Nigeria’s 1991 Census in Retrospect: Fieldworkers’ assessment

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This study is borne out of the need to address the long-standing concern about the inadequacy of population data for development planning in Nigeria. In spite of the efforts of past governments, the population data available from various sources for planning and monitoring Nigeria’s development process remain highly unsatisfactory, in terms of adequacy and reliability. The situation is attributable in part to the irregular conduct of censuses in the country and other associated problems. To achieve improvements in the quality of data obtained from censuses in the country, a critical evaluation of the administrative cum organizational aspects of the census is essential and the role of fieldworkers in this regard, cannot be underplayed. It is in this light that this study focuses on the 1991 census through the lens of the fieldworkers. In-depth interviews were used to obtain information from enumerators, supervisors and other functionaries involved in the 1991 census. The survey of census functionaries served to validate the report of the field workers. The study sheds light on the appropriateness of some of the census strategies and administrative processes. The results will be of importance to census organizers and academics in their efforts at improving the quality of the data collection process and of data obtainable from censuses.

Key Words: Census, fieldworkers, enumerators, recruitment, administrative and planning process

Introduction

Census, the total process of collecting, compiling, and publishing demographic, economic, and social data pertaining, at a specified time or times, to all persons in a country or a delimited territory (United Nations, 1958), is indispensable to any government. Among developing countries, Nigeria is the least likely to have reliable population statistics. This is explained in part by the fact that census-taking in the country has proved to be a Herculean task, often associated with controversy. Nevertheless, census has received considerable attention among academics (Duru, 1995; Yesufu, 2000), given its importance as a major source of population data. However, limited empirical studies on census exist in the country. Furthermore, census results often receive more attention than its methodology/administration.

The National Population Commission (NPC) hinged the success of the 1991 census on the improved methodology adopted, which included the pairing of enumerators and the use of improved maps. In reporting however, the information provided on the methodology used by the commission was limited (Nelson-Twakor, 2003). As such, several questions pertaining to the 1991 census exercise still linger unanswered. Some of these questions include: What were some of the constraints faced by the fieldworkers on the actual headcount activity and to what extent did such constraints impinge on the assignment? How can these be minimized in future exercises? How adequate were some of the procedures adopted by the commission for fieldworkers? Attending to these questions will enhance future exercises.

Generally, the quality of census data is only as good as the quality of personnel and the conditions under which they operate. In spite of the importance attached to the role of census fieldworkers (CFWs ie enumerators and supervisors), for the quality of censuses in countries that use the canvasser method (Taeuber, 1972; Renne, 2000), few empirical studies have focused directly on them. Their voices have mainly been heard through third parties and findings from these limited empirical studies in Nigeria have also indicted them (Adewuyi, 1983). A better understanding of the reasons behind some of the
actions, in-actions, and challenges faced by CFWs will no doubt enhance the activities of future census exercises and hence the quality of censuses. A survey of CFWs will also provide an indirect means of assessing some of the NPC’s organizational procedures. This study therefore investigates the experiences of CFWs during the 1991 census and examines the response of census functionaries to issues raised by CFWs with a view to articulating the implications of the findings for future census activities in the country.

**Research Methodology**

This exploratory cum descriptive study, consists of two parts: a survey of CFWs and of census functionaries. While the census experience of fieldworkers is pertinent to this study, it is also of importance to examine the responses of functionaries in order to provide a better understanding of issues and confirm the validity of the observations of fieldworkers. The results from the latter will therefore, clarify the findings on the former. For the survey of CFWs, the study population comprises men and women in the capacity of enumerators and supervisors during the 1991 census. For the census functionaries however, the senior staff of the commission who participated in the last census exercise, irrespective of their being (still) in or out of service, constitute the study population. The study participants were identified/selected from both urban and rural locations in Oyo State. There was, however, no restriction to any state for the survey of census functionaries. The non-specificity regarding the locations covered in the study for the different categories of respondents is to protect the identity of the study participants.

**Sample Size and Design**

A total of 38 persons were interviewed in 2001 for this study, 33 census fieldworkers (25 enumerators 8 supervisors) and 5 census functionaries. Five of the supervisors played dual roles during the census, both as facilitators, that is, trainers of enumerators, and as supervisors. Their experience as facilitators further enriched their insight and consequently, the research findings. The size of the study population was intentionally fixed, based on the exploratory nature of the study and the amount of time that would be expended in identifying the fieldworkers. Also, the sample size allowed for in-depth exploration of issues. The smallness of the sample size for census functionaries was based on the assumption that their responses were not expected to vary significantly, if at all. Substantial variations on some core issues, were however observed.

A non-probability sampling procedure was used in the selection of the study population, given that such a method is known to provide useful information on a given issue in the absence of a list. The use of a probability sampling procedure would only be possible if a list of census fieldworkers (for each state) and their addresses was available from the NPC. Even if such a list were available at the NPC, the time lag since the census activity, implies a change in the addresses of some fieldworkers and hence difficulties in locating such individuals. In the absence of such a list, the use of a probability technique will result in a large sample size that may not be cost-effective, because it may not yield the desired number of the sub-population.

The study population was therefore purposively identified through visits to various primary and secondary schools within the Ibadan metropolis and in some rural locations, since teachers (mainly) were used for the census. To identify teachers who participated in the 1991 census in each of the schools visited, the permission of the principal or headmaster/headmistress as the case may be, was obtained after an introduction of the study. Thereafter, the verbal consent of teachers who worked on the census either as enumerators or supervisors was obtained for the interview (and for it to be recorded on tape). The only exclusion criterion after identification was self-exclusion due to refusal to give consent for an interview and only two persons among all those identified refused to participate in the study. This number excludes teachers visited in a rural school where the headmaster would not allow his staff to participate unless a letter from the Ministry of Education supporting the study was provided. The number of eligible respondents in this school is unknown. The teachers interviewed were also asked to introduce friends who participated in the census to the study. In other words, an attempt was made to use the ‘snowballing’ method to identify more participants, although it did not yield any impressive result.

The selection of census functionaries was also purposive based on the positions they occupied in the last census. A commissioner, a state director, a
comptroller, and two middle-level staff were interviewed. Only one of the functionaries approached declined to participate, saying that he needed to obtain the permission of his present state commissioner. The background information on these functionaries and the respective states in which they operated during the census, are also not presented to protect their identity. It is important to note that the opinions of these functionaries do not represent the opinion of the commission.

**Data collection procedure and experience**

An in-depth interview guide was developed and used for the interviews with census fieldworkers and functionaries. The in-depth interview guide for the census functionaries was developed after the survey of the fieldworkers because the findings from the fieldworkers’ survey, to a large extent, guided that of the functionaries. As the fieldwork progressed and new issues were identified, the guides were updated. This approach was considered more useful given the exploratory nature of the study as it permitted free flow of information from respondents, especially on issues that were not hitherto identified. The response rate for issues considered therefore varies as indicated in the report.

The survey of fieldworkers was conducted first, followed by that of functionaries. At the end of each day’s activities, the tapes were transcribed and the information reviewed. Emerging issues of interest were identified and included on the checklist. Field assistants were used in the identification of eligible respondents for the survey of fieldworkers but the principal investigator (PI) conducted the interview sessions. It was imperative that the PI took active part in the interview sessions because of the exploratory nature of the exercise.

Some of the fieldworkers, in the process of being identified for interview, thought that the process was for recruitment towards the next census exercise which was expected to commence soon. Some therefore declined participation and only agreed to be interviewed after clarifications were made. In spite of the initial assurance that their identities would not be revealed, most of the participants had to be reassured because they were afraid that their chances of being used in future exercises may be jeopardized on the basis of their comments. As much as possible, the names of areas or states have been left out of the report to minimize the possibilities of identifying the respondents and of drawing attention to the location rather than the findings of the study.

**Limitation**

The limited sample size of the study due to its exploratory nature, and the purposive method of selecting the respondents, limited the extent to which generalizations could be made on some of the findings. The fieldworkers’ observations about the various stages of the census is limited to the extent of their involvement. As such, an exhaustive analysis of each stage of the census was not attempted. Also, the problem of memory loss was encountered, since the census took place several years ago.

**Data analysis**

Information derived from the in-depth interviews was analyzed quantitatively using simple percentages with a view to answering more precisely some of the research questions. Excerpts of interview responses were also used to buttress the report. A quantitative analysis was at two levels only: univariate and bivariate analyses, although the need for the latter was minimal and the tables were not shown.

To arrive at its inferences in interpreting the information collected from the respondents, the study contrasts the report on various aspects of the census activities with the commission’s ‘planned’ or ‘expected’ procedure which should have been followed.

**Background information on fieldworkers**

The discussion on background characteristics here relates to those of fieldworkers (supervisors and enumerators) only. This information was not obtained for the census functionaries interviewed to ensure their anonymity. The fieldworkers that participated in the survey were of almost equal proportion by gender, with the males being one more than the females. The respondents’ ages range between 32 and 53 years with a mean of 41.1 years. By implication, the average age of the respondents during the 1991 census exercise was about 31 years. Approximately three-quarters of the respondents were Christians, while the others were Muslims. On education, a little more than half of the respondents (55%) have the national certificate of
education (NCE) or below, while the balance have a university degree or higher level of education currently. In comparison to the census period, approximately seven in ten of the respondents had an educational qualification lower than a first degree, an indication that some of the respondents have improved on their educational status. Approximately 88 per cent of the respondents are currently married, compared to 73 per cent as at the census period. At present, a mean of 3.4 children obtains for those who had children. All of the respondents are from the old Western Region of the country, with 63 per cent of them coming from the present Oyo State. Other states with less than ten percentage points each, are Delta, Edo, Ondo, Ekiti, Ogun, and Osun states, in no particular order. As at the census period, almost 79 per cent of the respondents were employed, making the assignment a secondary one for most of them. Being teachers in the public sector, the majority of the respondents were employees of the government (78%) at that time. Only 12 per cent of the respondents were students at the time of the census. About 3 per cent were professional artists, while 6 per cent were unemployed. The pattern for current employment does not vary greatly from the census point, except that all the respondents are presently employed. It should be noted that the employment pattern to some extent is reflective of the pattern of identifying the respondents for the research.

**Findings**

The respondents were asked questions pertaining to the states and location where they worked for the national census in 1991. Other questions related to recruitment, training, participation in pretests and trial census, reason for participating in the census, adequacy of census materials, publicity, redeployment of supervisors, remuneration, malpractice, and the time frame for the exercise. Officials of the commission in charge of the 1991 census were also asked questions along this line, to confirm the responses of fieldworkers and provide essential clarification. Responses (of fieldworkers' and census functionaries) were discussed together as follows:

**States of assignment**

In all, the fieldworkers' activities covered six states of the Federation, namely Anambra, Benue, Edo, Katsina, Nasarawa, and Oyo (ie the old Oyo State before Osun State was carved out of it) States. Expectedly, given the location of the survey, 82 per cent of the respondents worked in Oyo State. Most of the respondents for the other states were supervisors who were redeployed for supervisory assignments. Some 72 per cent of the enumerators had supervisors that were redeployed from other states. About 55 per cent of the CFWs worked in the urban area, while the rest worked in rural locations.

**Census tests**

There were three pretests and one trial census prior to the 1991 census; only about 45 per cent of the field workers reported participating in any of them. To ensure that all respondents' responses were in relation to the main census, it was essential to seek clarification as regards participation in the pretests/trial census because a few confused the tests with the main census exercise.

**Reason for participating in the census**

All the fieldworkers were asked why they participated in the 1991 census. The two main reasons given were curiosity and financial benefit, both reasons being jointly put forward by some respondents.

**Recruitment of fieldworkers**

Only 24 respondents were asked if they wrote application letters or filled any form for recruitment and 79 per cent of them indicated that they wrote an application. The fieldworkers who did not write an application may be those who were assisted by the staff of the commission to secure positions or those who were recruited directly from schools. Some respondents alleged that such assistance by the staff of the commission encumbered the recruitment process, while a few who got some form of assistance attempted to explain/justify such. Twenty-eight per cent of the respondents indicated that they received assistance from members of staff of the commission in securing a position. Interestingly, 28 per cent of the respondents claimed to know at least a member of staff of the commission. On the other hand, only about 16 per cent of the fieldworkers indicated that they had difficulties in securing a position in the assignment. The low
percentage of those who reported difficulties in securing a position in the census exercise may not be unconnected with the fact that the majority of the respondents were teachers and some of them had been recruited from their schools through members of staff of the commission who visited. Some of the fieldworkers opined that the staff of the commission were under intense pressure resulting in a certain amount of indecisiveness in the recruitment process which gave room for corrupt practices. These incidences are attributed to the high level of unemployment among the people.

Insinuations that unqualified persons were recruited for fieldwork, led to the examination of the qualification required for the various CFW positions. Approximately 16 per cent did not know the minimum qualification for the post of enumerator, 63 per cent opined that it was the secondary school certificate, while the remaining 21 per cent claimed that it was the teachers’ grade II certificate. This ignorance of the minimum qualification may be attributed to the process through which some fieldworkers were recruited, particularly teachers. Some of them simply knew they were qualified because they were told so, not because they knew what the minimum qualification was. Since the belief was that teachers were required for the assignment, a young secondary school certificate holder might have appeared to be unqualified to a fellow enumerator who is a teacher. Among the supervisors, 57 per cent identified a first degree as the minimum qualification required for the post of supervisor while the remaining 43 per cent indicated that it was a national certificate in education (NCE). All the facilitators (ie trainers of enumerators) interviewed, agreed on the minimum requirement for a trainer, which is a first degree.

All the functionaries interviewed confirmed the pressure faced by the personnel in charge of the recruitment exercise for the 1991 census. The rowdiness at the offices of the commission during the period was confirmed and the pressure on staff was attributed both to influential personalities in the society and to the enormous number of persons who, due to the high level of unemployment, desired to participate in the exercise. While some functionaries expect the situation in the forthcoming exercise to be worse, others assert that with some decentralization in the process, an improvement should be observed. Bribe-taking incidents were also confirmed.

On the issue of qualifications for the various fieldworkers’ positions, the functionaries confirmed that the West African School Certificate (WASC) [which is now equivalent to the secondary school certificate of education (SSCE)] as the minimum for the post of an enumerator. For supervisors, the minimum qualification was any level higher than the school leaving certificate while trainers/facilitators had to be graduates. For the positions of enumerator and supervisor, two criteria were identified to have been considered in arriving at the qualifications used and they were the ability of the individuals with such qualifications to understand or perform the task required and the availability of persons with such qualifications. Generally on recruitment, it was observed that persons already in employment were preferred.

Training Fieldworkers

Although all fieldworkers were expected to have attended the training sessions organized by the commission, approximately 7 per cent stated that they did not attend the official training session. Some other unofficial arrangements were made for them. Such individuals participated in the capacity of enumerators and supervisors. This occurrence is unexpected when viewed against the fact that reserves of fieldworkers were recruited to guard against such incidents as illness and absconding by fieldworkers.

Only five respondents were asked the question on the size of their training class because the issue was identified towards the end of the fieldwork. These respondents claimed the training classes were too large for two trainers coupled with inadequate furniture. The result was noise which impeded concentration and discomfort as a result of people sitting on window ledges. A facilitator indicated that he had 200 persons in his class while, on average, some other respondents put the average size of the training class as between 30 and 40 persons.

The majority of the respondents considered the capability of the trainers as satisfactory and some commended the efforts of their trainers. An undergraduate while observing the combination of enumerators in terms of age – the young, middle aged, and old – in the same class, noted in relation to the
trainers’ task that it was tasking. Although the observation by an enumerator that the training received did not reflect the reality on the field, especially in the rural locations, may be interpreted as an indictment on the trainers, he, however, maintained that his trainer was capable. The overall impression was that the training was well attended and participation was good.

All the census functionaries interviewed expressed surprise about the non-participation of fieldworkers in the training program for the exercise. Inadequate space for training that necessitated merging classes was proffered as a possible explanation for large classes. The negative effect of such observations on the quality of work of fieldworkers was also admitted. The functionaries were swift in dismissing these incidences as rare occurrences although they were unaware of them.

Working conditions
The materials that the census fieldworkers needed to carry out the assignment are identified in the enumerator’s manual. All the respondents were interviewed on the availability and sufficiency of some of these materials and other conditions surrounding the assignment. There is no doubt that each enumerator or the working pair did not receive all the materials as listed in the manual. However, attention was given to only crucial materials which include the indelible ink, prominent identification materials, sketch map, and such conditions as promptness in payment of income and transportation among others.

Indelible ink
The use of kandahar indelible ink is important to guard against double counting. Only 7 per cent of the fieldworkers reported not using the ink. Among those who used it, 90 per cent described the quality as good while the rest indicated that the quality was poor. A supervisor described the act of not using the indelible ink as deliberate because of the malpractice intended. Its non-use was also reported to have handicapped the work of the enumerators.

The functionaries did not express surprise at the non-use of the indelible ink. A functionary commented on non-use and quality of the ink thus: it is probably true, I think we had that report when we were doing the review that some areas did not get the ink, ...others got but were of poor quality.

The non-availability of the ink for use was also attributed to its late delivery.

Census bag, vests and face cap, and training manual
The design of the census bag, apart from its use in carrying materials during the exercise, also served to identify the fieldworkers promptly. According to an enumerator, people recognized them because ‘they saw the bag with us.’ The face cap and vest also served identification purposes. The census bag and training manual are listed as materials that all enumerators should have. Approximately, 38 per cent of the fieldworkers had bags to work with while the others had recourse to personal bags, hands, or envelopes. Only 4 per cent of those to whom the question on the use of special vests and caps was posed responded in the affirmative. Some respondents acknowledged that the non-availability of these items hindered their work somewhat in terms of time spent in introducing themselves rather than being recognized right away. The comments of the respondents also raised questions about the image of the commission as regards its integrity. In one instance, a respondent queried the effective use of the funds voted for the materials while another respondent observed the sale of some of these materials (specifically the bags) after the exercise.

Another important issue that was identified was the availability or otherwise of training manuals which was to be used both during the training and the actual field assignment. It was expected that each fieldworker would have a copy (as applicable) of the enumerator’s /supervisors’ manual. This issue was also identified towards the end of the fieldwork, and as such, very few respondents responded to it. Specifically, an enumerator stated that he did not have the training manual, while another observed the shortage among members of her group during the training. This observation is at variance with the commendation expressed by another enumerator on the high quality of the training manual.

Most of the functionaries expressed surprise that enumerators did not have census bags to carry their materials as sufficient quantities were ordered. A census functionary also confirmed the sale of census bags in the open market. As regards insufficiency of
the vests and caps, the functionaries explained that they were part of the publicity/enlightenment materials donated to the commission. They had been in use prior to the actual census and were not meant for enumerators to wear as identification as they were not available in sufficient quantity. Surprise was also expressed with respect to the shortage of training materials for fieldworkers.

**Time frame**

As regards the three-day duration of the headcount, the majority (63%) of the fieldworkers noted that the time was adequate as they were able to complete their assignment, while others considered the time to be too short for reasons associated with the work load and hence inability to complete the assignment. A few supervisors also argued for an extension of the duration of the exercise to permit efficient conduct of their supervisory role. On the contrary, an enumerator argued that the time for the exercise should not be extended because of fatigue among the people. A supervisor argued that the duration of the exercise was extended by two days in his state, and hence nationally. The majority of the functionaries considered the timing adequate for the assigned task, although sometimes with a clause, ‘if the demarcation was done properly’. A functionary confirmed the extension of the days for counting in some areas.

**Pairing of enumerators**

Enumerators were expected to work in pairs of one male and one female. The gender pairing of enumerators was to ensure that female enumerators were available to conduct interviews in Muslim households, which contained women in purdah. Respondents were asked the gender of the pair of enumerators whom they worked with and supervisors were asked if any of the pairs of enumerators they supervised were of the same sex. Same-gender pairs of enumerators were reported by 31% of the respondents, and these were mainly male pairs because ‘males were clearly more than females’. The essence of the pairing seems to have been constrained in some places as enumerators noted their inability to count women in purdah because the female partner was not an adherent of their faith.

Almost one-third (32%) of the enumerators indicated that they had problems with their partners. The nature of these problems were categorized as minor or very significant. Minor problems related to those that had no major effect on the assignment while major problems related to those that affected the quality of the task assigned. An example of a minor problem is that reported by an enumerator who received less than the expected assistance from his colleague due to her limited competence. The major problems included falsification of figures (or other malpractices), and co-workers who served as encumbrances. Of importance is a female partner who had a baby and was required to trek a long distance. A supervisor commended the pairing strategy by gender because she was able to obtain information on census malpractices experienced from the female enumerators who were more ‘fearful’.

Some of the functionaries were ignorant of the same sex pairing of enumerators while some claimed that ‘it might have happened in extreme cases’. A functionary attributes this observation to possible disregard for gender balance in the recruitment process and possible laxity in adhering to the instructions given that the practice of purdah in the south is not as stringent as in the north. With respect to employment of nursing mothers, a functionary explains this incidence as an act of desperation on the part of such a woman as they were not to be recruited given the strenuous nature of the assignment.

**Publicity**

Good publicity is certainly central to the successful conduct of the assignment of the fieldworkers; as such they were requested to assess the level of awareness of the people they enumerated. A high majority (83%) considered the level of awareness of the census among people as adequate and attributed it to the publicity campaign of the commission. No respondent described the publicity as poor. A high level of awareness and understanding are different issues as observed by an enumerator who had cause to educate the people about the exercise. Although the functionaries interviewed were able to provide information on the publicity modes used for the census, specific schedules in relation to various modes such as the electronic media could not be provided.
Remuneration

The question on remuneration was asked from all respondents and the issues raised relate to adequacy of remuneration and timeliness of payment. Other issues such as the timing of the provision of the information on remuneration and taxing of income among others were identified along the interview process. The majority described the remuneration received for the assignment as poor (75%), while an equal percentage of the rest described it as good and fair, respectively. From the responses, various yardsticks were used in passing judgment on the adequacy of the remuneration received and they include: assessment of the volume of work and tediousness of the assignment; time spent on the assignment; comparison with the existing salary package of the period; location where the assignment was carried out, that is urban/rural location; disparity in pay for the different calibres of fieldworkers and expectations of the fieldworkers.

A few comments from the fieldworkers implied that the enumerators had no idea of the remuneration amount prior to receiving it. Most supervisors were satisfied with their remuneration compared to the enumerators, some of whom felt they worked harder. Some enumerators argued for a differential in the remuneration by location (urban/rural) in favor of those in the rural area to compensate for the strain associated with working there. Complaints of deductions from remuneration were also received from a few respondents. Almost eight in ten of the respondents indicated delay in receipt of the remuneration and allowances, which was long in some instances.

Most of the functionaries were of the opinion that the remuneration of fieldworkers was adequate and a few considered it generous. Similar criteria as used by the fieldworkers also guided the functionaries. Some uncertainty was expressed as regards the point at which fieldworkers were informed of their remuneration and whether or not it was put in writing, but they were informed before the fieldwork. A functionary argued that there was no deliberate effort to shield the fieldworkers from the knowledge; rather it was due to the uncertainty of finance by the commission. Most of the functionaries were not in support of different remuneration for urban/rural fieldworkers as the task was balanced in terms of workload and travel time requirement. Functionaries in support of differentials in pay base their argument on the challenges of the terrain in rural areas. On the reason for the delay in payment of remuneration, different opinions were proffered. While a functionary attributed it to the fact that the commission had to go through the Federal Pay Office as the NPC was not self-accounting, another opined that the delay was due to the ineptitude on the part of some comptrollers who over-recruited and hence had inadequate funds to pay, although the government provided adequate funding.

Census sketch maps

The majority of the respondents (84%) did not have any problem with the sketch maps used for the census. Some of the problems were minor (e.g. wrong names for streams), while some were significant necessitating the allegation by an enumerator that those in charge of the mapping exercise did not visit the sites. Another issue highlighted was the size of the enumeration area that varied considerably causing some enumerators to be overburdened relative to others. The functionaries interviewed confirmed knowledge of errors associated with the enumeration area sketch maps. These errors were described as ‘... not substantial, ... very few and quite negligible’ and were attributed to later developments in the area and some human errors. A functionary, however, opines that 'maps, was one of the problems with census '91.'

Restrictions on movement

Restrictions on movement as observed during the 3-day headcount was to enable people to stay at home to be counted. It was also expected to aid the enumerators’ task, as it would limit the number of callbacks to be made. The opinion of the majority of the respondents was that the restrictions on movement were effective, although a few farmers were observed to have gone to their farms.

On the other hand however, the restrictions were observed to have inadvertently hindered the fieldworkers in carrying out their assignment. This is because although the commission had planned for all fieldworkers to be located within walking distance of their primary place of assignment, more than half of the respondents (56%) reported the experience of transport problems during the assignment. The reason
for such a problem was associated with the distance between fieldworkers' residence and workstation, which could be as high as 10 kilometers. Some fieldworkers therefore, spent considerable work time trekking.

The functionaries were aware of the incidence associated with transportation and a couple of them attributed the problem to dishonesty about information on locality of residence provided by the recruited fieldworkers. A more plausible explanation by another functionary was that inadequate consideration was given to location of residence and workstation of fieldworkers during recruitment. According to most of the functionaries interviewed however, the commission provided transport assistance for as many workers as possible.

Census Fieldwork Activities

Thumbprint

The thumbprint of all persons enumerated had to be obtained. The thumbprint is an essential part of the exercise as it could invalidate the entry. Approximately, 71 per cent responded that they did not have any problem with obtaining people's thumbprint while the balance reported the contrary. The problems relate to old people, educated people, materials required for the printing and inability to obtain thumbprints of some household members. For the very old, the enumerator had to hold the finger to carry out the task, and it had implications for time where there were many of them, especially in rural areas. The educated ones also wanted to sign rather than thumbprint based on the assumption that thumb printing was for the uneducated. On the required material for thumb printing, a supervisor noted that they ran out of ink and had to make alternative arrangements when the inkpad got dry. An enumerator also noted his inability to obtain the thumbprint of household members in a Muslim community except for that of the head of the household.

Given the importance attached to thumbprints as a check on malpractices, the functionaries were asked how useful it was. The responses include, 'It was useful in some cases...' and '...to a large extent, it served a useful purpose.' On what was done with entries without appropriate thumbprints, the response was, 'well, we look at it closely and then we are able to determine.' It was also confirmed that other checks and balances were built into the process to verify entries. It should be noted that the commission could not comment on the possibility of use of the thumbprints for other purposes because of security reasons.

Census malpractice

All the fieldworkers were asked what their experiences were in relation to malpractice and 87 per cent noted that they had no such experience. All the malpractices reported took place in rural settings and the apparent absence of malpractices in urban locations was attributed to enlightenment among the population. An enumerator, who rejected the offer to inflate figures, identified the individual who tried to influence him as a representative of the village chief. In his words:

... they [representatives of village chief] had instructions to take care of the fieldworkers' in return for the favor of enumerating indigenes that were located elsewhere.

Another supervisor reported the involvement of the local government chairman and representatives of the community which he refers to as 'a well-orchestrated activity'.

Despite his being from the locality, an enumerator did not entertain any fear of repercussions for refusing to cooperate, partly because he was not well known and mainly because of the risk of jail term for those caught 'doctoring' census figures. He also noted his inability to report the incident to his supervisor who was 'nowhere to be found'. None of the malpractices observed were reported to the commission. The functionaries confirmed the incidence of malpractices in the 1991 census and the arrest and prosecution of some people, including fieldworkers.

Field report

Apart from a supervisor who indicated writing a report of observed census malpractice not being able to submit it, an enumerator also indicated writing a report for the exercise but not submitting it because the commission did not demand it from them. He went on to stress the importance of a report. This issue was not discussed
with other fieldworkers because it was identified at the tail end of the survey.

A functionary argued that only supervisors and senior supervisors were expected to submit written reports while enumerators were expected to use the 'remarks' section at the end of the questionnaire to indicate 'whatever problem, difficulties or things that they noticed for future improvements of the exercise...'

A functionary’s response of ‘they were supposed to’ to the question: ‘did all supervisors submit reports?’ could be interpreted to mean that report submission was not enforced if it was expected at all.

**Redeployment of supervisors**

The redeployment of fieldworkers applied to only supervisors and senior supervisors and served to ensure that they were free from the social and political pressures emanating from their areas of operation and hence the possibility of cheating or favoring their communities (NPC, 1998: 11). Only a proportion of supervisors were swapped on a north-south basis. All the supervisors interviewed were asked if they were redeployed and enumerators were asked if the supervisors they worked with were redeployed and approximately 67 per cent of all those interviewed gave a positive response. All respondents were also asked their opinion of the redeployment exercise; supervisors who were redeployed shared their experiences and their opinions were sought on its use in future exercises. Sixty-seven per cent of the respondents expressed approval for the redeployment exercise. Opinions were based on the perceived advantages or disadvantages of the exercise.

The advantages of redeployment related to the fact that it would check malpractice. Besides malpractice, the strategy served to rectify incorrect notions held about the population size of other areas. The perceived disadvantages include working in an unknown terrain and the fact that it did not completely check malpractice. A female supervisor expressed dissatisfaction with the strategy based on the fact that women have household responsibilities. A few respondents were undecided because of their negative experience with their supervisors and the negative implication of not adopting this supervisory strategy for the level of malpractice that would be observed.

Issues raised include the rushed nature of the exercise, the unpreparedness of the commission’s offices at the various states to receive them, and the hostile reception in some communities where the work was done. Although all the census functionaries interviewed were in support of redeploying supervisors to check census malpractice, the need for improvement in the procedure was observed. A functionary stated:

...the only thing is that where there are problems like we have been discussing ...something should be done about them and make for a better arrangement.

The functionaries also refuted the fact that the redeployment of supervisors was either rushed or late but one of them confirmed that:

...it is not unlikely that some supervisors may have arrived late, for reasons of communication and transport.

Furthermore, it was established that state and local governments collaborated with the commission on logistics (accommodation and transport for the redeployed supervisors). The response received from these bodies varied, as such, some of the provisions made were poor. One functionary however, was of the opinion that the fieldworkers probably expected too much in terms of comfort.

**Willingness to participate in the next census**

All the respondents were asked if they would be willing to participate in the next census exercise and the majority (64%) responded positively although some attached conditions to their participation. These conditions were mostly related to the remuneration and other conditions surrounding the work. Among respondents who indicated their unwillingness to participate, the reasons proffered were associated with age, the tedious nature of the assignment, lack of time and unpleasant experiences in the last census.

**Suggestions for the next census**

The fieldworkers were requested to make recommendations towards improving the modalities for future census exercises. The recommendations given mostly relate to the issues discussed above and are
based on their experiences. The main issues raised include remuneration (56%), publicity (50%), uniform (28%), transport (25%), training (25%), census materials (21%), and recruitment (14%).

The issues of remuneration and publicity for the census topped the list of recommendations by at least half of the fieldworkers. The remuneration paid fieldworkers was considered very important because according to one enumerator: '...if you pay peanuts, you should expect peanut job...' Another enumerator also opined: 'if the money is not encouraging, people will not do the job properly'. Apart from adequacy of remuneration, ensuring promptness in its disbursement was also emphasized.

Publicity was considered crucial to the success of the census. A female enumerator opines:

*I think the education matters most, they should educate the public, let them know there is no need for inflation so we can have an accurate census.*

The use of special apparel by fieldworkers for their identification and security was argued for. A supervisor argued for the special apparel in these words:

*I believe the uniform is important for all census workers, especially for people like the supervisors who worked outside their community for security reasons.*

The same proportion (a quarter) of fieldworkers identified training and transportation for focus, while slightly less (about one-fifth) identified census materials including maps to be looked into for the next census. On the issue of training, an enumerator remarked: 'they should train us very well' and on recruitment: 'the commission should...know the caliber of people to do the job'. On the issue of posting of enumerators and transport:

*the area of enumeration should be very close to the enumerator’s residence...*  
*... they [the commission] should provide transport for the workers*. In relation to the maps, "...they should work on it [map] in a way that only the area they know will be adequate for the number of hands...."

With respect to the working hours and number of days for the assignment, a reduction was suggested, according to an enumerator, ‘they should help us to limit the time, maybe 8am to 4 or 5pm. Six [am] to six [pm] was too strenuous’. A supervisor emphasized the importance of developing infrastructure, particularly in the rural areas to enhance their participation in the forthcoming exercise since that was the argument used to capture their interest in the last exercise. In the absence of this, apathy towards the exercise may be experienced. In his words:

*...they will say, “I have no time”. I had that problem [in the last census]. And we had to preach that it was for their own good...to enable government provide electricity, water and roads adequately for you. So when they see census people, they will say okay, people will be very happy and eager to participate.*

The functionaries’ suggestions regarding the future census were similar to those identified by the fieldworkers with some unique differences as a result of their different roles. The suggestions proffered include publicity, funding, effective collaboration with various levels of governments, manpower, and mapping. The suggestion on adequate publicity as suggested by the functionaries is not different from the perspective of the fieldworkers. On funding, the suggestions were for adequate funding by the federal government in addition to support from other agencies. The role of the private sector was also emphasized. Effective collaboration was considered essential to ensure effective logistics were provided for the exercise and the sketch maps required updating.

**Discussion and Recommendations**

Conducting a national population census for Nigeria is no doubt a Herculean task given its size, level of development and past census history. It is, however, not impossible to successfully conduct an accurate census going by the experience of larger countries such as India. Of utmost importance to the entire census process are efficient planning, organization, and administration which hitherto have not received the serious emphasis deserved from researchers.

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imperfect knowledge of the reality as opposed to the planned course of events. In the extreme, it cannot be ruled out that an attempt to protect the image of the commission was detected. Could the time lapse have distorted the reports of the field experience given by the respondents? To some extent, there is no doubt that this occurred and when uncertain, fieldworkers were quick to note that their memory failed them. Such incidences were not limited to fieldworkers as functionaries also could not be specific on the actual remuneration paid to fieldworkers without recourse to the files. The passion with which specific events were recounted lends credence to the authenticity of those occurrences.

The fact that some of the findings of this study were a surprise to functionaries indicates that an appropriate and effective review of the last exercise may not have taken place. The situation may have been different if the commission had provided a methodological and administrative report of the census. This report would be more detailed than the chapter on methodology as contained in the census 1991 analytical report (NPC, 1998). An evaluation of the entire census process by the commission would be beneficial to guide future exercises.

Most of the census functionaries were oftentimes quick to dismiss some of the field experiences reported in this study as rare events even when they were unaware of such occurrences. Given the exploratory nature of this study (and hence the small population sampled), nothing conclusive may be said about the magnitude of the events reported as that was not the aim of the study. Nevertheless, it should be noted, that the occurrence of some events is important if the aim of an accurate census emanating from a well-planned and well-executed exercise is to be achieved.

The manual of instructions for supervisors notes that:

"...there is an imperative need to ensure that standard and uniform procedures are followed by all staff" in the fieldwork (NPC/FRN, 1991:8).

It is, however, apparent that all the staff of the commission could not follow standard and uniform procedures going by the non-availability of indelible ink for use by some fieldworkers, the use of certain apparel, such as the vests and caps, by limited numbers of fieldworkers and deductions from the pay of some fieldworkers as ‘tax’. While the late supply of indelible ink to some places that hindered its use cannot be excused, the commission should not have allowed the use by some fieldworkers, of apparel that were insufficient in quantity, and which had not been previously advertised. In spite of the apparel being already in use for the census publicity campaigns, it sent wrong signals to the fieldworkers who felt that some of their colleagues received preferential treatment. The situation was further aggravated by the fact that not all the enumerators had the census bag to carry their materials even though they were not in short supply according to the accounts given by the functionaries. The bag was to serve as an immediately obvious identification for the workers, regardless of the fact that each worker is reported to have been carrying identification. The shortage of enumerator’s training manuals as reported, in spite of its adequate supply as reported by census functionaries lends credence to the fact that provision and availability of materials are separate issues just as planning and execution are.

In view of its implications for the quality of work, the importance attached to the process of recruitment and training of fieldworkers in any fieldwork cannot be overemphasized. There is no doubt that the commission experienced some amount of pressure in the recruitment process given the huge number of unemployed persons. More firmness in the recruitment process however, would have been expected. Some of the incidences associated with both the recruitment and training exercises are unsatisfactory and point to some amount of negligence on the part of the commission. Furthermore, it would seem that due attention was not paid to some conditions that should guide recruitment. In addition to the number of persons to be recruited, attention should have been paid to the gender balance, the places of residence and states of origin of enumerators - a task of no mean nature. The limited number of hands with census experience and to some extent, disobedience of orders by some of the functionaries in charge of the activity may account for the lapses that resulted in same-gender pairing of enumerators and the transport problems experienced by them.

Also, the incidence reported in relation to the inability to count women in purdah might have not occurred if people within the locality were employed for the assignment. In relation to training, attributing
Very large training classes to the possible merging of classes is also untenable. A sequence of training sessions could have been held in the time lapse between the training of enumerators and the actual census, rather than having such large classes. The remuneration of fieldworkers and training allowances generated considerable attention in this study. While the amount paid and how it was arrived at are important issues, the study only sought the opinion of workers on its adequacy, which was reported by the majority as poor. As noted by a census functionary:

_It is a national assignment, even if it has to be done free of charge, I think there are some people who will be willing to do it._

Perhaps even more important is the routing of the related information on remuneration and the delay in its disbursement. The *Daily Sketch* (1992) reported the allowances for the fieldworkers as confirmed by the commission’s chairman: enumerators N300; supervisors N350; and senior supervisors N400. This announcement was made about 22 days to the actual commencement of enumeration, which started with the homeless people in the early hours of 27 November 1991. This timing cannot be considered appropriate as such a delay gives room for rumours, which might have influenced the workers’ reactions to the actual amount received.

Government agencies are increasingly being associated with late payment for work done and such an image will not attract capable hands for future census exercises. The reasons given by census functionaries for at the delay in passing information on remuneration to fieldworkers are untenable. Some of them include the commission not having ‘access to unlimited funds’ at its disposal, uncertainty about budgeting due to the large census budget, and uncertainty concerning the release of funds from the government and the multiple sources of funding for the exercise. The role of fieldworkers is very crucial in the conduct of the census and such uncertainty relating to remuneration does not reflect the importance attached to these staff and may be seen as an indictment on the commission’s budgeting. With respect to the delay in disbursing remuneration to fieldworkers, the differing opinions obtained from the census functionaries will not permit a valid conclusion other than to observe that the issue has to be looked into to prevent a reoccurrence in the future.

The 3-day timing for the census exercise seems adequate, the exceptions are for enumerators who spent considerable working time trekking due to long distances between work place and residence and the restriction on movement and those who had large enumeration areas. Some persons were therefore left uncounted as reported, both in this survey and also in the *Nigerian Tribune* (1991a). If the recruitment process enjoys the required attention it deserves and appropriate sketch maps are provided, rather than an extension of the enumeration time, possible consideration would be for ways of shortening the required number of days. The possibility of large enumeration areas was envisaged and provision made in the form of recruitment of excess fieldworkers by the commission. The effective use of the reserve field staff in the last census is questionable, as it would seem that some supervisors may have been unable to contact census functionaries concerning their needs in the field for more hands going by the report of incomplete coverage of enumeration areas. It is however expected that the improvement in the telecommunications system in the country through the mobile network would improve on this occurrence in future exercises.

The majority of the fieldworkers took part because of the need for extra income, as such, they were not aware of what they were bargaining for in terms of the fieldwork. This finding is in consonance with Duru’s (1968) assertion that the monetary return was the attraction for field staff and not interest. Some considered the work quite tedious, and it could well be so particularly for older fieldworkers and teachers generally because of the difference in the nature of the work they are used to. A census functionary claimed that ‘’…some [fieldworkers] did not know what they bargained for, until they saw the amount of work...’’.

The importance of an effective recruitment process to identify credible personnel for the exercise is therefore brought to the fore. Some supervisors were also against the idea of redeployment, which most fieldworkers considered a useful check on malpractice. Some redeployed supervisors were reported to have rejected their posting to some Council Areas (*The Guardian*, 1991). These observations highlight the importance of applicants having a good knowledge of the nature of the tasks they are applying for.

The Commission also did not seem to be prepared for the needs of redeployed supervisors in the 1991
census, which included transportation and accommodation. The supervisors also opined that the redeployment exercise slightly marred the exercise due to its rushed nature although the functionaries claim otherwise. The census functionaries interviewed attributed the problem with the transportation of supervisors to the slow response by state and local governments. The relationship with other agencies or organs of government must therefore be well defined in future exercises as it could mar the entire exercise. The responsibility for the success of such a relationship, however, resides with the Commission who takes the praise for the success or otherwise of such relationships.

Census malpractice is a big issue in the history of census taking in Nigeria. Part of the cost associated with the exercise, such as the redeployment of supervisors, is to forestall or reduce the magnitude of malpractice. The occurrence of malpractice was reported by a few of the fieldworkers in this study. Malpractices are not restricted to the actual census, indeed the trial census experienced inflated figures across all states (Nigerian Tribune, 1991b). All fieldworkers who reported false entries and those who were approached to falsify figures were observed to have worked in rural locations. The seemingly organized nature of census malpractice seems to portray that the incidence, at least on a large scale, is possible mainly in homogeneous settings. The essence of the incidence would therefore necessarily be to draw attention to these areas for development activities given the relationship between population and resource allocation. With better and more even development, it also may be argued that the tendency for census malpractice would reduce. In the interim, however, better use of the thumbprint compared to its use in the 1991 census to verify the authenticity of entries and other possible measures will have to be contemplated. It will also be necessary to take steps that will ameliorate the fears associated with reporting malpractice by fieldworkers.

That the census activity was held up for a few days due to issues of local land boundaries in a few locations as reported in the study has implications for the future exercises. This is more so given the increase in uprisings in the various parts of the country since the 1991 census. Efforts through enlightenment and contact with heads of locations that may pose a threat to the successful conduct of the next census will be necessary. The tendency for supervisors to refuse redeployment to such places also exists and will have to be put into consideration in the organization of the next census exercise.

The possibility of using most of the fieldworkers who took part in the last census fieldwork would ensure that the forthcoming exercise benefits from the experience of the last exercise. This is not, however, to suggest that necessary screening would not take place. The conditional response given by the fieldworkers on their willingness to participate in the next census implies that the issues raised must be addressed if their participation is to be ensured. These conditions are not demanding, they are basic details that should be provided in the process of gaining employment.

Recommendations

The recommendations emanating from the study generally relate to the planning, organization and administration of any census activity. Specifically, the Commission should among others:

- Provide a methodological and administrative report for every census conducted.
- Ensure census functionaries understand the reasons behind decisions taken and adhere to the instructions given.
- Ensure that the fingerprints of persons enumerated can be effectively used to check census entries and hence curb census malpractices.
- Ensure an effective recruitment process to ensure the number and type of personnel required for fieldwork activity is achieved.
- Ensure the training environment is conducive and only fieldworkers that participate in the training are engaged in the actual fieldwork.
- Materials required for the census should be adequate and supplied in good time.
- Consider the use of apparel for upfront identification of fieldworkers.
- Provide a route, such as a guided field report, through which fieldworkers can provide valuable information on fieldwork experience.
- Ensure an effective relationship between collaborating organizations or government with the Commission in charge of the census.
- Arm census fieldworkers with the appropriate information on their conditions of service early enough and ensure their benefits are paid promptly.
• Ensure that all staff follow standard and uniform procedures.
• Ensure fieldworkers are able to contact the Commission's office or functionaries when necessary while on duty. In other words, improve on communication and feedback.
• Improve on census budgeting.

Conclusion
This study has examined the administrative and management procedures of the Nigeria 1991 census through the lenses of the fieldworkers and functionaries who were involved. The findings reveal some lapses in the administrative process (such as recruitment, training and budgeting) which if not well attended to in the future, will have dire implications for the provision of reliable population figures for social and economic planning in the country. It is important that the problems identified in this study are addressed to ensure an improvement in the census process and hence the quality of data obtained.

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Biographical Note
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