Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized

World Bank Group
Education Global Practice
Innovations in Education—Africa
104252
MARCH 2016

Teacher Management 2.0

Improving Teacher Deployment in Malawi

Snapshot

A majority of the countries in the Africa Region are **struggling to make meaningful progress in reforming teacher management.**

We know that promoting sound recruitment and deployment, performance management, accountability, as well as timely guidance and support to teachers are critical in advancing second generation education reforms for improving quality of learning in the region.

Weak national systems of teacher deployment and accountability result in huge disparities in teacher distribution in the region. Instead of addressing the systemic challenges within the regulatory bodies and incentives structures that produce this lop-sided distribution of teachers, governments often treat it simply as a teacher shortage issue.

We still know relatively little about what actually works in **moving teachers to where they are needed the most: remote schools.**

Mulkeen (2010) and Kadzamira (2006) find **sizable disparities of pupil-teacher ratios across the districts of Malawi**, with teachers concentrated near town and city centers, and in individual schools known for having better amenities within rural areas.

To address this, the Government of Malawi requested Technical Assistance in developing a data driven approach to address teacher distribution issues.

Why is Teacher Management Reform Critical for Malawi?

- **31% primary completion rate** – very high repetition and drop-out rate, especially among rural students.
- **Highly inefficient spending on education**: public spending on education accounts for 7% of Malawi's GDP, of which two-thirds is spent on primary education — but quality of learning is very low
- **Inadequate and poorly targeted rural allowances** result in inequitable distribution of teachers with pupil-teacher ratio ranging from 7 to 1220 students per teacher.

Table I. Summary Statistics of Education Indicators

	2010	2011	2012	2013	2014	2015
Total Schools	5,192	5,225	5,252	5,359	5,389	5,415
Total Students (StD1 to STD8)	3,818,508	3,996,831	4,149,614	4,441,971	4,603,941	4,724,186
Total Teachers	58,328	62,859	63,696	70,314	72,717	68,947
Teachers on Established Posts (Qualified)	n/a	n/a	n/a	n/a	51,717	58,307
Pupils to Total Teachers Ratio	65.47	63.58	65.15	63.17	63.31	68.52
Including						
In rural area	65.81	63.15	64	62.15	62.25	68.59
In urban area	63.04	67.77	73.43	70.54	71.63	67.89
Pupils to Qualified Teacher Ratio	n/a	n/a	n/a	n/a	89.01	81.02

Summary of Framework

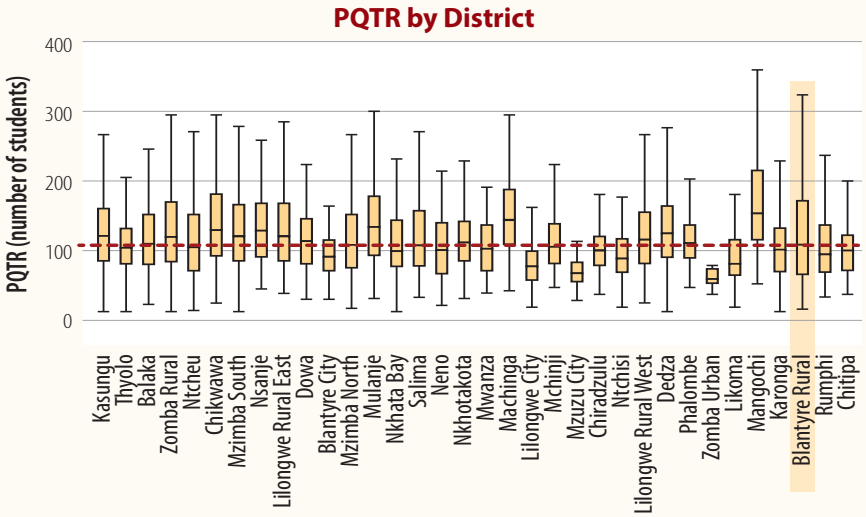
The team has employed a multi-pronged approach to develop a technically sound and politically feasible solution to improve deployment of teachers in Malawi. This includes gathering relevant databases from MoEST, Department of Human Resource Management and Development (DHRMD) and the National Statistical Office (NSO), and shaping them up for analysis. Secondly, the team initiated dialogue with the Basic Education Directorate and Planning Department at MoEST about creating ownership on the proposed framework, and to gather feedback from officials within the Ministry.

After this, the team conducted Focus Group discussions with district and subdistrict officials, teacher union representatives, head teachers, and district and zone-level EMIS officers. This was complemented with visits to school sites in the central region of Malawi to hold discussions with school management committees, PTAs, mother groups, teachers and learners to develop a better understanding of system-level constraints on teacher management in Malawi.

DISTRICT-LEVEL VARIATION IN TEACHER DEPLOYMENT:

The lowest median value of pupil-to-qualified-teacher-ratio (PQTR) is 57 for Zomba Urban District, while the highest is for Mangochi District at 152.

In 2015 data, we observe an overall pupil-teacher ratio of about 81:1. However, this ratio varies significantly across districts:



ZONE-LEVEL VARIATION IN TEACHER DEPLOYMENT:

Our data indicate that teachers may tend to cluster in zones with better amenities, mainly:

- Access to roads during rainy season
- Close proximity (within 5 km) to a Trading Center

Focus group discussions indicated that other factors which may contribute to teachers' choice of moving to rural/ remote schools include:

- Electricity
- Access to piped water
- Access to housing
- Health facility
- Pupil-teacher ratio

The participants agreed that the allocation of allowances should be re-calibrated using distance measures as well as other key factors that influence the choice of teacher location. Slab-based systems with additional allowances up to 45-50,000 MKW will be sufficient to incentivize movement in remotest school locations.

Table II. PTR in Khombwe Zone in Blantyre Rural District

School Name	Number of students	Number of teachers	Number of qualified teachers	Pupil to qualified teacher ratio	Pseudo-fair distribution of teachers
Chitakale	175	4	4	43.75	2
Chigwaja	854	16	14	61	6
Chibwana	334	4	4	83.5	3
Maliya	757	10	9	84.11	6
Chilingani 2	452	3	3	150.67	4
Namitalala JP	170	1	1	170	2
Chimembe	1228	7	5	245.6	8
Chilingani 1	573	2	1	573	5
Khombwe	1672	4	4	418	12
Nkuyu Primary School	448	1	1	448	4

Analytics to Improve Teacher Deployment

The first step in the analysis was to map the decision-making process of a typical teacher in requesting movement from a remote school to an urban center.

To map the regulatory structures and incentives that were in place, we conducted focus group discussions with the Head Teachers, Teacher Union of Malawi (TUM), and district / sub-district officials drawn from the central, northern, and southern regions of Malawi.

In all the three regions, the participants agreed that **distance of schools to the nearest commercial hub, called the trading center, is the key factor in the choice of school** they want to be assigned to. Other factors included proximity to a health facility, access to road, electricity and piped water supply. We also learnt that the **current hardship allowance valued at MKW 10,000 (2% of average salary) are inadequate** to cover even the daily commute expense of the teachers; it hardly serves as an incentive for teachers to stay in remote areas.

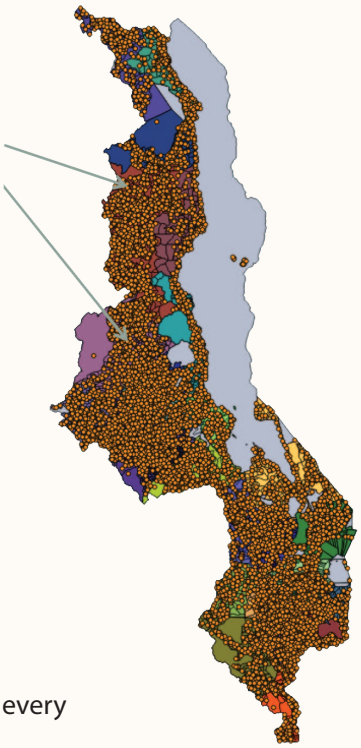
Hardship allowances are given to rural schools only, which means almost 85% of the teachers in Malawi end up getting a hardship allowance. However, the geographical **demarcations that define urban/ rural boundaries are outdated, and hardly reflect the locations of remote, rural schools** versus ones in close proximity to trading centers.

To address the problem above, we needed to devise an objective method for determining how remote any given school was. To achieve this, we used spatial data (i.e. GPS coordinates) from all schools and trading centers in Malawi, and matched each school with the trading center nearest to it.

Schools further away from a trading center tended to have higher pupil-teacher ratios. Schools in close proximity to their trading center also had better access to roads, electricity and piped water. Nearly 43% of the schools close to the trading center had some form of available teacher housing.

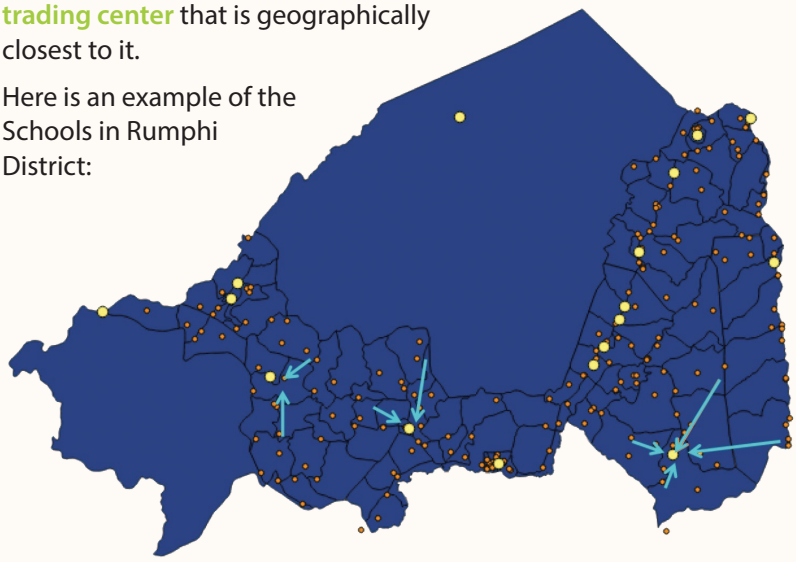
Like with hardship allowances, the evidence suggests that the Government of Malawi is not targeting staff houses to schools where they are needed the most.

Using GPS coordinates, all of the schools in our dataset are placed on a map of Malawi



Within each of Malawi's districts, every school is then matched with the trading center that is geographically closest to it.

Here is an example of the Schools in Rumphi District:



Pathways to Improve Teacher Deployment

Incentives to teach in remote schools are virtually non-existent in Malawi. In order to improve distribution of teachers, the Government needs to introduce better targeting and rationalization of incentives. Once the 'remoteness measure' for each school is validated by the districts, the hardship allowances and provision of new housing can be linked to the distance of the school from trading center. Recognizing the dividends of this reform, the Government has committed to operationalize a strategy that hits at the distribution of teachers as a key results based component in the upcoming education project.

Policy Objectives	Issues That Need to be Addressed	Gaps in Policy & Data
Equitable Teacher Deployment	Inconsistencies and discrepancies across payroll, school census and district-level data.	**District payroll information (HR database) inconsistent** with where the teacher is according to administrative data (EMIS database)
	Weak internal teacher tracking system	Lack of accurate district level list of teachers deployed in schools, and **disconnect between the district that pays the teacher and the one where they are physically deployed**.
	Huge variation in pupil-teacher ratios across and within districts.	Policy framework for legitimate transfer of teachers is absent. **Disproportionate distribution of vacancies across administrative grades**, especially at PT4 (entry-level) grade
Targeted and Rationalized incentives	Inadequate hardship allowances received by more than 85% of teaching workforce	**Current hardship allowance provides little incentive** for teachers to move to remote regions.
	Poor targeting of hardship allowances	**Current hardship allowances are based on rural/urban demarcation** which does not factor in distance from trading center or other amenities available in the school.
	Inadequate provision of staff housing in remote schools	**The data does not show any relationship between more teacher housing and lower pupil teacher ratios**. Currently teacher housing is not being targeted to schools that need it the most—remote schools.

Standard Two, Government Junior Primary School, Mchinji Rural District, Malawi

Photo Credits: Wathando Mughandira.

The task team conducts a focus group discussion with teachers and school committee members in the Mchinji district of Malawi.

Photo Credits: Wathando Mughandira.