Seligson examines the relationship between economic development and political participation. He finds that, contrary to expectation, participation is higher in the poorer regions of Costa Rica than it is in the wealthier ones. He concludes that poor people get involved in politics to satisfy basic human needs which are taken for granted by individuals living in wealthier regions.

9. Development and Participation in Costa Rica: The Impact of Context

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Studies of political participation have stressed the impact on participation of the characteristics of individuals, thereby greatly shortchanging the role of context. Despite the abundance of research on the socioeconomic, demographic, and attitudinal correlates of political participation, and despite the large number of hypotheses thoroughly tested and well-substantiated (Milbrath and Goel 1977), emerging research on contextual correlates suggests that context plays a major role in determining both the nature and degree of political participation. Thus, for example, Verba and Nie (1972, pp. 229-47) have discovered a relationship between the size and "boundedness" of communities on the one hand and participation on the other. Seligson and Booth (forthcoming-a) and Booth (1975a, 1975b) have explored the relationship between urbanization and political participation in Costa Rica; and Tullis (1970) has shown that peasant activism varies with community type. Seligson and Salazar X. (1977) have shown that levels of interpersonal trust and trust in government vary with community type, and Seligson (1972a; 1972b) has compared participatory behavior in urban and rural settings.

Economic development forms the contextual variable of this paper. Research on the relationship between economic development (usually defined in terms of industrialization and development of infrastructure) and participation frequently confirms the hypothesis that underdevelopment inhibits participation. Evidence for the confirmation usually derives from cross-national studies. Milbrath and Goel (1977, p. 94) cite several studies which lead to the conclusion that "countries with higher economic development have higher

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absolute rates of participation than countries at lower levels of development." The validity of this conclusion must be questioned, however, for cross-national studies typically fail to isolate the effect of development from the larger sociopolitical context. That is to say, one does not know if the lower participation rate in poor countries is a result of the contextual factor of economic development or of other factors, such as regime type or political culture. Since most of the lesser developed countries (LDC's) of the world are ruled by authoritarian regimes, and most of the more developed countries (MDC's) have democratic rule, it is difficult to hold constant regime type and have enough cases for meaningful comparative analysis. Indeed, interpretation of participation rates is itself problematical since in some regimes certain forms of participation may be prohibited (e.g., campaigning) while others may be required (e.g., voting).

More convincing evidence of the relationship between economic development and participation has come from studies of single nations. Such studies do not have to concern themselves with regime type or political culture since these factors are held constant. Contrary to what cross-national investigations seem to demonstrate, these studies provide some evidence that underdevelopment may actually stimulate participation rather than inhibit it. Evidence for the positive association between underdevelopment and participation comes from Cornelius (1975), for example. Cornelius has compared six urban communities in Mexico City and has found that demand-making (in the form of citizeninitiated contacts with government officials) was higher in the squatter settlements than in the housing projects. Unfortunately, it is not possible to attribute higher participation levels to the lower level of development alone because the communities that Cornelius studied were selected not only on the basis of their relative development, but also on their age and the manner in which they were originally established. Consequently, it is not clear which of these factors is responsible for the variation in participation rates in the Cornelius study.

Method

For many years the analysis of contextual effects on behavior followed the model established by Blau (1960) in which contingency tables were used. In the late 1960s, however, it became clear that the Blau model was inadequate. The more powerful technique of analysis of variance (and covariance) was shown to produce much more convincing results (Fennessey 1968; Schuessler 1969; Hauser 1970).

In this paper the relationship between economic development and participation is analyzed through the use of analysis of variance. The results will be displayed by means of multiple classification analysis. Variables which are known to have a significant impact on participation are held constant, with the exception of level of economic development, through sample design and

through covariance analysis. The hypothesis to be tested is that mean participation scores at each level of development do vary significantly from the grand mean when other participation related variables are held constant.

The Data

Of the variables known to be related to participation, occupation is perhaps the most difficult to control for statistically as a result of segregated housing patterns. Occupationally high status respondents are typically found in the more economically developed sample segments, and most occupationally low status respondents are located in the less developed sample segments. Given such samples, statistical control is extremely difficult since the effect of occupation cannot be partialled out of the equation.

In order to overcome the problem of controlling for occupation, the present sample was designed to be occupationally relatively homogeneous. Homogeneity in occupation also helps to minimize differences in income and education among respondents.

The data analyzed were gathered by the author in Costa Rica in late 1972 and early 1973 (see Seligson 1974, 1975, forthcoming-a). All 531 respondents in the survey (oral interviews) are male peasants.² Hence, the impact of occupation and sex are held constant throughout the sample design. The sample design minimized but did not eliminate variation in income and education. The mean of the total family income of the households surveyed was 199 colones (the equivalent of \$23 weekly), which, when subjected to a log transformation (in order to reduce the impact of extreme values) resulted in a mean of 4.87 and a standard deviation of .78. Education averaged 2.87 years with a standard deviation of 2.12 years. Variation in income and education is partialled out statistically through the use of covariance analysis.

Economic development is operationalized in this study through the use of an index of industrialization and infrastructure development.3 Two measures are used to divide the sample into groups according to similarity of infrastructure development. The first of these is the quality of sanitary facilities available in the county (i.e., canton). The 1973 national census figures (Dirección General 1975) provide data on the number of dwelling units with indoor plumbing, as opposed to those with latrines, and to those with no sanitary facility at all. An index, created out of the census data, gives three points for each dwelling unit with indoor plumbing, two points for units with latrines and one point for units with no facilities. The second measure of infrastructure development measures the level of development of public educational facilities. However, since primary education is mandatory and universal in Costa Rica, little regional variation is found in this variable. High school (colegio) education, in contrast, is optional and there is considerable variation on this variable. The number of high school students per capita is used to measure the development of the education infrastructure. These figures come from the Ministry of Education of Costa Rica. The measure of industrialization comes from the 1973 census report of the percent of economically active individuals working in industrially related jobs. A combined overall development index based on sanitary facilities, education, and industrialization was created by first standardizing the variables and then summing them.

The sample was subdivided into four groups based on the overall development index. The level of economic development of the four groups of peasants varies greatly. The poorest areas constitute one extreme in which 30 percent of the population has no sanitary facility, only 1 percent of the population is enrolled in high school and less than 1 percent of the economically active population has industrial jobs. At the other extreme are the most highly developed areas, in which only 1 percent of the residents has no sanitary facility, 16 percent is enrolled in high school, and up to one-third has industrial jobs. The poorest areas generally exhibit quite primitive living conditions. Homes rarely have electricity, floors are frequently earthen, and cooking is done over an open hearth wood-burning fogón. The communities enjoy few governmental services (e.g., post offices, police protection, hospitals), although, as everywhere throughout Costa Rica, even the poorest village will have a primary school of at least three grades. The more developed communities present quite a different picture. The homes there have electricity, polished wood or mosaic tile floors, and gas or electric stoves. Such developed villages also enjoy paved roads, post offices and police stations, rural health stations (unidades sanitarias), agricultural extension agencies, and community development offices.

It should be emphasized that the data on which the economic development level is based are not taken from the survey but from the other sources. Most contextual analyses rely upon data drawn from the survey itself (by aggregating individual characteristics so as to provide an index of the context). Such a procedure, while the only alternative when no other data are available, introduces a number of problems into the analysis. First, the aggregation of individual characteristics builds in a certain amount of autocorrelation between the characteristics of individuals and the characteristics of the contextual unit of analysis. Second, biases in sample design may render the contextual information unreliable. Third, responses to the questionnaire items which establish the context index may be contaminated by responses to prior questions in the survey. The use of census data in this study eliminates all of these problems. Fortunately, the Costa Rican Census Bureau and Ministry of Education are widely recognized as being among the most professional in Latin America and consequently the reliability of the data is quite high (Collever 1965, pp. 94-102).

Political participation, actions influencing or intended to influence the distribution of public goods (Booth and Seligson, chapter 1), is conceptualized as multidimensional, following Verba, Nie, and company (Verba, et al. 1971; Verba and Nie 1972). Elsewhere (Booth 1975a, 1976; Booth and

Seligson 1976; Seligson and Booth 1976; Seligson 1977c) the different modes of political participation found in Costa Rica are described in detail. The modes were isolated using factor analysis (see Boni and Seligson 1973) and verified by a comparison with another study of participation conducted in Costa Rica (Booth, et al. 1973). The four modes include organizational activism, communal project participation, contact with local government, and voting. Organizational activism measures the involvement of the individual in local community organizations, such as the parent-teacher association (patronato escolar), community welfare committee, and other organizations. A combined index reflects the frequency of attendance at these communal meetings. Community project participation refers to the involvement of the individual in projects such as nutrition center construction and road building. The index is based on the number of projects in which a respondent reports involvement. Contact with local government is measured by the individual's attendance at the town council meetings (municipalidad); and voting is measured by the respondent's answer to a question regarding his participation in the last election prior to the survey. Table 1 provides frequency distribution information regarding these four modes of political participation.

TABLE 1 THE MODES OF PARTICIPATION

Mode	Variable	Percent active
1. Voting	Voted in previous presidential election	79.8%
2. Contact with Local Gov't	 a. Attended meeting of the town council (municipalidad) in the last year b. Percent of town councilmen named correctly 	22.0
	Mean Percent	16.3
3. Organizational Activism	Attendance at meetings of the PTA (patronate escolar), school board (junta de educación), churc committee (junta de la iglesia) and the progressiv committee (junta progresista). Codes: (4) almos always (3) once in a while (2) almost never (1 never. Overall score is a summated index weighte by frequency of reported participation. Percentag figures refer to proportion of respondents wh reported some level of participation. Organization not present in a particular village are treated a missing data.	h c c tt) d e o o s
	a. PTA	44.3
	b. School Board	37.4
	c. Church committee	34.9
	d. Progressive Committee	21.2
 Communal Project Participation 	Reported making an effort to solve one or two respondent-identified communal problems.	44.3

Findings

The results of the multiple classification analysis for the four modes of political participation are presented in figures 1-4. The multiple R and level of significance of the main effects for the analysis of variance are indicated on each figure. In each of these figures the index for each participation mode has been standardized so that deviations above and below the mean can be compared among the measures. Each respondent's score is corrected for his income and education through inclusion of these two variables as covariates. In addition, the scores are corrected for "remoteness," by including as a covariate the distance, in kilometers, of the respondent's dwelling unit from San José, the capital of Costa Rica. Finally, the respondent's length of residence in the community is included as a covariate, since political participation is somewhat affected by this variable.

The inclusion of these four covariates corrects the participation scores for each of the four modes so that the effect of these variables will not influence the relationship between development and participation. In effect, the inclusion of the covariates "partials out" the impact of these variables. Other covariates were added to the analysis (such as alternative indicators of respondent SES) but these made no substantive difference in the analysis of variance results and therefore are not included here.

All of the four modes of political participation (organizational activism, voting, community project participation, and contact with local government) exhibit patterns directly contradicting the hypothesis that economic development leads to higher participation levels. Figures 1-4 show a trend in the opposite direction. In each case, peasants living in the least developed areas exhibit the highest levels of participation and peasants living in the most developed areas exhibit the lowest participation levels. In figures 1,2, and 4 the relationship holds across all levels of development, while in figure 3 there is a slight deviation at the intermediate levels.

Discussion

Why do individuals participate politically? While there is obviously a wide range of motivations, according to Chaffee (1977; forthcoming), Booth (1975a; 1977b; chapter 6) and others, much participation is motivated by rational, instrumental considerations on the part of the individual. People participate in politics, at least in part, in order to obtain something from the system. In Chaffee's terms, participation is motivated by a desire to share in public goods. For example, parents contact local government officials when they wish to build a school house, or people join nutrition center committees in order to help assure better health for their children.

If, in fact, participation is motivated by instrumental considerations then we have a clue as to why peasants living in less developed areas participate to a greater extent than those living in more developed areas. In areas where the

FIGURE 1.
Organizational Activism

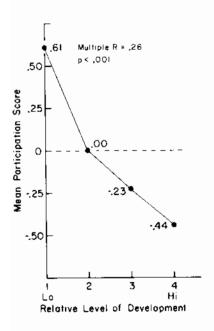


FIGURE 3.
Community Project Participation

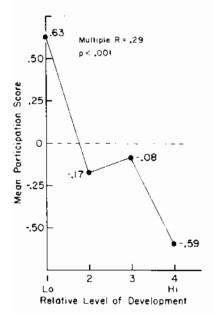


FIGURE 2. Contact with Local Government

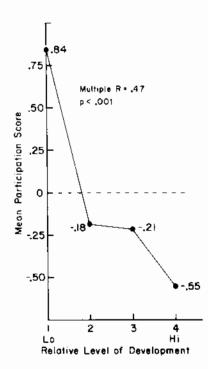
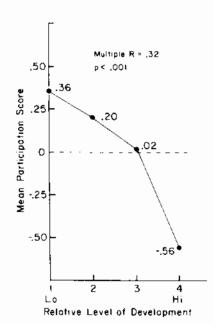


FIGURE 4.
Voting Participation



infrastructure is poorly developed and government services are minimal, individuals are compelled to participate politically if they hope to see some improvement. Schools, roads, bridges, and the like are not built unless they are demanded, especially in Latin America where capital resources are scarce. Even when demanded, such projects often are delayed for years. In contrast, in areas which already have acceptable roads, sufficient schools and school teachers, and adequate health services, individuals do not feel as intensely in need of services and consequently are less strongly compelled to participate (see Booth 1975b).

Important qualifications must, of course, be made to the above explanation of the relationship between participation and development. Not all individuals in less developed areas participate, and well-developed areas are by no means characterized by nonparticipation.

The important point is that instrumental motivation is indeed quite rational. Therefore, where need is greatest, participation will be highest. Second, it should be recalled that participation levels are correlated with other factors (such as income, education, remoteness and length of residence). Higher levels of participation in less well developed areas can be found even after the effects of such variables are partialled out through covariance analysis. Finally, exogenous factors such as systematic suppression of participation by landlords, politicians, police, or other powerful forces can significantly lower levels of participation.

Conclusion

Economic underdevelopment has a stimulating effect on political participation. It would be inappropriate at this point to generalize beyond the peasant population of Costa Rica. Further research among different occupational groups and different political settings needs to be conducted. Nevertheless, given the findings presented here, the supposed linkage between development and participation needs to be reexamined. The statement that participation is "a sort of luxury which cannot be 'afforded' by those who are struggling to fulfill their subsistence needs" (Milbrath and Goel 1977, p. 98) should be questioned in light of the data presented here. Conceptualizing participation as the response of an individual to his social needs calls into question the assertion that participation is a luxury for the poor and for those living in underdeveloped areas. They have many immediate, pressing needs which may be resolvable only through recourse to politics. For the poor, participation may be a necessity rather than a luxury.

Notes

^{1.} Milbrath and Goel (1977, p. 102) report that "persons of higher occupational status are more likely to participate in politics."

- 2. Peasants are defined here following Landsberger and Hewitt (1970, p. 560): "any rural cultivator who is low in economic and political status." This definition encompasses landed and landless peasant alike and therefore, the sample is only relatively homogeneous, since there are in fact differences among peasants based on access to land and other factors (see Seligson 1977b). However, for the purposes of this article the fact that all of the respondents earned their living from land which they directly cultivated, whether owned or not, imposed a homogeneity of occupation on the sample far greater than obtained in the typical cross section sample.
- 3. Some details regarding Costa Rica's industrialization in relation to the Central American Common Market are found in Seligson (1973).