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SIZE OF PLACE IN RELATION TO COMMUNITY ATTACHMENT AND SATISFACTION WITH COMMUNITY SERVICES

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ABSTRACT. A general problem in the area of urban studies has been the determination of factors significantly related to community attachment. Louis Wirth had argued that with increasing community size the level of community attachment diminishes. However, Kasarda and Janowitz employed British data and found that the length of residence in the community was a more important determinant of community attachment. Buttel *et al.* re-examined the question and found that the size of the community was the most important determiner of community attachment. This study analyzes the question employing national survey data collected in 1971 in the Quality of American Life study. Employing variables comparable to those of the Buttel *et al.* study, similar results are obtained, except that race, a variable not included in the previous study, is found to be quite significant for determining levels of community attachment. However, when urban density is introduced as a variable for the urban areas in the sample, it is found to be the most important determiner of community attachment.

I. INTRODUCTION

A problem of ongoing concern in the study of human communities has been the determination of factors related to subjective attachment with community for individuals in modern society. The classic statement on this question was presented by Wirth (1938) in his discussion of the modern nature of urbanism. He argued that urbanism in the modern world broke down the cultural ties that bind individuals together and link them to the larger human community.

> The close living together and working together of individuals (in modern urban communities) who have no sentimental and emotional ties foster a spirit of competition (Wirth, 1938, p. 15).

Wirth's work implied that there were three key elements of urbanism: (1) population size (e.g. size of the urban community), (2) population density (e.g. population per square mile in an area) and (3), population heterogeneity (e.g. racial and ethnic composition of a community). Each of these elements tends to increase urban alienation and anomie (Fisher, 1972, p. 191), a crucial question being how individually or as a group the previous elements of urbanism are linked with detachment from the urban community. A number of studies have shown that size of community is linked with urban alien-

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ation. For example, an empirical study that examined a number of national data sets (Fischer, 1973) found that the size of community was significantly linked with individual distrust and social isolation (Fischer, 1973, p. 324). However, few studies have considered the impact of the other two factors on urban alienation, and none have considered the impact of all three of them together.

The findings of Wirth (1938) represent a linear development model, in that it assumes that increasing urban population size and density is linked with the heterogeneity of the population in an urban area and directly influences patterns of social attachment to the community. A recent study employing British data (Kasarda and Janowitz [1974] found that community attachment may be more related to the length of time that individuals reside in a community (what they called the 'systemic model'). From their analysis of the British data they concluded that their results supported the 'systemic model'.

> The most general inference to be drawn from this analysis is that the systemic model based on length of residence is more appropriate than the linear development model based on population size and density for the study of community attachment in mass society (Kasarda and Janowitz, 1974, p. 338).

However, a reanalysis of the question by Buttel *et al.* (1979) (hereafter referred to as BMW) using Wisconsin survey data obtained results which conflicted with the previous findings. They found that size of place was the most important determinant of community attachment, although they acknowledged that their findings were biased by the fact that they employed Wisconsin rather than nationwide survey data.

> The data of this study should caution the reader that the empirical generalizations made by Kasarda and Janowitz (1974) fail to correspond with our U.S. replication. First, size of place of residence and age – not length of residence – are the major predictors of attitudinal indicators of community attachment... We must of course acknowledge a number of limitations of our own study. Our data are from a statewide sample and nationwide data would have been preferable. Also, Wisconsin lacks an extremely large city (Milwaukee's 720 000 people being the largest population concentration in that state) (Buttel *et al.*, 1979, pp. 483–484).

There are a number of theoretical and methodological limitations with the previous study. The first difficulty involves a problem cited by BMW in the previous quote, i.e., the use of statewide rather than nationwide survey data. There is another difficulty not considered by the previous authors with using survey data specifically from the state of Wisconsin. In examining the culture of the American states, Elazar (1972) distinguished three unique types of

political cultures: moralistic, individualistic and traditionalistic. Moralistic political cultures are those which are concerned with a collective search for a perfect society and are oriented toward the 'commonwealth'. The individualistic political culture views life as a type of economic marketplace in which individuals compete freely, and the traditionalistic political culture sees the commonwealth in an élitist and paternalistic manner. An examination of Elazar's (1972, pp. 106–107) specific differentiation of the types of political cultures in the various states shows Wisconsin to be an overwhelming moralistic state, with some elements of individualistic political culture in the areas between the Chicago suburbs and the city of Milwaukee. Given this cultural orientation of the state, it is possible that it may influence individual attitudes toward the community in the smaller communities of the state, which are moralistic in their political and social orientation. Thus, using results only from the state of Wisconsin may produce results specific to this type of political culture.

A second limitation of the BMW study concerns the manner in which the dependent variable was operationalized. Two dependent variables that measured community attachment were employed in the study: (1) community solidarity (e.g. attitudes related toward individuals within the community), and (2) community satisfaction, involving a seven-point Likert-type satisfaction scale that measured satisfaction with neighborhood, housing and community. However, other studies have shown other important aspects of community attachment. For example, in a study of a set of counties in Utah (Miller and Crader, 1979) a factor analysis of a set of community-related satisfaction items distinguished two separate aspects of community satisfaction: (1) interpersonal satisfaction (i.e. satisfaction with friends and neighbors in the community), and (2) economic satisfaction (e.g. satisfaction with services in the community), with rural communities having higher satisfaction levels on the first measure. In assessing measures of community attachment it is necessary to differentiate general measures of community satisfaction that may reflect attitudes toward individuals and organizations in the community from satisfaction with various objective atttributes of the community (e.g. streets, roads, parks and police) (Campbell *et al.*, 1976, pp. 222–223), where some of the objective attributes involve service outputs of the community (e.g. garbage and police), and others involve general characteristics of the community and its immediate environment (e.g. climate and local taxes).

A third limitation of the BMW study is its omission of important variables that may influence community attachment. One important variable not included in the study was some measure of urban density. Kasarda and Janowitz (1974, p. 332) had measured it by determining the number of persons per acre in the local ward or parish where the respondent resided, but their variable measured neighborhood rather than community density. However, in whatever way this factor is measured there is good evidence to suggest that local density and crowding does significantly affect community satisfaction.

> It appears that satisfaction with the community declines as the number of households per square mile increases up to a level of approximately 10 000 units per square mile and remains relatively flat above that level. Satisfaction with the community and with the neighborhood is highest among those living in structures that are separated from neighboring building by a distance of approximately 50 to 100 feet (Rodgers, 1979, pp. 13, 16).

A second measure omitted from the study was the racial characteristics of the respondents and their neighborhood. A number of studies (e.g. Andrews and Withey, 1976, p. 299; Campbell *et al.*, 1976, p. 226) have shown that race influences the attachment of individuals in American society toward their community. With regard to black dissatisfaction with community services Schuman and Gruenberg (1972) examined satisfaction with community services for 15 large cities and found that for most services blacks were more disssatisfied than whites. However, it was not the color of the skin of individuals but the characteristics of the area in which they resided that explained this variation in satisfaction.

> Blacks are more dissatisfied than whites because most of them live in largely black areas. It is not color of skin, but color of area that is associated with dissatisfaction (Schuman and Gurenberg, 1972, p. 380).

Historically American society has been segregated by race (Myrdal, 1944), with blacks being afforded less economic opportunity, seen as racially inferior, and forced to live in different areas of the community, usually slums. This continued racial segragation in American communities is the basic cause for their higher level of dissatisfaction with community services. Another variable omitted from the study was some measure of the family life cycle of the respondents. It has been shown (Andrews and Withey, 1976, p. 304) that the family structure of respondents has a significant impact on their satisfaction levels.

A fourth limitation of the BMW study involved its use of multiple classifi-

cation analysis (MCA) to examine the relationship between the dependent and independent variables. This procedure restricted the number of independent variables they could employ to five. As will be argued in the methodology section of this paper, it is possible without loss of generality to treat the dependent variables as interval-level variables and employ multiple regression analysis.

This study will employ nationwide data collected in 1971 to reanalyze the question of determinants of community attachment, with similar variables as in the BMW study. The results of this study will serve to verify whether the results of the BMW study hold for a nationwide sample, or whether Kasarda and Janowitz (1974) were correct in arguing that length of residence in the community is the main determinant of levels of community attachment.

II. METHODOLOGY

This study employs nationwide survey data obtained from the 1971 Survey Research Center (SRC) study of the Quality of American Life.[1] The Quality of American Life survey was conducted in July and August of 1971 by the University of Michigan Survey Research Center, with Angus Campbell, Philip E. Converse and Willard L. Rodgers being the principal investigators. A nationwide stratified multistage probability sample was obtained from 74 sample points located in 36 states and the District of Columbia. A total of 2720

TABLE I

Satisfaction with local community and its attributes, means and standard deviations for a sample of 1808 respondents

Item		$\bar{X}$	S.D.
1.	Satisfaction with roads	2.303	1.257
2.	Satisfaction with public schools	2.019	1.002
3.	Satisfaction with garbage collection	1.857	1.251
4.	Satisfaction with parks	2.670	1.453
5.	Satisfaction with police protection	2.120	1.115
6.	Satisfaction with police–community relations	2.018	0.991
7.	Satisfaction with climate	2.027	1.047
8.	How high are local taxes	3.744	0.822
9.	Satisfaction with neighbors	1.678	0.851
10.	Satisfaction with community	2.441	1.488
11.	Satisfaction with neighborhood	2.321	1.586
12.	How good is the dwelling you live in?	1.739	0.920
13.	Satisfaction with dwelling unit	2.462	1.536

TABLE II

Rotated factor matrix – satisfaction with various aspects of the community, total sample[a]

Item	Factor 1	Factor 2	Factor 3	h^2
Satisfaction with roads	0.122	(0.505)	– 0.104	0.317
Satisfaction with public schools	0.146	(0.401)	0.154	0.257
Satisfaction with garbage collection	– 0.011	(0.505)	– 0.194	0.282
Satisfaction with parks	0.096	(0.452)	(–0.501)	0.465
Satisfaction with police protection	– 0.088	(0.754)	0.123	0.551
Satisfaction with police–community relations	0.055	(0.704)	0.192	0.546
Satisfaction with climate	0.271	– 0.022	(0.425)	0.279
Satisfaction with local taxes	– 0.073	0.150	(0.701)	0.505
Satisfaction with neighbors	(0.465)	0.206	0.117	0.356
Satisfaction with community	(0.611)	0.108	0.242	0.531
Satisfaction with neighborhood	(0.725)	0.099	0.070	0.605
Satisfaction with liveability of dwelling unit	(0.781)	– 0.058	– 0.172	0.572
Satisfaction with dwelling unit	(0.879)	– 0.097	– 0.096	0.710
Eigenvalue	3.507	1.362	1.113	
Variance explained	27.0	10.5	8.6	
(Total variance = 46.0)				

[a] Oblique rotation loading with values 0.40 or greater in parentheses

occupied dwelling units were selected, and respondents were randomly selected within these chosen dwelling units. An overall total of 2164 respondents 18 years of age and over agreed to be interviewed in these household units, a response rate of about 80 percent. Due to missing cases for the subjective satisfaction items the sample size was reduced to 1808, while missing cases for the independent variables in the study reduced it to 1607 respondents.

A set of satisfaction items related to the local community and the services it provides were used in this study, under the assumption that these measures of community satisfaction would represent good indicators of community attachment. Table I indicates the mean values and the standard deviations for the satisfaction items, where there were only 1808 respondents because of missing cases in the satisfaction items. The satisfaction questions related to community, neighborhood and dwelling unit were measured by a seven point scale going from 1 – completely satisfied, to 7 – completely dissatisfied. All the other items in the Table were measured by a five-point scale going from 1 – very low to 5 – very high. Thus, in Table I high scores indicate high dissatisfaction and low scores high satisfaction. In terms of local

services the greatest satisfaction is with garbage collection. In terms of the general satisfaction items related to community, neighborhood and dwelling unit there is little difference in mean values, with the greatest satisfaction being with neighborhood. As might be expected, the respondents were highly dissatisfied with local taxes, believing them to be too high.

In order to define the various dimensions of community satisfaction an oblique varimax rotation[2] was performed on the satisfaction items in the survey. Table II indicates the rotated factor matrix scores for the 13 satisfaction items, where values above 0.40, the usual cutoff point, are indicated in brackets. It can be seen from Table II that the first factor represents a general community satisfaction factor, having items related to general community satisfaction, neighborhood satisfaction and dwelling unit satisfaction, and it is the same factor for community satisfaction as employed in the Buttel *et al.* (1979), p. 478) study. Factor 2 is a factor related to service satisfaction within the community, including such items as satisfaction with roads, garbage and police, while Factor 3 is a factor related to satisfaction with the local environment, including such items as satisfaction with climate, parks and local taxes. A factor score was computed for the three factors by multiplying the significant rotated factor matrix score (i.e. above 0.40) for the three factors by the standard Z score for that particular variable, the usual procedure for computing factor scores (Sonquist and Dunkelberg, 1977, p. 352). These three factors will be used as the dependent variables in this study.

A number of independent variables, many of them similar to those employed in the BMW study, were included in this analysis. First, size of place was coded as 1 – Central City of a large standard metropolitan statistical area (SMSA) over 100 000, 2 – Central City of an SMSA under 100 000,3 – Suburban area of a large SMSA over 100 000, 4 – Suburban area of an SMSA under 100 000, 5 – Smaller city between 2500 and 49 999 and 6 – Rural areas. Second, a regional Southern variable[3] was introduced, given the unique cultural features of the American South (Cash, 1941; Reed, 1972, 1973), and the fact that it is economically and politically distinct (Clynch, 1972) from the remainder of the nation. If the state of residence for the respondent was outside the South it was coded as 0, and if it was in the South it was coded as 1. Third, the age of the respondent was coded in years. Fourth, the family life cycle of the respondent was coded as 1 – Married with no children aged 18 years or younger in the dwelling unit, 2 – Married with children 18 years or younger in the dwelling unit, 3 – Separated or single with children 18 years

or younger in the dwelling unit, 4 – Widowed or Divorced and 5 – Single, never married. Fifth, length of time in the community was coded in years. Sixth, the education of the respondent was coded in years of education. Seventh, the family income of the respondent was coded in dollar amount with intervals of $1000.

The voluntary association membership of the respondent was measured by determining the total number of voluntary associations to which he belonged[4], and then transforming this number of the form $\sqrt{(X + 1/2)}$, where X is the total organizational membership (Goulden, 1952, p. 98). This transformation had the effect of reducing the degree of skewness caused by the existence of a few persons with many organizational affiliations.

In order to determine the impact of race on community attachment two separate measures were employed. First, the race of the respondent was determined and coded as 1 if he were white and 2 if he were nonwhite. Second, the racial composition of the neighborhood was determined and coded as 1 if all the individuals in it were of the same race, 2 if it was an integrated neighborhood and 3 if the respondent was in a neighborhood with most individuals from a different racial background.

In order to measure urban density this work employed a technique similar to the one employed by Wright (1977) for determining contextual effects. Wright (1977) wished to test the blackbelt hypothesis and determine the importance of black population concentration within counties (the unit of analysis) upon voting patterns in the South, and in particular of white Wallace voting patterns. In his study he gave each white respondent in Southern counties a contextual score that represented the percent black population concentration within the county (Wright, 1977, p. 499). From the 1971 the Quality of American Life data, 43 SMSAs[5] with population over 50 000 could be identified, where 13 of these SMSAs were self-representing primary sampling units (PSU)[6], since they only represented themselves in the sample, whereas the remaining 30 SMSAs were non-selfrepresenting PSUs because each of them represented themselves and at least one other PSU. This fact implies that for the latter 30 SMSAs some of the respondents in the sample were not residing within the specified unit of analysis, the SMSA. However, many of the 30 SMSAs had populations under 100 000, and for these smaller SMSAs it was likely that most respondents who resided near them were under their cultural influence. For all respondents in the 43 SMSAs it was possible to determine the population density within the central city of the SMSA and

treat it as a contextual variable for individuals resding within or near the SMSA. For example, if a respondent, lives in the Chicago SMSA he would have a contextual score that would represent the population density for the city of Chicago. An assumption is being made in this study that the population density of the central city within the SMSA has a significant impact on respondents within the suburbs of the SMSA. By this procedure of treating population density as a contextual variable it was possible to define it for this study. It should be noted that such a variable can only be employed for the previously specified 43 SMSAs, thereby reducing the size of the sample being examined.

In this analysis the three dependent variables (i.e. the three factor scores) will be treated as interval-level measures and multivariate analysis will be employed. A study of similar subjective indicators in American SMSAs (Wasserman and Chua, 1980) found that correlations were approximately the same if the subjective satisfaction variables were treated as ordinal or interval-level measures. Given the greater statistical power of multivariate analysis that employs interval-level measures, this type of measure will be employed in this study.

III. ANALYSIS OF RESULTS

Table III indicates the multivariate results obtained for the total sample for the three separate measures of community satisfaction. The size of the total sample was reduced to 1607 because of the missing values for the independent variables in the Table. In relation to the general community satisfaction variable, results were obtained which were similar to the findings of the BMW study. Age, size of place and voluntary association membership are significantly linked with general community satisfaction, while length of time in the community is not significantly linked with it. Since general community satisfaction is measured from high to low satisfaction the results imply that older individuals, those in smaller communities and those with higher levels of voluntary association membership are more satisfied with their community. The results differ from the BMW study because of our inclusion of the racial variables and their significance. They show that blacks have significantly lower levels of community attachment, and those living in integrated neighborhoods or in neighborhoods composed of individuals from another racial background are more likely to have higher levels of dissatisfaction.

TABLE III

Simple correlation coefficients and partial beta regression coefficients relating three dimensions of community satisfaction to selected independent variables for the total sample

Independent variables	General community satisfaction		Service satisfaction		Satisfaction local environment	
	Simple correlation coefficient	Partial beta regression coefficient	Simple correlation coefficient	Partial beta regression coefficient	Simple correlation coefficient	Partial beta regression coefficient
Size of place	−0.220	−0.146[a]	−0.053	−0.011	−0.243	−0.193[a]
Southern region	−0.018	−0.035	0.045	−0.015	−0.223	−0.197[a]
Age of respondent	−0.298	−0.270[a]	−0.150	−0.215[a]	0.011	−0.005
Life cycle of respondent	0.087	0.020	0.061	−0.005	0.020	0.001
Length of time in community	−0.164	−0.041	−0.022	0.053	0.059	0.039
Racial integration of neighborhood	0.236	0.175[a]	0.157	0.113[a]	0.006	−0.022
Voluntary association membership	−0.119	0.084[a]	−0.098	−0.041	−0.033	−0.029
Education of respondent	0.039	−0.005	−0.097	−0.077	−0.023	−0.052
Family income of respondent	−0.038	−0.070	−0.125	−0.088	−0.038	0.043
Race of respondent	0.218	0.135[a]	0.247	0.193[a]	0.078	0.068
Multiple R^2		0.453		0.343		0.320

[a] Above value of the coefficient is at least twice as large as two standard deviations.

In relation to service satisfaction similar results are obtained, except that size of place is not significantly linked with this variable, results related to the fact that rural residents are aware of the lack of community services in their community (Miller and Crader, 1979). Other studies have produced similar results.

> These results only partially support the belief that level of satisfaction with community services is related to the size of place of residence. They give no support to an argument that satisfaction increases as a simple linear function of the availability of services indexed here by population size of the place of residence (Rojek *et al.*, 1975, p. 184).

As in the previous case age and the two racial variables are statistically significant, and in the same general direction as for general community satisfaction. For the environmental factor only size of place and Southern region are statistically significant, all other social variables being insignificant. Individuals in smaller communities and in the South have higher levels of satisfaction for this measure, which is determined by satisfaction with climate, parks and local taxes. The results would seem to show that dissatisfaction is not caused by universal discontent within communities, with respondents differentiating their objective environment from other aspects of their community. In the South the climate is warmer and local taxes lower, while in smaller communities there is more park space per capita and local taxes tend to be lower. By contrast, racial factors are irrelevant to these attributes of the community, although they are relevant to the community services received or to subjective linkages to the community. Similarly, as one ages, one develops stronger ties to the local community, and belonging to voluntary associations tends to increase one's community ties. In modern American communities respondents are able to differentiate their objective environment from other aspects of the community.

Next, let us perform a multivariate analysis for respondents in the 43 SMSAs, including density of the central city as an independent variable (Table IV). In this case the size of the sample was reduced to 1066. As well as including density of the central city a new variable, density of the central city times the size of place, was created and included as an independent variable, in light of Wirth's (1938) assumption that both factors influence levels of community attachment. In this case it may be noted that, unlike the BMW study, the size of place variable was not significantly linked with general community satisfaction, the results probably being related to the omission of rural areas from the sample, areas where levels of community satisfaction

tend to be high. As in the previous case age, membership in voluntary associations, race and the racial integration of the neighborhood were significantly related to levels of general community satisfaction, and in the same direction as in the previous case. For this analysis it was found that the density of the community was significantly related to general community satisfaction, the positive sign indicating that increased urban density leads to increased community dissatisfaction, given that satisfaction scores are scaled from high to low. It would appear from the results of Table IV that urban density is more important than urban size for explaining satisfaction levels within the urban community.

In relation to service satisfaction, as in the previous case age, race and the racial integration of the neighborhood are significantly linked with service satisfaction, and in the same direction as in the previous case. Also, education is significantly linked with service satisfaction, with the more educated being more likely to be satisfied. In this case the size of place variable is significant but positive, indicating that for these non-rural SMSAs there is greater dissatisfaction with services in smaller communities. The density of the central city variable is highly significant, indicating that in more dense cities there is higher dissatisfaction with community services (e.g. New York City SMSA versus Seattle SMSA). Also, the interaction term is significant and negative (i.e. a negative beta value of 0.459), indicating that in larger more dense cities there was higher satisfaction with services, and in larger and less dense cities there was lower satisfaction. It is likely that in the larger and more dense cities where satisfaction with services is higher an economy-of-scale operates, with the former type of cities being better able to provide services to its residense. Similar type relations are likely to hold for the smaller communities.

Regarding the local environment variable, as in the previous case it was found to be not significant for the social background variables but significant for size of place and Southern region. Density and the interaction of size of place and density were statistically significant, the positive sign for the latter variable indicating that in smaller and more dense communities there was greater dissatisfaction with the local environment, and in larger and less dense communities there was greater satisfaction. It would appear to be the case that increased urban density reduces the perceived advantages of living in a smaller community, and increases the subjective dissatisfaction of the local residents with regard to their environment.

TABLE IV

Simple correlation coefficients and partial beta regression coefficients relating three dimensions of community satisfaction to selected independent variables for the 43 SMSAs in the sample

Independent variables	General community satisfaction		Service satisfaction		Satisfaction local environment	
	Simple correlation coefficient	Partial beta regression coefficient	Simple correlation coefficient	Partial beta regression coefficient	Simple correlation coefficient	Partial beta regression coefficient
Size of place	−0.146	−0.069	−0.142	0.239[a]	−0.207	−0.345[a]
Southern region	0.069	0.051	0.110	0.061	−0.272	−0.141[a]
Age of respondent	−0.269	−0.257	−0.113	−0.167[a]	0.030	−0.001
Life cycle of respondent	0.128	0.042	0.107	0.030	−0.011	−0.032
Length of time in community	−0.125	−0.039	0.014	0.035	0.065	−0.020
Racial integration of neighborhood	0.240	0.191[a]	0.195	0.132[a]	−0.022	−0.043
Voluntary association membership	−0.118	0.078[a]	−0.125	−0.039	−0.034	−0.042
Education of respondent	0.013	−0.025	−0.178	−0.113[a]	−0.026	−0.063
Family income of respondent	−0.084	−0.043	−0.178	−0.053	0.054	0.073
Race of respondent	0.240	0.144[a]	0.324	0.244[a]	0.097	0.063
Density of central city	0.054	0.107[a]	0.046	0.464[a]	0.195	−0.095[a]
Density of central city X size of place	−0.064	−0.066	−0.152	−0.459[a]	0.046	0.199[a]
Multiple R^2		0.443		0.475		0.356

[a] Above value of the coefficient is at least twice as large as two standard deviations.

IV. DISCUSSION

The previous results lend support to the basic findings of the BMW study. In general, size of place and not length of time in the community was the statistically significant determinant of community satisfaction. However, the BMW study, in part because it employed a Wisconsin sample, failed to consider the importance of race for determining levels of community satisfaction. In this study two separate measures of this factor were included, and it was found that race and the racial composition of the community had an important impact on community satisfaction. Also, the BMW study did not address Wirth's (1938) question of the relative importance of urban density for determining levels of community satisfaction. In this study an urban density variable was created, and was found to have a significant and positive impact on all three measures of community satisfaction, indicating that increased urban density was significantly related to dissatisfaction with the community. An interaction variable of urban density and community size was created, and was found to be negatively related to service satisfaction and positively related to local environment satisfaction, indicating that in larger less dense communities there is greater service dissatisfaction and greater environmental satisfaction. For service satisfaction it was argued that the results were probably caused by the economy-of-scale effects within the urban SMSAs, while for the environmental factor it was likely that urban density reduced the subjective advantage of size for the respondents.

The previous results lend support to Wirth's original hypothesis that increasing size and density have a significant impact on levels of community satisfaction. From the previous analysis it would appear to be the case that urban density is more important than size for determining the levels of this satisfaction.

V. CONCLUDING REMARKS

The previous findings raise questions as to why the results of the Kasarda and Janowitz (1974) study differ so appreciably from the findings of the BMW study and this work. In Great Britain the previous study supported the systemic model because of the importance of the length of time in the community variable for explaining variations in levels of community satisfaction. It would appear to be the case that different cultures have different impacts on community satisfaction for residents. Areas in Great Britain are distinguish-

ed by marked differences in accent, dialect and local culture which render migrants from one area to another quite conspicuous even after years of residence in an area. As individuals reside longer in these areas the strength of their social ties and their subsequent community satisfaction increases. By contrast, although these regional ties exist in the United States (e.g. the South versus the remainder of the nation), they are not as strong as they are in Great Britain.

That communities may differ appreciably across cultures is illustrated by the case of Singapore (Busch, 1976), where ethnic factors related to the conflict between the Chinese and the native Malaysians strongly influence levels of community satisfaction. Further cross-cultural studies of communities are required in order to investigate in greater detail the importance of these cultural factors for determining subjective levels of community satisfaction.

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NOTES

[1] The attitudinal data utilized in this study were made available by the Inter-University Consortium for Political and Social Research (ICPSR). The data were originally collected by ICPSR. Neither the original source of collectors of the data nor the consortium bear any responsibility for the analyses or interpretations presented here.

[2] The oblique rotation was employed because it better separates the individual factors and minimizes the intercorrelations among the factors (Nie *et al.*, 1975, pp. 468–514).

[3] The South was defined to include the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

[4] The type of voluntary associations in the sample were: (1) Church or Synagogue, (2) Church Connected Groups, (3) Labor Unions, (4) Fraternal Lodge or Veterans Organizations, (5) Business or Civic Group, (6) Professional Group, (7) Parent-Teacher Association, (8) Youth Group, (9) Community Centers, (10) Neighborhood Improvement Group, (11) Social Group, (12) Sport Teams, (13) Country Clubs, (14) Political Club or Organization, (15) Issue or Action Oriented Group (16) Charity or Welfare Organization, (17) Other Organization.

[5] The 43 SMSAs were: Los Angeles; San Francisco; St. Louis; New York; Newark and Jersey City; Chicago; Cleveland; Detroit; Boston; Philadelphia; Pittsburgh; Baltimore; Washington, D.C.; Houston; Atlanta; Louisville, Kentucky; Miami, Florida; Tulsa, Oklahoma, Richmond, Virginia; Little Rock, Arkansas; Abilene, Texas; Montgomery, Alabama; Columbia, South Carolina; Orlando, Florida; Sioux Falls, South Dakota; Waterloo, Iowa; Flint, Michigan; Toledo, Ohio; Dayton, Ohio; Indianapolis, Indiana; Minneapolis, Minnesota; San Bernadino, California; San Diego; Seattle; Salt Lake City; San Jose, California; Eugene, Oregon; New London, Connecticut; Wilkes Barre, Pennsylvania; Trenton, New Jersey; Bridgeport, Connecticut; Worcester, Massachusetts; Syracuse, New York.

[6] The 13 SMSAs were Los Angeles; San Francisco; St. Louis; New York; Newark and

Jersey City; Chicago; Cleveland; Detroit; Boston; Philadelphia, Pittsburgh; Baltimore; Washington, D.C.

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