



Impact Evaluation: Guatemala Country Report

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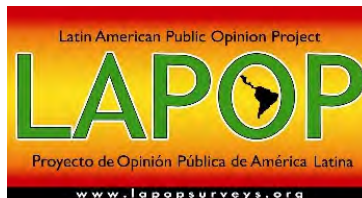




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The Latin American Public Opinion Project (LAPOP)
Vanderbilt University



VANDERBILT  UNIVERSITY



USAID
FROM THE AMERICAN PEOPLE

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Executive Summary

I. Overview

Guatemala, and its neighboring countries in Central America, El Salvador and Honduras, are among the most criminally violent nations in the world. The USAID Missions (specifically, the Democracy and Governance (DG) and other offices within the Missions) in five Central American countries (Guatemala, El Salvador, Honduras, Nicaragua, and Panama) have administered and overseen the execution of the Central America Regional Security Initiative (CARSI) interventions—a set of programs having the objective of *reducing crime rates and improving security in Central America by strengthening community capacity to combat crimes and to create educational and employment opportunities for at-risk youth*.¹

USAID Washington, via its Cooperative Agreement with the Latin American Public Opinion Project (LAPOP) at Vanderbilt University, asked LAPOP to design and carry out an impact evaluation of the CARSI interventions in Guatemala, El Salvador, Honduras,² and Panama, as part of a broader effort to establish the effectiveness of USAID DG interventions through scientifically rigorous studies, such as, those recommended in the comprehensive study by the National Academy of Sciences (National Research Council 2008).³

In Guatemala, USAID has been working with one implementing organization: RTI/CECI,⁴ which has been working exclusively in partnership with Guatemalan institutions and in collaboration with community leaders on violence prevention projects in a variety of arenas. LAPOP carried out a *community-level* impact evaluation in Guatemala. While the evaluation has yielded, and continues to yield, a great deal of information about the conditions of violence and citizen security in the studied communities, the primary purpose of the evaluation from the outset has been to estimate the impact of the CARSI project at the level of the communities studied, by answering the central counterfactual question: “What would these communities look like, on average, in the absence of the treatment?”

II. Main Findings

Two main approaches have been taken to reducing the levels of criminal violence in El Salvador, Guatemala, and Honduras. The first and most widely used, has been to “get tough on crime,” widely referred to in the region as *mano dura* and *super mano dura*. Since the application of this approach has been broad, while, for the most part criminal violence has either increased or not diminished, it is difficult to find hard empirical evidence that *mano dura* has worked. The second, newer and largely untested

¹ See, <http://www.whitehouse.gov/ondcp/central-america>
<http://www.state.gov/documents/organization/148416.pdf>.

²The program in Honduras was delayed, and therefore in the general report that is being prepared, the Honduras study will include only two rounds, rather than the three rounds carried out in Guatemala, El Salvador and Panama. An evaluation in Northern Mexico, as part of the Mérida plan, was initiated after all of the others had begun, so, the Mexico results, as part of the general report, will also be limited to two rounds. Variations in the methodology employed in El Salvador were made necessary in order to be responsive to changing USAID requirements. The individual country reports and general report explain those differences.

³ One of the authors of this report, Mitchell A. Seligson, was a member of the National Academy of Science study cited above.

⁴ CECI is the Centro de Estudios y Cooperación Internacional, that is, the Center for Studies and International Cooperation.

approach has been community-based violence prevention, of which the CARSI program in Guatemala is an example. This report presents the first systematic, longitudinal, treatment/control “gold standard” impact evaluation of the CARSI Guatemala community-based violence prevention program.

To summarize the main finding of this impact evaluation of the CARSI community intervention programs in Guatemala, *we conclude that in several key respects the programs have been a success. Specifically, the outcomes in the treatment communities improved more (or declined less) than they would have, if USAID’s programs had not been administered.* We base this conclusion on the direct evidence we have from the survey data among some 7,931 respondents living in 40 neighborhoods and supplemented by the qualitative stakeholder interviews. Among our specific key quantitative findings in support of the overall conclusion, as determined by our analysis of answers provided to us by the respondents in the three waves of our survey in the treated and control communities, we observe the following:

Quantitative Findings

(1) Significant reduction in the expected level of crime victimization and violence

- Compared to what we would expect to see without USAID interventions, 27% fewer surveyed residents reported being aware of robberies in their neighborhoods
- Compared to what we would expect to see without USAID interventions, 50% fewer surveyed residents reported being aware of illegal drug sales in their neighborhoods
- Compared to what we would expect to see without USAID interventions, 43% fewer respondents reported cases of extortion and blackmail
- Compared to what we would expect to see without USAID interventions, 60% fewer surveyed residents reported being aware of murders in their neighborhoods

(2) Significant increase in the expected level of citizens’ sense of security

- Residents feel less insecure in their communities and when walking alone at night (22% and 13% less, respectively) than would be expected without USAID intervention

(3) Significant decline in the perception of neighborhood disorder (including youth vulnerability to crime and gang activity)

- Youth gang involvement is perceived as less problematic (17% lower than would be expected without USAID intervention). Gang fights are perceived as less of a problem in the neighborhoods (15% lower than would be expected without USAID intervention)
- Young people loitering without supervision is perceived as less problematic (10% lower than would be expected without USAID intervention)

(4) Social control of disorder has improved over the expected level significantly

- Compared to what we would expect to see without USAID interventions, citizens are 13% less likely to avoid areas of the neighborhood because of fear of crime
- Neighborhoods are better organized for collective action in response to crime (16% greater than

would be expected without USAID intervention)

(5) Satisfaction with police performance has increased significantly over the expected level

- Improved trust and satisfaction with police performance is observed (22% and 19% higher, respectively) than would be expected without USAID intervention

(6) Indirect effect: strengthening democratic values has increased significantly over the expected level

- Greater satisfaction with the functioning of democracy (15% higher than would be expected without the USAID intervention)
- Higher levels of interpersonal trust (6% greater than would be expected without USAID intervention)

Qualitative Findings

In most cases, the quantitative results of the effectiveness of USAID’s crime prevention programs in treatment communities were supported by qualitative data, and helped explain some of the mechanisms at work. In other cases, however, interviews with stakeholders contradict some of the quantitative findings. For the most part, these differences emerged because the scope and perspective of the stakeholders was different from those of the community residents.

While the qualitative findings are presented in the body of the report below in an integrated fashion along with the quantitative findings, we wish to signal here some of the key unique findings that emerged from the qualitative interviews, ones that may be seen as having policy implications for USAID. These are:

(1) The Role of Schools:

- There is widespread agreement among many of our stakeholders that the schools are playing an important role in crime prevention. Through the innovative *Convivencia Escolar* (School Harmony) program, and the institutionalization of various student leadership groups within the schools, along with the training of teachers and students in mediation and alternative conflict resolution, the schools are creating a better environment for at-risk youth.
- The previously widespread practice of expulsion from school (currently prohibited *de jure*, but which *de facto* continues on in practice), and subsequent transfer to another school too far from the minor’s home to allow him/her to live with their parent(s), results in a further disintegration of home life for the child. This finding is significant in light of the fact that every stakeholder group mentioned “broken homes” were a central causal element in youth crime.
- Teachers whose schools have had the benefit of school-based, on-site psychologists (generally paid for, we were told, by USAID funds) are highly enthusiastic about the results of this new resource. As teachers have been trained to forego corporal punishment and substitute for it the use of psychological counseling and mediation for conflict resolution, they are seeing positive results in troubled youths. The teachers report that children and youths divulge child abuse and

other problems to psychologists, which they had not been willing to do with their school teachers and directors, and that they see a marked change for the better in the behavior of many of these troubled students.

- School directors and teachers have been playing a vital role in uncovering child abuse in the home, and have been sensitive to frequently found domestic violence situations that adversely affect their students' behavior. One repeatedly mentioned problem is that of teenage pregnancies (often a reason for dropping out of school). School directors' narratives reveal that incest is going on in many homes, particularly in rural areas. Specifically, fathers have been found to be having sexual relations with their under-age daughters, and thereby fathering their daughters' babies. School administrators have been reporting these instances to the appropriate judicial authorities. Some administrators said that they make allowances for students who have babies, doing whatever they can to enable these young girls to complete their high school education.
- At-risk youth report that of the various CARSI-sponsored activities in which they have participated, the one that they have found to be the most useful and valuable is vocational training, especially the computer skills classes.

(2) Getting out of Gangs

- Police officers who were interviewed in each of the three rounds consistently reported to us that it was no longer possible for gang members to dissociate themselves from their gangs; today in Guatemala, police reported, the only way out of a gang is in a coffin. This, they tell us, contrasts with the previous situation, in which gang members could exit the gangs by joining a church for safety. Often they were attracted to Evangelical churches.
- Some community leaders said, however, that there was yet another way of escaping the gang: leaving Guatemala.
- On the other hand, the clergy and community development leaders were generally more optimistic, disputing the police and saying that it was possible for youths to get out of gangs. Youth who successfully leave gangs need both the willpower to leave behind their social networks and even families, and the support of community institutions (churches, community development associations, schools) to help them rebuild new lives, social networks, and employment opportunities.

(3) The Role of Family

- A major factor associated with youth dropping out of school and joining violent gangs, according to many interviewees across all stakeholder groups, is what is universally referred to as the "broken home" (*la familia desintegrada*). More concretely, single-parent households, typically women-led, are frequently characterized by having older children taking care of younger siblings so that the mother can leave the house for work. Under these conditions, the poorly cared for children often end up joining gangs. We were told that the risk is especially high when the single-mother takes on a partner who is not the biological father of the children. Such a situation all too frequently, we were told, results in child abuse and/or intimate partner abuse, which then pushes

the minor out of the house and into a gang. Our respondents told us repeatedly that gangs represent surrogate families for youths seeking friendship and protection.

(4) The Role of Churches

- The churches play an especially important role in crime and violence prevention. Their youth group programs, some of them funded by USAID, are seen as preventing youths from hanging out on street corners, and are getting them engaged in socially positive activities, some of them recreational (e.g., sports), some religious, and some empowering because they involve job training skills. Evangelical pastors are considered by our stakeholders to be especially active in reaching out to youth already in gangs, in an effort to get them out. They also often serve as mediators between warring gangs, in order to prevent bloodshed. In addition to pastors, we have been told of “Christian police officers” (*policías cristianos*, also known as *capellanes*, or chaplains), who evangelize in the prisons. This is a crime prevention measure, as it tries to turn around gang members before they are released from prison.
- The Catholic Church is seen as being effective in reducing crime levels possibly because of its longstanding, well-established age-graded programs, beginning in early childhood and continuing into adulthood. Those who have gone through the various youth programs, we were told, end up being community leaders as young adults, and apparently are more resistant to the lure of the gangs.

(5) The Role of the Community

- Many leaders of COCODES, COMUDES, *Comisión para la Prevención de la Violencia*, key players in violence prevention efforts, report that they have been working closely with the National Civil Police in various ways: they have been acting as intermediaries, reporting crimes in progress to the police, and in the process often preventing or putting a halt to vigilante justice. They have been working with local night patrol groups, ensuring that the suspects whom they round up are handed over to the police, not to angry mobs, and sometimes negotiation with said mobs when the situation has gotten out of control. They also report domestic violence, when victims are either unwilling to do so themselves, or feel that they will be ineffectual in succeeding in getting the police to come to their homes to help them.
- The local, community-based Councils for the Prevention of Violence and Crime are an innovative structure, one that we were told is supported by USAID. As offshoots of COCODES, they appear to be successful in galvanizing the various stakeholding sectors of their communities and help coordinate violence prevention programs.

III. Policy Recommendations

- **Increase family support to reduce risk factors**
 - Child care programs should be made available at little or only symbolic cost to poor families for pre-school children and after-school “latch-key” type programs

(having vocational and recreational foci) for school-aged children and youths of the type currently being offered through the USAID-sponsored outreach centers and non-standalone outreach initiatives.

- **Use the classroom to raise awareness of the issues surrounding physical and sexual abuse in order to reduce cases of abuse**
 - Far greater investment in psychologists, especially clinically trained psychologists, rather than vocationally oriented counselors, should be made.
 - There should be an evaluation of the sexual abuse component of the curriculum in the schools, to learn where the weaknesses are. Police talks (*charlas*) should also be evaluated to make sure that domestic violence, including sexual abuse, are being properly covered by the police in their educational program in the schools. Students need to be educated about the laws that protect children against violence in the home, and about the steps that they can take to extricate themselves from violent situations.
 - School directors should be adequately informed of the steps that they can take in reporting child abuse to the appropriate authorities, and be trained in handling victims of such abuse in their day-to-day interactions with them. They also need to be trained in coordinating such interventions with the teachers of such students, as well as with the school psychologist.
 - There should be a greater investment in the *Convivencia Escolar* and similar programs by the Ministry of Education, such that training is given more routinely, especially in high crime neighborhood school districts.
 - Troubled and even violent youths, rather than being expelled from school, need to be given special, positive attention from the school, particularly from on-site psychologists, since the socially unacceptable behaviors that they exhibit in school are often the result of violence in the home.
 - More in-depth training needs to be given to personnel who teach in high crime communities.
- **Increase security at schools**
 - The “safe backpack program” should be in place in all schools around the country where there are high crime levels. Furthermore, police programs, such as, Saturday soccer and summer vacation programs for youth sponsored by the PNC, which have been short-lived because of insufficient funding, should be expanded. Additional resources need to be put into these programs so that they are revitalized.
 - A greater investment in school protection by the PNC is needed.
- **Improve community organization**
 - The local, community-based Councils for the Prevention of Violence and Crime are an innovative structure, and should receive even more support from USAID.
 - There is a need for salaried, well-trained instructors in CARSI-sponsored vocational training programs.
- **Partner with religious organizations where appropriate**
 - Consideration should be given to determining exactly how successful the clergy have actually been in rescuing people from gangs, and if the claims made in the interviews conducted for this study are supported, then the greater involvement of the clergy in at-risk communities should be encouraged.

- **Train and improve the police force**
 - Police officers should be provided with more stable assignments, helping them to become rooted in the communities which they serve and more capable of performing community policing roles
 - Something needs to be done to match police assignments with police language background. There are bilingual police officers in Guatemala (people who come from indigenous backgrounds, but whose predominant language is Spanish). They should be paired with communities whose indigenous language they speak. Better yet, efforts should be made to recruit into the National Civil Police indigenous bilinguals who are local to the zone in need of police officers. The National Civil Police needs to make special efforts to recruit bilingual/bicultural officers from the many different indigenous language areas of the country.
 - A change needs to be made in training community police officers, such that they are taught to be responsive not only to community leaders' reports of criminal activity, but to the calls for help from civil society as a whole.

Part 1: Methodology

I. Evaluation Design and Data Sources

The USAID mission selected the municipalities where interventions were to take place, picking those municipalities of special concern.¹ In Guatemala, LAPOP then selected eligible neighborhoods in each municipality for the programs based on conditions that are well-documented in the literature (and enumerated below) as increasing the likelihood of crime and violence and therefore insecurity. These eligible neighborhoods are considered in this design to be “at-risk,” or highly vulnerable to becoming crime “hot spots.” Neighborhoods that were known to be already fully controlled by gangs or other organized criminal groups are excluded from the study because of the unacceptable levels of danger to contractors and interviewers. Therefore, the findings in this study apply to at-risk neighborhoods, but not to those already completely overrun by gangs. To avoid “contamination” effects (i.e., that control groups receive the treatment), the selection of geographically contiguous treatment and control groups was carefully avoided. Neighborhoods within municipalities were then assigned randomly to treatment and control groups, and via communication with USAID, instructed that they were to apply their treatment to those neighborhoods.

Following the assignment of the intervention to neighborhoods, LAPOP collected both qualitative and quantitative data in a total of 40 neighborhoods (21 treatment and 19 control groups) in the Guatemalan municipalities Esquipulas, Tactic, and Guatemala City.²

Sources of Baseline Data Used in this Evaluation

The two main data sets used in this evaluation consist of:

- (1) Baseline and follow-up surveys:** The baseline data characterizes the population of study in both treatment and control groups in order to determine the starting condition, or baseline condition, from which we would measure change over time. Importantly, the baseline survey helps one to draw causal inferences about the effect of the interventions because it allows for comparison of groups before and after the intervention begins. The baseline **quantitative** data was collected in the period 7/11/2011-2/16/2012, while the **qualitative** stakeholder interviews took place from July 27, 2011 through November 6, 2011, and included focus groups and individual interviews. The stakeholder (i.e., qualitative) data collection generally took longer than the field surveys as each particular respondent (e.g., teacher, police officer, municipal anti-violence committee member) had to be located and appointments had to be made and at times rescheduled. Full

¹ That selection, however, was the only non-random component in the evaluation, yet it is one that presumably limits the external validity of the findings. In theory, at least, had other municipalities been chosen, the impacts could have been significantly different from the ones reported on here.

² The number of clusters or neighborhoods was determined through a preliminary statistical power analysis carried out by Abby Córdova, with the assistance of scholars at the University of Michigan, to ensure the evaluation is able to identify an effect of the program if there is one. In addition, data from *non-at-risk* communities were collected in one municipality: Guatemala City. These data were collected with the purpose of establishing a baseline of characteristics of low violence neighborhoods and evaluate if, after program implementation, at-risk neighborhoods start to mirror non-at-risk neighborhoods.

details of the various phases involved in the collection of the baseline data are found in Part 3 of this study.

The face-to-face individual level questionnaire developed by LAPOP contains questions designed to measure outcomes of the programs in addition to socioeconomic, demographic, and other variables to be used as controls. The control variables enable us to statistically adjust the results for treated and untreated community and therefore make them more similar to each other than they would have been by random chance. For example, a given community might have more young people in it than another, and since age is associated with many variables that affect crime, we wanted to be able to control for this difference.

On the other hand, there are unmeasured variables about each individual and neighborhood that we could not control for. This was not a problem with the design, but merely a limitation in any social science project because it is impossible to collect information on the infinite number of variables that define each individual (intelligence, life experience, presence of disease, reading ability, etc.) One adult per household (defined as voting age adult) was interviewed in person at his or her home. The survey participants within the household were selected by sample quotas based on the enumeration data from Phase II, in that way ensuring that the sample reflected the demographics of the neighborhood.

- (2) **Neighborhood-level survey of stakeholders:** The purpose of the stakeholder interviews is to gather both qualitative and quantitative information about the neighborhoods as well as more general information related to the problem of citizen security in the municipalities studied by interviewing key knowledgeable persons. LAPOP generated a series of open-ended questionnaires that were used for interviews with neighborhood stakeholders. These interviews were with: the local clergy, social workers, police, and civil society association leaders, including members of the Municipal Crime and Violence Prevention Councils. In addition, interviews were also conducted with the implementing partner, RTI, in order to better understand how their programs were being administered. The interviews took place in the workplace and homes of these respondents. While the selection was always linked to the communities, in many instances these stakeholders have broad responsibilities that transcended community boundaries.

Another source of data we rely on are the LAPOP AmericasBarometer surveys. Every two years, LAPOP carries out nationally representative surveys in 26 countries in Latin America, the Caribbean, and North America. We have data for Guatemala for 2004, 2006, 2008, 2010, 2012, 2014. These data do not have the wide variety of crime/violence related questions that our CARS data have, but they do have blocks of identical items in some key areas. We use the AmericasBarometer data to look at national trends, and compare those trends to the CARS data. These data, therefore, enable us check for trend variation.

Sources of Data for Mid-point Evaluation

After implementation of the CARSI programs began, the mid-point evaluation was carried out. In Guatemala, the field work for the mid-point evaluation was carried out between 25 January and 8 March 2013, and the stakeholder interviews carried out in the period February 26 and April 15, 2013. Research Phases III, IV, and V were repeated at that time.

The mid-point (and final) evaluations were conducted in the same way as the baseline with two exceptions. First, only at-risk communities were studied. We learned from the baseline not-at-risk communities, the factors that distinguish those communities from the treatment and control, therefore we did not need to interview in those not-at risk again. Second, we did not need to conduct a baseline census since we already had our sample frame. Other than those two differences, we conducted both quantitative and qualitative interviews, and community observations. We went back to the same communities, both treatment and control as in round # 1.³

Sources of Data for Final Evaluation

After the third year of the project, the individual, neighborhood level and stakeholder individual interview data was collected again (Phases III, IV, and V) between 4 February and 26 March 2014, with the qualitative stakeholder interviews being completed on 5/3/2014.

Individual interviews totaling 1,233 were carried out for the first round in non-at-risk neighborhoods, 1,460 per round in treatment neighborhoods, and 1,150 per round in control communities, for a total of over 9,100 by the end of the third round.

Overall Summary of Quantitative Data Sources, by Round

A summary of the rounds, broken down by the gender of the respondents, appears in the tables below. As can be seen, the samples were nearly evenly divided between male and female.

³ The sample however, was not a panel (i.e., we did not interview the same *individuals* as in round # 1). Doing so would have given us a panel design, with all of the problems inherent in such a design. Specifically, the problem of panel attrition (which could be high and of different levels owing to the possibility of higher out-migration in the control communities), as well as respondent contamination.

Table 1. Sample Distribution Guatemala, by Gender, of the Individual Level Respondents to the LAPOP CARSI Impact Evaluation

INCLUDES Non-at-Risk Neighborhoods

	Percent Male (N)	Percent Female (N)	Total (N)
Round 1 (2011)	50.9 (1,963)	49.1 (1,890)	100 (3,853)
Round 2 (2013)	49.7 (1,291)	50.3 (1,308)	100 (2,599)
Round 3 (2014)	49.6 (1,345)	50.4 (1,368)	100 (2,713)
TOTALS	50.2 (4,599)	49.8 (4,566)	100 (9,165)

EXCLUDES Non-at-Risk Neighborhoods

	Percent Male (N)	Percent Female (N)	Total (N)
Round 1 (2011)	49.7 (1,303)	50.3 (1,318)	100 (2,621)
Round 2 (2013)	49.7 (1,291)	50.3 (1,308)	100 (2,599)
Round 3 (2014)	49.6 (1,345)	50.4 (1,368)	100 (2,713)
TOTALS	49.6 (3,939)	50.4 (3,994)	100 (7,933)

LAPOP collected 500 systematic observations—i.e., information related to the characteristics of blocks—in non-at-risk neighborhoods in the first round, about 900 observations per round in treatment communities, and 600 in control communities, for a grand total of nearly 5,000 by the end of the study.

Qualitative Component of the Study

In addition to the quantitative data, LAPOP also collected qualitative data for two reasons. First, we wanted to triangularize the results, that is, to see if quantitative findings could be validated with qualitative findings. Second, and more importantly, we wanted to help *explain* and *understand* the quantitative findings.

More specifically, LAPOP collected *semi-structured interviews* and *focus groups* with community stake holders. A total of 264 individual interviews were collected over the three rounds in Guatemala, including: (1) 65 community leaders (presidents or other officers of COCODES or *Comité Unico de Barrio*) and members of Community Committees for the Prevention of Violence; (2) 61 school directors and teachers; (3) 49 religious leaders (e.g., Evangelical pastors, Catholic priests, and church youth-group leaders); (4) 64 police officers; (5) 12 RTI coordinators; and (6) 13 youths-at-risk (18 and older). In addition, 12 focus groups (four in each of the target municipalities) were carried out in the first round with members of each of these categories, with the exception of program implementers (RTI) and youth-at-risk. Below is the summary of the qualitative interviews carried out in Guatemala, rounds 1-3, broken down by gender.

Table 2. Summary of Qualitative Interviews, Rounds 1-3, Guatemala

	Round 1		Round 2		Round 3		TOTAL	
Stakeholder individual interviews	79		67		118		264	
Gender of Stakeholders	Male 71%	Female 29%	Male 72%	Female 28%	Male 62%	Female 38%	Male 69%	Female 31%
Focus groups	20		----		---		20	

One of the strengths of the qualitative methodology is that it permitted reinterviewing stakeholders over the course of the impact evaluation. Stakeholders who had been especially forthcoming and informative in round one were re-interviewed in rounds two and three, to the extent possible. Some were quite reticent and clearly were holding back what they are thinking. Police officers often fall into this category. Some teachers, out of fear, fell into this category. But those police officers who had nothing to hide and especially those who worked in the crime prevention units were quite open in their answers. And many school directors and Evangelical pastors were similarly happy to talk about the obstacles and challenges that they faced and successes they enjoyed in their line of work.

In sum, the qualitative interviewing approach entails interacting with interviewees in a much more personal fashion. There is an element of rapport-building involved; the questions need to be asked in a natural way, as if it were a conversation. Rewording and repeating questions is allowed, if the interviewer sees that the interviewee is hesitating, or having trouble understanding the question. And probing for answers is essential. The added value of the qualitative answers is that they allow the interviewer to ask, “Why do you say that? What do you mean by that?” when respondent answers are short and uninformative. Follow-up questions allowed the study to find out what was going on inside the minds of the interviewees.

II. Difference-in-Difference Design

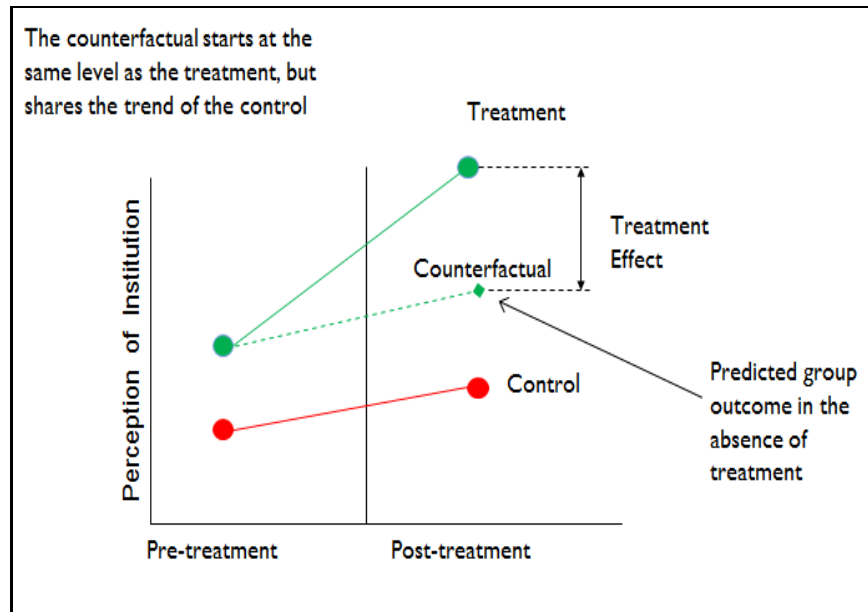


Figure 1. Illustration of Difference-in-Difference Estimation

The core of the quantitative study is an analysis of survey data using a “clustered randomized experimental” (CRE) design to allow for the comparison between the control and treatment groups, over time. A difference-in-difference estimator (DID) is a widely used statistical technique in the impact evaluation field. It has the distinct advantage of controlling for what statisticians call “omitted variable bias” since changes in the national economy, employment and overall crime rates can impact the control *and* treatment groups equally, whereas if all one had was a before-and-after study on the treatment group alone, one could not know if such factors were responsible for changes in the treatment group rather than the treatment alone.

The DID estimator is utilized to estimate both the difference between the treatment and control groups and the difference between each group and itself at a later time point. The treatment is considered effective at the point of evaluation if outcomes in the treatment group improve significantly more (or decline less) than they would have, if the treatment had not been administered. One of the most important features of this model is that it does not require that the treatment and control groups have identical starting values, since what is of interest is the *trend* in each group and the difference between them.⁴ We estimate a counter-factual case with the model parameters to simulate what the outcome would be if no treatment had been administered. The counterfactual case is the change in the control group over time, but at the same levels of the treatment group. *Thus, the difference between the estimated*

⁴ One challenge to the DID is when one of the two groups is affected by something other than the treatment, but that factor is not present in the other group. Since our study relies on many neighborhoods and is spread across several municipalities, the chances of the occurrence of a situation like that are very low. As far as we know from the qualitative reports from the field, no such factor was present. Another challenge to the DID is when the composition of treatment or control changes over time. We checked for this, and found that on the key observables (education, wealth, age, etc.) the groups did not change over the course of the experiment. In short, the challenges to causal inference in this study are minimal, but, as in all social science work, cannot be ruled out entirely, with the greatest challenge that of external validity. That is, the treatment may be effective in the municipalities studied, but nowhere else. However, since we replicated the study in several countries, external validity questions are of less concern than they would otherwise have been had the study been restricted to a single country.

counterfactual case and the predicted level⁵ of the treatment group is considered the “treatment effect:” the impact that can be said to have been caused by the intervention.

The multilevel nature of the data gathered by LAPOP and the design of the study makes it possible for the outcome to be evaluated while taking into account features of the neighborhood to determine the way in which the effectiveness of the programs varies across environments. Thus, it is possible to identify the features of neighborhoods or even countries (in cross-national studies) that contribute to the success of the program.⁶ Variation at the community level once all of the countries in the LAPOP CARS I impact evaluation are included, may well give us some analytical power and significant results. Using multi-level modeling techniques, the study draws statistical inferences about the effectiveness of the programs and the effect of the context in which the programs were implemented.

The parallel paths assumption: threat to causal inference. Like all methodologies, the DID estimator is based on assumptions that, if violated, can pose threats to these inferences. The most problematic assumption inherent in the DID estimator is that of *parallel paths*.⁷ The DID methodology assumes that the trend over time observed in the control communities is the same as that which would have been observed in the treatment community if the treatment programs had not been implemented. For example, if there is an increase in perceptions of insecurity in the control communities over time, we would expect to see the same trend in the treatment communities if the treatment were not implemented (or if it were ineffective). The parallel path assumption refers to the changes in the outcome over time, not the starting or ending levels. This assumption is made explicit in the construction of the counterfactual used to derive the treatment effect. The counterfactual case rests on an assumption of “parallel paths”—the counterfactual experiences the same trend as that of the control group.

While the CARS I study in Guatemala (and El Salvador and Panama) employs random assignment of treatment and control groups from among the eligible communities in the municipalities selected by USAID, random assignment is not sufficient to guarantee that the assumption will hold, so the parallel paths assumption could still be violated. There is no way to directly test this assumption in this (or virtually any other study), but we are able to largely rule it out through the use a variety of robustness checks to see if the parallel path assumption is likely to have been violated. These checks show that the treatment and control groups are sufficiently similar to each other and to the nation as a whole, to give us confidence that the assumption of parallel paths is very likely to have held. Analyses of the treatment and control communities, as we detail below, show that the respondents do not differ in any notable ways on key socio-economic variables. This is an important finding since it suggests that the communities in both treatment and control are quite similar to each other in their makeup. Since the treatment and control communities are similar in composition, this suggests that the trends in these groups are also likely to be the same over time. If, instead, we had observed significant differences between treatment and control groups on these variables, we might have expected the trends in these groups to diverge over time if the outcomes are correlated with these variables.

⁵ The predicted level is the model estimate of the dependent variable, which controls for covariates, such as age, sex, education household wealth, years of residence and children in the household, as well as contextual effects.

⁶ As the number of countries in our study is very small, country characteristics cannot be a major focus of our analysis since each country differs in thousands of ways from each other country (GNP, income distribution, education levels, ethnicity, population density, etc.). In effect, we have too many variables and not enough countries.

⁷ See Michael Lechner. “The Estimation of Causal Effects by Difference-in-Difference Methods.” Discussion Paper no. 2010-28. October 2011. Department of Economics, University of St. Gallen.

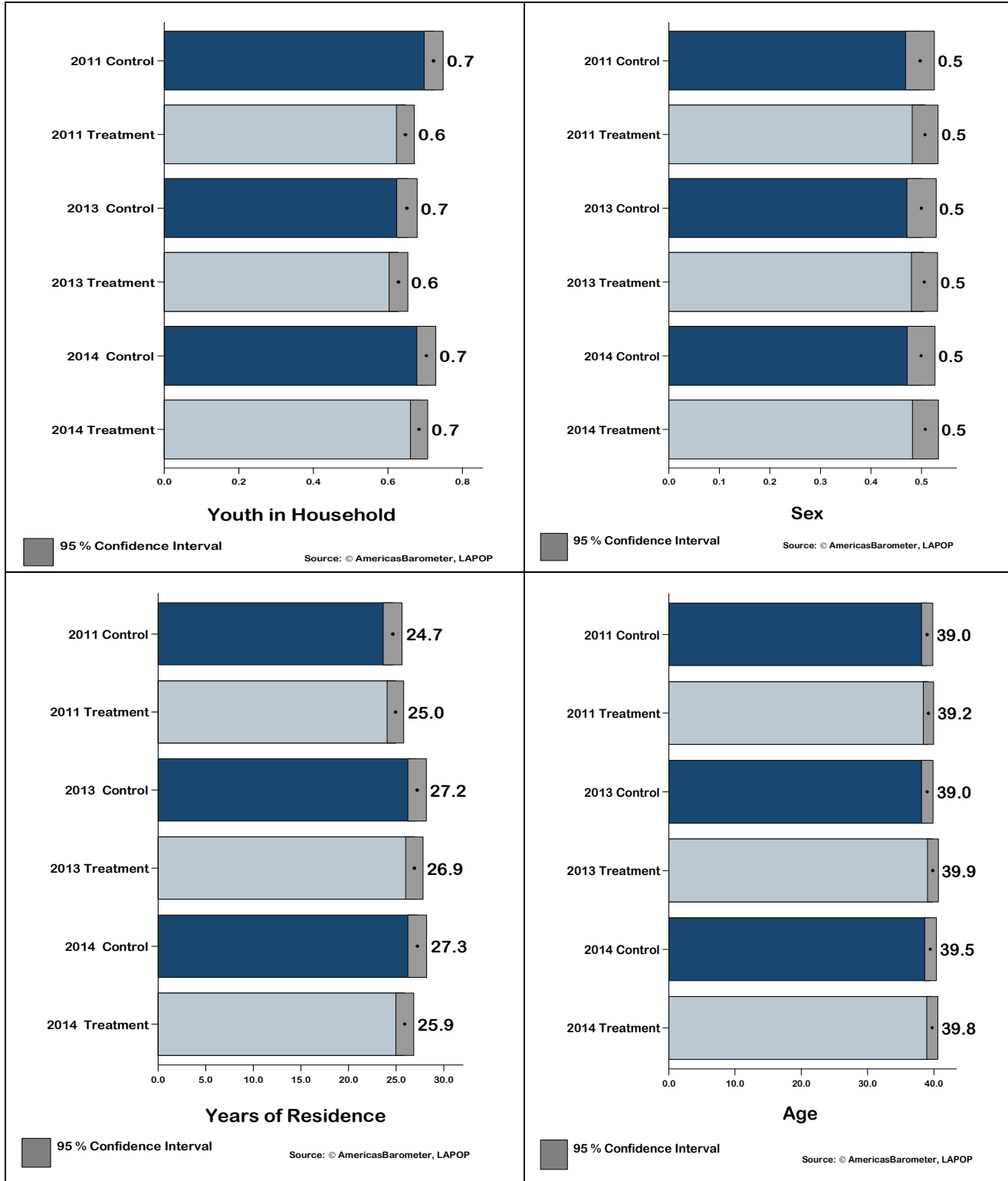


Figure 2. Key Variables in Treatment and Control Communities, 2011-2014

A second, and we believe more telling, robustness check that gets at the core of our dependent variables, is that trends in the control communities match those in the national level data. Several questions in the CARS study are identical or similar to questions in the 2010, 2012, and 2014 AmericasBarometer

surveys also carried out by LAPOP. We have been able to use these data to explore the trend across a similar time-period for the nation as a whole. In each of these cases, we have found that the trend in the national data is indeed parallel to that observed in the control communities (the national trend line is shown in our graphs along with the other results, where available). These results repeatedly demonstrate that the control communities are not an anomalous sample, and reflect the same trends observed in the nation at large. Thus, since the treatment communities were selected by the same process and have a similar socio-economic and demographic composition to the control group, and since the control group's trends parallel national trends, we would expect to see the same trends in the treatment communities if the treatment had not been applied. Indeed, there is no basis whatsoever to suspect any systematic violation of the parallel path assumption.

III. The Design of the Study: A Multi-Site “Cluster Randomized Experiment” (CRE)

The design used in this study is technically known as a “*Cluster Randomized Experiment*” (CRE), or “*Multi-Site Cluster Randomized Experiments*” when carried out in blocks composed of clusters (in our case neighborhoods) that are very similar (Spybrook, Raudenbush, Liu and Congdon 2008).⁸ This type of experimental design is widely considered to be among the most reliable and accurate method for establishing cause-and-effect (Puddy and Wilkins 2011, Sherman 2012).⁹ As described by Murray (1998), a CRE has four distinguishing characteristics (note that in this study, the block or site corresponds to a country or municipality, and the cluster to the community):

- a) “The *unit of assignment* is an identifiable group rather than an individual. Such groups are not formed at random, but rather through some connection among their members.” This design is appropriate for the CARSi project, since the program is based on the community or neighborhood as the unit of analysis in each site or country.
- b) “Different units of assignment are allocated [randomly] to each *study condition* [either to a treatment or control group].”
- c) “*Units of observation* are members of the groups that serve as the units of assignment.” Thus, this type of experiment has a multilevel structure. In the case of the CARSi study, sites or countries are the highest aggregate level, units of assignment [neighborhoods] form an intermediate level, and individuals are the lowest aggregate level.
- d) CREs “typically involve only a limited number of assignment units in each study condition.”

The CRE design is an especially appropriate research design for the CARSi project. As CARSi is a “community” based program, the group-based unit of assignment corresponds to the neighborhood grouping of individuals. Although the interventions may target certain individuals within communities (in the case of CARSi, “at-risk youth,” for example), random assignment of individuals to treatment and control groups is at times not effective since it is difficult to avoid interaction between individuals across study conditions (i.e., in a single community, at-risk youth in the treatment group will most likely interact with those in the control group). To avoid this problem of contamination, the CRE design uses non-

⁸ This design is also known in the literature as a “Group-Randomized Trial.”

⁹ The research design used by LAPOP for the CARSi evaluation scores a 5 (the highest level) on the Maryland Scale of Accuracy in the Design of Evaluation, indicating that the findings yielded by the study should be considered strong evidence for a cause-and-effect relationship (or non-relationship) (Sherman 2012).

contiguous clusters (e.g., neighborhoods or communities) that are then randomly assigned to each study condition (i.e., treated/non-treated).

The *unit of assignment* in the study is the “neighborhood or community” [barrio, colonia, or comunidad]. The *units of observation* correspond to “individuals” within neighborhoods, including those who are likely to be direct beneficiaries of the programs, those who benefit only indirectly, and those who do not participate in the programs’ activities.

In this type of trial, the multilevel structure of the experiment determines its design and methods used to analyze the data; given the multilevel nature of CRE, the data analysis is more complex than in Randomized Experiments (RE). Standard errors must be adjusted to account for the study’s “design effect” (Kish 1995; Hayes and Moulton 2009).¹⁰

LAPOP used a CRE design with a *stratified* selection. Rather than selecting from pooled neighborhoods from one large pool in Guatemala, El Salvador, Honduras, and Panama, the sample was first stratified by country. That assured us that there were cultural and contextual similarities among the treated and controlled communities within each nation. We then further stratified by carrying out the selection by municipality so that all of the treatment and control municipalities were concentrated in three municipalities rather than the 332 municipalities that constitute the country. Finally, neighborhoods within municipalities in each country were assigned randomly to treatment and control groups.¹¹ Baseline differences across neighborhoods within municipalities are then accounted for or controlled for in the statistical analysis using the control variables in the surveys.

¹⁰ In a study that includes a large number of assignment units (thousands of neighborhoods), randomization ensures that units assigned to treatment and control groups will, on average, be very similar before the intervention. This is a result of the well-known “law of large numbers,” in which a coin-toss will approach 50% heads and 50% tails as the number of tosses approaches infinity. However, in experiments involving a relatively small number of assignment units, as in the case of CARSI and the CRE methodology more generally, the number of treatment areas is relatively limited, if for no other reason that the units are not individuals but neighborhoods, in which we are sampling individuals. It is not feasible to fund an impact evaluation of thousands of communities as the costs would be far too high for the limited resources available.

Differences in the averages for any given variable in the starting level of the treatment and control communities were expected for this study, and in fact is what resulted in many variables. The number of communities was just too small to expect the means of treatment and control to have converged. Therefore, studies such as the one LAPOP has undertaken, in which the number of neighborhoods is relatively small, in addition to randomization, other strategies are implemented in order to minimize baseline differences between treatment and control and increase the internal validity of the study. When the number of assignment units is small, a *stratified* design can be used as a strategy to account for confounding factors that can hurt the validity of the study, and consequently erroneously attribute changes to the intervention when in fact other factors may be responsible for such changes. In a *stratified* design, units from relatively homogenous sub-groups (i.e., groups that share similar characteristics) are randomly assigned to either treatment or control.

¹¹ Communities were not randomly assigned to treatment or control groups in the case of Honduras. The USAID mission selected the communities in that country, thus reducing some of the strength of the difference-in-difference methodology.

Selection of Study Area

This section describes the process used by LAPOP and CARSI to determine the locations where the CARSI programs were implemented (treatment communities) and the selection of communities that were studied to compare outcomes where there was no treatment (control communities).

The selection process involved the following key stages, in chronological order:

1. Selection of municipalities
2. Selection of neighborhoods
3. Separation of neighborhoods into treatment and control
4. Collection of quantitative data at the neighborhood level (both individual and community)
5. Collection of qualitative data from stakeholders

In this section we discuss steps 2-4, and provide greater detail on the selection process in the section that follows, after which we describe steps 5 and 6.

Selection of municipalities was made by each USAID country Mission where it was planned for interventions to take place. In Guatemala, three municipalities were selected by USAID: Tactic, Esquipulas, and Guatemala City (see Figure 3).

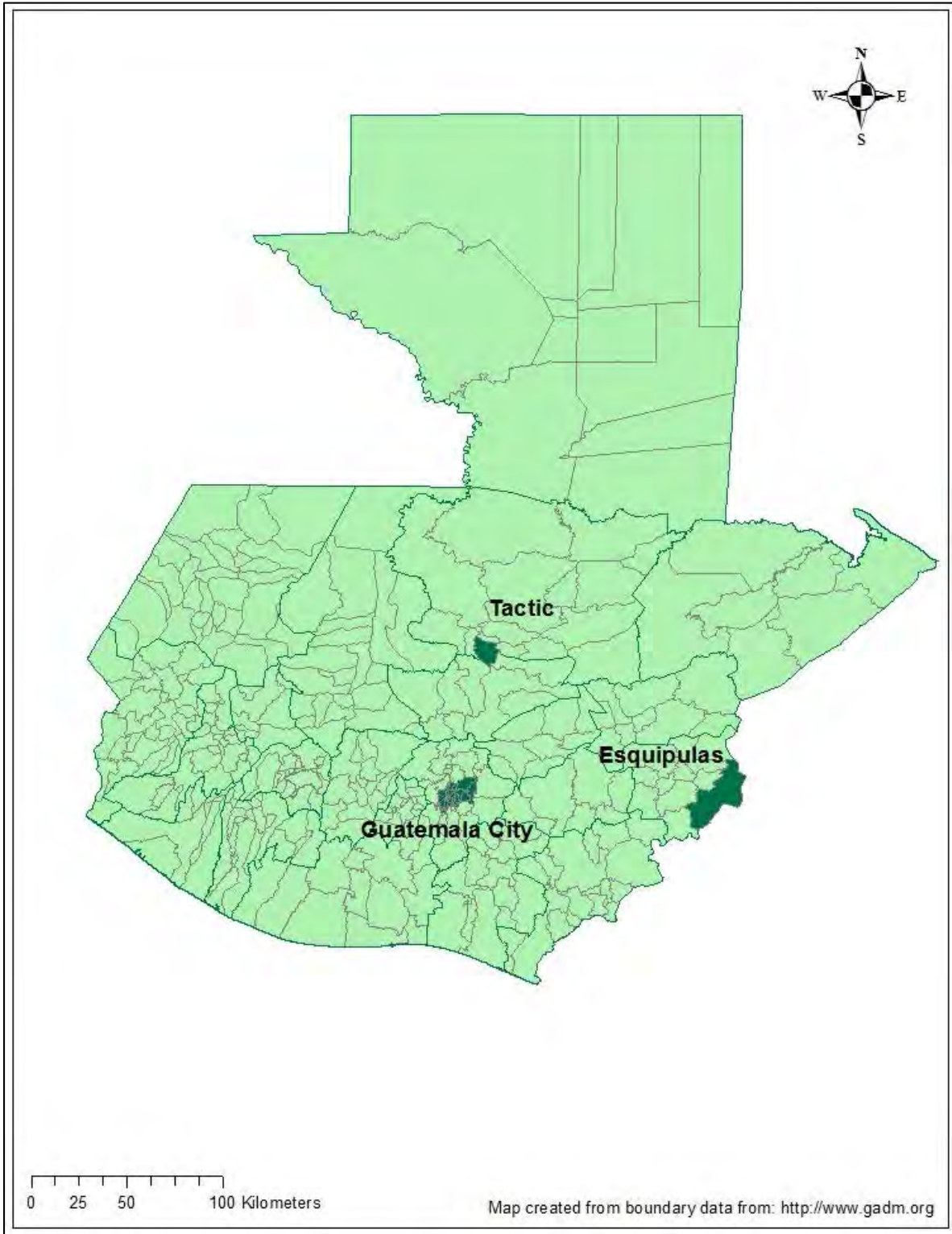


Figure 3. Selected Municipalities by USAID in Guatemala

Selection of neighborhoods was then the next major step, and the one that proved to be the most time-consuming. Our objective was to find neighborhoods that by standard criteria would be considered “at-risk” but at the same time avoiding neighborhoods that were already completely under the control of gangs and thus too dangerous for implementing partners and LAPOP researchers to work in with a

modicum of security. We labeled such gang-controlled neighborhoods as “hot spots” and excluded them from the study.¹² These eligible neighborhoods are “at-risk”, or highly vulnerable to becoming crime “hot spots.”

LAPOP selected the units of assignment (neighborhoods) on the basis of a series of pre-intervention conditions that are well-documented in the literature as increasing the likelihood of crime and violence and therefore insecurity. Selection of neighborhoods was based on the following factors: (1) population size/density, (2) socio-economic vulnerability, (3) the level of poverty, (4) quality of neighborhood infrastructure, (5) the proportion of youth in the population.

LAPOP began its selection process by acquiring the most recent official census data on each municipality, and listing each neighborhood/community in those municipalities, including the population size and characteristics for each.¹³ This produced a list for each municipality that was large. However, there were many that were considered too small to work in because it would have been inefficient to expend implementing efforts where the benefit would be so limited, while there were other communities that were very large, and it would have been difficult for our survey-based methodology to pick up impact. Thus, for each municipality we eliminated the smallest and largest neighborhoods.

Economic vulnerability is an important criterion for selection since poorer communities are more likely to be afflicted by violence than wealthier communities are, *ceteris paribus*. LAPOP used the Economic Commission for Latin America (ECLA) methodology of “Unsatisfied Basic Needs,” to create an index based on housing, health, education and consumption.¹⁴ Using this methodology, it was possible to pare the list, trimming it down to approximately half of all of the communities in the municipality.

The presence of an important number of youths in the community was used as a selection criterion since it is the young who are most likely to be recruited into gangs and other criminal organizations. We focused on the 10-17 year age group using the census data, and dropped from the list of eligible communities any in which the percent of these youths fell below the municipal average.

Once all of those criteria were taken into account, this produced a list for each municipality of eligible communities. In Guatemala, this list was of 126 communities in the three municipalities selected by USAID. At this point, we needed to reduce the number of communities to be studied to the approximately 40 that were within our budgetary limitations. Moreover, it was very important to field-test the observations that emerged from our data analysis. We worried that, for example, since the Guatemalan census data was already approximately a decade old by the time we began our research, changes likely had occurred on the ground. We were also worried that our sources of information had not correctly identified all of the hotspots. Because of those concerns, each of the 126 eligible communities was

¹² In an early presentation of our methodology in a meeting at USAID Washington, concerns were raised about this exclusion. As we explained there, and explain again here, there are limits to all research protocols. We could not force, nor did we wish to do so, the implementing partners or our field interviewers to work in conditions that were deemed as being of excessively high risk. That does not mean that the “at-risk” communities were low-crime, safe areas. They decidedly were not, as our data show. As it turned out, the survey team faced numerous security challenges in the field, requiring LAPOP to expand its well-established security protocols. Had we decided to include or focus on “hot spots” the study would not have been possible.

¹³ Guatemala, *XI Censo Nacional de Población y VI de Vivienda*, INE

¹⁴ See Moser, Caroline, and Bernice Van Bronkhorst. 1999. “Youth Violence in Latin America and the Caribbean: Costs, Causes, and Interventions.” In *Sustainable Development, Working Paper No. 3. Urban Peace Program Series. The World Bank*.

subject to what we called a “pre-visit” in which our field teams collected key information about each one. Based on our analysis of those data, we then drew two samples (without replacement), one of “treatment communities,” and one of “control communities.” We then went through one final step in the selection to minimize contamination effects, as described in the next paragraph.

Separation of treatment and control. To avoid “contamination” effects (i.e., that control groups end up receiving some of the treatment), the selection of geographically contiguous treatment and control groups was carefully avoided. We also discussed with the appropriate USAID staffers the importance of not beginning new programs in control areas, or changing treatment areas after the initial selection and baseline interviews. In Guatemala and El Salvador, we believe this worked well, but in Panama, this was not the case and the result was to seriously affect the impact evaluation as is described in the complete report. One possible contamination effect we could not avoid was potential interventions by other donors beyond USAID. If, for example, a European donor decided to carry out violence prevention activities in any of the “Vanderbilt neighborhoods” we could not prevent or control for that. Yet, as far as we know, this did not happen.

Part 2: Why Study Violence Prevention? Central America, a Violent Region

In this section of the report, we present a brief background of the violence in Guatemala, and Central America more generally, that motivated the initiation of the anti-violence program being studied. As the literature on the regional violence is vast, we do not intend to summarize it here; rather, our focus is on the impact evaluation itself, and the rich findings that have emerged from that study.

Data on violence of all sorts is problematic for a variety of reasons, including under-reporting by its victims and distortion of data by police forces and other public officials. While there is widespread agreement that Central America is extremely violent, there is no agreement on the exact rates of the various types of crime. According to the UNODC reports (which are widely cited, but have the same issues of reliability that many other data sources face), in 2012, Latin America was the most violent region of the world. Central America specifically has murder rates of over 24 per 100,000 people, while the world average stands at 6.2 per 100,000. Guatemala in particular had a per capita murder rate at 40 per 100,000, the third highest after Honduras (which registered 90 per 100,000) and El Salvador (41 per 100,000) (Figure 4). By comparison, Costa Rica, another Central American country, reported “only” 9 murders per 100,000 people.

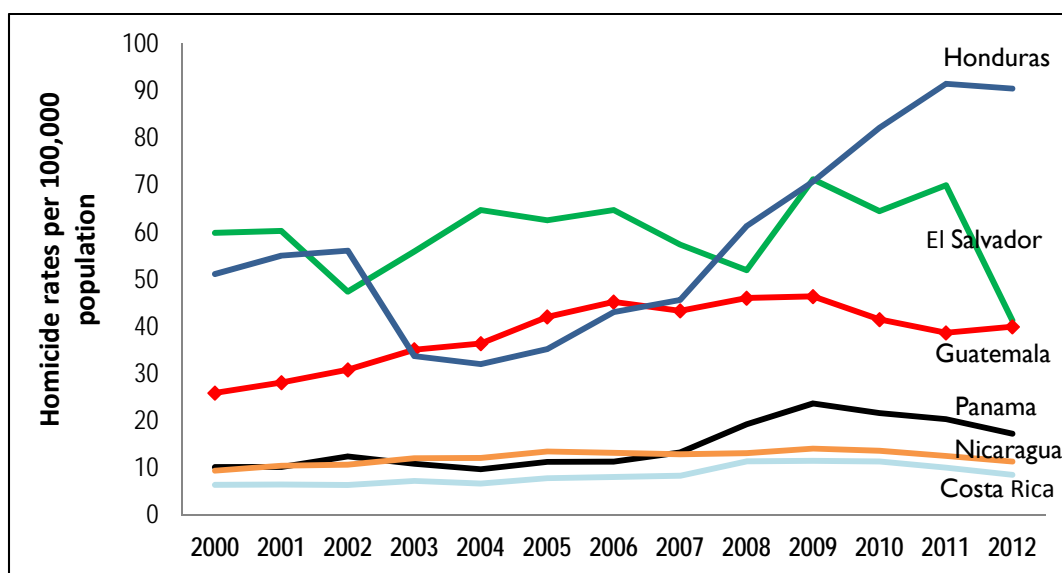


Figure 4. Homicide Rates in Central America

Source: United Nations Office on Drugs and Crime, Homicide Statistics 2000-2012

The UNODC has not (as of this writing) published data for 2013 for Central America. Yet, *preliminary* data by the National Civil Police (PNC) show declines that are widespread across Central America. It is difficult, if not impossible, to determine if these declines are real, or statistical artifacts, and, more importantly, if they represent a trend or just normal inter-year variation. The homicide rate in Guatemala, for instance, decreased in 2012 with a monthly average of 430 murders compared to 2011 when there were 473 murders per month, according to PNC data.

In addition, robberies have remained virtually unchanged with an average of 507 per month, totaling 6,086 cases in 2012.¹ Robberies continue to be a common problem especially in the public transportation

¹ See, <http://www.ine.gov.gt/index.php/estadisticas/tema-indicadores>

sector, with wide reports of petty larceny on buses and at bus stops. Moreover, cases of domestic violence increased around 8% in 2012 compared to the previous year.

Guatemala also is infamous for its high number of lynchings. Data from *GAM, Área de transparencia monitoreo de medios de comunicación*² show that there has been an increase of 26% in 2013 (209 cases) compared to 2012 (154 cases). From these, 36 cases resulted in deaths in 2013.

While the evidence for declining crime rates in Guatemala is still being collected, the AmericasBarometer surveys demonstrate that crime prevention programs are popular. When asked the best way to fight crime, more than 90% of Guatemalans indicate somewhat or strong agreement with the statement that crime prevention programs constitute the most effective option, according to data from the AmericasBarometer 2012 (Figure 5). The survey did not define “crime prevention” for the respondents, so some of those interviewed could be thinking that “law enforcement” means the same thing.

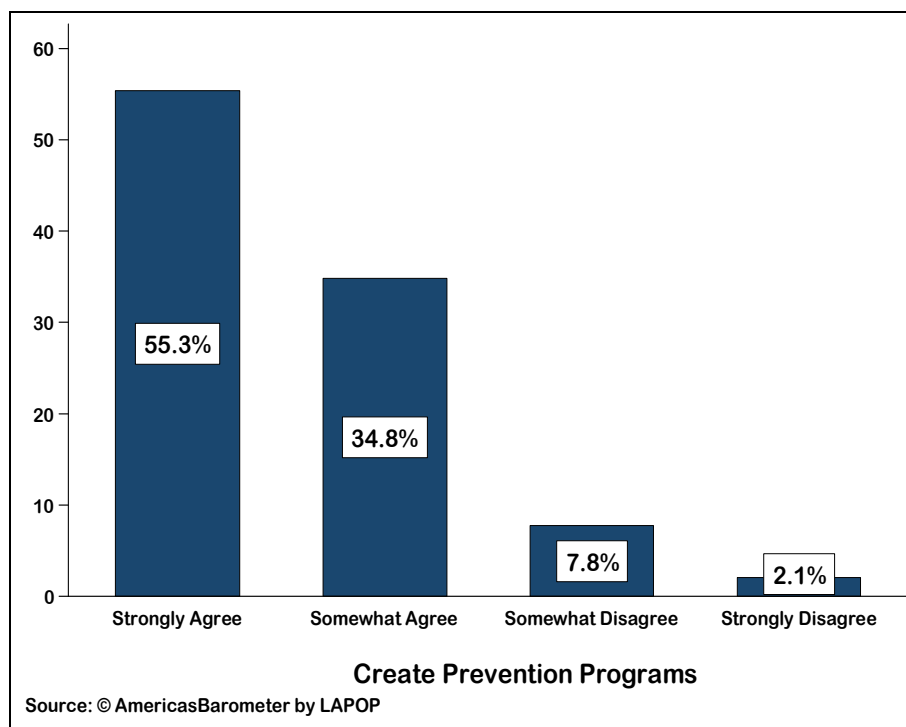


Figure 5. The Best Way to Fight Crime and Violence in Guatemala
Source: AmericasBarometer, LAPOP 2012.

In this study, we focus our attention on USAID’s response to insecurity in Guatemala through the implementation of various community-based violence prevention programs. The ultimate objective of USAID Central America Regional Security Initiative (CARSI) is *to reduce crime rates and improve security in Central America by strengthening community capacity to combat crimes and creating education and employment opportunities for at-risk youth*.³ By encouraging community involvement in the prevention of crime, CARSI has sought to attenuate risk factors that are widely believed to increase community insecurity and vulnerability to gangs and related violence, and, more deeply, to reduce the

² See, <http://areadetransparencia.blogspot.com/2014/01/inchamientos-durante-2013.html>

³ See, <http://www.whitehouse.gov/ondcp/central-america>
<http://www.state.gov/documents/organization/148416.pdf>

probability that at-risk youth will ultimately engage in criminal and violent activities. While past studies have shown that USAID democracy and governance assistance works by increasing democracy levels in recipient countries, there are few rigorous evaluations of how and under what conditions, assistance works (Finkel, Pérez-Liñán et al. 2007; Azpuru, Finkel et al. 2008; Finkel, Pérez-Liñán et al. 2008; Seligson, Finkel et al. 2009). To be clear, scores of evaluations have been done in the democracy and governance arena, but most of them have been post-hoc, and have not included both baseline and control groups, such that there is no real way of knowing what the end-of-project conditions would have looked like in the absence of the program. The USAID CARSİ programs offer a unique opportunity for carrying out such a study, and LAPOP is uniquely suited to perform the evaluation.

The implementation of scientifically rigorous evaluations of crime prevention programs is a particularly pressing issue for the Latin American region. Increased insecurity poses high costs for Latin American economies through lost human and physical capital (e.g. PNUD, 2005; CEPAL, 2011; IDB 2012). Furthermore, as the LAPOP surveys often find, fear of crime and crime victimization erode social cohesion and citizens' confidence in core institutions—both core elements for democratic stability. In the face of these problems, there have been numerous efforts to prevent crime among at-risk youth, especially in countries with a significant gang presence, violence, and crime. However, as many studies point out, despite these valuable efforts little is known about their true impact (Moser and Van Bronkhorst 1999; Moser, Winton, Moser 2005), and consequently about how to prevent crime and violence effectively. In this sense, USAID's initiative to support a scientifically rigorous evaluation of CARSİ crime prevention interventions is important for broadening academics' and policy makers' understanding of crime prevention, and in turn, for promoting effective governance in the region.

Part 3: The CARSI Interventions and Expected Impacts

I. USAID CARSI Interventions in Guatemala

In Guatemala, USAID has been working with RTI/CECI,¹ which has worked in close partnership with Guatemalan institutions.

RTI/CECI focuses in three areas: (1) working with youth at-risk, community members and local leaders in close collaboration with partner organizations, (2) supporting the National Civilian Police (PNC) and the National Reform Commission, and (3) supporting municipal and national policy measures.

The RTI/CECI implementers have partnered with a number of local organizations such as:

- *Asociación Alianza Joven (AAJ)*
- *Fundación Kinal*
- *Fundación Junkabal*
- *Fundación Paiz*
- *Universidad del Valle de Guatemala (UVG)*
- *Proyecto Educativo Laboral Puente Belice (PELPB)*
- *Instituto de Cooperación Social (ICOS)*
- *Sistema de Orquestas de Guatemala (SOG)*
- *Caja Lúdica*
- *Fundación para el Desarrollo Integral del Hombre y su Entorno (CALMECAC)*
- *Grupo Gestores*
- *Comunidad Esperanza*
- *Asociación en Función para la Educación y el Desarrollo Social y Rural (FEDCOR)*

In terms of youth at-risk, RTI/CECI enables them to gain access to academic and vocational training opportunities as well as promotes a constructive use of their leisure time through cultural, artistic, and sports activities. In addition, RTI/CECI provides scholarships to at-risk youth for educational and vocational training. RTI/CECI also strengthens communities through training of leaders for violence prevention, improving infrastructure, building safer public places for leisure and recreational activities and supporting civic participation activities.

In terms of strengthening police security capacity, RTI/CECI trains police officers in community development; gender and multicultural consciousness; risk identification; and citizen crime security. Also, RTI/CECI supports training of community law enforcement officials, increasing their participation within the community. Moreover, RTI/CECI has also strengthened the Police Reform Commission by donating technological equipment and remodeling police stations to ensure appropriate working conditions.

Finally, RTI/CECI supports the documentation, collection, filtering and analysis of the frequency of various forms of violence and crime in Guatemala. In that sense, the public can have access to these data in order to address and combat crime. Moreover, this tool gives public officials guidelines on how best

¹ CECI is the Centro de Estudios y Cooperación Internacional, that is, the Center for Studies and International Cooperation.

to develop and implement public policies to prevent crime and violence. RTI/CECI has continuously supported the Observatory for School Violence, for the purpose of identifying children who have suffered violence.

Below, we discuss the anticipated effects of these USAID CARSI interventions implemented by RTI/CECI and the indicators used for measuring their impact. We then describe the experimental methodology implemented by LAPOP for carrying out the impact evaluation.

II. Anticipated Impacts: Mixed methods and key dependent variables

Mixed methods approach. The USAID CARSI interventions studied here were targeted on a relatively small number of communities, each embed within only three municipalities out of the 338 total in that country. Given this limited coverage, it is self-evident that impact cannot be measured at the national level, but only at the level of the locally treated communities. On the other hand, broader trends at the municipal, national, and even Central American regional levels can have an impact on what is happening at the neighborhood level. For that reason, the careful design of the study, so as to be able to control for such broader trends, was a central feature of this study.

The interventions themselves include a variety of diverse activities and approaches, and many of them overlap. This purposeful overlap among components is a feature of the USAID CARSI programs designed to create programmatic continuity and enhance the probability of success for the overall effort of crime and gang prevention. However, the overlap makes it difficult, if not impossible, to disentangle quantitatively and evaluate the effect of each individual program, let alone the components of each program. Indeed, it may well be that each individual component of the programs would not work in isolation; only working in combination might they prove to be powerful deterrents of crime and violence. Therefore, even a study that was designed to evaluate each component in isolation might not have produced any satisfactory results. For this reason, rather than assessing the impact of each component, LAPOP has evaluated the *overall performance* of the CARSI community-led crime prevention program.

Direct and Indirect Indicators of Impact. In the following pages, we document the key indicators that have been monitored over the course of the study. After taking into account the effects of intervening factors such as age, education, sex, household wealth, years of residence in the neighborhood, and the presence of youth in the household, observed improvements in these indicators can be interpreted as successful results of the USAID CARSI programs. The selection of outcome indicators was based on: (1) an extensive review of the scholarly literature on the causes and consequences of crime and violence at the neighborhood level, (2) LAPOP on-site observations of at-risk neighborhoods during field visits to El Salvador, Panama and Guatemala, and (3) interviews with experts and community leaders.

Given the broad goals of the USAID CARSI programs (i.e., increased community participation in crime prevention, promotion of safer communities, and prevention of crime among at-risk youth), interventions are likely to have *direct* and *indirect* effects, which ultimately can be regarded as indicators of the quality of governance.

Direct effects include outcome indicators associated with the ultimate goal of the program, namely, to produce safer environments. As already noted, the LAPOP study bases its quantitative evaluation of those direct effects on survey data in the treated and control communities rather than on external

information that might be available from other sources. In reality, there is no other data source at the community level to which we could turn, even if we thought it methodologically wise to do so. Rather, the lowest-level data available are at the municipal level, but the treatment did not cover the entire municipality, but was directed at the neighborhood (i.e., community) level. Thus, only our own data are available to measure impact. These direct effects include: comparative reports from the respondents to the surveys in the treated neighborhoods vs. the untreated neighborhoods of reported occurrences of crimes like robberies, extortion, and murders; sense of security in neighborhoods; and level of youths in gangs and “hanging out” on the streets.

Indirect effects refer to second-order consequences of the programs, but that can also be instrumental to the creation of safer environments and the promotion of good governance. These effects include improved interpersonal trust, democratic satisfaction, and increased confidence in local and national institutions such as favorable evaluations of government handling of citizen safety and greater overall satisfaction with police performance. All of these variables have been closely linked to good governance in the research findings of LAPOP, and, even to democratic stability, and therefore are potentially important broader, longer-term anticipated consequences of CARSÍ. Many of these indicators of democratic governance, it should be noted, are measured by LAPOP in national samples for the AmericasBarometer, and thus we have extensive national-level, and urban-level evidence, for the nations being studied, in this case Guatemala, El Salvador, Honduras, and Panama.

The indicators in this section represent only a portion of the full list of indicators collected in the study, but reflect the ones that we thought were the most salient. Other items in the survey help serve as control variables. The questionnaires administered in Guatemala are included with this report and include all variables in the study. The individual level questionnaires were developed based on the literature reviewed here and also relied on batteries of items already developed and included in LAPOP’s AmericasBarometer surveys. These questions were revised, pre-tested, and adapted to local vocabulary in each country.

Part 4: Findings: Impact Evaluation, Guatemala

The following sections provide the results of analyses of individual-level survey data, qualitative data, and community-level quantitative data. In this report, we do not provide the results of every variable in the data set. An extensive appendix including all of the variables in the study was provided to USAID as an interim document, and all of the data will be available at the conclusion of the project on the LAPOP Vanderbilt University website. Instead, we focus on those variables that were hypothesized in our initial design that were outcomes that if affected by the treatment, would provide the clearest guidance to policy-makers and program implementing partners.¹

I. Crime Victimization and Violence

In this section, we present results for a wide range of measures that evaluate the effectiveness of USAID’s crime prevention programs in terms of (1) the reduction of crime victimization, and (2) the increase in the sense of security, during the three time periods of the impact evaluation study in Guatemala.

Robberies

Reported cases of robbery in the neighborhoods are shown in Figure 6. Results are based on answers to the following question: “Have robberies occurred over the last twelve months in [Name of Neighborhood]?”

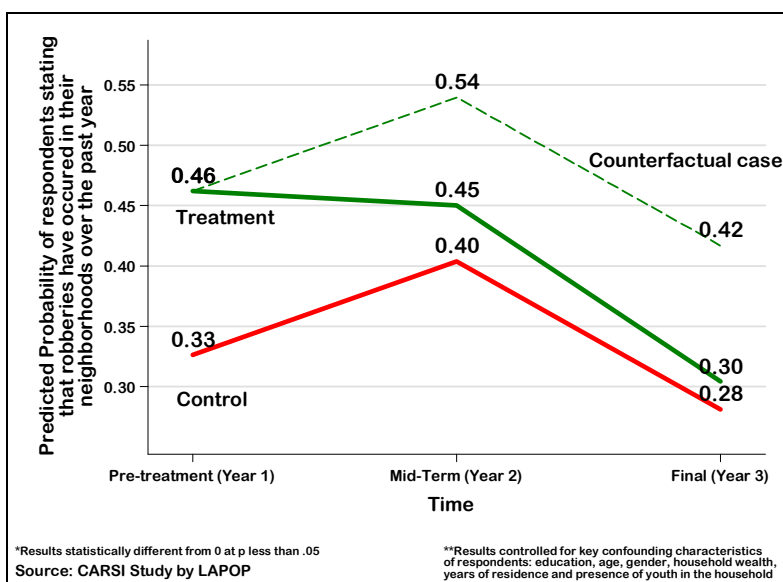


Figure 6. Respondent-Reported Robberies in the Neighborhoods

¹ Because individual variables may produce statistically significant results by chance alone, we report those findings that are robust and consistent across multiple indicators. Despite the fact that our statistical models are quite complex, they are unable to fully capture the complexity of all of the contextual and individual factors that could have an impact on the overall results. Therefore, we emphasize in our evaluation to those findings that are consistent with established theory.

Figure 6 shows that in the treatment neighborhood, the probability of respondents recalling instances of robbery slightly decreased, while in the control neighborhood it increased between years 1 and 2. However, as the figure demonstrates, both the treatment and control neighborhoods show a decrease in the probability of respondents recalling instances of robbery between years 2 and 3. Moreover, respondents' reports of robberies were 27% lower than we would otherwise expect without USAID intervention. This difference between the treatment group and counterfactual is statistically significant, indicating that USAID intervention has reduced reports of robberies in the communities.

Most of the police interviewed qualitatively were of the consensus that robberies had gone down in frequency in the last twelve months

A Tactic patrolman reported that in the six months that he has been on duty in this precinct, home break-ins had been occurring only in two *communities*, both located in the center of the municipality.

A Tactic chief of a police station, in response to a question about crime in general in the last twelve months, honed in on robberies, and his answer was that although it varied from community to community and from month to month, overall robberies had gone down.

[Police agent: Well, you need to understand that the culture of this municipality is, is quite diverse because I have realized during my time here that there are days when nothing happens; weeks, sometimes months go by, and then one day they start again, you know. On a single day there can be two or three robberies around there. But the tendency is declining. In reality, it has gone down because we had an average of two robberies a day last year. Well, thank God, between July and now I've seen that, that the number of complaints has gone down, and, and everything the people comment on about this, you know, about robberies. It has indeed gone down.]

Extortion or Blackmail

Reported cases of extortion or blackmail in the neighborhoods are shown in Figure 7. Results are based on answers to the question: "Have extortion or blackmail occurred over the last twelve months in [Name of Neighborhood]?"

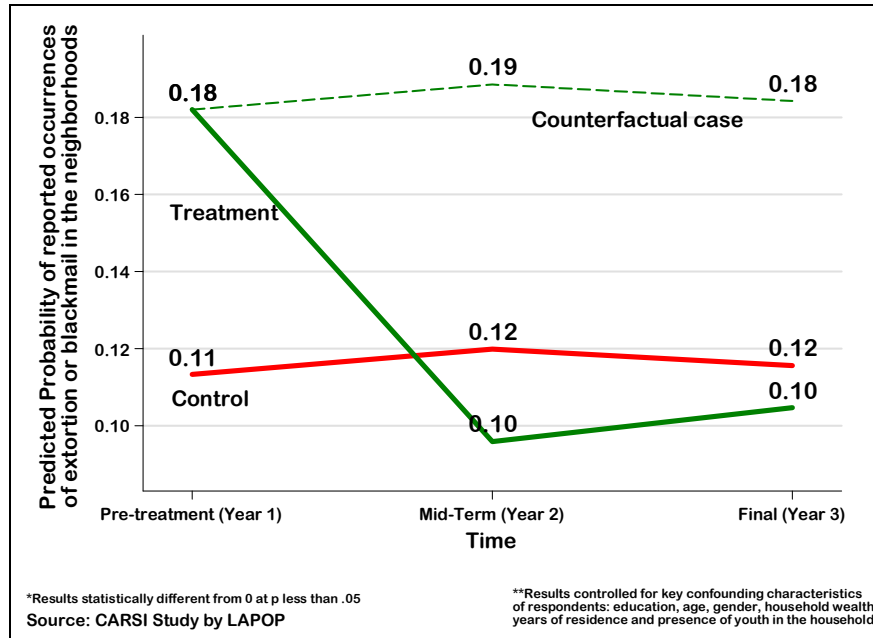


Figure 7. Extortion in the neighborhood in the past 12 months

Figure 7 shows that in control neighborhoods, the probability of respondents recalling instances of extortion and blackmail remained virtually unchanged between Years 1 and 3, while in treatment communities this probability significantly decreased during the same time period. At the end of the third year, respondents’ reports of extortions were 43% lower than we would otherwise expect without intervention.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

The qualitative interviews from round 3 indicate that extortion has diminished to varying degrees in the CARSI treatment communities. One president of a Comité Unico de Barrio (Guatemala City’s equivalent of COCODES), said that in his community, extortion had gone down somewhat, although it still goes on, victimizing the poor.

[Interviewer: And what about extortion? How is that situation around here, in homes and businesses, small businesses? Has the incidence gone up, gone down, or stayed the same?]

[Leader: Well, just imagine, it’s gone down, but it still goes on because a lot of people are afraid to report it. So notice that here there are some businesses belonging to very humble folks because the extortionists take advantage of the most humble folks, you know. People who, who seem to them to be a little more wary, or, or, or who have lived in the neighborhood longer, the extortionists don’t go near them. They trick the people who set up, generally people from up on the plateau, who set up their tortilla stand, their bakery, or their shop. They rent a small place and the ragamuffins start bothering them, you see, but, yes, it still happens, it’s something that still goes on.]

Murders

Figure 8 shows reported cases of murders. Results are based on answers to the following question: “Has murder occurred over the last twelve months in [Name of Neighborhood]?”

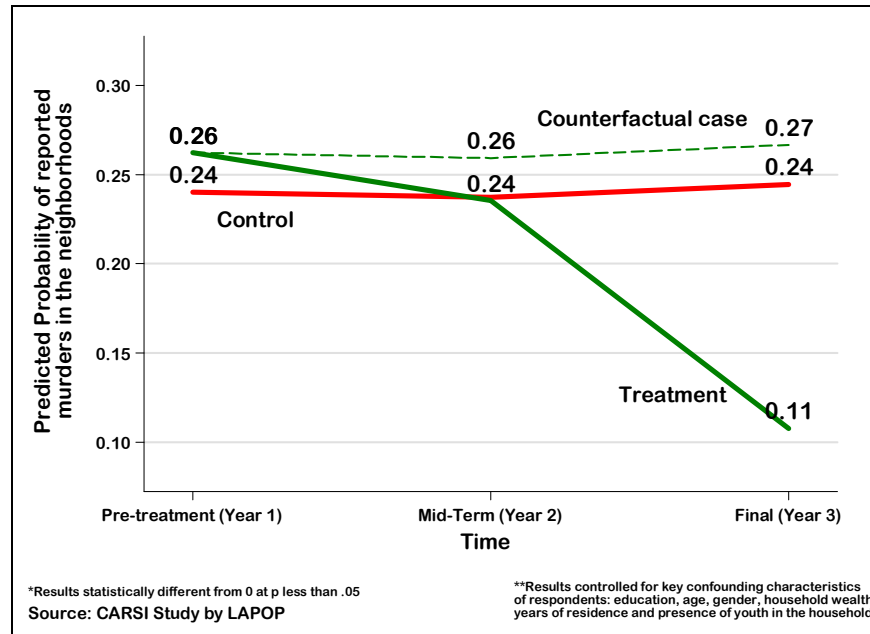


Figure 8. Respondent-Reported Murders in the Neighborhoods

The probability of respondents recalling instances of murders decreased marginally in the treatment neighborhoods and remained the same in the control group between Years 1 and 2. However, in the final year of evaluation, the probability decreased sharply in the treatment group, while it remained unchanged in control communities. Respondents’ reports of murders were 60% lower than we would otherwise expect without USAID intervention.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

The qualitative interviews widely supported the idea that occurrences of murders had decreased. One young man noted that the murder rate had improved markedly: that in 2011 you would hear about a homicide every two weeks, but now, three months have gone by and he hasn’t heard of a single murder.

[Young man: Right now it has improved because before, in 2011, one did happen. Here, out of every, people say that every 15 days they’d hear that someone had been killed and all that. But now it has changed. We have right now, this year, we haven’t heard about any for more than, for about three months. Up to now until we heard that one happened just over there, but it wasn’t from here, it wasn’t anybody from here who committed that crime, you see, they were from somewhere else.]

Sale of Illegal Drugs

Figure 9 displays the predicted probability of respondents recalling instances of illegal drug sales in their neighborhood. Respondents were asked: “Have the sale of illegal drugs occurred over the last twelve months in [Name of Neighborhood]?”

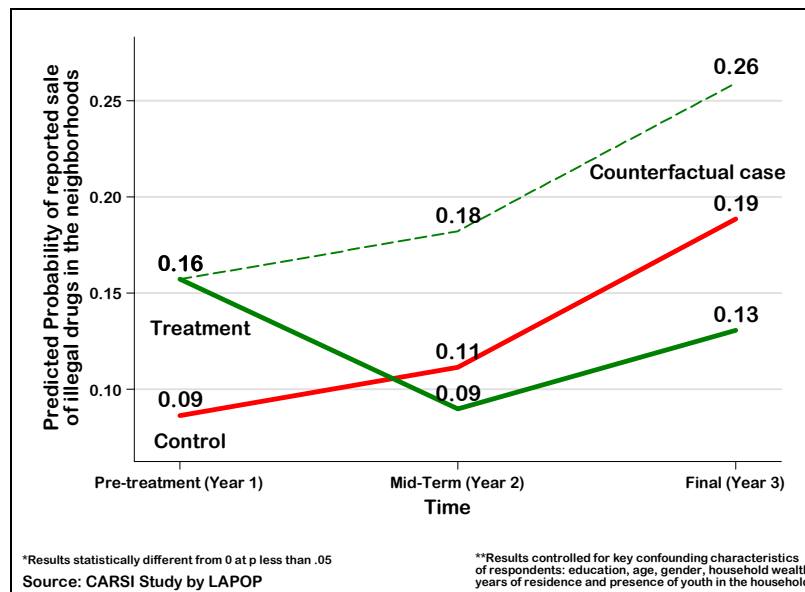


Figure 9. Sale of illegal drugs in the community in the past 12 months

In treatment communities, this probability decreased significantly by Year 2 and slightly increased by Year 3, while in the control group it consistently increased across the three years of evaluation. Moreover, respondents’ reports of sale of illegal drugs were 50% lower than we would otherwise expect without USAID intervention by the end of Year 3.

One community leader was not as optimistic as the quantitative results. An Esquipulas community leader and member of the Violence Prevention Committee says that in his community the sale of narcotic drugs has increased, but that robbery has gone down. His explanation for the increase in the drug trade is an economic one, primarily high unemployment and the failure of the national government to put in place policies to do something about it.

[Interviewer: What has increased, you tell me, is the drug trade, and that robberies have decreased.]

[Leader: Yes, it is, uh, yes because before there were a lot of residential break-ins, but the ones who were doing this have been identified, and they disappeared too, uh huh.]

[Interviewer: To what do you attribute the sale of street drugs always...?]

[Leader: Lack of jobs. What is life like today in Guatemala? And I think that in general, we are living in an unstable economy. There are no work opportunities, and that is one the things we are seeking. We are and we were seeking these opportunities in the, the, action plan of the, of the commissions, and we didn’t reach our goal with the other group, with the (Guatemala implementing partner #2). Labor hiring, job opportunities for youth. We don’t have this. There are, there are people who reach a certain age and are pushed aside; unemployment is high. So who has an advantage in this? If I

need 5,000 quetzals right now, I need 20,000 because we've made a big investment here; I need at least 90,000 quetzals and I can't get a job anywhere. Someone comes and says to me, "Look, prof, you need this much, if I can find it, the only thing I want you to do is to take this package or keep this package for me." I won't, I'll give it to you right now, I just want you to take this package, or keep this package for me. I'm not going to do this, there are others who will do it, out of necessity. There are no opportunities. "You just imagine that so and so, such and such a thing, you know, tell him I need," that's where it starts and the sale start to grow. How is it that in a carwash the owner is going to have Hummers, he's going to have BMWs, the shark of, of the last three Hummers, thoroughbred horses? In a carwash? And they go around with gorgeous weapons, yes, they do. Another carwash around there, it even (unintelligible) have poor people there pouring water on the, sometimes on the cars. So what's going on there? You go into the manager's office and there are security cameras hanging there like sausages in color and all, can you believe it? And his employees also have their, their distributors for that same reason, for lack of, of job incentives. The Government is full of talk about Iron Fist and a lot of other things. We're just waiting, waiting for bread to fall from heaven.]

On the other hand, many of our qualitative examples do support the quantitative findings. For example a police crime prevention officer in Tactic concurs about robberies and sale of drugs going down, and links it directly to support from USAID. Referring to Tactic as a whole, over the past year, he said:

[Officer: Well, you know, a, a, thank God, then, you know, in the Tactic municipality, robberies and uh, uh, drugs, well, I think that it has gone do-...down a bit, you see? Because we've been working on this thanks to the support of USAID, you know, uh, we've worked hard in this area, right? I don't know of any place where you hear about much movement of drugs, you see? I think that it happens in the (name of community) area, since it's on the Mexican border, uh huh.]

The analysis of the context reveals that the effectiveness of the treatment varies the level of neighborhood social disorder (a composite index that measures, at the block level, the presence of people arguing in an aggressive or violent manner, children playing on the sidewalk or street without supervision, presence of gang members, beggars, prostitutes, and drunks). There are significantly fewer reports of illegal drug sales in treatment communities compared to untreated communities with the same levels of social disorder. Figure 10 shows the predicted change in reporting illegal drug sales as social disorder increases in the presence and absence of intervention.

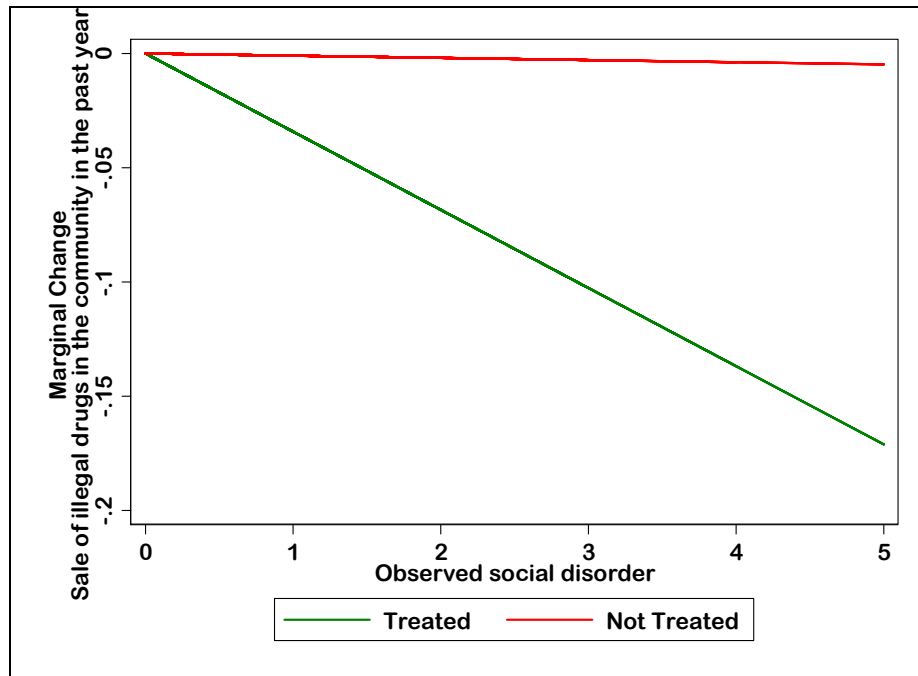


Figure 10. Marginal Change in the sale of illegal drugs in the community in the past year

Qualitative Explanations:

Qualitative interviews with stakeholders provide some insights into reasons why and mechanisms for the decreases in crime and violence. Since the respondents often referred to more than one of the activities treated in the quantitative interviews, we deal here with the qualitative interviews as a single bloc.

Interviews with the police are especially revealing since they uncover a wide variety of programs that are likely to have contributed to these decreases. In the first round of qualitative interviews (i.e., the baseline) we heard mention of some of these in selected areas, whereas by round # 3, it seems that these programs had become generalized to many of the communities in our sample communities. Their variety and breadth are impressive:

- (1) Police coordination with the business community, to protect commerce, including the POLIMERC (Policía de Mercado) [Marketplace Police] program;
- (2) The Ley de Armas y Municiones (Weapons and Ammunition Law) has been in effect since 2009, which has enabled the police to apprehend people who carry illegal weapons;
- (3) The “despistolización” (removal of handguns) program, a crime prevention program aimed specifically at youth, which entails conducting searches of youths who are on the street, looking for firearms;

- (4) The *Escuelas Seguras* (Safe Schools) program, which stations patrol officers at the entrances of schools in the morning, as students enter the school, and in the afternoon, as students leave for home (this program protects students from gang members who often lurk outside the school, preying on students either to extort money from them, or in the case of girls, to seduce them and sometimes to sexually accost them); the *Escuelas Seguras* program incorporates a *Bolsón Seguro* (Secure Bookbag) component, which entails police searches of bookbags, to see if the students are carrying firearms, knives, or narcotic drugs to school;
- (5) Summer programs for youths (e.g., *Escuela Vacacional* (Summer School));
- (6) Sports programs (e.g., *Liga Atlética* (Athletic League));
- (7) Cooperation with the *Comités Unicos de Barrio* (Special Neighborhood Committees) (formerly called *Juntas Locales de Seguridad*) [Local Security Councils], which work with the municipalities in youth violence prevention programs;
- (8) Prevention of lynchings, through police collaboration with the *Departamento de Multiculturalidad* and its indigenous leadership;
- (9) “*Cuénteselo a Valdemar*,” (“Tell Valdemar About It”) a special, dedicated police phone line where citizens can report crimes in a completely confidential manner;
- (10) PANDA, a police anti-extortion program.

Since many of these programs cover both treated and control communities, why, then, are crimes and violence on a better trajectory than in the control communities? A plausible explanation is that there may be a synergy (i.e., statistically, an interaction) between the USAID funded prevention programs and those being carried out independently by the police, the schools, the clergy, and community level civil society under the auspices of national programs. The programs emanating from, or supported by, these stakeholder groups that are not specifically USAID sponsored may have a greater impact on reducing youth crime partly because of the concurrent presence of the USAID programs. This interactive effect cannot be proven by the qualitative interviews, but its joint impact is quite plausible, based on many comments we recorded.

II. Perception of Insecurity

When assessing feelings of insecurity at the national level in Figure 11, highlights responses to the following question: “In your opinion is this community very safe, somewhat safe, somewhat unsafe, or very unsafe?”

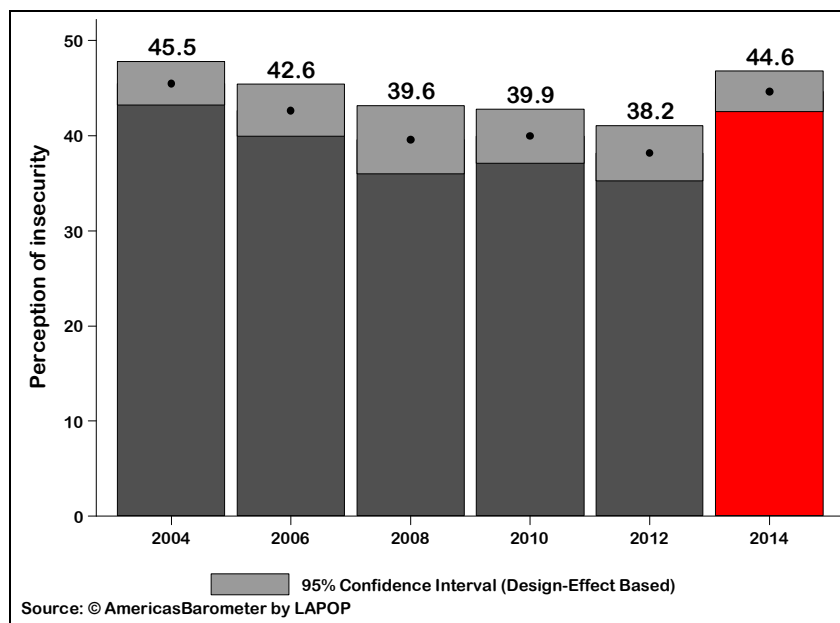


Figure 11. Perception of Insecurity 2004-2014

As the chart indicates, national perceived levels of insecurity have increased significantly by 2014 with 44.6 points on a 0-100 scale, an increase of almost 17%² from 2012.

Community level data in Figure 12 show the feelings of insecurity in the communities. The following figure is based on the question: “In your opinion is this community very safe, somewhat safe, somewhat unsafe, or very unsafe?”

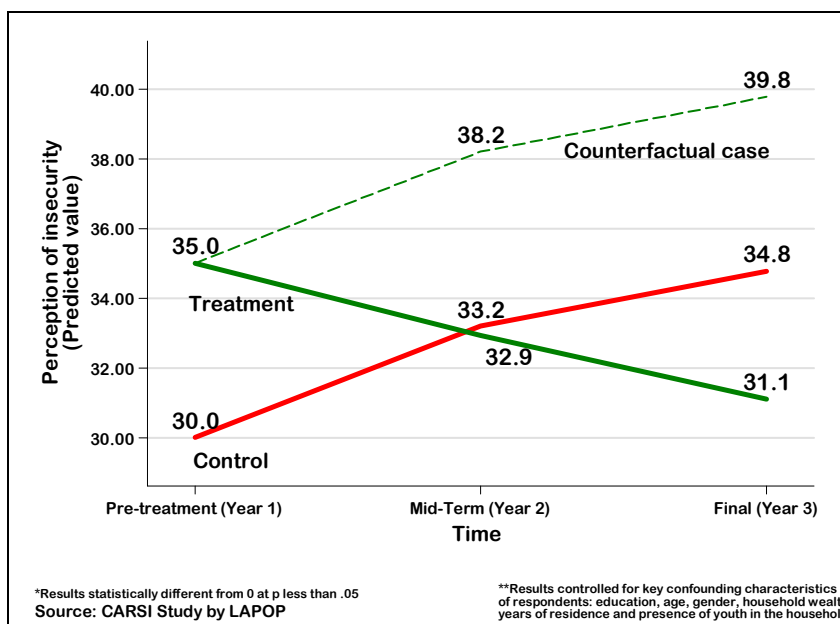


Figure 12. Perception of Insecurity (Predicted Value)

² Compared with 2012, the perception of insecurity has increased 6.4 points by 2014; that is 17% of 38.2 (perception of insecurity in 2012).

Residents of treatment communities felt safer at the end of the third year of evaluation, whereas insecurity increased in control communities during the same time period, a trend similar to national perceived levels of insecurity. In the absence of the program, residents in treatment communities would have been expected to report greater insecurity (8.7 points higher). The predicted value for the treatment communities is 22% lower than would be expected if the treatment had not been administered — a statistically significant difference.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

An interesting explanation of why citizen security has increased in one Guatemala City community is provided by a leader of a Comité Unico de Barrio. He said that it was not due to the efforts of the municipality or of community organizations such as the one that he participates in, but because of a program of the central government's called "*Fuerzas de Tarea*," which was established in September, 2012. According to a web-based newspaper article ("*Fuerzas de Tarea, herramientas clave para combatir la criminalidad en Guatemala*"), these are security units that are placed in high-crime areas, comprising the National Civil Police and the Ministerio Público, who together gather civil and military intelligence. They focus on dealing with contraband, assassinations, extortion, femicide, kidnapping, robbery, and assaults. According to the newspaper article, the *Fuerza Tarea* is backed by the United States, which donated to it armored vehicles, and is responsible for combat drug trafficking and organized crime on the Guatemala/Mexico border. The community leader who mentioned the successes of this new program put it this way.

This leader explained: Well, yes, security has been tightened, definitely, you know, it's a fact, notable, because the delinquents and the, the, the drug traffickers have moved off, they've moved off, and, and they've really moved away, seriously, you know? Because before, before the Task Force got here, there was collusion between one and the other. The drug traffickers and the police looked out for each other; they protected one another, and the police looked the other way, they left the criminals alone, do whatever they wanted. The drug traffickers paid, paid for that service. We could see them working hand in hand, in concert, and there we were, in the middle, unprotected, you know? Well, at the time Police Station 14 was the one in charge of, of this district, you know, they were the, the, the, the places in the neighborhood, yes? Where drugs were sold, and that's where they were paid off, you see? We could see it happen; everyone could see it. That's how the thieves were able to do as they pleased and we couldn't do anything about it. We'd call the police, and they'd arrive four hours later. In short, we were at their mercy, but, thank God, I think that this government plan has been a great thing we've received, you know, when they set up the Task Force. Before, at least around here, a lot of people in this area had to pay someone to watch their cars; now they leave them parked on the street because they feel confident that nothing will happen to them. And, in fact, nothing has happened. Common criminals-- pickpockets, guys who steal radios, batteries, and all kinds of automobile accessories—they've all had to go elsewhere. The, the drug traffickers have also disappeared. It's because they're being caught, and most of them are in jail. So, yes, the cat has come to scare off the mice, and it's worked. But, yes, I want to emphasize that this didn't happen because of the petition in the joint program that we carried out, you know, among the three institutions—the municipality, the government, and USAID—it had nothing to do with that. It was the central government program, to have been able to set up these Task Forces.

Figure 13 show the average responses to the question: “Could you tell me how safe or unsafe you would feel walking alone in this neighborhood at night. Would you feel very safe, somewhat safe, somewhat unsafe, very unsafe?”

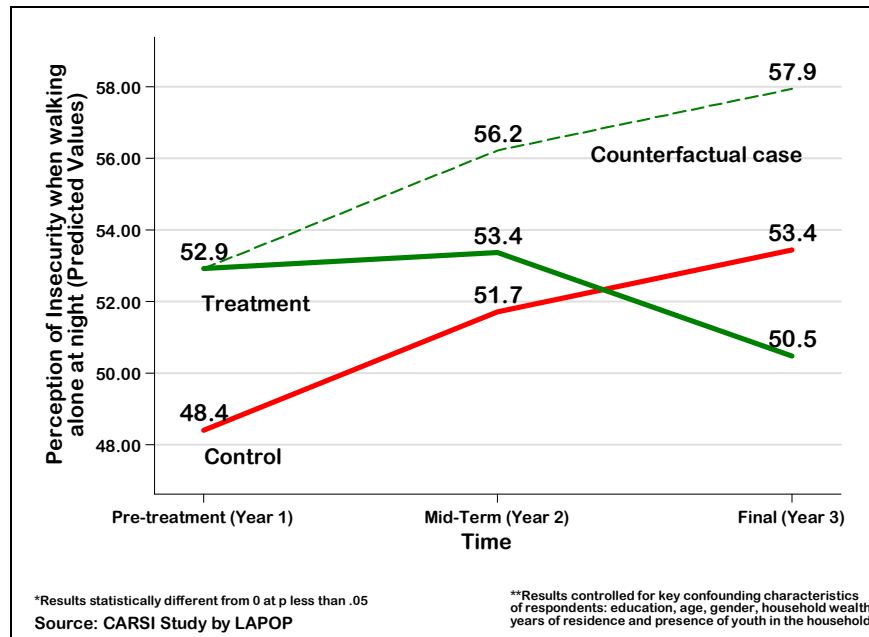


Figure 13. Perception of Insecurity when walking alone at night

The predicted responses show that residents reported feeling more safe when walking alone at night in treatment communities while feeling less safe in control communities at the end of the third year of evaluation. In the absence of the program, residents would have reported greater insecurity in Year 3. The predicted outcome in the treatment communities is 13% lower than would be expected had the treatment not been administered. This difference between the counterfactual case and treatment group is statistically significant, indicating that the treatment is associated with a reduction in perceptions of insecurity when walking alone at night.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

Several respondents mentioned that there has been somewhat of an improvement lately in the sense of safety they feel in walking in the streets of their community and inside their homes. Community leaders living in Tactic felt a greater sense of threat and insecurity than did respondents living in Esquipulas or the capital.

[Interviewer: Talking now about your perception of safety here in the neighborhood where you live, how safe or unsafe to you feel walking around in the neighborhood during the day?]

[President: During the day, uh, during the day, yes, there is always someone around, from Santa Cruz, from San Cristobal or some from Tactic, people who, who I know because there they go around snatching chain necklaces, but...really, uh, I can't give you figures or names because, uh,uh, because, but I have seen that, uh, the, the, the days that the markets are open, at least, it's true that they snatch chain necklaces, cell phones, you know. But a little farther down here in the neighborhood, well, no, it's my area, and it doesn't happen very much at all.]

[Interviewer: That's during the daytime, What about night time? How safe do you feel?]

[President: At night, well, lately, uh, we have, what? Been able to rest a bit easier because it's also gone down some, you know.]

[Interviewer: How worried are you that someone will break into your house to rob you when there's no one at home?]

[President: Well, yes, there is, there is, uh, that, yes, but with our neighbors sometimes, uh, uh, we get together and, and, whatever happens, whether my door is locked, my neighbor will notice that. We have each others' cell phone numbers. They'll call and say 'Hey, Don Juan or so-and-so, look, this is happening.' And since no one is there, 'you're not home,' but 'look, there's a a man who looks like he's trying to open your door,' something like that, you see? We neighbors communicate well among ourselves.]

[Interviewer: And how concerned are you that someone on the Street will stop you, threaten you, hit you, or harm you in your neighborhood?]

[President: Well, yes, in, in, in this sector, there were some youngsters who threatened me. They even stopped me there at the, two blocks from here and, and, look, forgive my language, but they also said to me, 'Look, you son of a ____, just because you are the president of the Committee, well, you think you're..., you know, so I told them, 'No, kids, my job is to give you support, I support you, so whatever you may need, and I know that someday you're going to, going to need something, and, and don't you believe for a minute that I can't help you out, OK?']

III. Neighborhood Disorder and Youth Loitering (Including Youth Vulnerability to Crime and Gang Activity)

To assess the extent to which youth in gangs is perceived as a neighborhood problem, respondents were asked “which of the following is a very serious problem, somewhat serious, not so serious, not serious, or not a problem in your neighborhood? Young people or children that live in [Name of Neighborhood], who are in gangs or maras.”

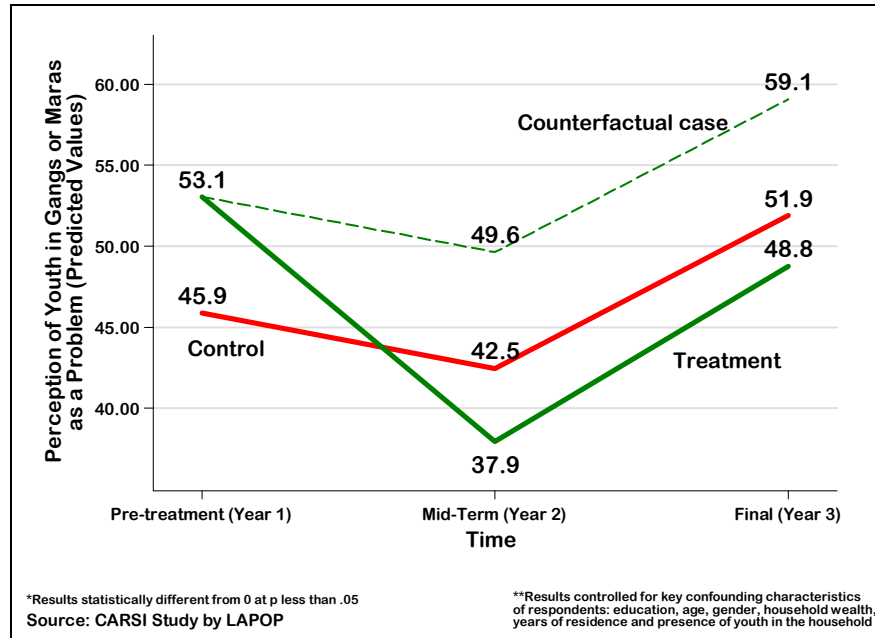


Figure 14. Perception of Youth in Gangs or Maras as a Problem

The results of the predicted model (Figure 14) show that these perceptions increased sharply in control communities in Year 3, while in the treatment group, it decreased in Year 2, but increased again in Year 3. Still, the extent to which youth in gangs are perceived as a serious problem is lower by the end of the third year of evaluation compared to Year 1 in treated communities. Perceptions of youth in gangs as a problem was 17% lower than would be expected had the program not been implemented. The difference between the counterfactual case and the treatment is statistically significant, indicating that the treatment is associated with a decline in the extent to which youth in gangs were perceived as a serious problem.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

The perception of an at-risk youth of the gang problem, coming from a 22-year old young man of Tactic, is that there are no gangs in his community.

[Interviewer: How much of a problem are gangs here in (name of community)?]

[Young man: Well that, no, there aren't any, none.]

The only violence in his school was between boys fighting over girls, but these were not gangs, just individual student conflicts, he explained.

This was not the entire consensus. An RTI coordinator who works with Guatemala City's Municipal Violence Prevention projects, listed several treatment communities and their bordering communities where there is "bastante presencia de, de, de pandillas" ["a big gang presence"] and some "donde pareciera que hay bastante, eh, actividad, eh, de maras, ajá." ["Where there seems to be a lot, uh, of, uh, gang activity, uh-huh."] According to another RTI coordinator, the

adolescents of Guatemala begin joining gangs at the age of 13, and stay active in them until they are 25.

Nevertheless, by round three of the CARSI qualitative interviews, there was a consensus among stakeholders that gangs were not a problem in the treatment communities, and, according to most people interviewed, that there were no gangs at all based in them

Next, we evaluate the extent to which residents perceive youth loitering as a problem: “Which of the following do you view as a very serious problem, somewhat serious, not so serious, not serious, or not a problem at all in your neighborhood? Young people or children in the streets doing nothing, roaming around in [Name of Neighborhood].”

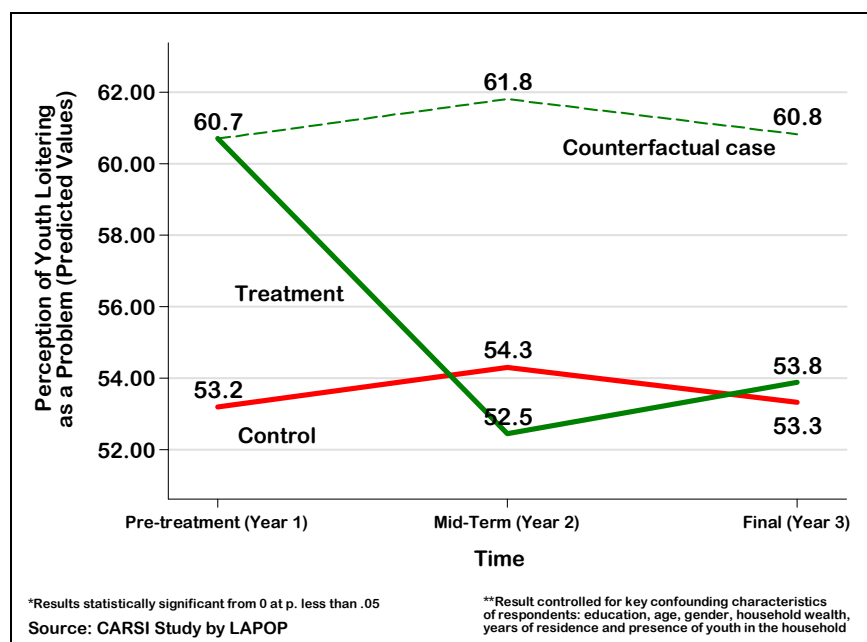


Figure 15. Perception of Youth Loitering as a Problem

Figure 15 shows that the perception of youth loitering as a serious problem decreased sharply in treatment communities in the final year of the evaluation, though less so in control communities. Loitering was 10% lower in the treatment group than would be expected had the program not been implemented

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

Gang Fights as a Problem

Figure 16 shows the perceptions of the extent to which residents see gang fights as a problem in their neighborhoods based on the question: “which of the following is a very serious problem, somewhat serious, not so serious, not serious, or not a problem in your neighborhood? Gang fights?”

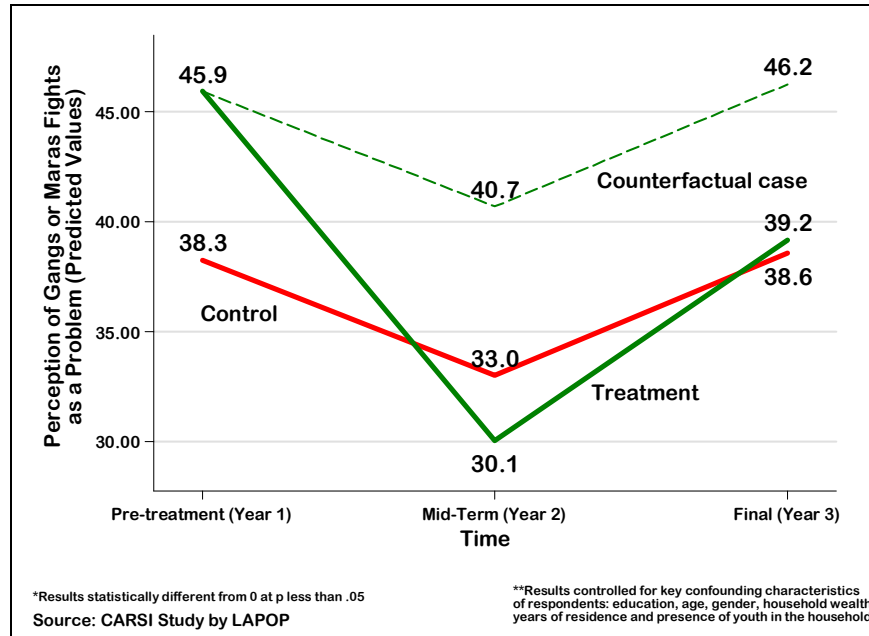


Figure 16. Perception of Gangs or Maras Fights as a Problem

Figure 16 demonstrates, predicted levels of responses to this question decreased by the end of the third year of evaluation in the treatment group, while marginally increasing in the control group compared to Year 1. In the final year of the evaluation, the average predicted value for the treatment group is 15% lower than would be expected in the absence of the program.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

One of the most positive evaluations of a community’s success in getting rid of its gang problem and in lowering the crime levels overall comes from a former COCODES leader, who was a member of the Community Committee for the Prevention of Violence at the time of the interview. She explained how community strategies of organization (e.g., armed night patrols), together with the support of the national police and the army, had succeeded in bringing down crime levels.

[Leader: Well, looking at, at the problem that, that we were experiencing in the neighborhood, you know, at, at the beginning when the neighborhood was a little underpopulated, well, there was a lot of crime; a lot of idle boys hanging out on street corners, giving the girls and all the other passersby a hard time. People were very fearful about coming here to the, to the, neighborhood. Up to now this problem is being eradicated, but people are still uneasy. It’s like the fear is still in the back of their minds that the neighborhood is dangerous. It isn’t anymore. You can come here before dawn, at night, at whatever time you want, and there’s nothing to be afraid of. As a result of all the efforts that have been made to get rid of these little gangs, they’re not here anymore. Not anymore, not anymore, we don’t have crime here anymore. The community is very nice now.]

Crime Prevention Measures

Residents of these communities were asked what measure they employed in order to protect themselves from crime (“In order to protect yourself from crime, in the last twelve months, have you taken any measures such as avoiding walking through some areas in [Name of Neighborhood] because they can be dangerous?”),

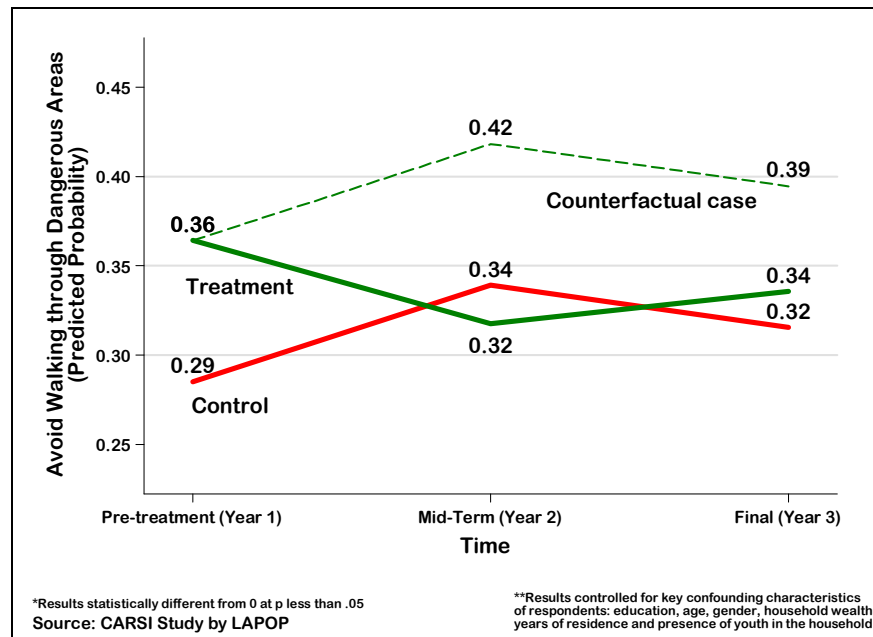


Figure 17. Avoidance of Dangerous Areas

Figure 17 shows that residents in treatment neighborhoods are less likely to report avoiding walking through dangerous areas in Year 3 compared to Year 1, while residents in control communities are more likely to do so. By the end of the third year, the probability a respondent would feel the need to avoid dangerous areas in treatment communities was 13% lower than would otherwise be expected without the program in place.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

One 50-year old president of a Comité de Prevención de Violencia, when asked how safe he felt walking around the community during the day responded that he felt quite safe:

["Oh, well, during the day, there's plenty of security. I feel safe. And I tell you, I feel safe because a lot of people know me. The butcher says hello to me; so does the shoemaker, the magazine vendor, the engineer, the lawyer, the architect, the, the, the newspaper vendor. And, and so in some way, I feel a bond with a lot of people, and they respect me. Even the delinquents greet me, 'Hey Mr. So-and-So.'" In some way they are my friends. But there are a lot of people who, who, who, who because of their own fearfulness get held up two blocks from their homes. (Interviewer: At night.) Although here in the neighborhood right now the, the, the rate of muggings is almost 5%, 3% only when the kids from Community X come here. They don't have anything better to do, so they come over here to our neighborhood, you see, but here muggings have gone down a lot. But I feel safe." And further on in the interview, when asked if he generally avoids walking through certain parts of the

community because they might be dangerous, he answered: “Mmm, realmente no siento peligrosa mi, mi comunidad en ningún, en ningún lado. “Mmm, I really don’t feel like it’s dangerous anywhere in my community, anywhere.”]

In short, this Prevention Committee President considers assaults to have decreased, and that they are carried out only by youths who enter the neighborhood from other communities. Attribution of crime to youths who come from outside the community is a commonly heard statement made by community leaders, a theme also struck by teachers when they say that gang members are outsiders.

IV. General Perceptions of Neighborhood Collective Action

When assessing general perceptions of neighborhood collective action, residents’ were asked, “And now talking about [Name of Neighborhood], to what extent would you say the neighbors of [Name of Neighborhood] are organized to prevent crime and violence?”

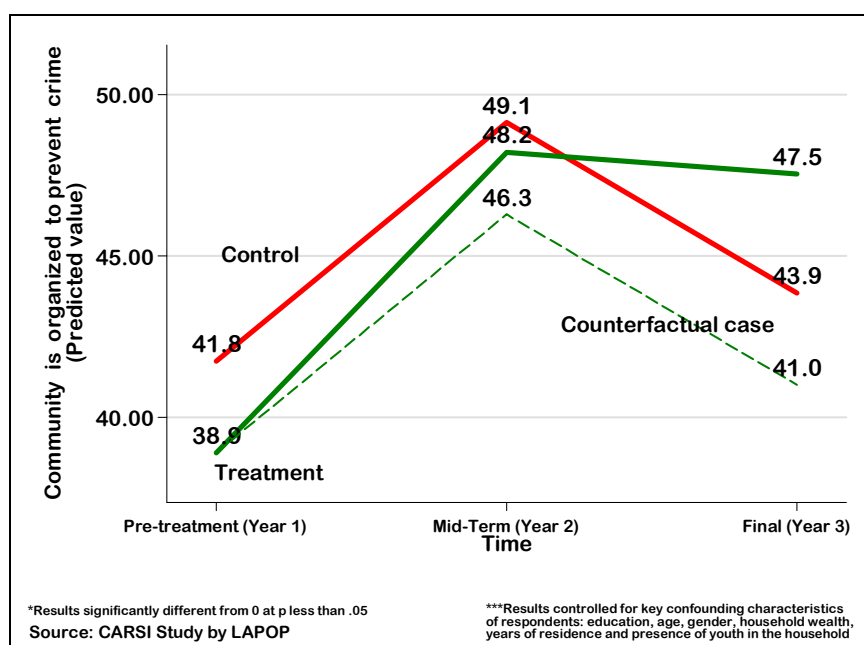


Figure 18. Neighborhood Organization for Crime Prevention

Figure 18 shows that perceived levels of neighborhood collective organization are significantly higher in treatment communities by Year 3. Figure 18 exhibits that residents in control communities report more neighborhood organization for crime prevention than those in treatment communities in Year 1, but by Year 3, treatment communities had surpassed control communities. In the final year of evaluation, the average predicted value for the treatment group is about 47.5 points on a 0-100 scale ranging from “not at all” to “a lot” of organization for crime prevention. Perceptions of neighborhood collective action were 16% higher in the treatment community than would be expected if the program had not been implemented.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

Qualitatively we learned a lot about neighborhood organization. One police officer, when asked about to what extent the communities in which they work were affected by gangs responded,

Translation [“Well, I think that...well, not for the moment, no...that situation is not happening much because, well, uh, um, the community, the population is organized and they are dealing with ways to avoid problems with gangs.”]

V. Role of Institutions: National Police

Did USAID’s crime prevention programs boost institutional support? In this section, we assess if crime prevention programs had an indirect impact on trust in institutions like the National Civil Police (PNC) and satisfaction with police performance, with the expectation that we will find higher trust and satisfaction in treatment communities. We first begin with a national comparative perspective of how Guatemala fares across time.

The 2004-2014 AmericasBarometer national level data show responses to the question “To what extent do you trust the National Civil Police?” ranging from 0 “Not at all” to 100 “A lot”.

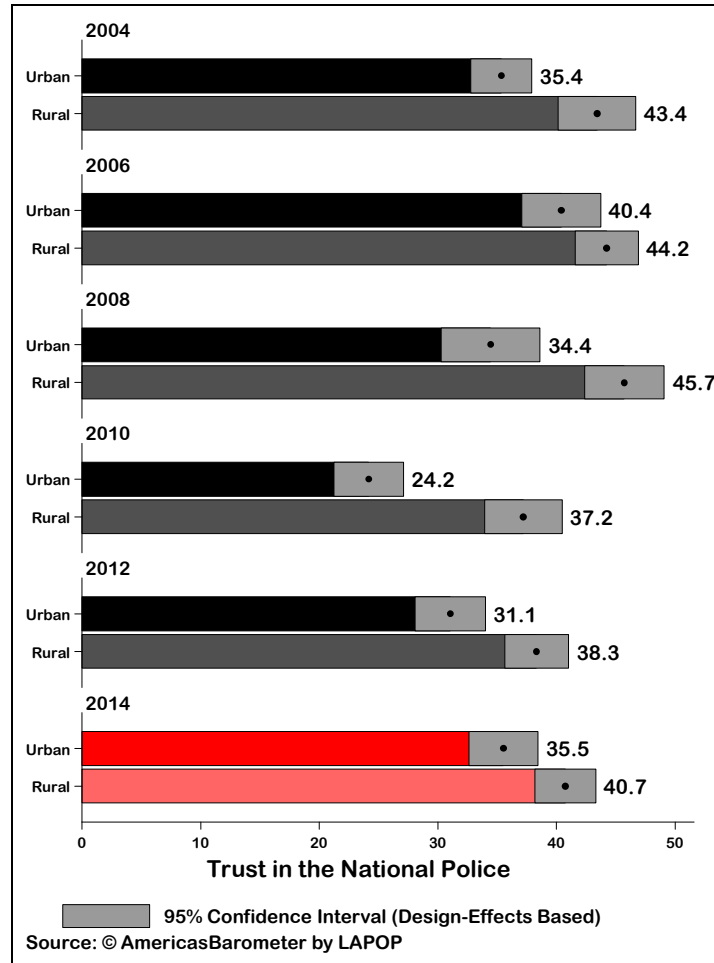


Figure 19. Trust in the Police in Urban and Rural Areas

Figure 19 shows that Guatemalans have significantly higher levels of trust in the police in rural compared to urban areas. Though these trust levels declined during the 2004-2010 period in urban areas, there is a 47% increase in trust between 2010 and 2014 in urban areas.

The same data in Figure 20 show that the overall average levels of trust in the National Civil Police increased significantly between 2010-2014 (23%), but remained lower than trust levels before this period.

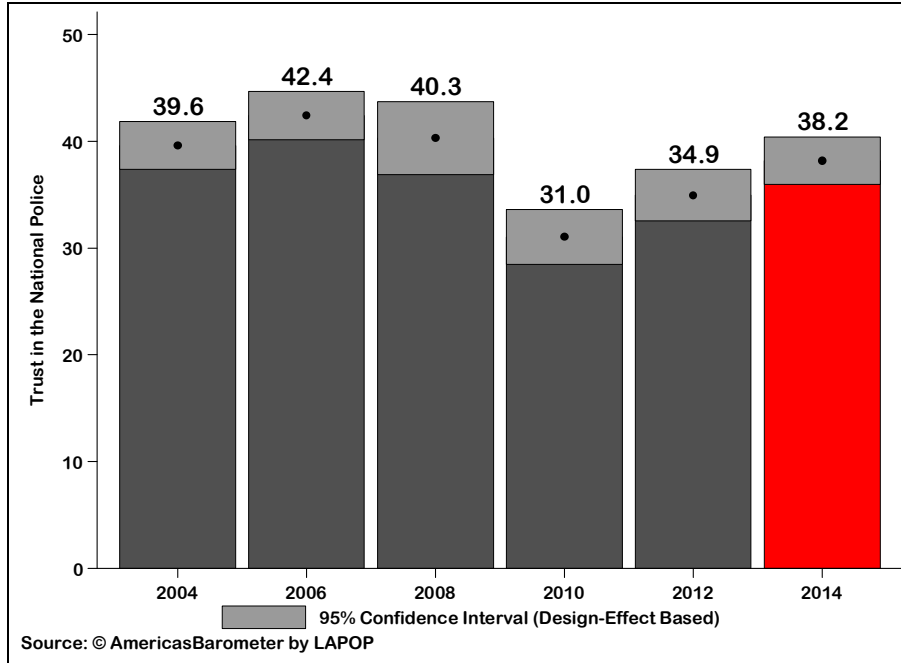


Figure 20. Trust in the National Police, 2004-2014

Figure 21 shows the predicted levels of trust in the National Police at the community level.

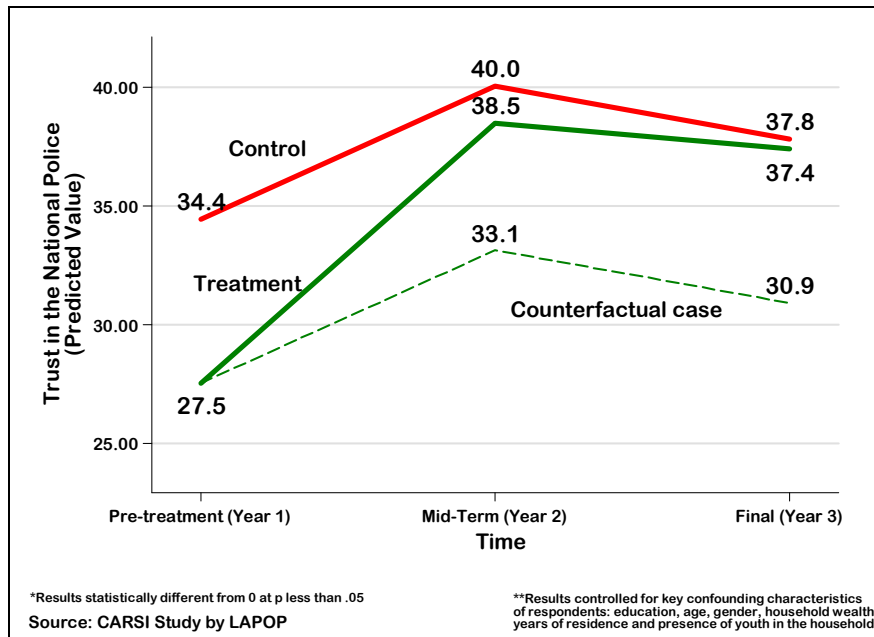


Figure 21. Trust in the National Police in Neighborhoods

There is a sharp increase in trust over the three year time period in both types of communities, but the increase is more pronounced in treatment communities. By the end of the third year, trust in the police was 21% higher in the treatment communities than would be expected without the program in place.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

The qualitative interviews offered a complex picture of trust in the police. This was particularly prevalent in our discussions with youth.

Youth at-risk expressed a lack of trust in the police and general dissatisfaction with. On being asked if he had trust or distrust of the police in Tactic, one eighteen-year old young man put it this way:

Translation [I'd say that it was distrust because they don't, don't do their jobs the way they should, you see. For example, in the communities we see that when you call them, they don't come because sometimes they tell you that there's no gasoline, because, well, we don't have time, we have another case to attend to. I think its mistrust because they don't look out for the safety of the community, uh-huh.]

Whereas the at-risk youth stakeholder group as a whole continued to express reservations about the police even in round 3 of the qualitative interviews, a minority had positive opinions of them and said they trusted the police. This 22-year old young man from Tactic held a favorable view of the police with regard to trust.

[Interviewer: Would you say that you trust or distrust the Police?]

[Young man: I trust the Police.]

[Interviewer: Why? What makes you feel confident as an inhabitant of the (name) neighborhood?]

[Young man: I think that at least we have to give them the benefit of the doubt, right? To say, "Well, yes, I do trust them because they do their job," right? Just like, like they, like they used to say, right, that there are not enough of them to patrol all over Tactic; there are too few of them. So, yes, at least we should have a little confidence in them; they at least deserve that; they're working for that, aren't they? They're practically giving their lives. Sometimes they put themselves at risk too, right?]

Satisfaction with Police Performance

Figure 22 displays satisfaction with the National Civil Police performance. Respondents were asked: "In general, would you say you are very satisfied, satisfied, unsatisfied or very unsatisfied with the performance of the National Civil Police (PNC) in [Name of Neighborhood]?"

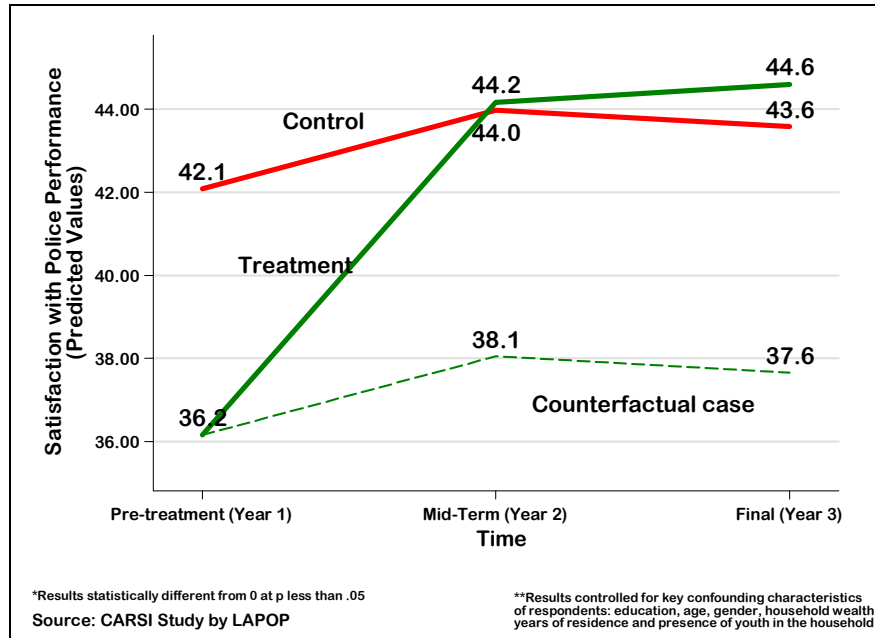


Figure 22. Satisfaction with Police Performance in Neighborhoods (Predicted Values)

The predicted levels of satisfaction in the National Civil Police increased throughout the three year evaluation in both groups, but it did more sharply in the treatment group. Satisfaction with police performance was 19% higher than would be expected without the program in place. This difference is significant, indicating that the treatment is associated with higher satisfaction with the police.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

Community leaders complained about the difficulties involved in reporting crimes. As one elderly member of a *Comité Unico de Barrio* and president of a Committee for the Prevention of Violence explained, when you go to your nearest police station, you are sometimes told that that is not the station where you should be going, and when you go that police station, they tell you to go to a different one:

[“Well... the police station and the, the, the,...there’s a little problem, I think, that the government has to fix in the sense that sometimes you report a crime at the nearest police station and they tell you that you can’t make the report there, that you have to go to Police Station X, so you go to that one and they tell you that they can’t take the report there either. In the end, since time is money, you sometimes give up. But you know they should accept a crime report in any precinct.”]

His proposal for improving police performance is that any police station should be capable of receiving reports of crime. Clearly he was disgusted with being sent from one police station to another, and was expressing his high degree of dissatisfaction with the way in which the National Civil Police operate.

Nevertheless, one regional coordinator of a national youth group program, Red Nacional de Grupos Gestores, speaking of the national police of Esquipulas, gives them high marks. He feels quite satisfied with the police, insofar as they have been responsive to the needs of this program that targets youngsters. In his words,

Translation [You see, uhm, in the processes that we have undertaken in carrying out our work, you know, the National Police have always been involved. And here the problem that, that we've had is that every time we invite the National Police to activities on a military post, well, there are always different people, you see, Well, from the moment we began working on the project, I've met about six chiefs of police, you know, and every time it's my turn to go back and chat with them, wouldn't you know that eight or ten days later they're not at the police station anymore. Then there's, there's, well, I don't know if you could call it a problem, but it's the forging of a relationship with the police, their identification with us. What I do is since the police station faces the town hall, I always go there, not maybe not to, to, to report to them, you see, but to say hello to them and say, 'Hey, right now is Mr. (first name, last name), is he on duty right onow? And I greet him, 'How are you doing with this and that?' With the problem with the little girl in Community X, we had assistance from the police. But they are aware of where they can intervene, you know. They were very, very cautious and they said, 'No, we want to clear things up a little.' Well, that's how we began to get along with the police.]

VI. Social Capital and Democracy

Democratic Values

As we posited at the beginning of this study, effective USAID's crime prevention programs should (1) have a direct impact on the reduction of violence, and (2) increase the sense of security, which was evidenced by the quantitative and qualitative results displayed above. However, we also conjectured that there would be indirect effects of these programs for the promotion of good governance—e.g., greater levels of interpersonal trust, more satisfaction with the functioning of democracy, and improved perceptions of government security efforts. In the following section, we analyze the indirect impact of USAID's prevention programs on various indicators of good governance.

Interpersonal Trust

Theorists of civil society such as Robert Putnam argue that the combination of civic participation and interpersonal trust fosters social capital—in other words, both characteristics are necessary for citizen cooperation to solve community problems. Citizens who actively participate in civil society learn to work with and to trust each other. Therefore, interpersonal trust is believed to be both a precondition and a consequence of a strong civil society, which in turn reinforces democracy (Putnam 1993).

For the purposes of this study, we expect that some indirect benefits of USAID's crime prevention programs will include increased levels of interpersonal trust in treatment communities. The following question was asked to measure interpersonal trust "Speaking of the people from around here, would you say that people are very trustworthy, somewhat trustworthy, very trustworthy, or

untrustworthy?” Responses to this question were recoded from 0-100, where high values represent high levels of interpersonal trust.

Figure 23 displays average levels of interpersonal trust in Guatemala from 2004 to 2014. Interpersonal trust in Guatemala remains relatively constant over time in urban and rural areas, with the former showing significantly lower trust levels. In 2014 there is a slight decline from 2012 of about 6% in urban areas and 9% in rural areas. In Figure 24, national average levels of interpersonal trust are slightly lower in 2014 compared to 2012 (8%).

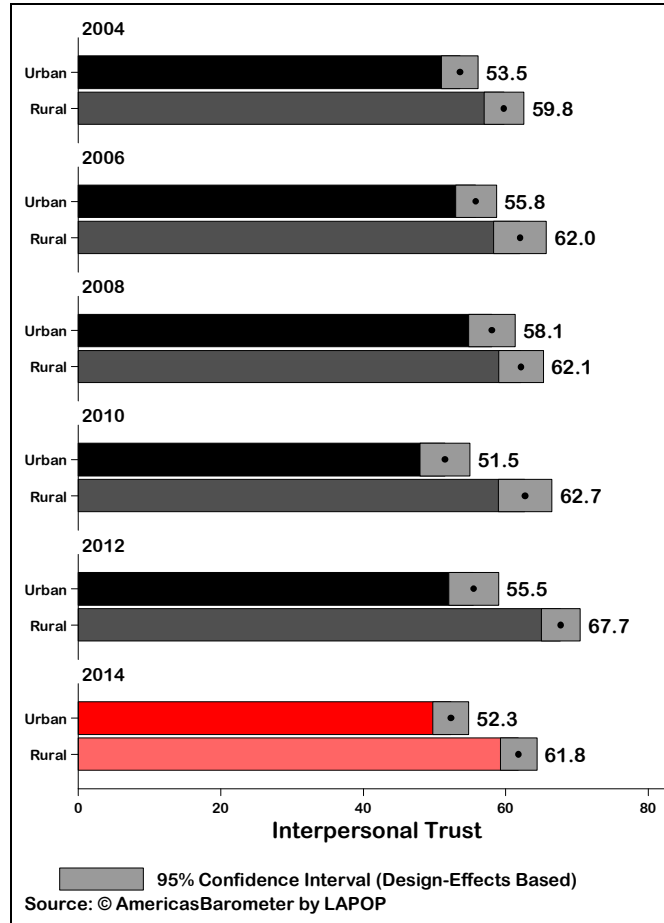


Figure 23. Interpersonal Trust in Urban and Rural Areas

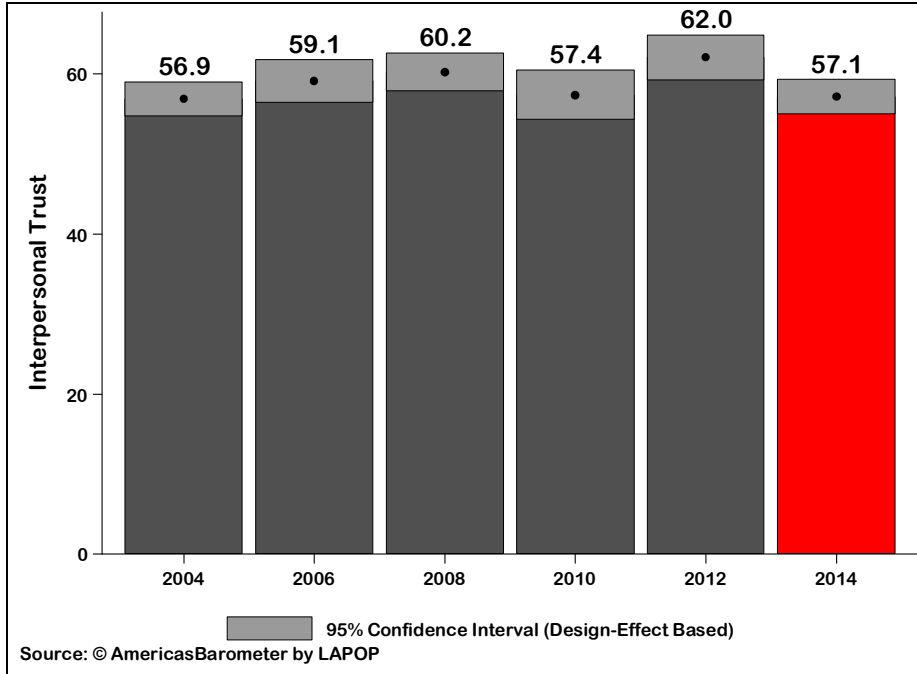


Figure 24. Interpersonal Trust 2004-2014

CARSI community level data, in Figure 25, shows that interpersonal trust declined sharply in both groups over the three years of evaluation.

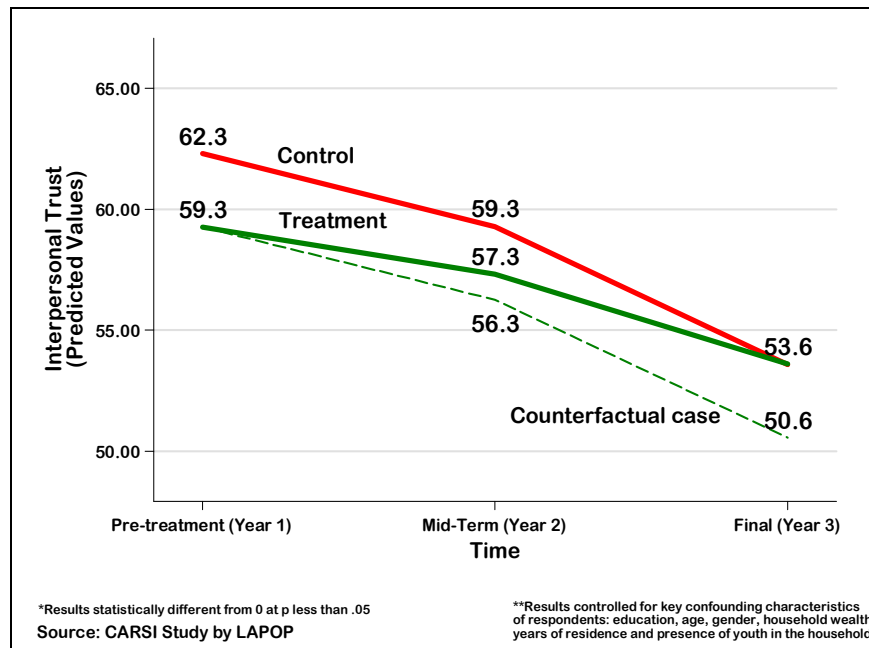


Figure 25. Interpersonal Trust (Predicted Values)

However, the difference between the treatment group and counterfactual is statistically significant in the final year of evaluation, indicating that the treatment increased interpersonal trust in the communities. In other words, interpersonal trust was 6% higher in the treatment group than would be expected were the program not in place.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

Satisfaction with Democracy

Citizen support for democracy as a system of government is believed to improve its prospects of sustainability and consolidation (Diamond 2013). However, research in advanced industrialized democracies has found an ongoing decline in democratic satisfaction over recent decades (Dalton 1999). This dissatisfaction has closely been linked to citizens' higher expectations for democracy's performance (Norris et al. 1999). While citizens' support for democracy in principle as the best form of government has increased or remained unchanged, citizens may feel that democracy in practice has not met their expectations (Booth and Seligson 2009). In this section, we assess if USAID's crime prevention programs have indirectly affected residents' satisfaction with democracy in treatment communities. Have the benefits of these programs also led to increases in citizens' satisfaction with the way democracy performs?

When asked "In general, would you say that you are very satisfied, satisfied, dissatisfied or very dissatisfied with the way democracy works in Guatemala?" national level data from the 2004-2014 AmericasBarometer indicate that there are no statistically significant differences in democratic satisfaction between rural and urban areas in Guatemala, except for years 2004 and 2010 (Figure 26). Figure 27 shows overall satisfaction with peaks in years 2004 and 2008. However, there have been no significant changes since 2010, with average levels of about 48 points on a 0-100 scale.

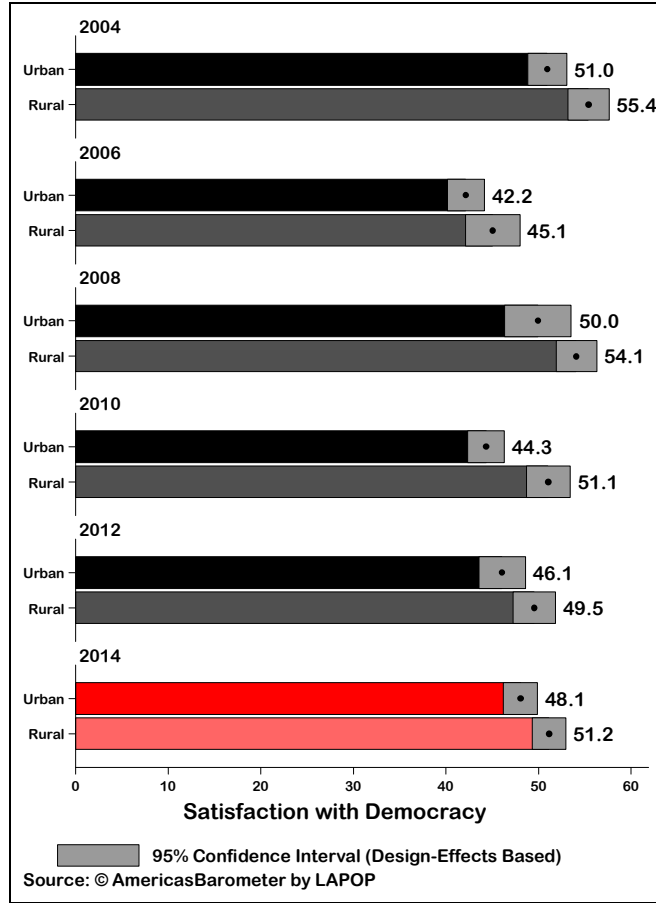


Figure 26. Satisfaction with Democracy in Urban and Rural Areas

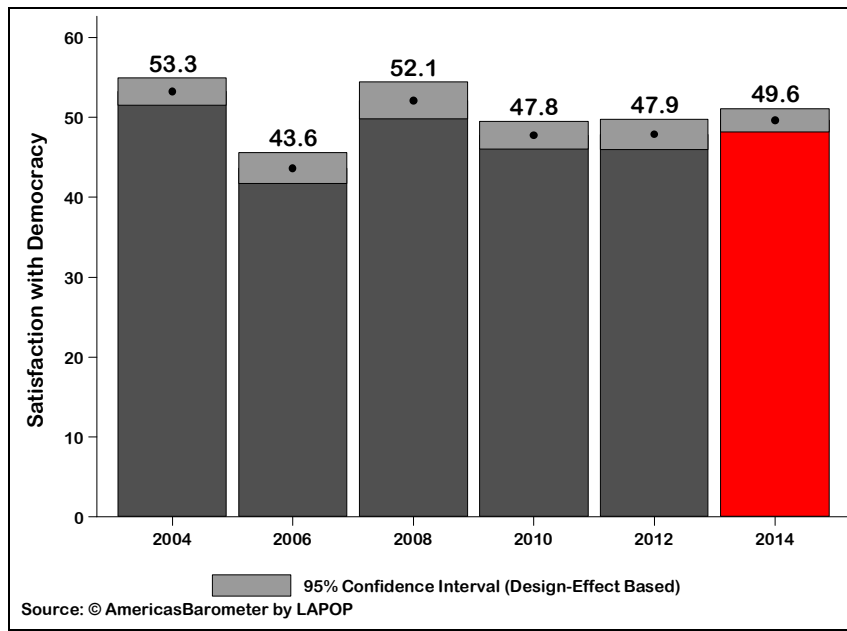


Figure 27. Satisfaction with Democracy 2004-2012

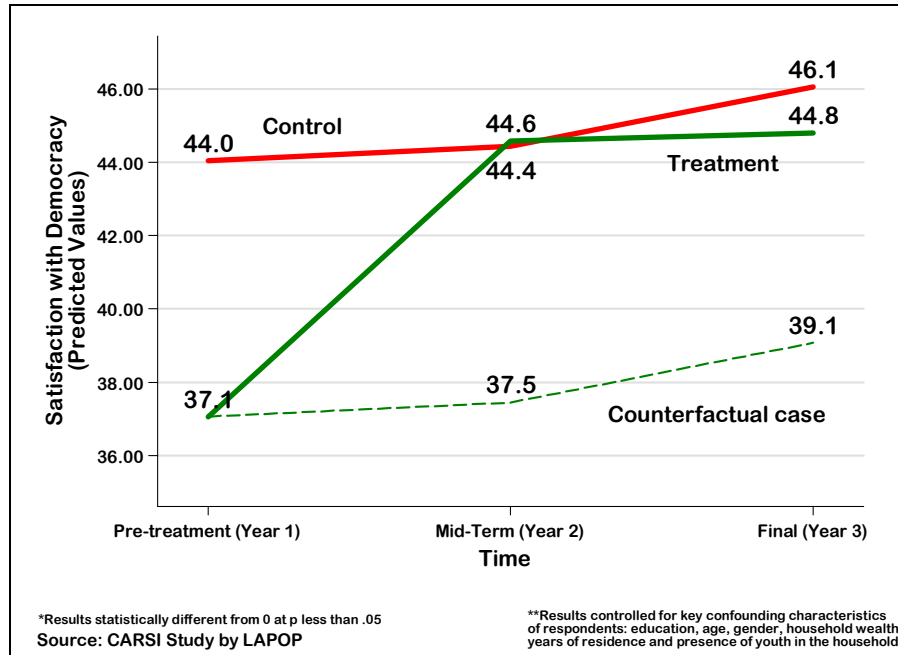


Figure 28. Satisfaction with Democracy in Neighborhoods (Predicted Values)

Community level data in Figure 28 shows that the average predicted level of satisfaction with democracy increased significantly in both treatment and control groups by Year 3, but did so more sharply in treatment communities. Compared to the counterfactual case, the treatment communities show significantly higher levels of satisfaction (15%), indicating that the treatment is associated with greater levels of satisfaction with the functioning of democracy.

The effectiveness of the treatment does not vary with any of the analyzed neighborhood contextual variables.

VII. Evaluation of Government Handling of Citizen Safety

Data from the 2006-2014 AmericasBarometer show responses to the question, “To what extent would you say the current administration improves citizen safety?” The average Guatemalan evaluation of government improving citizen safety is higher in 2008 compared to other years and is the only year where this evaluation is statistically significant different in urban and rural areas (Figure 29). In addition, Figure 30 shows that national evaluations of government handling of citizen safety are slightly less positive in 2014 compared to 2012.

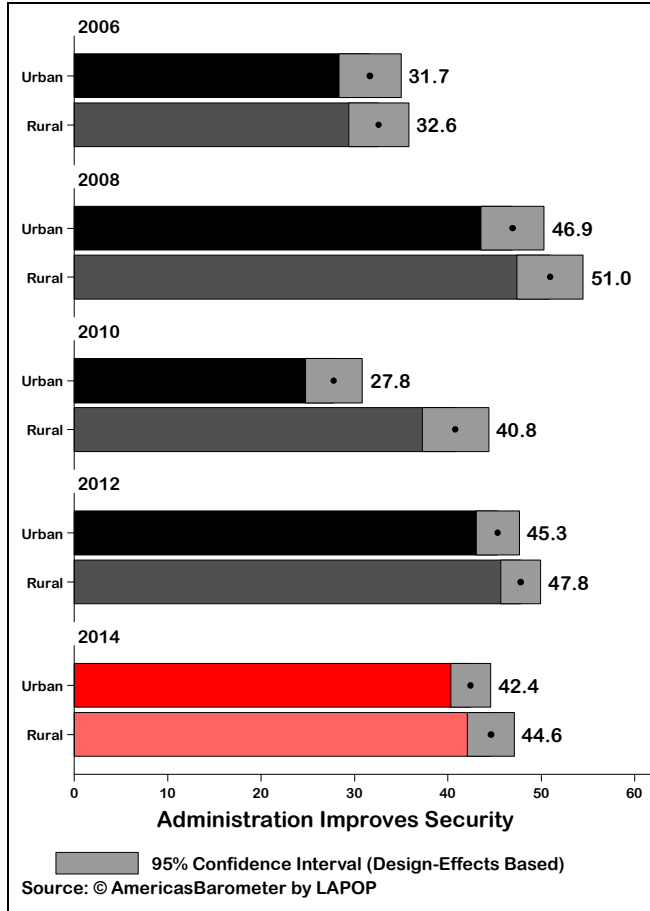


Figure 29. Evaluation of Government Handling of Citizen Safety in Urban and Rural Areas

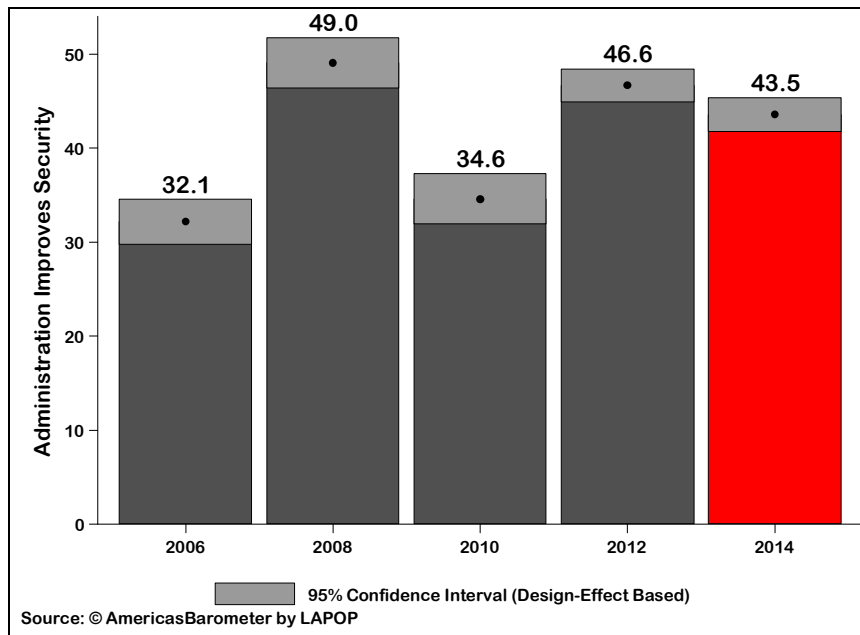


Figure 30. Evaluation of Government Handling of Citizen Safety 2006-2012

CARSI community level data in Figure 31 show little difference between treatment and control communities in their evaluations of the government's security provision.

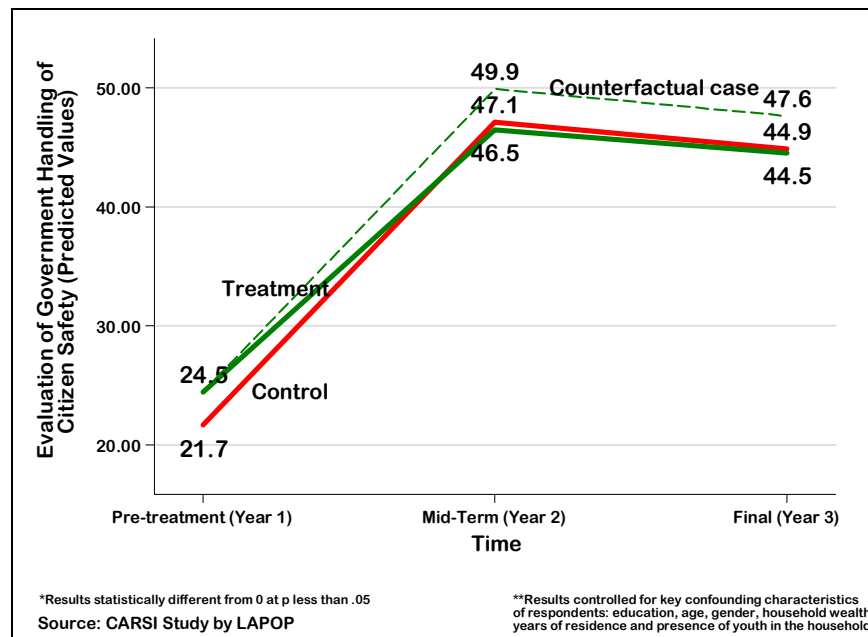


Figure 31. Evaluation of Government Handling of Citizen Safety in Neighborhoods

By the end of the third year of evaluation, there is a significant increase in satisfaction—levels more than double in both treatment and control groups. However, counter to expectations, the treatment neighborhoods show lower levels of satisfaction than in the counterfactual case. Therefore, the treatment does not have the expected effect of improving perceptions of government's handling of citizen safety.

Community attitudes toward government handling of citizen safety is revealed in the existence of vigilante justice, or taking the law into your own hands (also called *linchamiento*⁷). The very fact that communities organize themselves (through *Juntas Locales de Seguridad*), in areas that are distant from urban centers, and where there is no police station located within the community, is evidence of community dissatisfaction with the government's handling of citizen safety. A number of COCODES leaders cited cases of *linchamientos* in their communities. Some of the situations that provoked them and the outcomes of them are described below.

One president of a COCODES in Tactic, on answering questions related to social disorder in his community, and being asked if there were *Juntas Locales de Seguridad*, answered in this way:

[Local Security Councils? Yes, well there's a man there, uh, who, I know know, may, uhmm, I don't know his name, but there's a man there. But just the same, well, uh uhm, in my view, he's acted a bit badly because, well, he takes people's clothes off and parades them through the streets in front of children, you know, tied up. Not long ago, well, it also happened, you see. So, uh, they, well, they were suspected cattle rustlers, or they are, I really don't know. But the truth is that they went to, to capture them, they went to tie them up and beat them, you know, and they paraded them in, around here, in the park, you know. Or they took them over to the National Police, you see, but that was after they beat them. And for me, that was, well, as COCODES president, well, something I wish I

didn't have to see, you know. I wouldn't want to, to show or that, or, or, or take them into the streets, or...This is when the children realize what direction we're going in. and what are they supposed to think? Look, if they see the adults do it, they'll do it too, you know. So this also makes me think, well, it's true, this is a Security Council, but it's really not because they don't do the job they're supposed to, you know. I think, well, uh, God forgive me because the delinquents are out there, you know, mugging people and stealing cattle. But it's a good thing to capture them, take them to the, to the authorities, you see, but not tie them up with rope and not, not, not not, not show, uh, the children, you see, how is it? Well, that's how I think more violence is generated.]

Conclusions: Findings

We find in all dimensions analyzed that the outcomes in the treatment communities improved more (or declined less) than they would have if USAID's programs had not been administered. Among our key direct findings, focusing on the quantitative portion of the study, USAID crime prevention programs in treatment communities:

(1) Reduced crime victimization

- 27% fewer reported occurrences of robberies than would be expected without USAID intervention
- Compared to what we would expect to see with USAID interventions, 50% fewer occurrences of illegal drug sales were reported
- 43% fewer reported cases of extortion and blackmail than would be expected without USAID intervention
- Compared to what we would expect to see without USAID interventions, 60% fewer cases of murders were reported

(2) Increased citizens' sense of security

- Residents feel their communities are safer and feel more secure walking alone at night (22% and 13% higher than would be expected without USAID intervention)
- Youth loitering, youth gang involvement and gang fights perceived as less problematic, declining 10%, 17%, and 15%, respectively, than would be expected without USAID intervention
- 13% fewer reported cases of avoiding areas of the neighborhood because of fear of crime than would be expected without USAID intervention
- Improved neighborhood organization for crime prevention (16% higher than would be expected without USAID intervention)

(3) Resulted in positive indirect effects related to good governance

- Greater satisfaction with the functioning of democracy (15% higher than would be expected without USAID intervention)
- Greater satisfaction with police performance and greater trust in the police (19% and 21% higher, respectively, than would be expected without USAID intervention)
- Greater levels of interpersonal trust (6% higher than would be expected without USAID intervention)

The context in which the treatment was administered was related to the effectiveness of the treatment only in lowering reports of illegal drug sales. Where there was general social disorder on the block, the treatment was able to stem the otherwise strong tendency for disorder to increase illegal drug sales in the community. In most cases, the quantitative results of the effectiveness of USAID's crime prevention programs in treatment communities were supported by qualitative data.

Conclusions: Policy Recommendations

- **Increase family support to reduce risk factors**
 - Child care programs should be made available at little or only symbolic cost to poor families for pre-school children and after-school “latch-key” type programs (having vocational and recreational foci) for school-aged children and youths of the type currently being offered through the USAID-sponsored outreach centers and non-standalone outreach initiatives.
- **Use the classroom to raise awareness of the issues surrounding physical and sexual abuse in order to reduce cases of abuse**
 - Far greater investment in psychologists, especially clinically trained psychologists, rather than vocationally oriented counselors, should be made.
 - There should be an evaluation of the sexual abuse component of the curriculum in the schools, to learn where the weaknesses are. Police talks (charlas) should also be evaluated to make sure that domestic violence, including sexual abuse, are being properly covered by the police in their educational program in the schools. Students need to be educated about the laws that protect children against violence in the home, and about the steps that they can take to extricate themselves from violent situations.
 - School directors should be adequately informed of the steps that they can take in reporting child abuse to the appropriate authorities, and be trained in handling victims of such abuse in their day-to-day interactions with them. They also need to be trained in coordinating such interventions with the teachers of such students, as well as with the school psychologist.
 - There should be a greater investment in the Convivencia Escolar and similar programs by the Ministry of Education, such that training is given more routinely, especially in high crime neighborhood school districts.
 - Troubled and even violent youths, rather than being expelled from school, need to be given special, positive attention from the school, particularly from on-site psychologists, since the socially unacceptable behaviors that they exhibit in school are often the result of violence in the home. School directors have attested to how such troubled youths have been turned around after receiving a great deal of support and nurturing from school personnel.
 - More in-depth training needs to be given to personnel who teach in high crime communities.
- **Increase security at schools**
 - The “safe backpack program” should be in place in all schools around the country where there are high crime levels. Furthermore, police programs such as Saturday soccer and summer vacation programs for youth sponsored by the PNC have been short-lived, for lack of sufficient funding. Additional resources need to be put into these programs so that they are revitalized.
 - A greater investment in school protection by the PNC is needed.

- **Improve community organization**
 - The local, community-based Councils for the Prevention of Violence and Crime are an innovative structure, and should receive even more support from USAID.
 - There is a need for salaried, well-trained instructors in CARSI-sponsored vocational training programs.
- **Partner with religious organizations where appropriate**
 - Consideration should be given to determining exactly how successful the clergy have actually been in rescuing people from gangs, and if the claims made in the interviews conducted for this study are supported, then the greater involvement of the clergy in at-risk communities should be encouraged.
- **Train and improve the police force**
 - Police officers should be provided with more stable assignments, helping them to become rooted in the communities which they serve and more capable of performing community policing roles
 - Something needs to be done to match police assignments with police language background. There are bilingual police officers in Guatemala (people who come from indigenous backgrounds, but whose predominant language is Spanish). They should be paired with communities whose indigenous language they speak. Better yet, efforts should be made to recruit into the National Civil Police indigenous bilinguals who are local to the zone in need of police officers. The National Civil Police needs to make special efforts to recruit bilingual/bicultural officers from the many different indigenous language areas of the country.
 - A change needs to be made in training community police officers, such that they are taught to be responsive not only to community leaders' reports of criminal activity, but to the calls for help from civil society as a whole.

The above summary excludes dozens of additional comments made by stakeholders in our qualitative interviews, found throughout the report below, but the ones above summarize what we consider to be the most significant findings.

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