Violent Displacement and Empathy:
The Determinants of Hosting in Eastern Congo

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Summary

This document describes our strategy to learn about hosting dynamics. We formulate hypotheses regarding two potential determinants of hosting Internally Displaced Persons (IDPs): a history of violent displacement and individual differences in empathy. This document provides our empirical strategy to test these hypotheses in the Democratic Republic of Congo. The protocols and instruments for this project can be found online: http://egap.org/registration/6031.[†]

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[†] This study builds on the data collection for another project that can be found online (see above). IRB approval for that data collection from New York University – Abu Dhabi: #040-2019.

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1. Introduction

The global population of forcibly displaced people has reached an all-time high. Over the past decade, their number strongly increased from 43.3 million in 2009, to 70.8 million by the end of 2018. The majority – an estimated 41.3 million – are Internally Displaced Persons (IDPs) (UNHCR, 2019a). They are displaced within the borders of their own country, on the run from conflict and violence. Given that the world population is estimated around 7.7 billion[1], there is about one IDP for every 200 people. This proportion may grow further, as the increase in the world's forcibly displaced population surpassed global population growth in 2018 (UNHCR, 2019a). Contrary to refugees, IDPs do not have a special status in international law; they have to rely on their own government for protection from violence. Often, these governments are not able or willing to provide such protection, making IDPs an especially vulnerable group of displaced people (IDMC, 2019a; UNHCR, 2019b).

To address the needs of the displaced, humanitarian agencies such as the UNHCR – the United Nation's Refugee Agency – have increasingly focused on local integration, calling on citizens to welcome refugees into their communities and homes (Davies, 2012; UNHCR, 2011, 2010). It is estimated that the majority of the world's displaced (60%) are not hosted in camps, but find shelter in host communities, often sharing a house with host families (UNHCR, 2019a). Given their increasing number, the integration of IDP's into host communities has become a pressing global humanitarian concern.

Despite the importance of hosting IDPs, we know surprisingly little about its dynamics. What motivates people to welcome the displaced? This document presents our strategy to answer this question.

2. Previous Literature and Contribution

This study builds on three separate strands of literature. First, there is a substantial literature on the determinants of public attitudes towards migration policy and the integration of refugees in developed countries (e.g Adida et al., 2018; Bansak et al., 2016; Böhm et al., 2018; Ferwerda et al., 2017; Hangartner et al., 2019; Lazarev and Sharma, 2017; Liebe et al., 2018; Newman et al.,

[1] https://population.un.org/wpp/

2015; Scheve and Slaughter, 2001). There is much less work on the determinants of attitudes toward refugees in developing countries.[2] This is an important gap in the literature, as the vast majority of displaced people (85%) is currently hosted in developing countries (UNOCHA, 2019). Within the existing body of work on developed countries, humanitarian concerns and empathy have recently surfaced as important explanatory factors. Bansak et al. (2016), for instance, investigate the profile of asylum seekers that Europeans are willing to accept. Besides an anti-Muslim bias and evaluations of potential economic contributions, the results suggest that preferences for asylum seekers are shaped by humanitarian concerns. Relatedly, Newman et al. (2015) use data from the United States to show that humanitarian concerns and empathy decrease support for restrictive immigration policy.

These findings align with a substantive psychological literature on empathy. Two components of empathy are generally distinguished: a *cognitive component* that involves the capacity to imagine someone else's thoughts and feelings, and an *affective component* that involves the ability to respond to someone else's thoughts and feelings with appropriate emotion (see for instance Baron-Cohen, 2011; Baron-Cohen and Wheelwright, 2004; Jolliffe and Farrington, 2006). Existing studies indicate that individuals with a higher capacity to empathize with others are also more likely to actually help those in need; this has been demonstrated both in experimental settings (see e.g. Batson et al., 2002; Batson and Moran, 1999; Toi and Batson, 1982) and, only recently, also in a real-life context (Bethlehem et al., 2017). Pro-social behavior is thought to result from a dynamic interplay between affective and cognitive empathy (Preckel et al., 2018). Yet, two recent studies provide evidence suggesting that individual differences in cognitive empathy – in contrast to affective empathy – predict sensitivity to injustice to others (Decety and Yoder, 2016) and the active support of victims (Barlińska et al., 2018).

A third strand of literature investigates the social legacy of exposure to conflict and war. Using micro-level data from a range of different contexts, this literature has documented that conflict exposure may increase social participation, cooperation and altruism (see for instance: Bauer et al., 2016, 2014; Beber et al., 2014; Choi and Bowles, 2007; De Luca and Verpoorten, 2015; Rohner

[2] There is however a substantial literature on the economic consequences of hosting refugees or IDPs in developing countries. See Maystadt et al. (2019) for a review.

et al., 2013; Voors et al., 2012). This is important in the context of hosting, given that conflict and violence are not only the primary causes of forced displacement, but the displaced often also end up in regions that have a history of violence (IDMC, 2019b).

This study is particularly related to two recent papers that investigate how previous exposure to conflict influences behavior and attitudes towards hosting refugees in a developing country context. Hartman and Morse (2018) use observational and experimental data from 64 communities in the Liberia-Cote d'Ivoire border region to study behavior and attitudes toward refugees in the 2010-11 Ivorian refugee crisis. They find that individuals who experienced violence during the Liberian civil war were found to host more refugees, have higher preferences for distressed refugees and a smaller bias against outgroup refugees. The authors argue that the data support an 'empathy born of violence' mechanism, by which prior exposure to violence can motivate prosocial behavior across group boundaries.

Ghosn et al. (2019) investigate how Lebanese residents' personal experiences during the Lebanese civil war (1975-90) influence their current-day attitudes toward hosting Syrian refugees. The authors rely on survey data and focus on three types of personal experience: exposure to violence, displacement history and recent contact with refugees. In contrast to Hartman and Morse (2018), their results suggest that exposure to conflict and the experience of displacement do not significantly influence attitudes toward hosting refugees. Previous contact with the refugee population, however, is positively correlated with attitudes towards them.

2.1 Contributions

This study builds on these recent findings to investigate hosting dynamics in Eastern DRC, and aims to contribute to the above literatures in several ways.

First, this study uses detailed individual-level data to study the determinants of hosting *internally displaced people*. Hartman and Morse (2018) and Ghosn et al. (2019), in contrast, study the determinants of hosting refugees, individuals displaced due to violence that have crossed a national border. Making the distinction is important. First, IDPs account for the majority of the globally displaced population. Second, the hosting dynamics may be different because host and hosted populations come from the same country.

Second, this study contributes through replication. Hartman and Morse (2018) and Ghosn et al. (2019) build on data from Liberia and Lebanon, respectively. The data for our study will be collected from the South-Kivu province of Eastern DRC. This area, as we will discuss in the next section, is a particularly relevant context to study questions related to violence and displacement.

The third contribution relates to measurement. To measure hosting dynamics, Hartman and Morse (2018) build on respondents' self-reported information on size of the hosted family and duration of hosting. Ghosn et al. (2019) also build on surveys to measure their outcome variables. Specifically, they capture attitudes towards support for hosting refugees, building on three questions: 1) how much a respondent supports the Lebanese government's decision to host refugees, 2) whether the respondent would be willing to hire a refugee, 3) or allow their child to marry a refugee. In contrast, this study does not build on self-reporting of hosting or attitudes towards hosting, but is able to capture actual hosting behavior by households.

The fourth contribution relates to empathy. Hartman and Morse (2018) suggest that conflict exposure leads to hosting via an 'empathy born of violence' mechanism; people are more likely to display empathy towards those having gone through similar experiences. The authors make use of an "empathy prime" by randomly assigning a survey module on past experience with violence immediately before or after the measurement of their dependent variable. Ghosn et al. (2019) also make use of previous war exposure as a measure of empathy. As they write (Ghosn et al. (2019, 119): "Second, we speak to the growing literature on the effects of exposure to violence on attitudes and empathy toward refugees. We do so by following standard practice and looking at a direct indicator of whether or not respondents were exposed to acts of violence historically – that is, during the Lebanese civil war (1975–90)." This study also captures respondent's experience with violence. However, in contrast to the above studies, we measure individual differences in empathy directly, by drawing on a widely-used measure derived in the psychological literature. Importantly, we build on the physiological literature and separate out affective empathy and cognitive empathy.

Finally, the findings of Hartman and Morse (2018) suggest that previous exposure to conflict may induce pro-social behavior that extends to both in- and out-groups. Yet, the literature suggests that pro-social behavior induced by conflict experience may be parochial in nature: directed towards those with whom one identifies but not to out-group members (see for instance Bauer et al., 2016,

2014; Beber et al., 2014; Choi and Bowles, 2007; Rohner et al., 2013). We will investigate whether the 'empathy born of violence' mechanism holds in the context of Eastern DRC, and if so, whether it extends to ethnic outgroups. Finding out whether hosting preferences are parochial or not has high policy value, as it may inform peace-building efforts and reconciliation processes – particularly in Eastern DRC.

3. Context and Previous Findings

The DRC has been engulfed in conflict for over two decades, a period encompassing the First and Second Congo Wars (1996-1997 and 1998-2003).[3] Despite the formal end to the war in July 2003, the country, and especially the South Kivu province where this study takes place, continue to experience conflict. Over the past years, the DRC has consistently been one of the countries with the highest number of new displacements associated with conflict. In 2018 alone, the number of IDPs increased with approximately 1,840,000.[4] The DRC is now home to the third largest population of IDPs worldwide: an estimated 3.08 million Congolese are internally displaced, about 3.5% of the population (IDMC, 2019b).

In 2012, one of the authors of this study collected data from 4,015 households in 24 randomly selected villages in the Buhavu chiefdom of South Kivu.[5] The database included detailed household-level information, including: whether a household was hosting, people's full migration histories and the socio-economic characteristics of the household. An analysis of these data (details and results can be found in the appendix) suggest that households with a history of displacement due to violence are more likely to host migrants than families who have no such history. In line with the above-mentioned studies by Bansak et al. (2016); Hartman and Morse (2018) and

[3] Both wars are described and discussed at length in, among others, Autesserre (2010), Reyntjens (2010), and Stearns (2011).
[4] 2018 data from the Internal Displacement Monitoring Centre http://www.internal-displacement.org. The DRC was home to the highest number of new displacements associated with conflict globally in 2016 and the second highest number in both 2017 and 2018.
[5] The data is publicly available: https://doi.org/10.7910/DVN/HUN3QV

Newman et al. (2015), we interpret these data to mean that empathy is a key determinant of hosting decisions.[6]

The data collection conducted in 2012, however, was not designed to directly explore the determinants of hosting behavior. As a result, data on a number of potentially important other factors influencing hosting behavior were not collected. In response, we thus take those results as suggestive evidence and return to Eastern Congo to study the determinants of hosting IDPs, among others testing the relationship between empathy and hosting directly.

4. Hypotheses

Building on the results obtained in 2012, and the literature discussed above, we set out to test the following hypotheses:

Hosting Behavior

H1: Individuals with a history of violent displacement are more likely to host internally displaced people.

H2: Individuals with a higher capacity to empathize with others are more likely to host internally displaced people.

In addition to **H1** and **H2**, we aim to test whether potential hosts are less likely to host IDPs from a different ethnic group, compared to from the same ethnic group.

Attitudes towards IDPs

While we are mainly interested in hosting behavior, our data collection also captures attitudes towards IDPs. We hypothesize that:

[6] The importance of empathy is corroborated by reports from humanitarian agencies operating in the area (see e.g. Haver, 2008; McDowell, 2008; Rohwerder, 2013). These studies indicate that the majority of IDPs in Eastern DRC are hosted by (extended) family and friends. Where IDPs are hosted by people they previously did not know, hosts indicated to be motivated by a sense of compassion and solidarity. For instance, some respondents expressed themselves as follows: "host and IDP, we are in the same boat", "love made us do it", and "it could be us tomorrow" (Rohwerder, 2013, p. 6).

H3: Individuals with a history of violent displacement are less likely to hold negative attitudes towards internally displaced people.

H4: Individuals with a higher capacity to empathize with others are less likely to hold negative attitudes towards internally displaced people.

Other Behaviors towards IDPs

In addition to hosting behavior, we collect behavioral measures regarding two additional behaviors towards IDPs.

First, respondents will play an incentive-compatible dictator game in which they can opt to share their endowment with IDPs. We hypothesize that:

H5: Individuals with a history of violent displacement are more likely to share their endowment with internally displaced people in a dictatorship game.

H6: Individuals with a higher capacity to empathize with others are more likely to share their endowment with internally displaced people in a dictatorship game.

Second, we will rent a large field in the village and provide seeds for the initial sowing. All the benefits of the field are destined for the IDPs in the village. Respondents will be asked whether they are willing to provide agricultural labor to prepare the field during a particular day. We also record whether they actually participate in this work. We hypothesize that:

H7: Individuals with a history of violent displacement are both more likely to express a willingness to provide labor and to actually provide the labor.

H8: Individuals with a higher capacity to empathize with others are more likely to express a willingness to provide labor and to actually provide the labor.

In addition to **H2**, **H4**, **H6** and **H8** we will separate out affective and cognitive empathy, and test whether cognitive empathy is a better predictor for attitudes and behavior towards IDPs.

5. Data Collection: Sampling Frame, Sample and Data Sources

5.1 Sampling Frame

Data are to be collected from September 2019 onwards in the South Kivu Province of Eastern DRC (**Figure 1**). Based on information from NGO partners, we will select an area with high levels of recent or ongoing displacement. We will organize a census of all villages within the selected area. Fifteen villages will then be randomly selected from the villages that comply with the following four criteria: 1) the village is larger than 70 households but smaller than 250 households;[7] 2) Arrival of at least two displaced households in the last three months; 3) availability of a leasable agricultural field that complies with our criteria; 4) presence of cellphone coverage (below we explain why this is important).

Figure 1. The Democratic Republic of Congo

Notes: The figure highlights the South Kivu province in the Democratic Republic of Congo.

[7] Villages with fewer than 70 households are too small to allow for the fielding of all experimental interventions for a related research project. Villages with more than 250 households tend to consist of several smaller agglomerations. In the event that large villages have to be used because of the dynamics of recent displacement, we will use a (randomly selected) smaller agglomeration within the larger village.

5.2 Data Collection Activities

For this project, each village will be visited five times. In brief, the following activities will take place during these visits:

A. This is the village census. All villages in the selected area will receive a brief visit from our field supervisor to collect basic information. After this data collection, fifteen villages will be selected (see above).
B. During visit B, the field supervisor will create, together with the village chief and other knowledgeable individuals, a list of all households and dwellings.
C. Shortly after, during visit C, enumerator teams will conduct surveys.
D. During visit D, about two weeks later, the work on the field takes place and we record which households participates.
E. During visit E, about six months later, the supervisor will return to collect information from the village chief related to hosting.

5.3 Sample and Sample Size

During visit C, we aim to conduct surveys with all the heads of households. In Congo, especially in areas with much displacement, many households live together with other households in a single dwelling. If a dwelling consists of multiple households, the survey will also be administered to the heads of these additional households. If the head of the household is absent for two consecutive days, the spouse the household head will be interviewed.

Assuming an average of about 120 dwellings per village, the survey should cover around 1,800 dwellings. We expect about 20% of dwellings to have additional households, so we expect a total of 1,800 + 360 = 2,160 households to be interviewed.

5.4 Data Sources

The study builds on two sources of data:

1. ***Household Survey*** During visit C, the household survey will be conducted. This survey will include a range of questions covering: demographics; socioeconomic characteristics; history of violent displacement; relationship with and attitudes towards IDPs; measure of empathy. The survey also contains the dictator game.

2. ***Participation Work*** During visit D, we record which households actually participate in preparing the field.
3. ***Hosting List*** During visit E, we record which households actually ended up hosting new IDPs and for how long.[8]

6. Empirical Strategy: Outcomes and Determinants

6.1 Measuring Hosting Behavior

The principal outcome for hypotheses **H1** and **H2** is whether a household hosts internally displaced people. Following standard definitions, we will identify IDPs as Congolese who were forced to leave their homes due to conflict (IDMC, 2019a; UNHCR, 2019b), and arrived in the village less than one year ago. [9]

We have one principal strategy to measure hosting behavior.

Future Hosting At the end of visit C, the field supervisor will leave a notebook and a pen with the village chief and ask him to record when IDPs enter the village; who hosts them; and over what period. To motivate village chiefs to keep recording the information about hosting practices in the village we will provide them with a cellphone and a weekly top-up of phone credit. There will also be a two-weekly phone call with each village chief. Then about six months later, during visit E, the field supervisor returns to the villages to record which households actually ended up hosting IDPs. We will also tell the chief that whatever is recorded will be verified so as to mitigate the risk of the chief manipulating the data.

In addition to our main measure, we explore two additional measures:

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[8] Depending on the availability of funding, we will conduct additional household surveys during visit E, in order to collect information about host-hosted dyad characteristics for the newly arrived IDPs (see Table 2 below).

[9] While standard definitions also consider forced displacement due to disasters and climate change, conflict is by far the main cause of internal displacement in the DRC – accounting for 96% of cases in 2018 (IDMC, 2019b). Note that the year dimension is arbitrary. For example, the definition of IDP used by IDMC and the UNHCR does not include a time dimension. See: https://www.unhcr.org/internally-displaced-people.html and http://www.internal-displacement.org/internal-displacement, respectively. We therefore conduct robustness checks with other time periods.

Current Hosting During visit C, we measure whether the household is hosting or not (**Q22** in the survey).[10] This measure will provide a snapshot of the current hosting dynamics in the village. However, some household characteristics that are correlated with hosting may be endogenous: a host family may, for example, become more emphatic after it started hosting.

Hosting List In Congo, incoming IDPs first visit the village chief to ask for permission to settle in the village, and whether the village chief has information about who in the village may be willing to host. As part of the survey during visit C, we tell respondents that we are creating a list of households that are potentially willing to host future incoming IDPs. We also tell them that we will hand over this list to the village chief. We next ask the respondent whether they are willing to sign up (**Q110**). While this is a behavioral measure as it is somewhat costly to sign up, the cost is likely to be limited and households may still present social desirability biases.

6.2 Attitudes towards IDPs

We measure attitudes towards IDPs (the dependent variable for **H3** and **H4**) by asking respondents to what extent they agree or disagree with the following seven statements.

1. IDPs are lazy (**Q92**)
2. IDPs are violent (**Q93**)
3. IDPs are trustworthy (**Q94**)
4. IDPs are involved in witchcraft / sorcery (**Q95**)
5. IDPs are good Christians (**Q96**)
6. IDPs abuse social benefits my village offers (**Q101**)
7. IDPs threaten our way of life (**Q102**)

Response options are 1) strongly disagree; 2) somewhat disagree; 3) somewhat agree; 4) strongly agree. We will construct one measure of attitudes towards IDPs by taking the simple average of respondents' score on these 7 statements.[11]

[10] This information is also indicated in the household census created during visit B.
[11] For statements that are phrased in a positive way (3 and 5), we will reverse the answer scores before taking the average.

6.3 Other behavior towards IDPs

We now discuss the outcome measures for hypotheses **H5**-**H8**. Sharing with IDPs is measured through an incentive-compatible dictator game. Respondents are presented with the following information:

> "*We would now like to play an activity with real money. [Enumerator puts the 1,500 Congolese Francs in front of respondent]. This is now your money. 1,500 Congolese Francs. If you want, however, you can give part of this money to future IDPs. You do not have to give anything. You can keep all the money if you want. You can also give part of the money to the IDPs. If you do so, then we will make sure that future IDPs that will come into this village will benefit from your contribution. How much would you like to keep for yourself? And how much would you like to give to the IDPs?*"

We then record how much the respondent wishes to keep and how much he would like to give to the IDPs. The latter will be used as a measure of sharing with IDPs (**Q109**).

Regarding agricultural labor, we provide the respondents with the following information:

> *"A few days ago, we have rented a large field in the village. The field is fertile, it is large, it is less than one-hour walk from the village center, and now it is fallow. We rented the field and we will also provide the necessary seeds for the initial sowing. However, we would like villagers to help with preparing the field. Importantly, the benefits of the field are for the IDPs only! On [date], we have a whole day planned to prepare the field."*

We will measure the willingness of respondents and their family to help IDPs by providing agricultural labor (**Q112-Q115**).

During visit D, we will further record which households helped out by providing their labor.

6.4 Measuring Violent Displacement and Empathy

There are two explanatory variables of particular interest to this study: violent displacement and empathy. We measure the history of violent displacement by asking respondents how many times they have been displaced due to violence in their lifetime (**Q40**).

We measure empathy across two dimensions: affective empathy and cognitive empathy. To do so we make use of the "Basic Empathy Scale", which consists of 20 items, of which half aim to measure affective empathy and the other half cognitive empathy. Each item is scored on a 5-point Likert scale ranging from 1 "Strongly disagree" to 5 "Strongly agree". See Jolliffe and Farrington (2006) for more information. We include the following six items in our survey:[12]

1. After being with a friend who is sad about something, I also feel sad (**Q61**)
2. I get caught up in other people's feelings easily (**Q62**)
3. I tend to feel scared when I am with friends who are afraid (**Q63**)
4. I find it hard to know when my friends are frightened (**Q64**)
5. I can often understand how people are feeling even before they tell me (**Q65**)
6. I can usually realize quickly when a friend is angry (**Q66**).

The first three statements relate to affective empathy, while the last three relate to cognitive empathy. We will construct three measures of empathy by, following Albiero et al. (2009), summing up the relevant item scores: a general measure of empathy (sum of items 1-6); a measure of affective empathy (sum of items 1-3); and a measure of cognitive empathy (sum of items 4-6).

6.5 Other Determinants

The household survey will further collect information on other potential determinants of hosting, derived from the academic literature and reports by humanitarian organizations. We separate these out by host characteristics (**Table 1**) and host-hosting dyad characteristics (**Table 2**).

[12] For logistical reasons we make use of six, rather than twenty items. The six items were chosen in order to capture a range of different emotions, while also taking into account how strongly each item was correlated with affective or cognitive empathy in previous studies by Albiero et al. (2009); D'Ambrosio et al. (2009); Heynen et al. (2016); Jolliffe and Farrington (2006); and Salas-Wright et al. (2013).

Table 1. Host Family Characteristics

Family	Measure	Q
Space	Number of rooms in the dwelling available before the IDPs arrived	Q27
Wealth	Quality of roof and walls. Asset ownership.	Q67-68, Q69-91
Social pressure	Relationship to the village chief. How often respondent meets the village chief. And the respondent's opinion about the willingness of others to host.	Q58-60, Q117
Location	GPS location. Distance from the road.	NA
Benefits	Person's beliefs about the likelihood of an NGO arriving to help displaced people. Whether IDP households can provide cheap labor.	Q103-104
Dependency ratio	Size of household + number of people younger than 15 and number of people older than 64	Q33-35
Morality	How often respondent goes to church and prays. How important respondent finds opinions and actions of church in informing daily behavior.	Q50-53
Demographic information	Gender, age, literacy and education of respondent. Whether respondent was born in the village (s)he currently resides in.	Q12, Q37, Q105-107
Group identification	Extent to which the respondent identifies with his/her ethnic group	Q97-Q100
Exposure to violence	Recent exposure to violence	Q43-Q48

Table 2. Host-Hosted Dyad Characteristics

Family	Measure	Q
History	Do they have a history of some sort? (e.g. Have the individuals ever lived in the same village before? Same professional or religious organization? Business relative? Friend?)	Q31
Relationship	Type of relationship between host and hosted family	Q30

Religion	Same type of religion. Type of local church	Q49
Ethnicity	Same mother tongue	Q41-42
Reason for hosting / being hosted	Open questions. If host: "why did you decide to host"? / Presence or absence of other family members in the village.	Q28, Q32

7. Estimation Strategy

To test the effect of violent displacement and empathy on hosting behavior we estimate the model:

$$Y_{ij} = \beta_0 + \beta_1 X_{ij} + \Gamma W_{ij} + \alpha_{village} + \varepsilon_{ij}$$

where Y_{ij} is a binary measure whether dwelling *i* in village *j* started hosting in the period between visit C and visit E.[13] X_{ij} is the independent variable of interest, being either violent displacement, or one of the three indices for empathy. W_{ij} is a vector containing other variables that may influence hosting behavior, as listed in **Table 1** and **Table** 2. We include village fixed effects to control for differences in observable or unobservable predictors across villages. That is, we effectively control for differences such as the size of the IDP inflow and the governance dynamics at the village level, which should improve statistical power (Bruhn and McKenzie, 2009). Standard errors will be clustered at the village-level to account for within-village correlation of the residuals.

Importantly, dwellings that are already hosting during visit C are likely to be less willing to host additional households. As a result, we will conduct the above analyses for all dwellings, but also on the subgroups of those dwellings that do and do not yet host other households during visit C.

A similar specification will be used to test the effect of violent displacement and empathy on the other outcome measures: attitudes towards IDPs; sharing with IDP's; and the provision of labor to help IDPs.

[13] We also estimate this equation with the other two measures of hosting behavior as dependent variables.

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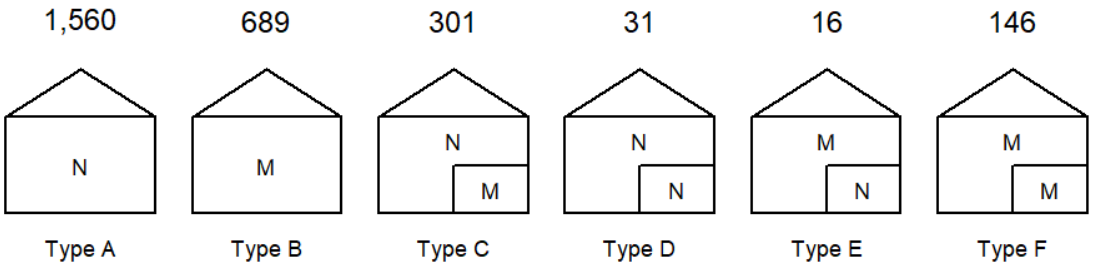
9. Appendix: Findings from 2012 Data

In 2012, data were collected in 24 villages in Congo's Buhavu chiefdom. These data have been made public and include information about 8,173 individuals across 3,493 dwellings.[14]

For that data collection, a household was defined as a migrant (M) as follows: if the head of the household was not born in the survey village and arrived less than five years ago. The complement are native households (N). It follows that host families may themselves be migrants who arrived in the village less than five years ago and have now built their own house (and are hosting other families). **Figure 2** depicts the various modalities across 2,743 dwellings from 19 villages.[15] Not surprisingly, types D and E are rare occurrences.

Figure 2. Hosting Dynamics



So which type of native families hosts migrants? To answer this question, we use the 2012 data and compare native households that host other families (type C) with those that do not (type A) along various socio-demographic characteristics.

The potential determinants of hosting that are explored are the following:

- Ever displaced: whether the native household has ever been displaced due to violence
- Wealth: the number of chickens owned
- Has fields: as a measure of wealth

[14] Link: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/HUN3QV
[15] The first five villages do not include information on wealth and we leave them out of the figure and the subsequent analyses.

- Number of houses: the number of houses owned before the migrants arrived to get at availability of space
- Relation with the chief, measured following the Hamilton index, to get at social pressure

We also control for the respondent's gender, age and whether he or she is member of the Havu ethnic group; the main ethnic group in the Buhavu chiefdom. We include village fixed effects to control for differences across villages.

Table 3 presents the results. In brief, column (1) shows that households that have had a history of violent displacement, compared to those that do not, are 6% more likely to host migrants. In column (2), we see that those that have been displaced more often are more likely to host migrants. Finally, column (3) shows the results where the variable of interest is whether the host household has ever migrated (instead of migrated due to violence). We find that hosting behavior is not driven by a history of migration in general, but by a history of migration due to conflict.

Table 3. Empathy and Hosting using 2012 Data

	(1) Native hosts	(2) Native hosts	(3) Native hosts
Ever displaced	0.062***		
	(0.020)		
Times displaced		0.030***	
		(0.010)	
Times migrated			0.004
			(0.004)
Wealth	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)
Has fields	0.008	0.008	0.003
	(0.011)	(0.011)	(0.011)
Relation chief	-0.037	-0.042	-0.037
	(0.061)	(0.062)	(0.049)
Number of houses	0.039*	0.039*	0.037*
	(0.021)	(0.021)	(0.019)
HHH male	-0.019	-0.019	-0.014
	(0.023)	(0.023)	(0.020)
HHH age	-0.000	-0.000	0.000
	(0.001)	(0.001)	(0.001)
HHH Havu	-0.006	-0.004	-0.003
	(0.027)	(0.026)	(0.027)
Village fixed effects	Yes	Yes	Yes
N	1181	1181	1384

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.