small and declining demographic role of their native Spanish-speaking populations after mid-19th century [9], but more plausible in New Mexico and Texas.

The objective in Table 4 is to see if "founder effects" can exclusively explain the previous results. Remarkably, they do not. A substantial portion of the Hispanic population attracted by Spanish toponymy in 2000 was actually born outside of the United States. Columns 1 through 4 repeat the specifications in Table 2, finding that about one in three of the additional Hispanic citizens in Spanish-named places had moved there after immigrating to the US. In column 5 we show that this implied larger foreign-born populations in these towns; however (column 6) non-Hispanic immigrants were not more likely to move to these Spanish-named locales, which is not consistent with alternative explanations based on confounder non-cultural variables.

Inasmuch as there are on average 0.21 native-born school-aged children for each immigrant person in the US ([10]), the direct impact of recent immigration of households from Spanish-

speaking countries accounted for at least a full 40% of the Spanish-name effect. This is an underestimate of the impact of Spanish toponymy via immigrant settlement patterns because it does not take into account US-born offspring older than 18 of (perhaps deceased) foreign-born parents, and indirect impacts via third generation Americans and further.

Yet it is also true that Spanish-named villages and towns were more likely to contain larger Hispanic populations prior to the 1965 Hart-Celler Act, the Immigration Reform and Control Act of 1986, or the 1990 Immigration Act. It has been widely recognized that these policies represented important milestones to mark, or perhaps explain, the growth in the immigrant inflows of the last 40 years ([11, 12]).

Unfortunately for our purposes the - perhaps arbitrary ([13],[14]) - "Hispanic" ethnic category was only conceptualized statistically in 1977 by the Office of Management and Budget. In practice, this means that we have reliable information about this population only from 1980 on ([15]).

From 1910 to 1930 the Census did include a separate racial category for Mexicans; however this category was based on the census interviewer's assessment of "race" and descent from immigrants from Mexico proper. A large number of New-Mexican and Californio families of Spanish-speaking heritage would have been classified as white and tended to regard themselves as Spanish American, or Americans of Spanish (European) descent ([16, 17, 18]). In contrast the Spanish-speaking Tejano culture had tended to reaffirm its Mexican heritage during the same period ([19]). Early definitions are therefore heterogeneous in interpretation.

The 1940 Census included a more homogeneous variable capturing the number of Spanish-speaking individuals. However, except for a few large cities, these data are not available with geographic identifiers that could allow us to trace each household to a contemporaneously census-defined place. Note that using these data at higher levels of geographic aggregation (e.g. county) would not be useful because it is indisputable that Spanish-speaking populations tended to be spatially clustered and were more likely to reside in Southwestern counties closer to the Mexican border. In contrast, we want to focus on the impact of Spanish-name

location *net* of such geographic differences.

Nevertheless, in the 1970 census, the Spanish-speaking variable is available at the local level. 1,784 places – as appearing in the 2000 Census - were successfully matched by name to the 1970 data. According to [15], "in the 1970 census, the Spanish language population was defined to include individuals of Spanish mother tongue and all other individuals in families in which the head or wife reported Spanish mother tongue."

From the OLS regressions in Table 5, column 1, places with Spanish toponymy had a 2 percentage-point larger share of Spanish-speaking individuals in 1970. Interestingly, however, there is no evidence that Spanish-named locales had larger populations of immigrant origin at that point (column 2). This finding is perhaps not surprising given that Mexican and other Latin American immigrant inflows had substantially accelerated only in the 70s ([20, 21]). However it cannot necessarily be construed as evidence that the demographic effects of Spanish toponymy in 1970 had been exclusively due to founder effects pre-dating the Mexican-American War. The US-born offspring of illegal stay-overs from the 1944-1964 bracero program ([22]) and the descendants of steady inflows during the 1900-1930 period ([23]), punctuated by a large surge after the 1910 Mexican revolution, certainly had contributed in large numbers to the Spanish-speaking communities in New Mexico, Texas, and the South-West.

In the 1980 census (columns 3 and 4 in Table 5) the toponymic effect on the Spanish-speaking population decreased (albeit the change is not statistically significant), while we can already see a positive association with immigrant inflows. These facts are consistent with a decline in the Spanish-language skills of the local Hispanic stock combined with the surge of Latin American immigration inflows that located disproportionally in Spanish-name towns.

3 Discussion

Historians have thoroughly documented the presence of Spanish-named places as remainders of the Spanish-colonial and Mexican past in Texas and the Southwest (e.g. [24]).

In this research, we showed that this legacy is more alive and current than commonly thought: After controlling for county fixed-effects and a large number of other geographic and social controls, we report that Hispanics locate disproportionally in places with Spanish names in Texas and the Southwest. The effect is large in quantitative terms, increasing the Hispanic population by ten percent with respect to comparable locales.

This toponymy demographic effect was shown not to be exclusively driven by "founder effects" (this is, the geographic permanence of families descending from settlers arrived in these locations prior to the Mexican-American War): at least 40% of the additional Hispanics in these towns can be traced to immigrants arrived after 1970 or their offspring. While one would expect secular mean reversion to erode initial settlement patterns as citizens find jobs, spouses, schools, and residential opportunities in neighboring communities within the same county and beyond, sustained immigration from Mexico and Latin America has reinforced very old cultural demographic patterns. These are still discernible 150 years after the Guadalupe-Hidalgo Treaty, which confirmed the acquisition of these territories to the United States.

Why are Latino immigrants disproportionally attracted to towns with Spanish names? Two hypotheses could account for this disproportionate attraction. Firstly there is ample evidence that kinship networks are important determinants of the locational decisions of immigrants ([25, 26, 27]), social scientists make reference to the process of "path dependency" or "cumulative causation" of immigration ([28, 1]): the presence of established Mexican-heritage communities could have made these locations marginally more attractive to successive waves of Spanish-speaking immigrants, therefore slowing the process of mean-reversion of Spanish-named places to their county's average ethnic composition. Note that, in order to explain the facts on the ground, these effects should go beyond conventional direct contemporaneous kin-

ship, community, and friendship networks, because they are present across distantly-related generations at best.

Secondly, new Latino immigrants may have been slightly more attracted by towns, cities, and villages with familiar Spanish names. A number of studies in developmental psychology show strong preferences for one's native language in children as young as 2-days old ([29]). Preferences for one's own language are at the root of the process of ethnic identity formation from infancy, a tendency that may originally have had evolutionary adaptive value. [30] report that "young infants prefer to look at a person who previously spoke their native language" and that "older infants preferentially accept toys from native-language speakers." In addition, research in social psychology and consumer behavior shows that priming ethnic identity can result in marked preferences for the products and retail channels that are associated with the identity in question ([31, 32]). These effects have been demonstrated for Hispanics, who tend to display more favorable predisposition towards consuming products and using distribution channels with stronger associations to the Hispanic community, especially after their ethnic identity is primed by the researcher ([33, 34]). In this context, Spanish place-names could prime consumers in the housing market to select residential locations with stronger perceived Hispanic identities.

Note that because Spanish-named places had also been relatively more "Hispanic" in a demographic sense in the past the two theories are observably equivalent with the existing data. Nevertheless, in addition to potential founder effects, it is clear that new Hispanic immigrants have been disproportionally attracted to locations with distinctively Spanish names, underlining the existence and historic resilience of culturally-driven demographic settlement patterns.

Acknowledgments

Natalia Pelcer provided outstanding research assistance. Nina Safavi ably assisted the author with GIS expertise. The author acknowledges financial support from the Global Initiatives Fund of the Wharton School.

References

[1] D. S. Massey, R. M. Zenteno, The dynamics of mass migration, Proceedings of the National Academy of Sciences 96 (9) (1999) 5328 –5335. doi:10.1073/pnas.96.9.5328. URL `http://www.pnas.org/content/96/9/5328.abstract`

[2] W. C. Barnes, Arizona Place Names, University of Arizona Press, 1998.

[3] E. G. Gudde, W. Bright, California Place Names: The Origin and Etymology of Current Geographical Names, University of California Press, 2004.

[4] H. S. Carlson, Nevada Place Names: A Geographical Dictionary, University of Nevada Press, 1974.

[5] R. H. Julyan, The place names of New Mexico, UNM Press, 1996.

[6] F. Tarpley, 1001 Texas Place Names, University of Texas Press, 1980.

[7] P. R. Rosenbaum, The consquences of adjustment for a concomitant variable that has been affected by the treatment, Journal of the Royal Statistical Society. Series A (General) 147 (5) (1984) 656–666, ArticleType: research-article / Full publication date: 1984 / Copyright 1984 Royal Statistical Society. doi:10.2307/2981697. URL `http://www.jstor.org/stable/2981697`

[8] A. Saiz, S. Wachter, Immigration and the neighborhood, American Economic Journal: Policy 3 (2).

[9] L. Pitt, The Decline of the Californios: a social history of the Spanish-speaking Californians, 1846-1890, University of California Press, 1998.

[10] R. Capps, M. Fix, J. Murray, J. Ost, J. S. Passel, S. Herwantoro, The new demography of america's schools: Immigration and the no child left behind act, The Urban Institute. URL http://www.urban.org/publications/311230.html

[11] M. Cerrutti, D. S. Massey, On the auspices of female migration from mexico to the united states, Demography 38 (2) 187–200.

[12] J. Durand, E. Telles, F. Jennifer, The demographic foundations of the latino population, in: T. Marta, F. Mitchell, N. R. C. U. P. o. H. i. t. U. States, N. R. C. U. C. o. Population (Eds.), Hispanics and the future of America, National Academies Press, 2006.

[13] D. E. Hayes-Bautista, Identifying "Hispanic" populations: the influence of research methodolgy upon public policy, American Journal of Public Health 70 (4) (1980) 353–356.

[14] R. G. Rumbaut, The making of a people, in: M. Tienda, F. Mitchell, N. R. C. U. P. o. H. i. t. U. States, N. R. C. U. C. o. Population (Eds.), Hispanics and the future of America, National Academies Press, 2006.

[15] C. Gibson, K. Jung, Historical census statistics on population totals by race, 1790 to 1990, and by hispanic origin, 1970 to 1990, for large cities and other urban places in the united states, U.S. Census Bureau Population Division Working Papers (76).

[16] W. W. Winnie, The spanish surname criterion for identifying hispanos in the southwestern united states: A preliminary evaluation, Social Forces 38 (4) (1960) 363–366, ArticleType: research-article / Full publication date: May, 1960 / Copyright 1960 Social Forces, University of North Carolina Press. doi:10.2307/2573048.
URL http://www.jstor.org/stable/2573048

[17] M. P. Servin, California's hispanic heritage: A view into the spanish myth, The Journal of San Diego History: San Deigo Historical Society Quarterly 19 (1).

[18] J. M. Nieto-Phillips, The Language of Blood: The Making of Spanish-American Identity in New Mexico, 1880s-1930s, illustrated edition Edition, University of New Mexico Press, 2008.

[19] R. R. Trevino, Prensa y patria: The spanish-language press and the biculturation of the tejano middle class, 1920-1940, The Western Historical Quarterly 22 (4) (1991) 451–472, ArticleType: research-article / Full publication date: Nov., 1991 / Copyright 1991 The Western History Association. doi:10.2307/970986.
URL http://www.jstor.org/stable/970986

[20] J. Reichert, D. S. Massey, Patterns of U.S. migration from a mexican sending community: A comparison of legal and illegal migrants, International Migration Review 13 (4) (1979) 599–623, ArticleType: research-article / Full publication date: Winter, 1979 / Copyright 1979 The Center for Migration Studies of New York, Inc. doi:10.2307/2545178.
URL http://www.jstor.org/stable/2545178

[21] D. S. Massey, R. Alarcon, J. Durand, H. GonzÃ¡lez, Return to Aztlan: The Social Process of International Migration from Western Mexico, University of California Press, 1990.

[22] D. S. Massey, Z. Liang, The long-term consequences of a temporary worker program: The US bracero experience, Population Research and Policy Review 8 (3) (1989) 199–226. doi:10.1007/BF00125401.
URL http://www.springerlink.com/content/j82pu484g4u12v48/

[23] D. Monroy, Rebirth: Mexican Los Angeles from the great migration to the Great Depression, University of California Press, 1999.

[24] H. F. Raup, W. B. Pounds Jr., Northernmost spanish frontier in california: As shown by the distribution of geographic names, California Historical Society Quarterly 32 (1) (1953) 43–48, ArticleType: research-article / Full publication date: Mar., 1953 / Copyright 1953 California Historical Society. doi:10.2307/25156401.
URL http://www.jstor.org/stable/25156401

[25] H. M. Choldin, Kinship networks in the migration process, International Migration Review 7 (2) (1973) pp. 163–175.
URL http://www.jstor.org/stable/3002426

[26] D. S. Massey, K. E. Espinosa, What's driving mexico-u.s. migration? a theoretical, empirical, and policy analysis, American Journal of Sociology 102 (4) (1997) pp. 939–999.
URL http://www.jstor.org/stable/2782024

[27] A. Palloni, D. S. Massey, M. Ceballos, K. Espinosa, M. Spittel, Social capital and international migration: A test using information on family networks, American Journal of Sociology 106 (5) (2001) pp. 1262–1298.
URL http://www.jstor.org/stable/10.1086/320817

[28] R. Walker, M. Hannan, Dynamic settlement processes: The case of US immigration, The Professional Geographer 41 (2) (1989) 172–183. doi:10.1111/j.0033-0124.1989.00172.x.
URL http://onlinelibrary.wiley.com/doi/10.1111/j.0033-0124.1989.00172.x/abstract

[29] C. Moon, R. P. Cooper, W. P. Fifer, Two-day-olds prefer their native language, Infant Behavior and Development 16 (4) 495–500. doi:16/0163-6383(93)80007-U.
URL http://www.sciencedirect.com/science/article/pii/016363839380007U

[30] K. D. Kinzler, E. Dupoux, E. S. Spelke, The native language of social cognition, Proceedings of the National Academy of Sciences 104 (30) (2007) 12577 –12580.

doi:10.1073/pnas.0705345104.

URL http://www.pnas.org/content/104/30/12577.abstract

[31] M. R. Forehand, R. Deshpande, What we see makes us who we are: Priming ethnic Self-Awareness and advertising response, Journal of Marketing Research 38 (3) (2001) 336–348, ArticleType: research-article / Full publication date: Aug., 2001 / Copyright 2001 American Marketing Association.

URL http://www.jstor.org/stable/1558528

[32] A. Reed II, Activating the SelfImportance of consumer selves: Exploring identity salience effects on judgments, Journal of Consumer Research 31 (2) (2004) 286–295. doi:10.1086/422108.

URL http://psycnet.apa.org/psycinfo/2004-19002-005

[33] N. Donthu, J. Cherian, Impact of strength of ethnic identification on hispanic shopping behavior, Journal of Retailing 70 (4) (1994) 383–393. doi:16/0022-4359(94)90006-X.

URL http://www.sciencedirect.com/science/article/pii/002243599490006X

[34] V. Chattaraman, S. J. Lennon, N. A. Rudd, Social identity salience: Effects on identity-based brand choices of hispanic consumers, Psychology and Marketing 27 (3) (2010) 263–284. doi:10.1002/mar.20331.

URL http://onlinelibrary.wiley.com/doi/10.1002/mar.20331/abstract

Figure 1

Distribution of Places by Log of Population

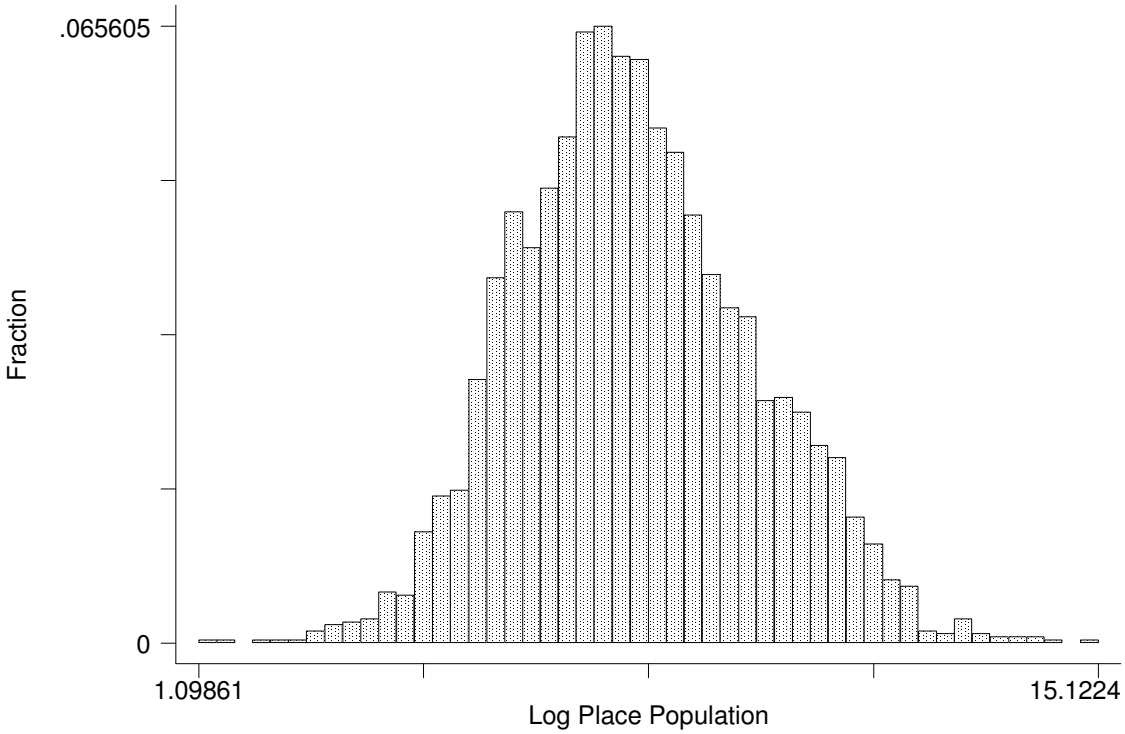

Figure 2: States, Counties, and Level-3 Ecological Regions

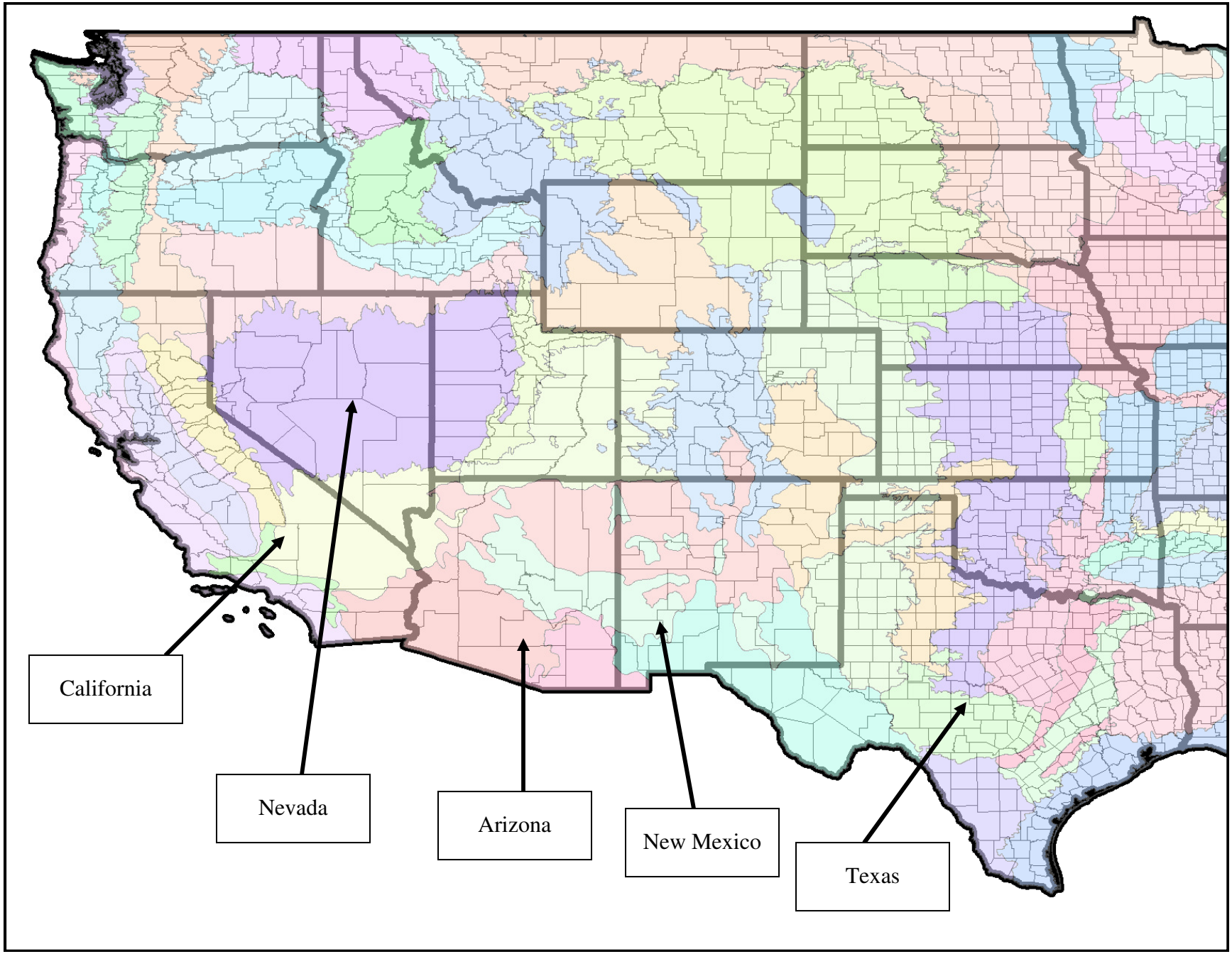

TABLE 1

Descriptive Statistics

Panel A: Spanish-Name Places

	Percentage of Places with Spanish Name	Census Places
Southwest (California, Nevada, Arizona)	20.53	1,398
New Mexico	44.87	234
Texas	14.97	1,508
All	19.67	3,140

Panel B: Other Variables

	Sample Average	Standard. Dev.
Percentage Hispanic Population	29.03	29.03
Distance to Mexican Municipalities (Miles)	284.11	160.52
Incorporated Place	0.47	0.50
Place is County Seat	0.11	0.32
Share of Place Area under Water	0.02	0.09
Share of Housing Units Built Before 1939	0.09	0.11
Median Number of Housing Rooms	5.07	0.83
Percentage of Multifamily Buildings	6.44	10.02
Percentage of Rental Housing Units	44.87	18.09
Place Population	17719.79	96979.31
Median Home Value	126714.10	141112.90
	N=3,140	
Percentage Spanish-Speaking (1970 census)	13.35	19.89
Percentage Foreign-Born Population (1970 census)	3.88	4.52
	N=1,748	
Percentage Spanish-Speaking (1980 census)	9.43	13.91
	N=2,357	
Percentage Foreign-Born Population (1980 census)	6.63	7.91
	N=1,944	

TABLE 2

Spanish Place-Name is Associated with Hispanic Demographic Prevalence

	Percentage Hispanic Population				Percentage Hispanic and Mexican Origin	Percentage Hispanic and Non-Mexican Origin
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Spanish-Name Place	**3.828**	**3.173**	**3.473**	**3.088**	**2.314**	**0.774**
	(0.913)**	(0.890)**	(0.810)**	(0.788)**	(0.653)**	(0.299)**
Log Distance to Mexican Municipalities		-14.050	-6.398	-1.009	-11.323	10.313
		(11.931)	(10.825)	(10.506)	(8.707)	(3.982)**
Log Distance to Mexican Municipalities Squared		0.031	-0.833	-1.467	-0.243	-1.225
		(1.494)	(1.355)	(1.315)	(1.090)	(0.498)*
Incorporated Place		0.560	1.839	1.786	0.566	1.220
		(0.961)	(0.904)*	(0.878)*	(0.728)	(0.333)**
Place is County Seat		3.557	1.250	1.860	0.956	0.903
		(1.066)**	(1.084)	(1.052)	(0.871)	(0.399)*
Share of Place Area under Water		-18.056	-20.506	-14.216	-10.952	-3.263
		(3.664)**	(3.361)**	(3.288)**	(2.725)**	(1.246)**
Share of Housing Units Built Before 1939			-3.978	-4.542	-3.493	-1.049
			(3.866)	(3.795)	(3.145)	(1.439)
Median Number of Housing Rooms			-10.332	-5.719	-5.567	-0.152
			(0.528)**	(0.630)**	(0.522)**	(0.239)
Percentage of Multifamily Buildings			-0.451	-0.293	-0.248	-0.045
			(0.041)**	(0.042)**	(0.035)**	(0.016)**
Percentage of Rental Housing Units			0.051	0.062	0.012	0.050
			(0.024)*	(0.024)**	(0.020)	(0.009)**
Log Place Population			4.698	6.407	5.547	0.860
			(1.197)**	(1.191)**	(0.987)**	(0.452)
Log Place Population Squared			-0.158	-0.258	-0.234	-0.024
			(0.069)*	(0.068)**	(0.057)**	(0.026)
Log Median Home Value				-11.470	-9.315	-2.154
				(0.902)**	(0.747)**	(0.342)**
County Fixed Effects (369 Counties)	yes	yes	yes	yes	yes	yes
Ecological Region Fixed Effects (36 Regions)	no	yes	yes	yes	yes	yes
Observations (Places)	3140	3140	3136	3108	3108	3108
R-squared	0.66	0.69	0.75	0.76	0.76	0.74

Standard errors in parentheses
* significant at 5%; ** significant at 1%

TABLE 3

Impact of Spanish Place-Name by Geographic Area

Panel A:Geographic Controls Only

	Percentage Hispanic Population		
	Southwest **(1)**	New Mexico **(2)**	Texas **(3)**
Spanish Name Place	**2.807**	**6.298**	**2.977**
	(1.314)**	(3.634)*	(1.247)**
Controls as in Table 2, Column **2**	yes	yes	yes
Observations (Places)	1381	230	1497
R-squared	0.62	0.66	0.89

Panel B: All Controls

	Percentage Hispanic Population		
	Southwest **(1)**	New Mexico **(2)**	Texas **(3)**
Spanish Name Place	**3.255**	**5.385**	**2.015**
	(1.121)***	(3.520)	(1.076)*
Controls as in Table 2, Column **4**	yes	yes	yes
Observations (Places)	1381	230	1497
R-squared	0.62	0.66	0.89

Standard errors in parentheses
* significant at 5%; ** significant at 1%

TABLE 4

Spanish-Named Places Disproportionally Attracted Hispanic Immigrants

	Percentage of Population who is Foreign and of Latin American Origin				Percentage Foreign Population	Percentage of Population Foreign-Born and Not Latin American
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Spanish-Name Place	**1.144**	**0.841**	**0.935**	**0.783**	**0.983**	**0.002**
	(0.465)**	(0.458)*	(0.410)**	(0.402)*	(0.404)**	(0.002)
Controls as in Table 2; column:	**(1)**	**(2)**	**(3)**	**(4)**	**(4)**	**(4)**
County Fixed Effects (369 Counties)	yes	yes	yes	yes	yes	yes
Ecological Region Fixed Effects (36 Regions)	no	yes	yes	yes	yes	yes
Observations	3136	3136	3136	3108	3108	3108
R-squared	0.49	0.52	0.62	0.63	0.69	0.62

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

TABLE 5

Earlier Evidence of Spanish-Name Demographic Impact

	Percentage Population who Speaks Spanish, 1970 **(1)**	Percentage Foreign-Born Population, 1970 **(2)**	Percentage Population who Speaks Spanish, 1980 **(3)**	Percentage Foreign-Born Population, 1980 **(4)**
Spanish-Name Place	**1.945**	**-0.018**	**0.805**	**0.584**
	(0.885)**	(0.213)	(0.711)	(0.350)*
Other Controls in Table 2, Column 4	yes	yes	yes	yes
County Fixed Effects	yes	yes	yes	yes
Ecological Region Fixed Effects	yes	yes	yes	yes
Observations	1,748	1,748	1,944	2,357
R-squared	0.7	0.66	0.61	0.6

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%