Community-Driven Reconstruction in Lofa County
Baseline Survey Preliminary Report

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Cover Note

This report provides provisional results on the basis of a random subset of 1560 surveys entered and analyzed from a total of 1712 surveys conducted. Numbers in this report are subject to change once the complete set of surveys is analyzed and all data is cleaned.

Executive Summary

This report describes the initial findings of a survey of a representative sample of 1712 households in Lofa County, Liberia.[1] The survey was conducted to provide baseline data on a set of communities targeted for a randomized evaluation of a community-driven reconstruction (CDR) program by the International Rescue Committee.

The report presents basic information on the demographics of households in the county where the program will be implemented as well as information about their exposure to the conflict. It also provides detailed information about the pre-intervention status of three main outcomes CDR programs are hypothesized to impact: community infrastructure, social cohesion, and individual attitudes about democracy, and community empowerment and efficacy. Finally, it assesses the quality of the randomization looking at the extent to which communities targeted for the CDR intervention differ from those selected to be in the control group.

Among the main findings are the following.

- Lofa County is composed of large households (median of 6 members), mainly headed by men (83%). Education levels are low (only 16% have completed primary school) and nearly 60% of households generate their primary income through farming. 73% of households cook only one meal per day, 85% live in houses made only of mud and brick, and nearly 65% get their water from a well, spring, or rainwater. The gender ratio for the county reflects a growing percentage of women over time (52% in 2004) and the population is ageing as well (median age is 22 in 2004), as compared to the pre-war period (median age, 19). The county is dominated by two ethnic groups, the Lorma (75%) and the Mandingo (17%), and individuals generally live in fairly homogenous communities.

- The war had a powerful, negative effect on the livelihoods of households in Lofa County. Our survey identifies 944 individual deaths among the sampled households (a death rate of approximately 8.8%, which we estimate to be a lower bound), 282 of which were directly related to the conflict. The war was also associated with a decline in the sale of cash crops, a decrease in the planting of rice, and deterioration in the quality of housing. Surprisingly, however, it appears that education levels are not lower in the post-war period than they were in the pre-war period (in fact, there is evidence for a slight improvement).

The CDR program seeks to impact targeted communities in a variety of ways: by rebuilding infrastructure, reducing conflict and tension, and improving the ability of communities to work together. The report provides baseline measures on some of these outcome variables. Among the findings, we report the following.

- Levels of infrastructure were low in the pre-war period. Communities had an average of one well, less than one schoolroom, five latrines, and less than one health clinic.

[1] This report provides data based on 1560 of the surveys. The remaining surveys are still being entered. Because surveys were entered in random order, however, the aggregate results reported here accurately reflect the sample as a whole.

Moreover, the infrastructure that did exist was largely destroyed during the war. But our respondents also report a nearly complete recovery in their communities, with most of the infrastructure already having been rebuilt using community labor.

- There is little evidence of community tensions in the post-war period. Only 6% of respondents report that they faced difficulties gaining acceptance when they returned home after the war; interestingly, there is hardly any difference in the rate at which migrants and returnees say they faced any difficulties. 13% of respondents indicate that some types of "new arrivals" would not be welcome in the community—the Mandingo are most often cited as those being unwelcome, while relatively few indicate a resistance to having ex-combatants return to the community. Slightly more resistance is evident when respondents are asked whether certain groups should be allowed to serve as leaders of the community. Land issues also do not seem to be generating conflict, as returnees appear to be moving onto land that they owned or worked before the war. When individuals are asked about the differences that divide their community, there is some evidence that social tensions exist (about 25% report some tensions over wealth, gender, age, etc.) but little evidence that there are worse than before the war.

- With respect to attitudes about community empowerment, individuals generally report that decisions about land disputes and the allocation of community resources *are* and *should be* made by town chiefs and elders. There is a slight indication that individuals wish community members would play a bigger role, but it is not substantial. With respect to attitudes about democracy, there was widespread agreement that leaders should be chosen through elections (87%) and that leaders should not favor their own family or ethnic group (93%). There was more disagreement with respect to the role of women (only 65% asserted that women deserve equal rights) and the degree to which community members should question authority (54% indicating that they should).

- There is evidence of very high levels of political participation and engagement at the community level, but little evidence that individuals interact with (or rely on) official institutions or government representatives (outside of the chief). Nearly 90% have attended a town meeting in the past six months, 60% have met with a chief to raise a local issue, but less than 10% have contacted a national government official. Individuals also report feeling very free to state their political views (over 90%) and willing to contribute to community projects (97%). Respondents said that community efforts to rebuild infrastructure are widespread with initiatives to brush roads most common (reported by 82% of respondents), while efforts to rebuild schools and clinics are less common (40%). Associational life is rich as well with more than half of respondents reporting the existence of Susu, Koo, women's action groups, farming collectives, school committees, and other special interest clubs.

The basic picture here is of very high levels of rebuilt infrastructure, expressed tolerance for other groups, support for democratic processes, and political participation and community engagement. On some measures (for example, tolerance and political participation), *there exists relatively little room for IRC's CDR program to improve this set of targeted outcomes*, at least as measured by attitudinal surveys. On other measures (for example, the extent of community initiatives), there is

substantially more room to observe an impact of the CDR program. A critical next step is to determine whether there are additional outcomes the CDR program is likely to impact beyond those we have measured up to this point. Even more importantly in moving forward, we must investigate alternative measurement strategies, including the use of experimental games and field experiments, to pick up difficult-to-measure concepts such as trust and social cohesion which may not be adequately captured by attitudinal surveys.

Because IRC selected its "treatment" communities by lottery, the report also assesses whether those communities selected for the CDR program are similar in all other ways to those that will be tracked as part of the control group.

- There are few statistically significant differences between communities in the treatment group and those in the control group with respect to basic demographics including population, ethnic makeup, education, and wealth. There is some evidence that households in treatment communities are more isolated from towns and services than those in control communities.

- On the outcomes of interest, by and large, the treatment and control groups are also similar. There are no statistically significant differences in baseline community infrastructure. There are, however, some differences across the treatment and control group in measures of political engagement, with households in the treatment communities more likely to report having contributed time/money to rebuilding a school or clinic.

Overall, however, the evidence shows that the randomization was clean and effective. On most measures, the treatment and control communities are identical. Where they are not, we have good baseline data and can thus control for these differences as we attempt to estimate a causal impact of the CDR program.

Our assessment of the efficacy of the randomization, however, also identified a small number of problems.

- Because the population of treatment and control communities was identified after we conducted the baseline survey, there were some wasted surveys. 84 surveys (5.4% of the total) were conducted in towns and villages that ended up neither in the treatment group nor the control group.

- There was also a substantial number of surveys, 330 (or 26.6% of the total), that we cannot yet assign to the treatment group or the control group. This is because a set of towns and villages were divided up by IRC as the population of treatment and control communities was determined (for example, Voinjama and Zorzor, the two largest cities, were divided into zones for the purposes of the randomization). Because we cannot accurately locate surveyed individuals in the zones that were ultimately used in the randomization, our baseline data on towns that were subsequently divided is much weaker.

- Finally, because IRC "communities" differ from the actual towns and villages in which people live (they generally represent an aggregation of a set of towns and villages), there is some difficulty in generating outcome measures for these aggregate communities. The questions we have asked about how things are in a given community (with respect to infrastructure, community empowerment, etc.) are generally answered by individuals with respect to the communities in which they live. When small villages are aggregated into a larger "community," we can also aggregate answers up to produce a measure for the IRC "community." But for larger places that have been disaggregated, we have no good way of producing disaggregated measures for how things are in someone's IRC "community."

This final problem requires substantially more thought as we move into the assessment of program impacts in the next survey round.

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I Research Purpose and Methodology

I.1 Purpose

This report describes the initial findings from the IRC/Lofa County CDR Program Baseline Survey.[2] The survey was implemented in April 2006 by researchers from Stanford and Columbia University working together with the International Rescue Committee (IRC) and the Liberia Institute of Statistics and Geo-Information Services (LISGIS).

The purpose of the survey is to provide baseline data to be used to evaluate the impact of IRC's community-driven reconstruction (CDR) program in Voinjama and Zorzor districts in Lofa county Liberia. While major CDR programs are now being undertaken in post-conflict regions throughout the world, from Sierra Leone to Aceh, relatively little is known about the impacts of these programs on key outcomes of interest such as individual and community welfare, community cohesion, attitudes to democracy, and the successful reintegration of ex-combatants. Identifying the true impact of CDR programs is rendered especially difficult in post-conflict settings because of the major changes that are likely to take place even in the absence of these programs. In order to gauge the true impact of its CDR programs, IRC is engaging in an ambitious evaluation exercise involving one of the first-ever uses of the method of randomized intervention in a CDR setting.

In September 2006, five months after the implementation of the baseline survey, IRC used a public lottery to select communities to participate in the CDR program from among the large set of eligible communities in Lofa county. The programmatic advantage of the public lottery is that ex ante all communities had an equal chance of participating in the program; the selection method was thus seen as both transparent and equitable. From an evaluation perspective the key advantage of the public lottery is that a well defined set of "control" communities can be readily identified that can provide a basis for evaluating the impacts of the program on the "treated" communities.

The evaluation strategy then is to use the baseline survey to generate measures of the outcomes of interest in both the treatment and control communities before the beginning of program implementation (indeed even before the assignment of communities into treatment and control groups) and then, after 18 months of program implementation, to collect further data on these same outcomes in the two types of communities. In each of the treatment and control communities we can then identify changes that take place over time in the outcomes of interest. Differences in these changes between the treatment and the control communities can then be attributed to the impact of the IRC program.

In this report, we provide a description of the data from the baseline survey and outcome measures in the treatment and control communities. The survey collected information on both the characteristics of the communities and the key outcomes of interest. Data collected on the characteristics of communities includes information on basic demographics including the age and

[2] The survey instrument can be seen at: http://www.columbia.edu/~mh2245/papers1/cdr_liberia

gender distribution of individuals, as well as socio-economic indicators such as the educational attainment, the health status, and economic activities of individuals. In addition, we collected information of particular importance to communities in Lofa regarding exposure to conflict: displacement history, injuries and deaths due to the conflict, and participation in the conflict.

The most important outcomes of interest covered by the survey are the following:

1. Welfare:
    a. Measures of household welfare
    b. Measures of public amenities available in communities

2. Reintegration:
    a. Attitudes to returning displaced people, new migrants, and ex-combatants

3. Community Cohesion
    a. Collective action
    b. Individual and community empowerment and trust

4. Political Attitudes and Behavior
    a. The distribution of political authority in towns and villages
    b. Individual Attitudes to democratic processes
    c. Individual Information regarding national democratic processes

I.2 Timing of the Survey

The survey was implemented in April 2006. Importantly, this was well before IRC began any of its activities in the communities and before the determination of whether a given community would receive an intervention by IRC. The advantage of undertaking the survey at this early stage is that the responses clearly capture conditions prior to the intervention. In two respects, however, the baseline may have been conducted *too* early.

First, the baseline was conducted approximately half a year before the beginning of programming. This is a relatively long period of time in a post-conflict setting and significant change may occur in the interval that may affect welfare independent of any IRC intervention. Since the community selection was randomized, effects due to this delay will not introduce any bias in our measures but they may make ultimate estimates less precise.

Second, the baseline was conducted before IRC grouped towns into larger "communities" in which they would work. The fact that the population of communities from which IRC would select its sites was not well defined at the time of the survey produces a number of weaknesses. First, there are some wasted surveys: 84 surveys (5.4% of the total) were conducted in towns and villages that ended up neither in the treatment group nor the control group. Second, there is a substantial number of surveys, 330 (or 26.6% of the total), that we cannot yet assign to the treatment group or the control group. This is because a set of towns and villages were divided up by IRC as the

population of treatment and control communities was determined (for example, Voinjama and Zorzor, the two largest cities, were divided into zones for the purposes of the randomization). Because we cannot accurately locate surveyed individuals in the zones that were ultimately used in the randomization, our baseline data on towns that were subsequently divided is much weaker. Finally, because IRC "communities" differ from the actual towns and villages in which people live (they generally represent an aggregation of a set of towns and villages), there is some difficulty in generating outcome measures for these aggregate communities. The questions we have asked about how things are in a given community (with respect to infrastructure, community empowerment, etc.) are generally answered by individuals with respect to the towns in which they live. When small villages are aggregated into a larger "community," we can also aggregate answers up to produce a measure for the IRC "community." But for larger places that have been disaggregated, we have no good way of producing disaggregated measures for how things are in someone's IRC "community." In no cases however do our respondents provide answers specifically about the "communities" in which IRC will operate.

I.3 Research Methodology

The sample of individuals that are represented in our data was generated using random sampling at three levels. First, a target number of households was identified for each town; second, within each town, a set of households was identified through random sampling; and third, within each household, a respondent was identified using random sampling among all individuals aged over 18 and under 60.

Town targets. The United Nations Humanitarian Information Center (HIC) provided an exhaustive listing of all settlements in Voinjama and Zorzor together with a listing of the number of households in each. These ranged from as little in size as four households (in J.B. Akoi) to 3500 households (for Voinjama town). In each town, a designated number of households was selected according to the following formula:

$$t_i = \frac{(n_i)^{\alpha}}{\sum_{j \in J} (n_j)^{\alpha}} \times 1800$$

where t_i is the number of targeted households in community i, n_i is the estimated number of households in community i, α is a scalar set to α=.8, and J is the set of communities in Zorzor and Voinjama which, based on IRC information, were likely to be eligible for treatment under the CDR program (this set excluded only three settlements, Dabu, Bedaseba, and Voneyezu, which were deemed inaccessible by IRC). Note that with α=1, the number of targeted households in a given settlement would be directly proportional to the relative size of the settlement. With α=.8 we oversample somewhat in smaller communities relative to larger communities.[3] Since t_i is not

[3] Thus, using the above formula, the relative size of the targeted number of households in two communities, i and j,is given by $(t_i / t_j) = (n_i / n_j)^{.8}$. For example, Kpakamai with an estimated 300 households, is four times larger than Koglozu which has an estimated 75 households, yet the targeted sample size in Kpakamai (13) was less than four times larger than the sample targeted in Koglozu (4).

guaranteed to be an integer, the precise target, t_i^*, was selected randomly (by rounding up or rounding down) with an expectation given by t_i. Hence for example if t_i=2.3, then the true target was selected to be either 3 (with probability .3) or 2 (with probability .7).

Note that the overall target for surveys in Voinjama and Zorzor was 1800 households. Actual enumeration yielded surveys of 1712 households.

Household selection. Within communities the individual households were selected using one of the following two methods.

Method I was used in smaller areas--typically areas with less than two hundred households. Team leaders began by **canvassing and numbering/houses in the selected communities**. Canvassing the houses was done by identifying a starting point within the settlement and then moving through the settlement from end to end in an orderly manner. As the team leader moved through the area, he marked each house with chalk, indicating the position of the house in the sequence. In the process, the leader calculated how many houses there were in each town and how many there were overall. Once all the houses were numbered in this manner, the team leader calculated an Interval by dividing the total number of houses by the target, t_i^*, number and rounding to the nearest integer. Team leaders then consulted with a settlement sheet that indicated a randomly generated starting number for the settlement. The households to be interviewed were those in the sequence {Starting Number, Starting Number + Interval, Starting Number + 2 × Interval,…}.

Figure 1: Sampling

Numbering Households under Method I. Photo credit: Gwen Taylor

As an example, if 10 households have to be selected in a town with 100 people, then the interval is given by 100/10 = 10. If the starting number is 6, then the houses that are selected are houses number {6, 16, 26, 36,…96}.

We used **Method II** for a smaller number of much larger areas. Under this method, the team leader identified a central location in the town and faced towards the sun. He then selected the four directions (towards the sun; away from the sun and to either side). For each of these directions, he determined the expected walking distance to the end of the settlement. He then divided the estimated time by the required number of households for each of four enumerators and provided the enumerators with the resulting set of time intervals for walking between sites. The enumerators then walked in these directions (note that these directions needed not correspond to the directions of roads; in these cases, the enumerators may have had to change direction multiple times in order to maintain the true direction) for exactly the prescribed time interval (to the second); when the time interval was reached, they selected the nearest household to their position and used this as an enumeration point.

Resampling. If upon visiting a household, enumerators found that the head of the household was not present, they were instructed to seek an appointment for later and move on to the next house in their list. On completing the next house, they would return to houses on their list that were not completed and attempt again to meet with the head of the household. Again, if they failed they would continue to their next house. In all, enumerators would revisit households twice after the initial visit to try to make contact. If they failed to make contact then, they would enumerate the wife as head of household (for cases in which there was a male head of household). If this was also not possible, they would then complete a non-response form and select the household immediately to the right of the designated house for enumeration.

Sampling within households. In all cases, we asked the head of a household to respond to an initial battery of questions that describe basic household characteristics. For the attitudinal and behavioral questions, however, we randomly selected a household member to respond. The method for identifying the household member was the following.

Once the enumerator had identified the list of all individuals that live in the household (the household is defined as all individuals eating from the same pot), they assigned a numbered card to all individuals (also numbered in the roster), including the head of household. They then held out these cards face down in an array before the head, and ask him or her to select one. If the card selected corresponds to a person under 18 or over 60, that card was put aside and the head was asked to draw again until he drew the card of an acceptable respondent. In cases in which the selected individual was unable to be present for an interview, this fact was noted and a second respondent was selected.

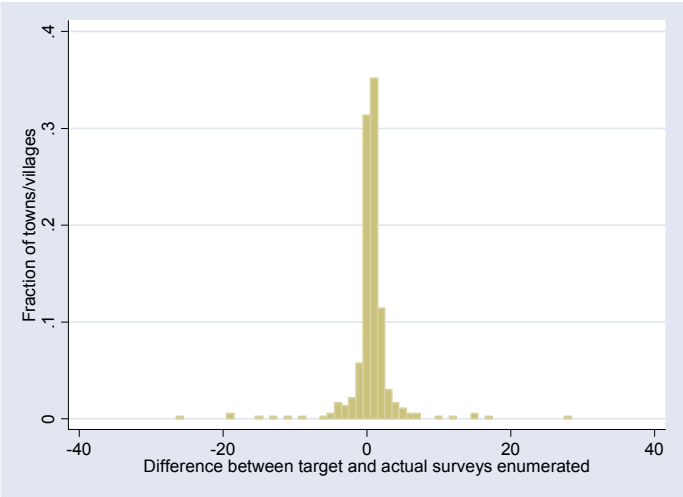
Sources of Bias. A number of sources of bias may have been introduced in the sampling and enumeration process. We discuss a few different sources of bias in turn and their implications for the analysis.

The first potential issue relates to potential discrepancies between survey targets and actual survey enumeration in towns and villages. At the district level, we targeted 54.5% of the surveys in Zorzor and 45.5% in Voinjama. In actual enumeration, we yielded 52.58% in Zorzor and 47.36% in Voinjama.

At the village/town level, slightly more than 84% of villages were within two surveys (plus or minus) of the target set in the sampling. A very small numbers of villages deviated substantially—

generally, this was due to accessibility issues in the field; although for two major areas, Voinjama and Zorzor, this was a result of a an updating of the sample frame in the course of the enumeration.

Figure 2: Difference between targeted and actual surveys by village/town



We expect to examine these data in more detail to explore the characteristics of those places that were under-enumerated relative to their target in the sample. Under-enumeration has potential implications for the representativeness of the findings with respect to the populations of Voinjama and Zorzor districts in Lofa county; if some areas were not surveyed because they were inaccessible, it is possible that the situation in such places is also substantially different than those places our teams visited.

A second source of bias is non-response. It is possible that households that were randomly selected refused to be interviewed, necessitating the enumerator to pick a neighboring house. We asked enumerators to fill out a non-response form detailing the characteristics of the households that refused (characteristics visible from looking at the house), but this data has not yet been entered and coded.

A third possible source of bias arises from the fact that the definition of a household used to identify households (the physical structure) can in some cases differ from the definition used for enumeration purposes (a set of people eating from the same pot). This can result in an undersampling of households that share a physical structure with other households.

A fourth issue that arose in enumeration was the fact that heads of households were often not home when the enumerator arrived. Enumerators were meant to return later in order to interview the head of household, but sometimes they may still have found the head of household absent and enumerated a spouse or other household member instead. Roughly 10% of the time a non-household head was interviewed for the first half of the survey. The vast majority of these cases were ones in which spouses provided answers (typically women, when the men were not at home). However, there is no a priori reason to believe that the responses of spouses to a set of

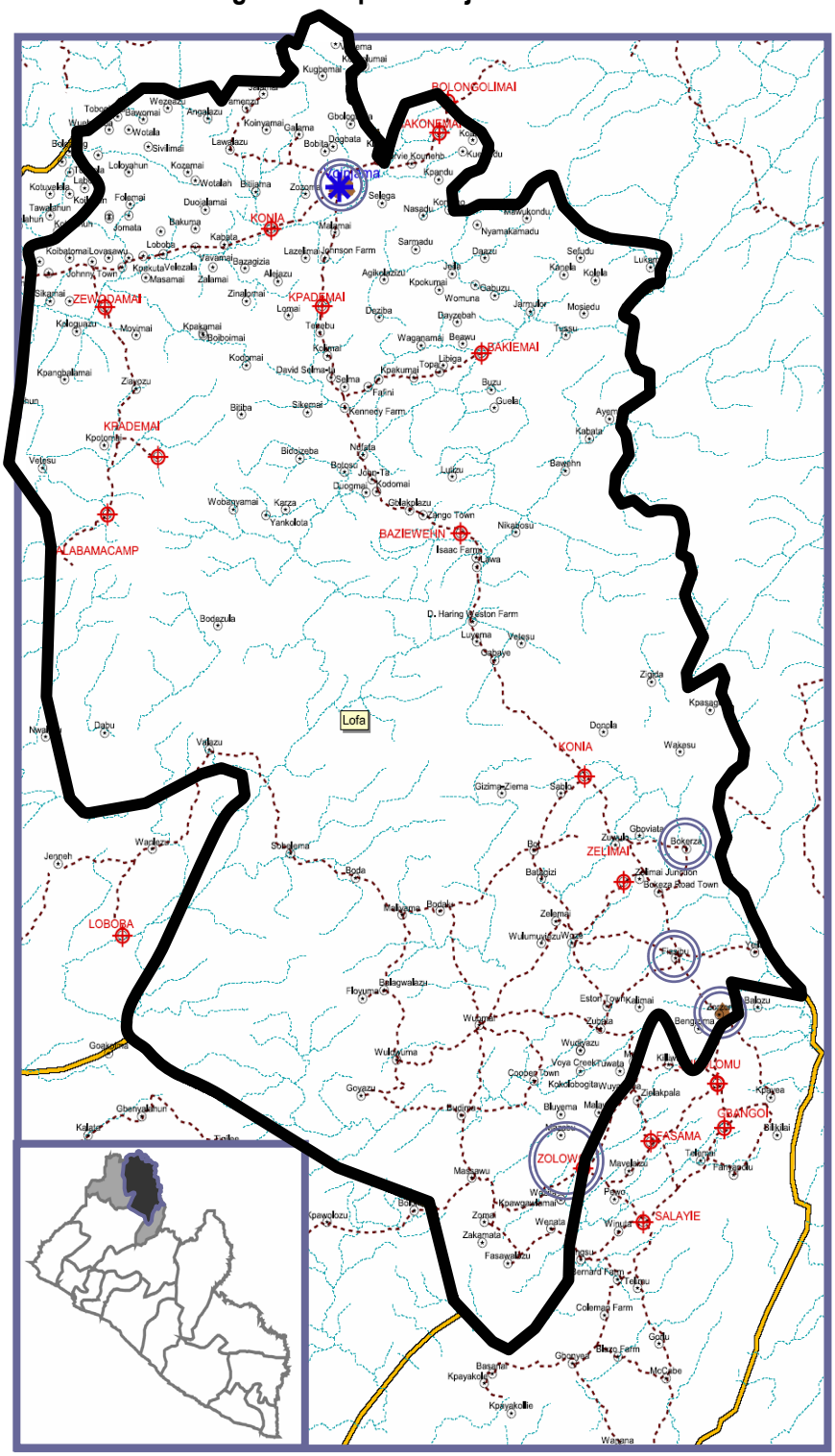
demographic and background questions are likely to be any different than those of the head of household.

A fifth source of bias can arise for all historical questions—those that ask about characteristics of the pre war population. Our sample was constructed based on the post war population, not the pre war population and thus there is no guarantee that the pre war population recorded in our data is statistically representative of the prewar population. In particular we are more likely to sample pre war households that (a) survived the conflict and (b) had a larger number of pre conflict household members.

A final source of bias may arise from the process of randomly selecting a second respondent in each household. Recall that, in order to gather data from a representative sample of 18-60 year olds, we elected to randomly sample among household members for a new respondent to answer questions on social tensions, political attitudes, and community engagement. This aspect of the survey presents the biggest potential cause of concern. Enumerators reported that they selected a second household member from the *available* members of the household 78% of the time, rather than selecting from all household members as the enumerator instructions dictated. This was likely in part due to the fact that survey teams often arrived in villages for a short time and, finding many people not at home, enumerators elected to survey a randomly sampled member of the household who was at home, instead of risking precious time in selecting someone else and having to return at a later point. We can however calculate an independent rough estimate of the extent to which non-random sampling was employed in the selection of second respondents by looking at the frequency with which the household head was the second respondent. In practice, the first person entered on the roster was also the second respondent 27% of the time. Given a median household size of 6 with 40% of the population under age 18 and thus ineligible to be sampled, random sampling would yield a frequency of 22% of the time in which the household head would respond to both parts 1 and 2. So the evidence suggests a slight, but not major bias in favor of those that were at home.

It is worth emphasizing however that because the method of assignment of communities into treatment and control groups was random, that none of these possible sources of bias is related to treatment status.

Figure 3: Map of Voinjama and Zorzor



Note: Map of Voinjama and Zorzor (periphery marked in bold). Inset shows location of these districts in Liberia (darkest segment of map). Towns that were split into multiple communities by IRC are marked with double circles. These maps are based on maps made available by the Liberia Humanitarian Information Center (HIC). Accessed online 15 January 2007 at: http://www.humanitarianinfo.org/Liberia/mapcentre/archive/Archive_doc/0_county_maps_all.pdf

I.4 Research Team

The research effort was led by James Fearon and Jeremy Weinstein of Stanford University and Macartan Humphreys of Columbia University.

James D. Fearon is Theodore and Frances Geballe Professor of Humanities and Sciences and Professor of Political Science at Stanford University. Dr. Fearon was elected as a fellow of the American Academy of the Arts and Sciences in 2002. Macartan Humphreys is an Assistant Professor of Political Science at Columbia University and a research scholar at the Center for Globalization and Sustainable Development at the Earth Institute. Jeremy Weinstein is an Assistant Professor of Political Science at Stanford University, an affiliated faculty member at the Center for Democracy, Development, and the Rule of Law (CDDRL) and the Center for International Security and Cooperation (CISAC), and a non-resident fellow at the Center for Global Development (CGD).

Enumeration in the field was led by Johnson Kei of the Liberia Institute of Statistics and Geo-Information Services (LISGIS) and Gwen Taylor of NYU. Johnson Kei is lecturer in population studies at the University of Liberia and Gwen Taylor (Deputy Chief Administrative officer) is a doctoral candidate in political science at NYU. She was indispensable to this research effort.

The enumerators were Urias F.O. Binda, Kamara Boakai V., Kukor Davies, D-Sleh Gurley Sr., Matthew Hindawah, Tamay N. Jaiblai, H. Raymond Jarbo, Jimmie Fallah Jimmy, Maborlon M. Kamara, Momo Kamara Sr., Musa S. Kamara, Soko G. Kamara, George Kardar, Tamba Mayson, Fallah T. Mbakillah, Josephine L. Meatee, Andrew M. Sar, Sarah Saah, Robert Sowoi, Thomas G. Tellewoyan, Wologo Tellewoyan, Rudolph Vanwen, Arthur N. Yeanay, Jr., and Robert K. Zayzay. The enumeration team included individuals that have undertaken extensive interviewing with LISGIS throughout Liberia as well as a group of enumerators from Lofa county. The team of enumerators included both Christians and Muslims, both men and women, and both Lorma and Mandingo speakers. This team did extraordinary work in difficult conditions and we owe them our thanks and admiration.

Data entry was done by a dedicated group of students from Stanford University: Our thanks to Simran Bindra, Marissa Cramer, Nancy Cruz, Fausto Inestroza, Denise Sohn, Stephanie Majerowicz, and John Maas, Daniel Slate, and Deborah Sohn.

Throughout, the team received support from IRC experts both in Liberia and in the US. Jodi Nelson and Liz McBride played a key role in designing the instruments while Mohammed Conteh, director of the IRC Lofa office and Bob Kitchen, then interim country director, provided key support on the ground.

Figure 4: Enumeration Team

Research Team in Zorzor. Photo credit: Gwen Taylor.

II Background Characteristics

This section provides basic data on the demographics of Voinjama and Zorzor districts in Lofa County, the area in which IRC is implementing its CDR program. Respondents were asked detailed information about their household, including information about occupation, education, and wealth. This information was collected both for the current period (2004) and the pre-war period (1989). The data offer a rich picture of the situation in Lofa and the impact of the war, but are also important for ensuring that treatment and control communities are similar across a range of background variables that might shape the outcomes of interest or impact the efficacy of the program.

II.1 Household Roster

The household rosters contain information about 10,681 individuals, 10,634 of whom are *named*. Of these 9,231 are presently alive, 944 are dead, 3 the respondents claim not to know about, and 503 we don't know about.

The median post-war household has 6 members (mean=5.9), somewhat more than our pre-survey estimates of 4-5.

The pre/post-war household rosters have lots of problems, however, which become obvious in looking at the household size data. Numerous individuals are classified as neither pre- nor post-war household family members. In particular, there are many more individuals in the post-conflict households than there were in the pre-conflict households. The median pre-war household size is just 3 members (mean=3.6).

The difference between the pre-war and post-war sizes could reflect a number of factors:

- Changing economic conditions with fewer opportunities and a weakened capacity for younger prospective heads of household to set up on their own could lead to a rise in household size.

- Two thirds of the heads of households in our sample were also heads of household in 1989. The median age of these heads of household is 50. For this group, there has been a recorded increase in the size of their households over the period, from 4 to 6 members. For this group, an average increase in household size is not surprising. More surprising is the set of individuals that are heads of household now but were not in 1989. For this group, the median age in 1989 was just 20 years old. These individuals were overwhelmingly children of the head of household, but they report on average only three members of their pre-war households.

- There could be a greater likelihood to report present temporary or transient household members, but not past temporary or transient household embers. This seems somewhat unlikely in our data since most household members are children, grandchildren, or spouses.

- There could be a bias not to report individuals long since dead.

- This could be the result of enumeration error—we have, for example, close to 200 surveys for which the respondent is the *only* member of the pre-war household but was not him or herself the head of household.

- A recording error—there are close to 1000 individuals that are in the post-war household data that were also alive in 1989, but are not coded as being in the pre-war households. 277 of these are children of the pre-war head of household, another 16 are grandchildren. 149 of these are spouses although these could well have joined the households after 1989.

II.2 Gender Breakdown

The gender breakdown is approximately 52% female for the full set of individuals named in the household roster.

The data record, however, a shift over time towards a higher female-to-male ratio. This shift results in part from a significantly higher reported death rate among men in the sample. The difference in death rates is driven in particular by war-related deaths.

While men and women were approximately equally like to suffer from illness and old age, *men are almost five times more likely to have died due to the conflict than were women.*

Table 1: Gender and Causes of Death

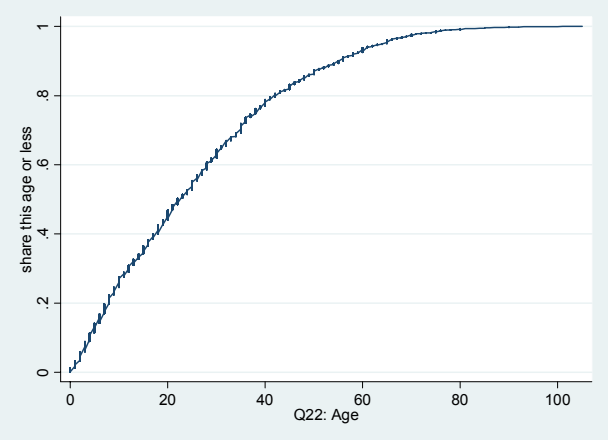
	Women	Men	Share male
Illness	85	103	55%
Old age	19	20	51%
Accident / Injury	14	10	42%
War-related death	51	244	83%
Other	3	2	40%

Slightly less than17% of post-war households reported a female head of household. Our pre-war estimate is just over 14%. Of the women heads of household, 36% report being married, while 45% report being widowed. Only 5% report never having been married.

II.3 Age Breakdown

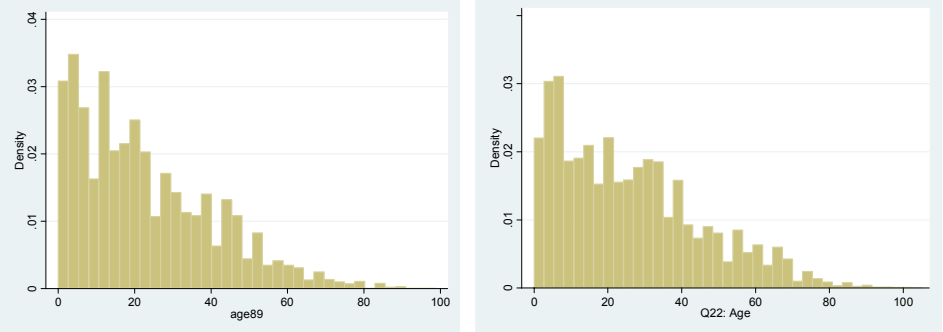
Our data confirm that the population of Lofa is extremely young. The recorded median age of household members is 22 years old; 40% are under 18 (see Figure 5).

Figure 5: Cumulative Age distribution



The age distribution for the two periods are similar although the recorded average and median ages of current household members (26 and 22) are three years greater than the average and median ages of 1989 household members (23 and 19). As can be seen in the histograms below (Figure 6), these differences reflect a greater share of individuals in their 20s and 30s.

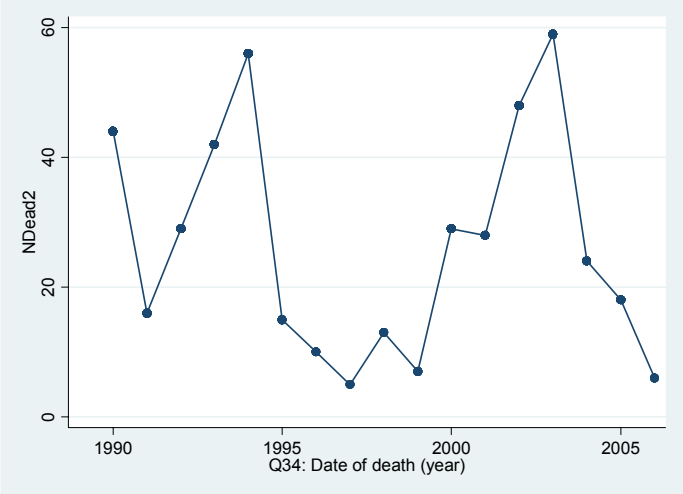
Figure 6: Age distribution



II.4 Mortality

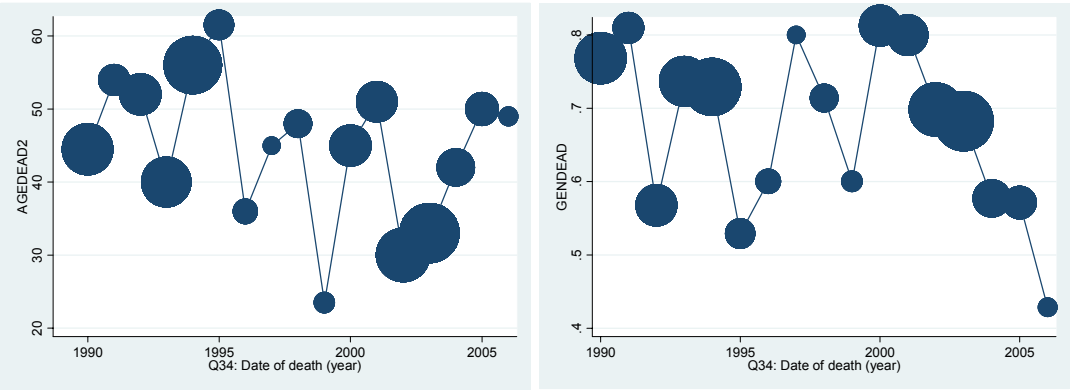
We have information on the date of death of 567 people in the roster. The timing of these deaths is shown in the figure below.

Figure 7: Numbers dying per year from sample born before 1989



The data clearly show two spikes corresponding to major periods of conflict activity in the early 1990s and around 2003. The age and gender breakdown of the dead are shown below.

Figure 8: Death numbers by age and gender



Note: The size of the circles are proportionate to the numbers dying in each year

Those dying in the first period of fighting were typically older, above 50; those dying in the second intense period were much younger, in their 30s. By and large, we find many more men than women reported as dying during the war years. This gender imbalance comes largely from the fact that men were much more likely than women to die as a result of the war.

II.5 Ethno-Religious Demography

The ethno-religious breakdown of individuals in the roster is reported below. Approximately 76% of the individuals our sample are members of the Lorma ethnic group, and these Lorma overwhelmingly report their religion as Christian. Approximately 17% are Mandingos and members of this group are overwhelming Muslim. The next largest ethnic groups account for 2 percent or less of the total roster members. The next largest religious groups account for 3% or less of the population.

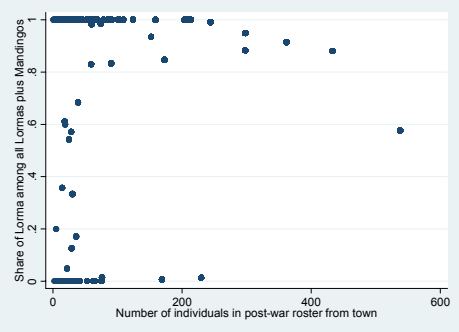
Table 2: Religion and Ethnicity

	Christian	Muslim	No religion	Traditional African Religion	Other (Indicate)	All
Lorma	7,093	86	324	300	4	7,807
Mandingo	21	1,710	0	17	5	1,753
Kissi	214	2	5	1	0	222
Gbandi	91	80	11	0	0	182
Kpelle	140	7	4	5	0	156
Bassi	20	0	0	0	5	25
Belle	21	0	0	0	0	21
Other	0	17	0	0	0	17
Via	14	2	0	0	0	16
Mende	13	1	0	0	0	14
Gola	8	0	0	0	0	8
Gio	7	0	0	0	0	7
Kru	6	1	0	0	0	7
French	4	0	1	0	0	5
Grebo	3	0	0	0	0	3
Mano	3	0	0	0	0	3
Dey	1	0	0	0	0	1
Total	7,659	1,906	345	323	14	10,247

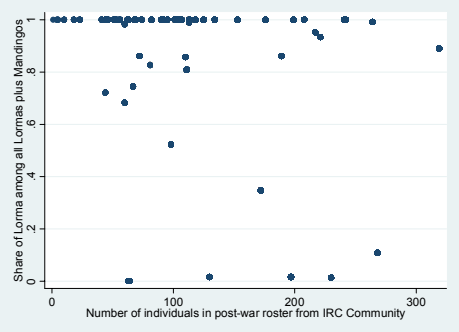
A simple measure of town-level fractionalization can be constructed by focusing only on the relative sizes of the Lorma/Mandingo groups in each town (as identified by HIC names) and in each IRC "community."

Using this measure, we find that most of the towns are either predominantly Lorma or Mandingo. Only a small number are ethnically mixed.

Figure 9: Ethnically Divided Towns



Fractionalization by Town



Fractionalization by IRC Community

Interestingly, there are proportionally fewer homogenous Mandingo IRC "communities" than there are homogenous Mandingo HIC towns. This is because IRC communities are aggregates of towns, and Mandingos tend to be a minority group in Lofa county. That being said, this raises an issue as we think about the measurement of outcomes for IRC communities in the second round of the survey: the ethnic heterogeneity of a set of IRC communities is (in some sense) artificial as the towns in which individuals actually live are more homogenous.

According to this measure of fractionalization, the most ethnically divided towns are as given in Table 3. Note that the diverse towns in Voijama are likely to be majority Mandingo with minority Lorma, while the diverse towns in Zorzor are all majority Lorma and minority Mandingo.

Table 3: Listing of Ethnically Diverse Towns

Town	District	Share Lorma (among Lorma + Mandingo)
Bakadu	Voinjama	13%
Kugbemai	Voinjama	18%
Libiga	Voinjama	20%
Hardbodu	Voinjama	36%
Jalamai	Voinjama	39%
Johnny Town	Voinjama	56%
Vonema	Voinjama	60%
Wudiyeazu	Zorzor	61%
Nikebozu	Zorzor	68%
Wakesu	Zorzor	84%
Barziwen	Zorzor	84%
Kpasagizia	Zorzor	85%
Konia	Zorzor	88%
Zorzor	Zorzor	88%

II.6 Education

Educational achievement is low. Surprisingly, however, our education data suggest that *while education levels are low, they are not lower for adults than pre-war levels*. This finding, though strong in the data, runs strongly counter to the common claim that the war resulted in an exceptional period of lost years of schooling. In fact it seems that education levels were very low before the war in Lofa county and if anything increased over the course of the war.

Children and youth aged 7 to 25 in our sample would have had lived the entirety of their normal years of schooling during war years. 28% of these received no education and 57% received some primary education. 16% completed primary education. These levels, low as they are, are higher than the corresponding figures in 1989. 54% of children and youth of the same age in 1989 had received no schooling while only 26% had received some primary.

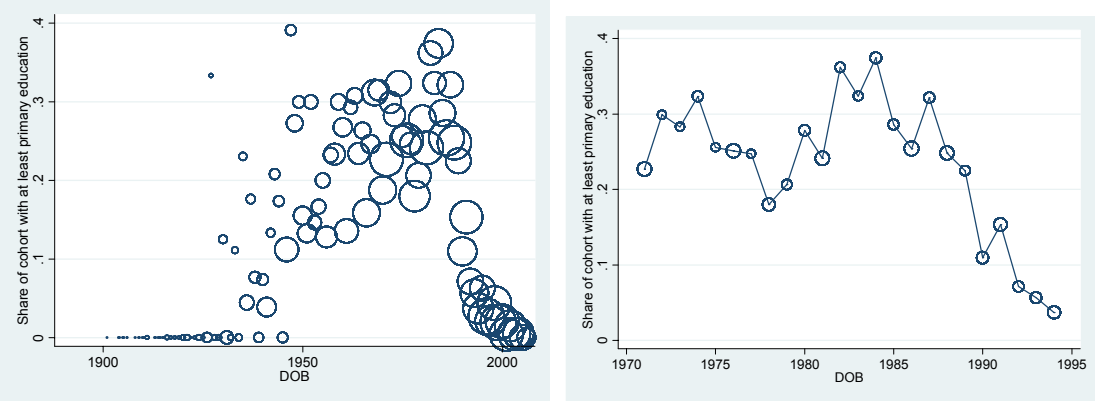
Table 4: Educational Attainment

	Aged 7 to 25 in 1989	Aged 7 to 25 in 2006
	Education in 1989	Education in 2006
None	1,418 (54%)	949 (28%)
Some Primary	688 (26%)	1,952 (57%)
Completed Primary	201 (8%)	192 (6%)
Some Secondary	214 (8%)	277 (8%)
Completed Secondary	77 (3%)	62 (2%)

A shock to the education system would appear as a decline in primary school completion rates of those aged 7 to 12 in the war years. This shock should be observed in a decline in completion rates for children born in 1977 and thereafter.

In fact, as we see in Figure 10, completion rates, historically close to zero, rose to reach a peak among those born in 1984—that is, for children that would have been 5 at the beginning of the war and whose normal primary school years would have taken place during the most intense part of the of the war.

Figure 10: Educational Attainment by Year of Birth



Note: Each figure shows the share of individuals born in a given year that completed primary school education. The figure on the left shows the full sample, the figure on the right shows data only for individuals born between 1970 and 1995. In each case the size of the circles is proportionate to the number of observations for the datapoint. Note that the figure conditions upon those alive now, that is, a non-random sample of the populations born in each year.

There was, however, a subsequent decline with a large drop in completion rates for children born in 1990 and thereafter. These are children that would normally be completing their education around 2003 when the war rose again in intensity. Associating this decline with the war is, however, complicated by the fact that late completion (for example if for a sizeable subpopulation primary school is completed at age 16 or 17) could also account for a decline.

II.7 Health

14% of the current household members were reported as being sick at some point over the month prior to the survey implementation. While men and women were equally likely to be reported sick, sickness was much more common among older individuals. The median age of the sick population was 33; the median age of the non-sick population was 21. By far the most common form of reported illness was malaria (43%), followed by diarrhoeal illness (10.8%).

The data records a surprisingly high level of access to professional health care for sick individuals. 82% of sick individuals were reported as having consulted a doctor, a physician's assistant, or a professional nurse. This might reflect the improved access to health care that has been associated with the entrance of NGOs into Lofa county in the aftermath of the war; alternatively, it might be a function of enumerator error in that that individuals were not given an explicit option of choosing "no health provider was seen." Enumerators could indicate that no health provider was seen by indicating that the question was not applicable, but may have pushed to get an answer for each question, driving up these results.

Table 5: Types of Sickness

Malaria/fever	43.7%
Cold/cough	8.7%
Measles	1.6%
Diarrhoea	10.8%
Tuberculoses	.7%
Skin disease	4.3%
Eye infection	4.3%
Disability	3.2%
HIV / AIDS	.5%
Cholera	4.6%
Typhoid	1.3%
Yellow Fever	2.1%
Other	14.3%
Total	100%

II.8 Occupation

The majority of the household members are farmers; the next largest group is students. These two groups comprise 80% of all respondents, men and women included. Women are more likely to be reported as farmers and men as students. The next largest categories are tradesmen and traders. This distribution of reported professions is identical for the pre-war and post-war periods. Only a very small share (4%) report having no occupation.

Table 6: Occupation

Occupation	1989	2006
Home duties	3%	2%
Farmer / Gardener	58%	59%
Fisherman	0.1%	0.2%
Rubber Tapper	0.5%	0.4%
Trades/skilled person (Carpenter, tailor, etc)	2.7%	2.5%
Teacher	1.8%	1.9%
Medical doctor/engineer/lawyer	0.3%	0.4%
Other professionals	1.2%	1.0%
Petty trader / seller	4.1%	4.6%
Large scale trader/business person	0.7%	0.6%
Casual laborer	0.2%	0.2%
Unskilled	0.1%	0.2%
Civil Servant	1.1%	0.5%
Student	20.2%	22.9%
Nothing	6.2%	4.0%
Other	0.4%	0.4%

Note: This sample conditions on those aged 13 and over.

II.9 Exposure to Conflict

II.9.1 Conflict-Related Death Patterns

Total deaths due to the conflict can be divided into (a) deaths of those that were alive in 1989 and (b) deaths of those that were born after 1989. Our data cannot adequately capture (b) since such individuals should appear in neither our pre-war nor our post-war roster.

For (a), we record 6637 individuals who were alive in 1989 (based either on date of birth, or when this is missing on whether the individual was recorded as a pre-war household member). 282 of these, or slightly less than half a percent, died as a direct result of war-related violence.
Note that this rate is a lower bound because it does not take account of households that were entirely wiped out during the conflict. In addition, we record 10 people who were born after 1989 and died during the conflict (and who therefore should not appear in either roster).

We also record 456 injuries and 5216 displacements. In addition, we find that among individuals listed on the roster, 352 joined a faction as a soldier at some point during the war.

Table 7: Exposure to Conflict

Year	Number Injured	Number Joining a Faction	Number Displaced (for the first time)
1989	1	1	119
1990	52	19	1,977
1991	8	1	323
1992	32	10	413
1993	45	29	1,788
1994	36	18	377
1995	5	6	144
1996	6	10	22
1997	3	4	26
1998	12	10	6
1999	26	23	8
2000	35	49	1
2001	63	52	12
2002	64	82	
2003	47	32	
2004	13	6	
2005	7		
2006	1		

A variety of groups were responsible for the deaths in Lofa County, although the vast majority of killings were attributed to the NPFL and Ulimo in the early years and LURD at the later stages of the war.

Table 8: Deaths by Armed Faction

Group	Deaths
AFL: Armed forces of Liberia [Doe]	2
AFL: Armed forces of Liberia Black Berets [Sawyer]	3
NPFL (National Patriotic Front of Liberia)	54
INPFL (Independent National Patriotic Front of Liberia) or NPFL-CRC (Coalition Forces)	13
Ulimo (before split 1994)	48
Ulimo J	15
Ulimo K	14
Lofa Defense Force	6
Nimba Revolutionary Council	1
Bong Defense Front	0
ECOMOG	1
LPC: Liberian Peace Council	0
LURD	48
Model	26
SOD: Special Operation Police[Taylor]	2
ATU: Anti-terrorist Unit [Taylor]	2
Government of Liberia Troops [Taylor]	28
Other militias	7
Total	**270**

Importantly the data reflect the clear ethnic structure of the conflict in Lofa county. As seen in Table 9, the NPFL killed Mandingo at rates higher than their population frequency; Taylor's governmental troops inflicted the highest death rates among the Mandingo. Ulimo K, considered a Mandingo faction, killed no Mandingos; and killed Lorma almost exclusively; likewise, both Lurd and Model killed almost exclusively among the Lorma.

Table 9: Killing by Ethnicity

	Bassi	Gbandi	Kpelle	Lorma	Mandingo	Mende
3 NPFL (Taylor)			2	33	11	1
5 ULIMO			1	46		
6 ULIMO J				10	2	
7 Ulimo K				12		
13 LURD		1	1	38	3	
14 Model	1			25		
17 GOL (Taylor)				14	14	

Recruitment, likewise, was structured on ethnic lines. The biggest recruiters in the area were NPFL and ULIMO in the first period and GOL and LURD in the second; Lorma joined all groups while Mandingo joined ULIMO-K and LURD almost exclusively.

III CDR Outcome Measures

This section presents baseline data on four outcomes CDR programs are hypothesized to have an impact on: wealth and community infrastructure, tensions and social differences, attitudes about community empowerment and democracy, and community engagement and collective efficacy.

III.1 Wealth and Welfare

III.1.1 Source of Income

The post-war economic structure is broadly similar to the pre-war structure with sale of field crops being the most common source of income followed by agricultural wage labor. There has been a large decline in the sale of cash crops and a large increase in sales of other commodities, notably palm oil and bushmeat.

Table 10: Income Sources

	1989	Now
None	3.11	
Sales of field crops	27.71	24.08
Small business	11.04	11.57
Mining	0.2	0.13
Sales of cash crops	8.13	1.95
Skilled labor	6.48	6.32
Casual labor	2.65	7.4
Petty trade	3.97	4.1
Salary /Government job	4.89	3.5
Remittances	1.26	1.75
Sale palm oil	9.66	19.1
Sale of bush meat	2.25	5.58
Sale of fish	0.07	0.81
Agricultural wage labor	12.17	10.29
Firewood /charcoal sales	0.13	0.07
Sales of prepared foods	0.26	0.27
Sales of livestock	0.2	
Sales of livestock products	0.07	0.13
Handicrafts	0.13	0.13
Sale of productive assets	2.98	0.47
Other Gov't benefits	0.6	0.4
Borrowing		0.07
Begging		0.27
DDR Benefits		0.13
Other	0.86	1.41

III.1.2 Consumption: Meals

One way to gauge income is to examine consumption. The standard question asked by WFP to evaluate food security—how many meals did the household cook on the previous day—provides a simple consumption measure. In our sample, 73% reported cooking 1 meal; 26% reported cooking two meals, and a small number reported none or more than 2.

III.1.3 Rice Planting

We can generate a second income measure by estimating land use. For this, we asked households how many tins of rice they planted this year. This measure is imperfect insofar as it fails to capture land used for other types of farming, but since rice is the staple it provides a reasonable first cut. The median family planted 7 tins of rice in 1989, a figure that has now declined to 4 tins (even as household size has, by our estimate, risen). 90% of households reported planting 15 bags or less in 1989 and 9 bags or less now (there are one or two big outliers here, with, for example, one household reporting planting 35,000 bags).

III.1.4 Assets

Asset ownership provides a useful indicator of wealth. Information on the *per capita* distribution of small household assets in the treatment and control communities is given below. The distribution is similar across the two groups for all assets.

Table 11: Assets

	Treatment			Control		
	N	Mean	Max	N	Mean	Max
Rooms (per capita)	596	0.65	6	494	0.60	4
Sheep / goats (per capita)	594	0.04	5	494	0.04	5
Chickens (per capita)	595	1.82	37.5	493	1.42	17
Fowl (per capita)	593	0.02	2.5	493	0.05	4
Bamboo beds (per capita)	595	0.51	4	493	0.44	4
Straw mattresses (per capita)	594	0.27	4	493	0.23	3
Wooden beds (per capita)	594	0.06	1.33	492	0.06	4
Foam mattresses (per capita)	595	0.08	2	493	0.11	4
Buckets (per capita)	595	0.41	5	493	0.42	8
Doors (per capita)	595	0.48	9	493	0.41	5
Radios (per capita)	594	0.12	7	491	0.12	3

Some of the assets recorded were intended to capture poverty rather than wealth. Bamboo beds, for example, are considered a poor substitute for wooden beds and straw mattresses are

considered a poor substitute for foam mattresses. As we see from the table above, bedding consists almost exclusively of straw bedding on bamboo mattresses.

III.1.5 Housing

Our respondents reported a net deterioration in the quality of housing during the war. Whereas before the war, more than half of the respondents' households were constructed from mud brick and cement or bricks were used by one in six households, the vast majority (85%) are now using mud and sticks only. Cement and bricks are virtually absent.

Table 12: Wall Types

	1989	Now
Mud	28.19	85.18
Cane	0	0.39
Thatch	0	0.46
Mud Bricks	54.6	10.86
Plywood	0.53	0.07
Cardboard	0.07	
Cement	9.07	0.78
Bricks	7.49	2.15
Shingles	0.07	0.13
	100	100

A similar shift has occurred with roofing. Zinc was the primary roofing material reported for 1989 (88%) with less that one in nine relying on thatch. Now the most common type of material is thatch and zinc is used by only 40% of households.

Table 13: Roofing

	1989	Now
Thatch	8.95	43.03
Palm	0.52	5.53
Planks	0.07	
Tarp	1.05	10.61
Zinc	88.63	40.63
Wood	0.13	0.07
Tiles	0.2	0.07
Cement	0.26	
Asbestos	0.2	0.07
	100%	100%

III.1.6 Occupancy Status

In most cases (86%), households own their own dwelling, while in 10% of cases households are living with extended family. Renting is very rare.

III.1.7 New Rights to Land

Approximately one in four households report having received new land rights from their chief in the past six months. One in ten, however, report not being able to access land at all.

These are not, however, the same population. Indeed those that have received new rights are more likely to want more than those that have not. Only 5% of households seek new land but have not received any.

Table 14: Household Access to Land

	N	%
Has received new rights; and has not been denied rights to any more available land	314	20.8%
Has not received new rights; but has not been denied rights to available land	1058	70.2%
Has received some new rights but there is more available land that the household has wanted	55	3.6%
Has not received new rights even though there is available land that the household has wanted	81	5.4%
Total	1508	100.0%

III.1.8 Water Sources

Most households are getting their water from wells, springs, or boreholes. Almost no households have access to piped water.

Table 15: Household Water Sources

Source	%
Piped in the House	3.16
Piped into yard	0.33
Public Tap	11.45
Borehole	18.76
Protected Well	17.58
Unprotected Well	8.89
Protected Spring	4.41
Unprotected Spring	24.56
Rainwater	1.65
Cart	0.2
River	9.02
Total	100

Sample: all (including unidentified)

III.2 Distance to Services and Amenities

The table below reports the distance in minutes walked to a range of services and amenities. Households have fairly good access to water and latrines; substantial walking is required, however, to access a market, transport, clinic, or secondary school.

Table 16: Distance to Amenities

	Mean	Median
Distance to…		
Water	14	5
Market	135	90
Transport	99	45
Primary School	33	15
Secondary School	101	50
Clinic	103	60
Latrine	7	5

III.3 Community Infrastructure

We asked respondents to describe the community infrastructure that existed in their town: asking specifically about the schools, clinics, latrines, and wells that were present in 1989, destroyed during the war, and subsequently rebuilt.

Below we describe levels of infrastructure first for 58 communities, defined in terms of the aggregated "communities" established by the IRC for the purposes of program administration. In practice, we averaged survey responses for individuals residing within towns and villages in each of the IRC "communities" to arrive at an aggregate level of infrastructure. Secondarily, we present the data in terms of the towns and villages that individuals say they live in. Here again, we average responses for respondents who say they live in the same town or village.

Among IRC "communities," respondents reported an average of 1 well (maximum was 5), less than one schoolroom (maximum was 2), and 5 latrines (maximum exceeded 100). On average, one in three had a health clinic. (None reported having more than 1 health clinic before the war.) Note that this does not mean that there was an average of 1 well for a whole IRC community; rather, it means that individuals within an IRC community reported on average 1 well "in this town," presumably the town or village the respondent imagined as their local community.

In most cases, the infrastructure was reported to have been built using community labor; schoolrooms and especially clinics, however, were more likely to have been built by government.

Respondents reported the near total destruction of this infrastructure during the war. In the vast majority of cases (94%), respondents gave the *same* number for pre-war number of schoolrooms

and number of schoolrooms destroyed. In a small number of cases, respondents reported more infrastructure destroyed than what existed before the war.

Our survey respondents also reported, however, near complete recovery in community infrastructure. In 80% of cases, respondents reported the same number of schoolrooms now as before the war. In many cases, the reconstruction has reportedly taken place using community labor; similar levels of community input are recorded for pre-war and post-war public goods production.

Table 17: Town level infrastructure

	How many were there before the war?	How many were constructed using community labor?	How many were constructed by the government with outside workers?	How many were destroyed during the war?	How many are there now?	How many of those (newly built or reconstructed) used community labor?
Wells	0.85	0.51	0.14	0.81	0.68	0.45
Schoolrooms	0.48	0.31	0.15	0.43	0.36	0.31
Latrines	3.02	2.47	0.18	2.62	1.86	1.37
Health Clinics	0.17	0.11	0.05	0.16	0.13	0.07

Note: Community averages calculated by averaging over all individuals in a given town or village

We note that there is some disagreement within towns regarding the infrastructure that exists. Some of this plausibly arises because individuals within a given IRC "community" are responding to the question with different "towns" in mind. But some of this disagreement may reflect different levels of knowledge about what does and does not exist in a given community.

It may make sense in subsequent rounds to supplement infrastructure data from household surveys with a set of formal visits to each community in which infrastructure is visited and recorded.

III.4 Tensions and Social Differences

The survey asked a set of questions that aimed to identify underlying tensions and differences that may cause conflict within communities in Lofa County. Some questions focused specifically on issues believed to be causing conflict at the time of the survey: the incorporation of returnees, new migrants, and ex-combatants. Others inquired more generally about the nature of social tensions and the willingness of community members to cooperate with people of different backgrounds.

Only 6% of respondents (99/1544) said they faced difficulties in gaining acceptance in the community. 13% said that there were some sorts of new arrivals who would not be welcome in the village or town. The types of new arrivals said to be "not welcome" break down as follows:

Table 18: Type of new arrivals said to be unwelcome

	%	*N*
Mandingo	29.9	47
New migrants	26.8	42
Lorma	18.5	29
Other ethnic groups	12.1	19
Other	6.4	10
"People who did bad things"	3.8	6
Ex combatants	1.9	3
Other religious groups	.6	1

The 10 "other" unwelcome types were mainly given as "Guinean" or "Guinean Mandingo."

Due to some implementation errors by enumerators, we lack a perfectly reliable measure of whether the respondent's household is new to the village ("new migrants") or is a "returnee." Roster questions and Q53 ("Before the war was your house in exactly the same place as it is now?") allow us to come fairly close, however. By this measure, 12% of respondents are "probable migrants"—these are people who reported living outside of Voinjama and Zorzor in 1989 and also do not say that their dwelling place is in the same spot as before the war. The rest are either surely returnees (two thirds) or probable returnees (people say they were living in Zorzor or Voinjama in 1989—about 21%).

Table 19: Who reports difficulties gaining acceptance?

	Percent that answer "Yes"	Relative Size of Group	*N*
Probable migrants	8%	12%	191
Probable returnees	4%	21%	328
Returnees	7%	67%	1025
Total	6%	100%	1544

Note: This table reports whether migrants and returnees report having difficulties gaining acceptance.

Interestingly, there is hardly any difference in the rate at which probable migrants and probable returnees say that they faced difficulties gaining acceptance in the village.

Table 20: Who reports that some groups unwelcome (by migrant/returnee status)?

	Percent that answer "Yes"	Relative Size of Group	*N*
Probable migrants	16%	12%	190
Probable returnees	16%	21%	329
Returnees	11%	67%	1021
Total	13%	100%	1540

Note: This table reports whether migrants and returnees report that there are individuals (possibly other than themselves) that would not be welcome in the town.

However, probable migrants and probable returnees (people who indicate that they lived in Voinjama or Zorzor in 1989) are somewhat more likely to report that there are some kinds of returnees who are unwelcome and both groups recognize that *others* have problems gaining acceptance even if they themselves do not feel these problems.

There are no noticeable differences in how male and female respondents answered these questions. However, members of different ethnic groups show some different patterns here. The following table breaks down the responses to the question "Have you faced difficulties in gaining acceptance in this town?" by the ethnic group of the respondent for ethnic groups that make up at least 2% of the sample. Lorma is the dominant group in this area (78% of respondents) with Mandingo the second most common at 15%. Mandingos and small minorities were somewhat more likely to report feeling unwelcome than Lormas, although the differences are not statistically significant (chi square test, p = .12).

Table 21: Have you faced difficulties gaining acceptance?

	Percent that answer "Yes"	Relative Size of Group	*N*
Gbandi	19%	2%	27
Kissi	8%	2%	26
Kpelle	8%	2%	25
Lorma	5%	78%	1145
Mandingo	8%	15%	225
Total	6%	100%	1448

Note: This table reports the share of individuals within each ethnic group that report difficulties gaining acceptance in the town.

There is no difference at all in the rate at which Lormas and Mandingos agreed that that there are some kinds of people who were unwelcome in the town or village (12%).

In terms of what types of people are unwelcome, both Lorma and Mandingo show some expectation that Mandingo will not be considered welcome, along with "new migrants." Some Lorma also see Lorma as unwelcome.

Almost all respondents (96%) reported that returnees were moving on to land they owned and/or worked before the war. There is less agreement on how "new arrivals" are getting access to land. 37% said they were being given access by government officials; 28% said they were taking it on their own; 17% said they were being given it by chiefs; and 7% said they were being given it by individual owners (which probably means they were buying or renting it). A fairly high percentage of respondents said they did not know how new arrivals were getting land (11%), which may reflect that there are not that many new arrivals who are not returnees to the same town/village.

We also asked respondents about their feelings about "returnees," "new migrants," and "ex-combatants." They were asked if each of these types should be "tolerated in this town," "welcomed

and given land," "allowed to be among the leaders of this community," possible "as a very close friend," and whether the respondent would be "comfortable having these people as close kin by marriage."

The table below reports the percentage of respondents who said "yes" to each of the questions by category of new arrival. The difference between 100 and this percentage includes both those who said "no" and those who gave no response for whatever reason. The latter (no response or "do not know") was in no case greater than 4.6% and in most cases is about 1.5%. (Answers on "new migrants" always show missing responses at between 4.1 and 4.6%, which may suggest that respondents were less confident about how to interpret what was intended by "new migrants.")

The basic picture is of very high levels of expressed toleration for all three categories of new arrivals. Respondents showed slightly more suspicion or hesitation about new migrants and ex-combatants than about "returnees," and were slightly more hesitant about new migrants than about ex-combatants. Only 62.3% thought that new migrants should be allowed to be leaders in the town. But with at least 90% responding "yes" for all but two of these questions, there is little evidence of social tension or hostility towards ex-combatants or new migrants, at least by this measure.

Table 22: Acceptance of Returnees, Migrants and Ex-Combatants

	Returnees	Migrants	Ex-combatants
Tolerate	98.9	93.4	96.3
Welcome/give land	98.3	93.4	95.7
Accept as Leaders	97.2	62.3	79.8
Close friend	98.3	93.0	95.6
Kin	97.7	89.9	91.2

Percent answering "yes"

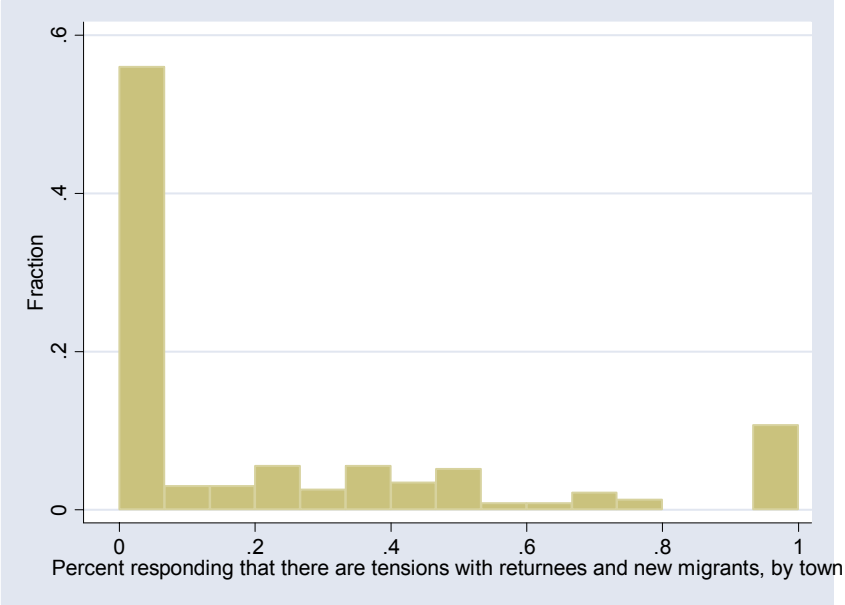
Finally, we asked respondents a set of more general questions about the extent to which social tensions among individuals cause problems/conflicts in their communities. The table below reports the percentage of respondents who answered that differences of particular types cause problems somewhat or very much in their town or village.

Table 23 Lines of Division within the Town

To what extent do differences over… tend to divide your town?	% answering either "somewhat" or "very much"	*N Responding*
Wealth	27.2%	1534
Gender	30.9%	1533
Age	30.5%	1534
Returnees vs. new migrants	24.5%	1531
Religion	25.6%	1529
Ethnicity	26.9%	1528
Education	23.5%	1526

From this more general framing of the question, there is some evidence of social tension. Approximately 25% of respondents report that differences of each type divide members of the

town. There is also some evidence, looking across towns and villages, that these differences are more pronounced in some places than others (although nearly 60% of towns/villages report no problems between returnees and new migrants, for example).



But few (less than 10%) say that such differences are actually more pronounced or divisive than they were before the war.

Table 24: Hardening of Lines of Division

Are these differences more difficult than they were before the war?	% answering that they are "more difficult"
Wealth	11.5% (1217)
Gender	8.7% (1220)
Age	10.5% (1235)
Returnees vs. new migrants	5.5% (1174)
Religion	8.2% (1194)
Ethnicity	14.0% (1201)
Education	6.1% (1178)

We also approached this issue more generally by asking respondents to envision a hypothetical situation in which they were asked to act as a guarantor for a loan for someone in a credit club or lending association. We asked individuals how likely they would be to serve as a guarantor for

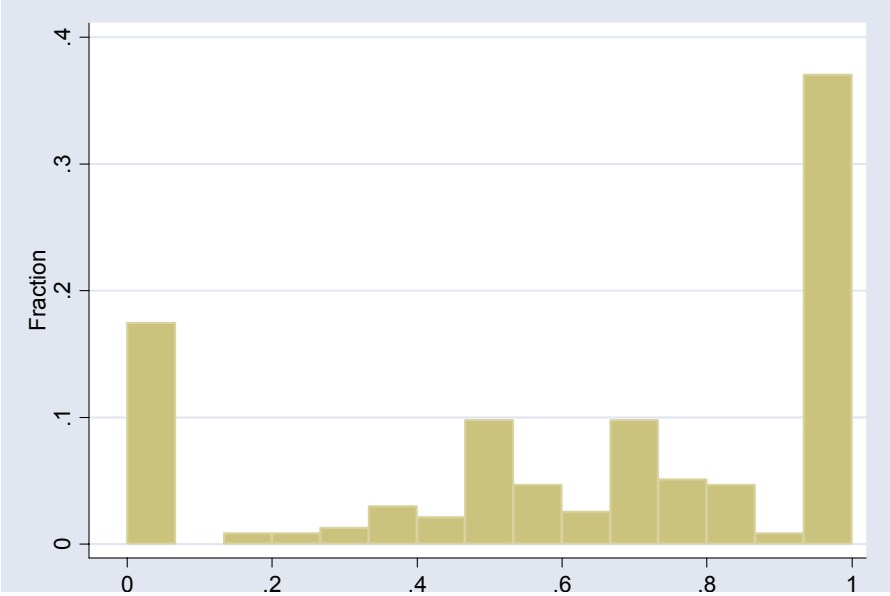
different types of people as an indirect measure of social tensions. The responses are summarized below.

Table 25: Trust

How likely would you be to act as a guarantor for … in a club that provides credit?	Percent answering "very likely" or "certainly"
Spouse	88.4%
	(1532)
People from this town	65.1%
	(1535)
People from your ethnic group	61.6%
	(1532)
People from other ethnic groups	51.0%
	(1529)
Ex-combatants	36.0%
	(1532)
Chiefs	53.8%
	(1533)
District and county superintendents	37.1%
	(1537)
Government officials in Monrovia	28.7%
	(1534)

It is clear that people are more willing to trust in the actions of their spouse (85%) and members of their town (65%), than members of other ethnic groups (51%), ex-combatants (35%), or government officials (28%). There also appears to be some variation across towns in the level of trust in other community members. There are some places where individuals are very willing to take a risk on behalf of their neighbors and others where they are much less willing.

Figure 11: Trust: % willing to act as a guarantor for someone from their town



The challenge with more general questions of this type is that they are difficult to interpret as we don't know how these expressed differences actually play themselves out in community life.

Perhaps such differences are reflected in crime and local insecurity. We have some ability to measure these outcomes and asked questions about the security situation in the baseline survey. Respondents reported fairly high levels of theft (approximately 24% of households), but low levels of physical fighting and the use of weapons. But there is no correlation between measures of reported differences and local insecurity.

Table 26: Recent Conflicts

During the last six months, has anyone…	Percent answering "yes"
Stolen livestock or chicken from you?	23.6%
	(1531)
Stolen household items?	17.2%
	(1532)
Engaged in physical fighting with you?	2.6%
	(1527)
Used a weapon in your town?	6.8%
	(1526)
Engaged in violence within your house?	4.1%
	(1527)

More likely, it is the case that these differences and tensions could be impediments to community engagement and activity. Interestingly, evidence from the baseline survey suggests a weak negative relationship between reported differences between returnees and migrants and the likelihood that communities have undertaken an initiative in the past six months (p-value, 0.16), but the result is not powerful.

III.5 Attitudes about Community Empowerment and Democracy

Because CDR programs are hypothesized to change individuals' attitudes about how community governance should be conducted, the survey asked a set of hypothetical questions to elicit information about how decisions are made currently and how community members believe they should be made. For example, one question went as follows:

> Imagine that two families are in dispute over a piece of a land. A decision needs to be made about who owns the land. Who can block a decision even if all other agree? Who usually plays the first and second biggest roles in resolving the dispute? Who do you think should play the biggest role?

The table below summarizes the patterns of responses on these questions. The upshot is a fairly close correspondence between the individuals or groups that respondents think *do* play the largest role in resolving land disputes, and who they think *should* play the largest role. However, there is a

mild tendency suggesting that people think "community members" should play a bigger role than they do, and the town chief and elders slightly less.

Almost 40% of respondents say that the town chief plays the biggest role in resolving land disputes, while 32.3% say that elders play the biggest role. Slightly smaller percentages—33.2 and 28.2—mention the town chief and elders as individuals or groups who *should* play the biggest role resolving land disputes. By contrast, 13.1% said that "community members" play the biggest role (22.5% say second biggest role), as against 18% who mention community members as a group that should play the biggest role.

Not surprisingly, the distribution of answers to the question about who can *block* a decision on a land dispute is more dispersed than the answers to the question of who plays the biggest or second biggest role in resolving them. Seven individuals or groups were mentioned as being able to block a decision by at least 8% of all respondents. It is interesting to note that this list includes a number of very local actors like "women's groups" and "youth groups" whereas some actors that might have been expected to be viewed as being veto players were mentioned less often (land commissioner and district commissioner in particular).

Table 27: Actual and desired power in land dispute cases

	Number who say can block decision	% of all "block" mentions	% who say plays biggest role	% who say plays 2nd biggest role	% who say *should* play biggest role
Town chief	1190	18.7	38.9	31.4	33.2
Elders/religious leaders	1158	18.2	32.3	24.4	28.2
Community members	1000	15.8	13.1	22.5	18.0
Youth group	620	9.8	1.6	4.2	4.4
Quarter chief	567	8.9	3.7	7.6	6.0
Clan/para. Chief	525	8.3	2.3	4.3	3.1
Women's grp	507	8.0	0.2	1.5	1.1
Land commissioner	317	5.0	6.2	2.6	4.2
District commissioner	147	2.3	0.8	1.0	0.8
Sande	128	2.0	0.6	0.3	0.4
National Represnetatives	94	1.5	0.1	0.1	0.2
NGOs	33	0.5	0.0	0.0	0.0
LNP	27	0.4	0.1	0.2	0.1
UNMIL	23	0.4	0.1	0.0	0.0
Other	12	0.2	0.0	0.1	0.1
Total		100%	100%	100%	100%

The response patterns to a hypothetical situation involving decisions about how to spend funds for infrastructure improvement are highly similar to those for the questions about a land dispute. The town chief is perceived to have the most influence on how the development funds would be spent by 37.5% of respondents, and 31.5% say that he should have the most influence. Elders come

next on both counts, followed by community members, for whom there is some slight demand for more influence than they currently have.

Table 28: Actual and desired power over community development funds

	Number who say can block decision	% of all "block" mentions	% who say plays biggest role	% who say plays 2nd biggest role	% who say *should* play biggest role
Elders/Religious leaders	1140	18.6	27.9	24.4	26.7
Town chief	1121	18.2	37.5	28.5	31.5
Community members	1025	16.7	16.3	21.9	19.5
Youth group	681	11.1	5.2	7.0	6.7
Quarter chief	526	8.6	3.7	7.9	6.0
Women's grp	487	7.9	1.0	2.5	2.0
Clan/Paramount Chief	479	7.8	2.6	3.9	3.0
Land commissioner	185	3.0	3.5	1.7	2.9
Dist commissioner	170	2.8	0.7	1.2	0.7
Sande	126	2.1	0.9	0.3	0.6
Nat'l reps	107	1.7	0.7	0.4	0.2
NGOs	52	0.8	0.0	0.3	0.1
LNP	21	0.3	0.0	0.0	0.0
UNMIL	20	0.3	0.1	0.0	0.0
Other	4	0.1	0.0	0.0	0.0
Total		100	100	100	100

We also asked a series of questions in which respondents were given an opportunity to express agreement with one of two competing arguments or considerations concerning aspects of governance or political culture. The table below gives the percentage of respondents agreeing or strongly agreeing with position A and B, along with "don't knows" and "neither" (which were very few in all cases).

Respondents were fairly split on whether "As members of the town, we should be more active in questioning the actions of our leaders" or if "we should show more respect for authority." There is a slight balance in favor of questioning authority. Likewise, there was a split as to whether "All people should be permitted to take part in important decisions, even if they do not understand the issues or are new to the community" or "Only those who understand the issues should be allowed to take part in important decisions." Again there was a balance in favor of the more "democratic" view, with slightly more agreeing that all should be allowed to participate.

By contrast, almost all respondents (93.5%) agreed or strongly agreed that "Since leaders represent everyone, they should not favor their own family or ethnic group." Perhaps more

surprisingly, 87.2% endorsed the view that "We should choose community leaders through regular and open elections" rather than "Since elections sometimes produce bad results, we should continue with traditional methods for choosing leaders." This suggests that there are not many people in Lofa whom IRC needs to convince that, in principle, elections are a desirable form of choosing leaders, or that ethnic favoritism is wrong.

Table 29: Attitudes to Authority

Position A	Strongly agree	Agree	Don't Know	neither	Agree	Strongly agree	Position B
Question authority	43.8	10.8	1.2	0.7	4.2	39.3	Respect authority
Favor fam/eth grp	2.1	2.1	1.2	1.1	17.4	76.1	No favoritism
All participate	38.8	15.9	1.9	2.9	11.4	29.1	The best informed should decide
Women equal rights	49.4	15.6	1.2	1.8	8.2	23.8	trad for women
Tradition not elections	6.8	1.9	1.4	2.7	16.1	71.1	Use elections

Finally, there was some division of opinion about whether "Women should have equal rights and receive the same treatment as men do" or "Women have always been subject to traditional customs and laws and should remain so." A solid majority of 65% agreed with the equal rights position, most of them strongly, but almost one-in-four respondents strongly disagreed.

One would expect that male respondents would be more likely disagree. They were, but not that much. 27% of male respondents strongly agree that women should be subject to traditional customs and laws, but so did 22% of the female respondents. 51% of women strongly agreed that women should have equal rights, but so do 47% of the men.

Table 30: Attitudes to Women's Rights (by Gender)

Women's rights	Strongly agree	Agree	DK	neither	Agree	Strongly agree
Women (%)	51	15	1	2	9	22
#	454	136	10	14	80	197
Men (%)	47	15	1	2	7	27
#	267	87	6	12	40	156

Slightly more purchase is gained by looking at how older people answered compared to younger folk. 31% of respondents aged 50 or more strongly agreed with the "traditional" position, compared to 23% of those under 50. And 51% of those under 50 strongly agreed with the "equal rights" position compared to 42% of those over 49.

Table 31: Attitudes to Women's Rights (by Age)

Women's rights	Strongly agree	Agree	DK	neither	Agree	Strongly agree
Age < 50 (%)	51	15	1	2	9	23
#	625	182	15	25	105	282
Age > 49 (%)	42	19	1	0	6	31
#	100	46	2	1	15	74

Any presupposition that Muslims would be more likely to endorse the "traditional" position regarding women is not supported in the data. Muslim and Mandingo respondents were if anything more strongly *in favor* of "equal rights for women" than were Christians and Lorma, respectively (though the differences are small).

III.6 Community Engagement and Collective Efficacy

It has also been argued that participation in CDR programs has a marked impact on levels of political and community engagement, and more broadly, in a sense of individual and collective efficacy. As part of the baseline survey, we gathered a wide range of measures of the extent of political and social activity in the towns and villages in Lofa County, as well as questions that sought to assess people's beliefs about how free and willing they are, along with other members of their community, to participate in community life.

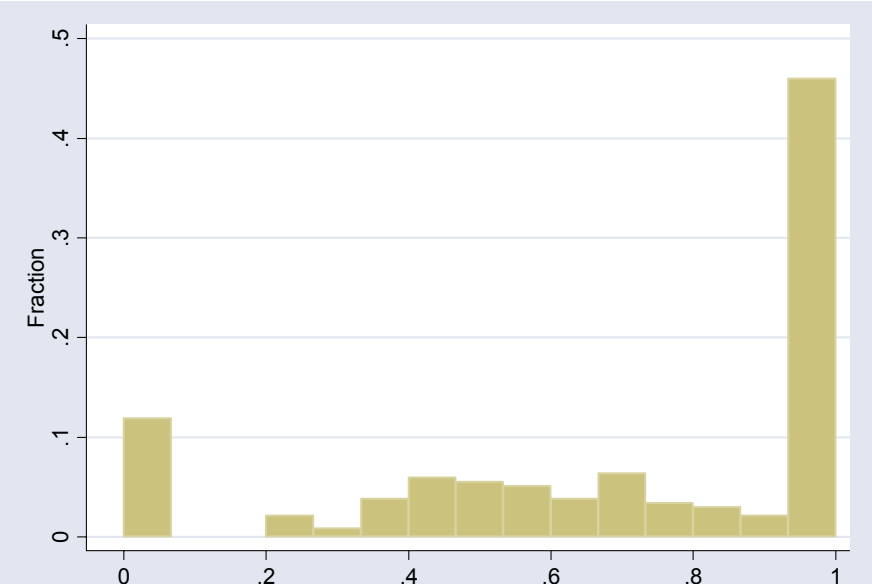
The basic picture is of already very high levels of political and community engagement in Lofa County. 90% have attended a town meeting in the past six months; 80% have spoken at such a meeting. Nearly 90% voted in the most recent election.

Table 32: Individual Engagement in Community Activities

Question	%
In the past six months have you…	
Attended a town meeting?	89.5% (1546)
Made a speech at a meeting?	79.1% (1534)
Met a chief to raise an issue?	60.3% (1540)
Participated in the election campaign?	64.0% (1542)
Voted?	87.9% (1543)
Notified police of a problem?	9.6% (1538)
Contacted a government official?	9.3% (1538)

The extent to which individuals have mobilized to raise important issues with their chief is more varied. Only 60% of individuals report having done so overall, and after aggregating responses across towns/villages, it is clear that in about half of the communities, most individuals meet with their chiefs regularly, while in the remaining locations it is a less common activity.

Figure 12: Political Access: % responding that they have met a chief to raise an issue



Data on the extent of collective action in the community also reveals (a) fairly consistent, community-led efforts to provide local public goods and (b) some substantial variation across communities in the extent to which individuals report on-going initiatives.

Table 33: Community Initiatives

In the past six months, has there been a community initiative to…	% saying "Yes"
rebuild a school/clinic?	40.0%
	(1509)
brush the road?	82.6%
	(1532)
repair the road?	22.1%
	(1525)
dig or repair a well?	35.3%
	(1523)
provide security?	18.4%
	(1524)
increase agricultural productivity?	50.8%
	(1522)
repair a church or mosque?	32.4%
	(1520)

Over 80% of individuals report initiatives to brush a road. Agricultural activities are also very common. Far less frequent, however, are initiatives to rebuild schools/clinics, dig or repair a well, or repair a broken road. Of course, these initiatives require greater investments of time and capital, so it is no surprise that when they do take place, individuals report that they are initiated by community members only 21% of the time, when road brushing efforts are initiated by the community more than 50% of the time.

Where there are initiatives, participation appears to be fairly widespread. Large numbers of community members invest time or money in road brushing and collective agricultural activities. For other activities, between one third and one half of community members invested their labor or resources in the activity.

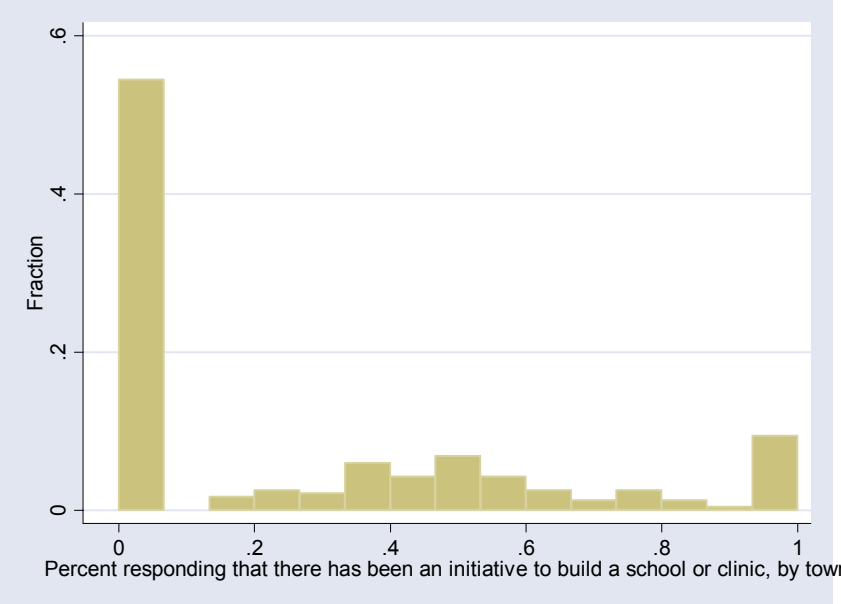
Table 34: Contributions to Community Initiatives

If there was a community initiative, did your household contribute time or labor?	% saying "Yes"
School/clinic	61.2% (949)
Road brushing	86.3% (1346)
Road repair	35.6% (838)
Digging well	48.8% (922)
Security	30.4% (794)
Agriculture	71.4% (995)
Church/mosque	50.1% (918)

Again, there is clear variation across towns/villages in the frequency of community initiatives. If individuals are knowledgeable about activities in a given town, there should be full agreement regarding whether initiatives have taken place. This is not, however, always the case. As one can see in Figure 13, there is some disagreement within towns regarding whether there have been community initiatives to build schools and clinics. In over 50% of towns, all respondents agreed that there was to action to rebuild a school/clinic in the past six months. In a smaller share of towns, all respondents agreed that there had been initiatives. In about a third of the cases, however, there was some disagreement about whether there were initiatives.

Despite the presence of some disagreements, the data clearly suggests that no initiatives had taken place in the majority of towns/villages. It is possible that this is because the reconstruction is largely complete and had tailed off in the months before the survey, but it also may reflect an inability of communities to organize and act collectively in some places.

Figure 13: Community Action



Note: Figure shows the distribution of the share of town populations claiming that there has been an initiative to build a school or clinic in the past six months

As with community initiatives, there is evidence from the survey of a rich network of associations and community groups in Lofa County. Most individuals report that their towns/village has a Koo association, a women's committee, and a school committee. Credit groups (susu), farming collectives, and water committees are reported by about half of respondents. Where individuals report that such groups are present, generally about 50% say they are actively involved in the groups as a member.

Table 35: Associational Activity

Are any of the following associations active in your town?	%	*N* Responding
Susu	49.7%	1524
Koo	84.1%	1524
Women's Action	77.2%	1523
Farming group	52.4%	1525
Water committee	38.1%	1519
Religious association	49.8%	1521
School committee	60.4%	1518
Sports, music, or drama club	59.0%	1500

We also asked individuals directly about how free they feel to speak out about community issues and to participate in community life. Overwhelmingly, respondents indicated that they feel no hesitation about speaking out, nor are they concerned that others (including women and youth) are not free to participate.

Table 36: Freedom of Expression

How free are… to say what you think in this town?	Percent answering "very free" or "totally free"	*N* Responding
You	93%	1524
Women	95%	1537
Youth	97%	1538

Our respondents indicated that they are very willing to contribute to community activities, as are their neighbors, members of their ethnic group, and members of other ethnic groups. Even ex-combatants were viewed as a population willing to play an active role in community life. If there was any skepticism about the motivations of others, it related only to the willingness of government officials to actively engage in community life, especially those based in Monrovia.

Table 37: Willingness to Contribute to Community Projects

How willing are… to contribute to community projects?	Percent answering "very willling" or "totally willing"	*N* Responding"
You	97.2%	1520
People from this town	96.9%	1538
People from your ethnic group	95.9%	1529
People from other ethnic groups	92.6%	1533
Ex-combatants	83.2%	1526
Chiefs	94.4%	1528
District and county superintendents	77.9%	1518
Government officials in Monrovia	68.1%	1506

IV Comparison of Treatment and Control Communities

This section explores the characteristics of communities randomly selected into the treatment group and those selected into the control group. In selecting communities that will receive the CDR program by lottery, we expect that there will be few statistically significant, pre-treatment differences across treatment and control communities.

Recall that "communities" as they are discussed here are defined by the IRC and represent an aggregation of towns and villages into a set of relatively comparable (in terms of population size) "communities" from which the treatment group was drawn.

We cannot take full advantage of the survey results in comparing the treatment and control communities as 84 surveys (5.4%) were conducted in villages that did not make it into a treatment or control "community" (because of accessibility or for some other reason) and 330 surveys (26.6%) were conducted in towns or villages that were subsequently divided into smaller units for the purposes of randomization. Because we cannot accurately place our individual respondents into those smaller units, we cannot include their responses in this analysis, nor compute baseline measures for those communities.

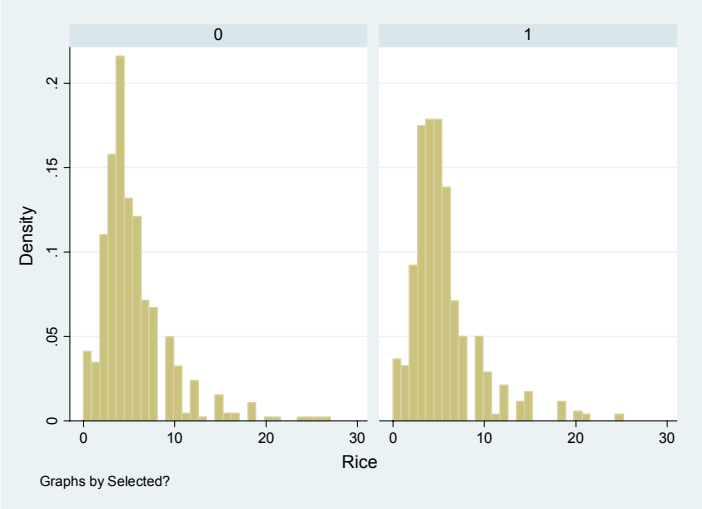
The major finding in this analysis is that the randomization worked quite effectively. Across most measures, there are no statistically significant differences between the treatment and control communities. This is the case both for potential confounding variables, such as differences in wealth, education, or conflict exposure that might impact the efficacy of the program, and for the baseline outcome measures. Even where such pre-treatment differences exist, we are in a better position because of the baseline to account for these effects when attempting to isolate the causal impact of the program.

One of the obvious potential confounding variables is differences in wealth. Wealth may be associated with better infrastructure and more community activity. If it is the case that treatment communities are wealthier than control communities, than we might misinterpret the better performance of the treatment group as an impact of the CDR program when differences in wealth might be doing the work.

We look for pre-treatment differences across treatment and control communities and find none in a variety of specifications.

The figure below examines consumption as a measure of wealth, and finds similar distributions of the quantity of rice planted for households in the treatment and control group.

Figure 14: Distribution of the number of bags of rice planted by treatment and control group



Information on the per capita distribution of household assets in the treatment and control communities also reveals no statistically significant differences across the groups.

Table 38: Asset Ownership (Treatment and Control)

	Treatment			Control		
	Mean	N	Max	Mean	Max	N
Rooms (per capita)	0.65	596	6	0.60	4	494
Sheep / goats (per capita)	0.04	594	5	0.04	5	494
Chickens (per capita)	1.82	595	37.5	1.42	17	493
Fowl (per capita)	0.02	593	2.5	0.05	4	493
Bamboo beds (per capita)	0.51	595	4	0.44	4	493
Straw mattresses (per capita)	0.27	594	4	0.23	3	493
Wooden beds (per capita)	0.06	594	1.33	0.06	4	492
Foam mattresses (per capita)	0.08	595	2	0.11	4	493
Buckets (per capita)	0.41	595	5	0.42	8	493
Doors (per capita)	0.48	595	9	0.41	5	493
Radios (per capita)	0.12	594	7	0.12	3	491

More broadly, drawing on the richness of the data in the household survey, we can compute five different measures of wealth: an asset index, the quality of the roof, the quality of the walls, the quantity of rice planted, and the meals taken. There are no statistically significant differences between the treatment group and control group on any of these measures.

Table 39: Comparing Wealth Measures (Treatment and Control)

	Definition	Control Group	Treatment Group	Total (Treatment + Control)	Total Sample	Correlation between present measure and 1989 measure
Asset wealth	Index based on asset ownership	-0.06	-0.04	-0.05	0	0.1
Roof wealth	1 if household purchased new zinc roof[4]	0.13	0.17	0.15	0.15	0.51
Wall wealth	1 if household has walls of mud brick or better	0.14	0.11	0.12	0.14	0.22
Rice wealth	Number of tins of rice planted by household	5.42	5.43	5.42	5.29	.53
Meals wealth	Whether household cooked more than one meal the previous day	0.30	0.29	0.29	0.27	.

A second, potentially important confounding variable is the extent of exposure to conflict. If we find better outcomes in the treatment group than the control group, but it is also the case that the control group experienced much more violence in the conflict, we might mistakenly conclude that the CDR program had a positive impact when it did not. Using data from the household roster, the table below reports average rates of injury, death, and recruitment into armed groups for households in the treatment and control group. As with our measures of wealth, there are no statistically significant differences across treatment and control on the extent of exposure to the conflict.

Table 40: Exposure to Conflict (Treatment and Control)

	Control	Treatment
Rate of Injuries due to conflict	.077	.066
Conflict Death Rate	.043	.044
Recruitment Rate	.060	.057

Sample: Pre-war roster

We have carried out this exercise (comparing treatment and control communities) for a range of variables that might confound our analysis. On most, there is no evidence of pre-treatment differences. There is some evidence, however, that households in the treatment communities are more likely to be engaged in farming than those in the control group.

With respect to outcome measures, the results of the randomization are also positive. Table 41 reports the same data as provided in Table 17 but this time broken down by treatment and control towns (note not by treatment and control communities). Treatment and control communities do not differ markedly with respect to the existence of community infrastructure. For schools, health clinics, latrines, and wells, we cannot reject the null hypothesis that the treatment group and control

[4] Purchasing is a condition of the definition for post conflict houses only.

group are identical. There is strong evidence, though, that households in the treatment communities are more isolated from amenities and services, as detailed in the table below.

Table 41: Town level infrastructure (Treatment and Control)

	How many were there before the war?		How many were constructed using **community labor**?		How many were constructed by the **government** with **outside workers**?		How many were destroyed during the war?		How many are there now?		How many of those (newly built or reconstructed) used community labor?	
	Control	Treat't	Control	Treat't	Control	Treat't	Control	Treat't	Control	Treat't	Control	Treat't
Wells	0.94	0.77	0.62	0.42	0.15	0.14	0.82	0.80	0.78	0.61	0.53	0.38
Schoolrooms	0.53	0.44	0.31	0.31	0.18	0.13	0.47	0.40	0.38	0.34	0.39	0.25
Latrines	2.95	3.07	2.16	2.72	0.31	0.08	2.46	2.75	2.20	1.58	1.46	1.29
Health Clinics	0.20	0.14	0.14	0.09	0.07	0.04	0.18	0.15	0.20	0.07	0.11	0.03

Note: Community averages calculated by averaging over all individuals in a given town or village

Table 42: Distance from Utilities (Treatment and Control)

	Mean	Median	Median (Treatment)	Median (Control)
Distance (in minutes) to…				
Water	14	5	5	5
Market	135	90	150	105
Transport	99	45	90	60
Primary School	33	15	10	15
Secondary School	101	50	100	60
Clinic	103	60	120	70
Latrine	7	5	3	5

For four measures (distance to transport, markets, secondary schools, and clinics), the treatment communities are more remote than the control communities. These differences are significant at the 99% level.

The table below reports averages for the treatment group and the control group across a range of outcome variables, from political participation to community engagement to social tensions. There is some evidence that households in treatment communities are more likely to have contributed time/money to a community project, but across a range of other questions, no statistically significant differences exist across the two groups.

Given the small sample size, it is not surprising that some pre-treatment differences do exist. But by and large, the randomization worked effectively. Where differences do exist, we can control for the different characteristics of the treatment and control groups in conducting the final analysis of program impact.

Table 43: Social and political outcomes (Treatment and Control)

Percent reporting…	Control Average	Treatment Average	Difference (*p*-value)
having met a chief	.63	.71	.08
	(26)	(32)	(.17)
a community initiative to build a	.29	.37	.07
school/clinic	(26)	(32)	(.25)
a community initiative to dig/repair a	.27	.29	.02
well	(26)	(32)	(.67)
contributing time/money to build a	.49	.65	.16*
school/clinic	(25)	(29)	(.06)
contributing time/money to dig/repair	.45	.52	.07
a well	(25)	(30)	(.42)
existence of a school committee	.53	.57	.05
	(26)	(32)	(.53)
differences with returnees/new	.25	.24	-.01
migrants	(26)	(32)	(.90)
that they would act as a guarantor for	.64	.64	.00
someone from their town	(26)	(32)	(.98)
theft of chickens or livestock	.26	.24	-.02
	(26)	(32)	(.70)

v General Conclusions

The baseline survey documents known facts about Lofa county: the area is extremely poor and residents have very little access to basic infrastructure and services. There is a high incidence of sickness and low education levels. The area was severely affected by the conflict with high death and disability rates. The war had a powerful, negative effect on the livelihoods of households in Lofa County.

The contribution of this survey is not to simply to document these facts but to provide a quantitative benchmark of these characteristics against which future outcomes can be compared. In addition, by surveying the situation in both treatment and control communities we can establish when these groups are the same and when they differ.

We find that there are few statistically significant differences between communities in the treatment group and those in the control group with respect to basic demographics including population, ethnic makeup, education, and wealth. There is some evidence that households in treatment communities are more isolated from towns and services than those in control communities. Overall, however, the evidence shows that the randomization was clean and effective. On most measures, the treatment and control communities are identical. Where they are not, we have good baseline data and can thus control for these differences as we attempt to estimate a causal impact of the CDR program.

Beyond these measures of socio-economic status and conflict exposure, the survey documents political and social behavior and attitudes. There is little evidence of community tensions in the post-war period. Only 6% of respondents report that they faced difficulties gaining acceptance when they returned home after the war; interestingly, there is hardly any difference in the rate at which migrants and returnees say they faced any difficulties. 13% of respondents indicate that some types of "new arrivals" would not be welcome in the community—the Mandingo are most often cited as those being unwelcome, while relatively few indicate a resistance to having ex-combatants return to the community. Slightly more resistance is evident when respondents are asked whether certain groups should be allowed to serve as leaders of the community. Land issues also do not seem to be generating conflict, as returnees appear to be moving onto land that they owned or worked before the war. When individuals are asked about the differences that divide their community, there is some evidence that social tensions exist (about 25% report some tensions over wealth, gender, age, etc.) but little evidence that there are worse than before the war.

Individuals generally report that decisions about land disputes and the allocation of community resources *are* and *should be* made by town chiefs and elders. There is a slight indication that individuals wish community members would play a bigger role, but it is not substantial. With respect to attitudes about democracy, there was widespread agreement that leaders should be chosen through elections (87%) and that leaders should not favor their own family or ethnic group (93%). There was more disagreement with respect to the role of women (only 65% asserted that women deserve equal rights) and the degree to which community members should question authority (54% indicating that they should).

There is evidence of very high levels of political participation and engagement at the community level, but little evidence that individuals interact with (or rely on) official institutions or government representatives (outside of the chief). Nearly 90% have attended a town meeting in the past six months, 60% have met with a chief to raise a local issue, but less than 10% have contacted a national government official. Individuals also report feeling very free to state their political views (over 90%) and willing to contribute to community projects (97%). Respondents said that community efforts to rebuild infrastructure are widespread with initiatives to brush roads most common (reported by 82% of respondents), while efforts to rebuild schools and clinics are less common (40%). Associational life is rich as well with more than half of respondents reporting the existence of Susu, Koo, women's action groups, farming collectives, school committees, and other special interest clubs.

On these measures the treatment and control groups are similar. There are however some differences across the treatment and control groups in measures of political engagement, with households in the treatment communities more likely to report having met a chief to raise an issue or to having contributed time/money to rebuilding a school or clinic.

The basic picture here is of very high levels of rebuilt infrastructure, expressed tolerance for other groups, support for democratic processes, and political participation and community engagement. On some measures (for example, tolerance and political participation), *there exists relatively little room for IRC's CDR program to improve this set of targeted outcomes*, at least as measured by attitudinal surveys. On other measures (for example, the extent of community initiatives), there is substantially more room to observe an impact of the CDR program.

A critical next step is to determine whether there are additional outcomes the CDR program is likely to impact beyond those we have measured up to this point. Even more importantly in moving forward, we must investigate alternative measurement strategies, including the use of experimental games and field experiments, to pick up difficult-to-measure concepts such as trust and social cohesion which may not be adequately captured by attitudinal surveys.