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Basic Information Document

***Nigeria
National Longitudinal Phone Survey (NLPS)
Phase 2***

**Version 3
(November 2022)**

ACRONYMS

BMGF	Bill and Melinda Gates Foundation
CATI	Computer Assisted Telephone Interview
DECDG	World Bank's Development Data Group
GHS-Panel	General Household Survey-Panel
LSMS-ISA	Living Standards Measurement Study – Integrated Surveys on Agriculture
NBS	National Bureau of Statistics
NLPS	National Longitudinal Phone Survey
WB	World Bank

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1.0 Introduction

The purpose of this document is to provide detailed information on Nigeria National Longitudinal Phone Survey (NLPS) Phase 2 implemented by the National Bureau of Statistics (NBS) from November 2021. The Nigeria National Longitudinal Phone Survey (NLPS) is a high-frequency phone survey of households, which was initially designed to follow the same households over time making it a powerful tool for studying and understanding the socio-economic impact of the COVID-19 pandemic in Nigeria.

From April 2020 to April 2021, the NBS has successfully implemented the [Nigeria COVID-19 NLPS Phase 1](#) with technical support from a World Bank team from the Development Data Group (DECDG) and the Poverty and Equity Global Practice. In Phase 1, the NBS conducted 12 rounds of monthly phone interviews with over 1,700 households that were selected from the General Household Survey-Panel (GHS-Panel) 2018/19. The extensive information collected in the GHS-Panel just over a year prior to the pandemic provided a rich set of background information on the Nigeria NLPS households which can be leveraged to assess the differential impacts of the health crisis in the country.

The objective of the Nigeria NLPS Phase 2¹ is to monitor in real-time how the Nigerian households are coping with national and global crises and their effects on the welfare and livelihoods of the households. The households in the Phase 2 are drawn from the sample of households interviewed in GHS-Panel 2018/19 including those interviewed during the Phase 1. This survey has become a flexible tool that contributes to filling critical gaps in information that could be used by the Nigerian government and stakeholders to help design policies to mitigate the negative impacts of the COVID-19 pandemic, the oil prices crises, inflation and global value chain crises, among others. The Nigeria NLPS Phase 2 is designed to accommodate the evolving nature of the crises, including revision of the questionnaire on a bi-monthly basis.

2.0 Sample and Weights

2.1 Survey Sample

Wave 4 of the GHS-Panel conducted in 2018/19 served as the frame for the Nigeria NLPS surveys. The GHS-Panel sample includes 4,976 households that were interviewed in the post-harvest visit of the fourth wave in January/February 2019. This sample of households is representative nationally as well as across the 6 geopolitical Zones that divide up the country. In every visit of the GHS-Panel, phone numbers are collected from interviewed households for up to 4 household members and 2 reference persons who are in close contact with the household in order to assist in locating and interviewing households who may have moved in

¹ The Phase 2 is the result of a partnership between the National Bureau of Statistics (NBS), United States Agency for International Development (USAID) Nigeria Mission, the World Bank (Development Data Group, Poverty and Equity Global Practice, and Job's Multi Donor Trust Fund) and the Global Financing Facility for Women, Children and Adolescents (GFF).

subsequent waves of the survey. This comprehensive set of phone numbers as well as the already well-established relationship between NBS and the GHS-Panel households made this an ideal frame from which to conduct the NLPS in Nigeria.

Among the 4,976 households interviewed in the post-harvest visit of the GHS-Panel in 2019, 4,934 (99.2%) provided at least one phone number. Around 90 percent of these households (4,440) provided a phone number for at least one household member while the remaining 10 percent only provided a phone number for a reference person. For the second phase of the NLPS, all 4,440 GHS-Panel households with household member contact details were included in the sample to be contacted². Based on the response rate in the first phase of the NLPS of 65 percent, this was expected to yield an interviewed sample of nearly 2,900 households that is both nationally representative as well as representative of urban and rural areas of the country.

All 4,440 households were contacted in the first round of this second phase of the NLPS. Table 2-1 presents the interview result for the second phase sample. 71 percent of sampled households were successfully contacted. Of those contacted, 93 percent or 2,922 households were fully interviewed. These 2,922 households constitute the final successful sample and will be contacted in subsequent rounds of the survey. Among those household that were contacted, only 121 refused to be interviewed (about 4% of successfully contacted households). Among the sample of households who were not successfully contacted, the predominant reason for noncontact was that the phone was switched off at every attempt (18% of all households). Wrong numbers and non-existent numbers were also present but less common affecting only 4.8 and 2.5 percent of sampled households while for 2.6 percent of households the phone was ringing (and thus an active line and phone) but no one was answering.

Table 2-1: Result of Interview		
	# of households	% of overall sample
Total Sample	4,440	100.0
Contacted	3,132	70.5
Complete	2,922	65.8
Partially Complete	68	1.5
Refused	121	2.7
Language barrier	21	0.5
Not contacted	1,308	29.5
Nobody answering	115	2.6
Number does not exist	110	2.5
Phone turned off	798	18.0
Wrong number (don't know the household)	213	4.8

² This included the sample of households from the first phase of the NLPS who had household member contact details (2,701 of 3,000).

Reference person can't connect to household	72	1.6
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2.2 Survey Weights

In order to produce national estimates from the successfully interviewed sample, weights must be applied to the information provided by sampled households. Weights for the GHS-Panel serve as the basis for the Nigeria NLPS surveys, but the weights must be adjusted to reflect the selection and interviewing process. The weights for the Nigeria NLPS were calculated in several stages.

1. Begin with the GHS-Panel full sample household weights.
2. Apply an adjustment factor for the **selection into the frame** (GHS-Panel households that have contact details for a household member). A ratio adjustment was applied at the Zone-level (the strata for the GHS-Panel) to preserve the sum of household weights within each Zone between the full GHS-Panel sample and the NLPS frame.
3. Apply an adjustment for **selection into the NLPS sample**. The adjustment is a simple expansion factor that is the inverse of the selection probability from the frame for each sampled unit.
4. Apply an adjustment factor for **non-contact of sampled households**. This was again performed with a ratio adjustment at the Zone-level.
5. Apply an adjustment factor for **non-response of contacted households** through a ratio adjustment at the Zone-level.
6. **Calibrate the weights** (following adjustments 2-5) according to the properties of the full weighted GHS-Panel sample. This calibration step adjusts the weights such that the estimates obtained from the final NLPS sample will match the weighted means of the full GHS-Panel sample for specified characteristics. The calibration was performed using only information obtained from the GHS-Panel interview and thus will only reflect changes in the sample composition and not changes over time. The calibration applied here aims to correct for selection bias that is introduced at any point between identification of the frame and the final successfully interviewed sample. Selection bias is of particular concern in phone surveys since some segment of the population does not have access to a phone and there are more difficult barriers to successfully reach and interview households over the phone. The calibration was applied using the *ReGenesees*³ package in R. The characteristics included in the calibration were numerous, reflecting different dimensions of household socioeconomic status that were correlated with nonresponse⁴.

³ Zardetto, Diego. "ReGenesees: an advanced R system for calibration, estimation and sampling error assessment in complex sample surveys." *Journal of official statistics* 31.2 (2015): 177-203.

⁴ Characteristics include consumption expenditure, household size sex of household head, marital status of the household head, age of the household head, education of the household head, working status of the household head, asset ownership, access to electricity, improved water source, improved sanitation facilities, access to financial services, land ownership, agricultural activities, as well as demographic breakdown according to sex and 8 age groups (0-6, 7-14, 15-24, 25-34, 35-44, 45-54, 55-64, and 65 years and older).

The weights were also applied to the total number of households in the population given by the GHS-Panel weights.

7. **Trim the weights.** Outlier weights were trimmed at the 1st and 99th percentiles using the *ReGenesees* package in R which adjusts the weights to given bounds while minimizing the deviation from the estimates obtained from the calibration in step 6.

In subsequent rounds of the survey, steps 4, 5, and 6 will be applied to the final baseline weights.

Table 2-2 below presents a selection of weighted and unweighted estimates across the different samples. Following the weighting adjustments and calibration, the weighted estimates obtained from the GHS-Panel and NLPS samples match very closely all shown dimensions.

Table 2-2: Sample Composition*					
Characteristic	GHS		Phone sample		
	Unweighted	Weighted	Initial sample (unweighted)	Interviewed Sample	
				Unweighted	Weighted
Sample size	4,976	-	4,440	2,922	-
Characteristics					
Rural (%)	68.0	68.6	65.5	59.9	68.6
Average household size	5.3	5.5	5.4	547.1	552.8
Female head (%)	20.1	18.6	18.9	17.4	18.6
Age of head	49.8	48.8	49.3	49.4	48.7
Head Literate (%)	72.8	74.4	76.6	81.0	74.4
Education level of head					
None	36.5	37.5	31.9	26.7	37.4
Primary	24.6	24.1	25.6	25.2	23.8
Secondary	22.1	22.5	23.9	26.0	22.8
Tertiary	16.7	16.0	18.6	22.1	16.0
Asset ownership (%)					
Mobile phone	76.9	76.0	82.7	86.7	76.0
Television	45.5	45.1	49.9	55.9	45.1
Refrigerator	18.0	17.3	20.0	23.5	17.3
Car	9.8	9.6	10.9	12.9	9.6
Bicycle	14.7	15.7	14.6	13.9	15.7
Generator	26.2	24.6	28.9	32.3	24.6
Other household characteristics (%)					
Improved sanitation facility	58.1	60.2	61.1	67.2	60.2
Improved water source	76.1	76.5	78.3	82.6	76.5
Electricity	54.5	55.4	58.9	64.5	55.4
Household owns any land	66.5	66.9	65.2	62.6	66.9
Household practices crop farming	69.5	69.9	68.1	65.0	69.9
Household owns any livestock	47.9	46.9	46.7	45.2	46.9

* Based on information from the GHS only.

3.0 Training of Interviewers for the Survey

Personnel were selected from the pool of NBS interviewers that have experience with the Survey Solutions platform and have previously conducted phone surveys. Prior to the start of every round of the survey, a group of main interviewers, callback interviewers, and supervisors were trained virtually (over Skype) to conduct the survey. The trainings lasted 2-3 days and focused on providing participants with detailed understanding of the survey and the Computer Assisted Telephone Interview (CATI) techniques, elucidation of important concepts and questions in the questionnaire. The trainings were led by the World Bank team with additional inputs provided by the NBS coordinators. Following the training, the interviewers carried out mock interviews in order to become more familiar with the questionnaire and interviewing techniques before interviewing respondents. After the mock interviews, a 1-day pilot was conducted with households retired from the GHS-Panel sample. Each interviewer conducted around 4 interviews during the pilot. The survey materials (presentations, manual, questionnaire and Survey Solutions assignments) were sent to trainees prior to the start of the trainings. This was to ensure that they become familiar with the materials and also have a smooth training.

4.0 Field Work

4.1 Organization of Fieldwork

Data were collected by trained NBS interviewers who individually made phone calls either from a dedicated call centre established in NBS headquarters or from their respective homes. Interviewers were allowed to make calls from home due to capacity constraints in the call centre as well as social distancing measures undertaken in the office. While interviewers would occasionally meet in the office, most correspondence with the interviewers was made through WhatsApp, phone and emails.

4.2 Gift to Households

As a show of appreciation for the households' participation, all households that gave consent to be interviewed, were transferred 1000 Naira credit to their phones (even if their interviews are only partially completed). The transfers are made to successfully interviewed households in every round. Since some of the sampled households do not have personal phone numbers, they were interviewed via a reference person's phone. These reference persons were also credited 1000 Naira credit to their phones when the households are successfully interviewed via their phones.

4.3 Pre-loaded Information

Basic information on every household was pre-loaded in the CATI assignments for each interviewer. The information was pre-loaded to (1) assist interviewers in calling and identifying the household and (2) ensure that each pre-loaded person is properly addressed and easily matched to the most recent interviews. Basic household information (location, household head name, phone number, etc.) was pre-loaded. The list of individuals from the previous interview

and their basic characteristics were uploaded. This helped maintain the panel of individuals and ensured the status of each individual in the subsequent round of the survey.

4.4 Respondents

Each round of the Nigeria NLPS Phase 2 has ONE RESPONDENT per household. The respondent was the household head or a knowledgeable adult household member. The respondent must be a member of the household. Interviewers were instructed to make every effort to reach the same respondent in subsequent rounds of the survey, in order to maintain the consistency of the information collected. However, in cases where the previous respondent was not available, interviewers would identify another knowledgeable adult household member to interview.

4.5 Data Monitoring and Evaluation

As an additional aid to ensuring good quality data, extensive monitoring was performed throughout the fieldwork for each round of the survey. Two monitoring exercises were implemented during data collection. First, Survey Solutions' audio recording functionality was activated for 25 percent of the sample. These interview recordings were audited by 3 trained monitors, though not all recorded interviewers were able to be reviewed due to personnel constraints. On a daily basis, the monitors will listen to these recordings and fill in a structured questionnaire with their observations on interviewer performance. The feedback from these audio audits are then filtered to the respective interviewers.

The second quality check implemented were call backs to contacted households. The call backs were conducted by trained interviewers who are not part of the main data collection interviewers. Each day, up to 36 households that were contacted by the interviewing team are called by these call back interviewers. The call back interviewers conduct a short interview with the household to confirm that the interviewer did indeed conduct the interview, that certain key elements were clearly stated to the respondent, that the interviewer conducted themselves in a professional manner, and other details on the interview process. Further, the call back team asked several time-invariant questions of the respondent to further confirm the interview was fully conducted and the interviewer captured the information correctly. Feedback from call backs were routed to the respective interviewers to improve on identified areas. Further, the call back interviewers also called households that were not successfully contacted by the main interviewer. In some cases, the call back interviewer was able to reach the household. In such cases, the case was sent back to the interviewer to conduct the interview.

As a result of these quality checks, some of the interviewers were dropped from participating in the survey. There were also regular check-ins to address questions and issues the interviewers might have.

5.0 Data Management

5.1 Computer Assisted Telephone Interview (CATI)

The Nigeria NLPS exercise was conducted using Computer Assisted Telephone Interview (CATI) techniques. The household questionnaire was implemented using the CATI software, Survey Solutions. The Survey Solutions software was developed and maintained by the Data Analytics and Tools Unit within the Development Data Group (DECDG) at the World Bank. Each interviewer was given two tablets, which they used to conduct the interviews. Overall, implementation of survey using Survey Solutions CATI was highly successful, as it allowed for timely availability of the data from completed interviews.

5.2 Data Communication System

The data communication system used in the Nigeria NLPS Phase 2 was highly automated. Each interviewer was given a mobile modem allowing for internet connectivity and daily synchronization of their tablet. This ensured that head office in Abuja has access to the data in real-time. Once the interview is completed and uploaded to the server, the data is first reviewed by the Supervisors, and then routed for call back or audio audit if selected. A feedback questionnaire was also designed in Survey Solutions where interviewers receive respective feedback on their tablet from the various monitoring stages. This activity is done on a daily basis throughout the duration of the data collection.

5.3 Data Cleaning

The data cleaning process was done in three main stages. The first stage was to ensure proper quality control during the fieldwork. This was achieved in part by incorporating validation and consistency checks into the Survey Solutions application used for the data collection and designed to highlight many of the errors that occurred during the fieldwork.

The second stage cleaning involved the use of Supervisors in Survey Solutions. As indicated above, once the interview is completed and uploaded to the server, the Supervisors reviewed completed interviews for inconsistencies and extreme values. Depending on the outcome, they can either approve or reject the case. If rejected, the case goes back to the respective interviewer's tablet upon synchronization. The supervisor will provide general and question-specific comments when rejecting a particular completed interview. These errors were then corrected based on another call to the household on the instruction of the supervisor. The data that had gone through this first stage of cleaning and has no issues is then approved by the Supervisor.

The third stage of cleaning involved a comprehensive review of the final raw data following the first and second stage cleaning. Every variable was examined individually for (1) consistency with other sections and variables, (2) out of range responses, and (3) formatting. Some minor errors remain in the data where the diagnosis and/or solution were unclear to the data cleaning team.

5.4 Confidential Information

For purposes of maintaining the confidentiality of the data, all names, phone numbers, and addresses have been removed from the datasets.

6.0 Using the Data

6.1 File Structure

The data should always be used in conjunction with the questionnaire and the interviewer's instruction manual. Where there are no issues of confidentiality, all the variables from the questionnaire have been included in the data sets. In some cases, there is an additional variable which contains the "other specify" information that was written in the questionnaire. So, for example, the other specify variable will be indicated with an "_os" attached to the variable name such as q5_os containing the "other specify" information for a variable q5.

Every effort was made to keep question numbers (and thus variable names) as consistent as possible through different rounds of the survey. If questions were dropped in previous round, the numbering was preserved. If questions were added in the middle of a section, a letter was added to the question number at that space in the sequence (e.g. if added before question 2, the question number would be 2a). This was done to make utilization of the data sets across the rounds as consistent as possible.

6.2 Merging Datasets

All datasets contain a variable (*hhid*), which is a unique identifier for the household. This variable is used as the unique key variable in the merging of all household type datasets. In some of the other types of datasets, additional key variables may be required in the merging process. In the case of individual type files, the variable that uniquely identifies the individual in the household is *indiv*. In order to merge any two individual type files, both the variables *hhid* and *indiv* would be used.

Since the Nigeria NLPS is a panel survey, the datasets from every round can be merged including those from the Phase 1. Additionally, since the GHS-Panel 2018/19 served as the frame for the Nigeria NLPS survey, the Nigeria NLPS datasets can be merged with the GHS-Panel datasets. The household's unique key variable (*hhid*) is used to merge the household type datasets and the individual's unique key variables (*hhid* and *indiv*) are used to merge any individual type files. New individuals added in the Nigeria NLPS Phase 1 will be identified with an *indiv* greater than 100, and those added in the Nigeria NLPS Phase 2 will be identified with an *indiv* greater than 1300. It will not be possible to merge these newly added individuals with the GHS-Panel data.

7.0 Survey Rounds

7.1 Baseline (Round 1)

7.1.1 Overview

The Nigeria NLPS Phase 2 Baseline (Round 1) was administered between November 29, 2021 and January 16, 2022. A total of 29 main interviewers, 3 call back interviewers, 4 supervisors and 1 lead supervisor conducted the survey. 4,440 households selected from the GHS-Panel Wave 4 sample were contacted, with 2,922 of those being fully successfully interviewed. More details on the contact/response rates can be found in section 2.1 above.

7.1.2 Weights

Details on the construction of the phase 2 round 1 weights are presented in Section 2.2 above. The weights are located in the household-level data file (*p2r1_sect_a_2_5_6_9a_12.dta*) under the variable name *wt_p2round1*.

7.1.3 The Survey Instruments

The Nigeria NLPS Phase 2 Baseline (Round 1) consists of one questionnaire. The **Household Questionnaire** was administered to all households in the sample.

Household Questionnaire: The Household Questionnaire provides information on demographics; access to health services; employment and non-farm enterprise; and COVID-19 vaccine.

The contents of questionnaire are outlined below.

Table 7-1: Nigeria NLPS Phase 2 Baseline (Round 1) Questionnaire

Section	Topic	Description
A	Cover	Household identifiers and interviewer identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, reason for leaving the household if left, current school attendance, and reason for not attending school
5	Access to Health Services	Household's health insurance, access to health services, reason for not being able to access the services, place where the services were received, out-of-pocket expenses, satisfaction with the services received
6	Employment (respondent) and Non-Farm Enterprise	Status in employment, why currently not working, job search, actual job; family business/non-farm enterprise, sector of family business, challenges faced by the business due to the coronavirus, changes made in the way business is conducted due to the coronavirus

Section	Topic	Description
9a	COVID-19 Vaccine	Source of information, vaccination status, reason for getting vaccinated, reason for not getting vaccinated, vaccine hesitancy, opinion against vaccine mandates
12	Interview Results	Result of interview including observation notes by interviewer regarding the interview, respondent and language of interview

7.1.4 Description of Datasets

These modules were administered in the Nigeria NLPS Phase 2 Baseline (Round 1) survey.

- Household Roster
- Access to Health Services
- Employment and Non-Farm Enterprise
- COVID-19 Vaccine

Table 7-2 shows the datasets and their corresponding sections of the Questionnaire.

Table 7-2: Nigeria NLPS Phase 2 Baseline (Round 1) Datasets

Dataset Filename	Section(s)	Section Name(s)
p2r1_sect_a_2_5_6_9a_12	A, 2, 5, 6, 9a, 12	Cover, Household Roster Update, Access to Health Services, Employment, Non-Farm Enterprise, COVID-19 Vaccine, Interview Results
p2r1_sect_1	1	Interview Information
p2r1_sect_1b		
p2r1_sect_2	2	Household Roster Update
p2r1_sect_5	5	Access to Health Services

7.2 Round 2

7.2.1 Overview

The Nigeria NLPS Phase 2 Round 2 was administered between January 29 and February 14, 2022. A total of 30 main interviewers, 3 call back interviewers, 4 supervisors and 1 lead supervisor conducted the survey.

7.2.2 Sample

Interviewers attempted to contact and interview all 2,922 households that were successfully interviewed in the baseline (round 1) of the NLPS Phase 2. As shown in Table 7-3, 2,797 households (95.7% of the 2,922 attempted) were contacted and 2,750 (94.1%) were successfully interviewed in the second round. Of those contacted, 36 households refused outright to be interviewed and 10 were partially interviewed.

Table 7-3: Nigeria NLPS Phase 2 Round 2 Result of Interview		
	# of households	% of overall sample
Total Sample	2,922	100.0
Contacted	2,797	95.7
Complete	2,750	94.1
Partially Complete	10	0.3
Refused	36	1.2
Language barrier	1	0.0
Not contacted	125	4.3
Nobody answering	39	1.3
Number does not exist	0	0.0
Phone turned off	69	2.4
Wrong number (don't know the household)	6	0.2
Reference person can't connect to household	11	0.4

The second round of the NLPS Phase 2 also included individual-level data collection on the migration history of household members⁵. For the migration module, information on adult (15 years or older) members of the household was targeted, including respondents that fall into this age range. However, information was not captured for all adult members. In order to limit the burden for respondents and interviewers in cases where the number of adult members is large, a maximum of 6 household members were selected (in addition to the main respondent) to capture information on migration. Therefore, for households with less than 6 adult members, all eligible members were included. However, 93 percent of interviewed households had 6 or less adult members and only 7 percent had more than six. For the 7 percent with more than 6 adult members, 6 members were randomly selected from among the pool of eligible members. The selection was stratified by sex with an equal split of 3 male and 3 females was targeted, depending on the pool of eligible males and females. However, the application of selection as relatively rare. Of 7,653 adult members of the household in round 2 (excluding the main respondent), information was collected on 7,058 or about 92.2 percent of eligible individuals. In addition, 2,750 main respondents were interviewed bringing the final sample of adult members with migration information to 9,808.

7.2.3 Weights

In Round 2, several different weights are provided: one at the household-level and three at the individual-level. The household weights are the same as was provided in previous round. For the

⁵ Although interviewers made attempts to collect migration information directly from each individual selected, it proved exceedingly difficult to do so. As a result, only 34.6% of individual responses were obtained from the actual individual in question with the remaining 65.4% being collected via proxy (typically provided by the main respondent).

household weights, the baseline (round 1 of phase 2) weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4, 5 and 6). The round 2 household weights can be found in the household-level data file (*p2r2_sect_a_2_2a_2b_6_12*) in the variable named **wt_p2round2**.

Given the focus on individual migration information in round 2 and the selection steps outlined above for the sample of adult members, an additional three individual-level weights were calculated and provided in the round 2 data. The individual weights for the migration module were calculated according to:

$$w_{ish} = w_h \times \left(\frac{n_{hs}}{N_{hs}} \right)^{-1}$$

Where w_{ih} is the sampling weight for individual i who is sex s (male or female) in household h , w_h is the final household level weight (i.e., **wt_p2round2**), N_{hs} is the total number of eligible adult household members (15 years or older) of sex s in household h and n_{hs} is the equivalent number of selected eligible individuals in the household. The individual weights were then calibrated to correspond to the sex and age⁶ distribution of the total adult population according to the post-harvest visit of the GHS-Panel.

The basic individual weight described above is the cross section individual weight that considers all individuals that migration information was collected on. This weight is called **wt_migr_p2r2** and can be found in the individual-level data file (*p2r2_sect_2_2a*). However, an additional two weights are provided for the panel of individuals interviewed in the GHS-Panel wave 4 and round 2 of the NLPS Phase II (i.e., excluding individuals added in any round of the NLPS). The first weight (**wt_migr_p2r2_pp_panel**) contains the weight for individuals interviewed in the *post-planting* visit of the GHS-Panel wave 4 and the second (**wt_migr_p2r2_ph_panel**) contains the weight for individuals interviewed in the *post-harvest* visit of the GHS-Panel wave 4.

7.2.4 The Survey Instruments

The Nigeria NLPS Phase 2 Round 2 consists of one questionnaire. The **Household Questionnaire** was administered to all households in the sample.

Household Questionnaire: The Household Questionnaire provides information on demographics; migration; employment; and household migrants.

The contents of questionnaire are outlined below.

Table 7-4: Nigeria NLPS Phase 2 Round 2 Questionnaire

⁶ The age groups considered in the calibration were 15-24, 25-34, 35-44, 45-54, 55-64, and 65 years or older, all further disaggregated by sex (male/female).

Section	Topic	Description
A	Cover	Household identifiers and interviewer identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, reason for leaving the household if left
2a	Migration	Place of birth, number of years lived in the current state, place the member was living before moving to the current state, reason for moving to the current state, types of migration experienced since 2000, seasonal migration in the last 12 months
2b	Household Migrants Roster	Roster of previous members of the household (persons moved away from the household in the last 10 years), relationship to the household head, gender, age, current place of living, reason for leaving the household, education level and work when the person left the household, whether the person sent money to the household in the last 12 months
6	Employment (respondent)	Status in employment, why currently not working, job search, actual job
12	Interview Results	Result of interview including observation notes by interviewer regarding the interview, respondent and language of interview

7.2.5 Description of Datasets

These modules were administered in the Nigeria NLPS Phase 2 Round 2 survey.

- Household Roster
- Migration
- Employment
- Household Migrants Roster

The migration questions in Section 2a are asked to the respondents as well as selected members of the household.

For convenience, the migration information on the respondents is duplicated and included both in the household-level data files (p2r2_sect_a_2_2a_2b_6_12 and p2r2_sect_2a) and in the individual-level data files (p2r2_sect_2_2a and p2r2_sect_2a_1).

Table 7-5 shows the datasets and their corresponding sections of the Questionnaire.

Table 7-5: Nigeria NLPS Phase 2 Round 2 Datasets

Dataset Filename	Section(s)	Section Name(s)
p2r2_sect_a_2_2a_2b_6_12	A, 2, 2a, 2b, 6, 12	Cover, Household Roster Update, Migration (respondent), Employment, Household Migrants Roster (Q0a), Interview Results
p2r2_sect_1	1	Interview Information
p2r2_sect_1b		
p2r2_sect_2_2a	2, 2a	Household Roster Update, Migration (selected household members including respondents)
p2r2_sect_2a	2a	Migration (Q13-Q15) (respondent)
p2r2_sect_2a_1	2a	Migration (Q13-Q15) (selected household members including respondents)
p2r2_sect_2b	2b	Household Migrants Roster

7.3 Round 3

7.3.1 Overview

The Nigeria NLPS Phase 2 Round 3 was administered between March 26 and April 12, 2022. A total of 23 main interviewers, 3 call back interviewers, 4 supervisors and 1 lead supervisor conducted the survey.

7.3.2 Sample

Interviewers attempted to contact and interview 2,881 households consisting of households that were successfully interviewed in the baseline (round 1) of the NLPS Phase 2 excluding 41 households that refused⁷ in Round 2. As shown in Table 7-6, 2,694 households (93.5% of the 2,881 attempted) were contacted and 2,647 (91.9%) were successfully interviewed in the third round. Of those contacted, 21 households refused outright to be interviewed and 22 were partially interviewed. Of the 2,647 successfully interviewed households, 2,575 were households that have been successfully interviewed in all three rounds of the phase 2 survey so far. These are the households that form a complete panel across the three rounds.

	# of households	% of overall sample
Total Sample	2,881	100.0
Contacted	2,694	93.5
Complete	2,647	91.9
Partially Complete	22	0.8
Refused	21	0.7

⁷ 36 households that refused outright and 5 households that refused mid-way through the Round 2 interview.

Language barrier	4	0.1
Not contacted	187	6.5
Nobody answering	36	1.2
Number does not exist	0	0.0
Phone turned off	141	4.9
Wrong number (don't know the household)	2	0.1
Reference person can't connect to household	8	0.3
Panel sample (interviewed in R1, 2 & 3)	2,575	97.3

The third round of the NLPS Phase 2 also included individual-level data collection on employment and job history of household members⁸. For the employment and job history modules, information on adult (15 years or older) members of the household was targeted, including respondents that fall into this age range. However, information was not captured for all adult members. In order to limit the burden for respondents and interviewers in cases where the number of adult members is large, a maximum of 4 household members were selected (in addition to the main respondent) to capture information on employment and job history. Therefore, for households with less than 4 adult members, all eligible members were included.

However, 90 percent of interviewed households had 4 or less adult members and only 10 percent had more than four. For the 10 percent with more than 4 adult members, 4 members were randomly selected from among the pool of eligible members. The selection was stratified by sex with an equal split of 2 male and 2 females was targeted, depending on the pool of eligible males and females. The selection of eligible household members in Round 3 was conditional to the selection conducted in Round 2 for the migration module. In that round, up to 6 household members were selected (15 years or older) to answer the migration module. However, the application of selection as relatively rare. Of 7,887 adult members of the household in round 3 (excluding the main respondent), information was collected on 5,942 or about 75.3 percent of eligible individuals. In addition, 2,665 main respondents were interviewed bringing the final sample of adult members with employment information to 8,597.

7.3.3 Weights

In Round 3, several different weights are provided: two at the household-level and three at the individual-level. The two household weights provided are cross section and panel weights. The cross section weights are applicable to the entire round 3 sample while the panel weights are only applicable to round 3 sample households that have been successfully interviewed in all three rounds of phase 2 of the survey so far. For both of the household weights, the baseline (round 1 of phase 2) weights were adjusted for noncontact and nonresponse as well as calibrated

⁸ Although interviewers made attempts to collect information directly from each individual selected, it proved exceedingly difficult to do so. As a result, only 35.4% of individual responses were obtained from the actual individual in question with the remaining 64.6% being collected via proxy (typically provided by the main respondent).

following the same procedures outlined in section 2.2 (steps 4, 5 and 6). The round 3 household weights can be found in the household-level data file (*p2r3_sect_a_2_5_6_6c_9a_12.dta*) with the cross section weights in the variable named **wt_p2round3** and the panel weights in the variable named **wt_p2round3_panel**.

Given the focus on individual employment and job history information in round 3 and the selection steps outlined above for the sample of adult members, an additional three individual-level weights were calculated and provided in the round 3 data. The individual weights for the employment and job history modules were calculated according to:

$$w_{ish} = w_h \times \left(\frac{n_{hs}}{N_{hs}} \right)^{-1}$$

Where w_{ih} is the sampling weight for individual i who is sex s (male or female) in household h , w_h is the final household level weight (i.e., **wt_p2round3**), N_{hs} is the total number of eligible adult household members (15 years or older) of sex s in household h and n_{hs} is the equivalent number of selected eligible individuals in the household. The individual weights were then calibrated to correspond to the sex and age⁹ distribution of the total adult population according to the post-harvest visit of the GHS-Panel.

The basic individual weight described above is the cross section individual weight that considers all individuals that migration information was collected on. This weight is called **wt_emp_p2r3** and can be found in the individual-level data file (*p2r3_sect_2_6b_6c.dta*). However, an additional two weights are provided for the panel of individuals interviewed in the GHS-Panel wave 4 and round 2 of the NLPS Phase II (i.e., excluding individuals added in any round of the NLPS). The first weight (**wt_emp_p2rr_pp_panel**) contains the weight for individuals interviewed in the *post-planting* visit of the GHS-Panel wave 4 and the second (**wt_emp_p2r3_ph_panel**) contains the weight for individuals interviewed in the *post-harvest* visit of the GHS-Panel wave 4.

7.3.4 The Survey Instruments

The Nigeria NLPS Phase 2 Round 3 consists of one questionnaire. The **Household Questionnaire** was administered to all households in the sample.

Household Questionnaire: The Household Questionnaire provides information on demographics; access to health services; employment; job history; and COVID-19 vaccine.

The contents of questionnaire are outlined below.

Table 7-7: Nigeria NLPS Phase 2 Round 3 Questionnaire

⁹ The age groups considered in the calibration were 15-24, 25-34, 35-44, 45-54, 55-64, and 65 years or older, all further disaggregated by sex (male/female).

Section	Topic	Description
A	Cover	Household identifiers and interviewer identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, reason for leaving the household if left, vaccination status
5f	Access to Health Services	Household's health insurance, access to health services, reason for not being able to access the services, place where the services were received, out-of-pocket expenses, satisfaction with the services received
6	Employment (respondent)	Status in employment, why currently not working, job search, actual job
6b	Employment (selected household members)	Status in employment, why currently not working, job search, actual job
6c	Job History (respondent and selected household members)	Age at first job, status in employment, industry and place of work of first job, reason for changing first job
9a	COVID-19 Vaccine	Vaccine status, when received the first shot, number of shots received, place of vaccination, reason for getting vaccinated, reason for not getting vaccinated, vaccine hesitancy
12	Interview Results	Result of interview including observation notes by interviewer regarding the interview, respondent and language of interview

7.3.5 Description of Datasets

These modules were administered in the Nigeria NLPS Phase 2 Round 3 survey.

- Household Roster
- Access to Health Services
- Employment
- Job History
- COVID-19 Vaccine

The employment questions in Section 6 and job history questions in Section 6c are asked to the respondents as well as selected members of the household.

For convenience, the information on the respondents is duplicated and included both in the household-level data file (p2r3_sect_a_2_5_6_6c_9a_1) and in the individual-level data file (p2r3_sect_2_6b_6c).

Table 7-8 shows the datasets and their corresponding sections of the Questionnaire.

Table 7-8: Nigeria NLPS Phase 2 Round 3 Datasets

Dataset Filename	Section(s)	Section Name(s)
p2r3_sect_a_2_5_6_6c_9a_12	A, 2, 5f, 6, 6c, 9a, 12	Cover, Household Roster Update, Access to Health Services, Employment (respondent), Job History (respondent), COVID-19 Vaccine, Interview Results
p2r3_sect_1	1	Interview Information
p2r3_sect_1b		
p2r3_sect_2_6b_6c	2, 6b, 6c	Household Roster Update, Employment (selected household members including respondents), Job History (selected household members including respondents)
p2r3_sect_5	5f	Access to Health Services

7.4 Round 4

7.4.1 Overview

The Nigeria NLPS Phase 2 Round 4 was administered between June 5 and June 20, 2022. A total of 23 main interviewers, 3 call back interviewers, 4 supervisors and 1 lead supervisor conducted the survey.

7.4.2 Sample

Interviewers attempted to contact and interview 2,852 households consisting of households that were successfully interviewed in the baseline (round 1) of the NLPS Phase 2 excluding 70 households that refused in previous rounds of the survey. As shown in Table 7-9, 2,646 households (92.8% of the 2,852 attempted) were contacted and 2,605 (91.3%) were successfully interviewed in the fourth round. Of those contacted, 25 households refused outright to be interviewed and 8 were partially interviewed. Of the 2,605 successfully interviewed households, 2,431 were households that have been successfully interviewed in all four rounds of the phase 2 survey so far. These are the households that form a complete panel across the four rounds.

Table 7-9: Nigeria NLPS Phase 2 Round 4 Result of Interview		
	# of households	% of overall sample
Total Sample	2,852	100.0
Contacted	2,646	92.8
Complete	2,605	91.3
Partially Complete	8	0.3
Refused	25	0.9

Language barrier	8	0.3
Not contacted	206	7.2
Nobody answering	49	1.7
Number does not exist	0	0.0
Phone turned off	148	5.2
Wrong number (don't know the household)	3	0.1
Reference person can't connect to household	6	0.2
Panel sample (interviewed in R1, 2, 3 & 4)	2,431	93.3

7.4.3 Weights

In Round 4, two different household weights are provided: cross section and panel weights. The cross section weights are applicable to the entire round 4 sample while the panel weights are only applicable to round 4 sample households that have been successfully interviewed in all four rounds of phase 2 of the survey so far. For both of the household weights, the baseline (round 1 of phase 2) weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4, 5 and 6). The round 4 household weights can be found in the household-level data file (*p2r4_sect_a_2_5_5g_6_11a_11b_12.dta*) with the cross section weights in the variable named *wt_p2round4* and the panel weights in the variable named *wt_p2round4_panel*.

7.4.4 The Survey Instruments

The Nigeria NLPS Phase 2 Round 4 consists of one questionnaire. While the **Household Questionnaire** was administered to all households in the sample, economic sentiments questions were administered to only half of the sample households (randomly selected).

Household Questionnaire: The Household Questionnaire provides information on demographics; access to health services; petrol; employment; credit; and economic sentiments.

The contents of questionnaire are outlined below in Table 7-10.

Table 7-10: Nigeria NLPS Phase 2 Round 4 Questionnaire

Section	Topic	Description
A	Cover	Household identifiers and interviewer identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, reason for leaving the household if left
5f	Access to Health Services	Access to health services, reason for not being able to access the services, place where the services were

Section	Topic	Description
		received, out-of-pocket expenses, satisfaction with the services received
5g	Petrol	Household has ever bought petrol, last time household purchased petrol, difficulties encountered when purchasing petrol
6	Employment (respondent)	Status in employment, why currently not working, job search, actual job
11a	Credit	Attempted to borrow money or applied for a loan, whether household needed a loan, from whom household borrowed or attempted to borrow money, purpose of the loan, reason why application to the loan was refused, whether household missed or stopped a payment, reason why household did not have enough money to repay the loan, reason why household did not attempt to borrow/apply for a loan
11b	Economic Sentiments	How household feels about past and future household economic situation, past and future country economic situation, past and future consumer prices, major household purchases, extreme weather shocks to household's financial status in the future
12	Interview Results	Result of interview including observation notes by interviewer regarding the interview, respondent and language of interview

7.4.5 Description of Datasets

These modules were administered in the Nigeria NLPS Phase 2 Round 4 survey.

- Household Roster
- Access to Health Services
- Petrol
- Employment
- Credit
- Economic Sentiments

Table 7-11 shows the datasets and their corresponding sections of the Questionnaire.

Table 7-11: Nigeria NLPS Phase 2 Round 4 Datasets

Dataset Filename	Section(s)	Section Name(s)
p2r4_sect_a_2_5_5g_6_11a_11b_12	A, 2, 5f, 5g, 6, 11a, 11b, 12	Cover, Household Roster Update, Access to Health Services, Petrol, Employment (respondent), Credit, Economic Sentiments, Interview Results
p2r4_sect_1	1	Interview Information

p2r4_sect_1b		
p2r4_sect_2	2	Household Roster Update
p2r4_sect_5	5f	Access to Health Services

7.5 Round 5

7.5.1 Overview

The Nigeria NLPS Phase 2 Round 5 was administered between July 30 and August 16, 2022. A total of 21 main interviewers, 3 call back interviewers, 4 supervisors and 1 lead supervisor conducted the survey.

7.5.2 Sample

Interviewers attempted to contact and interview 2,824 households consisting of households that were successfully interviewed in the baseline (round 1) of the NLPS Phase 2 excluding 98 households that refused in previous rounds of the survey. As shown in Table 7-12, 2,610 households (92.4% of the 2,824 attempted) were contacted and 2,574 (91.1%) were successfully interviewed in the fifth round. Of those contacted, 25 households refused outright to be interviewed and 5 were partially interviewed. Of the 2,574 successfully interviewed households, 2,319 were households that have been successfully interviewed in all five rounds of the phase 2 survey so far. These are the households that form a complete panel across the five rounds.

Table 7-12: Nigeria NLPS Phase 2 Round 5 Result of Interview		
	# of households	% of overall sample
Total Sample	2,824	100.0
Contacted	2,610	92.4
Complete	2,574	91.1
Partially Complete	5	0.2
Refused	25	0.9
Language barrier	6	0.2
Not contacted	214	7.6
Nobody answering	35	1.2
Number does not exist	2	0.1
Phone turned off	168	5.9
Wrong number (don't know the household)	4	0.1
Reference person can't connect to household	5	0.2
Panel sample (interviewed in R1, 2, 3, 4 & 5)	2,319	90.1

7.5.3 Weights

In Round 5, two different household weights are provided: cross section and panel weights. The cross section weights are applicable to the entire round 5 sample while the panel weights are only applicable to round 5 sample households that have been successfully interviewed in all five rounds of phase 2 of the survey so far. For both of the household weights, the baseline (round 1 of phase 2) weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4, 5 and 6). The round 5 household weights can be found in the household-level data file (*p2r5_sect_a_2_5_6_9a_11b_13_12.dta*) with the cross section weights in the variable named *wt_p2round5* and the panel weights in the variable named *wt_p2round5_panel*.

7.5.4 The Survey Instruments

The Nigeria NLPS Phase 2 Round 5 consists of one questionnaire. The **Household Questionnaire** was administered to all households in the sample.

Household Questionnaire: The Household Questionnaire provides information on demographics; access to health services; employment; COVID-19 vaccine; economic sentiments; and farmer screening. While the Household Questionnaire was administered to all the sample households, economic sentiments questions were administered to only half of the sample households (those that were not selected to answer these questions in Round 4).

The contents of questionnaire are outlined below in Table 7-13.

Table 7-13: Nigeria NLPS Phase 2 Round 5 Questionnaire

Section	Topic	Description
A	Cover	Household identifiers and interviewer identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, reason for leaving the household if left, COVID-19 vaccine status
5f	Access to Health Services	Access to health services, reason for not being able to access the services, place where the services were received, out-of-pocket expenses, satisfaction with the services received
6	Employment (respondent)	Status in employment, why currently not working, job search, actual job
9a	COVID-19 Vaccine	Vaccine status, received any proof of vaccination, reason for not receiving proof, planning to get vaccinated, reason for getting vaccinated, preference for vaccine manufacture, reason for not getting vaccinated, vaccine hesitancy

Section	Topic	Description
11b	Economic Sentiments	How household feels about past and future household economic situation, past and future country economic situation, past and future consumer prices, major household purchases, extreme weather shocks to household's financial status in the future
13	Farmer Screening	How much household income come from household's crop and livestock products, how much household consumption come from household's crop and livestock products, most knowledgeable male and female members on household's agricultural activities
12	Interview Results	Result of interview including observation notes by interviewer regarding the interview, respondent and language of interview

7.5.5 Description of Datasets

These modules were administered in the Nigeria NLPS Phase 2 Round 5 survey.

- Household Roster
- Access to Health Services
- Employment
- COVID-19 Vaccine
- Economic Sentiments
- Farmer Screening

Table 7-14 shows the datasets and their corresponding sections of the Questionnaire.

Table 7-14: Nigeria NLPS Phase 2 Round 5 Datasets

Dataset Filename	Section(s)	Section Name(s)
p2r5_sect_a_2_5_6_9a_11b_13_12	A, 2, 5f, 6, 9a, 11b, 13, 12	Cover, Household Roster Update, Access to Health Services, Employment (respondent), COVID-19 Vaccine, Economic Sentiments, Farmer Screening, Interview Results
p2r5_sect_1	1	Interview Information
p2r5_sect_1b		
p2r5_sect_2	2	Household Roster Update
p2r5_sect_5	5f	Access to Health Services

Appendix 1: How to Obtain Copies of the Data

The data are available through the NBS web site:

<https://www.nigerianstat.gov.ng/nada/index.php/>

or through the World Bank's Microdata Library:

<https://microdata.worldbank.org/index.php/>

Users do not need to obtain the permission of the NBS to receive a copy of the data but will be asked to fill in a data access agreement. In this agreement, users agree to: (a) cite the National Bureau of Statistics as the collector of the data in all reports, publications and presentations; (b) provide copies of all reports, publications and presentations to the National Bureau of Statistics (see address below) and the Data Production and Methods Team of the World Bank (see address below); and (c) not pass the data to any third parties for any reasons.

Biyi Fafunmi
Head of Department - ICT
Plot 762, Independence Avenue,
Central Business District,
FCT, Abuja
Nigeria
www.nigerianstat.gov.ng/nada
Email: biyifafunmi@nigerianstat.gov.ng

LSMS Data Manager
Data Production and Methods Team (DECPM)
The World Bank
1818 H Street, NW
MSN MC3-306
Washington, DC 20433
<http://surveys.worldbank.org/lsms>
Email: lsms@worldbank.org