Ghana - Feeder Roads 2009

NORC at the University of Chicago, Pentax Management Consultancy Services

Report generated on: June 11, 2015

Sampling

Sampling Procedure

In the present application, the approach that is being used, in lieu of randomization, to select a control sample is statistical matching. A matched-pairs design was used, matching 174 (154 plus 20 replacements) treatment localities to 174 control localities using nearest-neighbor matching. Sampling was restricted, as mentioned earlier, to localities having population 1,000 or more (according to the 2000 Census) and to the 20 largest localities in each district.

The treatment population included all localities within 120 minutes estimated travel time of the nearest MiDA program road, and the control population included all localities located more than 120 minutes estimated travel time from the nearest MiDA program road. (The estimated travel times were calculated using a GIS model of the Ghana road network (documented separately).) This resulted in resulted in population sizes of 675 treatment units and 848 control units. Sampling was restricted to all of the country except Western Region.

Matching was based on a number of variables, including population, travel time to Accra, travel time to the nearest MiDA feeder road, and physiographic data.

The sample localities occur at all distances from the program roads, since it was desired to have substantial variation in the travel time to the program roads.

Because of the sample design process, the sample has reasonable spread, balance and orthogonality for a large number of design variables. Also, the sample includes a control sample for which the units are individually matched to units in the treatment sample. The sample will be a very good one for use in estimating an analytical model showing the relationship of program impact (price changes) to the Ghana MiDA feeder-road improvements, and for estimating a double-difference estimate of program impact.

Deviations from Sample Design

Of the 308 sampled localities only one locality was removed from the sample because we were unable to locate it. This locality, Choo #0155, was not located and was removed along with its matching pair, Sabiye #0159. These localities were replaced with Suame #0812 and Ogbodzo #1264. All other localities were located and surveyed.

Weighting

No weighting is used in the dataset.

Questionnaires

Overview

During the initial visit the NORC FM identified a subset of items on the GLSS surveys to identify and price in the market. This initial pricing and observation allowed for a detailed understanding of the impediments interviewers may encounter during data collection. After observing local conditions the NORC FM met with his counterparts on the local subcontractor team (Pentax Management and Consulting) to carry out an item by item review of the GLSS survey. Through this review NORC and Pentax were able to refine the GLSS survey to meet the needs of the current study. Standard weights and product types were identified for the majority of products, non important items were deleted in order to reduce the time of the survey, and possible fielding issues were discussed with resolutions identified.

The three questionnaires are attached to this document - one for the pricing of goods, one for the pricing of tariff and passenger costs, and one for collecting information on the locality.

Data Collection

Data Collection Dates

Start	End	Cycle
2009-08-12	2009-09-07	N/A

Data Collection Mode

Face-to-face [f2f]

DATA COLLECTION NOTES

Pentax, with the oversight of NORC, was responsible for advertising, interviewing, and hiring of all interviewing and data entry team members. To the maximum extent possible, Pentax drew on its roster of field interviewers and supervisors with whom it has previously worked in order to ensure the highest level of field staff quality. Training was conducted from August 3 - August 7, 2009 at Ange Hill Hotel in Accra. The NORC FM and Pentax FM led the training sessions which were attended by 25 interviewers. Of these interviewers, 24 completed the training satisfactorily with 1 interviewer not invited to participate in the full data collection. MiDA staff attended each day of training and supported the NORC/Pentax staff when needed. In addition to classroom exercises, the interviewers conducted a short pre-test of the survey protocols in Winneba and Swedru. Additional ad-hoc training was conducted on August 10 and August 11, 2009.

There were 4 field teams composed of 16 interviewers, 4 associate field supervisors, and 4 field supervisors for a total of 24 field staff. Supervisors were responsible for data editing before marking a survey as complete.

Field work was carried out from August 12, 2009 through September 7, 2009 in nine Ghanaian regions: Upper East, Upper West, Northern, Brong-Ahafo, Ashanti, Volta, Central, Eastern, and Greater Accra. Our sample was distributed across regions with an equal amount of treatment and control groups composing a total of 308 localities. During the first week of data collection, the NORC FM, Pentax FM, and MiDA supervisor visited each field team. Issues identified during the fieldwork phase can be found in section 3 of the “Phase 1, Baseline Findings Report” (attached), as can a detailed description of field procedures.

Data Collectors

Name	Abbreviation	Affiliation
Pentax Management and Consulting	Pentax	

SUPERVISION

There were 4 field teams composed of 16 interviewers, 4 associate field supervisors, and 4 field supervisors for a total of 24 field staff. Supervisors were responsible for management and oversight, and for data editing before marking a survey as complete.
During the first week of data collection, the NORC FM, Pentax FM, and MiDA supervisor visited each field team. Issues identified during the fieldwork phase can be found in section 3 of the “Phase 1, Baseline Findings Report” (attached).
Following the first week, the Pentax FM was in continuous contact with the field teams as well as the NORC FM. All identified issues were handled appropriately to ensure high quality and a successful conclusion to the data collection period.

Data Processing

Data Editing

Data editing was done in the field by supervisors, and double data entry was carried out by Pentax. After receiving data from Pentax, NORC assisted with reconciliation between the first and second entries. After reconciling the data, NORC carried out significant data cleaning, including some imputation of values for missing observations. For a detailed explanation of data editing and cleaning, please refer to the attached “Phase 1, Baseline Findings” report. For the raw dataset receioved by NORC from Pentax, see the attached "Raw Data". For SPSS scripts detailing cleaning done on the dataset, see "SPSS Scripts".

Data Appraisal

No content available

Related Materials

Questionnaires

Market Survey 1 Price Questionnaire

Title	Market Survey 1 Price Questionnaire
Author(s)	NORC
Country	Ghana
Language	English
Filename	questionnaire-gha-mrktsurvey1-price-2009.pdf

Market Survey 1 Questionnaire

Title	Market Survey 1 Questionnaire
Author(s)	NORC
Country	Ghana
Language	English
Filename	questionnaire-gha-mrktsurvey1-tariff-2009.pdf

Reports

Baseline Report

Title	Baseline Report
Author(s)	NORC
Country	Ghana
Language	English
Filename	baselinereport-gha-feederroads-phase1-v6-sep10.pdf

Evaluator Inception Report

Title	Evaluator Inception Report
Author(s)	NORC
Country	Ghana
Language	English
Filename	InceptionReport-Feeder Roads-FNL2.pdf

Technical documents

Power Calculations

Title	Power Calculations
Author(s)	NORC
Country	Ghana
Language	English
Filename	newpowercalcs-gha-ag-feederroads-gc-feb11.pdf