

# Limitations and Lessons Learned

## Limitations

### Non response

Non-response becomes a serious problem when the population which refuses or is unavailable for survey is dissimilar in some important way from the population which is successfully surveyed. If unaccounted for, non-response can lead to conclusions being drawn from the surveyed population which do not necessarily reflect the population as a whole. Thus, non-response weights are often employed to remove such potential bias.

While the population of people who do not respond can be investigated and adjusted for in the analysis, it is always best to minimize non-response to begin with. A complete survey will always be the most accurate and precise. Therefore, several steps were taken in the RALLY survey of Central City to minimize non-response:

- 📌 Every non-responding residence was visited multiple times.
- 📌 Incentives of \$5 gift cards to Save-a-Center were offered in completion of the survey.
- 📌 Door hangers were placed on every door visited with a toll free number to RALLY. This allowed residents to set up a convenient time to be surveyed.
- 📌 Proxies were used to verify if the residence was inhabited or uninhabited.

Despite these measures, only 26.4% of the sampled households responded to the survey (Table J).

**Table J: Sampled residences by response group**

Response group		Number	Percent of Sample
Successfully Surveyed		218	26.4%
Non-Response	Refused to be surveyed	175	21.2%
	No response/unavailable	432	52.4%
<i>Total</i>		<i>825</i>	<i>100%</i>

Therefore, an investigation into the ways that this non-responding population differed from those successfully surveyed was carried out. Proxy information about non-responders, collected from their neighbors, revealed that non-response was significantly associated with being African American. Thus, these households weighed more heavily in the analysis than non-African American households. The “Methodology” section of this report (Annex A) details the analysis of non-response and construction of the non-response weights.

Due to the lack of a pre-existing sampling frame for Central City, there was no pre-existing data on non-responding households, and the limited demographic/socioeconomic data that was collected by proxy (from neighbors) *was not collected for all non-responding residences*. Therefore, the ethnic composition of the non-response group is an estimate, and the weights constructed with respect to this estimate constitute a potential source of error which is currently unaccounted for in the survey analysis.

### Female headed households

Female headed households are commonly targeted as a beneficiary group in post-disaster settings due to their higher vulnerability. However, the RALLY Central City survey instrument did not specifically collect the gender of heads

of household. Rather, the gender of all adults in the household was collected with no designation for the head of household. It is therefore impossible to classify any given household as female-headed unless every adult in the household happened to be female.

Thus, the vulnerable group identified in this report as “female-headed households” are technically *households in which all adults are female*. The set of households which are female-headed but have at least one adult male are not included in this vulnerable group as they could not be distinguished. It is assumed that they are similarly vulnerable, as the adult males will often be dependants.

### Clusters

In the design of this survey, clusters were formed based on rough estimates of their population size. The cluster boundaries were drawn without respect to census blocks and block groups. This lack of agreement between sampling units means that a more detailed comparison to the 2000 census aggregated at the block group level is not possible.

Furthermore, despite clusters being chosen at random, a large section of Central City east of Felicity St. was not sampled. Though the gap was due only to chance, it impacts the confidence this report can have in applying its estimates to this part of the neighborhood, particularly with regard to the Maps in Annex C. In these maps, estimates made east of Felicity St. must be regarded with significantly reduced confidence due to the low sampling in the area.

## Lessons Learned

### Non-response

- 📌 Incentives can potentially be used to decrease refusals.
- 📌 A good sampling frame should be used if available. Reliable sampling frames are probably not available for most areas of New Orleans right now.
- 📌 Instead of sampling all households within each cluster, surveyors could focus more intensely on a sub-sample. Visiting fewer houses more often and at varying times of the day could reduce non-response.
- 📌 Using community members as guides and/or data collectors may improve response rates.
- 📌 When working without a sampling frame, every effort should be made to collect a *complete* set of proxy demographic/socioeconomic data on non-responding households. This will help minimize the error in estimating probabilities response within demographic/socioeconomic response classes.
- 📌 When little is known about the non-response group, or when proxy data is incomplete, more sophisticated imputation techniques should be explored in order to estimate the error in calculating the probability of response, and incorporate this error into confidence intervals for statistics.
- 📌 Ultimately, non-response can be very high in New Orleans neighborhood assessments like this. When it is, non-response weighting should be considered in order to account for varying response probabilities. Household characteristics for weighting must be (a) associated with non-response, and (b) associated with variables of interest in the overall analysis.

## Female headed households

- Specific information on the head of household should be collected, including gender.

## Clusters

- Cluster boundaries should be created with respect to US census block groups.
- Selection of clusters should be stratified in such a way to ensure sufficient sampling within each census block group, thus allowing for comparison to census figures at both the neighborhood and block-group level, and ensuring relatively good coverage of the entire neighborhood.