Juan Manuel Pedroza
Assistant Professor of Sociology
University of California, Santa Cruz
j.pedroza@ucsc.edu

## Lost in Translation: <br> Language Segregation among Hispanics in the United States?


#### Abstract

Over 50 million Hispanics live in the United States. One-quarter speak English but no other language, and another $40 \%$ speak English very well. The other 18 million Hispanics are split between those who speak English well (38\%), not well (37\%), and not at all ( $26 \%$ ). Remarkably, we know little about where Hispanics with divergent English language skills live. It is possible Hispanics live mostly side-by-side in the same neighborhoods (or under the same roof) regardless of English language skills. But what if Hispanics who speak little or no English instead live apart from other Hispanics? Answering this question requires reviving a neglected strand of demographic research: language segregation. The large, growing, and spatially dispersed Hispanic population affords us the opportunity to study language segregation across a wide range of neighborhoods in the United States.


LITERATURE: Outside the United States, language segregation research has long focused on places famous for linguistic diversity. Studies highlight locations with longstanding politics surrounding multiple language use, such as Canada (Farber, Páez, and Morency 2012; Vries 1981), South Africa (Christopher 2004), and Estonia (Toomet et al. 2015). Although not yet fully realized, the United States represents an important case study of language segregation.

The Hispanic population in the US is a large, growing, and spatially dispersed. And most importantly, from the perspective of language segregation research, Hispanics also report diverse levels of English language use. These characteristics allow us to apply (and perhaps reevaluate) what we know about language segregation from research undertaken in other countries.

Two research trends have cast a shadow over language segregation research: a growing interest in both residential segregation and English language acquisition. At their core, both research branches track whether or not the social fabric of US neighborhoods and the English language are vehicles for inclusion. In the process, language segregation remains understudied.

Segregation as a synonym for residential segregation by race, ethnicity, and nativity. The sustained study of language segregation has been eclipsed by research on residential segregation. English language use is often included as a sensible indicator of upward mobility to demonstrate, for example, how immigrant groups which attain better-paying jobs and English language proficiency also tend to live in less segregated areas (Iceland and Scopilliti 2008). At the same time, one of the few studies of the direct link between language use and segregation by nativity concludes that limited English proficiency may very well be caused by-not just related to-the spatial segregation of foreign-born groups (Stoll 2013).

English language use as a personal and household phenomena. We have ample reason to believe that language segregation within the Hispanic population should be a cause for concern. For example, scholars have documented how limited English language skills predict poverty (Glick, Walker, and Luz 2013), and secondary school students attaining limited English language skills lag behind others in academic outcomes (Ruiz-de-Velasco, Fix, and Clewell 2000). Research has also provided valuable evidence regarding the role of "linguistic isolation" -
or households where no one over 14 speaks English very well (Glick, Walker, and Luz 2013; Gubernskaya and Treas 2013; Siegel, Martin, and Bruno 2001). However, the contextual character of language use-that is, the location and distribution of languages spoken-has ceded center stage to language use as personal and familial phenomena.

LANGUAGE SEGREGATION DATA: Language segregation once warranted the full attention of demographic scholarship (Lieberson 1961, 1981; Lieberson and Curry 1971). Since then, very little scholarship exists on US language segregation (but see Julian 2013; Verdugo 2012). In this paper, I present some evidence that outlines the contours of this "missing piece" -within-group variation among the US Hispanic population. Within-group segregation patterns reveal whether linguistic sub-groups generally live in similar neighborhoods. If not, leveraging the spatial dimensions of language use can uncover which sub-groups live apart from each other.

Here I focus my attention on the Hispanic population within the United States, and language segregation within the Hispanic population. I use contextual language use from the American Community Survey's (ACS) for counties with more than 1,000 Hispanic residents ( $\mathrm{N}=1,536$ ). I differentiate groups of Hispanics who say they only speak English or that they speak English very well, well, not well, or not at all (Ryan 2013). Language segregation is displayed below as the mean dissimilarity score between Hispanics with varying levels of English language proficiency. Segregation reflects how many Hispanics from one language group would have to move to achieve even distribution across census tracts within a county.

Figure 1: Language Segregation (Y axis) and Hispanics who only speak English (X axis)


Source: Author's calculations of dissimilarity (census tracts nested within counties) of the ACS 2011-2015, 5-year summary file. Each plot splits the Hispanic population into two groups based on thresholds of English language use. Plots include counties with over 1,000 Hispanics (including Puerto Rico) where dissimilarity is above zero $(\mathrm{N}=1,536)$.

In order to illustrate the influence of different language proficiency thresholds on language segregation, Figure 1 plots county dissimilarity scores (Y) and Hispanics who only speak English as a fraction of Hispanics (X). The first plot (top left) compares (a) Hispanics who only speak English and (b) all other Hispanics. The relationship is essentially flat. Based on this pattern alone, we might conclude Hispanic language segregation is no worse in places where Hispanic, English-only speakers are prevalent than counties where they are few and far between.

However, the patterns change when we adjust the language use threshold of comparison within the Hispanic population. The second plot (top right) calculates segregation between (a) Hispanics who either only speak English or speak it very well and (b) all other Hispanics (i.e., who speak English well, not well, or not at all). In this case, the relationship is slightly positive. A similar pattern (bottom left) holds if we calculate segregation between (a) Hispanics who speak only English, speak it very well, or well and (b) all other Hispanics.

The positive relationship is strongest (bottom right) if we calculate segregation between (a) Hispanics who do not speak English and (b) all other Hispanics. The fourth set of dissimilarity scores are generally higher than the rest: 0.52 median dissimilarity (bottom right) compared to 0.31-0.37 for the other Hispanic group classifications among the same counties. In counties where the proportion of Hispanics who only speak English is high, language segregation is pronounced. In sum, non-English-speaking Hispanics tend to live apart from other Hispanics.

In addition to the county-level patterns above, certain states have much higher language segregation between Hispanics who speak no English and other Hispanics. The mean segregation score among counties is relatively low in some states with large immigrant populations ( 0.36 in Texas; 0.38 in California) but not all ( 0.53 in Florida; 0.60 in Illinois; 0.67 in New York). Mean segregation across counties is high-about half a standard deviation above the national average-across states in multiple regions such as the Southeast (0.63-0.72 in Alabama, Kentucky, Louisiana, South Carolina, Tennessee, and Virginia) the Midwest (0.62-0.78 in Indiana, Michigan, Missouri, and Ohio), and the mid-Atlantic (0.66-0.67 in Maryland and Pennsylvania). These state-level figures do not conform to the designation of "established" versus "new destination" states (Hall 2013), which suggests language segregation only partially reflects past immigrant settlement trends.

Analysis plan. In order to understand whether spatial integration is evenly shared within the Hispanic population, I will describe and analyze the distribution of Hispanics with divergent language skills. I will examine language segregation (e.g., dissimilarity, isolation, exposure) trends in the top 50 metro areas by Hispanic population size. Using Census and ACS data (1980, 1990, 2000, and 2005, 2010, 2015), I will describe language segregation trends over time. Using the Neighborhood Change Database (NCDB), the analyses will plot trends over time as the boundaries of metro areas change between 1980 and 2015.The analyses will explore whether non-English-speaking Hispanics are left behind in neighborhoods apart from other Hispanics.

BRINGING LANGUAGE SEGREGATION BACK INTO FOCUS. Tracking and explaining Hispanic settlement by language background is long overdue. The initial evidence presented here suggests Hispanics who speak no English end up in neighborhoods apart from their Hispanic counterparts who are English-conversant or fluent. Since they tend to live in different contexts, they inhabit contrasting social worlds. On top of that, one-third of Hispanics (nearly 18 million people) speak entirely different languages: 13 million speak only English
while nearly 4 million do not speak English at all. We know linguistic gaps leave room for experiences to get lost in translation. The time has come to put segregation research more deliberately in conversation with language scholarship. We have the tools and the concepts to translate people's lived experiences into revealing demographic research.

## References

Christopher, Anthony J. 2004. "Linguistic Segregation in Urban South Africa, 1996." Geoforum 35(2): 145-56.
Farber, Steven, Antonio Páez, and Catherine Morency. 2012. "Activity Spaces and the Measurement of Clustering and Exposure: A Case Study of Linguistic Groups in Montreal." Environment and Planning A 44(2): 315-32.
Glick, Jennifer E, Laquitta Walker, and Luciana Luz. 2013. "Linguistic Isolation in the Home and Community: Protection or Risk for Young Children?" Social Science Research 42(1): 140-54.
Gubernskaya, Zoya, and Judith Treas. 2013. "It's Not Just a Matter of Speaking English: Linguistic Isolation among Older Immigrants." In Population Association of America Annual Meeting, New Orleaans, LA.
Hall, Matthew. 2013. "Residential Integration on the New Frontier: Immigrant Segregation in Established and New Destinations." Demography 50(5): 1873-96.
Iceland, John, and Melissa Scopilliti. 2008. "Immigrant Residential Segregation in US Metropolitan Areas, 1990-2000." Demography 45(1): 79-94.
Julian, Tiffany. 2013. "Language Segregation in U.S. Metro Areas." In Population Association of America Annual Meeting, New Orleaans, LA.
Lieberson, Stanley. 1961. "The Impact of Residential Segregation on Ethnic Assimilation." Social Forces 40(1): 52-57.
—_. 1981. Language Diversity and Language Contact: Essays. Stanford, CA: Stanford University Press.
Lieberson, Stanley, and Timothy J Curry. 1971. "Language Shift in the United States: Some Demographic Clues." The International Migration Review 5(2): 125-37.
Ruiz-de-Velasco, Jorge, Michael Fix, and Beatriz Chu Clewell. 2000. Overlooked \& Underserved: Immigrant Students in US Secondary Schools. Washington, DC.
Ryan, Camille. 2013. 22 American community survey reports Language Use in the United States: 2011.
Siegel, Paul, Elizabeth Martin, and Rosalind Bruno. 2001. Washington, DC: US Census Bureau Language Use and Linguistic Isolation: Historical Data and Methodological Issues.
Stoll, Michael A. 2013. "Immigration, Segregation, and Poverty." In Immigration, Poverty, and Socioeconomic Inequality, eds. David Card and Stephen Raphael. New York, NY: Russell Sage Foundation, 98-134.
Toomet, Ott et al. 2015. "Where Do Ethno-Linguistic Groups Meet? How Copresence during Free-Time Is Related to Copresence at Home and at Work." PloS one 10(5): e0126093.
Verdugo, Richard R. 2012. "English Language Learners: An Exercise in Applied Demography." In Opportunities and Challenges for Applied Demography in the 21st Century, eds. Nazrul Hoque and David A. Swanson. New York, NY: Springer, 83-98.
Vries, John de. 1981. "The Spatial Organization of Language in Canada." In Linguistic Minorities, Society, and Territory, ed. Colin H. Williams. Bristol, PA: Multilingual Matters LTD, 247-68.

