DOCUMENT RESUME

ED 072 324 AC 014 159

AUTHOR Sturm, Alzemiro E.; Riedl, Mario
TITLE Socioeconomic Status of Farmers and Economic Development in Two Communities of Southern Brazil.
PUB DATE Aug 72
NOTE 34p.; Paper presented at the annual meeting of the Rural Sociological Society, Baton Rouge, La., August 1972

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Bibliographies; Comparative Analysis; Data Analysis; *Economic Development; Ethnic Origins; *Farmers; Hypothesis Testing; Interviews; Land Settlement; Participant Characteristics; Questionnaires; Research Methodology; Research Reviews (Publications); *Rural Development; *Social Structure; *Socioeconomic Status; Speeches; Tables (Data)
IDENTIFIERS *Brazil; Candelaria; Garibaldi

ABSTRACT

This paper is concerned with the problem of social inequalities and economic development in rural communities. Two ethnically different communities were chosen in the most southern state of Brazil: Garibaldi, of descendants from Italian immigrants, and Candelaria, of descendants from German immigrants. The data were gathered through application of a questionnaire to stratified random samples, representing 4.2% of the farm owners in Candelaria and 7% in Garibaldi. The central assumption of the study was that the larger farm owners occupy the highest socioeconomic positions in the agrarian society and, therefore, have the best opportunities for economic development as indicated by correlates such as income (economic variable), education and mass media (social variables) and alienation (psychological variable). The study findings show that the economic and social development of rural communities, irrespective of ethnic origins, appears to depend on structural variables, such as the land tenure system. In terms of strategies for development, it is suggested that the inequalities that seem to exist in land ownership be corrected. Tables provide the study data, and a bibliography is included. (Author/DB)

SOCIOECONOMIC STATUS OF FARMERS AND ECONOMIC DEVELOPMENT IN TWO COMMUNITIES OF SOUTHERN BRAZIL*

BY

Alzemiro E. Sturm**

and

Mario Riedl**

*Paper presented at the annual meeting of the Rural Sociological Society, Baton Rouge, Louisiana, August 1972.

**Graduate students at the Department of Rural Sociology, University of Wisconsin, Madison.

I. Statement of the Problem

In sociology the study of inequalities among men has always been a topic of theoretical concern. Indeed, Dahrendorf argued that sociology originated with the systematic study of social inequality.[1]

Since land is the basic factor of social differentiation in rural areas, the land tenure system commands in great proportion, the nature of the development of the agrarian society. In Marx's terms the "infrastructure" determines the "suprastructure." By this he meant that the kind of relationships of men with the means of production determines the nature of the relationship which men sustain in the pursued of satisfaction of the needs of a higher order (such as political, esthetical, cultural, etc.).

Feder,[2] Havens and Flinn[3] and others dealing with the problem of Latin American rural development seem to agree that it is not a question of availability of more economic resources (capital, technology, technical skill) like so many economists dealing with the underdeveloped countries seem to suggest. Also, it is not a question of "achievement motivation" like Rosen,[4] and McClelland,[5] seem to imply, or "innovative personalities," like Lerner,[6] and

---

[1] Ralf Dahrendorf, "On the Origin of Inequality Among Men," in The Logic of Social Hierarchies, E. O. Lauman, P. Siegel and H. W. Hodge (eds.) Chicago: Markham, 1970, pp. 3-30.

[2] Ernest Feder, The Rape of the Peasantry--Latin America's Landholding System, New York: Doubleday, 1971.

[3] Eugene Havens and William L. Flinn, Internal Colonialism and Structural Change in Colombia, New York: Praeger, 1970.

[4] Bernard C. Rosen, "Socialization and Achievement Motivation in Brazil," American Sociological Review, 27:5 (October 1962), p. 615.

[5] David C. McClelland, The Achieving Society, Toronto: D. Van Nostrand Co., Inc., 1961.

[6] Daniel Lerner, The Passing of Traditional Society, Modernizing the Middle East, New York: The Free Press, 1958, p. 78.

Hagen,[7] seem to sustain. But it seems to be a question of who controls the allocation of resources, how resources are allocated and the consequences of the external allocation of resources. In order to answer these questions, one has to adopt a different approach toward development, mainly the structural point of view. This means examining the role of land tenure within the community and trying to trace its relationships with other economic, social and psychological variables such as income, education, alienation and innovativeness. Within a structural contextual framework one should examine the "innovative personality" as against a controlled set of ascriptive characteristics of individuals such as birth in urban and rural environment coupled with birth in a poor and rich family, and so on.

Weintraub[8] would say that most of the actual strategies of rural development are solutions of the second level, i.e., they should come immediately after basic changes have taken place in agrarian societies, such as "empowerment of the persantry" through the participation in supralocal organizations and institutional changes, such as agrarian reform.

So long as this inequality persists in the system of land tenure, the benefits of economic and social development will go to a small minority of the rural population. The correlates of this situation will be a slowdown in the momentum of the social and economic development (incipient, so far)

---

[7] Everett E. Hagen, On The Theory of Social Change, How Economic Growth Begins, Homewood, Illinois: Dorsey Press, 1962.

[8] Dov Weintraub, "Rural Periphery, Societal Center and Their Interaction in the Process of Agrarian Development: A Comparative Analytical Framework," Rural Sociology, 35:3 (September 1970), pp. 367-376.

because very few are in condition to contribute positively in a rapid increase of the production and/or productivity.

So, this seems to be the main problem in rural Latin America and to which our research paper is addressed.

Objectives of the Study

In this paper the interest is to demonstrate that there is a correlation of the position of farmers in the social structure with several crucial variables for development, such as innovativeness, level of income, level of education, mass media consumption, alienation. In other words, our objective is to investigate the nature of the relationship of one basic element of the rural social structure and socioeconomic development.

Area of Study

In regard to more general objectives of the project, the area of study encompasses two counties of the State of Rio Grande do Sul (see Figure I). These counties, Garibaldi and Candelaria, were chosen on the criteria of ethnic origin of their rural inhabitants. These counties are representative of Italian and German immigrants, respectively.

In Garibaldi, the main products are grapes, wheat, soybeans and tobacco. It is located in a hilly section of the northeastern portion of the state.

Candelaria's main production is cattle, rice, corn, and tobacco. It is almost in the middle of the state and lies at the foot of the mountains. Due to this location, it is constituted of a highly portion in the north and a relatively flat portion in the south.

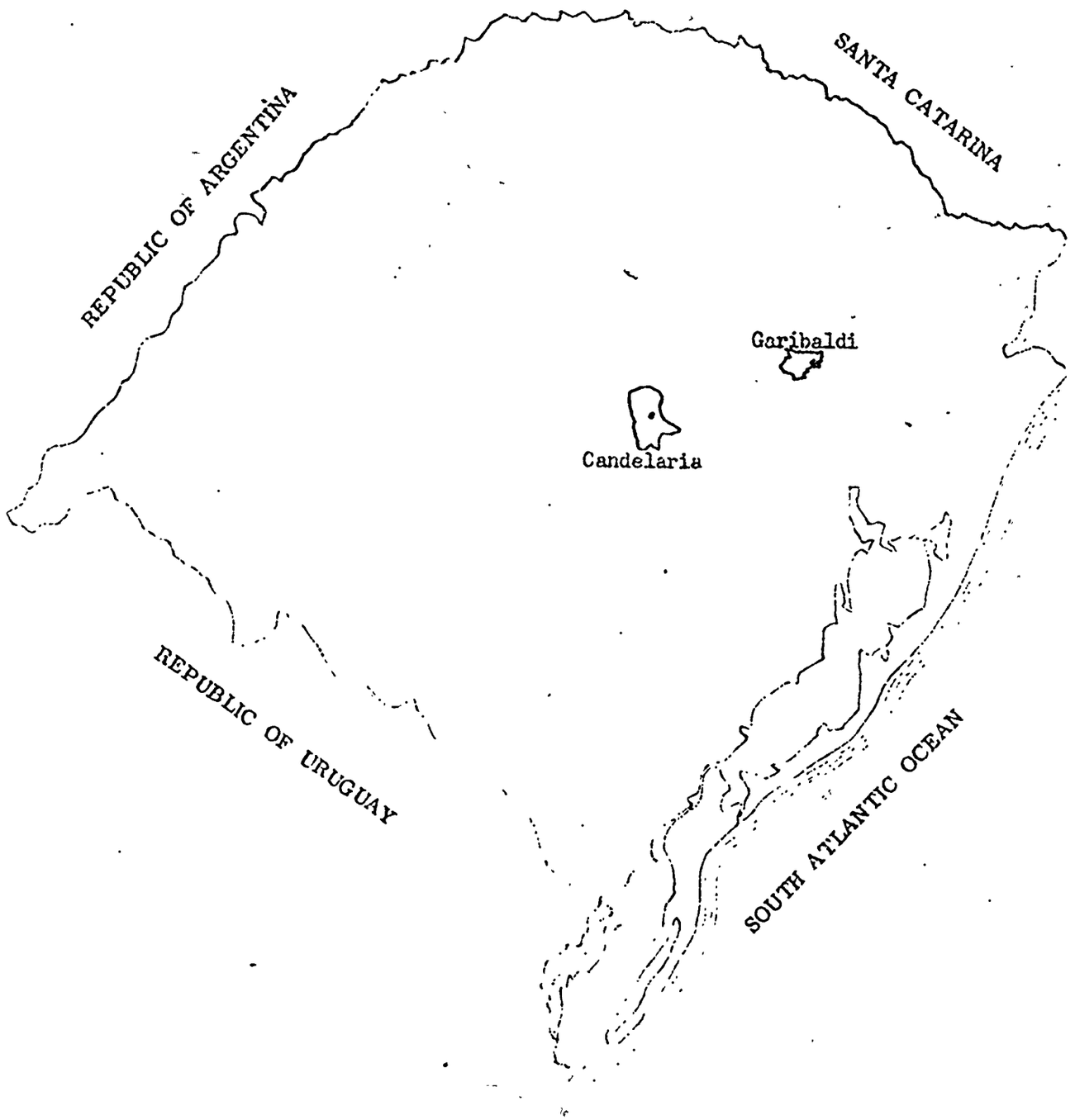


Figure 1. Map of Rio Grande do Sul Showing the Area Studied

II. Methodology

This study is going to use data from a project whose principal concern was to compare the relationship between different ethnic origins and social and geographic mobility rates. Consequently, an important criterion for selecting communities was the ethnic origin of their inhabitants.

The original project was carried out by the Institute of Economic Studies and Research (IEPE) of the Federal University of Rio Grande do Sul (UFRGS), Brazil, with the collaboration of the authors in all phases of the project.

Regarding the ethnic origin of the farmers, four municipios (counties) were chosen for the study, namely Garibaldi (Italian origin), Candelaria (German origin), Guarani das Missoes (Polish origin), and Taquari (Portuguese origin).

For the purpose of this study, however, only two counties will be considered, Garibaldi and Candelaria.

Sampling Procedure

The farm enterprise was used as the basic sampling unit. This was done largely as a matter of practical expedience since the only sampling list available for each community was a property list of the Brazilian Institute for Agrarian Reform (IBRA). However, for this study, the family possessing the enterprise will be considered the unit of analysis.

The property lists were based on a census of the communities in 1960.

In Table 1 on page 6, a summary of the characteristics of the individual community samples is presented, including the sampling error and the significance level.

TABLE 1: SUMMARY CHARACTERISTICS OF THE INDIVIDUAL COMMUNITY SAMPLES

Characteristics of Samples	Candelaria	Garibaldi
Sample Size	128	105
Type of Sample	Stratified	Stratified
Stratification Criteria	Property Size	Property Size
Sampling Error	6%	6%
Significance Level	5%	5%
Calculated Sampling Size	84	77
Additional Interviews	44	28

Data Source: Hansen, David - Ph. D. Thesis (unpublished),"The Relationship Between Land Tenure and Social Status in the Rural Colonia Region of Southern Brazil,"The University of Wisconsin

Questionnaire and Interviewing Procedure

The study questionnaire was developed jointly by the personnel involved in the study, including the staff members of the Rural Sociology Sector of the Institute of Economic Studies and Research (IEPE). A pretest of the questionnaire was done before the field work.

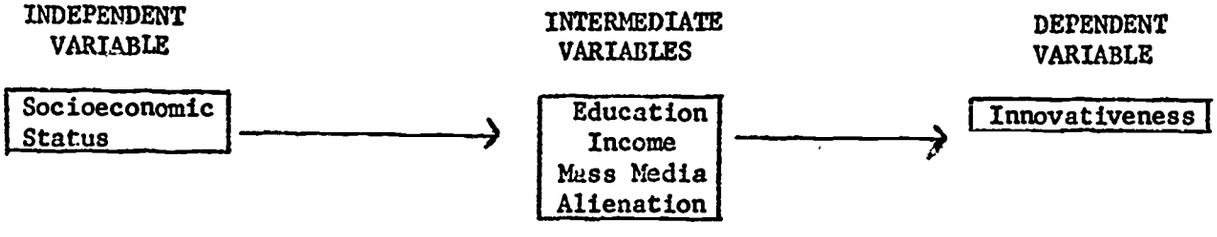
The interview team consisted of staff members and graduate students from IEPE. Prior to entering the field, the project leaders reviewed the questionnaire with each member of the team. Several lectures were given on the import of each question and how it related to the overall goals of the study.

The field procedure included an initial contact with local governmental representatives in the community. Once their cooperation was secured, a team of 10 to 15 members was sent to the community, for a period of seven to ten days. Where possible, guides furnished by the local government were used to locate sample members. A rather detailed check of each questionnaire was made while still in the field to assure that no logical response inconsistencies or other faulty material was encountered in them. In cases where such material was found, the respondents were recontacted while the interview team was still in the field. In general, there was a great acceptance of the farmers to the interview.

Data Preparation and Anlaysis

IEPE provided its facilities and personnel to the project to facilitate the data preparation and analysis. Ample use was made of its programmers and auxiliary machines. The initial coding of the data and perforation of the IBM cards was done by members of IEPE's staff.

The analysis of the data for this study was done by utilizing the chi-square test in order to determine the relationship between the variables, in the following scheme:



Operationalization of the Variables

Socio-Economic Status - This variable was operationalized through the land tenure system of each community. Three status groups were identified, namely

the low status group, composed by farmers who owned less than 15 hectares of land, the median status group, whose farmers owned from 15 to 50 hectares of land, and finally, the high status group which owned more than 50 hectares of land.

Surprisingly, the resultant social structure of the communities studied based on this criterion was very similar, as can be seen in Table 2 below.

TABLE 2: SOCIO-ECONOMIC STATUS OF THE FARMERS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Socio-Economic Status	Garibaldi		Candelaria	
	N	%	N	%
Low	41	39.0	49	38.3
Median	42	40.0	52	40.0
High	22	21.0	27	21.7
Total	105	100.0	128	100.0

Innovativeness

This variable was operationalized through an index of adoption of soil conservation practices consisting of four practices which the farmers were actually using on their farms. The practices are all recommended by the extension agents and are applicable to farming enterprise in both communities studied. These practices are:

- terracing
- crop rotation
- use of lime
- use of fertilizer

These practices are strongly relevant for a rational use of land in terms of the conservation of its fertility and in terms of productivity.

The index was formed by the sum of scores attributed to each farmer, according to the following considerations:

0 points - when the farmer did not use any of the practices;
1 point - if he used one practice on half of the field;
2 points - if he used it on the whole field.

There was no control on the size of the fields and on the degree of need for any of these inputs, which certainly consists in a limitation of this index.

The position of the farmers on the innovativeness scale can be seen in Table 3 below.

TABLE 3: PERCENTAGE DISTRIBUTION OF THE FARMERS ON THE INNOVATIVENESS SCALE IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Points	Garibaldi	Candelaria
0 - 1	46.6	25.0
2 - 3	35.2	56.0
4 or more	18.2	19.0
Total	100.0	100.0

Education

It was operationalized by the number of years of formal schooling completed by the head of household and his spouse, without considering the grade of the level achieved.

Mass Media Consumption

This variable was operationalized by the usage of the three more important means of communication in Brazilian rural areas: radio, newspaper and magazines. Individual scores were computed by simply summing item scores. The higher the final score, the larger the mass media usage.

Income

Refers to the total monetary income of the family unit over a period of one year. It is a measure of the relative potential control over goods and services and their acquisition. It was computed by considering the total of income from all agricultural sources, from salary for other work, from earnings of others in the family, and from other sources, such as rent from other property.

The Alienation Scale

The alienation items were developed to approximate the meanings given by Seeman. Individual scores were obtained by summing the scores in each dimension of alienation, so that the higher the final score, the more alienated the individual.

The first dimension of alienation, "perceived self-importance" is closely related to Seeman's notion of self-estrangement as the absence of intrinsically meaningful activity which results in loss of pride in work and in one's self. This item was operationalized by the following question:

a) Some people think they are important (1)

b) Others think they aren't important (2)

How do you feel about you yourself?

The second item, isolation, is based on the social isolation component, detachment from popular cultural standards which shows up as assigning low

reward value to goals or beliefs that are typically highly valued in the given society. Those who value few or no similar objects or goals should not be expected to feel at ease with each other. This was operationalized by the following statement:

a) Some say that in general, they don't feel at ease with the people here (2)

b) Others say that in general, they do feel at ease with the people here (1)

How do you feel about you yourself?

Meaninglessness - refers to the situation where the individual is unclear as to what he ought to believe, when the individual standards for clarity in decision-making are not met. This is viewed as a low expectancy that satisfactory predictions about future outcomes of behavior can be made. This dimension of alienation was measured by the following statement:

a) Some say: For me, life here these days is very difficult to understand (2)

b) Others say: For me, life here these days is easy to understand (1)

How do you feel about this yourself?

The following item was considered as a measure of powerlessness:

a) Some say: I always know that I can have some influence in matters around here (1)

b) Others say: I can hardly ever have influence in things around here (2)

How do you feel about you yourself?

The fifth item is a measure of normlessness according to Seeman's formulation that the formation of instrumental and manipulative attitudes manifested in a high expectancy that socially unapproved behaviors are required to achieve given goals. The item was operationalized as follows:

a) Some say: One doesn't know how to behave with the people of this place (2)

b) Others say: One always knows how to behave with the people around here (1)

What do you say about you yourself?

III. Literature Review

What, then, are some of the specific influences on the degree of innovativeness of farmers in two rural communities of Rio Grande do Sul? Are both low and high status farmers innovative, and at the same rate in different ethnic communities? Most researchers on this subject agree that becoming an "innovator" is more probable if one has certain background requisites which put the individual in a position to receive more "modern" influences.

1. Socioeconomic status

The most important requisite is a high socioeconomic status. Kahl found in his study of achievement motivation of Mexicans and Brazilians that about a third of the measured variation in modernity was accounted for by socioeconomic status.[9] Status is a key to exposure to modern influences on many levels: to travel, to mass media consumption, to circulation in elite "circles," clubs, to "modern" professions, and most importantly, to secondary and higher education.

In rural areas the basic status characteristic is land tenure. Marx would say that by considering tenure relationships, one can divide the farmers into two groups of farmers: owners of means of production and nonowners of these. A logical consequence of this basic categorization is that the owners of the means of production have most of the prerequisites for innovativeness and the propertiless farmers do not. As Don Kanel points out in his "Land Tenure Reform as a Policy Issue in the Modernization of Traditional Societies," the social significance of the tenure system in developed

---

[9] Joseph A. Kahl, The Measurement of Modernism: A Study of Values in Brazil and Mexico. Latin American Monographs, No. 12, Institute of Latin American Studies, The University of Texas, 1966.

countries is much smaller. He says that,

> In the less developed countries, on the other hand, the tenure system is usually a major component of the larger social structure. There are great social class divisions between groups having different tenure rights, and widening the accessibility of economic opportunities resulting from the process of development frequently requires change in the tenure system. Often the seizure of new opportunities by one tenure class is at the expense of the employment and income security of other classes.[10]

However, Wilkening, Tully and Presser, in a study of the adoption of farm practices in Australia, concluded that, "differences in status as determined by education and level of living are not closely associated with the adoption of improved practices in the area studied."[11] It might not be directly related because of difference in the level of abstraction between the two variables.

Our assumption is that socio-economic status is related with innovativeness through some intermediary variables, such as income, education and alienation.

2. Level of Income

Although income is considered here as a separate intervening vairable, its close association to socioeconomic status is a widely recognized fact. It is considered as strongly related to type of occupation and level of education in the majority of the socioeconomic stratification studies.

The relationship between size of farm and income has been demonstrated by many researchers all over the world. Specifically for the State of

---

[10] Don Kanel, "Land Tenure Reform as a Policy Issue in Modernization of Traditional Societies," in Peter Dorner (ed.) Land Reform in Latin America, Land Economics Monograph No. 3, Land Tenure Center, The University of Wisconsin, p. 24.

[11] E. A. Wilkening, Joan Tully and Hartley Presser, "Communication and Acceptance of Recommended Farm Practices Among Dairy Farmers of Northern Victoria," Rural Sociology 27 (June 1962), pp. 116-197.

Rio Grande do Sul one can mention Rask,[12] Johnson and Buse,[13] and for the State of Minas Gerais, Brazil, perhaps the most significant would be Converse.[14]

Converse found statistically significant correlation between income and amount of land owned in Acucena, Minas Gerais. More important was the statistically significant and positive relationship with prestige, irrespective of the level of education.[15]

Hypothesis 1 = Socioeconomic status is positively associated with the level of income.

Many authors demonstrated that small income associated with small farm size does not encourage farmers to adopt new techniques mainly those which are costly. The problem of the small farm agriculture is that there are too many people living on a too small farm, having too low production and therefore too low income per person. Consequently, there is a very low savings capacity and too low capital formation process on the farm, which makes the farmer depend heavily on credit. Thiesenhusen states that in Colombia the banks which were organized specially to assist the small farm owners had so little funds that they were unable to work with all farmers which needed money or could only give to a great number of them a credit so small that his

---

[12] Norman Rask, "Farm Size and Income: An Economic Study of Small Agriculture in Southern Brazil," Ph. D. thesis (unpublished), Department of Agricultural Economics, University of Wisconsin, Madison, 1964.

[13] Roger G. Johnson and Reuben C. Buse, "A Study of Farm Size and Economic Performance in Old Santa Rosa, Rio Grande do Sul," Land Tenure Center Paper No. 27, August, 1967.

[14] James W. Converse, "Anomia and Alienation: Social Psychological Factors in the Modernization of an Isolated Area in Rural Brazil," Ph. D. thesis (unpublished), Department of Rural Sociology, University of Wisconsin, Madison, 1969.

[15] Ibid., p. 107.

impact on income was insignificant.[16] On page 11 he states that the immediate impact of the inputs of the "green revolution" in Latin America seems to be the fact that they affect the income of the beneficiaries within higher classes more than in the lower classes, increasing the income of those which are already rich.

On the other hand, it seems that low status families cannot get education for their children beyond elementary schools because the secondary schools are usually located in cities and a son's schooling becomes costly to his family not only in terms of the loss of the value of his work, but mainly through the expense of room and board for him in the city. Education beyond primary school is therefore open only to relatively few. Since education is an important mechanism to diffuse knowledge to enhance creativity, open-mindedness and innovativeness, it can only be hypothesized that low income farmers will not show greater innovativeness than high income farmers.

Hypothesis 2 = Level of income is positively associated with individual innovativeness.

3. Level of Education

Although education is considered as a separate intervening variable, its close association with socioeconomic status throughout the literature is abundant. The relationship was substantiated by Kahl in his study.[17]

In Brazil, education beyond elementary school for those of the lower class is very difficult because the secondary schools are usually located in cities and a son's schooling (not speaking of daughters) becomes costly to his family. Education beyond primary school is open to relatively few.

---

[16] William C. Thiesenhusen, "Technolcgical Change and Income Distribution in Latin American Agriculture," Land Tenure Center Paper No. 78-P, August 1971, p13.

[17] Joseph A. Kahl, op.cit., pp. 137-138.

An article by Ivan Illich describes the results of this injustice in the Latin American education system very forcefully:

> Schools grade and therefore they degrade. They make the degraded accept his own submission. Social seniority is bestowed according to the level of schooling achieved. Everywhere in Latin America more money for schools means more privilege for a few at the cost of most, and this patronage of an elite is explained as a political ideal!..... The steep education pyramid defines a rationale for the corresponding levels of social status. Citizens are "schooled" into their places. This results in politically acceptable forms of discrimination which benefits the relatively few achievers.[18]

Hence our hypothesis is:

Hypothesis 3 = Socioeconomic status is positively associated with the level of education.

Although education has been considered as a reinforcement for social inequalities by Illich and others, most researchers do not comment so much on the drawbacks of the educational system, but rather on the potential of education as the prime "enabler" or "capacitator" leading to a predisposition in favor of individual innovativeness.

On the one hand, education can play an important role in, "inculcating a sense of national loyalty and in creating skills and attitudes essential for technology innovation."[19]

On the other hand, there are other ways through which men may be made to feel a sense of national loyalty and may learn new skills and attitudes aside from formal education. The school as a social organization may serve as a "model of rationality" of the importance of technical competence, and of the principle of distributive justice reflected in the grading system."[20]

---

[18] Ivan Illich, "The Futility of Schooling in Latin America," Saturday Review, April 20, 1968, p. 74.

[19] Myron Weiner, Modernization--The Dynamics of Growth, New York: Basic Books, 1966, pp. 1-16.

[20] Alex Inkeles, in Myron Weiner, (ed.) op. cit., pp. 138-152.

Therefore, despite the fact that education may serve two different functions with regard to modernity: by first, creating literacy (it puts the individual in communication with the larger society) and secondly, the school level completed is, in part, the basis upon which career roles are allocated, education in itself is not a sufficient condition for fostering innovative attitudes and behaviors. However, the extent to which it does so depends a great deal upon the type of curriculum offered and the quality of the school's administration. It has been pointed out that little or no change toward modernity is evident in students of the more traditional schools that devote themselves mainly to passing on religious practices or inculcating and preserving traditional lore and skills.[21]

Gordon Whiting notes that this is frequently the case of schools in rural areas of Brazil.[22] He sums up the nature of the relationships between modernity and education by explaining that,

> Education may be regarded as an instance of coerced, if benevolent, opening of the mind and an expansion of the alternatives or skills to perceive alternatives, which a person can use in decision-making. As such it doubtless contributes to modernization.[23]

But, at the same time, he concludes that except for teaching literacy and some minimal arithmetic abilities, rural education in Brazil, "probably makes little contribution to the modernization of most individuals exposed to it."[24]

---

[21] Ibid., p. 146

[22] Gordon C. Whiting, Empathy, Mass Media and Modernization in Rural Brazil, Report 1, Project on the Diffusion of Innovations in Rural Societies, East Lansing, Michigan, November 1967, p. 29.

[23] Ibid., p. 29.

[24] Ibidem.

Therefore, in spite of the fact that the relationships between modernity and education must be qualified by many specific conditions, our hypothesis is that:

Hypothesis 4 = Level of education is positively associated with individual innovativeness

4. Mass Media Consumption

Many researchers consider the urban ways of life as another positive influence in the diffusion of innovations. The urban environments represent the areas where change is occurring most rapidly, the centers for new opportunities, and the focus of hopes for many migrants. Hoselitz looks to the cities.

> ...as the crucial places in underdeveloped countries in which adaptation to new ways, new technologies, new consumption and production patterns and new social institutions is achieved.[25]

Here is where mass media comes in as the conveyor of the urban way of life to the rural hinterland. But this conveyor works selectively. It reaches only those who can read the message and who can understand it. Therefore, education can be very important in rural areas because of its function of teaching how to read and write. However, it has been empirically verified that the farmers who maintain contacts outside of their communities, and who visit the urban centers more often are the farmers with higher income and which occupy higher socioeconomic positions. These are the people who more often have radios, read newspapers and magazines. Therefore, we expect that the farmers with higher status use mass media items, such as radio programs, newspapers and magazines more often than low status farmers.

---

[25] Bert F. Hoselitz, Sociological Aspects of Economic Growth, New York: The Free Press, 1960, p. 163.

Hypothesis 5 = Socioeconomic status is positively associated with mass media consumption.

Nevertheless, Brown & Kearl say that the role of communication has been greatly exaggerated by a few development scholars.[26] They say for example, that a good deal has been written in recent years to argue that mass communication produces a "demonstration effect" and strikes a "psychic spark to modernization." This implies that the media increase the number and change the quality of desires as traditional-bound people begin to want and expect the new material goods and "lifeways" they see and hear about. Some say that these new desires become goals--that they provide new incentives and motives which stimulate development by creating markets for domestic products and by "motivating" people to earn more (i.e., produce more) in order to get newly desired goods. Other writers are less enthusiastic about this supposedly automatic stimulus to productivity but are no less categorical in their conclusion that the mass media, "built on 'Western Model,'" have a direct and immediate impact on aspirations and consequently on modernization.[27]

The test of the extent to which mass media consumption and innovativeness are associated will be made through the following hypothesis:

Hypothesis 6 = Mass media consumption is positively associated with individual innovativeness.

5. Alienation

The most systematic formulation of the various types of alienation, as it has been considered historically, is that of Seeman.[28] He elaborates five

---

[26] Marion R. Brown and Bryant E. Kearl, "Mass Communication and Development: The Problem of Local and Functional Relevance," Land Tenure Center Paper No. 28, July 1967, p. 2.

[27] Daniel Lerner, The Passing of Traditional Society, Glencoe, Illinois: The Free Press, 1958.

[28] Seeman, Melvin, "On The Meaning of Alienation," American Sociological Review 24 (December 1959), pp. 783-791.

dimensions that seem to encompass the major usages.

a) Powerlessness - this component is a direct extension of Marx's notion that the decisions relevant to the worker's life are made by capitalists: the expectancy of probability held by the individual that his own behavior cannot determine the occurrence of the outcomes or reinforcements he seeks.

b) Meaninglessness - the individual is unclear as to what he ought to believe: a low expectancy that satisfactory predictions about future outcomes can be made.

c) Normlessness - through the loss of commonly held standards, instrumental, manipulative attitudes develop a high expectancy that socially unapproved behaviors are required to achieve given goals.

d) Isolation - the isolated assign low reward value to goals or beliefs that are typically highly valued in the given society.

e) Self-estrangement - through an inability to find self-rewarding activities this appears as the degree of dependence of the given behavior upon anticipated future rewards.

According to this formulation, alienation is viewed as the perception that, for reasons located in the social structure, one does not have access to the means of realizing the goals one pursues. In other words, if alienation measures the degree to which one sees the social structure as restricting his access to desired objects, we should expect a negative correlation between socio-economic status, measured by the amount of land owned, and alienation, as those with small holdings are fairly restricted in earning potential. Indeed, Converse[29] found such correlation on his Ph. D. dissertation, using Brazilian data.

---

[29] Converse, James W., "Anomia and Alienation: Social Psychological Factors in the Modernization of an Isolated Area in Rural Brazil," Ph. D. Thesis (unpublished), University of Wisconsin, 1969, p. 98.

Our hypothesis, then, is the following:

Hypothesis 7 = Socioeconomic status is inversely associated with alienation.

In terms of innovativeness, it is highly plausible that the "demonstration effect" is working in the direction of a greater awareness of the advantages of the new technology. So, the farmers who are more aware of these would tend to feel less alienated. However, it is also plausible to admit that the demonstration effect is working in the direction of a greater awareness of his misery. Thus, the feeling of powerlessness becomes stronger the more he sees and hears about the success of his better-off neighbors (who are fortunate enough to be able to borrow money /when needed/ to buy more inputs for their farms). Therefore, the relationship with innovativeness is also expected to be negative.

Hypothesis 8 = Alienation is inversely associated with individual innovativeness.

IV. Results of the Analysis

This chapter is intended to present the results of the tests of association between the variables which we hypothesized in Chapter III.

Hypothesis 1 = Socioeconomic status is positively associated with level of income.

As can be observed in Table 4 below, the high status farmers also tend to be more concentrated in the high income category. The relationship is stronger in Candelaria.

TABLE 4: RELATIONSHIP BETWEEN INCOME AND SOCIO-ECONOMIC STATUS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Income	Socio-Economic Status: Low	Medium	High
(Garibaldi)			
Low Income	24	18	7
High Income	17	24	15
$X^2_c = 4.67$	$P < .10$	2 d.f.	N = 105
(Candelaria)			
Low Income	33	18	8
High Income	15	35	19
$X^2_c = 8.86$	$P < .05$	2 d.f.	N = 128

Of course, we do not imply that the larger farms are more productive. In terms of productivity among farmers, Dorner has the following observation:[30]

[30] Peter Dorner, "Land Tenure Institutions," in Melvin G. Blase (ed.) Institutions in Agricultural Development, Ames: Iowa State University Press, 1971, p. 23.

"The evidence from various parts of the world supports the hypothesis that productivity per unit of land on small farms is as great or greater than that on large farms."

What we intended to show was the concentration of larger income (in absolute value of cruzeiros) in the hands of those who already have the largest farms.

Hypothesis 2 = The level of income is positively associated with individual innovativeness.

Although we argued that there was no necessary relationship between size of farm and productivity, the results in Table 5 below, for the Municipio of Candelaria, seem to show that our hypothesis number two is correct, i.e., those who are on the top of the tenure system have greater tendency to have higher income (in absolute values) and through income, also tend to be more innovative (in terms of adoption of soil conservation practices).

TABLE 5: RELATIONSHIP BETWEEN INCOME AND INNOVATIVENESS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

	Innovativeness			
Income	Low		Medium	High
(Garibaldi)				
Low Income	26		17	6
High Income	23		20	13
	$X_c^2 = 2.56$	n.s.	2 d.f.	N = 105
(Candelaria)				
Low Income	25		18	6
High Income	9		54	16
	$X_c^2 = 10.51$	P $<$ .01	2 d.f.	N = 128

Technology is supposed to enhance productivity. However, Bose in a study of the diffusion of innovations in an Indian community, showed that innovativeness was not related to productivity or to the level of efficiency in farming.

Hypothesis 3 = Socioeconomic status is positively associated with level of education.

The data presented in Table 6 below, seems to corroborate our assumptions. In Candelaria there was a significant positive relationship between high education and high status.

TABLE 6: RELATIONSHIP BETWEEN EDUCATION AND SOCIO-ECONOMIC STATUS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

	Socio-Economic Status			
Education	Low	Median	High	
(Garibaldi)				
Low Education	20	17	13	
High Education	21	25	9	
	$X^2_c = 2.01$	n.s.	2 d.f.	N = 105
(Candelaria)				
Low Education	38	32	7	
High Education	10	21	20	
	$X^2_c = 9.24$	$P < .01$	2 d.f.	N = 128

In Garibaldi the relationship does not hold probably because the level of education was relatively low and not sufficiently differentiated in terms of years of school.

Hypothesis 4 = Level of education is positively associated with individual innovativeness.

This hypothesis seems to receive support from the data in Table 7 on page 25. The association is not strong in Candelaria. However, it goes clearly in the

hypothesized direction. Those who get more years of school seem to be more highly oriented toward the modern farming techniques.

TABLE 7: RELATIONSHIP BETWEEN EDUCATION AND INNOVATIVENESS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Education	Innovativeness: Low	Median	High
(Garibaldi)			
Low Education	32	11	7
High Education	17	26	12
	$X_c^2 = 7.63$ P<.05	2 d.f.	N = 105
(Candelaria)			
Low Education	15	49	13
High Education	19	23	9
	$X_c^2 = 5.69$ P<.10	2 d.f.	N = 128

Hypothesis 5 = Socioeconomic status is positively associated with consumption of mass media.

This hypothesis does also have significant support from the data presented in Table 8 below. The farmers who are better off are most likely to own a radio and/or to read newspapers and/or to read magazines.

TABLE 8: RELATIONSHIP BETWEEN MASS MEDIA CONSUMPTION AND SOCIO-ECONOMIC STATUS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Mass Media Consumption	Socio-Economic Status: Low	Median	High
(Garibaldi)			
Low Consumption	30	31	10
High Consumption	11	11	12
	$X_c^2 = 6.30$ P<.05	2 d.f.	N = 105
(Candelaria)			
Low Consumption	28	20	6
High Consumption	20	33	21
	$X_c^2 = 7.97$ P<.05	2 d.f.	N = 128

Hypothesis 6 = Consumption of mass media is positively associated with individual innovativeness.

In Garibaldi (the municipio with predominantly farmers of Italian origin) the hypothesis is maintained (see Table 9 below).

TABLE 9: RELATIONSHIP BETWEEN MASS MEDIA CONSUMPTION AND INNOVATIVENESS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970

Mass Media Consumption	Innovativeness Low	Median	High
(Garibaldi)			
Low Consumption	38	24	9
High Consumption	11	13	10
	$X^2_c = 5.79$ P<.05	2 d.f.	N = 105
(Candelaria)			
Low Consumption	14	31	9
High Consumption	20	41	13
	$X^2_c = 0.1$ n.s.		N = 128

The relationships are not always significant because the types of media vary a great deal within the phases of the adoption process.[31] At the "awareness" stage the mass media is predominant but at the "adoption" stage the personal contacts seem to be seeked more often.

Hypothesis 7 = Socioeconomic status is inversely associated with alienation.

This hypothesis seems not to be true as the data in Table 10 on page 27 seem to indicate.

31 Everett Rogers, "Mass Media Exposure and Modernization Among Colombian Peasants," in Public Opinion Quarterly, 29 (Winter, 1966) pp. 614-625.

TABLE 10: RELATIONSHIP BETWEEN ALIENATION AND SOCIO-ECONOMIC STATUS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970

Alienation	Socio-Economic Status Low	Median	High
(Garibaldi)			
No Alienation	8	10	5
Some Alienation	20	16	8
High Alienation	13	16	9
	$X_c^2 = 1.31$ n.s.	4 d.f.	N = 105
(Candelaria)			
No Alienation	8	19	11
Some Alienation	21	16	11
High Alienation	19	18	5
	$X_c^2 = 8.23$ P<.10	4 d.f.	N = 128

However, in Candelaria the relationship goes in the expected direction, although it is only statistically significant at the .10 level. The farmers in Garibaldi probably are more integrated into the economic and social network engendered by the wine industry and a small piece of land covered with grapes can generate sufficient income within the standards of judgement of the farmers, and therefore have less feeling of alienation. Nevertheless, we would not suggest anything more definitive because the variable "alienation" is too complex and might not have been adequately measured.

Hypothesis 8 = Alienation is inversely associated with individual innovativeness.

Again, no relationship was found (see Table 11 on page 28).

TABLE 11: RELATIONSHIP BETWEEN ALIENATION AND INNOVATIVENESS IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970.

Alienation	Innovativeness: Low	Median	High
(Garibaldi)			
No Alienation	7	9	7
Some Alienation	21	13	10
High Alienation	18	15	5
	$X_c^2 = 4.10$ n.s.	4 d.f.	N = 105
(Candelaria)			
No Alienation	10	22	6
Some Alienation	13	28	7
High Alienation	11	22	9
	$X_c^2 = 0.82$ n.s.	4 d.f.	N = 128

The lack of relationship might be explained by the fact that the feeling of alienation is not an important factor mediating between socioeconomic status and innovativeness, i.e., the lower status farmers do not necessarily have to feel alienated to reject the new ideas and modern farming techniques. Other variables such as low educational attainment and low income might be explaining most of the variation in innovativeness. However, again we abstain from a more definitive statement because we suspect that the variable might not have been adequately measured.

V. Summary and Conclusions

This paper is concerned with the problem of social innequalities and economic development in rural communities.

Two ethnically different communities were chosen in the most southern state of Brazil: Garibaldi, of descendants from Italian immigrants and Candelaria, of descendants from German immigrants.

The data was gathered through the application of a questionnaire to stratified random samples, representing 4.2% of the farm owners in Candelaria and 7% in Garibaldi.

The central assumption is that the larger farm owners occupy the highest socioeconomic positions in the agrarian society and therefore are concentrating in their hands the best opportunities for economic development as indicated by correlates such as income (an economic variable), education and mass media (social variables) and alienation (a psychological variable).

The results of the analysis of the data summarized in the following Tables 12 and 13, land strong support to our central hypothesis.

TABLE 12: RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND THE INTERMEDIATE VARIABLES IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970

Intermediate Variables	~~Innovativeness~~ Socio-Economic Status	
	Garibaldi	Candelaria
Income	$P < .10$ (2 d.f.)	$P < .05$ (2 d.f.)
Education	n.s.	$P < .01$ (2 d.f.)
Mass Media Consumption	$P < .05$ (2 d.f.)	$P < .05$ (2 d.f.)
Alienation	n.s.	$P < .10$ (4 d.f.)

TABLE 13: RELATIONSHIP BETWEEN INNOVATIVENESS AND THE INTERMEDIATE VARIABLES IN GARIBALDI AND CANDELARIA, RIO GRANDE DO SUL, BRAZIL, 1970

Intermediate Variables	Innovativeness	
	Garibaldi	Candelaria
Income	n.s.	$P < .01$ (2 d.f.)
Education	$P < .05$ (2 d.f.)	$P < .10$ (2 d.f.)
Mass Media Consumption	$P < .10$ (2 d.f.)	n.s.
Alienation	n.s.	n.s.

Although not statistically significant at the critical level of at least 10% in all hypothesized relationships, we think that the findings are important. It is highly probable that the farmers with the highest socioeconomic positions in both ethnically differentiated communities have relatively easier access to greater income and education.

These two variables also showed to be important intermediary conditions for innovativeness. The level of education and the level of income are conditioning to a significant extent the diffusion of new technology in these two rural communities.

In summary, the economic and social development of rural communities, irrespective of the ethnic origin of their population, seems to depend a great deal on structural variables, as for instance, the land tenure system. Therefore, in terms of strategies of development, one of the immediate suggestions would be to diminish the inequalities which seem to exist in the institution of landownership.

BIBLIOGRAPHY

Brown, Marion R. and Bryant E. Kearl

1967 "Mass Communication and Development: The Problem of Local and Functional Relevance," Land Tenure Center Paper No. 28, University of Wisconsin, July 1967, pp. 2-10.

Converse, James W.

1969 "Anomia and Alienation: Social Psychological Factors in the Modernization of an Isolated Area in Rural Brazil," Ph. D. Thesis, University of Wisconsin (unpublished).

Dahrendorf, Ralf

1970 "On The Origin of Inequality Among Men," in Laumann, E. O., Siegel, P. and Hodge, R. W., (eds.), The Logic of Social Hierarchies, Chicago: Markham, pp. 3-30.

Dorner, Peter

1971 "Land Tenure Institutions," in Melvin G. Blase (ed.), Institutions in Agricultural Development, Ames: Iowa State University Press, pp. 14-40.

Feder, Ernest

1971 The Rape of the Peasantry--Latin America's Landholding System, New York: Doubleday.

Hagen, Everett E.

1962 On The Theory of Social Change--How Economic Growth Begins, Homewood, Illinois: Dorsey Press.

Hansen, David O.

1971 "The Relationship Between Land Tenure and Social Status in the Rural Colonia Region of Southern Brazil," Ph. D. Thesis, University of Wisconsin (unpublished).

Havens, A. Eugene and William L. Flinn

1970 Internal Colonialism and Structural Change in Colombia, New York: Praeger.

Hoselitz, Bert F.

1960 Sociological Aspects of Economic Growth, New York: The Free Press, p. 1963.

Illich, Ivan

1968 "The Futility of Schooling in Latin America," in Saturday Review, April 1968, p. 74.

Inkeles, Alex

1966 "The Modernization of Man," in Myron Weiner (ed.) Modernization--The Dynamics of Growth, New York: Basic Books, Inc., pp. 138-152.

Johnson, Roger G. and Reuben C. Buse

1967 "A Study of Farm Size and Economic Performance in Old Santa Rosa, Rio Grande do Sul," Land Tenure Center Paper No. 27, University of Wisconsin.

Kahl, Joseph A.

1966 The Measurement of Modernism: A Study of Values in Brazil and Mexico, Latin American Monographs, No. 12, Institute of Latin American Studies, The University of Texas, pp. 137-140.

Kanel, Don

1971 "Land Tenure Reform as a Policy Issue in Modernization of Traditional Societies," in Peter Dorner (ed.), Land Reform In Latin America, Land Economics Monograph No. 3, Land Tenure Center, The University of Wisconsin, p. 24.

Lerner, Daniel

1958 The Passing of Traditional Society--Modernizing the Middle East, New York: The Free Press, p. 78.

McClelland, David C.

1961 The Achieving Society, Toronto: D. Van Nostrand Co. Inc.

Rask, Norman

1964 "Farm Size and Income: An Economic Study of Small Agriculture in Southern Brazil," Ph. D. Thesis, University of Wisconsin (unpublished).

Rogers, Everett M.

1966 "Mass Media Exposure and Modernization Among Colombian Peasants," in Public Opinion Quarterly 29 (Winter), pp. 614-635.

Rosen, Bernard C.

1962 "Socialization and Achievement Motivation in Brazil," in American Sociological Review, 27:5 (October), p. 615.

Seeman, Melvin

1959 "On The Meaning of Alienation," in American Sociological Review 24: (December), pp. 783-791.

Thiesenhusen, William C.

1971 "Technological Change and Income Distribution in Latin American Agriculture," Land Tenure Center Paper No. 78-P, University of Wisconsin, p. 13.

Weiner, Myron

1966 Modernization--The Dynamics of Growth, New York: Basic Books, pp. 1-16.

Weintraub, Dov

1970 "Rural Periphery, Societal Center and Their Interaction In The Process of Agrarian Development: A Comparative Analytical Framework," in Rural Sociology, 35:3 (September), pp. 367-376.

Whiting, Gordon C.

1967 Empathy, Mass Media and Modernization in Rural Brazil, Report 1, Project on the diffusion of innovations in rural societies, East Lansing, Michigan, p. 29.

Wilkening, Eugene A., Joan Tully and Hartley Presser

1962 "Communication and Acceptance of Recommended Farm Practices Among Dairy Farmers of Northern Victoria, Australia," in Rural Sociology, Vol. 27 (June), pp. 116-197.