

Housing Characteristics and Residential Segregation: Mexican Americans in the Urban Southwest

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This paper addresses the applicability of a socioeconomic model for explaining the residential segregation of Mexican Americans in the urban Southwest. Results indicate that group differences on housing measures reflecting socioeconomic status account for only a small proportion of Black-Anglo or Mexican American-Black segregation across cities. While a larger proportion of Mexican American-Anglo segregation is accounted for by socioeconomic differentials, other analyses fail to support a purely socioeconomic interpretation of Mexican American residential segregation.

Race strongly influences the location decisions of urban households. Notwithstanding, the relationship between race and the patterns of residential location are not well understood. Residential segregation can have enormous consequences as it reinforces stereotypes (Grebler, Moore and Guzman, 1970: 283) and differentially structures access to jobs, income, education and public goods (Hollingshead, 1947: 197-202). Existing economic theory frequently ignores the existence or importance of race in urban housing markets; residential segregation is an "imperfection" deserving little attention. However, housing market segregation modifies the logic of "economic models" of residential location (Kain and Quigley, 1975: 2, 86). Sociologists have generally proposed three basic paths by which differentiation in urban areas occurs: (1) lifestyle, or family and household type; (2) socioeconomic status; and (3) ethnicity (Dar-

roch and Marston, 1969: 71). The explanation of residential segregation rests primarily with two contrasting models drawn from the latter constructs, one focusing on "socioeconomic status" and the other on "ethnic status."

The socioeconomic explanation of residential segregation has been more frequently employed than the ethnic status model. For Blacks, attributing patterns of residential segregation to Black-White differentials in socioeconomic status has been demonstrated to be inaccurate (Taeuber, 1965, 1968). A basic question left unanswered by previous studies is whether these findings are also applicable to other ethnic minorities, such as Mexican Americans. The purpose of this paper is to explore the application of such a socioeconomic interpretation to Mexican American residential segregation by using housing market characteristics. Concurrently, a brief initial assessment of the general ethnic status model is presented.

Research clearly implies that differences between Blacks and Whites in "tastes for housing" are of limited value for explaining differences in con-

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sumption patterns (Straszheim, 1975: 140; Kain and Quigley, 1975: 60). The socioeconomic model asserts that the level of ethnic or racial residential segregation is attributable to differences in a group's socioeconomic position. Simply stated, those with comparable incomes seek similar housing and locations, thus clustering together (Hawley, 1950: 282). Early sociologists, like McKenzie (Timms, 1971: 86), argued that "economic segregation is the most primary and general form" and that "other attributes of segregation such as language, race, or culture function within the spheres of appropriate economic levels." Under a market system of allocation, where people live is largely dependent upon the rental or sales price of the housing stock. Thus one would expect a considerable degree of ethnic residential segregation to be accounted for by group differentials in rental levels, home ownership rates, housing values and housing quality (Warner and Lunt, 1941: 282; Shibutani and Kwan, 1965: 159-164; Muth, 1969: 61, 311; Taeuber and Taeuber, 1969: 24).

The ethnic status model contends that residential differentiation results from either (1) a voluntary choice, wherein one's ethnic identity supersedes socioeconomic status as a determinant of residential choice or (2) exclusion, wherein one's ethnic identity precludes entry into clearly defined residential locations independent of his or her socioeconomic status (Marston, 1969: 66).

In brief, four basic questions regarding ethnic and socioeconomic segregation among Mexican Americans, Blacks and Anglos will be addressed. First, what is the level of socioeconomic segregation in Southwestern central cities? Second, to what extent is intercity ethnic segregation determined by levels of and relative differences in group home ownership rates, rents, housing values and unit age? Third, to what extent can intracity segregation be attributed to the differential distribution of the existing housing stock? Finally, to what extent are Mexican Americans of a given housing status segregated from Anglos and/or Blacks of the same status?

Data And Procedures

The existence of two enduring minority populations in the Southwest provides an interesting comparative framework within which the analysis of housing differentials may be examined. The present analysis focuses on three major groups — Mexican Americans, Blacks and Anglos. Of the three, Blacks are the most easily defined, they are those people designated as "Negro" in census tabulations. While the definition of Mexican Americans is not as straightforward, the most practicable approach to their identification is the "Spanish Heritage" designation. For the Southwest this is defined as the sum of "persons of Spanish language" and "persons not of Spanish language but of Spanish surname" (U.S. Bureau of Census, 1972: App. 4). "Anglo" is traditionally defined as White other than Spanish heritage (Grebler, et. al., 1970: 16n). Restraints originating from the available housing data required a slight modification. A residual category was calculated by subtracting the sum of the Black and Spanish Heritage populations from the total population. This procedure is compatible with accepted practice as others have defined "Whites" in a similar fashion (Kasarda, 1976: 128n). For the sake of clarity and convention, the terms Mexican American and Anglo will be used throughout the text as synonymous with Spanish Heritage and the residual White category.

The dependent variables are indexes of residential dissimilarity (D) calculated from Census summary tape data. While no single index adequately mirrors all the minute differences between two patterns of residential distribution, D directly measures the extent to which observed patterns of residence by neighborhood (defined here as tracts) differ from a pattern of proportional representation (Farley, 1977; Kain and Quigley, 1975). Index values reflect the minimum percentage of one group which would have to move from tracts containing too high a percentage of that group to others containing too low a percentage. The higher the numerical value, the greater the degree of residential segregation between groups (Taeuber and Taeuber, 1969: 29-30). Although there has been considerable discussion regarding its applicability to intercity analysis (Cohen, Falk and Cortese, 1976; Winship,

1977; Simkus, 1978), the index represents the most succinct and interpretable summary measure for efficiently comparing segregation levels (Darroch and Marston, 1971; Farley, 1977). Portions of the analysis require the calculation of several indexes of dissimilarity by housing characteristics; these indexes are calculated in the same fashion as the ethnicity- and racially-based indexes but are not used as dependent variables. Central cities serve as the unit of analysis for which indexes are presented. The focus on the central city is based on its role as the arena within which social pressures and conflicts develop and within which their resolution is sought (Betz, 1973: 198).

The Fourth Count summary tapes of the 1970 Census of Population and Housing provide the data necessary for the calculation of tract-level indexes among the three populations of Mexican Americans, Blacks and Anglos. The Fourth Count tapes provide the advantage of a greater range and detail of information than that available from published reports. However, summary tapes do not provide information in distinct portions for tracts split by city boundaries, only complete tracts are reported. To overcome the problem of including tracts which were not appropriately part of the central city, each split tract as reported in the published tract volumes was examined. If a tract had 60 percent or more of its population within the city limits it was included in the calculation of the index; if 60 percent of a tract population lay outside the city limits it was excluded from the calculation. Tracts with 50 to 55 percent of their population within or outside the city limits were examined further; if their composition reflected the composition of the adjoining tracts, they were included in the calculations, otherwise they were excluded. The correlations between published (split tract) and summary tape (complete tract) data were extremely high: .998 for the number and .999 for the percentage of Mexican Americans in a city's population, and .999 for both the number and percentage of Blacks in the population.

The independent variables were selected to represent the most important socioeconomic characteristics of the housing market as indicated in previous studies (Warner and Lunt, 1941; Muth, 1969; Taeuber and Taeuber, 1969; Straszheim, 1975; Kain and Quigley, 1975): (1) the extent of home ownership among

the minority and majority populations; (2) the value of owner occupied housing; (3) rent levels; and (4) the age of the occupied structure. The latter three variables were dichotomized to facilitate their incorporation into a procedure equivalent to indirect standardization. Dichotomization occurs at the Census category most closely approximating the national median: high rent is defined as \$100 or more monthly, high values as those exceeding \$17,500 and a structure is designated "new" if it is less than 20 years old. Dichotomization does not significantly alter the results obtainable from more detailed categorizations (Taeuber, 1968: 10).

Residential segregation has been characterized as a function of demographic characteristics such as city size (Grebler, et. al., 1970: 283) and the involved minority's percentage of the total population (Straszheim, 1975: 51), as well as the absolute and relative positions of groups within the city (Hatt, 1945: 481-483). The evaluation of the socioeconomic model will be approached using two different avenues. Regression analysis is used to evaluate the degree to which existing city-level differences in demographic and minority-group housing characteristics account for differential inter-urban segregation. The persistence of ethnic segregation across cities in the hypothetical absence of intracity group differences on the housing stock measures is also explored using regression analysis. The weakness of this first approach is that it utilizes spatially undifferentiated aggregate data. This results in unrealistically treating the central city as if it were homogenous. Using a simple model that is a direct algebraic equivalent to an indirect standardization technique (Taeuber and Taeuber, 1969: 79-84; Lieberson, 1963: Chapter 3) we assume a differential spatial distribution of statuses across subareas (tracts) of the city (Straszheim, 1975: 24) and evaluate the extent to which **existing** intracity segregation by housing status over subareas (tracts) **and** housing status differentials jointly explain the city's ethnic-racial segregation. The technique produces an "expected" index of dissimilarity against which the city's actual index can be compared. The formula for the model follows:

$$A = (B \times C) + R$$

where

A = the index of dissimilarity between groups (e.g., Anglos and Blacks) over census tracts;

B = the absolute value of the difference between the percentage of a given housing characteristic (e.g., rent) at one level (e.g., high) attributable to Anglos (or Blacks) and the same characteristic at the same level attributable to Blacks (or Mexican Americans);

C = the index of dissimilarity between the distribution of the given housing characteristic (e.g., rent) at two different levels (i.e., high and low) over census tracts;

R = the residual (i.e., $A - BC$)

The product BC is the "expected" index of dissimilarity on the basis of socioeconomic differentials between the two groups.

If socioeconomic status is the major criterion of residential location, members of one ethnic or racial group should be found in neighborhoods inhabited by members of other ethnic groups having equivalent housing stock characteristics. The result would seem to be relatively low residential segregation by ethnicity or race at equivalent housing statuses. Thus, a comparison of housing stock by ethnicity distributions should provide insights into the propriety of both the ethnic status and socioeconomic models. To examine such ethnic housing stock distributions we utilize a series of inter-group indexes of dissimilarity calculated from dichotomized housing value, housing age and rent level data.

The analysis will proceed from an examination of overall (nonethnic) socioeconomic segregation, to the regression analyses of group differentials and then to the expected cases procedure before closing with an examination of ethnic segregation at equivalent status levels.

Findings

Moderately high residential segregation by housing stock characteristics (mean indexes from 47 to 53) exist across the 56 Southwestern cities in the study (Table 1). The results do not demonstrate a recognizable pattern for the relationship between ethnic/racial

and housing stock segregation. Kendall rank order correlations are relatively weak. Pearson correlations are also relatively weak (Appendix A). Only two cities (El Paso, Salinas) exhibit greater segregation by all housing stock characteristics than by ethnicity or race. Only three cities (Lubbock, San Bernardino, Tucson) exhibit higher values for all ethnic/racial segregation indexes than those for all three housing stock indicators. The remaining 51 cities exhibit a varied combination of dominant ethnic or housing stock segregation having an indiscernible pattern.

The indexes for California and Texas are significantly different for the housing value (9.1 points) and rent level (11.9 points) segregation but not for that by age of structure (1.7 points). Texas cities dominate the rankings of cities with the highest differential distribution by rent level (5 of 5) and housing value (5 of 5), the variables most reflective of socioeconomic differences. California cities, on the other hand, are predominant among those cities having the least differentiation by rent level (4 of 5) and housing value (4 of 5). Texas cities are the most prominent (4 of 5) among those cities with the least differential distribution by structure age.

Using the interpretation employed for human populations, the mean index values for housing stock segregation indicate that roughly half of the housing units in any given housing status category (e.g., old housing) would have to be relocated in order to achieve its proportional distribution across city tracts. Obviously, areal changes in the nature of housing stock exhibit cost relationships that make any adjustment process lengthy. Thus we turn our attention to the human components in the process of residential location. To examine inter-urban variations in residential segregation the appropriate demographic and ethnicity-based absolute values and ethnic differentials on housing characteristics were regressed on each type of ethnic residential segregation. The results appear in Table 2 (Model I) and indicate dissimilar outcomes for the three types of ethnic segregation.

City size, the percentage Mexican American of the city's population, Mexican American housing stock characteristics and differentials in the nature of Mexican American and Anglo housing stocks account for 67.7 percent of the variance in Mexican American-

Table 1. — Rent, Housing Value, Housing Age and Ethnic Indexes of Dissimilarity by City, 1970

Central City	Housing Stock			Ethnic		Black Anglo
	Rent	Value	Age	MxAm Anglo	MxAm Black	
Albuquerque, NM	54.6	40.1	63.0	44.9	45.5	58.2
Amarillo, TX	57.1	70.8	63.7	53.2	92.7	86.0
Anaheim, CA	48.5	50.7	66.1	25.6	65.8	59.6
Austin, TX	41.1	54.2	50.5	52.8	63.0	81.3
Bakersfield, CA	42.0	52.6	58.6	42.7	68.4	88.7
Beaumont, TX	49.8	60.8	43.9	28.3	62.9	73.4
Brownsville, TX	54.3	58.2	39.5	54.9	67.6	87.8
Bryan, TX	61.0	57.4	39.4	63.5	47.6	87.5
Colorado Springs, CO	51.9	52.9	71.8	37.5	44.7	62.1
Corpus Christi, TX	61.5	57.4	57.1	60.5	57.9	86.1
Dallas, TX	51.0	65.9	52.7	45.0	81.7	93.2
Denver, CO	45.2	56.9	51.8	52.8	77.0	87.1
Edinburg, TX	60.3	39.7	19.8	33.4	34.6	64.2
El Paso, TX	61.5	56.7	67.6	52.9	54.9	52.7
Fort Worth, TX	48.9	66.3	52.3	48.9	78.7	83.9
Fresno, CA	44.8	46.1	60.7	36.7	68.0	83.5
Galveston, TX	35.6	49.1	32.5	29.1	60.1	70.4
Garden Grove, CA	38.3	41.0	49.0	17.9	54.3	62.4
Harlingen, TX	62.2	54.4	34.7	49.4	34.0	63.7
Houston, TX	58.5	66.4	58.0	48.9	75.1	83.5
Laredo, TX	53.6	46.6	45.0	46.2	83.1	60.4
Long Beach, CA	35.7	55.9	36.7	23.9	64.9	79.2
Los Angeles, CA	47.8	65.4	47.3	50.9	82.0	89.8
Lubbock, TX	44.8	56.4	58.9	65.3	77.2	93.0
McAllen, TX	65.5	59.8	43.8	60.3	56.5	77.6
Midland, TX	53.1	74.0	60.3	67.1	54.5	93.3
Monterey, CA	48.4	37.8	26.7	36.2	25.8	40.2
Napa, CA	24.3	27.6	34.5	20.9	60.6	57.8
Oakland, CA	36.8	50.5	34.8	38.5	46.7	64.1
Odessa, TX	51.3	58.6	55.6	65.5	42.6	95.3
Ontario, CA	37.3	35.6	44.0	35.5	48.6	72.8
Oxnard, CA	45.8	44.9	52.4	39.4	29.9	62.5
Pharr, TX	70.8	60.2	23.6	54.6	28.6	72.3
Phoenix, AZ	50.6	54.9	54.5	48.4	60.3	81.7
Port Arthur, TX	53.6	40.6	50.9	29.7	64.7	82.8
Pueblo, CO	47.0	58.8	62.5	40.6	47.5	56.7
Riverside, CA	40.7	40.3	43.7	33.2	47.4	63.0
Sacramento, CA	38.4	53.1	57.7	30.1	50.5	61.1
Salinas, CA	41.5	50.9	54.7	31.6	32.0	53.1
San Angelo, TX	46.1	51.3	42.4	48.8	62.0	70.5
San Antonio, TX	65.7	67.2	59.4	60.1	77.4	87.7
San Benito, TX	30.7	52.6	18.6	49.9	77.0	55.1
San Bernardino, CA	43.1	37.0	42.7	56.9	48.7	81.8
San Diego, CA	40.9	57.5	51.4	37.3	60.7	78.9
San Francisco, CA	46.2	47.3	35.4	42.3	66.4	68.9
San Jose, CA	44.5	61.8	70.0	44.1	33.3	60.1
Santa Ana, CA	36.3	45.7	55.6	38.8	55.8	72.5

Central City	Rent	Housing Stock Value	Age	MxAm Anglo	Ethnic MxAm Black	Black Anglo
Santa Barbara, CA	35.0	47.1	39.6	35.6	36.0	57.4
Santa Rosa, CA	32.0	45.5	44.2	19.4	41.1	53.2
Stockton, CA	51.6	56.6	59.8	43.2	38.5	73.9
Texas City, TX	41.3	32.2	39.2	28.3	65.6	73.3
Tucson, AZ	43.3	49.5	49.3	55.4	58.7	67.3
Vallejo, CA	34.5	45.5	56.1	20.8	42.0	52.1
Ventura, CA	50.5	54.3	53.6	29.9	43.6	71.6
Waco, TX	48.7	60.1	61.3	44.1	68.6	78.8
Wichita Falls, TX	46.3	63.8	59.4	31.6	74.0	81.6
Mean, CA Cities	41.0	47.9	49.0	34.6	50.5	67.0
Std. Dev.	6.5	8.8	11.0	9.9	14.5	12.5
Mean, TX Cities	52.9	57.0	47.3	48.9	63.2	78.3
Std. Dev.	9.6	9.7	13.6	12.3	16.1	11.9
Mean, ALL Cities	47.4	52.6	49.3	42.6	56.9	72.4
Std. Dev.	9.7	9.9	12.3	12.8	16.0	13.3

Anglo segregation across the 56 cities. The percentage of Mexican American renters paying high rents has the greatest import in accounting for inter-urban variance (the higher the proportion of Mexican American renters paying high rents the lower the segregation) although the difference in the percentage of home owners with high value housing is also important (the greater the gap between the percentages of the Anglo and Mexican American homeowners with high value housing, the greater the residential segregation).¹

In the case of Mexican American-Black segregation, the model (I) accounts for 42.5 percent of the inter-urban variance in residential segregation. Mean inter-minority differentials on all housing stock measures are small (e.g., value = 2.9 percentage points) and not significant in explaining inter-urban variance. The size of the city of residence is of much greater consequence than either the relative or absolute housing stock characteristics in explaining inter-minority segregation. The larger the city, the greater the segregation of Mexican Americans from Blacks.

In the case of Black-Anglo segregation, demographic and housing stock measures account for 53.3 percent of the inter-urban variance. The only significant variable for explaining differential Black-Anglo segregation is, as in the case of Mexican American-Black segregation, the size of the city of residence. Here too, the larger the city of residence the greater the segregation of Anglos from Blacks.

To examine the impact of ethnicity on residential segregation in the absence of differences in housing stock characteristics we regressed existing group differences on each type of ethnic residential segregation. Group differentials, unlike the absolute measures employed in Model I, can all realistically assume values of zero. Thus, the constant terms in the regressions can be substantively interpreted as the average degree of inter-urban residential segregation which would remain between groups if no differences existed on their housing status measures within their cities of residence. If the differentials within a city between two ethnic groups were zero, would intracity residential segregation by ethnicity persist? The data, presented as Model II in Table 2, would indicate an affirmative response.

Differentials in home ownership rates, the percentage of renters paying high rentals, the percentage of owner occupants with high value housing, and the percentage of all households living in new structures account for 59.8 percent of the variance in Mexican American-Anglo segregation. The differentials alone account for only 8 percent less of the variance in Mexican American-Anglo segregation than did the more extended regression of Model I. The differentials in high rentals and high value housing are of greatest importance. For both measures, the greater the gap between Anglos and Mexican Americans the greater their segregation from each other. The differences in

Table 2. — Effects of Absolute and Relative City-Level Ethnic Group Housing Stock Attributes on Ethnic Segregation, 1970

Independent Variables	Coefficients		Model I				Model II				
	Mean	S.D.	I	II	III	III S ^a	I	II	III	IV	IV S ^a
A. MEXICAN AMERICAN-ANGLO SEGREGATION											
Demographic Characteristics											
City Size (000s)	252	425	.006	.007 ^b	.004	.140					
Pct City MxAm	24.7	23.6	.209 ^b	-.002	-.086	-.160					
Group Housing Attributes											
Pct Owner Occ: MxAm	54.8	9.8		-.367	-.155	-.119					
Pct. High Value: MxAm	32.6	27.4		-.048	.236	.507					
Pct High Rent: MxAm	37.2	22.9		-.459 ^b	-.550 ^b	-.987					
Pct New Units: MxAm	49.7	13.2		.312 ^b	.158	.163					
Housing Differentials^c											
Owner Occ: Anglo-MxAm	5.8	7.0			-.253	-.140	-.094	-.033	-.141	-.111	-.061
High Value: Anglo-MxAm	18.2	9.3			.703 ^b	.510		1.01 ^b	.605 ^b	.634 ^b	.460
High Rent: Anglo-MxAm	22.2	14.4			.073	.082			.347 ^b	.384 ^b	.433
New Units: Anglo-MxAm	11.6	6.5			-.086	-.044				-.216	-.110
Constant			35.8	64.1	45.1		43.1	26.2	24.7	25.7	
R square			.172 *	.554*	.677*		.003	.521*	.589*	.598*	
B. MEXICAN AMERICAN-BLACK SEGREGATION											
Demographic Characteristics											
City Size (000s)	252	425	.014 ^b	.016 ^b	.018 ^b	.486					
Pct City MxAm	24.7	23.6	-.027	-.094	-.190	-.280					
Group Housing Attributes											
Pct Owner Occ: MxAm	54.8	9.8		.073	-.133	-.081					
Pct High Value: MxAm	32.6	27.4		-.316	-.353	-.603					
Pct High Rent: MxAm	37.2	22.9		.142	.031	.044					
Pct New Units: MxAm	49.7	13.2		-.256	-.194	-.160					
Housing Differentials											
Owner Occ: MxAm-Black	7.3	9.1			.460	.261	-.151	-.186	-.171	-.153	-.087
High Value: MxAm-Black	2.9	10.5			-.187	-.123		-.115	-.124	.014	.009
High Rent: MxAm-Black	5.9	16.9			.030	.032			.082	.098	.103
New Units: MxAm-Black	-2.1	17.3			-.063	-.067				-.185	-.199
Constant			54.0		81.2		58.0	58.6	58.0	57.0	
R square			.148**	.347*	.425*		.007	.013	.020	.051	
C. BLACK-ANGLO SEGREGATION											
Demographic Characteristics											
City Size (000s)	252	425	.007	.012 ^b	.010 ^b	.318					
Pct City Black	9.1	9.7	.417 ^b	.226	.206	.151					
Group Housing Attributes											
Pct Owner Occ: Black	47.5	12.1		-.041	.128	.117					
Pct High Value: Black	29.7	28.5		-.261 ^b	-.175	-.377					

Independent Variables	Coefficients		Model I			Model II					
	Mean	S.D.	I	II	III	III S ^a	I	II	III	IV	IV S ^a
Pct High Rent: Black	31.3	28.1		-.058	.045	.096					
Pct New Units: Black	51.8	22.0		.143	.075	.125					
Housing Differentials											
Owner Occ: Anglo-Black	13.1	7.9			.202	.121	-.316	-.132	-.104	-.030	-.018
High Value: Anglo-Black	21.1	13.9			.247	.259		.483 ^b	.409 ^b	.549 ^b	.577
High Rent: Anglo-Black	28.1	19.7			.182	.270			.186 ^b	.220 ^b	.326
New Units: Anglo-Black	9.5	16.7				-.104	-.131			-.218 ^b	-.275
Constant			66.8	71.5	49.9		76.6	64.0	60.0	57.2	
R square			.179*	.478*	.533*		.036	.282*	.351*	.399*	

^a "S" indicates standardized regression coefficients, all others presented in the table are metric (unstandardized) regression coefficients; b indicates metric twice its standard error.

^c Owner Occ differentials are the differences in the percentages of home ownership within each group; high value differentials refer to the group differences in the percentage of home owners with homes valued in excess of \$17,500; high rent differentials refer to the differences in group percentages of persons paying in excess of \$100 a month; and the age differential indicates the differences in percentages between groups of persons living in structures less than 20 years old.

* indicates statistical significance at the .01 level.

** indicates statistical significance at the .05 level.

the degree of home ownership or the age of occupied structures are of little consequence in accounting for variations in segregation. The constant term (25.7) indicates that Mexican American-Anglo segregation would demonstrate a relatively low "residual segregation" in the absence of housing stock characteristics; an average 74.3 percent of the Mexican American population in the study's 56 cities would reside in "integrated" tracts.

In the absence of differences in Mexican American and Black housing characteristics, considerable Mexican American-Black segregation would persist as indicated by the constant (57.0 points). Black-Anglo segregation would also persist in the absence of city-level differentials in Black and Anglo housing characteristics (constant = 57.2).

The expected cases procedure establishes that only a very small proportion of current ethnic residential segregation is attributable to existing socioeconomic differentials. Expected residential distribution by rent differentials explains 25.3 percent of Mexican American-Anglo inter-urban segregation in the Southwest, 20 percent of Black-Anglo segregation and only 11.5 percent of interminority segregation (Table

3). The explanatory ability of socioeconomic differentials is poorer when either value or age of housing are employed.

"Expected" indexes are not, strictly speaking, additive because of the presence of measurement overlap among indicators (e.g., age and value, age and rent). However, the sum of these indexes provides an interesting gross upper boundary estimate of the "power" of housing status variables for explaining ethnic/racial segregation. Extreme caution should be exercised in the employment of these summed indexes and they are reported here only as further evidence of the limited value of housing status variables for explaining the complex issue of residential segregation. On the average, the summed indexes "explain" a maximum of only 27.8 percent of the variance in inter-urban Mexican American-Anglo segregation; 15.5 percent of Mexican American-Black segregation; and 34.2 percent of Black-Anglo segregation. Texas cities have significantly higher upper boundaries than California cities for both Mexican American-Anglo and Black-Anglo segregation while no significant difference in Mexican American-Black segregation exists for cities across the two states.²

Table 3. — Expected Indexes of Ethnic Residential Segregation Based on Rent, Housing Value and Housing Age Differentials, by City, 1970

Central City	MxAm-Anglo Index			MxAm-Black Index			Black-Anglo Index		
	Rent	Value	Age	Rent	Value	Age	Rent	Value	Age
Albuquerque, NM	17.8	12.2	12.3	2.7	2.3	2.8	20.5	14.4	9.5
Amarillo, TX	8.5	14.4	8.7	8.6	1.4	2.1	17.0	15.9	6.6
Anaheim, CA	4.0	2.3	6.7	9.0	6.7	12.6	5.0	4.4	5.9
Austin, TX	14.3	16.2	9.9	6.1	3.0	.6	20.4	19.2	10.5
Bakersfield, CA	9.5	7.0	9.8	7.0	13.9	.2	16.5	21.0	10.0
Beaumont, TX	4.5	9.8	4.1	16.1	5.1	2.2	20.6	15.0	6.4
Brownsville, TX	23.5	13.7	3.6	4.8	1.8	14.3	28.3	15.5	17.8
Bryan, TX	22.2	19.6	3.3	8.2	2.7	7.6	30.4	22.3	10.8
Colorado Springs, CO	12.5	12.9	12.8	8.9	.6	3.9	3.5	12.2	8.9
Corpus Christi, TX	25.7	17.6	9.1	3.7	1.1	1.0	29.4	18.7	10.1
Dallas, TX	12.1	22.3	9.7	5.8	3.0	3.7	17.9	25.4	6.0
Denver, CO	9.4	15.3	6.0	2.9	2.7	2.3	6.4	12.6	3.7
Edinburg, TX	24.2	12.5	1.3	6.7	6.3	5.0	30.9	6.2	6.3
El Paso, TX	26.4	15.4	16.1	14.1	5.2	11.4	12.4	10.1	4.7
Fort Worth, TX	10.7	13.9	7.0	3.9	3.1	6.0	14.6	17.0	.9
Fresno, CA	13.4	8.3	8.9	10.0	4.4	5.5	23.5	12.7	3.4
Galveston, TX	9.3	9.5	2.4	5.3	2.4	1.5	14.6	11.9	3.8
Garden Grove, CA	3.3	1.7	7.2	7.1	5.2	1.8	3.9	3.5	5.4
Harlingen, TX	26.2	9.5	2.0	3.7	.4	1.8	29.9	10.0	3.9
Houston, TX	21.1	16.7	13.3	4.9	5.6	4.9	25.9	22.4	8.4
Laredo, TX	24.8	3.0	7.2	12.1	10.3	22.4	12.6	7.3	15.2
Long Beach, CA	1.2	1.5	.5	3.9	12.4	3.5	2.7	13.9	3.0
Los Angeles, CA	10.9	11.3	7.9	.4	10.1	3.5	10.5	21.5	11.4
Lubbock, TX	18.6	18.0	10.4	2.3	.2	14.7	20.9	17.8	4.3
McAllen, TX	34.6	17.6	7.2	5.8	2.8	12.8	40.4	20.5	20.0
Midland, TX	19.6	24.0	11.1	5.9	5.4	4.8	25.5	29.5	6.3
Monterey, CA	0	1.4	1.4	11.0	2.6	.5	11.1	3.9	1.9
Napa, CA	1.5	1.2	3.7	18.7	9.4	16.5	17.2	8.2	12.7
Oakland, CA	2.4	8.7	2.7	2.5	1.2	.5	4.9	9.9	2.2
Odessa, TX	15.4	11.1	3.2	6.1	1.2	5.0	21.5	12.3	1.8
Ontario, CA	2.4	4.4	1.4	9.1	3.5	5.3	6.6	7.9	3.9
Oxnard, CA	13.7	9.6	6.8	12.0	1.9	5.7	1.6	11.5	1.0
Pharr, TX	25.1	8.1	.4	1.6	2.0	7.2	26.7	10.1	6.9
Phoenix, AZ	15.9	13.7	8.2	8.6	5.9	2.2	24.5	19.7	10.4
Port Arthur, TX	11.0	1.3	5.0	4.0	2.5	4.3	15.0	3.9	.7
Pueblo, CO	6.9	9.0	6.9	1.0	.8	6.3	7.8	8.2	13.2
Riverside, CA	7.6	9.2	5.0	2.2	1.0	1.5	9.8	10.2	3.5
Sacramento, CA	5.6	8.3	3.2	3.3	3.9	7.2	2.3	12.2	4.0
Salinas, CA	7.1	6.1	6.2	6.0	2.6	2.0	13.0	3.5	8.2
San Angelo, TX	10.7	9.0	6.8	2.1	.5	.7	12.8	8.5	7.5
San Antonio, TX	29.0	16.9	10.2	.8	.1	.2	29.8	16.9	10.5
San Benito, TX	2.6	8.5	1.0	.2	.6	8.3	2.9	9.1	7.4
San Bernardino, CA	10.9	9.1	3.6	2.7	.9	9.5	8.1	10.1	5.9
San Diego, CA	5.6	8.3	5.7	4.0	7.1	3.1	9.7	15.4	2.6
San Francisco, CA	.6	1.6	.8	6.1	1.4	3.0	5.6	3.0	2.2
San Jose, CA	4.0	8.6	8.7	3.6	2.5	10.0	.3	6.1	1.3
Santa Ana, CA	4.4	7.7	7.1	9.2	4.7	11.7	4.8	3.0	4.6

Central City	MxAm-Anglo Index			MxAm-Black Index			Black-Anglo Index		
	Rent	Value	Age	Rent	Value	Age	Rent	Value	Age
Santa Barbara, CA	5.6	5.1	7.4	.8	4.4	.1	6.4	9.6	7.3
Santa Rosa, CA	.7	1.7	.9	3.1	9.6	3.3	3.8	11.3	4.2
Stockton, CA	9.2	16.1	5.8	2.1	2.2	9.4	11.3	18.3	3.6
Texas City, TX	8.7	4.3	5.1	9.5	.7	3.4	18.3	3.6	1.8
Tucson, AZ	13.7	12.9	7.0	.6	1.8	.7	14.3	14.7	6.3
Vallejo, CA	.2	.3	2.0	1.7	6.5	4.2	1.9	6.2	6.2
Ventura, CA	5.3	8.1	8.8	16.7	15.3	19.2	21.9	23.4	28.0
Waco, TX	13.1	8.9	13.2	3.6	1.0	3.9	16.8	9.9	9.3
Wichita Falls, TX	3.3	9.9	5.5	11.1	2.6	5.1	14.4	12.5	.4
Mean, ALL Cities	11.6	9.9	6.3	6.0	3.9	5.6	14.8	12.6	6.8
Std. Dev.	8.6	5.7	3.7	4.3	3.5	5.0	9.5	6.3	5.1
Expected as Percent of Actual, Mean	25.3	22.1	15.2	11.5	7.3	10.5	20.0	16.9	9.7
Std. Dev.	15.7	10.5	9.0	9.7	6.7	9.7	11.9	6.7	7.5

The regression analysis of socioeconomic differentials would suggest the presence of significant inter-ethnic segregation even at equivalent socioeconomic statuses. It would seem appropriate at this juncture to explore this possibility more fully. The results of an examination of ethnic group segregation at equivalent status levels appears in Table 4. For Mexican American-Anglo segregation mean segregation at equivalent housing statuses closely approximates or exceeds purely ethnic segregation. Mexican American and Anglo occupants of high value housing are significantly less segregated from each other than their counterparts occupying low value housing. Mexican Americans and Anglos are equally segregated from each other whether they pay high or low rents and whether they occupy new or old units. For Mexican American-Black segregation, mean segregation at equivalent housing statuses exceeds their racial segregation. Blacks occupying new, high value or high rent housing units are significantly more segregated from Mexican Americans of equal status than their counterparts with old, low value or low rent units. As in the Mexican American-Black case, Blacks occupying high value or high rent housing units are significantly more segregated from Anglos of equal status than are their fellows in low value or low rent units. Blacks occupying new housing, however, are almost equally segregated from Anglos with new housing as

their fellow Blacks with old housing are from Anglos with old housing.

For all cases (.e.g., high value from high value, old housing from old housing) Black-Anglo segregation is significantly greater than Mexican American-Black segregation, which is in turn significantly greater than Mexican American-Anglo segregation. These results strongly imply that ethnicity or race remain as extremely important considerations in the housing location process.

Discussion

Unlike the results reported in an article on Black-White socioeconomic segregation (Farley, 1977), housing stock attributes fail to adhere to a recognizable pattern and exhibit extremely wide variations across cities (Table 1). In part, the lack of a pattern may be attributable to differentials in city age. Several cities in the study are "new" cities with origins in the late nineteenth or early twentieth centuries while others date to the early eighteenth century. Perhaps the most important observation, however, is the general lack of support for a housing-status-based socioeconomic model of minority-majority or inter-minority residential segregation for the urban Southwest. An "expected cases" (Table 3) and a "segregation at equivalent status" (Table 4) analysis each support the prop-

Table 4. — Mean Indexes of Ethnic Residential Segregation by Housing Stock Attributes, 1970

Attribute/Level	Mexican American-Anglo		Mexican American-Black		Black-Anglo	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Ethnicity/Race	42.6	12.8	56.9	16.0	72.4	13.3
Housing Values						
High from High	39.2	16.2	71.8	21.6	80.6	19.2
Low from Low	48.3	14.1	61.1	17.0	75.3	16.6
Rent Levels						
High from High	47.6	21.5	67.3	20.1	77.5	17.0
Low from Low	48.2	12.7	59.9	18.4	71.8	16.0
Unit Age						
New from New	40.3	13.7	65.2	17.3	77.1	18.6
Old from Old	41.4	13.2	58.9	15.9	74.4	15.1

osition that a socioeconomic model is inadequate for explaining current inter-ethnic residential segregation. On the average, housing attributes account for rather small proportions of actual segregation and ethnic-racial segregation continues at equivalent statuses. Regression analyses focusing on a substantive interpretation of intercepts indicated that even if group differences in socioeconomic composition were to disappear, a relatively high degree of inter-urban residential segregation on the basis of race would persist (Model II, Table 2). Even in the case of Mexican American-Anglo segregation, where the elimination of socioeconomic differences would lead to a greatly diminished mean index value of 25.7, ethnicity-based segregation would continue as 26 percent of the group would reside in tracts with disproportionately high concentrations of fellow Mexican Americans. The result obtained for the Mexican American-Anglo case does indicate that differentials in socioeconomic status are a major contributor to the persistent segregation of Mexican Americans from Anglos. It is not, however, supportive of a proposition that such differences are the only explanations for the levels of segregation presently observable in Southwestern cities or that the

elimination of such differentials would result in the elimination of segregation. It must be clearly noted that the analysis assumes a statistical elimination of differences which is not in keeping with the results of other research (Poston, Alvarez and Tienda, 1976).

An extremely interesting relationship exists between Blacks and Mexican Americans. There are statistically significant differences between the Mexican American-Black and Black-Anglo indexes for all statuses at both high and low levels of comparison. However, these indexes are much more akin to each other than those for Mexican American-Anglo status segregation. It seems possible that this represents either a Mexican American behavioral adaptation of prevalent Anglo attitudes toward Blacks or the greater acceptance of Mexican Americans by the Anglo majority. Further evidence suggesting Mexican American "acceptability" can be seen in reports from other research. Pinkney (1970: 75-80) reported a greater Anglo willingness to accord Mexican Americans their rights of citizenship, a finding which was later corroborated in a major Southwestern city by Davidson and Gaitz (1973). Earlier, Grebler, et. al., (1970: 390-394) had found unfavorable Mexican American

APPENDIX A

Table A. — Kendall Rank Order and Pearson Product Moment Correlations of Ethnic and Housing Stock Segregation, 1970

Ethnicity	Rent Level		Segregation by Housing Value		Structure Age	
	K ^a	P	K	P	K	P
Mexican American-Anglo	.39	.58	.38	.54	.09	.12
Mexican American-Black	.06	.01	.25	.37	.09	.18
Black-Anglo	.25	.32	.37	.53	.12	.21

^a K indicates Kendall and P designates Pearson correlation coefficients.

attitudes toward Blacks, although not quite as negative as those of Anglos. The latter finding adds some credibility to an interpretation including Mexican American adaptation of negative Anglo attitudes toward Blacks.

Following the line of reasoning adapted by Farley (1977: 516), it appears that the consensus in the Anglo community is that, regardless of status, living in a predominantly Black area is undesirable. Residence among Mexican Americans may be viewed as somewhat less than ideal but it seems considerably more acceptable than residence among Blacks, especially if the Mexican Americans are of equal status. This last observation appears to be supported by the data. Mexican Americans of higher status have lower (than low status Mexican Americans) segregation from high status Anglos and higher segregation from high status Blacks on all housing measures. Again, the evidence suggests the greater acceptability of Mexican Americans by Anglos and an interestingly high segregation of Mexican Americans from Blacks.

The findings regarding the relationship of Mexican American-Black segregation have implications for a reassessment of the processes governing the persistence and diminution of inter-group segregation. To speculate further on high inter-minority status segregation at this point would be unwarranted. The problem of interminority relationships has not been

sufficiently explored and requires greater attention if we are to obtain a fuller comprehension of persistent urban differentiation.

Notes

1. The customary statistical rules of inference are not applicable inasmuch as the study cities do not represent a probability sample. In the absence of alternative methods of evaluating whether small effects are within the margin of error we have adopted the general interpretation that coefficients in excess of twice their standard error are significant.
2. Statistical significance was determined through the use of T-tests computed on the differences in means between pairs of indexes.

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