Introduction

This policy brief outlines the findings from the Teacher Supply and Demand study in Zamfara. The report was produced for the DFID-funded Teacher Development Programme (TDP) by Education Data, Research & Evaluation in Nigeria (EDOREN). TDP is a six-year programme (2013-19) that seeks to improve the quality of teaching in primary and junior secondary schools and in Colleges of Education (CoEs) in six states in Northern Nigeria. During its first phase, TDP is working in three states - Jigawa, Zamfara and Katsina. TDP was introduced in response to the recognition that children in Nigerian schools are not learning and that the quality of teaching, which is of central importance to the learning achievement, is a serious concern.

Background to the study

The study generated ten-year projections of the number of teachers required in primary and junior secondary schools (JSS) in Zamfara, and outlines the likely supply of teachers to the school system and suggestions for improving teacher recruitment and deployment. The report seeks to support TDP’s efforts to work with the state government and Colleges of Education to ensure that Zamfara has an adequate number of appropriately trained teachers in its basic education system.
Study Methodology

The study utilised a mixed methods approach comprising qualitative instruments as well as a documentation checklist (used to meet the quantitative data requirements) to collect data in accordance with the research matrix.

1. **Qualitative data collection:** There were three separate qualitative instruments developed for the exercise. The first was directed at the Colleges of Education, and aimed to learn more about their student-teacher intake and the teacher graduation numbers for both for primary and JSS levels. The second instrument was focused on primary teachers, and hence, aimed at the State Universal Basic Education Board (SUBEB). The third instrument focused on junior secondary school teachers, and was therefore directed to the various Teacher Boards in Zamfara.

2. **Qualitative Sampling:** We used purposive rather than representative sampling, with the aim of identifying the individuals responsible for the particular aspect assessed in each institution. This sampling was supplemented with a snowball sampling approach in the field, whereby key stakeholders whose relevance only became clear during the field work were added to the list of interviewees for the study.

3. **Quantitative data collection:** The focus here was on obtaining additional administrative records or policy documentation that need collecting by relying on the data checklist. These checklists were split by the three target institutions: Colleges of Education, SUBEB and the Teacher Boards.

Projecting Teacher Demand

To project teacher demand between 2015 and 2025, we used the Education Policy and Strategy Simulation (EPSSim) model, developed by UNESCO, to analyse and project resource needs under different scenarios. We used baseline data pertaining to the school-age population, pupil enrolment and the teacher stock to project future pupil and teacher stocks. We then used the model to project demand under two scenarios by defining core parameters under these two different scenarios. The core parameters that need to be set for scenario development are the gross intake rate, promotion and repetition rates and Pupil Teacher Ratios (PTRs).

These are as follows:

- **Status quo scenario:** The key policy levers remain at their baseline levels and growth in teacher demand is driven entirely by growth in the size of the school-age population.

- **Universal Basic Education (UBE) scenario:** The national-level goals of universal enrolment in basic education and PTRs of 40:1 at primary level and 35:1 at JSS level are achieved at the end of the forecasting period. Enrolment rates and PTRs gradually adjust to these national-level targets over the course of the forecasting period.

**UBE Scenario**

35:1

Pupil to Teacher Ratio (PTR)
Study Objectives

The study aimed to reach the following objectives:

1. Estimate the size of current shortages of teachers at the primary and junior secondary levels (both qualified and unqualified), disaggregated by Local Government Association (LGA) and subject.

2. Prepare 10-year projections of teacher demand and future recruitment needs at the primary and junior secondary levels.

3. Estimate the financial implications of these projections and the associated fiscal gap.

4. Assess key aspects of teacher supply: how intake quotas are set; the scope for expanding the supply; the system for screening applicants to the CoEs; and the likely size of the reserve pool of teachers.

5. Assess current policies and practices related to teacher recruitment, particularly the extent to which these are effective in ensuring that the best available candidates get recruited.

6. Assess current policies and practices related to teacher deployment.

7. Identify potential pathways for improvements on each of these fronts.
**Findings and Recommendations: Teacher Needs**

There are large shortages of teachers in Zamfara’s public primary schools and these have worsened in recent years. At the junior secondary level there is a small surplus of teachers, suggesting that there is a case for redeploying teachers from primary schools to JSS. Subject mismatches do exist, but there is not enough data to fully estimate their extent.

Teacher demand is set to grow rapidly over the next decade, particularly if the state is to make progress towards national norms associated with the policy of UBE. Our forecasts indicate that growth in the school-age population alone is likely to lead to a 43% increase in teacher demand at the primary level and an 83% increase at JSS level between 2015 and 2025. If the state were to make gradual progress towards UBE goals, teacher demand would grow sharply to more than three times the current number at primary level and almost five times the current number at JSS level. There is considerable uncertainty related to the accuracy of these forecasts because of the dearth of reliable school-level data in Zamfara.

In light of these findings we recommend that the state government should:

- Make a minimum political commitment to keep the teacher payroll budget constant in real terms or increase it in line with the overall state budget, whichever is higher. This sort of modest political commitment should be both realistic and attractive for the state government. It should be made by the state Governor and should be closely monitored.
- In the status quo scenario, redeploy teachers from JSS to primary schools taking the subject specialisation of teachers into account; and
- Invest in improving the availability and accuracy of data on basic education.

**Findings and Recommendations: Teacher Supply**

The Colleges of Education (CoEs) in Zamfara are currently producing more NCE holders than the state can absorb because of the tight fiscal situation and the associated freeze on teacher recruitment. It is clear that over the short term at least, the main constraint on teacher numbers in Zamfara is the lack of funding for recruitment rather than a dearth of qualified candidates.

There are various mismatches between teacher needs and supply in the state. The process of setting intake quotas at the CoEs is not geared towards meeting state demand and is driven primarily by the number of applicants who meet the CoEs’ enrolment requirements. There are mismatches in subject specialisations. Notably, less than 20% of recent cohorts of students are enrolled on the Primary Education Specialisation, which is required to teach at primary level, where there is greatest demand for teachers.

Enrolment requirements at the CoEs are not particularly stringent, as indicated by the content of their entrance exams and the fact that neither College seeks to assess applicants’ non-cognitive skills or aptitude for and interest in teaching. Stakeholder interviews suggest that there is limited scope for the CoEs to be more selective owing to relatively low levels of interest in the NCE.
In light of these findings – and particularly the presence of large numbers of unemployed NCE holders in Zamfara – we recommend that:

1. The CoEs should introduce more selective admissions processes and cut their student intake, at least over the medium term. This would need to be accompanied by reliable government funding for the CoEs’ non-salary expenses.

2. The state government should incentivise the CoEs to focus primarily on the quality rather than the number of their graduates. This could involve a combination of reducing the CoEs’ reliance on student fees; introducing funding top-ups for the CoEs based on the share of their graduates who are able to score in the top bands of a highly selective teacher assessment; and explicitly linking teacher recruitment to such an assessment.

3. The state government should estimate and regularly share data on teacher needs by subject with the CoEs. This would require significantly improving the quality of data related to teachers.

4. The Education Boards should prioritise subject specialisation during recruitment. This is needed to create incentives for teacher trainees to study subjects that are in high demand.

5. The state government and CoEs should introduce a system to track the latter’s graduates. This would allow the state to keep track of the size of the reserve pool of teachers. The database should also serve as a key resource during teacher recruitment.

Findings and Recommendations: Teacher Recruitment and Deployment

We find that in the current fiscal climate, the main barriers to ensuring that sufficient numbers of teachers are recruited in Zamfara are political and financial rather than technical. It is unclear whether the recruitment process is rigorous enough to ensure that teachers have the basic skills needed to teach effectively. The limited data that is available on teachers’ skills in Zamfara raises serious questions about this. There are few mechanisms in place to ensure that the most competent or qualified NCE graduates are the first to be recruited. This is particularly pronounced when there is a freeze on large-scale recruitment, as has been the case in recent years.

Teacher deployment patterns in the state are highly uneven. This is underpinned by the lack of attractiveness of rural teaching posts. Government officials are aware of this challenge and are seeking to address it, for instance by posting teachers to their home LGAs. However, further steps are needed to improve rural deployment. The challenges with rural postings have also meant that subject specialisations tend to be neglected when making deployment decisions, as greater emphasis is placed on the teachers’ LGA of origin.

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Experiment with cost neutral ways to increase teacher numbers, including carrying out further, regular payroll audits. This would include exploring alternative staffing models such as hiring less-qualified teaching assistants on lower salaries to work alongside teachers.

Maintain a reserve list of applicants from previous recruitment rounds: This would contribute to a more systematic process of recruitment even during times when there is a freeze on large-scale recruitment in the state.

Carry out a rigorous assessment of the skills and competencies of a sample of recent teacher recruits: In light of recent survey findings on teachers’ low levels of skills and subject knowledge in Zamfara, we recommend that an independent assessment be carried out of the skills and knowledge of a sample of recent teacher recruits to enable the state to reflect on the adequacy of its recruitment practices. For such assessments to be useful and meaningful, it is vital that they be carefully designed and administered.

Explore a set of policy options related to incentivising teachers to work in rural areas: We recommend that discrete choice experiments be used to better understand teachers’ preferences for working in different locations in order to identify the most effective ways to incentivise them to work in rural areas. These could take the form of financial incentives, the provision of housing, or scholarships for upgrading their skills. With any such scheme, it is vital to have a fair system for classifying schools by location and to ensure that it is transparently and consistently applied.

Identify ways to improve the attractiveness of the teaching profession: It is clear that this is a major constraint on the supply of sufficiently qualified and motivated teachers in Zamfara. Addressing it is likely to involve a mix of increasing pay, at least for well-performing teachers; ensuring that teachers are paid on time; ensuring that they have the resources they need to do their jobs; setting out promotion criteria on merit (rather than years of service); and finding ways to improve the status of the profession.

In light of these findings, we recommend that the state government should:

1. Experiment with cost neutral ways to increase teacher numbers, including carrying out further, regular payroll audits. This would include exploring alternative staffing models such as hiring less-qualified teaching assistants on lower salaries to work alongside teachers.

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### Summary of key recommendations by responsible authority

#### Key Recommendations

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<td>2. Incentivise the CoEs to improve the quality of their graduates. This could involve reducing the CoEs’ reliance on student fees; introducing funding top-ups for the CoEs based on the share of their graduates who are able to score in the top bands of a highly selective teacher assessment; and explicitly linking teacher recruitment to such an assessment.</td>
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<td>4. Introduce an online system to track graduate teacher absorption, in partnership with the CoEs.</td>
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<td>5. Identify cost neutral ways to increase teacher numbers, including by carrying out further regular payroll audits.</td>
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