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RESEARCH REPORT

COOPERATIVE PARTICIPATION AMONG AGRARIAN REFORM BENEFICIARIES IN COSTA RICA*

by

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ABSTRACT

Peasants are often blamed for being poor. According to some, their poverty stems from their organizational incapacity. In this study of land reform beneficiaries in Costa Rica, it is shown that cooperative behavior is very common. The study is based upon interviews with a sample of 753 land reform beneficiaries. Comparisons are made with a national probability sample of 1707 Costa Ricans. The study includes data on attitudes of interpersonal trust, group cooperativeness, modes of community problem solving, and the frequency and nature of community cooperation. The paper shows that reform beneficiaries show few signs of being incapacitated by a pathological culture of poverty.

INTRODUCTION

It is commonly accepted wisdom among those who study Latin America that successful agrarian reforms are the exception rather than the rule. Most if not all of the many reasons given for the low rate of success can be reduced to two major categories: (1) insufficient governmental support; and (2) inadequate beneficiary capability. While some researchers make both arguments, most analysts support one side or the other.

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The “insufficient government support” school of thought includes a wide range of scholars. At the one extreme there are those who view reform as a palliative designed to coopt the most radical sectors of the peasantry and mute foreign criticism (Feder, 1971: 171-258; Petras and Laporte, Jr., 1971). At the other extreme are those, generally found within the reform agencies themselves, who view the failures as a direct result of painfully limited financing.

The “inadequate beneficiary capability” school includes a wide variety of scholars, most of whom see fundamental flaws in peasant character as being responsible for the failures of the programs. Peasants are seen as being afflicted by a wide variety of incapacitating psychological maladies, running from “amoral familism” (Banfield, 1958), “limited good mentalities,” “cultures of poverty” (Lewis, 1960), to “cultures of distrust” (Fromm and Maccoby, 1970). Common to all of these views is that peasant mentalities severely hamper their ability to cooperate (Sharpe, 1977).

This study seeks to take an in-depth look at the validity of the second school of thought by focusing on beneficiaries in Costa Rica’s agrarian reform program. Costa Rica began its agrarian reform efforts in 1962 with the opening of the Instituto de Tierras y Colonización (ITCO). Since that time it has settled over 5,000 families on over 160,000 hectares of land, and given title to over 25,000 landholders (Seligson, 1979; 1980; 1981). In 1976, a sample of 753 beneficiaries was interviewed. In 1980 the United States Agency for International Development began to cooperate with ITCO in expanding and improving its reform program, concentrating the efforts in the Atlantic Basin section of the country. The Atlantic Basin is an area in which banana cultivation predominates and which has long been a major support base for union activity. In an effort to determine the probable degree of success the program would have in terms of gaining settler cooperation, the data from the 1976 study were analyzed and compared to other data from non-beneficiaries. That data comes from a national probability sample of 1707 Costa Ricans, also taken in 1976, and which includes a number of items identical to the reform beneficiary study (Seligson, 1982). The national probability sample data were collected by the Oficina de Información of the Ministry of the Presidency of Costa Rica.

The analysis begins with an examination of attitudes toward cooperation. The first focus is on general attitudes of interpersonal trust. The discussion then moves to an examination of attitudes toward group cooperativeness among settlers, and then examines the ways in which

settlers solve community problems. A discussion of optimism or pessimism regarding the solution of these problems is then undertaken. The analysis then turns to cooperative behavior manifested among settlers. A final section develops an index of cooperative behavior and examines the correlates and predictors thereof. In this discussion a distinction is made between participation in cooperatives vs. participation in other forms of community activism.

ATTITUDINAL SUPPORT FOR COOPERATION

Interpersonal Trust

It is important to examine the levels of interpersonal trust found among settlers, and to compare those levels with the general population, since it is generally believed that settlers with low levels of interpersonal trust will exhibit lower levels of cooperative behavior. In fact, as shown in the final section of this paper, interpersonal trust does have an important bearing on cooperative behavior. Indeed, it is the most powerful attitudinal factor associated with cooperation. It is appropriate, therefore, to begin with an examination of interpersonal trust levels. Two sets of items measuring interpersonal trust are explored here. First, levels of interpersonal trust with respect to society at large are examined, and then, interpersonal trust among the settlers themselves is explored.

The four items used to measure interpersonal trust are similar to the original Rosenberg (1957) items, except that they have been modified to eliminate the acquiescence response set. [1] The pattern of responses shown for the four items of Table 1 is clear cut; reform beneficiaries have considerably *higher* levels of interpersonal trust than the general population. Not only are the levels of interpersonal trust higher than among the non-agricultural population, but they are higher than among either the landed or landless peasants. This finding certainly bodes well for those who believe that cooperative behavior is crucial to the success of the ITCO settlements.

It should be noted that the general phraseology of the items encouraged the negative response of three of the four items. When, however, this was not the case, as on the last item, a very strong majority of the respondents expressed interpersonal trust. The findings in this table also reveal stronger interpersonal trust elsewhere than in the Atlantic Basin.

In Table 2 attention is shifted from people in general to the reform beneficiaries as the group which is to be either trusted or distrusted. Since the focus is on reform beneficiaries alone, no comparison with the

TABLE 1. INTERPERSONAL TRUST: COMPARISONS AMONG SETTLERS / NON-SETTLERS

	Entire Reform Sample			Settlers			General Population (males only)*					
	%	(N)	(N)	%	(N)	(N)	%	(N)	(N)	%	(N)	(N)
Help others	28.2	(212)	24.9	(44)	29.2	(168)	18.3	(53)	15.5	(13)	14.0	(7)
Watch out for themselves	67.5	(508)	74.0	(131)	65.5	(377)	79.9	(231)	82.1	(69)	86.0	(43)
Don't know	4.4	(33)	1.1	(2)	5.4	(31)	1.7	(5)	2.4	(2)	0.0	(0)
	100.0%	(753)	100.0%	(177)	100.0%	(576)	100.0%	(289)	100.0%	(84)	100.0%	(50)
Non-Agri. Landed												
Tau b	.11		.09									
Sig.	< .001		.009									
Non-Agri. Landless												
Tau b	.11		.08									
Sig.	< .001		.018									
Question: Talking in general about people, do you think that one can trust in the majority of people, or do you think that one must be very careful in friendships with them?												
Trust	12.7	(96)	11.2	(20)	13.2	(76)	13.5	(39)	3.9	(3)	12.0	(6)
Be careful	86.1	(648)	87.0	(154)	85.8	(494)	84.8	(245)	94.0	(79)	88.0	(44)
Don't know	1.2	(9)	1.7	(3)	1.0	(6)	1.7	(5)	2.4	(2)	0.0	(0)
	100.0%	(753)	100.0%	(177)	100.0%	(576)	100.0%	(289)	100.0%	(84)	100.0%	(50)
Non-Agri. Landed												
Tau b	.08		.10									
Sig.	ns		.01									
Non-Agri. Landless												
Tau b	.08		.16									
Sig.	ns		.01									

* Data from 1976 National Probability Sample.

TABLE 1. INTERPERSONAL TRUST: COMPARISONS AMONG SETTLERS / NON-SETTLERS
(Continued)

	Entire Reform Sample		Atlantic Basin		Other Settlements		Non-Agricultural		Landless Peasants		Landed Peasants	
	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
Not take advantage	27.4	(206)	15.8	(28)	30.9	(178)	17.3	(50)	13.1	(11)	18.0	(9)
Take advantage	69.2	(521)	81.9	(145)	65.3	(376)	80.3	(232)	84.5	(71)	80.0	(40)
Don't know	3.5	(26)	2.3	(4)	3.8	(22)	2.4	(7)	2.4	(2)	2.0	(1)
	100.0%	(753)	100.0%	(177)	100.0%	(576)	100.0%	(289)	100.0%	(84)	100.0%	(50)
Non-Agri. Landed												
Tau b	.11		.10		.15		.15		.15		.15	
Sig.	<.001		.004		ns		ns		ns		ns	
Question: Some say that in these times one doesn't know who one can count on in moments of need. Others say that one does know. What would you say?												
Can count on	71.6	(539)	67.8	(120)	72.7	(419)	54.7	(158)	45.2	(38)	58.0	(29)
Can't count on	22.6	(170)	28.8	(51)	20.7	(119)	42.6	(123)	45.2	(38)	42.0	(21)
Don't know	5.8	(44)	3.4	(6)	6.6	(38)	2.8	(8)	9.5	(8)	0.0	(0)
	100.0%	(753)	100.0%	(177)	100.0%	(576)	100.0%	(289)	100.0%	(84)	100.0%	(50)
Non-Agri. Landless												
Tau b	.20		.17		.08		.08		.08		.08	
Sig.	<.001		.004		.02		.02		.02		.02	

*Data from 1976 National Probability Sample.

general population is relevant. However, on one item the identical phrasology is used as in Table 1, so that comparisons may be made within the reform beneficiary sample on interpersonal trust toward people in general as compared to interpersonal trust toward other beneficiaries.

The first two items on Table 2 need to be examined together. It is clear that interpersonal trust levels among the members of the settlements is much higher toward other members of the settlement than toward non-members. As shown in the top panel of Table 2, one-fifth (20 percent) of the reform beneficiaries would trust a member of the

TABLE 2. INTERPERSONAL TRUST AMONG SETTLERS

Question: Upon meeting a member of this (communal enterprise, colony, cooperative, etc.) for the first time, should one trust him or wait until one knows him better, or not trust him?

	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Trust	19.5	(147)	23.2	(41)	18.4	(106)
Wait	76.2	(574)	70.1	(124)	78.1	(450)
Not trust	3.6	(27)	6.2	(11)	2.8	(16)
Don't know	0.7	(5)	0.6	(1)	0.7	(4)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Sig. = ns

Question: And what do you think of the people who are not members of the (communal enterprise, colony, cooperative, etc.) upon meeting them for the first time, should one trust him, or wait until one knows him better, or not trust him?

	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Trust	7.2	(54)	9.0	(16)	6.6	(38)
Wait	83.0	(625)	79.7	(141)	84.0	(484)
Not trust	9.4	(71)	11.3	(20)	8.9	(51)
Don't know	0.4	(3)	0.0	(0)	0.5	(3)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Sig. = ns

TABLE 2. INTERPERSONAL TRUST AMONG SETTLERS
(Continued)

***Question:** Some people tend to help others. Other people only watch out for themselves. Thinking again about the member of this (communal enterprise, colony, cooperative, etc.) do you think that the majority help others or do you believe that the majority watches out for itself?

	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Help others	42.5	(320)	32.8	(58)	45.5	(262)
Watch out for themselves	56.3	(424)	66.1	(117)	53.3	(307)
Don't know	1.2	(9)	1.1	(2)	1.2	(7)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Tau b = .11 Sig. (of Tau = .001)

*A comparison between the results of this question and the one presented in Table 1 (Interpersonal Trust: Comparisons Among Settlers/Non-Settlers) reveals that for the reform sample as a whole, 28.2% of the respondents answered "help others" to the question posed about people in general, whereas 42.5% responded in this fashion when the question was posed, as above, regarding settlers. This difference is significant at <.001 (paired t-test results).

settlement upon meeting him for the first time, whereas only 7 percent of the beneficiaries would trust those who were not members. Hence, membership in the settlement significantly increases the levels of trust that beneficiaries are willing to extend toward individuals whom they meet for the first time. However, even among members, four-fifths of the respondents would not immediately trust the member who they are meeting for the first time. This finding is tempered by the fact that only 4 percent of the reform beneficiaries stated that they would "not trust" a member upon meeting him for the first time. The overwhelming majority (76 percent) would prefer to wait to decide whether or not they would trust him. It should also be noted that although the first two items on Table 2 indicate a slightly higher level of trust among the Atlantic Basin beneficiaries, the difference is not significant, and is therefore taken to have no substantive import here.

The last item in Table 2 is identical to the first item on Table 1 and

therefore permits comparison. It will be recalled that when this item was asked in Table 1, 28 percent of the respondents answered "help others" (see footnote at the bottom of Table 2 for clarification). When asked, however, about trusting members of the settlement, the percentage of those who express trust increases dramatically and significantly to 43 percent. This finding further demonstrates that among reform beneficiaries interpersonal trust is higher when they are considering the members of their settlement, compared to when they are considering those who are non-members. We note that on this item the Atlantic Basin beneficiaries are, once again, less trusting than other beneficiaries, a difference which is statistically significant.

Three overall conclusions emerge from Tables 1 and 2. First, reform beneficiaries have higher levels of interpersonal trust than the general population. Second, reform beneficiaries express higher levels of trust toward members of their settlement than they do toward those who are non-members. Taken together, these two findings point in the direction of a reasonable basis of interpersonal trust among members of the reform beneficiaries which can provide the attitudinal foundations for high levels of cooperation. The third finding is that the Atlantic Basin beneficiaries demonstrate somewhat lower levels of interpersonal trust than do other beneficiaries.

Group Cooperativeness among Settlers

Interpersonal trust is a general background variable which will relate to cooperative behavior. In Table 3, attitudes more directly linked to group cooperativeness are measured. On two of the three items discussed, attitudes quite conducive to group cooperativeness are found. However, on one of the items, the first, some ambivalence is detected toward working in groups. In addition it is found that there is further support for the earlier finding that Atlantic Basin settlers have somewhat less supportive attitudes toward group cooperativeness.

Taken together, the evidence presented in Tables 1 through 3 provides a picture of a favorable attitudinal disposition toward cooperation. The analysis now turns toward preferred modes of community problem solving before trying to see to what extent these attitudes influence behavior.

Modes of Community Problem Solving

The data presented in Tables 4 and 5 focus on modes of community problem solving and attitudes and behaviors related to them. The first

TABLE 3. ATTITUDES TOWARD GROUP COOPERATIVENESS AMONG SETTLERS

Question: Select from among these alternatives: (1) Better results are obtained working in groups rather than working alone; (2) It is better to work alone than to depend upon others.

	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Work in groups	42.1	(317)	32.8	(58)	45.0	(259)
Work alone	57.1	(430)	67.2	(119)	54.0	(311)
Don't know	0.8	(6)	0.0	(0)	1.0	(6)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Tau b = .11 Sig. (of Tau) = .002

Question: Select from among these alternatives: (1) In order to make a decision, it is better to listen only to the point of view of the person who is well-informed; (2) Before making a decision, it is better to listen to the opinions of others. (Coding reversed for consistency).

Opinions of others	83.1	(626)	79.1	(140)	84.4	(486)
Only informed person	15.9	(120)	19.8	(35)	14.8	(85)
Don't know	0.9	(7)	1.1	(2)	0.9	(5)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Tau b = .06 Sig. (of Tau) = .05

Question: Select from among these alternatives: (1) All leaders ought to be very strict in order to earn the respect of those they lead; (2) A leader earns respect from his followers only by treating them well. (Coding reversed for consistency).

	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Good treatment	87.0	(655)	88.7	(157)	86.5	(498)
Strict	10.0	(75)	9.6	(17)	10.1	(58)
Don't know	3.1	(23)	1.7	(3)	3.5	(20)
	100.0%	(753)	100.0%	(177)	100.0%	(576)

Sig. = ns

TABLE 3. ATTITUDES TOWARD COOPERATIVENESS AMONG SETTLERS
(Continued)

Question: Select from among these alternatives: (1) A person ought to struggle in order to succeed even though others envy him; (2) In the long run, it is more important that one's friends and neighbors like and respect one than to succeed in life. (Coding reversed here for consistency).

Respect of neighbors	65.2 (491)	68.9 (122)	64.1 (369)
Succeed in spite of envy	32.5 (245)	30.5 (54)	33.2 (191)
Don't know	2.3 (17)	0.6 (1)	2.8 (16)
	100.0% (753)	100.0% (177)	100.0% (576)

Sig. = ns

item in Table 4 examines the ways in which the respondents actually work to solve a local problem. Each respondent was first asked to name the problem most important in his community. Later, if he had done something to solve the problem, he was asked to state the ways in which he had done so. [2]

By far the most frequent form of community problem solving is attending meetings: 69 percent of the reform beneficiaries attended meetings to help resolve community problems. Among the general population, this form of community problem solving was also the most common, reported by 63 percent of all the non-agricultural respondents. Among the peasantry of the general population, the percentage attending meetings to solve community problems was almost identical to that found among the reform beneficiaries (73 percent of landless peasants, 70 percent of landed peasants).

Three other forms of community problem solving were much less common. It was found that only a little more than one-fifth of the reform beneficiaries had donated money or materials, asked for someone's help, or donated labor. Among the general population, these other forms were also less widespread, although asking for someone's help proved to be much more popular than it did among the reform beneficiaries. One can surmise that in the settlements, the reform beneficiaries are more inclined to self-reliance than are either the general population or the peasant population elsewhere in Costa Rica. That is, they resolve their problems by group activity rather than by asking for outside help.

The following two items on Table 4 deal with hypothetical situations,

TABLE 4. FORMS OF COMMUNITY PROBLEM SOLVING: SETTLERS/GENERAL POPULATION

Question: Have you done any of the following things (to solve respondent named community problem)?

Activity	Reform Sample		Taub	sig.	General Population (males only) ^b			
	Entire Sample ^a	Atlantic Basin			Other Settlements	Non-Agricultural	Landless Peasants	Landed Peasants
Attended meetings	69.1%	82.5%	65.4%	.15	.002	62.5%	72.7%	70.4%
Donated money or materials	22.3	52.5	14.0	.38	<.001	14.8	22.7	24.0
Asked for someone's help	22.0	37.5	17.8	.20	<.001	56.0	66.7	66.7
Donated labor	21.8	50.0	14.0	.36	<.001	33.6	54.2	53.8

^a Responses are based upon subset of entire sample who both named a problem in the community and who stated that they had done something to help resolve the problem. These respondents amounted to 372 (49.4% of the entire sample), 292 in the Other Settlements, and 80 in the Atlantic Basin settlements. Multiple responses permitted.

^b See note a. Total N for this item is 157. Source: 1978 National Probability Sample.

TABLE .4. FORMS OF COMMUNITY PROBLEM SOLVING: SETTLERS/GENERAL POPULATION (cont)

	Settlers				General Population (males only)							
	Entire Reform Sample	Atlantic Basin	Other Settlements	Non-Agricultural	Landed Peasants	Landless Peasants	Landed Peasants					
	%	(N)	%	(N)	%	(N)	%	(N)				
Cooperation of neighbors	32.0	(241)	34.5	(61)	31.3	(180)	24.9	(133)	18.7	(32)	24.8	(25)
Municipal assistance	10.4	(78)	6.8	(12)	11.5	(66)	21.5	(115)	14.0	(24)	7.9	(8)
National government assistance	20.7	(156)	15.3	(27)	22.4	(129)	24.9	(133)	25.7	(44)	28.7	(29)
God's help	35.2	(265)	42.9	(76)	32.8	(189)	15.9	(85)	20.5	(35)	20.8	(21)
Don't know or other	1.7	(13)	0.6	(1)	2.1	(12)	12.7	(68)	21.1	(36)	17.8	(18)
	100.0%	(753)	100.0%	(177)	100.0%	(576)	100.0%	(534)	100.0%	(171)	100.0%	(101)

Items listed in the same order in which they were read to the respondents.

TABLE 4. FORMS OF COMMUNITY PROBLEM SOLVING: SETTLERS/GENERAL POPULATION (cont)

	Entire Reform Sample		Settlers				General Population (males only)				
	%	(N)	Atlantic Basin	Other Settlements	Non-Agricultural	Landed Peasants	%	(N)	Landless Peasants	%	(N)
Talk to a <u>municipio</u> or <u>diputado</u>	55.6	(419)	53.7 (95)	56.3 (324)	37.3 (199)	40.4 (69)	40.6	(41)			
Organize public meetings	26.0	(196)	28.8 (51)	25.2 (145)	27.5 (147)	19.3 (33)	26.7	(27)			
Ask a political party for help	7.2	(54)	10.2 (18)	6.3 (36)	3.6 (19)	7.6 (13)	4.0	(4)			
Organize a strike	6.6	(50)	5.6 (10)	6.9 (40)	1.7 (9)	1.8 (3)	1.0	(1)			
Don't know or other	4.5	(34)	1.7 (3)	5.4 (31)	30.0 (160)	31.0 (53)	27.7	(28)			
	100.0%	(753)	100.0% (177)	100.0% (576)	100.0% (534)	100.0% (171)	100.0%	(101)			

Items listed in the same order in which they were read to the respondents. The general population sample included the alternative "speak to a member of the community development association." A total of 22.7% of non-agricultural respondents, 15.2% of landless respondents and 12.9% of landed respondents selected this alternative.

and therefore are somewhat less conclusive than the findings presented in the first panel. Nonetheless some of the results are quite interesting. God's help and cooperation of neighbors were the two most popular alternatives, chosen by about one-third of all the respondents. Assistance of the national government was chosen by one out of five respondents, and municipal assistance by only one out of 10. These findings stand in marked contrast to the general population, among which God's help was the least popular choice (16 percent) and the other responses were chosen between a fifth and one-quarter of the respondents, with no one choice clearly predominating. Relatively few of the beneficiaries would turn first to the national government or to the municipality to resolve local problems. Rather they would rely upon their own resources. In a country like Costa Rica, where demands on national resources far exceed the supply, these attitudes are very helpful. They indicate that the individuals in the reform beneficiary settlements are ready and willing to rely upon their own resources to solve problems, rather than to demand them from the national or local government. In such an environment, community development programs are more likely to be successful.

The findings in the final panel of Table 4 reveal that the reform beneficiaries are political realists. That is, when attention is turned away from solving local problems toward potentially unjust treatment from the government, the beneficiaries realize that the fastest way to achieve relief is by talking to a politician. Over half (56 percent) of the beneficiaries stated that talking to a municipal councilman or a congressman was the fastest way to get results. An additional quarter of the beneficiaries stated that they would organize public meetings.

At first glance, the responses to this item for the general population appear to be rather different from that of the reform beneficiaries; however, this is largely as a result of the much higher percentage of non-response, and slightly different response options. However, when these incompatibilities are eliminated statistically, the results appear to be rather consistent. For example, it is noted that the order in which the choices are selected is identical for both the reform sample and the general population. That is, talking to a municipal councilman or congressman is the most frequently chosen, followed by organizing public meetings, followed by asking a political party for help and concluded by organizing a strike. The reform beneficiaries in the Atlantic Basin responded approximately the same way on this item as did those in the rest of the country.

Optimism/ Pessimism Regarding Problem Solving.

The above question indicated the ways in which reform beneficiaries go about solving local problems. It is important to know how optimistic or pessimistic the beneficiaries feel that these activities are likely to be successful. These data are reported in Table 5.

The respondents were very optimistic about solving the problems, with 71 percent responding that they had "high hopes" and only 7 percent stating that they had "little hope." It is interesting to note that the Atlantic Basin beneficiaries were even more optimistic, with 89 percent of them having high hopes and only 5 percent having little hope, a difference which is statistically significant. However, it must be once again kept in mind that the Atlantic Basin beneficiaries were *less* likely to have named a problem and been involved in solving such a problem than the general population. Therefore, this greater optimism should be seen as representing the views of a somewhat smaller but more activist portion of the population.

Seriousness of Local problem.

The concluding item concerns local problem solving attempts to tap the extent to which individuals felt that the problems they have are serious. It is clear from the bottom panel on Table 5 that the respondents feel the problems are quite serious. Fully 77 percent of the general population felt that the problem would affect them a lot, compared to 59 percent of the non-agricultural component of the general population. Similarly, only 5 percent of the reform beneficiary sample felt that the problem would affect them "not at all" compared to twice that (12 percent) in the general population.

An explanation for these findings emerges when one compares the non-agricultural population to the two peasant samples in the general population. There it is found, as shown in Table 5, that the non-agricultural population feels significantly less affected by the problems mentioned than does the peasant population. This can only mean that Costa Rican peasants feel more severely affected by local problems than do urbanites. For example, peasants who have inadequate roads connecting their farms to the towns and market places find it either difficult or impossible to transport their products to the market. Urbanites who complain about a bad road, however, perhaps are discomforted only by bumpiness or minor traffic delays on the way to work. They would not be prevented from getting to work.

TABLE 5. OPTIMISM / PESSIMISM REGARDING SOLUTION OF LOCAL PROBLEMS

Question: What hopes would you have that the problem (previously mentioned by respondent) would be resolved if you tried to resolve it? Would you have high hopes, average hope or little hope?

	Entire Sample ^a		Atlantic Basin		Other Settlements	
	\bar{x}	(N)	\bar{x}	(N)	\bar{x}	(N)
High hopes	70.8	(432)	88.7	(141)	64.5	(291)
Average hope	22.5	(137)	6.3	(10)	28.2	(127)
Little hope	6.7	(41)	5.0	(8)	7.3	(33)
	100.0%	(610)	100.0%	(159)	100.0%	(451)

Tau c = .18 Sig. (of Tau) = <.001

^a Respondents to this item include only those who named a problem. Of those 645 respondents, 35 had no opinion on this item (5.4% of those mentioning a problem).

Question: Would you say that the problem(s) you have just mentioned affect you and your family a lot, somewhat or do not affect them?^b

	\bar{x}	(N)	Atlantic Basin		Non-Atlantic Basin		General Population (males only) ^c					
			\bar{x}	(N)	\bar{x}	(N)	Non-Agricultural	Landless Peasants				
A lot	77.2	(494)	88.7	(141)	73.4	(353)	59.2	(213)	68.1	(64)	73.5	(50)
Somewhat	18.0	(115)	5.7	(9)	22.0	(106)	29.2	(105)	24.7	(23)	17.6	(12)
Not at all	4.8	(31)	5.7	(9)	4.6	(22)	11.7	(42)	7.4	(7)	8.8	(6)
	100.0%	(640)	100.0%	(159)	100.0%	(481)	100.0%	(360)	100.0%	(94)	100.0%	(68)

Tau c = .11 Sig. (of Tau) = <.001 Tau c = .10 Sig. (of Tau) = .008 Sig. = ns

^b Respondents to this item include those who stated that there were problems in the community, even if, in a subsequent problem, no specific problem was mentioned.

^c Source: 1976 National Probability Sample.

It is noteworthy that the Atlantic Basin beneficiaries feel more seriously affected by the problems than do other ITCO beneficiaries. Fully 89 percent of those living in the Atlantic Basin felt that they were affected "a lot" by the problems, a significantly higher percent than those elsewhere. Hence, even though the Atlantic Basin beneficiaries are more hopeful that the problems will be resolved, they also feel more severely affected by the problems.

Frequency

The tables discussed so far have focused primarily on attitudes toward cooperative behavior. The data regarding actual participation in various cooperative endeavors have been limited to those individuals who indicated that they had actually become involved in helping solve a community problem (see Table 4, top panel). The data, therefore, do not provide information on the cooperative behavior of the entire sample. In order to get a complete picture of cooperative behavior among all the respondents, a different set of questions was asked. Some of the results of the question regarding cooperative behavior are summarized in Table 6, where six of the ten organizations named for the respondent are listed. [3] The data in Table 6 also contain comparable data from the general population sample.

Several important conclusions emerge from an examination of Table 6. First, since the organizations are listed in order of the frequency with which they are attended, it is clear that cooperatives are far and away the most important organization among settlers. Over half of the settlers attend cooperative meetings at least some of the time, and fully one-third are frequent attenders. No other organization achieves such a high rate of attendance. This finding is not surprising for on nearly all the settlements, there are cooperatives to attend to the production, marketing, and credit needs of the beneficiaries. However, looked at from a different perspective, it is surprising that despite the existence of cooperatives on the settlements, slightly less than half of the beneficiaries state that they never attend cooperative meetings. Since cooperatives are viewed as so vital to the success of the reform programs, and are assigned a central role in the new settlements being undertaken in the Atlantic Basin, one may want to know why only about half of the settlers are involved in cooperatives and another half are not.

In this connection, a second important finding emerges. As can be seen from Table 6 (footnote a), there is only one organization on which there was any significant difference between the Atlantic Basin settlers and settlers elsewhere, and that was in cooperatives. An explanation of why this is so will emerge in the analysis of the predictors of cooperative behavior presented in Table 9.

The finding of lower cooperative involvement among Atlantic Basin settlers is consistent with information reported in the tables presented

TABLE 6. COOPERATIVE BEHAVIOR: SETTLERS / GENERAL POPULATION

Question: I am going to name several organizations. Tell me if you attend their meetings and if so, how frequently.

Organization and attendance	Entire Reform Sample ^a	General Population ^b (males only)					
		Non-Agricultural		Landless Peasants		Landed Peasants	
		%	(N)	%	(N)	%	(N)
Cooperative:							
Frequent	36.0 (271)	4.1 (22)	2.3 (4)	4.0 (4)			
Once in a while	11.0 (83)	3.4 (18)	0.6 (1)	7.9 (8)			
Infrequently	6.1 (46)	2.1 (11)	1.8 (3)	5.9 (6)			
Never	46.9 (353)	90.1 (481)	95.3 (163)	82.2 (83)			
	100.0% (753)	100.0% (532)	100.0% (171)	100.0% (101)			
School Board:							
(either School Board or PTA)							
Frequent	12.1 (91)	3.2 (17)	8.2 (14)	4.0 (4)			
Once in a while	8.1 (61)	3.0 (16)	6.4 (11)	7.9 (8)			
Infrequent	6.0 (45)	1.9 (10)	2.3 (4)	7.9 (8)			
Never	73.8 (556)	91.8 (490)	83.0 (142)	80.2 (81)			
	100.0% (753)	100.0% (533)	100.0% (171)	100.0% (101)			
Parent-Teacher Association:							
Frequent	10.4 (78)						
Once in a while	7.2 (54)						
Infrequent	6.2 (47)						
Never	76.2 (574)						
	100.0% (753)						
(see above)							
Community Development Association:							
Frequent	5.6 (42)	1.7 (9)	5.3 (9)	6.9 (7)			
Once in a while	4.0 (30)	2.6 (14)	1.8 (3)	9.9 (10)			
Infrequent	1.9 (14)	3.4 (18)	2.9 (5)	2.0 (2)			
Never	88.6 (667)	91.1 (491)	90.1 (154)	81.2 (82)			
	100.0% (753)	100.0% (532)	100.0% (171)	100.0% (101)			
Municipality: (i.e., county council)							
Frequent	0.9 (7)	1.9 (10)	0.0 (0)	4.0 (4)			
Once in a while	3.6 (27)	2.2 (12)	1.2 (2)	4.0 (4)			
Infrequent	5.0 (38)	3.2 (17)	1.8 (3)	4.0 (4)			
Never	90.4 (681)	92.7 (494)	97.1 (166)	88.1 (89)			
	100.0% (753)	100.0% (533)	100.0% (171)	100.0% (101)			
Political party:							
Frequent	1.1 (8)	2.6 (14)	1.2 (2)	4.0 (4)			
Once in a while	2.5 (19)	1.3 (7)	1.8 (3)	1.0 (1)			
Infrequent	3.5 (26)	0.9 (5)	1.8 (3)	2.0 (2)			
Never	93.0 (700)	95.1 (506)	95.3 (163)	93.1 (92)			
	100.0% (753)	100.0% (532)	100.0% (171)	100.0% (101)			

(One or two cases of missing data in these variables were encountered)

^aNo significant differences in organizational activism appeared between Atlantic vs. Other Settlement Basin settlers except for cooperatives for which it was found that whereas 58.0% of Other Settlements settlers attend cooperative meetings, only 37.5% of Atlantic Basin settlers do.

^bData from 1976 National Probability Sample.

earlier in this paper. For example, there were indications that the Atlantic Basin settlers had lower trust than other settlers (Table 1), and that, as indicated in Table 2, interpersonal trust among the settlers themselves was lower in the Atlantic Basin (Table 2). In addition, there were more negative attitudes toward group cooperativeness (Table 3). Finally, although Table 4 revealed that among those who named community problems and stated they had done something to help resolve a problem, meeting attendance was higher in the Atlantic Basin than elsewhere, Atlantic Basin beneficiaries were less likely to have named a problem and to have attempted to do something about solving that problem. Therefore, it appears that among Atlantic Basin beneficiaries, cooperative behavior is lower. However, these findings appear confined to participation in cooperatives. No significant differences emerged on the frequency of attendance in any of the other organizations listed in Table 6. Therefore, this evidence of non-cooperativeness should be distinguished in terms of the type of organizations, namely cooperatives versus other community organizations.

That the extent of cooperative meeting attendance among reform beneficiaries is high can be appreciated from a comparison with the general population, shown in Table 6. Whereas 47 percent of the reform beneficiaries never attend cooperatives, 90 percent of the non-agricultural population, 95 percent of the landless peasants, and 82 percent of the landed peasants do not do so. Hence, cooperative meeting attendance is nearly twice as frequent as it is in the general non-agricultural population.

These findings should come as no surprise. Among the non-agricultural sectors of the general population cooperatives are far less popular than they are in rural areas. In urban areas, savings and credit cooperative are the most frequently encountered cooperatives. Although the savings and credit cooperative is comparatively popular in urban Costa Rica, it generally attracts only the working class strata of society. Moreover, since the initiation of the Banco Popular some years ago, many small savers are likely to use that institution rather than cooperatives. In rural areas, Costa Rica's landless peasants rarely earn sufficient money to permit them to save. Their salaries normally place them at, or even slightly below, subsistence levels. Moreover, since they are not owners of the means of production, they have little economic motivation for forming cooperatives. Landed peasants in Costa Rica, however, more often become members of cooperatives. These cooperatives are frequently used for the marketing of their goods, particularly coffee and sugar. The

reform beneficiaries, on the other hand, own the means of production, have long been encouraged by ITCO to form cooperatives, and clearly stand out as being unusually participatory in these organizations.

The school board and parent-teacher association, are, respectively, the second and third most popular organizations among the reform beneficiaries. In Costa Rica virtually every rural community has its village school, and all schools are required by law to have a school board (Junta de Educación) and a parent-teacher association (Patronato de Educación). The school board does not have control over curriculum or hiring and firing, as it does in the United States, but it is nonetheless a key organization in most rural communities. The parent-teacher association helps raise money for the school so it can improve classroom facilities and the materials supplied to the students.

Among the reform beneficiaries, approximately one-quarter of the respondents participate in school board or parent-teacher association activities. Indeed, over ten percent report frequent attendance in such activities. Since participation in these activities can be expected only from those who have children in the school system, participation could not be expected from the 14 percent of the respondents who have no children. Hence, that one-quarter of the respondents participate in school-related activities whereas three-quarters do not must be viewed within the context of these demographic parameters.

A comparison of the school-related activity participation of the reform beneficiaries with that of the general population reveals significantly higher participation among the former. As shown in Table 6, only 8 percent of the general population says it is involved in either the school board or the PTA, compared to approximately one-quarter of the reform beneficiaries. [4] Moreover, among the non-agricultural components of the general population, only 3 percent state that they attend school-related meetings frequently, compared to 4 times that (12 percent) in the reform sample, and about three times more (10 percent) in the reform sample for parent-teacher association activities.

This difference is partly accounted for by examining participation in school-related activities among the peasant components of the general population. It is seen that participation in these activities is higher than it is among the non-agricultural population, although still significantly lower than among the reform beneficiaries. That is, close to a fifth of the peasant component of the general population participates at least to some extent in school board or PTA meetings. Since peasants in Costa Rica have more children than those living in urban areas, a primary determi-

nant of the higher participation of the peasants in school board activities may be directly related to their having more children. This finding is substantiated by the fact, noted elsewhere (Seligson, 1979) that landless peasants in Costa Rica are likely to have fewer children than landed peasants, largely because landed peasants find that their children can help them on their farms. Therefore it should be no surprise that landed peasants are somewhat more active than landless peasants in terms of their participation in school-related activities. Yet, the fact that reform beneficiaries participate in school-related activities to an even greater extent than the landed peasants of the general population indicates that above and beyond having children, there are other factors at work stimulating participation among the reform beneficiaries.

It would appear appropriate to conclude, therefore, that although the higher incidence of children among the reform beneficiaries as compared to the non-agricultural part of the population helps explain school-related participation, this is not the only factor. That is, reform beneficiaries are more active in school-related activities than one would anticipate given the proportion having children. However, this contention needs to be examined more carefully through a detailed analysis of family size among reform beneficiaries compared to that of the general population, an examination that would take us beyond this analysis.

An examination of participation in the remaining organizations listed in Table 6 is somewhat less interesting. That is because participation in these organizations (community development association, municipal council, political party) is rather infrequent. In addition, no notable difference appears between the reform beneficiaries and the general population, with perhaps one exception. It is found that slightly more than one in ten reform beneficiaries (11 percent) participate in community development associations, a figure which differs little from the non-agricultural population and the landless peasants. However, among the landed peasants of the general population the figure jumps to almost two in ten (19 percent). Hence, among the landed peasant population, community development association activities appear to be more attractive than among any of the other groups examined in Table 6.

Attendance at municipal meetings is only found among one in ten of the reform beneficiaries (9.5 percent), and quite less than that among the non-agricultural and landless peasants of the general population. A slightly higher percentage (12 percent) of the landed peasants attend municipal meetings, but the difference is not significant. Finally, political party meetings are attended by less than one in ten (7 percent) of the

reform beneficiaries and by about the same proportion of the general population (landed peasants).

In summing up this discussion, it is clear that participation in cooperatives is the most common form of organizational activism among the reform beneficiaries, and therefore it needs to be singled out for particular attention. Participation in other forms of community organizations is far less frequent and is probably best dealt with as a whole. Finally, reform beneficiaries distinguish themselves from the general population only in terms of higher participation in cooperatives and in school-related activities. In other areas of participation, their behavior is about the same as that encountered in the general population.

Indices of Cooperative Behavior

The analysis proceeds to an assessment of the factors which encourage or discourage cooperative behavior among beneficiaries.

Two separate indices of cooperative behavior are created and presented in Table 7. As pointed out in Table 6, participation in cooperatives is far higher than in any other organization among the beneficiaries. Moreover, it is of crucial importance to the success of the projects being planned in the Atlantic Basin. Therefore, an index called "cooperative activism" is created and presented in the top panel of Table 7. This index measures participation, membership, and leadership of cooperatives. The second index created on Table 7 is the communal activism index, which is an index of participation, membership and leadership of the various organizations listed on Table 6 other than cooperatives. Not included in the communal activism index is participation in political parties. This was done so as not to confuse communal participation with participation that relates to politics at the national level, which is the primary focus of political party participation in Costa Rica. Hence, communal activism focuses on community development kinds of activities. [5]

Looking first at the cooperative activism index, the over all data confirm the findings already presented in Table 6 with respect to differences between the Atlantic Basin and elsewhere. The mean score of the index, which ranges from zero to five, is 1.3 for the Atlantic Basin beneficiaries, and 2.2 for the other beneficiaries, a difference which is statistically significant.

Turning to the communal activism index in the bottom panel of Table 7, no major differences emerge between the Atlantic Basin and other beneficiaries. Hence, communal activism participation goes on at about the same levels in the Atlantic Basin as it does in the rest of the country.

TABLE 7. DISTRIBUTION OF INDICES OF COOPERATIVE BEHAVIOR

Cooperative Activism Index: ^a						
Index Score	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Lo 0	46.6	(351)	62.7	(111)	41.7	(240)
1	1.7	(13)	1.7	(3)	1.7	(10)
2	5.2	(39)	5.1	(9)	5.2	(30)
3	8.6	(65)	9.6	(17)	8.3	(48)
4	25.1	(189)	16.4	(29)	27.8	(160)
Hi 5	12.7	(96)	4.5	(8)	15.3	(88)
	100.0%	(753)	100.0%	(177)	100.0%	(576)
Mean	2.0		1.3		2.2	
Std. dev.	2.0		1.8		2.0	

T value = 6.02 Sig. = <.001

Communal Activism Index: ^b						
Index Score	Entire Sample		Atlantic Basin		Other Settlements	
	%	(N)	%	(N)	%	(N)
Lo 0	55.2	(416)	50.3	(89)	56.8	(327)
1	4.2	(32)	5.1	(9)	4.0	(23)
2	8.4	(63)	7.9	(14)	8.5	(49)
3	6.1	(46)	6.8	(12)	5.9	(34)
4	7.2	(54)	7.3	(13)	7.1	(41)
5	8.1	(61)	9.0	(16)	7.8	(45)
6	3.7	(28)	4.5	(8)	3.5	(20)
7	1.6	(12)	1.1	(2)	1.7	(10)
8	1.5	(11)	2.3	(4)	1.2	(7)
9	1.6	(12)	1.7	(3)	1.6	(9)
10	1.3	(10)	2.8	(5)	0.9	(5)
11	0.4	(3)	0.0	(0)	0.5	(3)
12	0.4	(3)	1.1	(2)	0.2	(1)
Hi 13	0.3	(2)	0.0	(0)	0.3	(2)
	100.0%	(753)	100.0%	(177)	100.0%	(576)
Mean	1.9		2.3		1.8	
Std. dev.	2.7		3.0		2.7	

T value = -1.68 Sig. = ns

^aA summated index composed of frequency of participation in cooperative meetings and membership/leadership in a cooperative. Scores are as follows: non-attendance = 0 pts.; infrequent attendance = 1 pt.; attend once in a while = 2 pts.; frequent attendance = 3 pts.; non-member = 0 pts.; member = 1 pt.; leader = 2 pts.; Maximum hi score is 5 pts.

^bA summated index composed of frequency of participation in and membership/leadership of: school board, parent-teacher association, community development association, municipality. Index scored as in note a above, with theoretical maximum score of 20.

Correlates of Cooperative Behavior

Table 8 begins the discussion of the factors which are related to cooperative behavior. This table presents the correlates (Pearson r) of the cooperative activism index and the communal activism index.

As can be seen from a cursory examination of Table 8, there are many more variables correlated with the cooperative activism index than with the communal activism index. This makes sense since communal activism is much less common than cooperative activism among the reform beneficiaries. Hence, the various correlates are attempting to predict a much rarer form of behavior in communal activism than they are among cooperative activism.

Two variables stand out as being strong correlates of the cooperative activism index: number of families in the settlement and size of the settlement in hectares. In fact, these two variables are really different measurements of the same thing, namely, the size of the settlement. Settlements which are larger in size almost invariably tend to have a larger number of families. Hence, size is quite clearly related to activism in cooperatives among the reform beneficiaries. The relationship, however, is an inverse one. Specifically, the larger the size of the settlement, the lower the cooperative activism index ($r = -.58$ for families, and $-.56$ for size in hectares).

The finding of a strong if negative relationship between size and cooperative behavior is significant. The correlation indicates that larger settlements tend to discourage cooperative participation, whereas smaller settlements tend to encourage it. This finding corresponds to considerable research on participation in many countries. The study by Dahl and Tufte (1973) confirms that participation worldwide tends to be higher in smaller units. In Costa Rica this same finding has been confirmed by Booth (1975b), in which he found that participation was highest in small communities and much lower in larger towns and cities.

Two factors are thought to be at work in stimulating higher cooperative activity in small communities. First, small communities mean a higher rate of person-to-person, face-to-face interaction, which is likely to be more satisfying than more impersonal contacts. Individuals in small communities can become involved and actually see the fruits of their labor, a satisfaction which is not obtained in larger more impersonal situations. A second factor involved is that in small communities individuals need to become more self-reliant because there is less likelihood of outside assistance. In the larger communities, the govern-

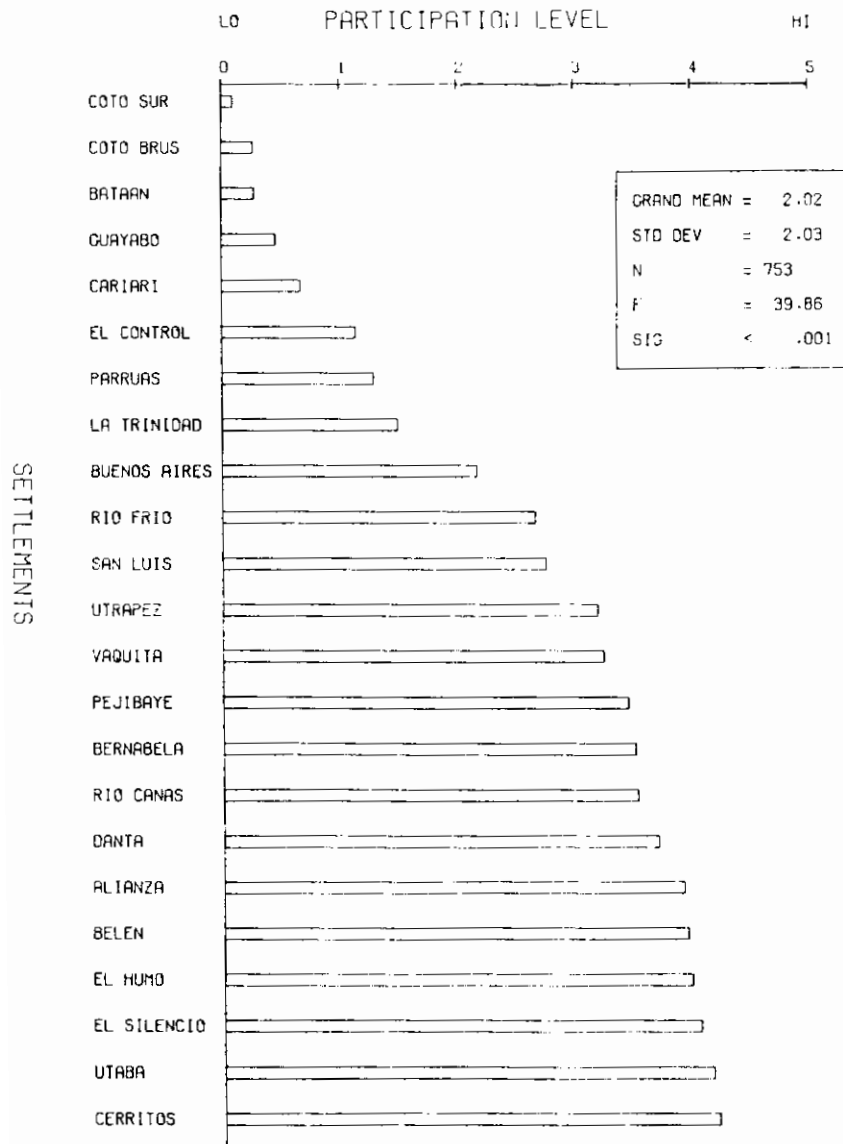
TABLE 8. CORRELATES OF COOPERATIVE BEHAVIOR*

Independent Variables (and source table)	Dependent variables	
	Cooperative Activism Index	Communal Activism Index
	<u>r</u>	<u>r</u>
No. of families in settlement (II.1)	-.58	ns
Size of settlement in hectares (II.1)	-.56	ns
Interpersonal trust among settlers (V.2)	.21	ns
Gini index of cantonal land inequality	.17	ns
Gini index of district land inequality	.24	ns
Group cooperativeness index (V.3)	.18	ns
Length of residence in settlement (II.9)	-.12	ns
Length of residence in village (II.8)	.19	ns
Socio-linguistic index of SES	.14	ns
Marital status, married vs. other (II.3)	ns	.15
Frequency of church attendance	ns	.10
Index of condition of dwelling unit (II.14)	.24	ns
Problem solving efficacy scale (V.4)	ns	.21
Index of efficacy toward local bureaucrats (IV.2)	ns	.09
Size of land owned (II.11)	-.19	.12
Index of ownership of household artifacts (II.14)	.15	ns
Years of formal education (II.15)	.14	ns
Family member invaded land (IV.7)	.07	ns

*Includes only variables which are statistically significant at the .05 level or better with either or both dependent variables. N varies owing to non-response. See source tables for frequencies.

ment at both the national and local level finds it efficient to send in various forms of resources, both material and human, whereas such assistance is more difficult to render on an efficient basis in the smaller communities. Indeed, ITCO itself might find it more difficult to service the smaller settlements, and it is generally impossible to have full-time ITCO employees located on each of these small settlements. In the larger area, however, ITCO often maintains fairly large staffs. It would not be surprising, therefore, that beneficiaries would tend to leave it up to the public employees to take care of the work of the cooperative rather than take it on their own shoulders.

FIGURE 1. Participation Levels Per Settlement



The strength of relationship between size and cooperative activity leads one to examine this relationship in more detail. Is there an extraneous quality about the particular settlements involved which would stimulate cooperation in the smaller ones but not in the larger ones? If such were the case, the high correlation would be spurious. An examination of figure 1, in which the actual scores of the cooperative activism index are presented for each of the settlements in the study reveals this is indeed the case. The nine settlements with the highest cooperative activism index are all communal enterprise settlements, and the remaining two communal enterprises of the eleven in which the survey was conducted fall close behind. Hence, communal enterprises have levels of cooperative activism much higher than found in the bulk of the colonies and individual parcel settlements. Since the communal enterprises tend to be among the smallest settlements in the sample, it is likely that at least part of the relationship between cooperative activism and size is accounted for by the nature of the smallest settlements. That is, the smallest settlements are also the communal enterprise settlements. All of those communal enterprise settlements have cooperatives and in all of them, membership in the cooperative is essentially obligatory, since land is held in common and people are paid by virtue of the fact that they are members of the cooperative. However, as will be shown in the discussion of Table 9, the nature of the settlement is not the entire explanation for the relationship between size and cooperative activism. That is, size has an impact on cooperative activism above and beyond its relationship with the size of the communal enterprises. Therefore it will remain a crucial variable in the prediction of cooperative activism.

Other variables also are correlated significantly with cooperative activism but to a lesser extent than size. It is found that there is a significant correlation (-.19) between size of land holding and cooperative activism. That is, the larger the plot owned, the lower the cooperative activism. Since the smaller settlements tend to have smaller parcels of land, it is not surprising that cooperative activism is higher in those settlements, given the relationship just noted between the size of the overall settlement and cooperative activism.

Higher inequality in land distribution in the area in which the settlement is found is related to higher cooperative activism. That is, the Gini index of both cantonal and district land inequality is significantly correlated with cooperative activism ($r=.17$ and $.24$, respectively). Further analysis needs to be undertaken to determine why this relationship emerges, but it is possible that higher inequality in the distribution of

land in the area in which the settlement is located implies that the beneficiaries face stiffer competition from the agricultural enterprises in the area. That is, in those areas in which the land is more inequitably distributed, there may well be a few large farms with overwhelmingly powerful economic interests. In response to those forces, the settlers may feel that they are compelled to join together in cooperatives in order to form a united front against those powerful forces. However, the connection between land inequality and cooperative activism can only be hypothesized here, since there are no data in the survey to confirm the explanation just presented. Further analysis would be needed to confirm it.

Two attitudinal indicators are modest predictors of cooperative activism. It is found that an index of interpersonal trust has a correlation of .21 with cooperative activism, and an index of group cooperativeness has a correlation of $r = .18$. That is, those beneficiaries who are more favorably disposed to trust other settlers and to cooperate with other settlers indeed do so. This finding, while certainly not surprising, confirms the connection between attitudes and behavior suggested earlier in this paper.

Indicators of socio-economic status predict rather consistently, although not particularly strongly, cooperative activism. Education is found to have a correlation of .14 with cooperative activism, and an indicator of wealth based upon ownership of household artifacts has nearly the same strength of association ($r = .15$). A somewhat stronger socio-economic correlate of cooperative activism is found in the index of the condition of the dwelling unit, producing a correlation of .24. Finally, an unobtrusive measure of socio-economic status provided by a sociolinguistic index produces a correlation of .14.[6] Hence, as has been found in previous studies of participation, there tends to be an association between higher socio-economic status and participation. The better-off members of the community probably have more time to become involved in cooperative activism, and, perhaps more importantly, might feel they have a larger stake in the cooperative, and therefore are more active in it. In addition, it is likely that better-off members of the settlements are perceived as being the more successful by other members, and are therefore encouraged to take leadership roles in the cooperatives.

Length of residence produced two puzzling correlations. On the one hand, it is found that length of residence in the community in which the settlement is located produces a positive correlation ($r = .19$) with the cooperative activism index. However, length of residence in the settlement produces the opposite relationship ($r = -.12$). Although this rela-

tionship is puzzling, and further explanation is needed, it is possible that since ITCO has been actively involved in promoting cooperatives in recent years, a program which was less actively pursued in the early years of the settlements, those who have been on the settlements for many years and date from the early years, may have become accustomed to operating without a cooperative and therefore were less likely to join when ITCO began promoting this program. However, further analysis of this relationship is needed.

Finally, it is noted that there is a weak relationship between a family member having invaded land and cooperative activism. The interpretation of this correlation, which we would have expected to be positive, is difficult. It is probably related somehow to the dynamics of the settlement process, and the history in which the individual and his family became involved in the ITCO programs. Such data, however, are not provided by the survey instrument and would need to be explored in other studies.

Turning to the communal activism index, we find that few of the variables measured in this study were capable of predicting behavior of this type. The strongest predictor, not really very strong at all, is found in the problem-solving efficacy scale ($r = .21$). [7] That is, individuals who feel more efficacious with respect to solving local problems are more likely to be more active in community organizations. Such a finding comes as no surprise, and further confirms the connection between attitudes and behaviors in this study. The index of efficacy toward local bureaucracy is also significantly related to communal activism ($r = .09$), but this is a very weak association.

The second strongest variable related to communal activism is marital status. That is, individuals who are married are more likely to be involved in community activities than those who are not ($r = .15$). This finding comes as no surprise, since married individuals are more likely to have children and therefore to find themselves involved in a number of community activities, particularly those related to the school.

Size of land owned also is related ($r = .12$) to communal activism. What is somewhat puzzling about this relationship is that the larger the size of land owned by the individual, the higher the communal activism, whereas the smaller the amount of land owned, the higher the cooperative activism. Since, however, part of the relationship of cooperative activism to size was a function of the nature of the communal enterprises, this divergence is partially explained in such terms.

Finally, it was found that church attendance is associated with communal activism. Individuals who attend church more frequently are

more likely to be active in community affairs. This association is not a function of a correlation between church attendance and participation in church committee activities, since church committee participation was not included in the index of communal activism. However, one may attribute less substantive significance to this association, since individuals who attend church probably also live closer to the village center and have less physical difficulty in attending group functions.

Predictors of Cooperative Behavior

Analysis of the correlates of cooperative behavior permitted the exploration of bivariate (simple) relationships. However, the limitations of that approach are well known. In particular, it does not permit assessment of the relative strength of the association for each of the correlates of cooperative behavior, taking others into account. To do this it is necessary to enter the variables found to have a significant association with cooperative behavior into a multivariate analysis. This is done here through use of the technique of multiple regression. This technique enters all of the presumed causal variables into a regression equation in order to determine their relative predictive power. [8]

The results of two separate analyses are presented in Table 9. The top panel of the table presents the predictors of the cooperative activism index, and the bottom panel the predictors of the communal activism index. Of the 14 variables which were found to have some significant association with the cooperative activism index, only seven turn out to be significant predictors of that variable when taken together. An examination of the top panel of Table 9 reveals that, as demonstrated in Table 8, the strongest association is found with the size of the settlement. Since both size of settlement in hectares and size of settlement in terms of number of families living on it were very closely associated (multicollinear), only one of these variables was retained in the equation, namely, size in hectares. The beta weight indicated on the table shows that the size of the settlement in hectares is the strongest predictor (it has the largest beta weight) and, moreover, it is a very strong predictor of cooperative activism.

As was pointed out in the discussion of Table 8 and figure 1, the fact that the communal enterprises are also the smallest settlements has a distorting effect on the impact of this variable. That is, it tends to inflate its importance in predicting cooperative activism. In order to determine whether or not the size of the settlement would have a relationship with cooperative activism when the confounding effect of the communal

TABLE 9. PREDICTORS OF COOPERATIVE BEHAVIOR AMONG SETTLERS*

<u>Dependent variable: Cooperative Activism Index</u>		
Independent variables (and source tables)	Beta	Sig.
Size of settlement in hectares	-.50	<.001
Gini index of district land inequality	.11	.001
Length of residence in settlement	-.13	<.001
Length of residence in village	.11	<.001
Family member invaded land	.09	.003
Group cooperativeness index	.08	.008
Interpersonal trust among settlers	.08	.013
	R = .62	
	R ² = .38	
	Sig. = <.001	
<u>Dependent variable: Communal Activism Index</u>		
Problem Solving Efficacy Scale	.20	<.001
Marital status, married vs. other	.15	.001
Size of land owned	.10	.024
	R = .27	
	R ² = .08	
	Sig. = <.001	

*Final step of stepwise multiple regressions.

enterprise situation is eliminated, those settlements were dropped from the analysis and the regression equation was re-run exactly as indicated on Table 9. It is found that the relationship between the size of the settlement and cooperative activism is not a spurious relationship. That is, although the correlation between size of settlement and cooperative activism drops when the communal enterprises are eliminated, it remains quite high. It will be recalled that the size of the settlement in hectares had an r value of .56 with the entire sample, whereas with the communal enterprises eliminated, it is reduced to only -.45. Moreover, entered into the regression equation for the subset of non-communal enterprise settlements, the size of the settlement in hectares still remains the

strongest predictor of cooperative activism. Therefore, one can conclude that size is strongly and closely related to cooperative activism. Settlements which are smaller are likely to produce higher levels of cooperative activism.

The second best predictor of cooperative activism is the Gini index of district land inequality. While this variable is a much weaker predictor than the size of the settlement (beta weight of .11 compared to beta of -.50), it nonetheless makes a significant contribution to the equation. Hence, settlements located in districts where land inequality is higher are likely to find higher cooperative activism. It was also found, as explained in the analysis of Table 8, that length of residence in the settlement and length of residence in the village are both significant predictors of cooperative activism. Length of residence in the settlement is negatively associated with cooperative activism whereas length of residence in the village is positively associated. The regression equation also uncovers a significant relationship between the respondent having a family member who had invaded land on the one hand, and cooperative activism on the other.

Two attitudinal indicators are found to have a significant association with cooperative activism in the regression equation, but these are the weakest of all the predictors. That is, the group cooperativeness index and interpersonal trust among settlers were both found to be predictors of cooperative activism; however, their beta weights are quite low (.08) and they add very little predictive power to the equation. Therefore, these attitudinal factors are far less important in predicting cooperative activism than are the other variables which had entered the equation earlier on.

In sum, this effort to predict cooperative activism proved to be highly successful. An indication of this is that the multiple correlation coefficient is very high ($R = .62$). Hence, this study has been able to determine, to a large extent, key factors which are conducive to high cooperative activism in the ITCO settlements.

Less success was achieved in predicting communal activism. As shown on the bottom panel of Table 9, only three variables were found to have a significant association with communal activism, and the multiple R of the equation is only .27. Hence, the analysis is able to predict almost five times the amount of variance in cooperative activism as it can on communal activism.

The strongest predictor of communal activism turns out to be the problem solving efficacy scale. Thus, it appears that efficacious indi-

viduals are more likely to become active in community affairs. Marital status proved to be the second most powerful predictor, those who were married being more likely to be active in community affairs. Finally, size of land owned was a significant predictor of communal activism: the more land one owns, the more likely it is that one will be active in communal affairs.

SUMMARY

Almost all observers agree that a key to the success of ITCO settlements is the establishment and maintenance of active and viable cooperatives. If this is so, the analysis presented in this paper helps to highlight those factors which are likely to be conducive to the success of these cooperatives. Moreover, the data presented here point to ways in which such participation can be augmented. Fortunately, the key variable in determining cooperative behavior is one which is manipulable. That is, the size of the settlement is perhaps the one variable which is most directly under the control of the land reform agency. If it were otherwise, and cooperative activism were best predicted by such things as attitudes, then the prescription would be much more difficult, since social scientists have been particularly unsuccessful in suggesting mechanisms for attitudinal change. The results presented in this paper strongly point to smaller settlements as contributing to active cooperative behavior.

At first glance, it might appear that although the size of the settlement is manipulable by ITCO, there are certain economic constraints which make opting for very small settlements impractical. That is, ITCO usually acquires land as complete parcels, having expropriated them from owners of farms. Moreover, ITCO's new policy orientation in the 1970s has guided it toward the expropriation of functioning farms which have a well developed infrastructure. This frequently means that the expropriation will be on larger farms. In addition, the agency's financial and legal resources are more efficient when it expropriates one or two large properties, since the process of acquiring many smaller ones is a tedious and often expensive one. Moreover, and most importantly, the process of land reform in Costa Rica is directed at the larger farms rather than at those which are smaller. There would be considerable social and political resistance toward a redirection of ITCO's efforts away from larger farms toward smaller ones. Hence, such a policy is entirely impractical.

The factors mentioned above, however, do not mean that ITCO needs

to revise its land acquisition policies. Rather, what the findings here suggest is that it revise its settlement policies. Hence, land acquired in large parcels can be divided into smaller administrative units. Each unit could establish its own cooperative, although there could be ties among the cooperatives in the area. That is, there could be a common pooling of machinery and credit. But the actual operation of the cooperatives, the membership and the election of officers, should take place in small units.

How small should these units be? Some guidelines are given in the information presented in Figure 1 in conjunction with data on the size of the settlements. The two settlements which have the highest scores on participation in cooperatives are Cerritos and UTABA, settlements which have 21 and 23 members respectively. However, El Silencio, which has 53 members, has a participation score which is only slightly lower than that of UTABA and Cerritos. Hence, it would appear that membership can reach as high as the fifties and still be likely to produce satisfactory levels of participation. However, once membership approaches 100 or more, cooperative participation drops precipitously. While there is not a perfect association between size and participation as indicated by, for example, the relatively small size of Guayabo and its rather low levels of cooperation, the overall association does exist and needs to be recognized. Hence, it would appear that cooperatives which have membership in the order of approximately 40 to 60 members would be ideal for stimulating participation. Hence, any large-scale appropriation should be planned in such a way that the settlement is divided into a number of sub-settlements such that each will have cooperatives of the indicated number of members.

No doubt, before such a policy is contemplated further, more data are needed. A specific and careful investigation has to be made of cooperatives on other ITCO settlements. Those that have succeeded as well as those that have failed have to be studied in some depth. The data presented in this paper deal with participation in cooperatives, a variable which is viewed as a key to success. It does not, however, examine whether or not the cooperatives have in fact been successful. This information would need to be factored into any effort to restructure ITCO planning for future settlements. Hence, before one would seek to establish policy in this area it would be necessary to embark upon such an in-depth study. One would not necessarily need to confine the analysis solely to the ITCO settlements. Data could be gathered on the vast array of other agricultural cooperatives in Costa Rica to try to gain additional information from the experiences found there.

The only other variable which predicts cooperative behavior and which is "manipulable" by ITCO is the length of residence in the village. While ITCO cannot, obviously, increase or decrease a beneficiary's length of residence in the village, it can use the length of residence as a criterion in selecting prospective candidates for ITCO projects. Hence, the data presented in Table 9 would suggest that those individuals who have long-term residence in the nearby villages around the settlements being planned would be preferable beneficiary candidates. Alternatively, the findings might discourage ITCO from allowing individuals who do not live near the settlements to become members. Obviously, this policy cannot always be adhered to. In many cases, there is no readily expropriable land in areas where there are many landless potential beneficiaries. In such cases some dislocation is to be expected. However, in any given settlement it would be best to try to seek a maximum number of individuals who have resided for a considerable length of time in the villages nearest the settlement. The presence of these individuals in the cooperative would help promote high levels of participation.

The finding that the Atlantic Basin beneficiaries tend to have lower levels of participation is more easily understood when it is recognized that all three Atlantic Basin settlements are rather large. Indeed, the three settlements in the Atlantic Basin are among the five largest settlements of the 23 analyzed in this study. In this connection, it is noteworthy that 2 of the 3 settlements being planned under the new ITCO program for the Atlantic Basin are also very large. Hence, it would be of considerable use if cooperatives with smaller numbers of members were considered for these new settlements.

CONCLUSION

This study has demonstrated that, at least in Costa Rica, peasant attitudes toward cooperation are surprisingly positive. It has been shown that reform beneficiaries show few signs of being incapacitated by pathological cultures of poverty, amoral familism, etc.

How successful, then, have the reform programs been in Costa Rica? Although there is no space in this paper to provide detailed information on this subject, it has been shown that the beneficiaries, for the most part, have not made dramatic economic gains (Seligson, 1982). Indeed, many live worse than the majority of Costa Rica's landless peasants. These findings would suggest that the "insufficient governmental support" thesis may bear the brunt of the explanation. That is, the causes of

economic difficulties experienced by the settlers cannot easily be laid at their feet, given the high levels of cooperative behavior which this paper has shown them to exhibit.

NOTES

1. The original items asked respondents either to agree or disagree with a statement. It has been found, in subsequent social science research, that individuals of lower socio-economic status tend to agree with the interviewer, believing that they are thereby ingratiating themselves to him/her (Crowne and Marlowe, 1964). The items used in this study have all been rephrased so as to eliminate an acquiescence response set. It was particularly important to do so, given the fact that the reform beneficiaries are, almost universally, of much lower socio-economic status than the non-agricultural sectors of the Costa Rican population.

2. The responses to the first question of Table 4 thus do not deal with the entire sample, but only with those who both named a problem and had done something to help resolve it. Hence, the responses on Table 4 concern 49 percent of the reform beneficiary sample.

3. The four excluded are the community welfare committee, the nutrition committee, the social protection committee, and the church committee. The motivation for eliminating the first three was that many of the communities in which the survey was conducted did not have such organizations in existence, and it would have been inappropriate to report on the non-participation of respondents in organizations in which they could not possibly have been members. An explanation as to the problem of non-participation in non-existent organizations and how this can be dealt with from a methodological point of view is contained in Booth and Seligson (1979). The church committee was eliminated from the list largely because much of the activity of this committee is related principally to the support of church activities, such as improving the building of a church and running various religious festivals. These activities are of a different sort from the type that are of major concern in this paper.

4. Unfortunately, the question put to the general population asked about school board or parent-teacher association and did not distinguish between the two; hence, if the respondent attended either the school board or the parent-teacher association the questionnaire recorded participation in these organizations.

5. The details concerning the method in which the indices were created is contained in Footnotes a and b of Table 7.

6. An extensive discussion of the measurement of this socio-linguistic index is contained in Seligson and Berk-Seligson (1978).

7. A full discussion of the construction and measurement of this scale is contained in Seligson (1980).

8. The particular approach used here is step-wise multiple regression. This technique selects the variable which has the greatest predictive power and enters it into the regression equation first. After this predictor has explained all the variance it is capable of doing, the second most powerful predictor in terms of the variance which has not yet been accounted for is entered. This process continues until all the variables which can have any significant capability of augmenting the prediction of cooperative behavior are entered.

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