

Social Capital in Guatemala: A Mixed Methods Analysis Technical Paper No. 12

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Table of Contents

I: Introduction

II: Social Capital: Empirical Evidence on Benefits and Costs

Benefits and Costs

Empirical Evidence

III: Data

Qualitative Data

Quantitative Data

IV: Findings: The Distribution of Social Capital

Quantitative Results

Qualitative Results

V: Findings: Barriers to and Opportunities for Acquiring Social Capital

Qualitative Results

Quantitative Evidence

VI: Findings: The Uses of Social Capital

Shaping Community Decision-Making, Managing and Acquiring Public Goods, and Managing Collective Resources

Coping with Shocks

Leveraging External Assistance

Determining Income, Consumption, and Poverty

Shaping Trust

VII: Conclusions

I: Introduction

This paper seeks to document the role and impact of different types of social relationships, or social capital, in Guatemala. The contribution of this paper is three-fold. First, this study combines quantitative data (from a large, representative national-level poverty study) and qualitative evidence (from villages in various parts of the country) to analyze social capital; to date, most empirical studies have drawn upon only one of these two sources. Second, it presents comprehensive and detailed empirical evidence about social capital in a developing country; at present, most comparable studies are concentrated in OECD countries. Third, it makes a number of concrete development policy recommendations on the basis of this unique empirical evidence.

Social capital encompasses the networks, norms, and trust that facilitate collective action for mutual benefit (Putnam, 1995). Social capital can be described in three basic dimensions (World Bank, 2000 and Woolcock, 2001). The first comprises immediate family members, neighbors, and close friends and is commonly referred to as “bonding” social capital. Members of “bonding” groups usually interact frequently and face-to-face, offering one another support. The second dimension consists of interactions among members of demographic groups, such as those of the same race, ethnicity, religion, or occupation. These interactions—which tend to be relatively infrequent, instrumental, and at arm’s length—constitute “bridging” social capital. The third dimension refers to the nature and extent of relations between the poor and representatives of formal organizations, such as banks, courts, schools, health clinics, and departments of agricultural extension. These ties can be called “linking” social capital.

The purpose of this paper is to conduct an in-depth analysis of social capital in Guatemala. The paper seeks to answer three questions using both qualitative and quantitative methods. First, the analysis establishes who actually has the asset called social capital, and to what extent. Second, the paper identifies the determinants of social capital to examine the barriers and opportunities that different groups encounter in their attempts to participate more widely in social organizations and collective action, which is what enables them to acquire social capital. Third, the study determines how social capital is used at the household and community level. The qualitative data complements these findings by providing a more contextually sensitive description of the mechanisms through which social norms and collective action develops. It also helps to identify some of the factors that drive participation in organizations and collective action, the uses to which social capital is put, and the dynamics that underpin the relations that the poor have with formal organizations. Qualitative data, however, has a number of disadvantages. It cannot act as a basis from which to generalize, it is subject to selection bias, and it is limited in the extent to which it can be used to establish causal relationships (Rao and Ibáñez, 2001). As such, we use the quantitative data to help us to identify the distribution of social capital among population groups, to demonstrate the determinants of social capital, and to provide general evidence regarding the uses of social capital.

The evidence presented in this study reveals that social capital is concentrated among privileged groups of the population. Moreover, the determinants of social capital and the characteristics of better-off individuals are similar, which implies that better-off individuals are also better endowed with, and are in a stronger position to accumulate, social capital. It is notable, however,

that social capital is an important asset for improving community decision-making, for leveraging external assistance, for mitigating shocks, and for increasing general trust.

The paper is organized as follows. Part II presents the benefits and costs of social capital, and briefly reviews the empirical evidence on this topic. In Part III, we describe the qualitative and quantitative data that we used. We present our findings in the next three sections; Part IV discusses the distribution of social capital, Part V describes the barriers and opportunities governing participation in collective organizations, and Part VI presents our findings on how social capital is used by communities, households and individuals. Finally, in Part V, we conclude and provide some policy recommendations.

II: Social Capital: Empirical Evidence on Benefits and Costs

Poor people have few financial and material resources with which to manage the challenges and opportunities that they encounter in life. Usually, however, they have access to particular social resources—kinship ties, networks, and community organizations—that they can call upon to help them both to “get by” and to “get ahead” (this distinction comes from Briggs, 1998). These social resources, as discussed above, are often referred to collectively as social capital. Importantly, while the social capital of the poor may be one of their primary assets, it can also be an economic liability when it exerts associated pressures in the form of obligations and norms that constrain their horizons, hopes, and access to formal institutions (such as government services). In a country such as Guatemala with its high level of inequality, ethnic diversity, regional disparity, and entrenched poverty, studying the forms of social capital available to different households and communities promises to yield important insights into the nature, extent, and experience of poverty.

Benefits and Costs

Social capital can generate both benefits and costs. Networks and the associated norms of reciprocity have intrinsic and instrumental value for the people who are in them and can potentially generate important spillover effects (Putnam, 2001). In certain circumstances (for example, when schools exclude girls), benefits may accrue solely to the participants of a particular group, thereby denying access to crucial resources to non-participants (Woolcock, 2001) and creating exclusionary rules. However, the benefits of social capital are numerous and usually offset its costs.

Trust is a consequence of social capital. Repeated social interactions generate trust because reputations and social sanctions induce actors to assess the long-term consequences of their current actions. Dense and overlapping networks promote reciprocity, reduce asymmetric information, and facilitate the coordination and communication that enhances trustworthy behavior (Putnam, 1993 and Fafchamps and Minten, 2002).

Trust is important for economic performance because it reduces transaction costs and the costs of disseminating information, thereby reducing the necessity of relying on formal coordination mechanisms. This facilitates exchange and increases the efficiency of markets. When social trust is widespread, individuals can frequently resort to making informal contracts and will have less need to rely on formal institutions for enforcement of agreements (Knack and Keefer, 1997,

Collier, 1998, Fuyukama, 1999, and Putnam, 2001). Sometimes the prevalence of informal exchanges in developing countries is necessary because of weak public and private institutions.) In poor countries where credit constraints prevail and the legal system is often inadequate, the impact of trust on economic development may be even greater (Knack and Keefer, 1997).

Societies that are rich in social capital are better able than others to reduce poverty and manage risk (Narayan, 1995 and Woolcock, 2001). Close connections (or “bonding” social capital) are important risk-management assets that provide people with economic support during shocks, help to smooth their consumption, and often act as informal sources of credit and insurance for the poor. Further, the poor can rely on local organizations to overcome exclusionary rules (Woolcock, 2001). More spatially and demographically diverse networks (or “bridging” social capital) can reduce income inequality by providing members with more and better information, options, and opportunities (Alesina and La Ferrara, 2000).

Social norms and trust improve the management of common pool resources and the provision of public goods because repeated interactions can solve free-rider problems. Individuals who live in small communities, in interacting and communicating frequently with one another, learn whom they can trust and the consequences of failing to abide by agreed-upon rules and informal norms. In these communities, shared norms and patterns of reciprocity created over long periods of time allow members to manage such common resources as irrigation systems and communal lands (Ostrom, 1990).

Economic returns can also be higher in communities with more extensive social and political linkages than in others. Households located in tight communities are more likely than others to implement informal mechanisms to share risk that allow them to engage in risky activities that yield higher economic returns than less risky activities. Furthermore, communities with effective coordination and communication mechanisms can facilitate technology diffusion (Narayan and Pritchett, 1999).

However, social capital can also hurt economic growth. Networks and associations that engage in rent-seeking behavior can lobby for preferential policies to provide themselves with private benefits despite the disproportionate costs for society as a whole (Olson, 1982). Moreover, powerful groups (such as those controlling extractive industries) that are disconnected from the society can dominate the state, thereby excluding large sections of the population (typically the poor) from enjoying the benefits of more inclusive public policies (Woolcock and Narayan, 2000). States in which easily controlled natural resources such as oil and diamonds comprise a dominant share of exports often have this problem (Woolcock, Pritchett, and Isham, 2001).

The benefits from horizontal associations can also be thwarted when groups isolate their members from any external influence or refuse access to some individuals. Associations with closed and sectarian rules may isolate their members from receiving outside information (Schuller, 2001) and encourage hostile behavior towards non-members (Fukuyama, 1999). Trust can be weakened when societies are polarized along ethnic, political, and religious lines, because these divisions reduce the opportunities for informal exchange, consensus building, and problem solving (Knack and Keefer, 1997 and Varshney, 2002).

There are other circumstances under which strong horizontal associations can become a serious constraint on efforts to overcome poverty or can become detrimental to non-members. Despite the rich stocks of social capital present in many ghetto areas or in youth gangs, for example, these groups can exercise negative pressure on their members, impeding their attempts to improve their employment prospects by staying in school by rewarding only their anti-social or destructive behavior (Portes and Landolt, 1996). Also, criminal organizations have considerable amounts of social capital based on their own contacts, networks, and power relations but are detrimental to economic efficiency and the welfare of society (Rubio, 1997).

The presence of strong horizontal networks may be the first line of defense in states that repress freedom of association and organized dissent. In Mexico, many of its poorest regions with the worst systems of governance nonetheless have strong local associations. Horizontal ties among indigenous groups have succeeded in reproducing long-standing traditions of cooperation, reciprocity, and self-help, but these organizations have been repressed from above for more than two decades (Fox, 1996). These forms of social capital, though crucially important for the well being of the poor, should thus be seen as substituting for a failed state. As such, the long-term task of development is to help local organizations and states to move from being substitutes to becoming complements (Woolcock and Narayan, 2000).

Empirical Evidence

Empirical research about the determinants of social capital and the influence of social capital on economic outcomes is based on three approaches. The first approach establishes how particular characteristics of individuals, households, and community shape participation and trust. The second approach seeks to establish whether social capital can influence economic outcomes such as income, expenditure, and access to credit among others at the household level. The final approach attempts to verify whether a causal relationship between trust and economic growth can be ascertained.

Studies identifying the determinants of participation in organizations and collective action activities contain plenty of evidence from developed countries. Di Pasquale and Glaeser (1998) have shown that homeownership creates incentives to participate in collective action in the United States and Germany. Since the quality of the community in which the property is located is capitalized into the property's value, households have incentives to participate in activities that enhance the community. Helliwell and Putnam (1999) found that, if an individual or his or her family members have a high level of education, this is associated positively with participation. Interestingly, these findings could not be generalized across all groups because a person's own education has a negative effect in trade unions while education has a positive and significant effect for those in professional associations. The findings of Glaeser et al (2000) indicate that: (i) social capital increases for the middle-aged and decreases for older people; (ii) investment in social capital is low for those households that are most likely to move because social capital returns diminish with mobility; and (iii) individuals with occupations that require social skills accumulate more social capital than others do. Alesina and La Ferrara (2000) found that income inequality and racial and ethnic heterogeneity are associated with little participation in organizations. This effect is particularly strong in organizations that require frequent social interaction but is weaker in groups with low degrees of social interaction. A study by Ledermann (2001) confirmed the findings of previous studies for Argentina.

Evidence is scant about which characteristics shape trust at the micro and macro –levels. Glaeser et al (1999) reported that, in the United States, trust is low among later cohorts and big city dwellers and that it is high among rich and well-educated individuals, college graduates, married couples, and people who attend church. Ledermann (2001) found that participation in organizations is positively correlated with trust. In a cross-country study, Knack and Keefer (1997) established that associational activity, income equality, and controls on executive power are related to high levels of trust while ethnic and linguistic divisions are associated with low levels trust.

Empirical research conducted in Tanzania, Bolivia, and Indonesia has demonstrated that household social capital improves welfare levels (Narayan and Pritchett, 1999, Grootaert, 1999, and Grootaert and Narayan, 2001). In Tanzania, village social’s capital has a positive effect on household income. For Indonesia, Grootaert (1999) showed that households with rich stocks of social capital have higher household expenditure per capita, own more assets, and have greater access to credit than those with minimal stocks of social capital. Moreover, returns from social capital are higher for the poor than for the non-poor. Findings for Bolivia indicate that social capital is a crucial asset for reducing poverty and that social capital, as an asset, has a positive influence on ownership of physical assets.

Selected cross-country studies have attempted to provide evidence on the causal relation between trust and economic performance. Knack and Keefer (1997) showed that, while trust is associated with strong economic performance, association activity is not a direct determinant. Furthermore, trust and norms of civic cooperation are stronger in countries with strong and effective institutions and in countries that are less polarized than others in terms of class or ethnicity.

III: Data

We base our research on quantitative and qualitative. The quantitative data comes from a large, representative national-level poverty study. The qualitative evidence gathers evidence from 10 villages in various parts of the country. Both types of data are described in extent in this section.

Qualitative Data

Qualitative instruments are useful for gathering information on how motives, attitudes, and preferences affect economic behavior, perceptions, and the barriers and opportunities that determine poverty and mobility. These instruments are not intended to be statistically representative or to reflect measures of central tendency; rather, they yield information that is primarily descriptive but can broaden the field of inquiry to include questions, issues, and factors that are otherwise likely to be missed in quantitative instruments.

The QPES: General Objectives. As part of the GUAPA Program, a Qualitative Study of Poverty and Exclusion (QPES) was conducted in 10 rural villages during the year 2000 by a multi-ethnic team of local researchers led by COWI Consultants.¹ The objectives of the QPES were to gather

¹ See QPES Terms of Reference, April 6, 2000 and QPES Final Report 2001 for more details on the broader study.

information on the perceptions of community members on the nature of constraints to and opportunities for economic mobility to increase understanding of the dynamic processes that perpetuate or reduce poverty and exclusion. Specifically, the QPES had four objectives:

- (a) To identify factors linked to the perpetuation of indigenous and non-indigenous rural poverty that might be known to the poor themselves but that might not be fully reflected in conventional quantitative surveys
- (b) To provide, through examples and case histories, an understanding of the specific mechanisms through which poverty and exclusion arise and are perpetuated in the study villages
- (c) To build theories and hypotheses that would help to analyze the quantitative household data (ENCOVI²)
- (d) To reach a greater understanding of vulnerability and coping mechanisms to be used to improve social service delivery and to improve existing social safety net mechanisms and to design new ones in Guatemala.

The QPES Sample. The QPES involved data collection and substantial fieldwork in 10 rural communities. The sample was drawn from the ENCOVI community/census segment sample to allow for an integrated analysis of the qualitative and quantitative data and to introduce a random element into sample selection for the QPES. Based on this, the sample was selected using a few intentional criteria, including ethnicity (two villages per ethnicity), the presence of certain programs (for example, PRONADE, a decentralized school management program) in at least a few of the villages, and a history of large covariant shocks (such as a natural disaster) in at least a couple of the villages. The survey team was explicitly instructed not to seek out villages that had suffered substantial massacres or destruction during the violence of the 1980s but not to avoid them either; nonetheless, several seem to have randomly been captured the sample (see KA2, KI1, and M1). The configuration of these villages was intended to enable analysts to examine perceptions of poverty and exclusion for a number of ethnicities. Therefore, the sample included two villages from each of the following ethnic groups: Mam, K'iche, Q'ekchi, Katchiquel, and Ladino (non-indigenous). To protect the anonymity of the villagers and informants, the villages were given "code names" in the QPES: KI1 and KI2 were predominantly Quiche villages, QE1 and QE2 were predominantly K'eqchi villages, KA1 and KA2 were predominantly Kaqchiquel villages, M1 and M2 were predominantly Mam villages, and L1 and L2 were predominantly ladino villages.

Modules and Instruments. The fieldwork covered a number of key themes, including: perceptions of poverty and welfare; perceptions of risk, shocks and vulnerability; participation in local organizations; user perceptions of public programs; community perceptions of education; and gender roles and issues. In addition, the teams conducted a village overview and social mapping to establish the context of each village. The research teams spent a little over a week in each village and employed standard qualitative research instruments such as community focus groups (often split up by gender), direct interviews, the social mapping exercise, and direct observation.

² ENCOVI stands for *Encuesta Nacional sobre las Condiciones de Vida* and is part of the regional MECOVI initiative to improve the quality of household surveys.

Quantitative Data

The ENCOVI (2000) Survey. Questionnaires were administered to 7,276 households representative of Guatemala's population. The households were located in eight broad regions, both in urban and rural areas, and included five ethnic groups.³ Besides the traditional questions included in Living Standards Measurement Surveys, the ENCOVI (2000) included questions about participation in organizations and collective action and about perceptions of trust in the community. This was the first time that a national poverty survey conducted by the World Bank had included such questions.

The second questionnaire, fielded in 485 communities, elicited information about community characteristics, community organizations, and financial support from formal and informal institutions. The purpose of this questionnaire was to describe the communities where the LSMS survey was administered; therefore, the sample is not representative of all of Guatemala's communities.

The purpose of our quantitative analysis was to characterize the types and degree of social capital at the individual and household level and to identify the determinants of social capital. First, we analyzed the distribution of social capital among the various population groups to establish their respective endowments of social capital. Second, we examined the determinants of social capital at the individual and household level to establish a profile of the people who have access to particular social networks and resources. Third, we contrasted household and community levels of social capital with their uses to prove whether social capital helps to: (i) improve community decision-making, (ii) manage public goods and collective resources, (iii) cope with shocks, (iv) leverage external assistance, (v) increase income, and (vi) shape trust.

Poverty Profile. A general poverty profile of the population is presented in Table 1A in Appendix 2. According to the ENCOVI (2000), 56 percent of the population are "poor" and close to 16 percent are in the category of "extremely poor." The Metropolitan region reported the smallest percentage of poor and extremely poor, 18 percent and 0.6 percent respectively, while the North and the South West had the highest percentages of poor (84 percent and 82 percent) and extremely poor (39 percent and 31 percent respectively). Nearly three-quarters of the rural population are poor whereas one-quarter of the urban population is poor. The proportions of the poor among the indigenous population are significantly higher than these proportions in the non-indigenous population. The ethnic groups with the largest percentages of the poor are Q'eqchi and Mam, with close to 83 percent and 90 percent of the poor respectively and with soaring percentages of extreme poor, 38 percent and 34 percent respectively.

Table 1B provides a poverty profile of households in Guatemala based on ENCOVI (2000). Around 46 percent of the households are poor, and 11 percent are extremely poor. The Northern and North Western regions reported the highest percentages of poor households, 77.1 percent and 74.7 percent respectively, with elevated figures for extremely poor, 30.2 percent and 24.3 percent respectively. In stark contrast, nearly 87 percent of households in the Metropolitan region are non-poor. Most of the poor households live in rural areas, where 64.6 percent of the households are below the poverty line, while 20 percent of urban households are poor.

³ K'iche, Q'eqchi, Kaqchiquel, Mam, and non-indigenous.

Differences in poverty levels between indigenous and non-indigenous groups are significant. Poverty levels are substantial among Q'eqchi and Mam, with 74 percent and 84.7 percent of households respectively being below the poverty line. On the other hand, close to 32 percent of non-indigenous households are poor.

Measures of Social Capital. We took two approaches to measuring social capital. The first, a widely used strategy in the social capital literature, considers membership in formal and informal institutions as a measure of social capital. A second approach, particularly relevant for developing countries, (Woolcock and Narayan, 2000) is to measure informal connectedness based on involvement in collective action. This approach is convenient in less developed countries because formal and informal institutions are not widespread and are mainly located in urban areas. The ENCOVI (2000) incorporated questions to construct measurements of social capital based on membership rates in organizations and participation in collective action activities. For the first approach, the ENCOVI (2000) questionnaire incorporated a section where individuals older than seven years old identified the three main institutions in which they participated as members. For the second approach, the survey asked whether any member of the household had participated in several kinds of collective action during the previous 12 months.

Box 1: Bonding, Bridging, and Linking Social Capital

Organizations and collective activities were grouped in terms of whether they were bonding, bridging, or linking social capital in order to identify the levels of each type and its distribution among groups of the population.

Bonding organizations include: religious groups, cooperatives, credit groups, housing committees, charities, non-governmental organizations, commerce or business associations, professional associations, and “*solidarista* organizations.”

Bridging organizations include: parent and teacher associations, school committees, water and garbage collection boards, boards of roads, neighborhood associations, neighborhood committees, cultural groups, boy and girl scouts, and women and youth groups.

Bridging collective activities include: collection of funds, community workshops, labor agreements, donations in cash or kind, community childcare, and the construction of community infrastructure.

Linking activities include, contacting government officials, information campaigns, electoral campaigns, contacting local politicians, notifying judicial authorities and voting in elections.

Linking activities with no vote is similar to linking activities but voting in elections is excluded.

IV: Findings: The Distribution of Social Capital

The GUAPA took the innovative step—for a national-level poverty study—of asking households and communities about their social capital. Importantly, this data was gathered in both qualitative (QPES) and quantitative (ENCOVI) forms, making for intriguing comparisons and contrasts. In the sections that follow, we report on the distribution of the different dimensions of social capital among the various demographic groups and geographic regions of Guatemala and explore the implications of this distribution for deepening our understanding of the nature and experience of poverty.

The analysis proceeds as follows. First, we break down overall trends in participation in Guatemala by region, income, gender, and ethnic groups, considering in some detail who participates in different bonding and bridging organizations and bridging and linking activities. Second, we describe qualitative evidence on the types and degrees of social capital in the 10 QPES villages.

Quantitative Results

Overall Trends. Despite decades of civil war, repression, and exclusion, social capital levels in Guatemala are not particularly low compared with other countries. The ENCOVI (2000) data showed that the proportion of individuals who report participating in any group is 23 percent (Table 2B). The average number of groups per person is 1.09, and the average number of groups per household is 1.11⁴ (Table 3).⁵

Social capital in Guatemala is concentrated mainly in strong horizontal associations. According to ENCOVI (2000), participation in Guatemala is a strongest in religious groups, recreation associations, and groups that supervise the provision of public goods. Percentages of participation in income generation groups, school committees, community services associations, and social and special interest groups are below 1 percent each (Table 2A and 2B).

Participation in formal organizations in Guatemala is concentrated mostly in bonding organizations, with many communities demonstrating high degrees of internal solidarity, probably as a result of decades of war, exclusion, and discrimination. Membership rates in bonding organizations are mainly driven by participation in religious groups, which are the most important kind of group in Guatemala. The density of participation in bridging organizations, which is largely the consequence of membership in organizations to supervise the provision of public goods and recreation groups, is one-third of the density for bonding organizations (Table

⁴ The average number of organizations at the household and individual level has a downward bias because the survey asked respondents to identify only the three main groups of which the individual is member. This bias, however, may not be significant since, out of the 29,414 who answered this portion of the questionnaire, 8,316 participated in one group, 732 participated in two groups, and 105 participated in three groups.

⁵ In Argentina, participation in any group is close to 20 percent (Ledermann, 2001). In the United States and Tanzania (Glaeser et al, 1999 and Narayan and Pritchett, 1999), the mean value of membership in organizations per person is 1.8 and 1.5 respectively. The average number of associations of which each household is a member in Indonesia and Bolivia is 5.5 and 1.4 respectively (Grootaert, 1999 and Grootaert and Narayan, 2001). The rate of participation in organizations per person in a sample of 26 developed countries, as measured by the World Values Survey, is 0.77 (data set from Easterly, Ritzen, and Woolcock, 2001).

4). Informal is an important source of social capital in Guatemala. Participation rates in collective activities are significantly larger than membership rates in organizations. Unlike membership in organizations, community activities do not entail a permanent commitment or an investment of either time or money. In addition, collective activities do not require previous forms of organizations or costly processes to create new ones. These activities may necessitate one-time efforts or coordination between small groups of people and are, therefore, less costly than participating in formal or informal institutions. Involvement in collective activities is concentrated mostly in bridging activities. Besides voting in elections,⁶ the most frequent community activities are contributing to community infrastructure projects, labor exchange agreements, and monetary or in-kind donations (Tables 5A and 5B).

Regional Variations. Social capital is higher in the better-off regions than elsewhere. Membership rates in the Metropolitan region, where 82 percent of the population are non-poor, are above the national percentages for most of the group types (Tables 2A and 2B). Participation in bonding and bridging organizations in the Metropolitan region is also above national averages (Table 4). The non-poor are better educated and have more leisure time available than the poor do, which may drive these greater participation rates despite the heterogeneity of residents from the Metropolitan region. In stark contrast, membership in associations in the North, the poorest region and where the civil war was most intense, is small. The participation rate in any group for the North is half the national levels (Tables 2A and 2B), and the proportion of individuals participating in bonding organizations in this region are close to one-third of national percentages (Table 4).

People in poor regions tend to participate in bridging activities, while involvement in collective action in better-off regions tends to be concentrated in linking activities. According to the ENCOVI (2000), the percentages of households who report that they contact government officials, cooperate in information campaigns, participate in labor agreements, and contribute to community construction are soaring in the Northern region. In contrast, the Central and Metropolitan regions have large participation rates for monetary and in-kind donations, provision of voluntary work, and voting in elections (Tables 5A and 5B).

Forms of participation in urban and rural areas seem to be driven by poverty levels and community needs. Urban dwellers, who are mainly non-poor, participate more than rural residents in bridging organizations (Table 4). In rural areas, associations that supervise the provision of public goods are the second most important group. Membership rates are twice as high in rural areas than in urban areas (Tables 2A and 2B). There is a greater need for public goods in rural areas than in urban areas, though the government provides fewer of these services in rural areas, which may encourage rural communities to create these groups.

In both rural and urban areas, people participate in part to try to meet the community's needs. Lack of access to public services and scarce sources of income are problems typically encountered in rural areas, while urban areas are strongly affected by violence.⁷ While those in rural areas participate mostly in community construction and labor agreements, residents of

⁶ Although voting is not mandatory in Guatemala, during the civil war citizens who did not vote were regarded as guerrilla collaborators and thus could face retaliations. In the sample communities of the ENCOVI, many villagers mentioned that they voted for fear of retaliation. Voting, therefore, cannot be considered a voluntary act. This may explain the high percentages of people who reported voting in elections.

urban areas are more likely to report problems to judicial authorities. Bridging and linking activities, though not voting, are more frequent in rural areas, whereas linking activities *and* voting are more likely for urban households (Tables 5A and 5B).

Income Variations. The non-poor in Guatemala have higher levels of social capital than the poor and extremely poor as measured by participation rates in local organizations. Membership rates appear to be negatively related to poverty levels and positively related to the consumption aggregate. Likewise, participation in most types of groups is concentrated among people in the two highest consumption quintiles (Table 2A and 2B). The non-poor and individuals from households in the fifth consumption quintile are also more likely than others to be involved in bridging organizations (Table 4).

While poor households are inclined to participate in bridging activities, non-poor households are more involved in linking activities. Likewise, households in the lowest quintiles participate in bridging activities, while households in the highest quintiles tend to be involved in linking activities (Tables 5A and 5B).

Gender. Social capital is mainly concentrated among males and male-headed households. Results from the ENCOVI (2000) show that females are less likely than males to participate in organizations (Tables 2A and 2B). Women are members of bonding organizations in higher proportions than men due to their high level of participation in religious groups. Males, on the other hand, are more likely to participate in bridging organizations (Table 4).

Male-headed households are more likely than female-headed households to participate in all of the collective action activities that were examined in the surveys. The proportions of male-headed households that contacted government officials and local politicians, contributed to information campaigns, and participated in election campaigns are close to three times larger than these percentages for female-headed households. In addition, participation in labor agreements and community construction, and voting in elections is substantially greater in male-headed households than in female-headed households (Tables 5A and 5B).

Ethnic Groups. The participation patterns of indigenous groups are similar to the participation patterns of the poor and rural residents, whereas non-indigenous groups participate in the same type of organizations as do the non-poor and urban dwellers. According to the ENCOVI (2000), involvement with religious groups among the Q'eqchi is less than half of national percentages.⁸ The Q'eqchi population contains ever-growing percentages of the country's poor. Also, they tend to live primarily in the North and were badly affected by the war. In contrast, Kaqchiquel—the ethnic group with the lowest number of poor people—has higher participation rates in religious and recreation groups than any other indigenous group (Table 2A and Table 2B). Non-indigenous people are more likely to be involved in bridging organizations (Table 4).

⁷ For an identification of community needs based on ENCOVI (2000) results, see Clert et al (2001).

⁸ Respondents in Q'eqchi villages mentioned confrontations between this ethnic group and the churches. In QE1, clashes between religious leaders have caused divisions inside the community. In QE2, the authoritarianism of the Evangelical Church has prompted complaints from villagers. In both communities, focus group participants blamed the Church for the loss of their Mayan traditions.

Non-indigenous people are inclined to participate in activities that provide opportunities for economic advancement. Bridging activities are more frequent among indigenous households, whereas non-indigenous are more likely to participate in linking activities that do not involve voting. However, the proportion of Q'eqchi households that contact government officials is nearly twice the national percentage. Mam households are the main group responsible for the large percentage of bridging activities among indigenous households. Similarly to the non-poor, the non-indigenous are more likely than the indigenous to notify judicial authorities of any local trouble and to give monetary or in-kind contributions (Tables 5A and 5B).

Spanish-speaking indigenous people seem to have more social capital than do the non-Indigenous and the monolingual indigenous. The ENCOVI (2000) shows that Spanish-speaking Indigenous people have higher membership rates in most of the group types than either the non-indigenous or the monolingual indigenous. The non-indigenous, however, are more likely to participate in all types of organizations than the monolingual indigenous (Table 2A and 2B). Membership rates in bonding organizations are higher among the Spanish-speaking indigenous than the non-indigenous, but membership rates in bridging organizations are larger among the non-indigenous. Spanish-speaking indigenous people provide important links between the indigenous communities and the non-indigenous world because they can fill out applications, write letters, and communicate with government officials. Furthermore, Spanish-speaking indigenous people can spearhead development initiatives within their communities and more readily assume leadership positions.⁹

Who has this Asset called “Social Capital”? Bonding organizations constitute the primary source of social capital for the poor, whereas bridging organizations are a crucial asset for the non-poor. Bonding organizations connect people who share similar demographic characteristics like family, friends, and neighbors. As such, bonding social capital is an important risk-management asset because strong ties can provide people with economic support during shocks, they can reduce the impact of poverty, and they can act as informal sources of credit and insurance. Bridging organizations, on the other hand, can promote economic advancement and, therefore, constitute a valuable asset for the non-poor. These findings are consistent with the empirical literature, which suggest that the poor—especially those in rural areas—have lots of bonding social capital, little bridging social capital, and very little or non-existent linking social capital.

In Guatemala, bridging organizations often seem to be dominated by privileged groups of the population, such as urban dwellers, males, the non-poor, and the non-indigenous. Moreover, the Spanish-speaking indigenous, who constitute an elite within the indigenous as a whole, participate in bonding organizations more than any other indigenous group. Involvement in collective action activities seems to have the same pattern as participation in formal organizations and informal organizations.

The combination of isolated communities paired with bridging organizations that are dominated by the elite may exacerbate exclusionary practices and further erode trust. The potential benefits of social capital can be thwarted when networks and associations are dominated by better-off groups of the population. When economic and political power is unequally distributed, powerful

⁹ This topic appeared consistently in the 10 sample villages.

groups can influence the adoption of policies that exclude other groups in the population. However, these conclusions are based on cross-tabulations that do not control for other characteristics of the individuals who may be influencing these outcomes. The next section estimates logistic regressions to establish the determinants of social capital. Before doing so, however, it is instructive to explore the qualitative results for evidence that may confirm or refute the findings reported so far from the quantitative data.

Qualitative Results

Social Capital and Conflict. Conflicts, homogeneity in the population, and ethnic origins seem to play important roles in the endowments of bonding social capital in the QPES villages (Table 6A). Some QPES villages with weak bonding social capital have been affected by conflicts, which seem to erode strong ties between residents. For example, in KI1, the war severely damaged cohesion and trust. “Envious” villagers wrongfully accused other residents of being guerrilla members. Villagers did not communicate among themselves, even within families. Also, religious affiliations in QE1 generated conflicts within the community sparked by confrontations between religious leaders. In some communities, homogeneity in the population leads to community cohesiveness and high levels of bonding social capital. For example, in the Kaqchiquel village KA2, ethnic bonds are strong. Religious divisions do not exist “because they are all Kaqchikel.” On the other hand, in the K’iche village KI2, the presence of Ladinos causes conflicts. A lot of the communities, in particular the indigenous communities, have strong solidarity, well-established social norms, high levels of trust, and strong bonding social capital. In fact, the two Ladino villages L1 and L2, had low levels of this type of social capital.

The Impact of War on Bonding and Bridging Social Capital. Bridging social capital appears to be greater in villages affected by the war and less in communities with authoritarian leadership and pervaded by conflict (Table 6A). Although the war undermined trust and eroded bonding social capital, having to deal with the war seems to have taught villagers to work together. The three villages that suffered from the war—KA2, KI1, and M1—have high levels of bridging social capital (see Box 2). On the other hand, authoritarian leadership deters community initiatives and discourages residents from launching their own development efforts. The owner of the *finca* village KA1, is authoritarian and represses its residents. As a result, bridging social capital is virtually non-existent. In the Q’eqchi village QE2, the authoritarian cooperative and Evangelical church, as well as divisions in the community, hinder the development of bridging social capital. Conflicts also destroy the capacity of communities to organize themselves and to engage in collective action. Leadership confrontations in the Ladino Village L2 have divided the village into three factions. Other than these divisions, the community is passive, and leaders do not spearhead initiatives to improve the quality of life.

Box 2. The Impact of War on Social Capital: The Story of KA2

This ethnically homogenous, largely bilingual village of 1000 people, located in the Central Region, was seriously marked by the violence of the armed conflict in the early 1980s, in which numerous members of the village were massacred (including the village leaders and religious leaders), kidnapped or disappeared, crops and houses were burned, and remaining villagers fled to a nearby town for two years. As a result, the remaining population is quite young (“hay pocos ancianos”), with 40 widows and two orphan families.

The violence left deep and lasting wounds in the community. A massacre exterminated the leadership and targeted mostly men. Following the massacre, the community was abandoned for two years. Since the village was abandoned for two years and the leadership was exterminated, the community cohesion was weakened and all their social organizations were lost. Now, villagers have fears of assuming leadership roles and conforming groups. However, women established an organization for 49 widows of violence.

Distrust to strangers is strong. Researchers had to contact each leader in hierarchical order to conduct the focus groups. Leaders justify these formalities on the fears left by the violence in 1981 and 1982. People are suspicious of non-natives and are reluctant to establish contact with them. They monitor strangers as a precautionary measure and are strict authorizing visits to the community. The community is united. Examples of collective norms and solidarity abound in the village.

The year previous to the research gangs entered the village. The community organized a group of men to guard the town. Residents captured gang members and threatened to lynch them if they continued ravaging the village. They never returned. However, a security system in the village was put in place. If villagers hear strange noises, they communicate among them. Since the village was the victim of violence, now they “protect each other in an organized way, keeping themselves informed of any anomaly”.

Villagers have few connections outside the village. Some participants think paternalism had negative effects on the community because now people “does not make any effort, they expect to get donations, when they do not get any help they are left with nothing”.

Scarce Linking Social Capital. Linking social capital in the QPES villages is scarce (Table 6A). Half of the QPES villages have no links with external institutions, and the remaining villages have incipient levels of linking social capital. Exclusion and discrimination against the indigenous population and the poor from the dominant classes in Guatemala and a prolonged war may have prompted these populations to close in on themselves completely. In the Ladino village L1, residents expressed a lack of trust in politicians. The community of M2 has no links outside the village because they mistrust strangers. Villages with high or medium levels of bridging social capital have been able to establish links with formal institutions, through which they have been able to leverage external assistance. Funds from certain institutions like FONAPAZ and FIS channeled through the Development Committee have provided these communities with important projects and links with external institutions.

Conclusion. The qualitative evidence, in short, strengthens the conclusions from the quantitative results. Poor communities have a lot of bonding social capital, some bridging social capital, and very little linking social capital. Despite strong internal cohesion, the villages have few horizontal and vertical ties, mainly due to fear, exclusion, and a lack of trust. This pattern of strong internal cohesion and scarce outside ties is replicated in Mexico and Bolivia where

repression and discrimination encouraged the association of indigenous groups in order to protect their population and to gain enough power to negotiate with formal institutions (Fox, 1996 and Grootaert and Narayan, 2001).

V: Findings: Barriers to and Opportunities for Acquiring Social Capital

Figures for participation in organizations and involvement in collective action activities indicate that endowments of social capital are greater among the elite than any other groups. Besides examining the distribution of social capital among groups of the population, it is crucial to establish its determinants to identify the factors that promote and prevent the formation of social capital. This section uses logistic estimates of participation in organizations and involvement in collective action activities to identify the determinants of social capital.¹⁰ These estimates help to determine the profile of the individuals and households who have access to social networks and resources. Our quantitative results are complemented with qualitative evidence, which gives us a further level of understanding about the determinants of social capital.

Qualitative Results

Income. The QPES village studies indicate that participation and engagement in collective action is a costly activity for poor villagers. Any time that they allocate to participation may involve a loss of income, since the poor from rural areas are usually self-employed or have prolonged working schedules. Furthermore, when members of community organizations spearhead initiatives, they have to contact institutions, and this requires an investment of time and money that poor villagers may not be able to afford. As a consequence, the poor rarely participate, community leaders tend to be from the better-off families of the community, and poverty is perpetuated. If these leaders are benevolent and represent the interests of the entire community, then access to benefits will not be restricted to certain community members. However, if not, then benefits can be directed towards better-off groups of the community while the most needy members are not covered by development projects or have no access to basic services.

Gender. Women tend to be excluded, whether directly or indirectly, from community activities in the 10 villages covered (Table 6B). Women rarely participate in community meetings, and when they attend, they stay quiet for fear of being mocked. In most of the villages, women cannot vote in elections for members of the community authorities. Since their husbands are their only source of information, there is often a significant amount of misinformation about citizenship rights and government programs among females. Women's involvement in community activities is restricted to Parent-Teacher Associations and, even there, mainly to activities such as preparing school lunches. According to the respondents, this restricted female participation is caused by: (i) low education levels; (ii) too many domestic chores; and (iii) machismo.

The extent to which women are included in community participation and decision-making is apparently related to the overall degree of social capital in villages. In villages with medium-high and high levels of social capital, female participate to a greater extent in community activities and are more inclined to form groups and associations (Table 6B). For example, in KA2, a

¹⁰ A detailed description of the methodology used is included in Annex 1.

village with medium-high levels of social capital, women created two organizations. One group aims to help women who have been widowed by violence, and the other is dedicated to raising funds for an agricultural production project. In the Mam Village M1, which has a high overall degree of social capital, women organized a micro-enterprise for women to manage a credit system.

Education. The respondents perceived access to education as being crucial to breaking the vicious cycle of low income and low participation in the 10 communities studied. Education not only provides skills at the individual level that are needed to gain access to better opportunities but also contributes to the community by preparing individuals to assume leadership roles and responsibilities. Educated villagers can more readily lead community initiatives, leverage external assistance, and represent the community in local and national institutions. For indigenous communities, learning Spanish is an additional and central component of education. Spanish-speaking individuals can exercise leadership positions with ease because they can represent their community “with dignity.”

Quantitative Evidence

Determinants of Participation in Organizations. Our logistic regression estimates indicate that age, gender, education, and wealth are the principal determinants of participation in organizations. Consistent with the results from the cross-tabulations and qualitative evidence, the regressions show that privileged groups of the population—middle-aged individuals, males, those who are better educated, and those who are wealthier—are more likely to participate in formal and informal institutions than others.

The first determinant is age. Our logistic estimates show that middle-aged individuals are more likely than groups of other ages to participate in any group type (Table 7B), including bridging organizations (Table 7B). Middle-aged individuals are in the primary income-earning stage of life; as such, they greatly benefit from the higher economic returns gained from participating in networks and taking advantage of the norms of reciprocity that are embedded in them. When group types are analyzed separately, results from logistic estimations show that middle-aged individuals are particularly inclined to become members of organizations from which they are likely to derive economic benefits, such as school groups, public goods associations, community services organizations, and special interest groups (Tables 7A and 7B).

With regard to gender, our results show that males participate more than females in most kinds of groups even after we control for individual and household characteristics. Males are more likely to participate in any group and to be members of school groups, associations that supervise the provision of public goods, and recreation groups (Tables 7A and 7B). Males are also more inclined to participate in bridging and bonding organizations (Table 9). In contrast, participation in religious and special interest groups attracts more women than men, not surprisingly, because women’s groups comprise a significant component of these types of groups (Tables 7A and 7B).

The likelihood of an individual participating in most types of groups increases with education, the third determinant; those who are better educated are also more likely to participate in bonding and bridging organizations (Table 9). Individuals with a high level of education are more aware than those who have little education of their own ability to influence sociopolitical

outcomes and interact with more people (Verba and Nie, 1987). As in the case of middle-aged individuals, participation seems to yield high economic benefits for the well educated. Besides deriving returns from networks and associated norms of reciprocity, the well educated can (and may) influence the distribution of benefits to their own advantage.

Income is the fourth determinant. Participation in most group types is highest for individuals from wealthy households. The likelihood of participation rises with the consumption aggregate for most groups except for religious groups, where participation drops for individuals from households with larger consumption aggregates (Tables 7A and 7B). Wealthier individuals are less inclined to participate in bonding organizations and more prone to participate in bridging organizations (Table 9).

Although age, gender, education, and income are the main determinants of participation in most group types, other factors influence participation for particular types of groups. Urban dwellers are more inclined to be members of recreation and special interest groups, whereas rural residents tend to be involved in religious groups and organizations that supervise public goods. Married respondents are more likely to be members of religious organizations and less likely to participate in recreation groups than single respondents. The probability of participating in religious groups is greater for Spanish-speaking indigenous than it is for monolingual indigenous people. Individuals from female-headed households are likely to participate in groups that supervise the provision of public goods (Table 7A and 7B). Owning a house and holding a legal title of possession increases the chances of an individual being a member of a religious group (Table 8A).

Determinants of Involvement in Collective Action Activities. Privileged households emerge as being the most likely participants in bridging activities after controlling for household characteristics. The likelihood of participating in bridging activities during the previous 12 months was highest for better-educated households, those with high consumption aggregates, and households headed by middle-aged individuals (Table 11A). People who own their homes and hold legal titles participate more in bridging activities than those who do not (Table 11B). On the other hand, female-headed and urban households are less likely than others to participate in bridging activities.

As with participation in bridging activities, our logistic estimates show that better-off households are more involved in linking activities. Participation in linking activities is concentrated in households with higher education levels and where household heads are middle-aged, married, and Spanish-speaking indigenous. Female-headed households, on the other hand, are less likely to participate in linking activities (Tables 11A and 11B).

What Determines Social Capital? Both the qualitative and quantitative evidence strongly suggests that social capital is an asset that is concentrated among the elite. Although the poor, rural residents, and females have rich stocks of bonding social capital, the Spanish-speaking indigenous—that is, the elite within the indigenous community—and the better educated are more likely to participate in bonding organizations (Figure 1). Middle-aged individuals, males, individuals from households with the highest consumption aggregates, and those who are better educated are most likely to participate in bridging organizations (Figure 2).

I: Findings: The Uses of Social Capital

We rely on qualitative and quantitative evidence to identify whether social capital is instrumental to shape community decision-making, manage and acquire public goods, manage collective resources, cope with shocks, leverage external assistance, determine income, consumption and poverty, and shape trust. We describe findings in this section.

Shaping Community Decision-Making, Managing and Acquiring Public Goods, and Managing Collective Resources

Social Capital and Community Decision-Making. Building bonding social capital requires community participation in decision-making. Table 12 indicates that the communities in the ENCOVI sample with strong social capital are those most likely to engage in collective action activities and to have achieved the greatest improvements in welfare during the five years prior to the survey. Community decision-making in the QPES villages, which is done mostly inside Development Committees (DC),¹¹ focuses on increasing access to public goods, solving conflicts, and managing collective resources. In the K'iqche village KI1, for example, unclear definitions of borders between properties had led to land conflicts, and the auxiliary mayor and president of the DC were charged with resolving these issues. Also, the DC of the K'iqche village KI2 is searching for additional water sources and considering a water sewage project to reduce pollution.

Capture of Benefits. Despite the participatory nature of the DC, access to collective resources and public goods is unequal among the population because privileged groups tend to take leading roles in the DC and, thus, dominate its decisionmaking. The DC of villages where social capital is weak and conflicts within the community prevail are prone to be taken over by certain groups, which means that the benefits from development projects and access to public goods tend to be biased towards the privileged members of the population. For example, in the Q'eqchi village QE1, land is common property, but access to it is restricted to some villagers. A member of **the** first families that located in the community led the initiative in the National Institute for Agrarian Transformation (INTA) to gain access to and redistribute the land, which has been mainly allocated to males. Some residents believe that the community leader's family secured access to bigger and better parcels of land. Another example is taking place in the Ladino Village L2, where the distribution of piped water is managed by the DC, which has been presided over by the same person for the last 20 years. Participation in the DC does not appear to be democratic and excludes those who cannot afford the operational expenses involved in being part of the DC. As a result, the distribution is unfair because the water supply is sometimes arbitrarily stopped or the allocation disproportionately benefits committee members.

Social Capital and Conflict. Conflicts within the communities, which occur most often in villages where social capital is weak, obstruct community decisionmaking. For example, the presence of a different ethnic group, the Ladino, in KI2 has hampered the capacity of the village to implement a collective norm to manage common lands because Ladinos are excluded from community activities. In the Ladino village L2, leadership confrontations and a passive

¹¹ Development Committees are community bodies that are present in nearly all of the villages

community have prevented the village from spearheading initiatives to improve the quality of life.

Social Capital and Collective Resources. Proper management of collective resources seems related to the stock of social capital in the village.¹² While QPES villages with high levels of social capital have adopted preventive measures to avoid depleting their natural resources, villages with scarce stocks of social capital implement rules only when resources become scarce or they simply deal with the consequences of overexploiting natural resources (see Box 3).

Box 3. Social Capital and Management of Collective Resources: Two Examples

Mam Village (M1): Successful Management of Collective Resources in a Village with Strong Social Capital. This village located in the North Western Region was severely affected by the war. The community however is united and violence spurred solidarity among community members. Bonding and bridging social capital is strong. The forest is common property, and the community takes care of it collectively. Each year, two residents are elected to guard the forest. Every Tuesday the community meets to hear reports about the forest and discuss about actual and potential problems. Recently, a fire destroyed partially the forest despite the efforts of the municipality and the community to stop it.

K'iqche Village (KI2): Overexploitation of Resources and Medium Degree of Overall Social Capital. Although the majority of KI2's population of 1,254 (144 households) is Quiche, there is an influential minority of Ladinos who arrived in this town in the North-Western Region 15 years ago and bought land for cultivation. The presence of Ladinos generates conflict. Ladinos follow different agricultural practices, do not respect their elders and their animals use the common lands to graze. Ladinos are never invited to meetings, and thus are excluded from community activities.

Overexploitation of common natural resources is leading to forest depletion, water scarcity and infertile land. In the words of a focus groups respondent, "Nobody cares about the common lands". Water scarcity is identified as a cause of poverty but the community has not implemented yet a solution. A proposal discussed in community meetings is to construct small irrigation system however no actions have been executed.

Coping with Shocks

Bonding Social Capital as an Instrument for Mitigating Shocks. The only kind of social capital that communities use to mitigate shocks like violence, natural disasters, and the death of a household member is restricted bonding social capital. Respondents never specified using bridging and linking social capital as shock mitigation strategies. Table 13 indicates that ENCOVI households usually do not have any strategy to mitigate shocks. Instead, self-help and informal support, which are both tied to bonding social capital, are the most common strategies. The figures for seeking assistance from the government, NGOs, or international organizations are low. QPES villages reveal a similar pattern. In the K'iqche village KI1, after the earthquake in 1976, the community participated in the rescue operations. Catholics and Evangelicals alike helped to construct houses and to provide food. The entire community built tents and buried the victims. In the Mam village M1, villagers helped each other during the violence, providing the newly homeless with shelter and food. When a villager dies in M2, a village with medium-low

¹² Ostrom (1990) argues forcefully that social norms and trust are crucial to managing common natural resources and overcoming the tragedy of the commons.

social capital, men from the community bring wood, build the coffin, and dig the grave, while women help to prepare the food for the funeral.

Mitigation versus Preventive Strategies. Despite the frequency of natural disasters in Guatemala, people tend to use mitigation strategies to cope with shocks. Villages with high stocks of social capital, however, have created preventive measures to reduce the likelihood of a shock. For example, every year in the Mam village M2, rainfall from July through September damages the access road and completely isolates the village. In response, the community has organized a system in which they transport products using animals and in which the entire community helps. Meanwhile, men from the community repair the road. The village has not yet implemented any preventive measure regardless of the frequency and predictability of the shock. In the Kaqchikel village KA2, which has a high level of social capital, the Development Committee has organized a security system in the village. If the villagers hear strange noises around their houses, they warn their neighbors.

Shocks Promote Solidarity. Shocks promote solidarity and community cohesion in villages with small levels of social capital. After the 1976 earthquake, solidarity increased in the Kaqchikel village KA1 and the Ladino village L2. In KA1, church members arranged meetings in which the elders identified the community's needs, while in L2, residents helped to rebuild the houses that had been destroyed by the earthquake. In the Ladino village L1, community cohesion seems to increase when the village is confronted with a shock; examples include villagers providing transportation when residents are seriously ill, sharing food, and providing interest-free short-term loans to those in need during emergencies. When the Q'eqchi village QE1 had a serious land conflict with its neighboring community, this encouraged collective action and cohesiveness within QE1.

The Link between Social Capital and Mitigation of Shocks. The causality between strong social capital and the adoption of community strategies to mitigate shocks is rather blurry. Many villages with low levels of overall social capital unite after the occurrence of a shock to alleviate its effects (Table 6C), thus promoting the formation of social capital. For example, in M2, a Mam village with medium-low levels of overall social capital, shocks spur community solidarity and collective action. Also, as previously mentioned, although the community in QE1 is not united and social capital levels are medium-low, a land conflict with its neighboring community prompted the community to come together and devise a collective and successful strategy.

Leveraging External Assistance

Social Capital and External Assistance. Successfully leveraging external assistance appears to be correlated with social capital stocks in communities. Table 14 indicates that those ENCOVI communities with higher levels of social capital are better able to obtain help from institutions and to leverage external assistance. Moreover, QPES villages with strong community cohesion, external links, and efficient Development Committees are most likely to attract external assistance. For example, the villagers of KI1 seem to have built fairly strong links to external bodies and are receiving assistance from the municipality, various bilateral agencies, social funds, and the Ministry of Health. The Mam village M1 also seems to have significant ties to external organizations and receives aid and projects from FODIGUA, PRONADE, DECOPAZ, UNICEF, the European Union and NGOs.

Monopoly over External Assistance. Development Committees are a mixed blessing in villages with low levels of social capital. Although Development Committees are effective instruments for leveraging external assistance in most of the QPES villages, many QPES' DCs were criticized for being authoritarian or corrupt or for favoring particular groups. Furthermore, complaints regarding the unequal distribution of project benefits and the monopolizing of project funds were present in many villages. Strong elites seem to have considerable influence over access to project benefits and the use of funds. These elites often channel resources to benefit their own economic and political interests. For example, the Water Committee in the K'iqche village KI1 was successful in obtaining funds from FONAPAZ to solve the drinking water problem, but the committee later faced corruption charges due to their alleged misuse of funds. Individuals in the Mam village M2 who want to participate in development projects spearheaded by the DC must make contributions to cover transportation costs, food, and other expenses, which restricts the access of the poorer families in the community.

Determining Income, Consumption, and Poverty

Income and Social Capital. The link between poverty and social capital does not seem to be strong. Table 15 shows that poverty levels and the consumption aggregate do not differ widely between ENCOVI households with high and low levels of social capital. However, households with high levels of social capital are more likely to be among the highest consumption quintiles. Moreover, poverty figures are low among households with greater stocks of social capital.

Social capital provides villages with ways to increase their income. QPES villages with high levels of social capital have established cooperatives, credit programs, and revolving funds, which foster agricultural production and increase household earnings. In some villages, informal sources of credit based on trust are used as an alternative to formal credits, which is a reflection of the high levels of bonding social capital in those villages. Repeated interactions reduce information asymmetries and increase trust among villagers. Mutual credit groups and informal sources of credit are products of the information-sharing role of social capital. For example, the K'iqche village KI2 operates a credit cooperative for agricultural producers. Also, some women in this village created a group to raise funds, to provide loans to the group members, and to collaborate in community activities. The Mam Village M1 also operates a fairly successful revolving credit fund and a micro-enterprise committee for women.

Shaping Trust

Levels of Trust. Trust in Guatemala is apparently low.¹³ Close to half of households in the ENCOVI sample reported that trust among residents is not high enough for them to provide loans to other residents or to ask them for loans. Results from the ENCOVI (2000) show that trust is higher in the North East and South East, even though close to one-third of the residents of those regions believe that community trust is not high enough to provide or ask for loans. Mistrust is greater in the Metropolitan region, an urban and extremely heterogeneous area, and in the North where the war was concentrated. Rural households trust more than urban households. This may be because rural areas are more homogenous than urban areas, their communities are

¹³ Guatemala has not been included in the World Values Survey studies to date, so cross-national comparisons on this indicator are not possible at this time.

usually closely knit, and bonding organizations are common. The non-poor and households in the highest quintiles trust the least. The indigenous—who include high percentages of poor people and who tend to live in isolated communities where bonding social capital is strong—trust more than the non-indigenous (Table 16).

Trust and Different Types of Social Capital. Regressions using simultaneous equations indicate that participating in bonding organizations increases trust (Table 17). Previous results have shown that bonding organizations are common in Guatemala's tight and closed communities. Participation in these organizations promotes trust because they create solidarity and norms of reciprocity within the community. On the other hand, participating in bridging and linking activities causes trust to deteriorate (Tables 19 and 20) because these activities tend to be monopolized by privileged groups in the community. When only some groups within a community participate in an organization, the collective action of that organization can be exclusionary and may sometimes lead to rent-seeking behavior that may disproportionately benefit group members. As a result, trust among the population deteriorates.

Trust in Guatemala seems to be greater within homogenous communities where bonding organizations abound, whereas trust is lower when the population is heterogeneous and organizations are dominated by elites. Most communities tend to be close and to have norms of reciprocity and solidarity. However, inequalities, decades of war, and exclusionary practices have fomented mistrust towards strangers, the government, and other members of the society who do not belong to their social group. Even when committees and associations aim to bring together residents from different economic backgrounds, better-off groups often dominate these associations and direct a disproportionate amount of the benefits to themselves, thus excluding other groups of the population.

VII: Conclusions

Despite the historical problems that Guatemala has confronted during the last few decades, social capital levels are similar to those in countries like Argentina and Bolivia. Participation in formal and informal organizations is mainly concentrated in strong horizontal associations, in particular religious groups. Informal connectedness is an important source of social capital in Guatemala. Unlike membership in organizations, community activities based on reciprocity do not entail a permanent commitment or a significant investment of either time or money. Furthermore, collective activities do not require the existence or the creation of organizations.

The three dimensions of social capital—bonding, bridging and linking—are distributed among groups in the population in different degrees. We found that the poor have lots of social capital, little bridging social capital, and very little or non-existent linking social capital. Bonding organizations are an important risk-management asset for the poor because strong ties provide economic support during shocks, they reduce the impact of poverty, and they act as informal sources of credit and insurance. On the other hand, the elite, represented by the wealthy, the well educated, and men, report having high levels of bridging and linking social capital. Bridging and linking organizations may promote economic advancement and, therefore, may be seen as valuable networks by the non-poor.

Although the poor may have “less” social capital than the non-poor, it is nonetheless a crucial component of their survival (“getting by”) and mobility (“getting ahead”) strategies. Social capital is an important tool for leveraging external assistance, mitigating shocks, shaping community decisions, managing natural resources, and increasing trust. Those villages in the QPES sample that have high levels of social capital are better able than the other villages to manage their collective resources, to take decisions as a community, to prevent and mitigate shocks, and to leverage external assistance.

When communities are isolated and the local bridging organizations dominated by the elite, this can exacerbate exclusionary practices, impede the formation of social capital, and erode trust further. Although the Peace Accord was signed in 1996 and efforts towards an inclusive state were put in place, it may take longer than is desirable for participation patterns to become more inclusive. Overcoming the spatial and social isolation of poor communities is essential for reducing poverty and inequality and will necessitate constructing roads and increasing the number and accessibility of public services (such as schools, health facilities, and government offices and programs). The peace accords should be implemented, and reforms aimed towards a more inclusionary state should be deepened.

Despite the fact that the poor have high levels of bonding social capital, little bridging social capital, and virtually non-existent linking social capital, nonetheless they regard their social capital as a central element of their risk management strategy. Therefore, *existing* policies and programs need to find constructive ways to complement and supplement the strategies that are already being used by the poor and to remove barriers.

Bridging and linking social capital are vital for leveraging external assistance, promoting economic advancement, and reducing income inequality. Therefore, policymakers should aim not only to strengthen bonding social capital among the poor but also to encourage the creation of bridging and linking social capital. The state can foster the creation of these two dimensions of social capital by ensuring that communities are represented on in public service committees and by emphasizing community demand-driven development (CDD development).

Bridging and linking social capital can be important tools for distributing the benefits of development projects equitably and for increasing communities’ links with formal institutions. The qualitative and quantitative evidence presented in this paper clearly shows that bridging and linking social capital is concentrated among the elite and that community committees in some villages are monopolized by a small group of people. As a result, the benefits from CDD development are not shared among all of the residents of the community, and participation in public services committees is not widespread. When promoting CDD development, the state should create mechanisms to reduce the likelihood that elite groups will benefit disproportionately.

The link between education and high levels of social capital is evident. Raising the average level of educational attainment will give poor people greater capacity and confidence to express themselves and to defend their own interests. Educational coverage and quality, especially in rural areas, should be increased. Through education, people learn their rights and obligations as citizens, which in turn will give them an incentive to participate in organizations and collective action activities.

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Annex 1: Methodology

We explored the determinants of social capital at both the household and the individual level. The ENCOVI (2000) gave us the opportunity to explore these two levels of decisionmaking, which enriched our study. Our analysis of the determinants of social capital draws on previous work in the economics literature (Alesina and La Ferrara, 2000, Glaeser et al, 2000, and Glaeser et al, 1999) and will be based on the following framework.

Let Y_{ij} represent a measure for social capital for individual i belonging to household j . Social capital is determined by individual characteristics, X_{ij} , household characteristics, H_j , a set of regional controls, R_{ij} , a set of ethnic controls, E_{ij} , and a random term, e_{ij} ,

$$Y_{ij} = \mathbf{a} + \mathbf{b}_0 X_{ij} + \mathbf{b}_1 H_j + \mathbf{b}_2 R_{ij} + \mathbf{b}_3 E_{ij} + e_{ij}$$

We analyzed the determinants of social capital at the household level similarly but based only on household characteristics, regional, and ethnic controls.

Social capital can be measured in two different ways. The first, membership of formal and informal institutions, is one way that researchers have used widely in the social capital literature. A second approach is to measure informal interdependence based on people's involvement in collective action activities. In developing countries, the second approach is convenient because formal and informal institutions are scarce and are located mainly in urban areas. The ENCOVI (2000) questionnaire included questions that enabled us to create measures of social capital using both of the two approaches.

Membership in Formal and Informal Institutions.

The ENCOVI survey incorporated a section in which individuals older than seven years old identified the three main institutions in which they participated as members and the type of each institution. To create social capital variables based on the first approach, we used the responses to these questions to create dummy variables for membership in the following types of organizations:

1. *Religious groups*
2. *Income-generating groups* such as cooperatives, credit groups, and housing committees
3. *School groups* such as Parent-Teacher Associations and school committees
4. *Groups supervising the provision of public goods* such as boards of water and garbage collection., boards of roads, neighborhood associations, and neighborhood committees
5. *Recreation groups* such as cultural groups, sports groups, and boy and girl scouts
6. *Community service groups* such as charity groups and NGOs
7. *Social groups* such as women's groups and youth associations
8. *Special interests groups* such as commercial or business associations, professional associations, and unions
9. *Bonding associations* such as religious groups, income-generating networks, community services, and special interest groups
10. *Bridging associations* such as school groups, groups supervising the provision of public goods, recreation groups, and social groups.

We calculated cross-tabulations by population groups of the defined group types:

1. *Geographic*. National, urban/rural areas, eight representative regions (and urban/rural areas within each region).
2. *Gender*.
3. *Poverty levels*. By formally classified poverty group.
4. *Consumption aggregate*: By quintile groups.
5. *Age groups*.
6. *Ethnic*. Non-indigenous, Quiche, K'eqchi, Kaqchikel, and Mam
7. *Main and second language spoken*.

We estimated two sets of logistic estimates for each group type. The first set included individual and household characteristics, regional controls excluding the Metropolitan region and ethnic controls excluding the non-indigenous. The second set includes the same variables and incorporates a dichotomous variable denoting home ownership and possession of legal title. We estimated the two sets because the home ownership dummy might have posed endogeneity problems. Since no appropriate controls were found, the two sets were estimated to compare results.

Participation in Collective Action Activities

The ENCOVI questionnaire included a question asking whether any member of the household had participated in any of several collective action activities during the previous 12 months. For the second approach, we used responses to these questions to create dichotomous variables denoting participation in the following collective action activities:

1. *Collection of funds*
2. *Community workshops*
3. *Contacting government officials to access social programs*
4. *Information programs*
5. *Electoral campaigns*
6. *Contacting local politicians*
7. *Notifying judicial authorities when problems arise*
8. *Giving monetary or in-kind donations*
9. *Providing unpaid labor to charity institutions*
10. *Labor exchange agreements*
11. *Community childcare*
12. *Construction of community infrastructure*
13. *Voting in elections*
14. *Membership in any type of group*
15. *Bridging activities*: collection of funds, community workshops, labor exchange agreements, giving monetary or in-kind donations, community childcare, and construction of community infrastructure
16. *Linking activities*: contacting government officials, information campaigns, electoral campaigns, contacting local politicians, notifying the judicial authorities of problems, and voting in elections.

We calculated cross-tabulations by population groups for each collective action activity:

8. *Geographic*. National, urban/rural areas, eight representative regions (and urban/rural areas within each region).
9. *Gender of household head*.
10. *Poverty Levels*. By formally classified poverty group.
11. *Consumption aggregate*: By quintile groups.
12. *Age groups*.

13. *Ethnic*. Non-indigenous, Quiche, K'eqchi, Kaqchikel, and Mam
14. *Main and second language spoken by household head*.

We estimated two sets of logistic regressions for bridging and linking activities. The first set included household characteristics, regional controls excluding the Metropolitan region and ethnic controls excluding the non-indigenous. The second set included the same variables and incorporated a dichotomous variable denoting home ownership and possession of legal title.

The Link between Trust and Participation

The ENCOVI (2000) included a question to examine perceptions of trust at the household level. It asked whether people in the community had enough trust to provide or ask for loans. Based on responses to this question, we created a dichotomous variable equal to one when the household believed that some or most of the people in the community could be trusted to ask for or provide loans. We estimated the following equations for social capital measures and trust:

$$Y_j = \mathbf{a} + \mathbf{b}_1 H_j^y + \mathbf{b}_2 R_j + \mathbf{b}_3 E_j + \mathbf{e}_j \text{ and}$$

$$T_j = \mathbf{a} + \mathbf{b}_1 H_j^T + \mathbf{b}_2 R_j + \mathbf{b}_3 E_j + \mathbf{g}Y_j + \mathbf{e}_j, \text{ where}$$

H_j^y denotes household characteristics influencing social capital measures and H_j^T denotes household characteristics determining trust. Since the social capital measure is endogenous to the model, we estimated a three-stage least squares model for dichotomous variables, using the following social capital measures: participation in bonding organizations, participation in bridging organizations, participation in linking activities, and participation in linking activities.

Annex 2: Tables and Figures

Table 1A: Poverty Profile of the Population
(Percentage of Total Population)

	Total Population	Non-poor	All Poor	Extremely Poor
Total Population	100.0	43.8	56.2	15.7
Regions				
Metropolitan	21.7	82.0	18.0	0.6
North	8.1	16.0	84.0	39.1
North East	8.2	48.2	51.8	8.9
South East	8.8	31.4	68.6	20.1
Central	10.7	48.3	51.7	8.7
North West	26.5	36.0	64.0	17.0
South West	12.9	17.9	82.1	31.5
Petén	3.3	32.0	68.0	12.9
Rural/Urban Area				
Rural	61.4	25.5	74.5	23.8
Urban	38.6	72.9	27.1	2.8
Gender				
Male	48.9	43.6	56.4	15.4
Female	51.1	44.0	56.0	16.0
Ethnic Group				
Indigenous	42.6	23.8	76.1	26.5
K'iqche	9.4	35.6	64.4	19.1
Q'eqchi	6.5	16.5	83.5	38.0
Kaqchiquel	8.9	37.4	62.6	13.6
Mam	8.3	10.3	89.7	34.2
Non-indigenous	57.5	58.6	41.4	7.7

Source: World Bank calculations using ENCOVI 2000, Instituto Nacional de Estadística - Guatemala.

Note: Numbers may not add up to the total because of rounding.

Table 1B: Poverty Profile of the ENCOVI Households
(Percentage of Total Households)

	Total Population	Non-poor	All Poor	Extremely Poor
Total Households	100.0	54.2	45.8	10.8
Regions				
Metropolitan	25.2	87.2	12.8	0.5
North	7.3	22.9	77.1	30.2
North East	8.8	57.9	42.1	5.7
South East	8.6	41.2	58.7	14.2
Central	11.1	58.1	41.8	6.0
North West	11.2	25.3	74.7	24.3
South West	25.0	45.6	54.4	12.4
Petén	3.0	43.4	56.6	9.4
Rural/Urban Area				
Rural	56.6	34.3	65.6	17.8
Urban	43.4	80.0	20.0	1.7
Household Head				
Male	81.6	52.1	63.4	11.8
Female	18.3	47.9	36.6	6.4
Ethnic Group				
Indigenous	42.8	32.5	67.5	20.1
K'iqche	8.8	44.9	55.1	13.4
Q'eqchi	5.8	26.0	74.0	29.5
Kaqchiquel	8.8	46.7	53.3	9.9
Mam	7.2	15.3	84.7	29.5
Non-indigenous	60.8	67.8	32.1	4.9

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Note: Numbers may not add up to the total because of rounding.

Table 2A: Participation in Organizations
(Percentage of Total Population and Standard Deviation)

	Religious	Income Generation ^a	School ^b	Supervision Public Goods ^c	Recreation ^d
Total Population	17.5 (0.9)	0.2 (0.0)	0.5 (0.0)	1.7 (0.1)	2.7 (0.2)
Regions					
Metropolitan	21.8 (2.4)	0.1 (0.0)	0.3 (0.1)	1.3 (0.3)	5.6 (0.8)
North	4.8 (0.8)	0.7 (0.6)	1.2 (0.3)	1.9 (0.3)	1.3 (0.3)
North East	10.5 (1.6)	0.1 (0.0)	0.5 (0.2)	2.9 (1.0)	2.7 (0.8)
South East	12.6 (1.8)	0.2 (0.0)	0.7 (0.2)	1.5 (0.4)	2.2 (0.4)
Central	20.0 (1.5)	0.3 (0.0)	0.5 (0.1)	0.9 (0.1)	3.6 (0.4)
North West	21.1 (1.9)	0.4 (0.2)	0.8 (0.1)	2.9 (0.5)	1.5 (0.2)
South West	19.2 (2.2)	0.2 (0.1)	0.3 (0.0)	1.4 (0.2)	1.5 (0.3)
Petén	15.9 (3.3)	0.5 (0.3)	0.5 (0.1)	1.6 (0.3)	1.2 (0.2)
Rural/Urban Area					
Rural	17.7 (1.3)	0.3 (0.1)	0.6 (0.0)	2.1 (0.2)	1.3 (0.2)
Urban	17.3 (1.2)	0.1 (0.0)	0.5 (0.0)	1.0 (0.2)	5.1 (0.4)
Gender					
Female	19.1 (1.0)	0.1 (0.0)	0.4 (0.0)	0.6 (0.1)	1.0 (0.1)
Male	15.9 (0.9)	0.4 (0.1)	0.6 (0.0)	2.8 (0.2)	4.6 (0.3)
Poverty level					
Non-poor	18.7 (1.0)	0.3 (0.0)	0.6 (0.0)	1.6 (0.2)	4.9 (0.4)
All Poor	16.6 (1.2)	0.2 (0.0)	0.5 (0.0)	1.8 (0.2)	1.0 (0.1)
Extremely Poor	13.8 (1.4)	0.2 (0.2)	0.5 (0.1)	1.5 (0.2)	0.5 (0.1)
Consumption Quintile					
First	14.7 (1.3)	0.2 (0.1)	0.5 (0.1)	1.5 (0.2)	0.5 (0.1)
Second	16.1 (1.3)	0.2 (0.1)	0.5 (0.1)	2.1 (0.3)	1.0 (0.2)
Third	19.2 (2.1)	0.3 (0.1)	0.4 (0.0)	1.6 (0.2)	1.6 (0.2)
Fourth	20.4 (1.5)	0.3 (0.0)	0.5 (0.1)	1.4 (0.2)	3.5 (0.4)
Fifth	17.2 (1.0)	0.3 (0.0)	0.8 (0.1)	2.0 (0.3)	7.2 (0.6)
Age Group					
Under 18	11.7 (0.8)	0.0 (0.0)	0.2 (0.0)	0.0 (0.0)	2.3 (0.2)
18<Age<=30	22.3 (1.5)	0.3 (0.2)	0.6 (0.1)	2.1 (0.3)	5.4 (0.5)
30<Age<=40	26.2 (1.5)	0.5 (0.1)	1.5 (0.2)	3.9 (0.4)	3.2 (0.5)
40<Age<=50	25.7 (1.7)	0.9 (0.2)	1.4 (0.2)	6.6 (0.8)	2.1 (0.4)
50<Age<=60	26.4 (1.9)	0.8 (0.2)	0.4 (0.1)	4.9 (0.7)	0.7 (0.2)
Age>60	22.3 (1.6)	0.6 (0.2)	0.4 (0.2)	2.1 (0.7)	0.8 (0.2)
Ethnic Group					
Indigenous	18.9 (1.5)	0.3 (0.1)	0.5 (0.0)	2.2 (0.2)	1.2 (0.1)
K'iqche	16.6 (2.4)	0.2 (0.1)	0.5 (0.1)	2.0 (0.6)	1.2 (0.3)
Q'eqchi	6.8 (1.5)	0.8 (0.7)	0.8 (0.2)	2.5 (0.6)	0.8 (0.3)
Kaqchiquel	28.0 (3.8)	0.5 (0.1)	0.3 (0.0)	1.3 (0.3)	2.4 (0.4)
Mam	22.0 (4.0)	0.0 (0.0)	0.5 (0.2)	2.2 (0.5)	0.5 (0.2)
Non-indigenous	16.6 (1.1)	0.2 (0.0)	0.5 (0.0)	1.4 (0.2)	3.8 (0.3)
Main/Other Language					
Spanish	21.0 (1.3)	0.3 (0.0)	0.6 (0.0)	1.9 (0.2)	4.6 (0.3)
Indigenous	17.5 (2.2)	0.6 (0.5)	0.6 (0.2)	1.8 (0.3)	0.1 (0.0)
Indigenous/Spanish	30.7 (2.7)	0.4 (0.1)	0.9 (0.2)	3.6 (0.5)	3.5 (0.2)

Source: World Bank calculations using ENCOVI 2000, Instituto Nacional de Estadística - Guatemala.

Note: Numbers may not sum to total because of rounding.

a. Income-generating organizations include: cooperatives, credit groups, and housing committees.

b. School organizations include: Parent and Teacher Associations and school committees.

c. Groups supervising the provision of public goods include: boards of water and garbage collection, boards of roads, neighborhood associations, and neighborhood committees.

d. Recreation groups include: cultural groups, sports groups, and boy scouts and girl scouts.

Table 2B: Participation in Organizations
(Percentage of Total Population and Standard Deviation)

	Community Services ^a	Social ^b	Special interest ^c	Other groups	Participate in any group
Total Population	0.4 (0.1)	0.5 (0.0)	0.3 (0.0)	1.1 (0.1)	23.3 (0.9)
Regions					
Metropolitan	1.1 (0.7)	0.3 (0.1)	0.7 (0.2)	1.5 (0.4)	30.3 (2.3)
North	0.4 (0.1)	0.5 (0.1)	0.0 (0.0)	1.8 (0.5)	11.0 (1.0)
North East	0.1 (0.0)	0.3 (0.1)	0.2 (0.0)	2.3 (0.9)	18.4 (2.5)
South East	0.4 (0.2)	0.8 (0.3)	0.0 (0.0)	1.1 (0.2)	17.7 (2.0)
Central	0.2 (0.0)	0.8 (0.2)	0.4 (0.1)	0.6 (0.1)	25.3 (1.5)
North West	0.2 (0.0)	0.4 (0.1)	0.4 (0.0)	1.1 (0.2)	26.2 (1.9)
South West	0.1 (0.0)	0.5 (0.1)	0.1 (0.0)	0.6 (0.1)	22.9 (2.2)
Petén	0.0 (0.0)	0.3 (0.2)	0.3 (0.1)	1.0 (0.2)	20.3 (3.3)
Rural/Urban Area					
Rural	0.2 (0.0)	0.5 (0.0)	0.0 (0.0)	1.0 (0.2)	22.3 (1.3)
Urban	0.8 (0.4)	0.5 (0.0)	0.8 (0.1)	1.3 (0.2)	25.0 (1.3)
Gender					
Female	0.4 (0.1)	0.7 (0.1)	0.2 (0.0)	0.6 (0.0)	22.3 (1.0)
Male	0.4 (0.2)	0.2 (0.0)	0.5 (0.0)	1.7 (0.2)	24.4 (0.9)
Poverty level					
Non-poor	0.5 (0.1)	0.7 (0.1)	0.7 (0.1)	1.6 (0.2)	27.1 (1.0)
All Poor	0.3 (0.2)	0.3 (0.0)	0.0 (0.0)	0.8 (0.1)	20.4 (1.2)
Extremely Poor	0.0 (0.0)	0.4 (0.1)	0.0 (0.0)	0.9 (0.2)	16.8 (1.4)
Consumption Quintile					
First	0.0 (0.0)	0.3 (0.0)	0.0 (0.0)	0.8 (0.1)	17.7 (1.3)
Second	0.1 (0.0)	0.3 (0.0)	0.0 (0.0)	0.8 (0.2)	20.1 (1.3)
Third	0.7 (0.6)	0.5 (0.1)	0.0 (0.0)	0.9 (0.2)	23.9 (2.0)
Fourth	0.5 (0.2)	0.4 (0.0)	0.2 (0.0)	0.9 (0.2)	26.5 (1.5)
Fifth	0.6 (0.1)	0.8 (0.2)	1.5 (0.2)	2.3 (0.4)	28.6 (1.2)
Age Group					
Under 18	0.3 (0.2)	0.3 (0.0)	0.0 (0.0)	0.1 (0.0)	14.6 (0.8)
18<Age<=30	0.4 (0.0)	0.8 (0.1)	0.5 (0.1)	1.4 (0.2)	31.5 (1.5)
30<Age<=40	0.6 (0.4)	0.8 (0.2)	1.3 (0.3)	2.8 (0.4)	37.0 (1.5)
40<Age<=50	0.9 (0.3)	0.9 (0.2)	1.1 (0.3)	3.4 (0.5)	37.2 (1.7)
50<Age<=60	0.6 (0.2)	0.7 (0.3)	0.6 (0.2)	3.8 (0.7)	34.7 (1.9)
Age>60	0.4 (0.2)	0.4 (0.2)	0.3 (0.1)	1.2 (0.3)	27.0 (1.6)
Ethnic Group					
Indigenous	0.2 (0.0)	0.5 (0.0)	0.1 (0.0)	0.9 (0.1)	23.2 (1.4)
K'iqche	0.3 (0.1)	0.7 (0.2)	0.2 (0.0)	0.6 (0.1)	20.7 (2.4)
Q'eqchi	0.3 (0.1)	0.5 (0.2)	0.1 (0.0)	1.8 (0.4)	13.0 (1.7)
Kaqchiquel	0.1 (0.0)	0.5 (0.2)	0.2 (0.0)	0.7 (0.2)	31.7 (3.7)
Mam	0.0 (0.0)	0.5 (0.2)	0.0 (0.0)	0.8 (0.3)	25.4 (3.7)
Non-indigenous	0.5 (0.3)	0.4 (0.0)	0.5 (0.0)	1.3 (0.2)	23.4 (1.1)
Main/Other Language					
Spanish	0.6 (0.3)	0.6 (0.0)	0.6 (0.0)	1.5 (0.2)	29.4 (1.4)
Indigenous	0.2 (0.0)	0.6 (0.2)	0.0 (0.0)	0.9 (0.3)	21.2 (2.2)
Indigenous/Spanish	0.5 (0.2)	0.8 (0.2)	0.2 (0.0)	1.6 (0.3)	37.1 (2.6)

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Note: Numbers may not sum to total because of rounding.

a. Community services organizations include: charities and non-government organizations

b. Social organizations include: women's groups and youth groups.

c. Special interest groups include: commercial or business associations, professional associations, and "solidarista" organizations.

**Table 3: Average Number of Organizations
Individual and Household Level
(Mean and Standard Deviation)**

	Individual	Household
Total Population	1.09 (0.01)	1.11 (0.01)
Regions		
Metropolitan	1.09 (0.02)	1.12 (0.03)
North	1.17 (0.05)	1.17 (0.05)
North East	1.07 (0.02)	1.09 (0.03)
South East	1.13 (0.02)	1.15 (0.02)
Central	1.08 (0.01)	1.09 (0.01)
North West	1.10 (0.01)	1.13 (0.01)
South West	1.07 (0.01)	1.07 (0.01)
Petén	1.06 (0.02)	1.09 (0.03)
Rural/Urban Area		
Rural	1.07 (0.01)	1.09 (0.01)
Urban	1.11 (0.01)	1.13 (0.02)
Gender		
Female	1.04 (0.01)	1.08 (0.02)
Male	1.13 (0.01)	1.11 (0.01)
Poverty level		
Non-poor	1.11 (0.01)	1.13 (0.02)
All Poor	1.06 (0.01)	1.08 (0.01)
Extremely Poor	1.06 (0.01)	1.09 (0.02)
Consumption Quintile		
First	1.06 (0.01)	1.08 (0.01)
Second	1.07 (0.01)	1.09 (0.01)
Third	1.07 (0.01)	1.07 (0.01)
Fourth	1.07 (0.01)	1.07 (0.01)
Fifth	1.16 (0.02)	1.18 (0.03)
Ethnic Group		
Indigenous	1.09 (0.10)	1.10 (0.12)
K'iqche	1.10 (0.02)	1.11 (0.03)
Q'eqchi	1.13 (0.06)	1.14 (0.06)
Kaqchiquel	1.07 (0.01)	1.07 (0.01)
Mam	1.06 (0.02)	1.07 (0.02)
Non-indigenous	1.09 (0.01)	1.12 (0.01)

Source: World Bank calculations using ENCOVI 2000,
Instituto Nacional de Estadística - Guatemala.

Table 4: Participation in Bridging and Bonding Organizations
Percentage of Individuals Participating
(Percentage of Total Population and Standard Deviation)

	Bonding Organizations ^a	Bridging Organizations ^b
Total Population	18.4 (0.9)	5.3 (0.3)
Regions		
Metropolitan	23.5 (2.5)	7.5 (0.9)
North	5.8 (1.0)	4.8 (0.6)
North East	10.9 (1.7)	6.3 (1.2)
South East	13.1 (1.8)	5.0 (0.8)
Central	20.8 (1.5)	5.6 (0.6)
North West	21.6 (1.9)	5.3 (0.5)
South West	19.8 (2.2)	3.6 (0.4)
Petén	16.6 (3.3)	3.5 (0.4)
Rural/Urban Area		
Rural	18.1 (1.3)	4.3 (0.3)
Urban	18.8 (1.3)	6.9 (0.5)
Gender		
Female	19.7 (1.0)	2.7 (0.2)
Male	17.0 (0.9)	8.0 (0.4)
Poverty level		
Non-poor	20.0 (1.0)	7.6 (0.4)
All Poor	17.1 (1.2)	3.5 (0.3)
Extremely Poor	14.1 (1.4)	2.8 (0.3)
Consumption Quintile		
First	15.0 (1.3)	2.7 (0.3)
Second	16.5 (1.3)	3.8 (0.4)
Third	20.2 (2.1)	4.1 (0.4)
Fourth	21.1 (1.5)	5.6 (0.4)
Fifth	19.1 (1.1)	10.3 (0.7)
Age Group		
Under 18	12.0 (0.8)	2.8 (0.2)
18<Age<=30	23.4 (1.5)	8.6 (0.6)
30<Age<=40	28.0 (1.5)	9.0 (0.7)
40<Age<=50	28.0 (1.7)	10.4 (0.9)
50<Age<=60	27.9 (1.9)	6.5 (0.8)
Age>60	23.3 (1.6)	3.6 (0.7)
Ethnic Group		
Indigenous	19.4 (1.4)	4.3 (0.3)
K'iqche	17.0 (2.4)	4.2 (0.8)
Q'eqchi	8.0 (1.6)	4.5 (0.8)
Kaqchiquel	28.5 (3.8)	4.4 (0.7)
Mam	22.1 (4.0)	4.4 (0.6)
Non-indigenous	17.7 (1.1)	6.0 (0.4)
Main/Other Language		
Spanish	22.3 (1.4)	7.4 (0.4)
Indigenous	18.3 (2.2)	3.0 (0.5)
Indigenous/Spanish	31.3 (2.7)	6.8 (0.6)

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Note: Numbers may not add up to total because of rounding.

a. Bonding organizations include: religious, income-generating, community services, and special interest groups.

b. Bridging organizations include the following groups: school, supervision of public goods, recreation, and social.

Table 5A: Participation in Collective Action Activities during Previous 12 Months
(Percentage of Total Households and Standard Deviation)

	Collection of Funds	Community Workshop	Contact Government Officials	Information Campaign	Election Campaign	Contact Local Politician	Notify Judicial Authorities	Monetary or in Kind Donations
Total Population	12.9 (0.6)	2.4 (0.2)	8.4 (0.6)	6.9 (0.5)	8.1 (0.5)	4.4 (0.4)	8.3 (0.5)	27.2 (1.1)
Regions								
Metropolitan	12.2 (1.5)	1.3 (0.5)	3.0 (0.6)	4.7 (0.9)	6.2 (1.0)	2.8 (0.6)	9.8 (1.4)	32.0 (2.5)
North	16.9 (3.0)	2.4 (0.6)	18.3 (3.6)	13.6 (2.8)	6.8 (1.4)	3.2 (0.8)	7.2 (1.6)	26.1 (4.1)
North East	12.3 (2.0)	3.0 (0.9)	8.8 (2.8)	9.1 (2.8)	11.3 (3.6)	8.1 (2.7)	10.7 (2.5)	28.3 (4.8)
South East	18.0 (2.0)	2.4 (0.6)	8.2 (1.8)	5.8 (1.0)	9.7 (1.4)	4.0 (0.8)	7.3 (1.9)	30.1 (3.3)
Central	13.8 (1.2)	2.9 (0.6)	7.9 (0.9)	6.9 (0.9)	9.1 (1.2)	4.6 (0.7)	7.4 (1.0)	34.1 (2.5)
North West	10.8 (1.6)	2.7 (0.6)	11.0 (1.5)	6.1 (1.0)	8.0 (1.2)	4.3 (0.8)	8.4 (1.1)	17.2 (2.1)
South West	11.5 (1.3)	2.9 (0.6)	9.4 (1.5)	7.3 (1.3)	7.9 (1.1)	5.6 (1.0)	5.5 (0.8)	22.5 (2.4)
Petén	13.7 (1.9)	2.5 (0.7)	13.6 (2.5)	6.3 (1.3)	11.8 (1.9)	6.7 (1.4)	6.7 (1.2)	31.3 (3.8)
Rural/Urban Area								
Rural	12.3 (0.9)	2.7 (0.4)	11.5 (1.0)	7.8 (0.9)	7.9 (0.8)	4.5 (0.6)	6.8 (0.7)	21.2 (1.5)
Urban	13.7 (1.0)	2.0 (0.3)	4.4 (0.4)	5.8 (0.6)	8.3 (0.7)	4.3 (0.5)	10.3 (0.9)	35.2 (1.7)
Household Head								
Male	13.3 (0.7)	2.5 (0.3)	9.5 (0.7)	7.4 (0.6)	8.6 (0.6)	4.9 (0.5)	8.7 (0.6)	27.4 (1.2)
Female	11.3 (1.1)	1.9 (0.5)	3.5 (0.6)	4.7 (0.9)	5.8 (1.0)	2.2 (0.5)	6.3 (1.0)	26.6 (1.9)
Poverty level								
Non-poor	15.2 (0.8)	2.7 (0.4)	6.7 (0.6)	6.5 (0.6)	8.4 (0.6)	4.8 (0.5)	10.6 (0.8)	33.9 (1.5)
All Poor	10.3 (0.9)	2.0 (0.3)	10.4 (1.1)	7.4 (0.9)	7.7 (0.8)	3.9 (0.6)	5.6 (0.6)	19.4 (1.5)
Extremely Poor	7.5 (1.3)	2.5 (0.9)	11.4 (2.0)	7.1 (1.7)	4.4 (1.0)	2.0 (0.5)	5.3 (1.2)	14.8 (2.0)
Consumption Quintile								
First	8.0 (1.2)	2.3 (0.7)	11.5 (1.7)	7.0 (1.4)	4.5 (0.9)	2.2 (0.5)	5.1 (1.0)	14.8 (1.9)
Second	11.4 (1.2)	1.3 (0.3)	10.8 (1.4)	7.5 (1.1)	9.1 (1.2)	4.5 (0.9)	5.6 (1.0)	19.2 (1.7)
Third	11.5 (1.2)	2.5 (0.6)	8.8 (1.1)	7.1 (1.1)	8.7 (1.1)	4.7 (0.8)	7.2 (1.0)	24.3 (2.1)
Fourth	13.5 (1.2)	3.1 (0.6)	8.8 (1.0)	7.0 (0.8)	8.7 (1.0)	5.4 (0.8)	9.8 (1.4)	26.4 (1.7)
Fifth	16.8 (1.2)	2.5 (0.4)	4.8 (0.6)	6.4 (0.8)	8.3 (0.8)	4.4 (0.6)	11.1 (1.0)	41.1 (1.9)
Ethnic Group								
Indigenous	11.8 (1.0)	2.9 (0.4)	12.2 (1.3)	8.8 (1.1)	8.3 (1.0)	4.8 (0.7)	6.5 (0.7)	22.6 (1.8)
K'iqche	7.7 (1.5)	2.7 (0.8)	9.1 (2.2)	6.1 (1.5)	5.4 (1.2)	3.1 (0.9)	5.0 (1.0)	16.7 (2.5)
Q'eqchi	15.1 (3.7)	2.1 (0.7)	19.7 (4.4)	13.1 (3.5)	4.9 (1.5)	2.3 (0.8)	5.2 (1.7)	24.9 (4.7)
Kaqchiquel	12.3 (1.8)	4.9 (1.0)	10.5 (1.6)	9.8 (2.6)	10.6 (1.7)	6.3 (1.4)	8.9 (1.6)	31.7 (3.8)
Mam	12.1 (2.6)	1.6 (0.6)	10.4 (3.2)	5.8 (1.8)	7.3 (2.3)	3.1 (1.2)	6.5 (1.8)	16.6 (3.9)
Non-indigenous	13.6 (0.8)	2.1 (0.3)	6.0 (0.6)	5.8 (5.6)	8.0 (0.6)	4.1 (0.4)	9.4 (0.8)	30.2 (1.4)
Main/Other Language								
Spanish	13.9 (0.8)	2.3 (0.3)	6.4 (0.6)	6.0 (0.6)	8.2 (0.6)	4.3 (0.4)	9.3 (0.7)	30.2 (1.3)
Indigenous	12.5 (2.6)	1.6 (0.5)	15.1 (3.0)	10.4 (2.4)	3.4 (0.9)	1.9 (0.7)	3.7 (1.3)	23.6 (3.6)
Indigenous/Spanish	10.3 (1.1)	2.9 (0.5)	12.0 (1.4)	8.5 (1.3)	9.3 (1.2)	5.3 (0.9)	7.0 (0.8)	19.9 (1.9)

Source: World Bank calculations using ENCOVI 2000, Instituto Nacional de Estadística - Guatemala.

Note: Numbers may add up to total because of rounding.

Table 5B: Participation in Collective Action Activities during Previous 12 Months
(Percentage of Total Households and Standard Deviation)

	Provide Voluntary Work	Labor Agreements	Community Childcare	Community Construction	Vote in Elections	Bridging Activities	Linking Activities – No voting	Linking Activities – Voting
Total Population	16.2 (0.9)	22.7 (1.2)	2.6 (0.3)	36.4 (1.4)	74.7 (0.9)	58.0 (1.3)	23.2 (1.0)	77.8 (0.9)
Regions								
Metropolitan	15.8 (2.2)	11.2 (1.7)	3.7 (1.0)	16.6 (3.0)	77.1 (2.1)	52.1 (2.7)	18.8 (1.9)	79.8 (1.9)
North	15.1 (2.9)	32.5 (5.1)	2.9 (1.0)	47.4 (4.8)	72.1 (2.6)	61.6 (4.4)	30.5 (3.8)	78.3 (2.2)
North East	12.4 (3.3)	31.1 (6.4)	2.4 (1.1)	35.8 (5.9)	75.5 (3.5)	56.0 (6.0)	25.6 (5.0)	78.6 (3.2)
South East	12.5 (1.8)	23.0 (4.1)	2.0 (0.5)	36.7 (4.6)	73.0 (2.7)	54.2 (4.3)	25.6 (3.0)	76.3 (2.7)
Central	20.7 (2.1)	18.5 (1.8)	3.4 (0.7)	31.8 (2.7)	74.6 (1.6)	59.2 (2.6)	23.6 (1.8)	76.8 (1.6)
North West	18.3 (2.4)	27.3 (2.8)	1.9 (0.5)	48.0 (3.1)	73.7 (2.4)	63.1 (2.7)	21.4 (2.0)	77.1 (2.3)
South West	16.7 (1.8)	27.8 (2.8)	1.7 (0.4)	52.9 (3.0)	74.5 (2.2)	61.5 (3.0)	24.2 (2.1)	77.0 (2.1)
Petén	14.1 (2.7)	26.3 (4.1)	1.6 (0.5)	37.7 (4.9)	70.9 (3.0)	61.3 (3.5)	25.9 (3.1)	75.7 (2.7)
Rural/Urban Area								
Rural	15.5 (1.3)	30.2 (1.9)	2.6 (0.4)	50.7 (1.9)	73.5 (1.3)	62.5 (1.9)	24.2 (1.4)	77.0 (1.2)
Urban	17.0 (1.2)	13.0 (1.1)	2.6 (0.5)	17.9 (1.7)	76.3 (1.4)	52.1 (1.7)	21.9 (1.3)	78.9 (1.3)
Household Head								
Male	16.3 (1.0)	24.8 (1.4)	2.7 (0.4)	40.0 (1.5)	78.4 (1.0)	60.2 (1.4)	24.8 (1.1)	81.7 (0.9)
Female	15.4 (1.5)	13.6 (1.5)	2.0 (0.6)	20.6 (2.5)	58.5 (2.4)	48.1 (2.3)	15.9 (1.5)	63.5 (2.2)
Poverty level								
Non-poor	17.8 (1.1)	16.5 (1.1)	2.8 (0.5)	26.4 (1.4)	76.0 (1.1)	56.2 (1.5)	23.9 (1.1)	78.8 (1.1)
All Poor	14.3 (1.2)	30.0 (1.9)	2.4 (0.4)	48.4 (1.9)	73.2 (1.3)	60.1 (1.8)	22.4 (1.4)	76.7 (1.3)
Extremely Poor	10.9 (1.9)	30.9 (3.0)	1.2 (0.5)	52.4 (2.8)	74.9 (2.3)	60.7 (2.8)	20.6 (2.4)	77.6 (2.3)
Consumption Quintile								
First	11.2 (1.7)	31.3 (2.8)	1.3 (0.5)	52.7 (2.6)	74.3 (2.0)	60.4 (2.6)	20.2 (2.1)	77.0 (2.0)
Second	14.2 (1.4)	30.9 (2.3)	2.7 (0.6)	48.9 (2.5)	71.9 (2.0)	60.0 (2.3)	23.6 (2.0)	76.4 (1.7)
Third	17.7 (1.8)	26.7 (1.9)	3.1 (0.7)	44.9 (2.6)	75.0 (1.8)	60.0 (2.6)	23.5 (1.8)	78.2 (1.7)
Fourth	17.0 (1.6)	21.3 (1.7)	2.8 (0.7)	33.6 (2.0)	73.5 (1.8)	54.5 (2.1)	24.2 (1.7)	76.6 (1.8)
Fifth	18.2 (1.3)	11.8 (1.1)	2.8 (0.5)	17.3 (1.4)	77.6 (1.3)	57.0 (1.8)	23.5 (1.4)	80.0 (1.3)
Ethnic Group								
Indigenous	17.6 (1.5)	29.4 (2.1)	2.2 (0.4)	48.6 (2.1)	74.1 (1.5)	61.3 (2.2)	24.7 (1.6)	77.5 (1.4)
K'iqche	12.9 (1.8)	16.1 (2.8)	1.2 (0.4)	40.8 (4.4)	68.4 (3.8)	52.5 (4.4)	17.6 (3.0)	70.4 (3.9)
Q'eqchi	12.3 (3.4)	39.6 (6.5)	1.6 (0.6)	49.5 (6.5)	71.5 (3.1)	60.3 (6.7)	28.5 (5.0)	78.4 (2.7)
Kaqchiquel	28.9 (3.9)	23.0 (2.9)	4.1 (1.3)	39.7 (4.0)	79.0 (2.4)	59.8 (4.1)	27.7 (3.0)	82.1 (2.1)
Mam	14.3 (3.1)	40.8 (5.5)	1.1 (0.5)	65.0 (3.8)	72.5 (4.2)	73.3 (3.9)	23.8 (3.3)	76.4 (3.9)
Non-indigenous	17.6 (3.0)	18.5 (1.4)	2.9 (0.5)	28.8 (1.7)	75.4 (1.1)	55.9 (1.6)	22.3 (1.1)	78.2 (1.1)
Main/Other Language								
Spanish	15.8 (1.0)	18.8 (1.4)	2.8 (0.4)	29.8 (1.7)	75.3 (1.1)	56.2 (1.6)	22.3 (1.1)	78.2 (1.1)
Indigenous	11.8 (2.4)	35.2 (4.3)	1.6 (0.8)	55.4 (4.0)	65.9 (3.0)	63.8 (2.4)	22.7 (3.3)	70.9 (2.8)
Indigenous/Spanish	18.6 (1.7)	29.7 (2.4)	2.5 (0.5)	49.2 (2.5)	76.0 (1.8)	61.1 (2.4)	25.9 (2.0)	78.9 (1.7)

Source: World Bank calculations using ENCOVI 2000, Instituto Nacional de Estadística - Guatemala.

Note: Numbers may not add up to total because of rounding.

Table 6A: Ten Villages in Guatemala: Types and Degree of Social Capital

	Bonding	Bridging	Linking	Overall Degree
KA1	VERY LITTLE Mutual support in face of collective shocks; and Churches.	ALMOST NONE Water Committee; and Union connections.	NONE	VERY LOW
KA2	HIGH Ethnic bonds; Churches; and Mutual support in face of collective shocks.	MEDIUM-HIGH Organization for Widows from Violence; Development Committee; and PTA.	NONE	MEDIUM-HIGH
KI1	LOW Churches; and Mutual Support in face of collective shocks.	HIGH Development Committee; Water Committee; Electricity Committee; Stove Committee; PTA; Cooperative; and Farmers Association.	ALMOST NONE Links between rich and poor households.	MEDIUM-HIGH
KI2	LOW Churches.	MEDIUM Development Committee; Women Group; PTA; and School Committee.	LOW Links with FONAPAZ and NGO that funded latrine project.	MEDIUM
L1	LOW Churches; and Mutual support in face of collective shocks.	MEDIUM Development Committee; Links with migrants (remittances); PTA; and Electricity Committee.	NONE	MEDIUM-LOW
L2	LOW Churches; and Mutual support in face of collective shocks.	LOW Development Committee; School Committee; and Labor agreements between landowners and residents.	NONE	LOW
M1	HIGH Churches; and Mutual support in face of collective shocks.	HIGH PTA; Economic Community Fund; Farmers organization; Development Committee; Women Group; and Links with migrants (remittances).	HIGH Canadian Organization; FODIGUA; PRONADE; DECOPAZ; UNICEF, the E.U. and NGOs	HIGH
M2	MEDIUM Churches; and Mutual support in face of collective shocks.	LOW Development Committee; PTA; and Irrigation Project.	NONE	MEDIUM-LOW
QE1	LOW Churches; Mutual support in face of collective shocks; and voluntary labor.	MEDIUM Development Committee; Water Committee; and School Committee.	MEDIUM INTA; Ministry of Defense; NGO; and Ministry of Agriculture.	MEDIUM-LOW
QE2	LOW Church.	LOW Cooperative; and school committee.	LOW CARE.	LOW

Table 6B: Ten Villages in Guatemala: Gender Participation and Social Capital

	Gender Participation	Overall Degree
KA1	➤ No access to land.	VERY LOW
KA2	<ul style="list-style-type: none"> ➤ Organization for Widows of Violence. ➤ Women group dedicated to raise funds for an agricultural production project. ➤ Exclusion from elections of auxiliary mayor. ➤ Participation in community activities only when men invite them. 	MEDIUM-HIGH
KI1	<ul style="list-style-type: none"> ➤ Women cannot hold legal titles of lands. ➤ Not active in community activities with the exception of programs spearheaded by the Catholic and Evangelical Churches. 	MEDIUM-HIGH
KI2	<ul style="list-style-type: none"> ➤ Women created a group with the purpose of raising funds, providing loans to the group members and collaborating with community activities. Despite the benefits the group may bring to the village, it is not well regarded. ➤ Exclusion from election of community authorities. 	MEDIUM
L1	<ul style="list-style-type: none"> ➤ Women organize themselves to distribute water among the community. ➤ Participation in school activities (e.g. preparation of school lunches). ➤ Exclusion from other community activities and decisionmaking. 	MEDIUM-LOW
L2	<ul style="list-style-type: none"> ➤ Although women can elect committee members, few attend the meetings because they are busy with household chores and men do not invite them. ➤ Participation in school activities (e.g. preparation of school lunches). 	LOW
M1	➤ Micro-enterprise for Women to manage credit system.	HIGH
M2	<ul style="list-style-type: none"> ➤ Exclusion from community activities. ➤ Participation during water and energy project. 	MEDIUM-LOW
QE1	<ul style="list-style-type: none"> ➤ Unpaid work in plots of land of other community members. ➤ Exclusion from community activities and decisionmaking. 	MEDIUM-LOW
QE2	➤ Exclusion from participation and election of community leaders.	LOW

Table 6C: Ten Villages in Guatemala: Coping with Shocks and Social Capital

	Shock	Use of Social Capital to Prevent and Mitigate Shocks	Overall Degree
KA1	Earthquake 1976 Large-scale labor loss	<ul style="list-style-type: none"> ➤ Psychological support. ➤ Meetings to identify community needs. ➤ Establishment of water committee to find new water sources. ➤ Union provides funds to households when workers are discharged. ➤ Union provides lawyers and benefits when they are dismissed. 	VERY LOW
KA2	Violence – Presence of Gangs	<ul style="list-style-type: none"> ➤ Community group to guard town. ➤ Creation of a security system to protect village. 	MEDIUM-HIGH
KI1	Earthquake 1976	<ul style="list-style-type: none"> ➤ Rescuing operations. ➤ Catholic and Evangelists constructed houses and provided food. 	MEDIUM-HIGH
KI2	Earthquake 1976 Earthquake 1986 Cholera epidemic Hurricane Mitch	<ul style="list-style-type: none"> ➤ Little collective action in response to these shocks. 	MEDIUM
L1	Earthquake 1976	<ul style="list-style-type: none"> ➤ Community worked together to overcome shocks. 	MEDIUM-LOW
L2	Earthquake 1976 Tornado 1998	<ul style="list-style-type: none"> ➤ Reconstruction of houses. 	LOW
M1	War Forest fire	<ul style="list-style-type: none"> ➤ Villagers provided the newly homeless with shelter and food. ➤ Villagers try to stop it but they were not equipped to extinguish it. 	HIGH
M2	Rains – Each Year (July – September) Death family member	<ul style="list-style-type: none"> ➤ Village participates in transporting products between the closest point trucks can come and the community by foot and with beasts of burden. ➤ Repair of the road. ➤ Men build the coffin and dig the grave. ➤ Women prepare the food for the funeral. 	MEDIUM-LOW
QE1	Land Conflict with Neighboring Community	<ul style="list-style-type: none"> ➤ Community sent a letter to the President of Guatemala and visited the Ministry of Defense. As a result, soldiers were withdrawn and 25 residents from the other community were arrested. 	MEDIUM-LOW
QE2	Drought 1998	<ul style="list-style-type: none"> ➤ Little collective action in response to these shocks. 	LOW

**Table 7A - Participation in Organizations
Logistic Estimates
(Coefficient and t-statistic)**

	Religious		School ^a		Supervision Public Goods ^b		Recreation ^c	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.0035	0.52	0.1153	2.84	0.2505	8.78	0.0111	0.48
Age Squared	0.0000	-0.25	-0.0015	-3.16	-0.0026	-6.62	-0.0007	-2.11
Male	-0.3042	-8.15	0.3919	1.49	1.6407	7.85	1.6349	12.07
Years education	0.0715	2.78	0.0198	0.29	0.0975	1.93	0.2998	7.02
Years education squared	-0.0031	-2.04	-0.0004	-0.12	-0.0021	-0.73	-0.0134	-5.35
Married	0.5135	6.84	0.0335	0.16	0.5139	3.28	-0.2655	-2.09
Spanish-speaking Indigenous	0.3689	3.15	0.4369	1.48	0.1871	0.83	0.1538	0.77
Years of residence	-0.0011	-0.35	0.0132	1.53	-0.0027	-0.40	0.0076	1.25
Female-headed household	0.1830	1.44	0.0065	0.01	0.6559	2.39	0.0637	0.17
Consumption aggregate	0.0000	-2.67	0.0000	2.09	0.0000	1.63	0.0000	3.48
Household size	0.0300	1.34	-0.0306	-0.60	0.0200	0.78	-0.0146	-0.58
Number children of school age	-0.0003	-0.01	0.2123	2.15	0.0372	0.66	-0.0038	-0.08
Distance to marketplace	-0.0844	-0.78	0.0339	0.13	0.2072	1.70	-0.0137	-0.07
Urban	-0.3905	-2.35	-0.1101	-0.41	-1.2643	-7.01	0.6900	4.19
North	-1.7890	-5.54	1.8919	3.14	-0.3828	-0.55	0.2528	0.85
North West	-0.9667	-3.30	0.8006	1.20	0.6766	1.47	0.1814	0.49
South West	-0.9063	-3.05	1.2659	2.20	0.0803	0.22	0.0273	0.11
Center	-0.5011	-2.05	0.9317	1.73	-0.5524	-1.85	0.3026	1.38
South East	-0.2714	-1.01	0.3756	0.68	-0.2821	-0.83	-0.3601	-1.35
North East	-0.2554	-0.89	1.6330	3.04	0.3044	0.75	0.1991	0.81
Peten	-0.4556	-1.31	0.9260	1.48	0.0491	0.10	-0.4084	-1.53
K'iche	-0.4366	-1.70	-0.2126	-0.56	0.6148	1.77	-0.5049	-1.76
Q'eqchi	-0.2002	-0.58	-0.4067	-0.80	0.8365	1.09	-0.8686	-1.97
Kaqchiquel	0.4502	1.64	-0.5124	-1.23	0.1045	0.36	-0.2830	-1.34
Mam	0.1893	0.68	-0.5544	-0.88	0.6800	1.89	-0.8036	-1.61
Other Indigenous	0.0222	0.09	-0.7782	-2.08	0.8018	2.01	-0.8100	-2.71
F-Test		12.09		5.95		19.62		21.84

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. School organizations include: Parent and Teacher Associations and school committees.

b. Groups supervising the provision of public goods include: boards of water and garbage collection, boards of roads, neighborhood associations and neighborhood committees.

c. Recreation groups include: cultural groups, sports groups, and boy scouts and girl scouts.

Table 7B: Participation in Organizations
Logistic Estimates
(Coefficient and t-statistic)

	Community services ^a		Social ^b		Special Interest ^c		Participate any group	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.0945	3.00	0.0147	0.53	0.1939	5.23	0.0264	3.82
Age Squared	-0.0009	-2.40	-0.0001	-0.25	-0.0021	-4.04	-0.0003	-3.95
Male	-0.3551	-0.71	-1.3220	-5.16	1.0338	3.84	0.0920	1.94
Years education	-0.1070	-1.01	0.3798	4.88	0.2140	2.15	0.0865	4.02
Years education squared	0.0071	1.57	-0.0174	-3.78	-0.0020	-0.44	-0.0030	-2.37
Married	0.3665	0.69	0.5673	2.09	0.1349	0.57	0.4728	7.01
Spanish-speaking Indigenous	0.4395	0.91	-0.0362	-0.12	0.7589	1.39	0.3354	3.11
Years of residence	-0.0131	-1.12	0.0001	0.01	-0.0157	-1.88	-0.0003	-0.12
Female-headed household	-0.4604	-0.52	0.9400	1.88	0.1664	0.32	0.2253	1.90
Consumption aggregate	0.0000	2.36	0.0000	3.87	0.0000	3.60	0.0000	0.20
Household size	-0.1379	-1.84	0.0752	1.56	0.0101	0.11	0.0271	1.41
Number children of school age	0.5879	2.67	0.0698	1.00	0.0660	0.56	0.0250	0.95
Distance to marketplace	-0.2355	-0.50	0.0167	0.07	-0.2675	-0.52	-0.0803	-0.70
Urban	0.6075	1.31	-0.4455	-1.40	1.2895	3.99	-0.3572	-2.61
North	0.4223	0.69	0.1837	0.27	-0.5799	-0.71	-1.1740	-4.45
North West	-0.7761	-0.91	0.2738	0.40	0.2272	0.44	-0.5616	-2.06
South West	0.4126	0.46	1.6005	2.40	-0.1724	-0.32	-0.6637	-2.64
Center	-0.6526	-0.98	1.2486	2.30	1.2303	3.13	-0.3726	-1.72
South East	-0.9250	-1.37	0.5087	0.80	1.1946	3.43	-0.2536	-1.08
North East	-0.1567	-0.20	0.5539	0.82	0.6768	1.68	-0.0516	-0.21
Peten	-1.7591	-1.66	0.7247	0.92	0.6547	1.09	-0.3557	-1.16
K'iche	0.4016	0.60	1.2470	2.49	-0.3733	-0.62	-0.3630	-1.64
Q'eqchi	-0.1301	-0.18	1.2097	2.51	0.5831	0.62	-0.0494	-0.20
Kaqchiquel	-0.7939	-1.02	0.2648	0.75	-0.9461	-1.54	0.3636	1.48
Mam	-0.8308	-0.86	1.1719	1.98			0.1841	0.73
Other Indigenous	-0.5761	-0.65	0.7230	1.57	0.0199	-0.03	-0.0426	-0.21
F-Test		9.23		5.96		10.35		13.20

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. Community services organizations include: charities and non-government organizations

b. Social organizations include: women's and youth groups.

c. Special interest groups include: commerce or business associations, professional associations, and "solidarista" organizations.

Table 8A: Participation in Organizations – Including Homeownership
Logistic Estimates
(Coefficient and t-statistic)

	Religious		School ^a		Supervision Public Goods ^b		Recreation ^c	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.0045	0.68	0.1137	2.83	0.2503	8.77	0.0133	0.56
Age Squared	0.0000	-0.44	-0.0015	-3.17	-0.0026	-6.62	-0.0008	-2.13
Male	-0.3020	-8.07	0.3864	1.46	1.6393	7.93	1.6368	12.05
Years education	0.0661	2.60	0.0244	0.34	0.0984	1.91	0.2961	6.89
Years education squared	-0.0028	-1.88	-0.0006	-0.16	-0.0021	-0.74	-0.0133	-5.31
Married	0.5237	7.05	0.0290	0.14	0.5136	3.27	-0.2572	-2.03
Spanish-speaking Indigenous	0.3494	3.06	0.4481	1.52	0.1907	0.84	0.1534	0.76
Years of residence	-0.0019	-0.61	0.0139	1.62	-0.0026	-0.38	0.0066	1.10
Female-headed household	0.1983	1.57	-0.0004	0.00	0.6552	2.39	0.0768	0.20
Consumption aggregate	0.0000	-3.01	0.0000	2.25	0.0000	1.75	0.0000	3.31
Household size	0.0233	1.08	-0.0255	-0.51	0.0209	0.82	-0.0197	-0.78
Own house/hold legal title	0.2165	1.94	-0.2037	-0.84	-0.0394	-0.24	0.1298	0.92
Number children of school age	0.0069	0.23	0.2062	2.09	0.0363	0.62	0.0012	0.02
Distance to marketplace	-0.0847	-0.77	0.0354	0.14	0.2067	1.70	-0.0203	-0.10
Urban	-0.3745	-2.33	-0.1068	-0.40	-1.2666	-6.99	0.6939	4.18
North	-1.7784	-5.53	1.8897	3.13	-0.3879	-0.55	0.2530	0.86
North West	-0.9452	-3.21	0.7905	1.18	0.6708	1.47	0.1847	0.50
South West	-0.8851	-3.00	1.2506	2.18	0.0729	0.20	0.0304	0.12
Center	-0.4822	-1.97	0.9152	1.71	-0.5587	-1.87	0.3081	1.40
South East	-0.2768	-1.04	0.3816	0.70	-0.2827	-0.84	-0.3619	-1.36
North East	-0.2296	-0.81	1.6178	3.00	0.2977	0.72	0.2019	0.83
Peten	-0.4223	-1.21	0.9047	1.44	0.0410	0.08	-0.4042	-1.52
K'iche	-0.4083	-1.60	-0.2396	-0.63	0.6081	1.73	-0.5006	-1.74
Q'eqchi	-0.1777	-0.50	-0.4353	-0.87	0.8329	1.09	-0.8516	-1.92
Kaqchiquel	0.4211	1.55	-0.4820	-1.17	0.1088	0.38	-0.3139	-1.45
Mam	0.1988	0.73	-0.5697	-0.91	0.6774	1.88	-0.7976	-1.60
Other Indigenous	0.0327	0.14	-0.7811	-2.08	0.7996	2.02	-0.8054	-2.69
F-Test	11.74		6.24		18.89		21.10	

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. School organizations include: Parent and Teacher Associations and school committees.

b. Groups supervising the provision of public goods include: boards of water and garbage collection, board of roads, neighborhood associations and neighborhood committees.

c. Recreation groups include: cultural groups, sports groups, and boy scouts and girl scouts.

Table 8B: Participation in Organizations – Including Homeownership
Logistic Estimates
(Coefficient and t-statistic)

	Community services ^a		Social ^b		Special Interest ^c		Participate any group	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.09	3.00	0.0147	0.53	0.1994	5.42	0.0275	3.96
Age Squared	0.00	-2.36	-0.0001	-0.25	-0.0022	-4.20	-0.0003	-4.07
Male	-0.37	-0.73	-1.3218	-5.15	1.0461	3.84	0.0948	1.97
Years education	-0.10	-0.95	0.3795	4.93	0.2075	2.09	0.0819	3.80
Years education squared	0.01	1.51	-0.0174	-3.79	-0.0019	-0.40	-0.0028	-2.18
Married	0.35	0.66	0.5677	2.09	0.1373	0.58	0.4811	7.18
Spanish-speaking Indigenous	0.46	0.95	-0.0369	-0.12	0.7699	1.40	0.3202	3.05
Years of residence	-0.01	-0.97	0.0000	0.00	-0.0176	-2.01	-0.0010	-0.36
Female-headed household	-0.49	-0.54	0.9406	1.88	0.1880	0.36	0.2383	2.01
Consumption aggregate	0.00	2.78	0.0000	3.63	0.0000	3.42	0.0000	-0.20
Household size	-0.12	-1.77	0.0749	1.62	-0.0049	-0.06	0.0215	1.17
Own house/hold legal title	-0.40	-1.04	0.0120	0.05	0.3110	1.11	0.1865	1.92
Number children of school age	0.58	2.70	0.0701	1.01	0.0770	0.66	0.0311	1.21
Distance to marketplace	-0.20	-0.41	0.0167	0.07	-0.2803	-0.54	-0.0808	-0.70
Urban	0.60	1.32	-0.4456	-1.40	1.2989	4.02	-0.3471	-2.59
North	0.43	0.71	0.1842	0.27	-0.5838	-0.72	-1.1663	-4.39
North West	-0.77	-0.91	0.2742	0.41	0.2148	0.41	-0.5460	-1.98
South West	0.39	0.44	1.6011	2.42	-0.1674	-0.32	-0.6472	-2.57
Center	-0.68	-1.01	1.2492	2.33	1.2308	3.05	-0.3573	-1.63
South East	-0.92	-1.38	0.5083	0.79	1.2075	3.50	-0.2588	-1.12
North East	-0.19	-0.23	0.5552	0.84	0.6649	1.66	-0.0309	-0.13
Peten	-1.77	-1.67	0.7260	0.92	0.6269	1.05	-0.3300	-1.06
K'iche	0.37	0.55	1.2481	2.46	-0.3854	-0.62	-0.3400	-1.55
Q'eqchi	-0.20	-0.27	1.2105	2.51	0.6221	0.67	-0.0277	-0.11
Kaqchiquel	-0.74	-0.99	0.2630	0.75	-0.9898	-1.62	0.3373	1.39
Mam	-0.86	-0.89	1.1718	1.98			0.1920	0.78
Other Indigenous	-0.59	-0.66	0.7233	1.56	0.0214	0.04	-0.0340	-0.17
F-Test		8.79		5.76		10.26		12.71

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. Community services organizations include: charities and non-government organizations

b. Social organizations include: women's and youth groups.

c. Special interest groups include: commerce or business associations, professional associations, and "solidarista" organizations.

Table 9: Participation in Organizations
Logistic Estimates
(Coefficient and t-statistic)

	Bonding organizations ^a		Bridging organizations ^b	
	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.0095	1.49	0.0680	4.98
Age Squared	-0.0001	-1.16	-0.0009	-4.81
Male	-0.2621	-5.85	1.2081	12.44
Years education	0.0502	2.05	0.1751	6.39
Years education squared	-0.0012	-0.84	-0.0081	-5.04
Married	0.5287	7.55	0.1276	1.24
Spanish-speaking Indigenous	0.3621	3.19	0.1079	0.73
Years of residence	-0.0019	-0.59	0.0055	1.45
Female-headed household	0.1546	1.23	0.3735	1.77
Consumption aggregate	0.0000	-1.65	0.0000	4.04
Household size	0.0288	1.29	0.0181	1.10
Number children of school age	0.0198	0.66	0.0247	0.72
Distance to marketplace	-0.1042	-0.89	0.0669	0.39
Urban	-0.3806	-2.29	-0.0583	-0.50
North	-1.5851	-5.00	0.1228	0.41
North West	-0.9433	-3.18	0.4157	1.56
South West	-0.8432	-2.81	0.1899	0.81
Center	-0.4458	-1.77	0.1873	1.03
South East	-0.2190	-0.80	-0.2816	-1.43
North East	-0.1828	-0.63	0.3401	1.49
Peten	-0.4148	-1.20	-0.0299	-0.15
K'iche	-0.4443	-1.77	0.1391	0.64
Q'eqchi	-0.1223	-0.36	0.1325	0.32
Kaqchiquel	0.4406	1.65	-0.1623	-1.02
Mam	0.1623	0.59	0.1226	0.44
Other Indigenous	-0.0119	-0.05	0.0816	0.34
F-Test		11.96		19.99

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. Bonding organizations include: religious, income-generating, community services, and special interest groups.

b. Bridging organizations include the following groups: school, supervision of public goods, recreation, and social.

Table 10:– Participation in Organizations – Including Homeownership
Logistic Estimates
(Coefficient and t-statistic)

	Bonding organizations ^a		Bridging organizations ^b	
	Coefficient	t-statistic	Coefficient	t-statistic
Age	0.0105	1.65	0.0683	5.03
Age Squared	-0.0001	-1.33	-0.0009	-4.86
Male	-0.2599	-5.74	1.2086	12.45
Years education	0.0454	1.88	0.1743	6.31
Years education squared	-0.0010	-0.68	-0.0080	-5.03
Married	0.5376	7.73	0.1288	1.24
Spanish-speaking Indigenous	0.3452	3.12	0.1064	0.72
Years of residence	-0.0026	-0.83	0.0054	1.39
Female-headed household	0.1681	1.34	0.3752	1.77
Consumption aggregate	0.0000	-2.04	0.0000	4.08
Household size	0.0230	1.07	0.0172	1.04
Own house/hold legal title	0.1917	1.69	0.0307	0.29
Number children of school age	0.0262	0.90	0.0256	0.74
Distance to marketplace	-0.1048	-0.89	0.0666	0.39
Urban	-0.3673	-2.27	-0.0576	-0.49
North	-1.5756	-4.97	0.1238	0.42
North West	-0.9249	-3.09	0.4176	1.57
South West	-0.8242	-2.75	0.1923	0.82
Center	-0.4289	-1.69	0.1896	1.04
South East	-0.2231	-0.83	-0.2824	-1.43
North East	-0.1596	-0.56	0.3428	1.49
Peten	-0.3858	-1.11	-0.0266	-0.13
K'iche	-0.4194	-1.68	0.1423	0.65
Q'eqchi	-0.1008	-0.29	0.1362	0.33
Kaqchiquel	0.4150	1.58	-0.1678	-1.05
Mam	0.1707	0.64	0.1240	0.44
Other Indigenous	-0.0027	-0.01	0.0829	0.34
F-Test		11.57		19.68

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. Bonding organizations include: religious, income-generating, community services, and special interest groups.

b. Bridging organizations include the following groups: school, supervision of public goods, recreation, and social.

Table 11A: Participation in Collective Action Activities during Previous 12 Months
Logistic Estimates
(Coefficient and t-statistic)

	Bridging Activities ^a		Linking Activities – No Voting ^b		Linking Activities – Voting ^c	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Household size	0.0624	2.58	-0.0149	-0.72	0.0827	3.34
Highest level of education	0.0375	3.19	0.0613	5.38	0.0973	5.66
Female-headed household	-0.3016	-2.51	-0.4245	-3.21	-0.7476	-5.48
Consumption aggregate	0.0000	2.37	0.0000	0.20	0.0000	-0.02
Number of Children of school age	-0.0269	-0.86	0.0561	1.30	-0.0174	-0.37
Distance to market place	-0.0763	-0.87	-0.0221	-0.18	-0.0634	-0.64
Age household head	0.0495	3.85	0.0760	4.56	0.1295	9.81
Age household head squared	-0.0005	-4.22	-0.0008	-4.65	-0.0012	-9.81
Spanish-speaking household head	-0.1455	-1.11	0.1930	1.34	0.2791	1.92
Married household head	0.0681	0.87	0.0370	0.39	0.2713	2.71
Years of residence household head	0.0016	0.60	0.0014	0.39	0.0014	0.35
Urban	-0.5321	-3.91	-0.1757	-1.49	-0.2174	-1.58
North	0.3531	1.09	0.7795	2.83	-0.1665	-0.54
North East	0.1803	0.68	0.5664	1.86	0.1046	0.38
South East	0.0215	0.09	0.6024	2.58	-0.1365	-0.54
Center	0.2988	1.65	0.2974	1.35	-0.1611	-0.71
South West	0.1585	0.77	0.4544	2.19	0.0764	0.30
North West	0.2008	0.96	0.2595	0.97	-0.1438	-0.56
Peten	0.4837	2.21	0.6317	2.32	0.0487	0.18
K'iche	0.0123	0.05	-0.2877	-1.28	-0.2644	-1.05
Q'eqchi	-0.0194	-0.05	0.0139	0.05	0.1188	0.45
Kaqchiquel	0.2291	1.17	0.2885	1.29	0.1588	0.84
Mam	0.7664	2.78	-0.1671	-0.69	-0.1916	-0.69
Other indigenous	0.3395	1.50	0.2644	0.89	0.2015	0.83
F-test		6.41		5.59		13.18

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

^a. Bridging activities include: collect funds, community workshops, labor agreements, donations in cash or kind, community childcare, construction of community infrastructure.

^b. Linking activities – No voting include: contact government officials, information campaigns, electoral campaigns, contact local politicians and notify to judicial authorities.

^c. Linking activities – Voting adds vote in election to linking activities – no voting.

Table 11B: Participation in Collective Action Activities during Previous 12 Months – Including Homeownership
Logistic Estimates
(Coefficient and t-statistic)

	Bridging Activities ^a		Linking Activities – No Voting ^b		Linking Activities – Voting ^c	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Household size	0.0594	2.46	-0.0168	-0.81	0.0818	3.28
Highest level of education	0.0357	3.04	0.0601	5.21	0.0968	5.71
Female-headed household	-0.2989	-2.48	-0.4231	-3.19	-0.7472	-5.47
Consumption aggregate	0.0000	2.07	0.0000	0.08	0.0000	-0.08
Number of Children of school age	-0.0239	-0.77	0.0580	1.35	-0.0168	-0.36
Distance to market place	-0.0775	-0.89	-0.0225	-0.19	-0.0639	-0.64
Own house/hold legal title	0.1926	1.96	0.1185	1.19	0.0517	0.42
Age household head	0.0475	3.71	0.0746	4.44	0.1291	9.74
Age household head squared	-0.0005	-4.13	-0.0008	-4.57	-0.0012	-9.80
Spanish-speaking household head	-0.1622	-1.23	0.1823	1.28	0.2751	1.89
Married household head	0.0653	0.83	0.0354	0.37	0.2705	2.70
Years of residence household head	0.0010	0.38	0.0010	0.29	0.0013	0.33
Urban	-0.5289	-3.90	-0.1733	-1.47	-0.2167	-1.58
North	0.3563	1.09	0.7822	2.83	-0.1673	-0.54
North East	0.1860	0.70	0.5718	1.88	0.1045	0.38
South East	0.0331	0.14	0.6123	2.60	-0.1356	-0.54
Center	0.3014	1.64	0.3006	1.36	-0.1623	-0.72
South West	0.1522	0.74	0.4526	2.20	0.0726	0.29
North West	0.2098	0.99	0.2676	0.99	-0.1428	-0.56
Peten	0.4965	2.27	0.6410	2.35	0.0512	0.19
K'iche	0.0342	0.15	-0.2740	-1.22	-0.2585	-1.02
Q'eqchi	0.0040	0.01	0.0294	0.10	0.1250	0.47
Kaqchiquel	0.2201	1.14	0.2822	1.27	0.1568	0.83
Mam	0.7781	2.83	-0.1615	-0.66	-0.1889	-0.68
Other indigenous	0.3530	1.55	0.2722	0.92	0.2034	0.84
F-test		6.51		5.43		12.61

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

^a. Bridging activities include: collect funds, community workshops, labor agreements, donations in cash or kind, community childcare, construction of community infrastructure.

^b. Linking activities – No voting include: contact government officials, information campaigns, electoral campaigns, contact local politicians and notify to judicial authorities.

^c. Linking activities – Voting adds vote in election to linking activities – no voting.

Table 12: Social Capital and Collective Action
(Percentage of Total Communities)

	Number of Organizations in the Community	
	Below Median	Above Median
Community Participate in Collective Action	51.7	75.5
Community Welfare Improved	63.3	77.5

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Table 13: Coping with Shocks
Type of Shock and Mitigation Strategy
(Percentage of Total Households)

Type of Shock	Mitigation Strategy						
	Did Nothing	Self-Help ^a	Informal ^b	Insurance	Government	Reduced Consumption	NGO/ International
Earthquake	46.3	6.1	2.7	38.6	0.0	6.3	0.0
Drought	60.1	19.5	3.1	9.6	0.4	6.8	0.5
Floods	56.9	10.6	7.1	9.7	1.3	12.7	1.9
Tempest	55.6	18.4	6.7	11.4	0.0	7.1	0.8
Hurricane	40.5	22.1	3.3	23.4	0.0	10.4	0.3
Pest	58.0	17.4	4.5	14.0	0.2	5.5	0.4
Landslides	64.8	14.0	0.4	14.7	0.0	6.2	0.0
Forest fires	72.2	6.3	9.1	9.7	0.0	2.9	0.0
Enterprise closures	60.2	17.9	2.8	5.6	5.5	8.0	0.0
Massive lay-offs	62.2	13.9	1.8	12.7	0.0	9.4	0.0
Inflation	28.5	21.0	1.7	2.3	0.0	46.6	0.0
Public Protest	47.3	5.4	0.0	18.4	0.0	28.9	0.0
Other covariate	52.2	12.9	1.5	24.4	0.0	9.0	0.0
Job loss	34.8	25.7	7.2	11.3	0.1	20.6	0.3
Income drop	31.0	25.6	3.7	9.0	0.0	30.8	0.0
Bankruptcy	46.7	27.3	0.0	14.9	0.0	11.1	0.0
Accident breadwinner	26.1	16.8	22.7	23.4	0.1	10.5	0.5
Death breadwinner	27.5	38.3	12.5	16.0	0.0	5.8	0.0
Death of other household member	28.4	9.3	37.1	20.0	0.0	5.3	0.0
Abandonment of breadwinner	35.8	48.2	4.6	2.9	0.0	8.6	0.0
Fire	34.5	0.0	14.7	50.8	0.0	0.0	0.0
Criminal offense	78.4	6.9	4.5	4.1	0.0	4.2	1.9
Land dispute	54.3	25.6	8.0	12.1	0.0	0.0	0.0
Family dispute	60.8	9.5	15.0	10.4	0.0	4.3	0.0
Lost remittances	32.0	23.3	11.7	14.0	0.0	19.1	0.0
Lost harvest	50.5	25.6	4.8	9.4	0.1	8.8	0.8
Other Idiosyncratic	68.8	7.2	4.9	4.0	0.0	15.1	0.0

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. Self-Help includes: sold or pledged/mortgaged assets, used assets to generate more income or supplied more work.

b. Informal includes: borrowed from friends, relatives, moneylender or from workplace; or received help from friends, relatives, or neighbors.

**Table 14; Social Capital and Leveraging External Assistance -
 Help from Organizations, Success in Leveraging External Assistance, and Number of
 Organizations in Community
 (Percentage of Total Communities)**

	Number of Organizations in the Community	
	Below Median	Above Median
Help from any Institution ^a	61.8	94.2
Help from Government	23.5	42.6
Help from Social Funds ^b	29.5	60.4
Help from Institutions ^c	9.7	35.2
Help from NGO	21.2	32.8
Success Leveraging Funds	84.1	90.1
Success in Project Application	59.0	65.6
Success Obtaining Support from Institutions	64.6	77.4

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

a. The Institutions include: government, politicians, church, school, NGOs and Social Funds.

b. Social Funds include: FIS, FONAPAZ, FSDC, and other Social Funds.

c. Institutions include: politicians, church, and school.

Table 15: Social Capital, Poverty Level and Consumption Aggregate
(Percentage of Total Households)

	Number of Organizations Per Household	
	Below Median	Above Median
Consumption Quintile		
First	22.2	20.2
Second	27.1	21.7
Third	17.3	20.5
Fourth	20.4	16.2
Fifth	12.9	21.3
Poverty Level		
Non-poor	36.4	41.9
All Poor	63.6	58.1
Extremely Poor	16.4	13.8

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Table 16: Trust^a
(Percentage of Total Households and Standard Deviation)

	Most of the People	Some People	Nobody
Total Population	8.7 (0.1)	46.0 (1.3)	45.3 (1.3)
Regions			
Metropolitan	4.6 (1.1)	27.1 (2.7)	68.4 (3.0)
North	6.1 (1.5)	41.4 (4.3)	52.5 (4.6)
North East	15.8 (4.0)	51.3 (4.4)	32.9 (3.7)
South East	13.9 (2.2)	50.6 (3.3)	35.5 (3.0)
Central	6.8 (1.0)	49.8 (2.3)	43.4 (2.2)
North West	9.0 (1.4)	60.0 (2.7)	31.0 (2.6)
South West	10.0 (1.6)	53.6 (2.9)	36.4 (2.9)
Petén	8.3 (1.5)	59.5 (3.4)	32.2 (3.4)
Rural/Urban Area			
Rural	10.5 (1.1)	53.6 (1.7)	35.9 (1.7)
Urban	6.3 (0.7)	36.1 (1.9)	57.5 (2.1)
Household Head			
Male	8.8 (0.7)	46.4 (1.4)	44.7 (1.5)
Female	7.9 (1.2)	44.3 (2.4)	47.7 (2.2)
Poverty level			
Non-poor	8.3 (0.8)	40.1 (1.5)	51.6 (1.7)
All Poor	9.1 (0.9)	53.0 (1.7)	37.9 (1.6)
Extremely Poor	6.9 (1.4)	56.3 (2.6)	36.8 (2.5)
Consumption Quintile			
First	7.3 (1.3)	56.2 (2.2)	36.4 (2.2)
Second	8.6 (1.0)	52.6 (2.3)	38.7 (2.3)
Third	10.6 (1.4)	51.2 (2.2)	38.2 (2.3)
Fourth	8.5 (1.0)	44.7 (2.4)	46.9 (2.6)
Fifth	8.3 (1.0)	34.5 (2.0)	57.2 (2.1)
Ethnic Group			
Indigenous	7.1 (0.7)	52.8 (1.9)	40.0 (1.9)
K'iqche	7.1 (1.4)	56.0 (4.0)	36.9 (3.4)
Q'eqchi	6.9 (1.6)	49.0 (5.2)	44.0 (5.6)
Kaqchiquel	5.1 (1.1)	44.2 (3.5)	50.7 (3.7)
Mam	7.3 (2.0)	61.9 (4.4)	30.8 (3.9)
Non-indigenous	9.7 (1.0)	41.8 (1.6)	48.6 (1.7)
Main/Other Language			
Spanish	9.7 (0.9)	42.5 (1.6)	47.8 (1.7)
Indigenous	7.3 (1.4)	57.4 (3.5)	35.4 (3.5)
Indigenous/Spanish	6.3 (0.8)	52.7 (2.1)	41.0 (2.1)

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Note: Numbers may not add up to total because of rounding.

a. This variable is based on a question that asked whether people in the community had enough trust to provide or ask for loans.

Table 17: Participation in Bonding Organizations and Trust
Three Stage Least Squares
(Coefficient and t-statistic)

	Trust and Participation in Bonding Organization			
	Trust		Participation in Bonding Organizations	
	Coefficient	t-statistic	Coefficient	t-statistic
Household size	-0.0056	-0.68	0.0020	0.22
Highest level of education	0.0067	2.02	0.0064	1.90
Female-headed household	-0.0714	-1.42	0.2246	4.56
Consumption aggregate	0.0000	-3.99	0.0000	2.13
Number of Children of schoolage	0.0044	0.28	0.0185	1.14
Participation in bonding organizations	0.7222	1.90		
Distance to market place	(Not Included)		-0.0477	-0.84
Age household head	-0.0096	-1.46	0.0255	3.76
Age household head squared	0.0001	0.90	-0.0002	-2.73
Spanish-speaking household head	-0.0756	-1.53	0.1485	3.02
Married household head	0.0266	0.41	0.4093	10.50
Years of residence household head	0.0039	3.52	-0.0040	-3.39
Urban	-0.2750	-6.12	-0.0834	-2.01
North	-0.0028	-0.03	-0.3818	-4.11
North East	0.4879	6.73	-0.1318	-1.60
South East	0.5781	8.11	-0.0650	-0.85
Center	0.4307	5.91	0.0986	1.40
South West	0.5408	5.96	0.2522	3.54
North West	0.6705	5.59	0.4492	6.32
Peten	0.6877	8.88	-0.2237	-2.52
K'iche	-0.1093	-1.57	-0.1139	-1.64
Q'eqchi	0.1191	1.41	0.2682	2.94
Kaqchiquel	-0.1843	-2.24	0.3476	4.67
Mam	-0.1378	-1.62	0.1387	1.62
Other indigenous	0.3672	1.33	-0.1098	-0.36

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Table 18: Participation in Bridging Organizations and Trust
Three-Stage Least Squares
(Coefficient and t-statistic)

	Trust and Participation in Bridging Organization			
	Trust		Participation in Bridging Organizations	
	Coefficient	t-statistic	Coefficient	t-statistic
Household size	-0.0078	-0.91	0.0266	2.41
Highest level of education	0.0061	1.64	0.0331	7.59
Female-headed household	-0.0033	-0.07	-0.4277	-5.90
Consumption aggregate	0.0000	-3.82	0.0000	5.13
Number of Children of school age	0.0055	0.35	0.0320	1.68
Participation in bridging organizations	0.4579	1.22		
Distance to market place	(Not Included)		0.0692	1.14
Age household head	-0.0041	-0.67	0.0139	1.42
Age household head squared	0.0000	0.42	-0.0003	-2.94
Spanish-speaking household head	-0.0548	-1.13	0.1145	1.91
Married household head	0.1121	3.12	0.0828	1.78
Years of residence household head	0.0031	2.81	0.0015	0.97
Urban	-0.2749	-5.81	-0.4120	-7.75
North	-0.0842	-1.04	0.1311	1.20
North East	0.4665	6.22	0.2054	2.03
South East	0.5763	8.17	0.0963	0.99
Center	0.4686	7.16	-0.0288	-0.31
South West	0.6141	8.99	0.0713	0.77
North West	0.7692	9.72	0.4353	4.85
Peten	0.6572	8.24	0.1540	1.44
K'iche	-0.1391	-2.08	-0.0397	-0.45
Q'eqchi	0.1622	2.01	0.0978	0.94
Kaqchiquel	-0.1079	-1.51	0.1272	1.32
Mam	-0.1141	-1.34	0.1349	1.31
Other indigenous	0.2286	0.75	1.1011	4.08

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Table 19: Participation in Bridging Activities and Trust
Three-Stage Least Squares
(Coefficient and t-statistic)

	Trust and Participation in Bridging Activities			
	Trust		Participation in Bridging Activities	
	Coefficient	t-statistic	Coefficient	t-statistic
Household size	0.0065	0.78	0.0271	3.24
Highest level of education	0.0174	5.29	0.0227	7.34
Female-headed household	-0.1094	-2.45	-0.1870	-4.22
Consumption aggregate	0.0000	-0.60	0.0000	5.22
Number of Children of school age	0.0104	0.73	0.0076	0.49
Participation in bridging activities	-1.0518	-5.71		
Distance to market place	(Not Included)		0.0470	1.15
Age household head	0.0071	1.13	0.0224	3.71
Age household head squared	-0.0001	-1.57	-0.0002	-4.05
Spanish-speaking household head	-0.0655	-1.52	-0.0819	-1.75
Married household head	0.1336	4.14	0.0944	2.71
Years of residence household head	0.0029	2.82	0.0011	1.07
Urban	-0.3691	-10.64	-0.3093	-8.22
North	0.0220	0.29	0.1699	2.18
North East	0.4470	6.11	0.1946	2.72
South East	0.5079	6.54	0.1688	2.46
Center	0.4407	6.69	0.2138	3.31
South West	0.5698	7.72	0.2455	3.70
North West	0.7690	9.87	0.3786	5.67
Peten	0.6969	9.24	0.4353	5.60
K'iche	-0.1395	-2.27	-0.0725	-1.11
Q'eqchi	0.2435	3.29	0.2785	3.47
Kaqchiquel	0.0848	1.05	0.3498	4.87
Mam	0.0762	0.82	0.3469	4.01
Other indigenous	0.3017	1.19	0.0962	0.36

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

Table 20: Participation in Linking Activities and Trust
Three-Stage Least Squares
(Coefficient and t-statistic)

	Trust and Participation in Linking Activities			
	Trust		Participation in Linking Activities	
	Coefficient	t-statistic	Coefficient	t-statistic
Household size	0.0051	0.54	0.0628	6.17
Highest level of education	0.0157	3.71	0.0406	11.27
Female-headed household	-0.1266	-2.10	-0.4727	-9.84
Consumption aggregate	0.0000	-2.80	0.0000	3.15
Number of Children of school age	0.0040	0.26	-0.0286	-1.54
Participation in linking activities	-0.6489	-2.46		
Distance to market place	(Not Included)		-0.0261	-0.49
Age household head	0.0086	1.05	0.0643	9.80
Age household head squared	-0.0001	-1.35	-0.0006	-9.76
Spanish-speaking household head	-0.0104	-0.22	0.1583	2.95
Married household head	0.1447	4.05	0.1821	4.58
Years of residence household head	0.0040	3.59	0.0052	4.21
Urban	-0.3050	-8.13	-0.0727	-1.69
North	-0.0420	-0.53	0.1901	2.07
North East	0.5109	7.14	0.2992	3.53
South East	0.5758	8.30	0.1127	1.43
Center	0.4564	6.99	0.0572	0.78
South West	0.6404	9.65	0.2636	3.39
North West	0.8013	11.66	0.1883	2.43
Peten	0.6724	8.73	0.2030	2.31
K'iche	-0.1899	-2.81	-0.2656	-3.59
Q'eqchi	0.1488	1.87	-0.0855	-0.94
Kaqchiquel	-0.0931	-1.33	0.0280	0.34
Mam	-0.1359	-1.61	-0.1528	-1.58
Other indigenous	0.2907	1.06	-0.2466	-0.87

Source: World Bank calculations using ENCOVI 2000, *Instituto Nacional de Estadística* - Guatemala.

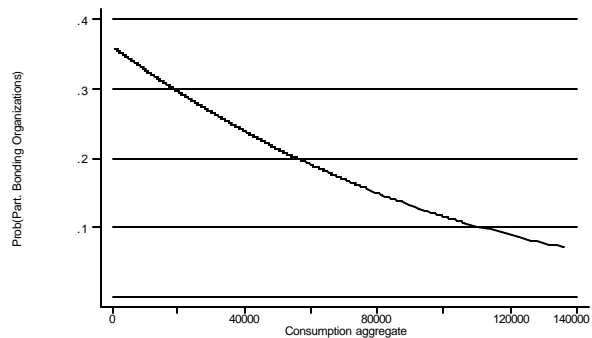


Figure 1. Participation and Consumption Aggregate

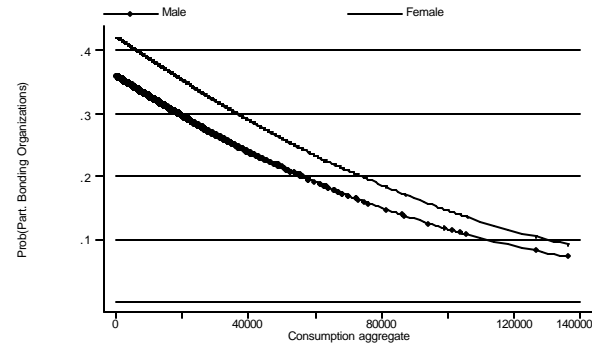


Figure 2. Participation by Gender

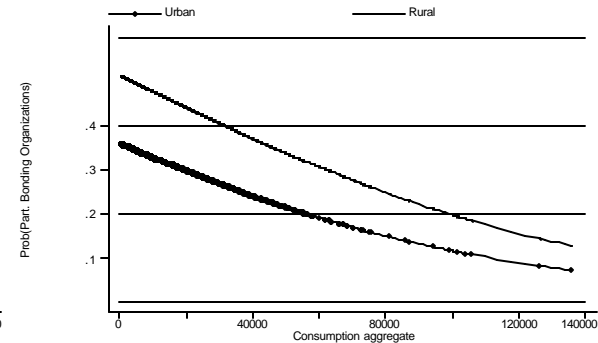


Figure 3. Participation by Urban and Rural Area

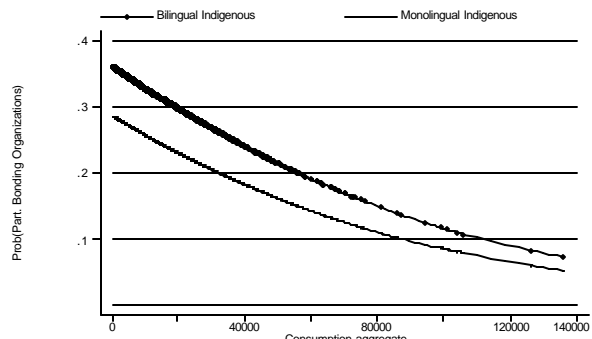


Figure 4. Participation by Bilingual and Monolingual Indigenous

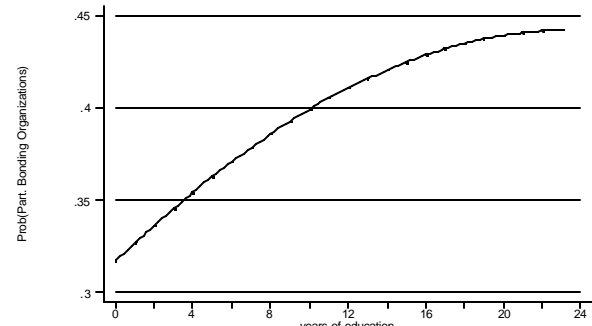


Figure 5. Participation and Education

Who Participates in Bonding Organizations?

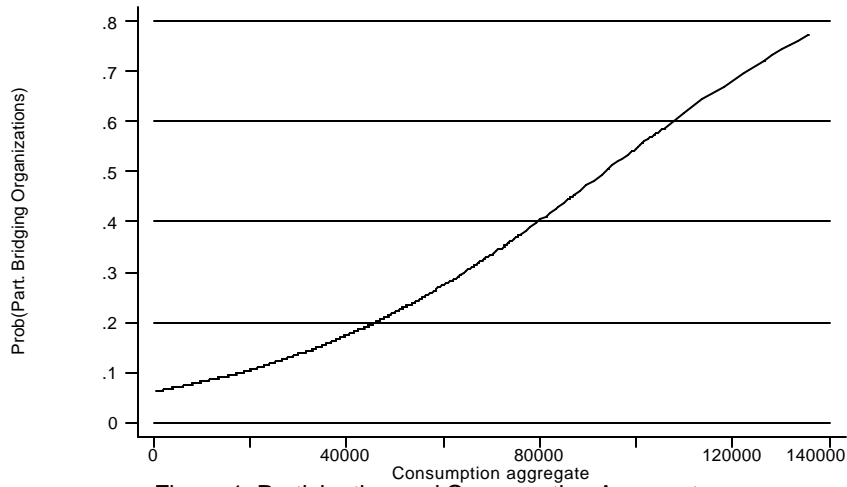


Figure 1. Participation and Consumption Aggregate

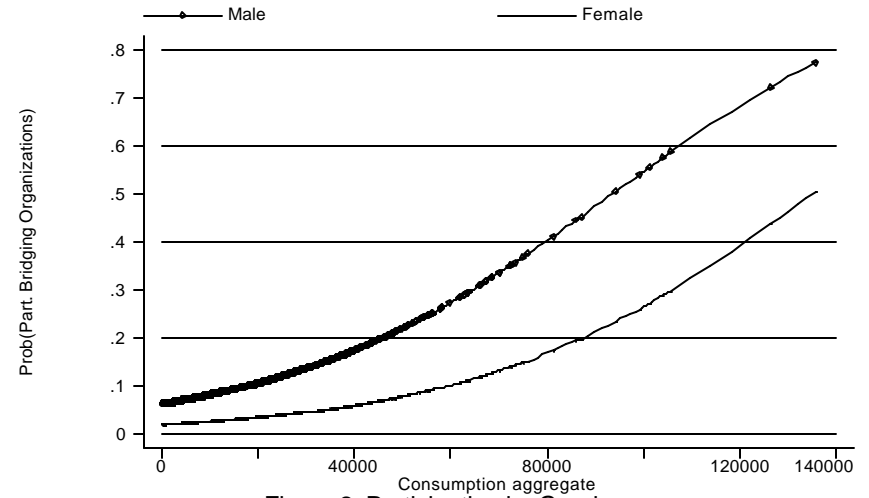


Figure 2. Participation by Gender

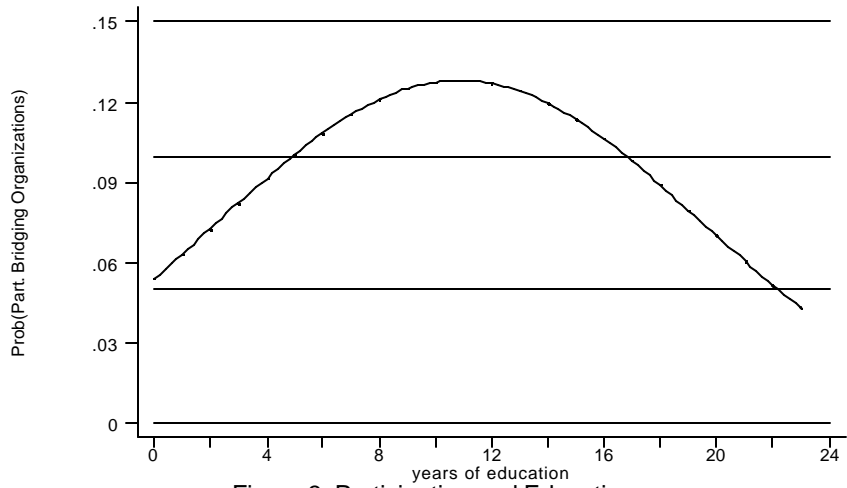


Figure 3. Participation and Education

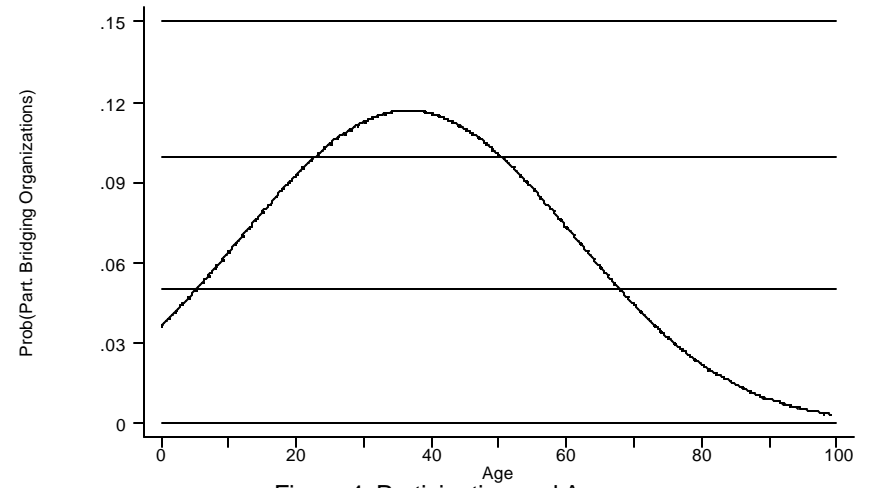


Figure 4. Participation and Age

Who Participates in Bridging Organizations

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