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RESIDENTIAL SEGREGATION AND ACCULTURATION: AN EXANINATION OF PATTERNS IN CALIFORNIA IN 1980

MARK LANGBERG
University of California

REYNOLDS FARLEY
University of michigan

ABOUT THE AUTHORS...

Mark Langberg, Senior Administrative Analyst with the Office of the President of the University of California, conducted research on racial and ethnic residential segregation for his Ph.D. dissertation in Sociology at the University of Michigan. He has been the corporate demographer for Pacific Bell and is currently directing research projects on financial aid issues for the University of California. His publications include a recently co-authored paper (with Reynolds Farley), entitled "Residential Segregation of Asian Americans in 1980," which appeared in Sociology and Social Research in 1985.

Reynolds Farley is a research scientist in the Population Studies Center and Professor of Sociology at the University of michigan. He is the author of numerous articles on questions of race and ethnicity in the United States. Along with Walter Allen, he co-authored the recently published census monograph, The Color Line and the Quality of Life in America. Professor Farley is currently the research consultant to the National Academy of Sciences - National Research Council Committee on the Status of Black Americans and is serving as President of the Population Association of America.

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INTRODUCTION

Many sociologists, beginning with Robert E. Park of the Chicago School, have grappled with the concept of assimilation in their research on ethnicity and race relations. The earliest assimilation models lacked clarity, and were not truly applicable to empirical analysis. Gordon (1964) resolved these problems considerably by narrowing and operationalizing the meaning of assimilation. Gordon describes assimilation as a process consisting of seven phases. Acculturation, the change of cultural patterns to those of the host society, is the first step toward complete assimilation. The second phase, structural assimilation, occurs when a minority group takes on large-scale primary group relationships with the majority population. According to Gordon, once structural assimilation occurs, all other aspects of assimilation automatically follow. These include marriage, identification, attitude receptional, behavior receptional, and civic assimilation.

Empirical research on ethnic and racial assimilation requires focusing on specific aspects of assimilation. Referring simply to a group as assimilated has little meaning, because the construct called "assimilation" contains many parts. There are, in essence, many ways for a group to be assimilated or unassimilated. For example, at one extreme, a group could be considered completely assimilated if it successfully undergoes every phase in the Gordon model. At the other extreme, a group could be considered totally unassimilated if it fails to undergo any of the assimilation phases. Between these two extremes are degrees of assimilation which cannot readily be ranked from low to high. One group may be assimilated with regard to some indicators, say attitudes and identification, while another group still identifies strongly with its ethnic heritage, but exhibits behavior patterns typical of the dominant population. These two groups differ qualitatively, and therefore one cannot judge whether a particular group is more assimilated than another. At best, groups can be compared on the basis of a particular aspect of assimilation.

Residential propinquity is not a factor in the Gordon framework. Yet pre- and post-Gordon sociologists have intimated the importance of residential segregation in the assimilation process. Hawley (1944) asserted that residential segregation, whether voluntary or involuntary, works to perpetuate minority status. Roof (1979) argued that residential segregation had both structural and psychological consequences for the affected minority group. Marstong and Van Valey (1979) have also commented on the negative effects that segregation imposes on minority groups, as well as on society as a whole. In the late 1960s, John Kain described a very specific consequence of the residential segregation of Blacks; namely, high unemployment rates. More recently, William Wilson (1987) argued that the geographic concentration of poor Blacks severely limits opportunities for economic mobility.

The overall conclusion is that residential segregation and assimilation are inextricably linked. In fact, some sociologists have recently incorporated residential segregation into their models of assimilation (Marston and Van Valey 1979; Massey and Mullan 1984). Although this makes the models more complete, it does not address the criticism that many scholars have raised (Horton 1966; Schermerhorn 1970; Blauner 1972; Metzger 1971; Tan 1973; Yinger 1981). Yet, for lack of a better alternative, the assimilation model still stands as "...the primary theoretical framework for sociological research on race and ethnic inequality" (Hirschman 1983, p. 401). Therefore, this study will focus on two elements of the expanded version of the assimilation model: acculturation and residential segregation. If Gordon is correct and acculturation is a precursor to other forms of assimilation, there should be a statistically significant

association between acculturation and segregation. Specifically, minority groups that measure high on acculturation should be less segregated from the dominant population than groups that score low on acculturation.

The assimilation model presumes that acculturation is antecedent to segregation. This is a reasonably valid assumption if the minority groups in question are recently arrived immigrants for whom lack of acculturation is due to having been born and raised in a foreign country. In this case, residential segregation in the U.S. cannot be viewed as having an effect on acculturation. However, over time residential segregation can inhibit the acculturation process by restricting opportunities of contact with American culture. Thus, the full nature of the relationship is unclear when groups are composed of new and old immigrants and native born persons of the same ethnic group. As a result, the focus of this paper is limited mainly to testing for the existence of an inverse, linear relationship. That is, the more acculturated a group is, the less its residential segregation.

DATA

Data were obtained from two sources: Summary Tape File 3A (STF 3A) and the five percent sample version of the Public-Use Microdata Samples (PUMS) from the Census of Population and Housing for 1980. Residential segregation indexes were calculated using census tract data from STF 3A, while assimilation characteristics of individual racial and ethnic groups at the metropolitan area level were assembled from data in PUMS. The analysis that follows focuses on the racial and ethnic groups residing in California's largest Standard Metropolitan Statistical Areas (SMSAs).

The ethnic groups in this study include those in which persons who reported themselves on the ancestry question in the 1980 Census as identifying with one and only one of the following: Dutch, English, French, German, Greek, Hungarian, Irish, Italian, Norwegian, Polish, Portuguese, Russian, Scottish, or Swedish. These include all the single ancestry groups in STF 3A, except for one. Ukrainians are omitted because their population is too small in every major California SMSA to compute reliable segregation scores (see section on Variables).

European ethnic groups will be referred to as "old" groups, because the initial waves of immigrants coming to the U.S. in the 18th, 19th, and early 20th centuries had their origins in Europe. In addition to the European ethnic groups, seven racial groups are included in the analysis as well: Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, and Hispanic. These groups will be referred to as "new", because of their association with the newest wave of immigrants to arrive since the liberalization of immigration laws in 1965. We recognize, of course, that the Chinese, among others, started their migration to California prior to several of the European-origin groups.

The English are defined to be the dominant cultural group. Each ethnic and racial group's residential distribution is compared to that of the English. Ideally, it would have been preferable to compare immigrant groups with the native born population, but population counts of individual ethnic and racial groups classified by nativity are not available at the census tract level.

It is also not entirely correct to mix ancestry and race, because it is possible that all the groups may not be mutually exclusive. For example, someone could have identified themselves as Hispanic on the race question and English on the ancestry question. However, limiting the dominant cultural group to the single ancestry group of English reduces the risk of this kind of crossover problem. If the dominant cultural group had been defined as including anyone reporting some English ancestry, the problem of

double counting would have been much more severe. There is evidence that single English ancestry is a good representation of the dominant racial and cultural group which founded this country and created much of its political and social structure. Differences between residential segregation scores for ethnic and racial groups were found to be, by and large, negligible when either English ancestry or non-Hispanic White was used as the dominant cultural group for the comparison (analysis not shown here).

VARIABLES

The acculturation variables are proportion who do not speak English well or at all (ENGABL) and proportion foreign born who immigrated between 1970 and 1980(FB). Gordon's concept of acculturation refers to the adoption of the cultural patterns of the host society by immigrants. Admittedly, the above indicators are crude measures of this definition of acculturation. Nevertheless, it is reasonable to assume that the ability to speak English well is a necessary (but not sufficient) condition for immersion into American culture. FB is also selected as a measure of acculturation because it can have effects on residential segregation independent of ENGABL. For example, although many foreign born persons speak English well, some may continue to hold on to many of the cultural patterns associated with their country of origin. The retention of "old" ways could lead to the desire to reside in segregated areas.

The measure of residential segregation is the index of dissimilarity (SEG). This index ranges from zero to one. A value of zero means that two groups are similarly distributed (completely integrated) in every census tract in the SMSA. Complete segregation occurs when the index has a value of one. This means that every census tract contains members of no more than one group. The index may be interpreted as the proportion of either group required to change locations (census tracts) in order to achieve a condition of no segregation. SEG is one-half the sum of the absolute differences in the proportion of SMSA group populations in each census tract:

$$SEG = 1/2 \; E \left| \frac{Xi}{X} - \frac{Yi}{Y} \right|$$

where:

Xi = Number of members of first groups in census tract i
Yi = Number of members of second group in census tract i
X = Total number of members of the first group
Y = Total number of members of second group.

A segregation index is reported or included in the analysis only if the number in both populations was at least ten times the number of census tracts. Since nearly all households contain at most five persons (U.S. Bureau of the Census 1983, Table 98), a factor of ten assures the number of households will always exceed the number of census tracts. This is an important criterion for producing unbiased segregation indexes. For example, if a metropolitan area consists of 100 tracts and the number of individuals belonging to a particular group is 200, the segregation index would be biased upward, even though there are more individuals than tracts. The reason is that, as a rule, individuals do not live alone: they congregate in households. If the average household size is four, the 200 individuals would be spread across approximately 50 percent of the tracts.

Consequently, it is necessary to stipulate that the number of households of either group must exceed the number of census tracts. Including only groups whose population is at least ten times the number of census tracts satisfies this stipulation, especially since the average household size in SMSAs is 2.7 (U.S. Bureau of the Census 1983, Table 100) which makes the average minimum number of households per tract to be approximately four. A more severe restriction on population size would have the effect of reducing the number of segregation indexes without necessarily making substantial improvements in accuracy.

METHODS

Correlation analysis is used to test the hypothesis that there is an inverse, linear association between segregation and acculturation. FB and ENGABL have been operationalized in a way that a positive correlation implies a negative association between segregation and acculturation. This is because FB and ENGABL really measure the extent to which a group is unacculturated. Therefore, the hypothesis that is being tested is that the more unacculturated an ethnic or racial group is, the greater the residential segregation of that group from persons belonging to the dominant cultural group, that is, the English ethnic group. This is equivalent to stating that greater acculturation is associated with less residential segregation.

The analysis will be conducted in four stages. Each successive stage will constitute a more demanding test of the robustness of the hypothesized association. The four stages of analysis are:

1. Comparative description of segregation levels among SMSAs and ethnic and racial groups;
2. Correlation analysis using all pairs of SEG-FB and SEG-ENGABL;
3. Separate correlation analysis of new and old groups;
4. Separate correlation analysis by SMSA.

ANALYSIS

According to Table 1, on the average, residential segregation of ethnic and racial groups from the dominantly cultural English population in California metropolitan areas is at most moderate. For the twenty ethnic/racial groups, the average index of dissimilarity ranges from a low of .291 in Vallejo to .411 in Stockton. This means that for the Stockton SMSA to achieve complete integration, 41 percent of the typical ethnic/racial population would have to change location if they were to have the same residential distribution as the English. The other SMSAs with relatively high segregation scores are Los Angeles (.409) and San Francisco (.406) (see Table 1).

While segregation in California metropolitan areas is not extremely high, there is a wide disparity among individual ethnic and racial groups. Among the Europeans, more than half have average segregation scores of less than .300. Three groups have scores over .400, which is well above the average of .276 for all Europeans. These more highly segregated groups are the Greeks, Portuguese, and Russians, whose appearance in the U.S. came considerably later than for most of the other European ethnic groups. The Hungarians, who also have a sizeable foreign born population, have a comparatively high average segregation index of .368.

One racial group, the Vietnamese, are highly segregated from the English. Their average segregation index of .710 indicates that nearly three-fourths of the Vietnamese would have to change neighborhoods to

become completely integrated. Following the Vietnamese in descending order of residential segregation are Asian Indians (.599), Filipinos (.559), Koreans (.559), and Chinese (.494). However, their segregation from the English is not as severe as it is for the Vietnamese.

The analysis so far suggests that segregation and acculturation are negatively associated. Asians and Hispanics, being the newest groups, are the least acculturated and have the highest segregation indexes. In contrast, nearly all of the Europeans belong to older groups which appear to be the most acculturated and have the lowest segregation scores. The correlations in Table 2 bear this out. The correlation between SEG and FB is .795 and is .698 between SEG and ENGABL. These are both moderately strong relationships in the hypothesized direction and are significant at the .01 level (see Table 2).

How robust is this relationship? Does it exist only because the data are polarized into highly assimilated groups {the Europeans) and less assimilated groups (Asians and Hispanics)? Results in Table 2 show that regardless which measure of acculturation is used, there is a moderate to moderately strong association between segregation and acculturation for both new and old groups. Correlation coefficients range from .546 to .763.

Although the correlation model, and not the regression model, is the chosen method of analysis, the way in which acculturation has been defined permits an interpretation to be made. FB is an attribute that occurs independent of, and usually antecedent to, SEG. Being foreign born is not a result of living in a segregated community in the U.S. Therefore, it is entirely correct to interpret the correlations between SEG and FB as if they were by-products of regression analyses. In particular, FB accounts for 58 percent of the variation in S G among new groups, and 32 percent among the older groups. The lower R Europeans occurs probably because other factors influence residential distribution once the major portion of the foreign born population is replaced by native born persons of the same ethnicity. A similar interpretation cannot be appropriately made with ENGABL, because its relationship with SEG is not as clearly defined. Residential segregation can inhibit English language proficiency among foreign and native born alike, while simultaneously being unable to speak English well could incline persons to live in segregated communities where they can communicate with other members of their ethnic group. Therefore, it is unclear which variables, ENGABL, SEG, or both, are exerting influence.

Does the relationship persist within individual SMSAs? Table 2 shows the correlations between SEG and both measures of acculturation for each SMSA. Twenty-three of the 24 correlations are significant at the .01 level. The exception is the correlation between SEG and ENGABL in the Vallejo SMSA which is significant at the .10 level. All the highly significant correlations are moderate to strong. Since the number of observations in each SMSA is small (at most 20), the results signify a robust relationship. The relatively high correlations mean that most of the variation in segregation can be explained by acculturation (or the lack of it). Therefore, one can expect that as acculturation (defined by at least FB) progresses, most of these groups should experience a decrease in their residential segregation from the English ethnic group.

CONCLUSION

This study sought to determine whether there was an inverse, linear relationship between residential segregation and acculturation among California's racial and ethnic groups in 1980. The data were found to support this contention at the state level, the metropolitan area level,

and among groups defined as new or old. Moreover, we were able to conclude that greater acculturation leads to less segregation when acculturation is defined in terms of foreign birth. It is also clear that acculturation may not be the only variable associated with residential segregation. Specific groups in particular SMSAs that are extremely acculturated but have relatively high segregation scores (e.g., Norwegians in Riverside), are indicators that other variables, such as social and economic status, could also be related to segregation. A more complete analysis that relies on the regression model rather than the correlation model will help clarify this issue.

It is possible that when all the variables that are related to residential segregation are taken into account, the variation in segregation would still not be completely explained. The reason could be attributed to the form of assimilation taking place in the United States. Using Gordon terminology, we could say that a structural or cultural pluralistic form of assimilation, where primary relationships -- friendships and selection of marriage partners -- are conducted essentially within groups while secondary types of relationships -- employment, for example -- flow across groups, could result in the persistence of segregation at some minimum level. In other words, the goal of achieving complete integration may be not only unrealistic, but undesirable. A variation of this scenario is that different groups may take on different forms of assimilation. Some groups may be characterized as cultural pluralistic, while others approach an Anglo conformity form of assimilation where cultural and ethnic identities are abandoned in order to adopt the behavior and attitudes of the dominant population. Thus, the minimum level of segregation will be different for different groups depending on which form of assimilation they are undergoing.

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TABLE 2

Correlation Coefficients for Segregation and Acculturation

		ACCULTURATION		
	FB	N	ENGABL	N
All Pairs (Statewide)	0.795	208	0,698	208
New Groups	0.763	68	0.546	68
All Groups	0.566	140	0.636	140
Los Angeles	0.796	19	0.749	19
San Francisco	0.874	20	0.823	20
Anaheim	0.868	19	0.734	19
San Diego	0.813	18	0.732	18
Riverside	0.745	16	0.716	16
San Jose	0.786	20	0.716	20
Sacramento	0.817	18	0.835	18
Oxnard	0.844	15	0.654	15
Fresno	0.714	16	0.746	16
Vallejo	0.836	14	0.442	14
Stockton	0.817	17	0.829	17
Salinas	0.886	16	0.860	16

Note: All correlations are significant at the .01 level except for the correlation between SEG ENGABL in the Vallejo SMSA which is significant at the .10 level.

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