Did We Make It? Will We Make It?
A Typology of Suburban Immigrant Neighborhoods

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BACKGROUND

- While immigrants historically have moved to central city gateways, recent research has indicated that many are moving directly to the suburbs without stops in the central city (Singer 2004; Singer Hardwick, and Brettell 2008).

- Assimilationists have argued that moving to the suburbs is an indication that an immigrant family had assimilated, based on the assumption that immigrants would not be able to move out of inner-city enclaves into white middle-class neighborhoods—often located in the suburbs—until they had experienced significant economic and cultural integration.

- Segmented assimilationists also value middle-class residence, as they argue that immigrants who are surrounded by middle-class white values and culture are more likely to experience upward assimilation and mobility than those surrounded by the lower class oppositional culture, who are more likely to experience downward assimilation and mobility (Portes and Zhou 1993).

- The shift to suburban residence is important for both assimilation perspectives, then, but comes at a time when the meaning of suburban residence is changing.

  - The suburbs are no longer a haven for middle class whites, but rather house large minority populations (Frey 2001) and over half of the US's poor population (Kneebone and Garr 2010), and vary significantly in terms of economic and racial characteristics (Vicino 2008).

- Research on where immigrants live in the suburbs is sparse, so it is unclear how these shifts have affected immigrants' prospects for assimilation.

RESEARCH QUESTIONS

1. What are the characteristics of suburban immigrant neighborhoods?
2. Are all immigrants moving into the same types of suburban neighborhoods?
3. Following assimilationist arguments, do the characteristics of suburban immigrant neighborhoods suggest that suburban immigrants have assimilated, at least spatially, into the white middle class?
4. Following segmented assimilationist arguments, are suburban immigrants at risk of downward assimilation?

DATA AND METHODS

Data
- 2005-2009 American Community Survey (ACS) 5-Year Estimates
- Geographic boundaries from Census 2000
- Includes suburban tracts of the 100 largest MSAs and PMSAs
- Suburban tracts fall within MSAs and PMSAs and have no urban population
- Limited to immigrant neighborhoods, which are tracts with a location quotient of 1.25 or greater

$$Location\ Quotient = \frac{Percent\ Foreign\ Born\ in\ Tract}{Percent\ Foreign\ Born\ in\ MSA/PMSA}$$

- N= 11,680 tracts

Methods
- I use principal components analysis (PCA) with a Varimax rotation and the Kaiser normalization and k-means clustering.
- PCA reduces the number of correlated variables in a dataset and leaves a set of uncorrelated variables that represent most of the variation in the original variables.
- K-means clustering finds the groups within the data, based on the clusters specified by the analyst. I tested three to eight clusters, and chose the six-cluster solution.

TABLE 1: VARIABLES

Population Characteristics
Percent non-Hispanic White
Percent non-Hispanic Black
Percent non-Hispanic Asian
Percent Hispanic
Percent of the foreign-born population from Europe
Percent of the foreign-born population from Asia
Percent of the foreign-born population from Africa
Percent of the foreign-born population from Latin America
Total tract population

Socioeconomic Characteristics
Median value of owner-occupied homes
Median rent
Percent unemployed
Percent employed in a professional occupation
Percent in poverty
Percent female-headed households
Percent who did not complete high school
Percent with high school diploma
Percent with bachelor's degree
Percent with graduate degree
Income ratio[1]

Housing Characteristics
Percent vacant
Percent owner-occupied
Percent of household heads who moved in 2005 or later
Percent of household heads who moved between 2000-2004
Median number of rooms per housing unit
Percent of units built in 1939 or earlier
Percent of units built between 1940 and 1969
Percent of units built between 1970 and 1989
Percent of units built in or after 1990
Distance to population centroid

Linguistic Isolation
Percent that speak a language other than English at home
Percent that speak English poorly or not at all

[1] Income Ratio= Tract Average Household Income / Metropolitan Area Average Household Income

PRINCIPAL COMPONENTS ANALYSIS

- The PCA included 32 variables for 11,680 tracts in the 100 largest US MSAs and PMSAs.

- The PCA yielded 8 principal components, which explained 73.81% of the variance in the original variables. The first principal component explained 17.28% of the variance (Table 2).

- All of the components have significant loadings on at least two variables. Over two-thirds of the communalities—the amount of variance in the original variables that is explained by the components—are over .70.

TABLE 2: VARIANCE EXPLAINED BY PCA

		Rotated Sums of Square Loadings	
Component	Eigenvalue	% of Variance	Cumulative %
1	5.52948	17.28	17.28
2	4.66252	14.57	31.85
3	3.41562	10.67	42.52
4	2.34691	7.33	49.85
5	2.34081	7.32	57.17
6	2.33226	7.29	64.46
7	1.7687	5.53	69.99
8	1.22164	3.82	73.81

Rotated using Varimax with Kaiser normalization

- The first component indicates neighborhoods with large educational disparities. The second component indicates neighborhoods with high levels of linguistic isolation. The third component indicates neighborhoods that are stable—the houses are larger, the houses are owner-occupied, and there hasn't been much recent turnover. The fourth component indicates neighborhoods that have higher proportions of African Americans and African immigrants. The fifth component indicates neighborhoods that are newer and have higher tract populations. The sixth component indicates neighborhoods with higher proportions of Asians and Asian immigrants. The seventh component indicates housing age, and the eight indicates vacancies and distance from the population center.

TABLE 3: COMPONENT LOADINGS AND COMMUNALITIES

Variables	1	2	3	4	5	6	7	8	Communalities
% White									0.92
% Black		0.63							0.79
% Asian						0.61			0.86
% Hispanic									0.92
% Foreign-born from Europe									0.60
% Foreign-born from Asia						0.60			0.86
% Foreign-born from Africa				0.45					0.48
% Foreign-born from Latin America									0.85
Total tract population					0.50				0.56
Median value of owner-occupied homes									0.74
Median rent									0.55
% Unemployed									0.40
% Employed in profession									0.89
% Poverty									0.65
% Female-headed household									0.56
% Did not complete high school									0.71
% High school diploma	-0.41								0.73
% Bachelor's degree									0.84
% Graduate degree	0.42								0.83
Income ratio									0.87
% Vacant								0.56	0.60
% Owner-occupied			0.51						0.87
% Moved in after 2005			-0.48						0.74
% Moved in between 2000 and 2004									0.41
Median rooms per housing unit			0.44						0.80
% Built 1939 and earlier							0.54		0.65
% Built 1940 to 1969									0.72
% Built 1970 to 1990							-0.74		0.89
% Built in or after 1990					0.58				0.84
Distance to population centroid								0.72	0.71
% Speak a language other than English at home	0.43								0.91
% Speak English poorly or not at all	0.40								0.87

*PCA Loadings ±0.40 are reported

CLUSTER ANALYSIS

- I performed k-means cluster analyses on the principal components, specifying three through eight cluster solutions.

- The optimal solution was 6 clusters: Unhealthy Diversity, Transitioning, Latino Enclaves, Traditional Middle-Class, Professional Bastion, and Healthy Diversity.

TABLE 4: TYPOLOGY

Unhealthy Diversity	Significant White, Black, and Hispanic populations; low home values; high rates of unemployment, female-headed households, high school dropouts, renting, and recent movers; few college degrees, and older housing stock
Transitioning	Strong white majority, but significant Black and Latino populations; similar to Unhealthy Diversity, but not quite as disadvantaged; high population turnover; most immigrants are from Latin America
Latino Enclaves	Significant Hispanic population; low rates of bachelor's and graduate degrees, high levels of linguistic isolation
Traditional Middle Class	Strong White majority; high rates of homeownership, professional employment, high school completion, and bachelor degrees; lower home values and income
Professional Bastion	Strong White majority; high home values; extremely high rates of professional employment, higher education (particularly graduate degrees), and homeownership; newer housing stock
Healthy Diversity	Significant White, Asian, and Hispanic populations; most immigrants are from Asia; highest home values; high rates of professional employment, bachelor's degrees, and graduate degrees; nearly half speak a language other than English at home, but over half of that population also speak English well.

TABLE 5: MEAN NEIGHBORHOOD CHARACTERISTICS BY TYPE

	Unhealthy Diversity	Transitioning	Latino Enclaves	Traditional Middle-Class	Professional Bastion	Healthy Diversity
Population Characteristics						
% White	39.61	63.09	20.14	82.77	78.62	39.66
% Black	37.86	10.04	8.26	5.50	5.72	6.36
% Asian	3.20	4.67	3.86	3.43	7.84	28.93
% Hispanic	16.53	19.47	65.88	6.48	5.86	20.97
% Foreign-born from Europe	9.56	13.64	3.01	37.89	26.16	8.35
% Foreign-born from Asia	16.90	23.90	8.18	29.64	44.67	60.23
% Foreign-born from Africa	11.90	3.81	0.95	3.97	5.44	2.87
% Foreign-born from Latin America	59.80	54.70	87.12	24.09	18.61	26.39
Total tract population	8982.19	14162.67	11296.56	8536.08	12206.99	10240.63
Socioeconomic Characteristics						
Median value of owner-occupied homes	178647.60	226820.60	289829.10	214327.60	382069.90	487729.20
Median rent	851.59	1022.72	977.02	882.28	1219.60	1281.15
% Unemployed	7.04	4.53	5.93	4.17	3.09	4.25
% Employed in profession	24.17	32.39	17.81	34.91	53.44	40.94
% Poverty	19.37	10.10	19.61	7.91	4.16	8.61
% Female-headed household	12.84	7.19	10.84	5.42	4.25	5.87
% Did not complete high school	12.46	8.31	15.45	7.51	3.01	6.60
% High school diploma	34.29	29.00	29.51	32.82	16.94	22.05
% Bachelor's degree	11.87	17.45	8.55	17.55	30.76	24.18
% Graduate degree	5.54	8.03	3.40	9.57	22.49	12.96
Income ratio	0.65	0.88	0.69	0.89	1.47	1.07
Housing Characteristics						
% Vacant	12.25	10.35	8.23	6.46	5.73	5.59
% Owner-occupied	48.69	70.07	51.61	73.99	80.31	56.98
% Moved in after 2005	34.60	31.33	29.48	21.63	23.52	28.13
% Moved in between 2000 and 2004	27.76	32.27	29.48	24.76	29.04	28.33
Median rooms per housing unit	4.93	5.50	4.78	5.77	6.70	5.04
% Built 1939 and earlier	14.90	2.16	11.36	15.53	8.11	7.32
% Built 1940 to 1969	41.17	13.17	44.22	47.70	23.95	43.79
% Built 1970 to 1990	30.30	44.62	30.23	24.53	34.53	34.45
% Built in or after 1990	13.63	40.04	14.19	12.24	33.41	14.44
Distance to population centroid	12.21	16.46	13.34	11.06	12.09	11.11
Linguistic Isolation						
% Non english	23.64	24.01	65.33	14.93	17.34	47.50
% Speak English poorly or not at all	11.82	10.48	34.60	6.00	5.67	21.64
Percent foreign born	18.05	16.47	38.13	10.88	13.81	35.82
Total Neighborhoods	1307	2338	1852	2581	2518	1084

CONCLUSION

- There is variation in suburban immigrant neighborhoods, with some neighborhoods holding traditional suburban characteristics, but many showing signs of distress.

- Immigrants in the suburbs are not necessarily assimilating into the middle class, particularly in Unhealthy Diversity, Transitioning, and Latino Enclave neighborhoods, and might be at risk of downward assimilation.