

# Transforming Evidence to Action: The Case of Election Participation in Nigeria

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## Abstract

Transforming Evidence to Action (TEA) is a novel program of the Laboratory for Interdisciplinary Statistical Analysis (LISA) at the University of Colorado Boulder and the statistics and data science collaboration laboratories (stat labs) of the LISA 2020 Network. The program entails stat labs creating institutional statistical analysis and data science capacity to enable and accelerate local solutions for local development challenges and is funded by the U.S. Agency for International Development.

## Introduction

Transforming Evidence to Action (TEA) is a novel program of the Laboratory for Interdisciplinary Statistical Analysis (LISA) at the University of Colorado Boulder and the statistics and data science collaboration laboratories (“stat labs”) of the LISA 2020 Network (see [www.lisa2020.org](http://www.lisa2020.org)). The program entails stat labs creating institutional statistical analysis and data science capacity to enable and accelerate local solutions for local development challenges and is funded by the U.S. Agency for International Development. The logic of TEA is that if we can create and sustain stat labs comprised of well-trained statisticians and data scientists who can move between theory and practice to apply statistics to solve problems and make decisions, and if they can collaborate with development actors empowered to produce data and take action on development issues, then the members of the stat labs can transform data into evidence to answer their collaborators’ research questions or help them make data-driven policy decisions that will lead to development impacts and benefits to society.

We believe that TEA projects have tremendous potential to enable and accelerate data-driven development because they operate in a space occupied by three development actors: data

producers, data decision makers, and data analyzers. Stat labs provide collaborative statistics and data science expertise to bring all of the actors together to produce evidence and transform it into action for development. See the article in this issue by Vance and Love (p. TBD) for more information.

In this article, we discuss a case study in TEA to aid formulation of a national electoral policy to strengthen democracy in Nigeria. The study was executed jointly by the University of Ibadan Laboratory for Interdisciplinary Statistical Analysis and the Independent National Electoral Commission (INEC)—the electoral umpire in Nigeria—with full support from the headquarters of the LISA 2020 Network.

## University of Ibadan Laboratory for Interdisciplinary Statistical Analysis (UI-LISA)

The rich history of the University of Ibadan as the first and foremost university in Nigeria and its strategic agenda of transforming fully into a postgraduate university made the creation of a functional stat lab highly compelling. Consequently, the University of Ibadan Laboratory for Interdisciplinary Statistical Analysis (UI-LISA) was established in March 2015 to become the third stat lab in the LISA 2020 Network. The overarching vision of the stat lab is to build statistics and data science capacity in Nigeria. The primary function of UI-LISA is to train statistics students to be able to employ the power of statistics to solve societal problems, become effective interdisciplinary collaborators, demonstrate the value of statistical thinking, and be excellent statistical communicators. This is in close alignment with the vision of the global LISA 2020 Network, which comprises 30 full member stat labs, 18 additional labs in the process of gaining full membership, and its headquarters at LISA at the University of Colorado Boulder, USA.

## The Development Challenge: Enhancing Electoral Participation in Nigeria

The checkered history of elections in Nigeria spans through the years of military rule (1966–1979 and 1983–1999) as well as the civilian regimes (from 1999 to present). The pattern in the turnout rate since the return of the civilian, democratic rule in 1999 has revealed voters' despondency and apathy toward the democratic process. The presidential elections that normally should attract the

biggest voter turnout dropped from 69 percent in 2003 to its lowest rate of 35 percent in 2019. Despite the voting age population increasing from 53 million in 1999 to 97 million in 2019, the number of voters in the presidential elections dropped from 30 million in 1999 to 28 million in 2019. This tragic pattern of voters' turnout has posed serious concerns not only to the electoral body INEC, but to all stakeholders committed to democracy in Nigeria. If this downward trajectory in electoral participation persists, it will constitute a major threat to good governance, growth, and development.

Electoral participation by eligible Nigerians begins with the biometric data capturing and registration of voters during the Continuous Voter Registration (CVR) exercise conducted by INEC. Registrants must be Nigerian citizens and at least 18 years old at the time of the next election. Complete participation in the CVR exercise earns the registrant the Temporary Voter Card (TVC) and later the Permanent Voter Card (PVC), which qualifies the registrant to participate in the final twin events of accreditation and voting. However, in between the registration and voting is the compilation and management of the database of registrants, which is the sole responsibility of INEC.

The low participation rate is a hydra-headed problem because of myriad events connected to the voting process, including conduct of the CVR exercise, management of the voter register, and the conduct of the accreditation/voting exercise. Addressing the non-participation in elections holistically requires finding answers to several key policy questions. A seven-member team from UI-LISA collaborated with The Electoral Institute (TEI), a sub-organization within INEC (INEC-TEI) from May 2019 to March 2020 to investigate the factors responsible for voters' apathy and begin to answer the policy questions below.

**1. Policy questions related to the *quality* of the voter register:**

- a. Is the database of registered voters complete, i.e., excludes dead and non-Nigerian registrants and includes all citizens who are 18 years or older?
- b. How accurate is the information captured in the database of registered voters with respect to items such as age, contact address, etc.?

**2. Policy questions related to the *conduct* of the CVR exercise:**

- a. What are the barriers to CVR participation by eligible Nigerians?
- b. For what reasons do eligible citizens fail to register for elections?

- c. What are the socio-economic characteristics of the successful registrants compared to the failed registrants?

**3. Policy questions related to the *conduct* of the voting exercise:**

- a. To what extent were the INEC guidelines for accreditation and voting complied with during the 2019 presidential election?
- b. What are the socio-economic characteristics of the voters in the 2019 presidential elections compared with non-voters?

**4. Policy questions related to the *measurement* of the turnout rate and *quality* of census data:**

- a. How reliable is the use of Voting Age Population (VAP) as the denominator of voter turnout for measuring participation rate, considering that VAP is an intercensal projection based on the national population census which was last conducted in 2006?
- b. Does the relationship between VAP figures and total registered voters (RV) exhibit features that question the quality of either the VAP projections or the register of voters over the years?

## The Production of Data for Policy

In collaboration with INEC-TEI, the UI-LISA team conducted a nationally representative sample survey covering six states selected based on the criteria of one state per geopolitical zone, population size, representativeness, relative accessibility, and security. Twelve registration areas (RA) were randomly selected from each selected state; and from each RA, 30 registrants were selected at random from the INEC register of voters. Thus, a total of 2,160 registrants drawn randomly from the voter register were visited and interviewed in the survey.

In addition, fifteen non-registrants (those not listed in the INEC register of voters) but eligible to vote were sampled randomly from each RA. Thus, a total of 3,240 respondents, consisting of 2,160 INEC registrants and 1,080 eligible but not registered citizens were interviewed in the survey. The distribution of sample by state, registration status, and response status is shown in Table 1. The participants were asked to respond to a three-part questionnaire covering topics on CVR, accreditation, and voting participation. The sample selection and the fieldwork exercise were implemented and administered wholly by INEC personnel and coordinated by The Electoral

Institute, with technical design and support from UI-LISA. To complement the national survey data, electoral data from the records of INEC and other sources were interrogated to identify factors, issues, and events that may have impacted electoral participation.

**Table 1: Distribution of Sample by State, Registration Status, and Response Status**

State	Registrants		Non-registrants		All	
	Response	Total (%)	Response	Total (%)	Response	Total (%)
Anambra	360	360 (100%)	182	182 (100%)	542	542 (100%)
Bauchi	360	360 (100%)	176	180 (97.8%)	536	540 (99.3%)
FCT	360	360 (100%)	201	201 (100%)	561	561 (100%)
Kano	360	360 (100%)	182	182 (100%)	542	542 (100%)
Lagos	329	360 (91.4%)	185	185 (100%)	514	545 (94.3%)
River	270	360 (75%)	177	180 (98.3%)	447	540 (82.8%)
<b>Total</b>	<b>2039</b>	<b>2160 (94.4%)</b>	<b>1103</b>	<b>1110 (99.4%)</b>	<b>3142</b>	<b>3270 (96.1%)</b>

## The Analysis of Evidence for Policy Action

Here we highlight the major findings of our study and how this evidence produced can lead to answering the policy questions and subsequent action to increase electoral participation. A detailed analysis is available in two separate publications on *Enhancing Election Participation in Nigeria: Report and Policy Briefs* ([www.lisau.com/p/publication.html](http://www.lisau.com/p/publication.html)).

### 1. The Quality of the INEC Register of Voters

As shown in Table 2, only 1,199 respondents (56 percent) still retained the same information regarding vital electoral statistics as contained in the register. Also, 267 (12 percent) had changed their residence thereby rendering the residential address currently in the register as invalid. Another 27 (1 percent) were confirmed to have died when visited at the address provided in the INEC register. Surprisingly, 667 (31 percent) were not available for the interview. A further breakdown of this Not-available category shows that 70 (11 percent) were indisposed, 71 (11 percent) were not willing to participate, and 86 (14 percent) were not at home during the survey period. Finally, 64 percent could not be located or reached via the contact address or phone number provided to INEC.

**Table 2: Status of Respondents**

Status	Frequency (%)
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Alive/Available	1,199 (55.5%)
Relocated	267 (12.4%)
Dead	27 (1.3%)
Not-available	667 (30.9%)
(a) Indisposed	70 (11.2%)
(b) Unwilling to participate (Refusal)	71 (11.4%)
(c) Not at home	86 (13.8%)
(d) Cannot be located	398 (63.7%)
<b>Total</b>	<b>2160 (100%)</b>

The survey also sought to know if the date of birth given in the INEC register agreed with the date provided by the respondents during the survey. Out of the 2,160 sample voters, 1,176 (54 percent) provided information about their age that could be compared with the age in the INEC voter register. Table 3 shows that 257 (12 percent) gave a different age from the one on the INEC register and that the age given was underaged. Thus, the study confirmed at least 12 percent of the sampled cases to be underaged. This is very conservative as the percentage could have been much higher if all the sampled voters had provided information about their age during the survey.

**Table 3: Discrepancy in Age of respondents on INEC Register**

<b>Discrepancy Information</b>	<b>Frequency (%)</b>	<b>Notes</b>
Discrepancy but not under-aged	313 (14.5%)	The age at survey is higher than age on register
Discrepancy but under-aged	257 (11.9%)	The age in register is higher than the age given in survey
No discrepancy	606 (28.1%)	Age in register is the same as age given in survey
No age information in survey	984 (45.6%)	Respondent didn't provide age information in survey

## **2. Reasons for Non-Participation of Eligible Citizens in INEC's CVR Exercise**

Respondents identified access to the registration area as the main reason for disinclination to initiate voter registration. Table 4 shows the distribution of the number of attempts during the CVR registration exercise. The unsuccessful eligible citizens failed not because they did not try; in fact they visited more often than their successful counterparts: among those who were ultimately unsuccessful at registering to vote, the mean number of attempts to register is 2.8 compared to 1.8 for those ultimately successful at registering. Consequently, at least 51 percent of attempts at registration failed.

**Table 4: Number of Attempts for PVC**

Number of Attempts	Successful Registrations	Unsuccessful Registrations	Total
Only once	702	82	784
2 or 3	421	134	555
4 or >4	72	23	96
<b>Total (%)</b>	<b>1195 (83.3%)</b>	<b>239 (16.7%)</b>	<b>1434</b>

Table 5 features the distribution of distance and the trekking time from a voter's home to his or her registration area; the mean distance was 1.1 km, while the mean trekking time was 20.7 minutes.

**Table 5: Estimated Household Distance and Trekking Time to Registration Area (RA)**

Estimated distance to respondent's RA		Trekking time to RA	
Distance	Frequency (%)	Time	Frequency (%)
Below 1km	800 (66.9%)	Below 15 minutes	773 (64.7%)
Below 2km	233 (19.5%)	15 minutes but less than 30 minutes	245 (20.5%)
Below 3km	68 (5.7%)	30 minutes but less than 1 hour	104 (8.7%)
Below 4km	41 (3.4%)	1hr but below 2 hours	49 (4.1%)
More than 4km	53 (4.4%)	2hrs or more	24 (2.0%)
<b>Total</b>	<b>1195 (100%)</b>	<b>Total</b>	<b>1195 (100%)</b>

Table 6 reveals the extent to which some factors were differentiated between registrants and non-registrants in the voter registration exercise.

- i. *Gender and Voter Registration:* Our sample was 65 percent male and 35 percent female. In our sample, males constituted 69 percent of the registrants but only 59 percent of the non-registrants ( $\chi^2$  p-value is <0.0001). This shows that gender is associated with voter registration, with females comprising a relatively higher percentage of non-registrants.
- ii. *Age and Voter Registration:* The youth aged 18-24 account for 30 percent of the total sample; yet they account for a disproportionate 51.5 percent of the non-registrants to show that non-registrants are preponderantly youth who therefore should be targeted for encouragement. The middle-aged respondents (25-44) participated more in voter registration compared to other age groups.
- iii. *Education and Voter Registration:* Those with a secondary school education were 66 percent of the total sample but 57 percent of the registrants; on the other hand, those with a tertiary level of education were only 24 percent of the total sample but 34 percent of the registrants. Higher education seems associated with inclination to register.

- iv. *Religion and Voter Registration:* Religion does not seem to affect attitude toward voter registration; the proportion of each of the two main religions in the total sample is retained across the registration divide.
- v. *Occupation and Voter Registration:* Traders, students, and civil servants are 24, 24, and 9 percent respectively of the total sample while they account for a disproportionate 28, 15, and 14 percent respectively of the registrants. While traders and civil servants were more inclined to register, students were less inclined to register.
- vi. *Political Participation Affiliation and Voter Registration:* Those with a political party affiliation were 31 percent of the total sample contrasted against 38 percent of registrants and non-registrants. The unsurprising conclusion is that the party-affiliated are more inclined to register.
- vii. *Political Participation Membership and Voter Registration:* Political party membership is also associated with enhanced participation in voter registration; party members constitute 58 percent of the total sample but 69 percent of the registrants.

**Table 6: Frequency Distribution of Registration Status by Factor Level**

Factor	Factor Level	Registrants (%)	Non-registrants (%)	Total (%)
Gender	Male	1451 (68.6%)	655 (59.4%)	2106 (65.5%)
	Female	663 (31.4%)	447 (40.6%)	1110 (35.5%)
	<b>Total</b>	<b>2114</b>	<b>1102</b>	<b>3216</b>
Age	18 - 24	129 (10.8%)	566 (51.5%)	695 (30.3%)
	25 - 44	742 (62.3%)	424 (38.6%)	1166 (50.9%)
	45 +	320 (26.9%)	109 (9.9%)	429 (18.7%)
	<b>Total</b>	<b>1191</b>	<b>1099</b>	<b>2290</b>
Education	None	108 (9.0%)	128 (11.6%)	230 (10.0%)
	Secondary	680 (56.9%)	832 (75.5%)	1512 (65.8%)
	Tertiary	408 (34.1%)	142 (12.9%)	550 (23.9%)
	<b>Total</b>	<b>1196</b>	<b>1102</b>	<b>2298</b>
Religion	Christian	644 (54.1%)	604 (55.1%)	1248 (54.5%)
	Islam	547 (45.9%)	493 (44.9%)	1040 (45.5%)
	<b>Total</b>	<b>1191</b>	<b>1097</b>	<b>2288</b>
Occupation	Civil Servant	171 (14.3%)	35 (3.2%)	206 (9.0%)
	Private Company Worker	106 (8.9%)	59 (5.3%)	165 (7.2%)
	Trading	338 (28.3%)	223 (20.2%)	561 (24.4%)
	Farming/Fishing/Livestock	171 (14.3%)	147 (13.3%)	318 (13.8%)
	Student	176 (14.7%)	380 (34.5%)	556 (24.2%)
	Unemployed	57 (4.8%)	75 (6.8%)	132 (5.7%)
	Housewife	56 (4.7%)	63 (5.7%)	119 (5.2%)
	Others	121 (10.1%)	121 (11.0%)	242 (10.5%)
	<b>Total</b>	<b>1196</b>	<b>1103</b>	<b>2299</b>
	No-affiliation	739 (61.8%)	848 (77.0%)	1587 (69.1%)
	Affiliated	456 (38.2%)	254 (23.0%)	710 (30.9%)



Political Party Affiliation	<b>Total</b>	<b>1195</b>	<b>1102</b>	<b>2297</b>
Political Party Membership	Non-member	141 (30.9%)	160 (63.0%)	301 (42.4%)
	Member	315 (69.1%)	94 (37.0%)	409 (57.6%)
	<b>Total</b>	<b>456</b>	<b>254</b>	<b>710</b>

### 3. Reasons for Non-Participation of Registrants in the Election

Here we present the analysis of the responses of the sampled INEC registrants to the survey questions on voting participation in the 2019 general election.

- i. *Participation in Accreditation and Voting*: Only 55 percent (1,195) of the sampled INEC registrants responded to the questions relating to the accreditation and voting exercises in the 2019 general election. The high non-response rate of 45 percent was due to several factors, namely; unavailability at the time of survey, relocation, refusal, etc. The analysis of the responses provided by 1,195 registrants to the questions on participation in both accreditation and voting is given in Table 7.

**Table 7: Accreditation and Voting Status**

Voting status	Accreditation Status		Total (%)
	Yes (%)	No (%)	
Yes	927 (77.6%)	0 (0%)	927 (77.6%)
No	14 (1.2%)	254 (21.3%)	268 (22.4%)
<b>Total</b>	<b>941 (78.7%)</b>	<b>254 (21.3%)</b>	<b>1195 (100%)</b>

Two key findings can be deduced from this table. First, no non-accredited registrants participated in the voting process. Second, we found evidence of 1 percent of accredited voters who failed to complete the election cycle by not participating in the voting exercise. Following up on these findings, we conducted a within-group analysis of the 268 registrants who failed to participate in the general election voting exercise. This category of sampled registrants is hereafter referred to as “non-participants.” Of these non-participants, 14 were accredited but did not vote (1 percent) while 254 registrants were not accredited and therefore could not vote (21 percent).

- ii. *Non-participation in Voting and State*: The distribution of the non-participants in the voting exercise by state is presented in Table 8. Interestingly, the four states with the highest non-participant percentages (Lagos, Rivers, Anambra, and Kano) coincide with the states with

the worst turnout rates in the 2019 general election. The turnout rates were 16 percent, 19 percent, 23 percent and 34 percent respectively.

**Table 8: Non-participants in Voting Exercise by State**

State	Non-participants (%)
Anambra	192 (16.1%)
Bauchi	165 (13.8%)
FCT	147 (12.3%)
Kano	206 (17.2%)
Lagos	227 (19.0%)
Rivers	258 (21.6%)
<b>Total</b>	<b>1195</b>

- iii. *Non-participation in Voting and Gender:* In Table 9, the distribution of participation in the voting exercise by gender, education, occupation, and income is shown. An analysis shows that while a majority of the non-participants are males (65 percent), the participants are also mostly male (69 percent). The difference between male and female participation in the election is not statistically significant ( $\chi^2$  p-value = 0.21).

**Table 9: Frequency Distribution of Voting Status by Factor Level**

Factor	Factor Level	Non-participants (%)	Participants (%)	Total (%)
Gender	Male	175 (8.3%)	1276 (60.4%)	1451 (68.6%)
	Female	93 (4.4%)	570 (27.0%)	663 (31.4%)
	<b>Total</b>	<b>268 (12.7%)</b>	<b>1846 (87.3%)</b>	<b>2114 (100%)</b>
Education	Arabic/Islamic school	1 (0.2%)	1 (0.2%)	2 (0.3%)
	No formal education	9 (1.5%)	149 (24.2%)	158 (25.6%)
	Primary education	8 (1.3%)	22 (3.6%)	30 (4.9%)
	Secondary education	40 (6.5%)	101 (16.4%)	141 (22.9%)
	Tertiary education	42 (6.8%)	243 (39.4%)	285 (46.3%)
	<b>Total</b>	<b>100 (16.2%)</b>	<b>516 (83.8%)</b>	<b>616 (100%)</b>
Occupation/ Employment Status	Civil Servant	15 (1.5%)	136 (13.6%)	151 (15.1%)
	Private Company Worker	14 (1.4%)	68 (6.8%)	82 (8.2%)
	Self-employed	41 (4.1%)	483 (48.2%)	524 (52.3%)
	Student	18 (1.8%)	130 (13.0%)	148 (14.8%)
	Unemployed	5 (0.5%)	48 (4.8%)	53 (5.3%)
	Housewife	7 (0.7%)	37 (3.7%)	44 (4.4%)
	<b>Total</b>	<b>100 (10.0%)</b>	<b>902 (90.0%)</b>	<b>1002 (100%)</b>
Income Status	less than N20000	120 (5.7%)	394 (18.6%)	514 (24.3%)
	N20000 but less than N50000	85 (4.0%)	334 (15.8%)	419 (19.8%)
	N50000 but less than N100000	42 (2.0%)	131 (6.25)	173 (8.2%)
	N100000 but less than N200000	14 (0.7%)	47 (2.2%)	61 (2.9%)
	N200000 but less than N500000	5 (0.2%)	17 (0.8%)	22 (1.0%)
	N500000 and above	2 (0.1%)	4 (0.2%)	6 (0.3%)
	No response	-	-	919 (43.5%)
	<b>Total</b>	<b>268 (12.7%)</b>	<b>927 (43.9%)</b>	<b>2114 (100%)</b>

- iv. *Non-participation in Voting and Educational Status:* The distribution of non-participants according to their educational attainment is presented in Table 9. The evidence depicts an inverse relationship between non-participation and level of education. The majority of the sampled registrants who did not participate in the 2019 accreditation and voting exercises were secondary school (40 percent) and tertiary (42 percent) graduates.
- v. *Non-participation in Voting and Employment Status:* The distribution of the non-participants by occupation and employment status is given in Table 9. The figure reveals that occupation and employment status of registrants is a major factor associated with non-participation in voting. Based on the sampled registrants, a plurality (41 percent) of non-participants in the 2019 accreditation and voting process were self-employed. Also, students (18 percent), public servants (15 percent), and privately employed (14 percent) workers contributed in varying measures to non-participation during voting.
- vi. *Non-participation in Voting and Income Status:* The distribution of the non-participants by income status is shown in Table 9. The table shows an inverse relationship between non-participation and income status. The highest percentage (45 percent) of the non-participants among the sampled registrants earned less than ₦20,000 (US \$50) per month. In fact, 92 percent of the sampled registrants who neither showed up for accreditation nor voted in the 2019 general election earned less than ₦100,000 (US \$250) per month.

#### 4. Quality of the Census Data and Measuring the Participation Rate

Voter turnout can be measured in several ways. The Basic Voter Turnout Rate is defined as

$$BVTR = \frac{\text{Total Votes (TV)}}{\text{Total Population (P)}};$$

this is the percentage of the total population that acted on its behalf to

elect the government. A first order standardization of the basic voter turnout is the VAP-based

$$\text{definition } VTR_{VAP} = \frac{\text{Total Votes (TV)}}{\text{Voting Age Population (VAP)}};$$

it is the basic voter turnout rate standardized by the

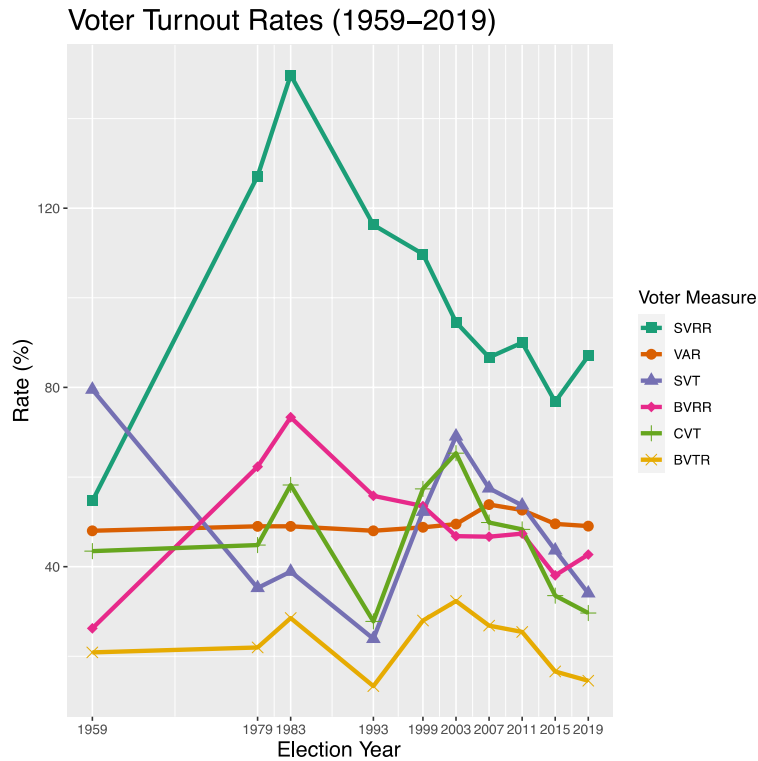
voting age population ratio (or Voting Age Rate)  $VAR = \frac{VAP}{P}$ . The VAP-based turnout rate is the

ratio of total votes to the theoretically eligible voting population. The registered voter (RV)-based

voter turnout rate is a further standardization of the basic voter turnout rate by the VAP-based

voter registration. The registered voters (RV)-based voter turnout rate is defined as  $VTR_{RV} =$

$\frac{\text{Total Votes (TV)}}{\text{Total Registered Voters (RV)}}$ ; the  $VTR_{RV}$  is an international norm while the VAP-based  $VTR_{VAP}$  is not very popular, though still used. Ideally, the six measures of electoral participation depicted in Figure 1, particularly the three relating to voter turnout, should be interrelated, moving in the same direction over time.



**Figure 1: Rates of six measures of voting participation from 1959 to 2019.**

But this is not the case here. The cumulative verdict of the descriptive statistics of the voter turnout rates and their correlations in Table 10 and the quadrennial increases in Figure 2 is that the voter register has problems. However, it seems that the voter register has improved since 2007 to feature some level of consistency. The undeniable fact is that, by whatever criteria, the voter turnout has been declining since 2003.

**Table 10: Descriptive Statistics of Voter Turnout Rates and their Correlations**

	Range	Min	Max	Mean	SD
<b>VAR</b>	5.9	48	53.9	49.7	1.9
<b>BVRR</b>	47.1	26.2	73.4	49.3	13.0
<b>SVRR</b>	95.0	54.7	149.7	99.3	27.1

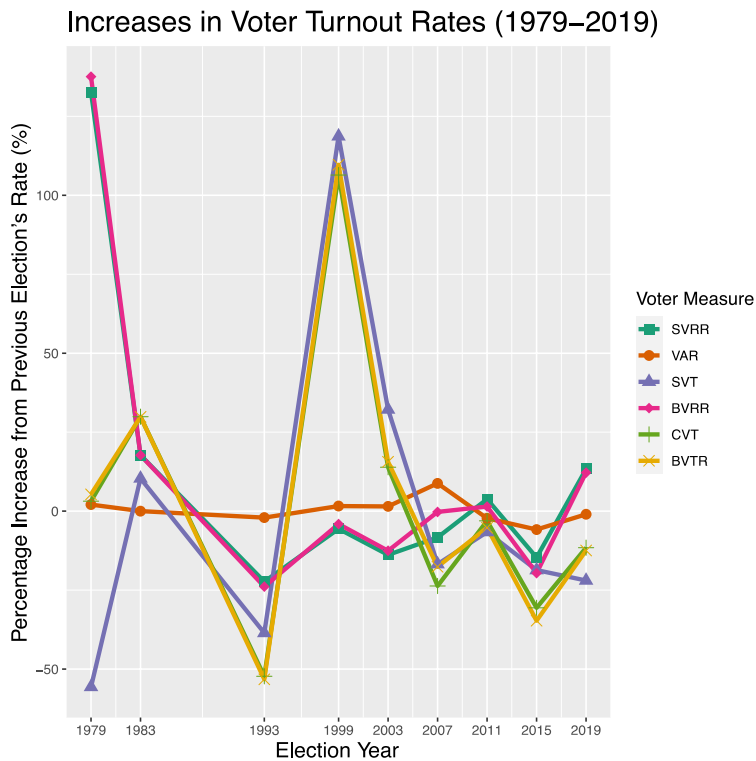
  

	VAR	BVRR	SVRR	BVTR	CVT
<b>BVRR</b>	-0.05	1			
<b>SVRR</b>	-0.18	0.99	1		
<b>BVTR</b>	0.04	0.29	0.23	1	

<b>BVTR</b>	19.0	13.3	32.3	22.8	6.4
<b>CVT</b>	37.5	27.8	65.3	45.8	12.6
<b>SVT</b>	55.6	23.9	79.5	48.8	17.0

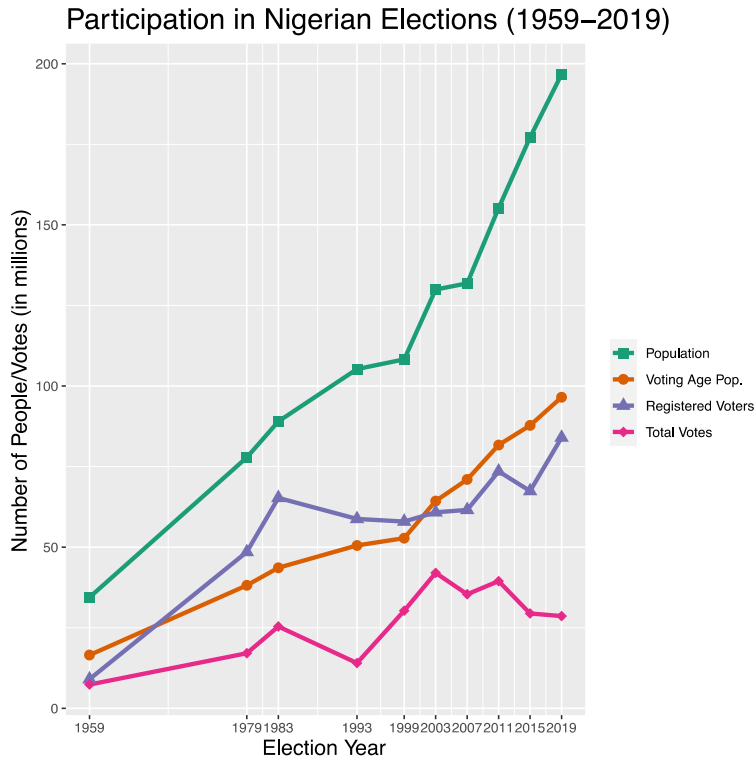
<b>CVT</b>	0.22	0.31	0.27	0.99	1
<b>SVT</b>	0.20	-0.60	-0.62	0.55	0.54

Key: **VAR** – Voting Age Rate; **BVRR** – Basic Voter Registration Rate; **SVRR** – Standardized Voter Registration Rate; **BVTR** – Basic Voter Turnout Rate; **CVT** – Crude Voter Turnout; **SVT** – Standardized Voter Turnout.



**Figure 2: Percentage increase in measure of voting participation from previous election.**

Data on total population, voting age population, total registered voters, and total votes cast at major national elections in Nigeria 1959-2019 is presented in Figure 3. Paradoxically, in Nigeria from 1979 to 1999, the registration turnout rate expressing total registered voters as a percentage of the voting age population returned impossible values (>100 percent). These elections represent four of the nine total presidential elections in Nigeria. These figures mean that total registered voters exceeded the voting age population--a part being greater than the whole. This mathematical impossibility questions the accuracy and quality of at least one of the two candidates of the ratio quotient; it could be an inflation of registered voters, an underestimation of voting age population, or both.



**Figure 3:** Total population, voting age population, total registered voters, and total votes cast at major national elections in Nigeria 1959-2019.

## Recommendations and Next Steps for Action

The following recommendations represent a synthesis of the analysis of the four policy issues earlier raised, namely, the quality of the voter register, non-participation in the CVR exercise, non-participation in the voting exercise, and measurement of turnout rate based on VAP.

It is recommended that INEC should embark on a targeting-based enlightenment, civic education, and incentivizing of the following categories of registrants in order to improve future turnout rates:

- i. registrants in Rivers State, Lagos State, and Kano State;
- ii. registrants with secondary education and above;
- iii. self-employed and student registrants; and,
- iv. low income earners (earning below US \$50 per month).

In addition, the Commission should:

- i. facilitate a hassle-free, seamless, and trouble-free process for PVC collection;
- ii. simplify the procedure and process of replacing lost PVC;
- iii. update voter registration through door-to-door campaigns and use online platforms;
- iv. use other avenues such as national population records, national identity card register, and other national databases to update the voter register; and,
- v. review its registration area strategy and create new registration areas and polling units based on demographic features such as structure, dynamics, size, density, and spatial distribution of the voting age population, geographic landscape (landmass, accessibility, terrain, etc.), and spatial distribution of socio-economic infrastructure.

Finally, as a way forward, the cohort of registrants sampled for this study should be followed up after each round of elections in the future to generate longitudinal data that can be analyzed to understand the dynamic behavior of the registrants in election participation. This will further help to evaluate the impact of measures implemented to improve election participation. The study design and scope can be expanded to cover other states not selected in this first wave.

## Conclusion

This paper presents the findings of one of the completed development projects undertaken under the Transforming Evidence to Action (TEA) program of the LISA 2020 Network. The project showcases the partnership between a statistical collaboration laboratory (UI-LISA) and a governmental organization that has the capacity to both produce data and make decisions about the electoral process (INEC) to address the challenge of the downward trajectory in election participation in Nigeria. The analysis covers four policy-related issues, namely, the quality of the voter register, the conduct of the continuous voter registration exercise, the conduct of the voting exercise, and the measurement of participation rate. The collaboration with development actors and the evidence produced show how a typical stat lab can help to solve development challenges and produce evidence to answer policy questions that will lead to development impacts and benefits to society.

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