



Lost time, Lost opportunities: Understanding teacher and school director attendance in Mozambique

Summary

Instruction time is a crucial component of student learning and is closely associated with attendance rates for students, teachers and directors. This report examines teacher and director absenteeism in Mozambique's schools, using data from the Avaliação Longitudinal da Desistência Escolar (ALDE, Longitudinal Assessment of School Dropout). It seeks to understand factors related to the attendance of teachers and school directors in order to inform policies and practices to strengthen the primary education system in Mozambique.

Key Messages

- Schools in Mozambique were closed on 9.8 per cent of scheduled days in 2021 (excluding holidays and closures due to the COVID-19 pandemic) – a decrease from 2019 (11.4 per cent) and 2018 (13.6 per cent).
- Closures were higher on Fridays (14.4 per cent) compared to other days of the week (when the percentage ranged from 7.3–10.2 per cent), a finding consistent with previous years.
- Director absenteeism decreased from 39.4 per cent (2019) to 27.9 per cent (2021); rates of absenteeism were higher in rural areas and among male school leaders.
- Teacher absenteeism was 21.6 per cent in 2021, lower than 2019 (24.5 per cent), but higher in rural areas (24.0 per cent) and in the North/Centre regions (22.9/22.6 per cent) than urban areas (17.1 per cent) and South region (18.4 per cent).
- Teacher absenteeism is strongly associated with director absenteeism and school size. Teachers with other income-generating activities have higher absenteeism rates (significant at 10 per cent). This association goes away when controlling for school type and region, highlighting that it is driven by teachers from small schools in rural areas.

Introduction

Instruction time is a crucial factor in the development of students' learning (Karamperidou et al., 2020). Having a teacher in the classroom and actively teaching is strongly associated with students' attendance and learning (Harris van Keuren, 2009). The absence of teachers can also lead to an increase in administrative costs, as there may be excessive workloads for other teachers, a need to recruit additional teachers, and additional expenses such as overtime (Msosa, 2020).

Previous studies have measured the rate of teacher absenteeism in Mozambique and identified it as a critical factor affecting children's learning in the country.¹ In 2018, one study found that 28.4 per cent of teachers were not in school during unannounced visits and this was strongly associated with a school director being absent (Bassi et al., 2018).² Understanding and solving this issue is vital, because teacher absenteeism is one of the main barriers to achieving quality and inclusive education, as it is strongly associated with student absenteeism (UNICEF et al., 2022). Recent qualitative evidence demonstrates that teacher absenteeism substantially discourages children's attendance and diminishes their appreciation for learning (Torre et al., 2023).

This research examines the absenteeism of teachers and directors in primary schools in Mozambique, using data from surveys conducted in 2018, 2019 and 2021 as part of the Longitudinal Assessment of School Dropout or Avaliação Longitudinal da Desistência Escolar (ALDE). The main objective of this research was to: 1) provide an overview of teacher and director absenteeism prior to and after the COVID-19 pandemic, 2) compare teacher and director absenteeism rates based on factors such as individual teacher attributes and school-related variables, and 3) investigate the factors at both individual and school levels that influence teacher absenteeism.



1 Bassi et al. (2018), Karamperidou et al. (2020), Nugroho & Karamperidou (2021), UNICEF et al. (2022).

2 Service Delivery Indicators (Bassi et al., 2018) and ALDE differ in methodology. SDI sampled teachers and made one unannounced visit per teacher, while ALDE sampled students and schools, with each teacher visited multiple times (about eight visits on average).

Data and methodology

ALDE is a nationally representative longitudinal survey of 5,400 primary school children in Mozambique, conducted across 60 schools distributed in the 11 provinces of the country.³ Surveys were administered to students as well as their caregivers, teachers and school directors. To date, three rounds of data have been collected: in 2018, 2019 and 2021.⁴ In each round, data collection lasted approximately two months. During this period, enumerators resided in the communities of each school, and administered the different questionnaires for students, teachers, directors and caregivers.

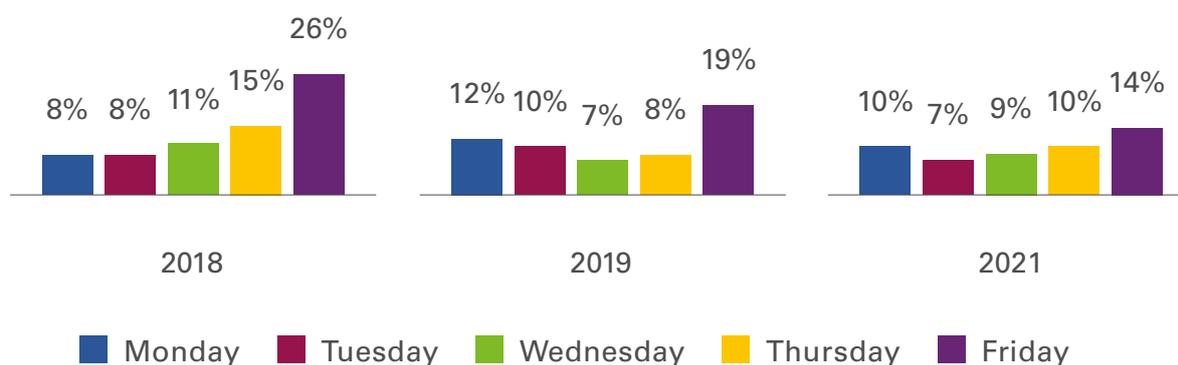
From Monday to Friday, enumerators visited schools in the morning to confirm if the school was open. School closures were measured taking into account the official school calendar of the Ministry of Education and Human Development and accounting only for the days when the school should be open and receiving students. In total, due to the COVID-19 pandemic in the 2021 school year, schools were fully closed across the whole country during 16.9 per cent of the school year (or 44 days), and partially open with certain regions or locations closed for an additional 30.7 per cent of the school year (or 80 days). Enumerators were not present in communities and checking on schools when they were closed due to COVID-19. In addition to measuring school closures, enumerators checked students’ attendance, as well as the attendance of their teachers and the school director on approximately two randomly selected days per week.

On average, the status of each school was verified on 27 different days and the attendance of teachers and directors was checked on eight separate days. For each of these three variables, a score from zero to one was created and represents the percentage of days that schools were open or that teachers and directors were present in the school.

School closure

According to 2021 data, schools in Mozambique were closed on 9.8 per cent of the days they were supposed to be open according to the school calendar. This represents a decrease compared to 2019 (11.4 per cent) and 2018 (13.6 per cent). The percentage of closures was higher on Fridays (14.4 per cent) compared to other days of the week (between 7.3 and 10.2 per cent), following the same pattern seen in the data from 2018 and 2019 (see Figure 1).

Figure 1: Percentage of schools closed by day of the week



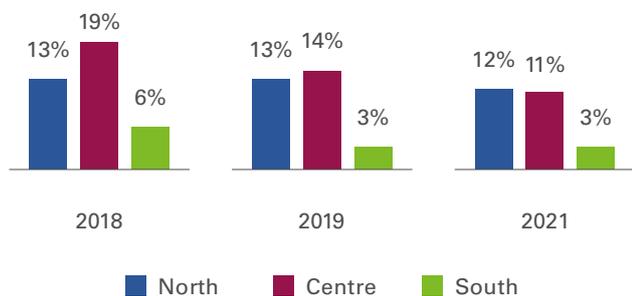
Source: ALDE 2018, ALDE 2019 and ALDE 2021

Schools in the south were less likely to be closed, with only 3 per cent of days closed, compared to 12 per cent and 11 per cent in the North and Centre respectively (see Figure 2). Urban schools had a far lower closure rate, with schools being closed only 1 per cent of the time, compared to a rate of 12 per cent in rural areas (see Figure 3).

3 More details about the sample design are given in Annex E.

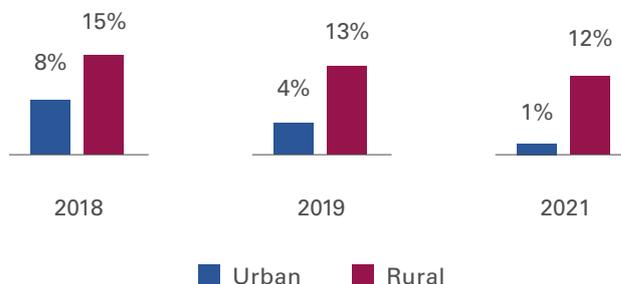
4 The qualitative component (focus groups and Key Informant Interviews) was conducted in 2021.

Figure 2: Percentage of school closure by region



Source: ALDE 2018, ALDE 2019 and ALDE 2021

Figure 3: School closure by location



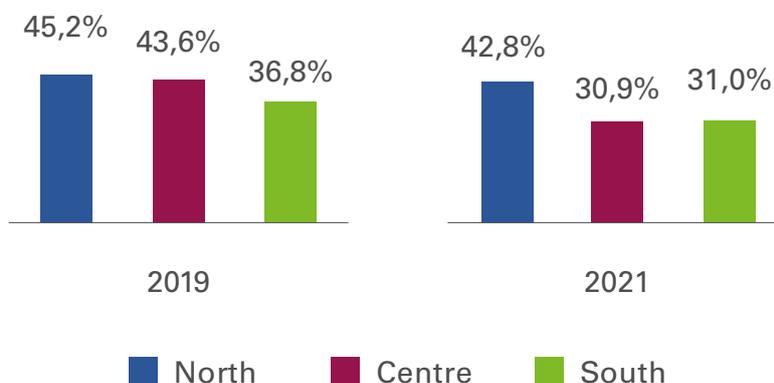
Source: ALDE 2018, ALDE 2019 and ALDE 2021

Director absenteeism

The school directors' absenteeism rate decreased by 11.5 percentage points from 2019 to 2021 (39.4 to 27.9 per cent).⁵ It was higher in rural areas (43.4 and 37.0 per cent, in 2019 and 2021 respectively) than urban areas (40.7 and 27.9 per cent) and higher for male directors (40.3 and 35.9 per cent) than female directors (29.9 and 26.0 per cent), in both 2019 and 2021.⁶

Comparing the regions (Figure 4), in 2021 the absenteeism of school directors was higher in the North (42.8 per cent) than in the Centre (30.9 per cent) and South (31.0 per cent). In 2019, it was 45.2 per cent in the North, 43.6 per cent in the Centre and 36.8 per cent in the South.

Figure 4: School director absenteeism by region



Source: ALDE 2019 and ALDE 2021

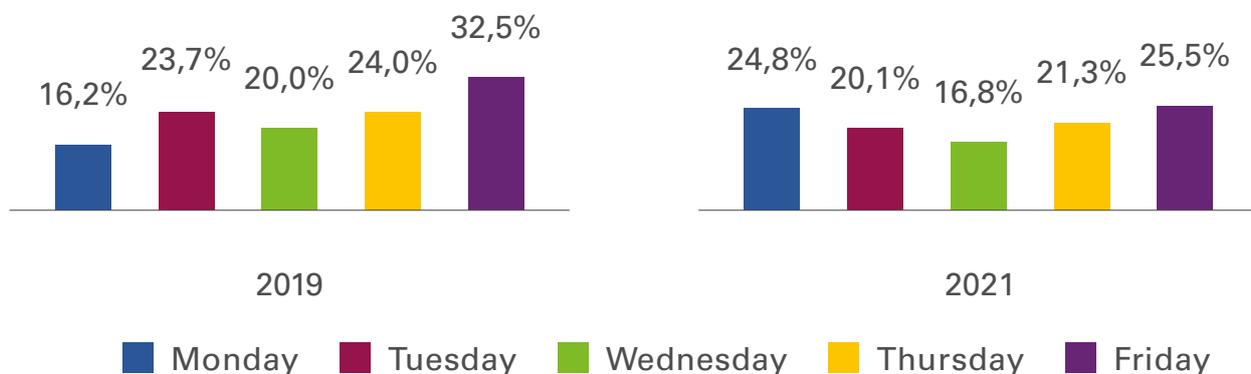
Teacher absenteeism

Teacher absenteeism in 2021 was 21.6 per cent, a reduction from 24.5 per cent in 2019. As with school closure rates, and director absenteeism, teacher absenteeism was higher in rural areas (24.0 per cent) than in urban areas (17.1 per cent) and higher in the North and Centre region (22.9 and 22.6 per cent, respectively) than in the South region (18.4 per cent). As shown in Figure 5, teacher absenteeism was higher on Fridays (32.5 per cent in 2019 and 25.5 per cent in 2021). No statistically significant differences in teacher attendance were found between female and male teachers.

⁵ For director and teacher absenteeism, the values are calculated for the days schools are open, excluding holidays and pandemic-related closures.

⁶ Director absenteeism was not measured in 2018.

Figure 5: Teacher absenteeism rate by day



Source: ALDE 2019 and ALDE 2021

When teachers were absent, the director or other teachers were asked about the reason for the absence. However, in almost half of the cases (47.6 per cent), the absence was unjustified, meaning that the peers of the absent teacher had no knowledge of why they were absent. In 19.6 per cent of cases, other teachers or the director said the absence was due to a medical illness.

Determinants of teacher absenteeism

To investigate the main factors associated with teacher absenteeism, analysis was carried out with multiple variables at the individual teacher level (gender, age, level of education, distance they live from school, other income-generating activities) and school level (size of school, school council meetings, infrastructure, director absenteeism rate).⁷ The chosen variables were based on previous studies, and based on factors for teacher absenteeism that were identified through in-depth interviews with teachers (Nugroho & Karamperidou, 2021; Torre et al., 2023). Key factors for absenteeism reported by teachers through qualitative interviews were: i) the availability of adequate housing, especially for female teachers; ii) The distance to school, aggravated by weather conditions; iii) scarce or absent provision of services, such as electricity and mobile phone network, that limits communication and teachers' ability to participate in online in-service training; and iv) poor pedagogical preparation.

Regression analysis was used to measure the relationship between teacher absenteeism scores and teacher and school characteristics. According to the multivariate analysis (Annex D – Table 1), factors strongly associated with teacher absenteeism are school director absenteeism and school size (with the relationships statistically significant at the 1 per cent level). Smaller schools were associated with higher teacher absenteeism. These schools are mostly located in rural areas, further from urban centres. No direct relationships were found between teacher absenteeism and the number of supervision visits to schools (three or more visits in the year) or the number of school council meetings (four or more in the year).

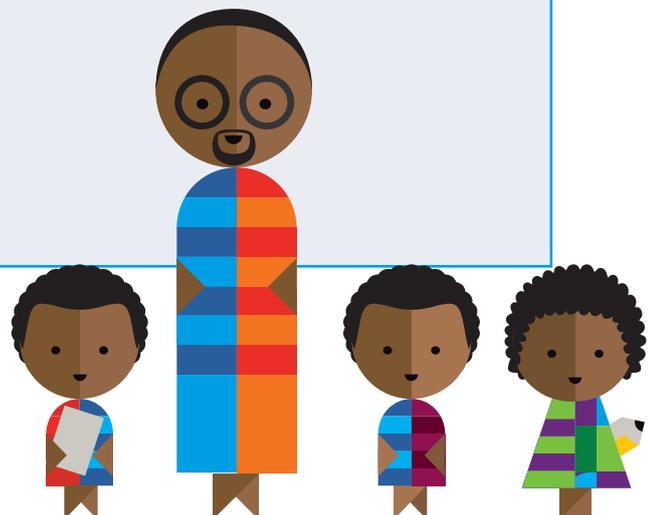
Another factor for teacher absenteeism is the need for some teachers to earn additional income. Teachers who hold multiple jobs are more prone to absenteeism than teachers who earn income exclusively from their jobs (Karamperidou et al., 2020). While there is a strong correlation between teachers having other income-generating activities and higher absenteeism rates, the relationship loses statistical significance when school size and region are added as controls. This is likely due to the high correlation of teachers from the rural north having other income-generating activities. The findings align with previous research on teacher absenteeism in Mozambique including Survey Delivery Indicators (Bassi et al., 2018) and Time to Teach (Nugroho & Karamperidou, 2021).

⁷ To control for regional variability, fixed effects at the regional level were also used in the analysis. The complete list of variables included in the analyses and their definitions is in Annex D – Table 4.

Conclusion and recommendations

Despite the slight decrease in teacher and director absenteeism rates, absenteeism remains prevalent in rural areas and certain regions. To enhance the quality of education in Mozambique and address the issue of absenteeism, this research proposes the following set of recommendations for policymakers:

- 1. Develop an annual school punctuality plan in collaboration between the national, provincial and district levels.** The plan should include a review of the effectiveness of school councils in improving teacher attendance and should involve community members in identifying measures to mitigate teacher absenteeism. By engaging the provincial and district levels, best practices between schools can be shared to help improve overall attendance rates. Punctuality plans have been shown to help ensure that both students and teachers are present and on time, leading to improved academic performance and a better learning environment (Knoster, 2016; Lee, 2015; Mooji & Narayan, 2010). Such measures can also instil a culture of punctuality and responsibility among teachers and students and the wider community, contributing to the overall success of the education system.
- 2. Revise and apply the teacher attendance incentive and penalty structure and conduct ongoing monitoring and evaluation to identify areas where improvements can be made.** Special efforts need to be made to incentivize teachers to take up and retain positions in remote and challenging areas in the Centre and North of the country. Increasing the number of weekly hours in existing part-time teachers' contracts, with corresponding salary increases, should be considered. Not only would this strategy be more cost-effective but there is also evidence that full-time teachers are more effective. By providing incentives for teachers to be present in school, it's possible to improve the overall quality of education and provide students with a better learning experience (Cruz et al., 2017; Guerrero et al., 2013; Lee et al., 2015; World Bank, 2018; Nugroho & Karamperidou, 2021).
- 3. Increase opportunities for professional development of school directors particularly in the areas of community engagement, school management and communication.** This will enable directors to better understand the needs and perspectives of the community and incorporate them into decision-making processes. It's also important to strengthen their capacity in monitoring and peer support of teachers. Providing directors with the necessary managerial and communication skills, leadership attitudes and school management practices will enable them to better support teachers, monitor teacher absenteeism, and report on school closures outside official closure dates (Guerrero et al., 2013; Mgonja, 2017; World Bank, 2018).
- 4. Maximize the use of management tools for school directors and district officials.** When used correctly, existing management tools such as the class book, the time book and the effectiveness map, including monitoring travel time and transportation methods to school, can be powerful tools for school directors and district officials to provide continuous monitoring of schools to understand and address teacher absences (Mgonja, 2017; World Bank, 2018).



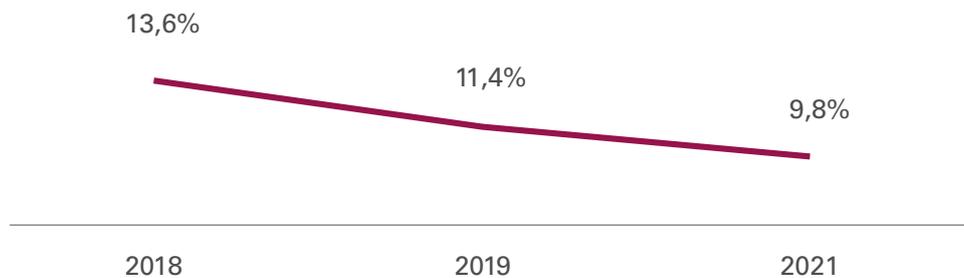
References

- Bassi, M., Medina Pedreira, O., & Nhampossa, L. J., Education Service Delivery in Mozambique: A Second Round of the Service Delivery Indicators Survey (English). Washington, DC: World Bank Group, 2018. <<http://documents.worldbank.org/curated/en/811891562864504006/Education-Service-Delivery-in-Mozambique-A-Second-Round-of-the-Service-Delivery-Indicators-Survey>>
- Cruz, T. S., Loureiro, A. & Sa, E., Full-time teachers, students, and curriculum: the single-shift model in Rio de Janeiro. World Bank Policy Research Working Paper, no. 8086, 2017.
- Guerrero, G., Leon, J., Zapata, M., & Cueto, S., Getting teachers back to the classroom. A systematic review on what works to improve teacher attendance in developing countries, *Journal of Development Effectiveness*, vol. 40, no. 4, 2013, 466–488. DOI: [10.1080/19439342.2013.864695](https://doi.org/10.1080/19439342.2013.864695)
- Harris van Keuren, C., Teacher absenteeism and teacher accountability. USAID Education Strategy Development, 2009. Retrieved 1 November 2014, from <http://www.academia.edu/2380578/Teacher_Absenteeism_and_Teacher_Accountability_USAID_Paper>
- Karamperidou, D., Brossard, M., Peirola, S., & Richardson, D., Time to Teach – Teacher attendance and time on task in Eastern and Southern Africa, UNICEF Office of Research – Innocenti, Florence, 2020. <https://www.unicef-irc.org/publications/pdf/Time-to-Teach-Report_Teacher-attendance-and-time-on-task-in-Eastern-and-Southern-Africa.pdf>
- Knoster, K. C., Strategies for Addressing Student and Teacher Absenteeism: A Literature Review, North Central Comprehensive Center, 2016.
- Lee, M., Goodman, C., Dandapani, N., & Kekahio, W., Review of international research on factors underlying teacher absenteeism (REL 2015–087). Washington, DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Pacific, 2015. Retrieved from <http://ies.ed.gov/ncee/edlabs>.
- Mgonja, M. G., Responding to Workplace Absenteeism in Tanzania: The case study of Public and Private Schools in Ilala Municipality and Mkuranga District. *International Journal of Educational Leadership and Management*, vol. 5, no. 1, 2017, 85–108, <https://doi.org/10.17583/ijelm.2017.2341>
- Mooij, J.E. & Narayan, K., Solutions to Teacher Absenteeism in Rural Government Primary Schools in India: A Comparison of Management Approaches. *The Open Education Journal*, 3, 2010, 63–71. Retrieved from <http://hdl.handle.net/1765/20502>
- Msosa, S.K., A Comparative Trend Analysis of Changes in Teacher Rate of Absenteeism in South Africa. *Educ. Sci.* vol. 10, 2020, 189. <<https://doi.org/10.3390/educsci10080189>>
- Nugroho, D. & Karamperidou, D., Teacher attendance and time on task in primary schools in Mozambique. UNICEF Office of Research – Innocenti, Florence, 2021. <<https://www.unicef-irc.org/publications/1210-time-to-teach-teacher-attendance-and-time-on-task-in-primary-schools-mozambique.html>>
- Torre, A., Niquice, A., Chicote, M. L., & Patia, N., A Deep Dive Into Drivers for School Dropout of Primary School Children in Mozambique ALDE Qualitative Study in The Aftermath of COVID –19 School Closure. Maputo, 2023. <https://www.unicef.org/mozambique/en/reports/deep-dive-drivers-school-dropout-primary-school-children-mozambique>
- UNICEF, Universidade Pedagógica de Maputo, and Ministério da Educação e Desenvolvimento Humano de Moçambique, Drivers of Primary School Dropout in Mozambique: Longitudinal Assessment of School Dropout in 2019, Florence, 67, 2022. <https://www.unicef-irc.org/publications/1475-drivers-of-primary-school-dropout-in-mozambique_longitudinal-assessment-of-school-dropout-in-2019.html>
- World Bank, World Development Report 2018: Learning to Realize Education’s Promise. Washington, DC: World Bank, 2018. doi:[10.1596/978-1-4648-1096-1](https://doi.org/10.1596/978-1-4648-1096-1). License: Creative Commons Attribution CC BY 3.0 IGO

Annexes

Annex A: School closure

Figure A.1: Percentage of school closure



Source: ALDE 2018, ALDE 2019 and ALDE 2021.

Note: School closures were measured taking into account the official school calendar of the Ministry of Education and Human Development accounting only for the days when the school should be open and receiving students – therefore it does not include school closures due to COVID-19

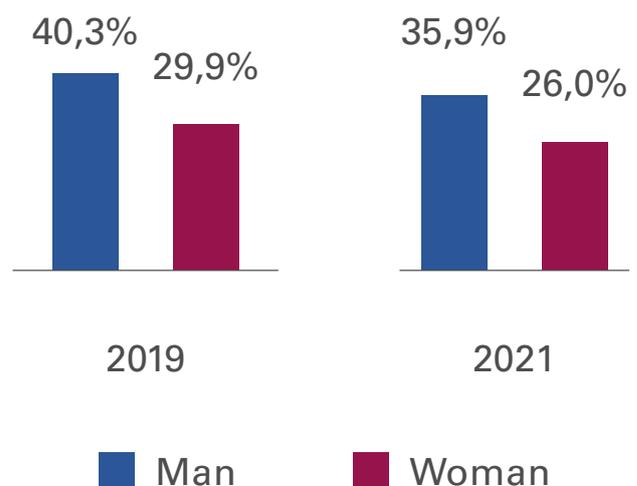
Annex B: School director absenteeism

Figure B.1: School director absenteeism



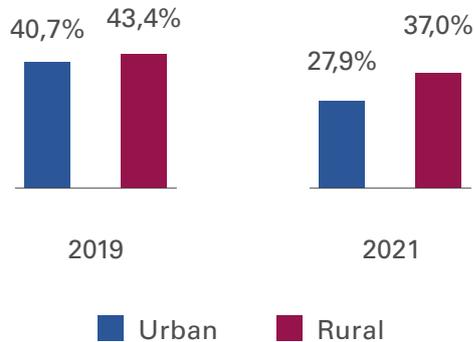
Source: ALDE 2019 and ALDE 2021

Figure B.2: School director absenteeism by gender



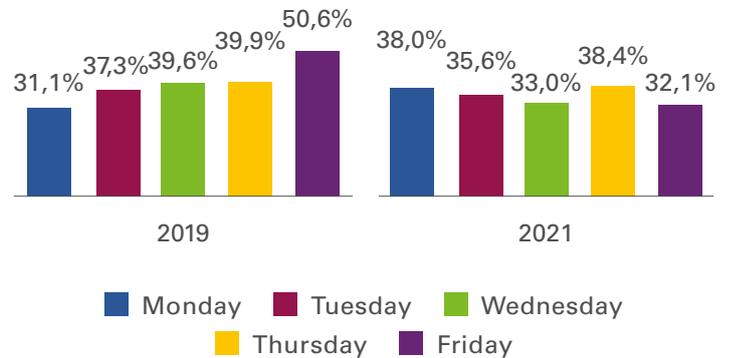
Source: ALDE 2019 and ALDE 2021

Figure B.3: School director absenteeism by location



Source: ALDE 2019 and ALDE 2021

Figure B.4: School director absenteeism by day of the week



Source: ALDE 2019 and ALDE 2021

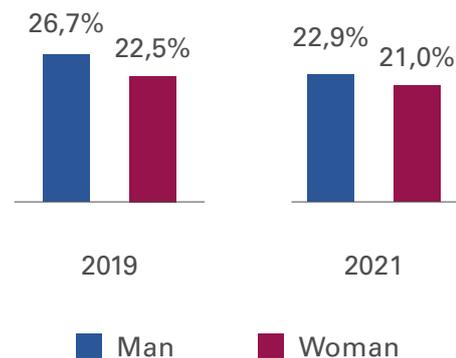
Annex C: Teacher absenteeism

Figure C.1: Teacher absenteeism



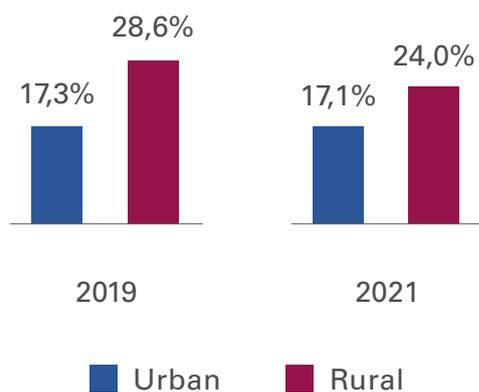
Source: ALDE 2019 and ALDE 2021

Figure C.2: Teacher absenteeism by gender



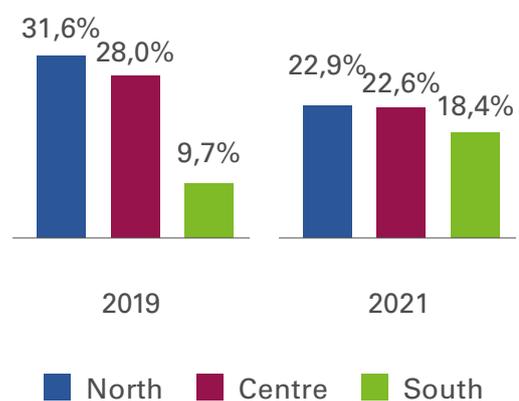
Source: ALDE 2019 and ALDE 2021

Figure C.3: Teacher absenteeism by location



Source: ALDE 2019 and ALDE 2021

Figure C.4: Teacher absenteeism by region



Source: ALDE 2019 and ALDE 2021

Annex D: Teacher Absenteeism – Multivariate Analysis

Regression analysis was used to measure the relationship between teacher absenteeism score and teacher and school characteristics. The main results of the analysis are presented in Table 1. The teacher absenteeism score was modelled as a function of a vector of individual characteristics, a vector of school characteristics and school director absenteeism score (a complete list of control variables is included in Annex Table 4). Because many teachers were in school 100 per cent of the days checked, the data were not normally distributed and were left-skewed. To estimate teacher absenteeism score, a censored tobit model was employed to account for lower-bound censorship at zero. The main specifications are included in Table 4. The robustness checks (Table 2 and Table 3) show that the results did not differ across several estimation methods: ordinary least squares (OLS) and logistic regression (Logit) with a binary variable for 0 per cent of absenteeism.

Table 1: Tobit on Teacher Absenteeism Score

	1	2	3	4	5
Female teacher	-0.0240 (0.0466)	0.00961 (0.0408)	0.00551 (0.0406)	0.00714 (0.0410)	-0.0171 (0.0400)
Age of teacher (squared)	-0.0000349 (0.0000903)	-0.0000201 (0.0000859)	0.0000131 (0.0000831)	0.00000902 (0.0000816)	-0.00000178 (0.0000710)
Total years working as a teacher	0.00568 (0.00719)	0.00415 (0.00688)	0.00177 (0.00684)	0.00218 (0.00680)	0.00386 (0.00598)
University education	-0.0997** (0.0499)	-0.0771 (0.0506)	-0.0696 (0.0515)	-0.0676 (0.0540)	-0.0385 (0.0497)
Other income-generating activities	0.110** (0.0494)	0.103** (0.0484)	0.0850* (0.0479)	0.0847* (0.0502)	0.0399 (0.0500)
Distance from school: more than 1 hour	0.0239 (0.0524)	0.000944 (0.0574)	0.000553 (0.0611)	0.00201 (0.0608)	0.00563 (0.0564)
Supervision visit: 3 or more times in 2021		0.00455 (0.0594)	0.0618 (0.0573)	0.0644 (0.0579)	0.0872 (0.0545)
School council meetings: 4 or more times		0.0402 (0.0659)	0.00552 (0.0657)	0.00147 (0.0649)	-0.0195 (0.0563)
Electricity in school		-0.0428 (0.0570)	0.0502 (0.0559)	0.0514 (0.0567)	0.0698 (0.0520)
Bathroom in the school		-0.0670 (0.0574)	-0.0580 (0.0583)	-0.0617 (0.0617)	-0.0488 (0.0636)
School type = T2 (500-1,500 students)			0.117** (0.0527)	0.118** (0.0539)	0.174*** (0.0509)
School type = T3 (0-500 students)			0.185** (0.0759)	0.187** (0.0788)	0.208*** (0.0682)
Region: Centre				0.0128 (0.0626)	-0.00719 (0.0589)
Region: South				-0.00794 (0.0595)	-0.0310 (0.0537)
School Director Absenteeism					0.271*** (0.0774)
Constant	0.166** (0.0666)	0.194*** (0.0682)	0.0336 (0.0897)	0.0318 (0.0942)	-0.0622 (0.0989)
sigma Constant	0.0876*** (0.0101)	0.0855*** (0.0102)	0.0819*** (0.00905)	0.0818*** (0.00904)	0.0772*** (0.00890)
Observations	437	437	437	437	437

Standard errors in parentheses

* $p < .10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Ordinary Least Squares (OLS) on Teacher Absenteeism Score

	1	2	3	4	5
Female teacher	-0.0256 (0.0354)	0.00137 (0.0303)	-0.00193 (0.0302)	-0.000599 (0.0303)	-0.0179 (0.0297)
Age of teacher (squared)	-0.0000134 (0.0000676)	-0.000000440 (0.0000641)	0.0000183 (0.0000622)	0.0000141 (0.0000610)	0.00000660 (0.0000545)
Total years working as a teacher	0.00315 (0.00543)	0.00190 (0.00522)	0.000614 (0.00529)	0.00105 (0.00532)	0.00230 (0.00475)
University education	-0.0748** (0.0353)	-0.0565 (0.0362)	-0.0542 (0.0377)	-0.0521 (0.0399)	-0.0320 (0.0370)
Other income-generating activities	0.0793** (0.0375)	0.0744** (0.0363)	0.0629* (0.0375)	0.0627 (0.0390)	0.0296 (0.0390)
Distance from school: more than 1 hour	0.0157 (0.0360)	-0.00201 (0.0397)	0.00236 (0.0421)	0.00374 (0.0419)	0.00568 (0.0394)
Supervision visit: 3 or more times in 2021		0.00460 (0.0426)	0.0446 (0.0436)	0.0472 (0.0445)	0.0643 (0.0417)
School council meetings: 4 or more times		0.0192 (0.0494)	-0.00900 (0.0521)	-0.0126 (0.0515)	-0.0272 (0.0443)
Electricity in school		-0.0388 (0.0401)	0.0282 (0.0423)	0.0300 (0.0431)	0.0452 (0.0396)
Bathroom in the school		-0.0536 (0.0426)	-0.0377 (0.0444)	-0.0419 (0.0476)	-0.0334 (0.0487)
School type = T2 (500-1,500 students)			0.0690* (0.0398)	0.0701* (0.0412)	0.112*** (0.0414)
School type = T3 (0-500 students)			0.147** (0.0617)	0.148** (0.0642)	0.164*** (0.0568)
Region: Centre				-0.0207 (0.0436)	-0.0254 (0.0400)
Region: South				-0.0137 (0.0458)	-0.000943 (0.0443)
School Director Absenteeism					0.197*** (0.0647)
Constant	0.221*** (0.0472)	0.245*** (0.0484)	0.129* (0.0658)	0.140** (0.0683)	0.0570 (0.0709)
Observations	437	437	437	437	437
R²	0.037	0.059	0.096	0.097	0.142
Adjusted R²	0.023	0.037	0.070	0.067	0.111

Standard errors in parentheses

* p < .10, ** p < 0.05, *** p < 0.01

Table 3: Logit on Teacher Absenteeism binary variable

	1	2	3	4	5
Female teacher	0.0783 (0.228)	0.157 (0.249)	0.159 (0.254)	0.155 (0.256)	0.115 (0.256)
Age of teacher (squared)	-0.000474 (0.000448)	-0.000484 (0.000448)	-0.000159 (0.000477)	-0.000160 (0.000485)	-0.0000846 (0.000492)
Total years working as a teacher	0.0539 (0.0382)	0.0518 (0.0386)	0.0268 (0.0403)	0.0277 (0.0409)	0.0274 (0.0418)
University education	-0.467** (0.234)	-0.401* (0.239)	-0.339 (0.242)	-0.355 (0.247)	-0.315 (0.251)
Other income-generating activities	0.677** (0.284)	0.626** (0.304)	0.490 (0.306)	0.503 (0.314)	0.399 (0.317)
Distance from school: more than 1 hour	0.168 (0.280)	0.0553 (0.309)	-0.0549 (0.309)	-0.0683 (0.315)	0.0311 (0.329)
Supervision visit: 3 or more times in 2021		0.0227 (0.296)	0.461 (0.337)	0.479 (0.339)	0.584* (0.342)
School council meetings: 4 or more times		0.557 (0.396)	0.369 (0.396)	0.330 (0.401)	0.279 (0.399)
Electricity in school		-0.0124 (0.263)	0.646** (0.327)	0.633* (0.330)	0.677** (0.338)
Bathroom in the school		-0.228 (0.272)	-0.380 (0.279)	-0.361 (0.283)	-0.303 (0.292)
School type = T2 (500-1,500 students)			1.158*** (0.311)	1.165*** (0.311)	1.259*** (0.331)
School type = T3 (0-500 students)			0.798** (0.329)	0.834** (0.347)	0.858** (0.357)
Region: Centre				-0.0906 (0.334)	0.0699 (0.348)
Region: South				-0.131 (0.351)	-0.00980 (0.362)
School Director Absenteeism					0.524* (0.274)
Constant	0.878*** (0.327)	0.950*** (0.358)	-0.0507 (0.455)	0.0124 (0.497)	-0.679 (0.600)
Observations	437	437	437	437	437

Standard errors in parentheses

* p < .10, ** p < 0.05, *** p < 0.01

Table 4. List of control variables included in the regression analysis.

Level of analysis	Variable	Definition	Measure
Individual	Gender	Being female vs. male.	Binary
	Age	Age of the teacher (squared)	Continuous
	Teacher's experience	Whether a girl has undergone initiation rites.	Binary
	University education	Whether the teacher concluded university education	Binary
	Other income-generating activities	Continuous	Binary
	Distance from school	Whether the teacher's travel time to the school is more than 1 hour (regardless of the means of transport)	Binary
	School	Supervision visits	Whether the school was inspected more than three times in the current year.
School council meetings		Whether the school council meetings happened more than three times in the current year.	Binary
Infrastructure		Whether the school has a bathroom or lighting	Binary
School type		Type 1 Schools are those with more than 1,500 students, Type 2 Schools have between 500 and 1,500 students and Type 3 are schools with less than 500 students.	Continuous
School Director	School Director Absenteeism	Score that measures the percentage of days the school director was absent from school on unannounced visit days. A number between 0 and 1.	Continuous
Geography	Region	In which region the teacher's school is located	Categorical

Table 5: Teacher Summary statistics

Variable	Mean	SD	Min	Max	N
Teacher Absenteeism	0.22	0.23	0.00	1.00	487
Female teacher	0.58	0.49	0.00	1.00	469
Age of teacher	35.80	7.40	22.00	58.00	469
Total years working as a teacher	11.59	6.88	0.00	39.00	469
University education	0.34	0.48	0.00	1.00	438
Other income-generating activities	0.26	0.44	0.00	1.00	469
Distance from school: more than 1 hour	0.19	0.39	0.00	1.00	468
Supervision visit: 3 or more times in 2021	0.33	0.47	0.00	1.00	487
School council meetings: 4 or more times	0.16	0.37	0.00	1.00	487
Electricity in school	0.41	0.49	0.00	1.00	487
Bathroom in the school	0.59	0.49	0.00	1.00	487
School type = T2 (500-1,500 students)	0.35	0.48	0.00	1.00	487
School type = T3 (0-500 students)	0.26	0.44	0.00	1.00	487
Region: North	0.35	0.48	0.00	1.00	487
Region: Centre	0.39	0.49	0.00	1.00	487
Region: South	0.26	0.44	0.00	1.00	487
School Director Absenteeism	0.27	0.28	0.00	1.00	487

Annex E: Sampling design

A two-stage cluster sampling approach was employed for the base-year sample in 2018. Probability proportional to size (PPS) sampling was used to ensure that each enrolled student in primary school had the same probability of being selected. This means that students have a known and non-zero probability of selection into the sample. Potential for bias in sample estimates due to variations from the equal probability of selection method was addressed using sampling weights. The procedure resulted in a sample size of 5,400 students and 60 schools, out of 9,325 schools, across all provinces in Mozambique.

Schools were the first stage of selection and students within schools were the second-stage units. In each school, cohorts of 90 students were randomly selected from three different grades. In each school, Grade 1 pupils were selected to ensure that a cohort of 30 pupils can be followed from Grade 1 until Grade 7, the final year of primary school. The other two grades (from Grade 2 to 7) were randomly selected proportional to size.

The number of schools, school directors and teachers in the 2019 sample increased as students were followed to new schools that were less than one hour's drive from the original school in 2018. Therefore, in 2019, 63 new school directors and 188 new teachers were interviewed.

More details about the sample design can be found in previously published reports:

- UNICEF. Attendance and educational attainment of primary school children in Mozambique. The results of the 2018 round of the Longitudinal Assessment of School Dropout. Maputo, Mozambique, 2020.
- UNICEF, Universidade Pedagógica de Maputo, and Ministério da Educação e Desenvolvimento Humano de Moçambique. Drivers of Primary School Dropout in Mozambique: Longitudinal Assessment of School Dropout in 2019, Florence, 67, 2022.



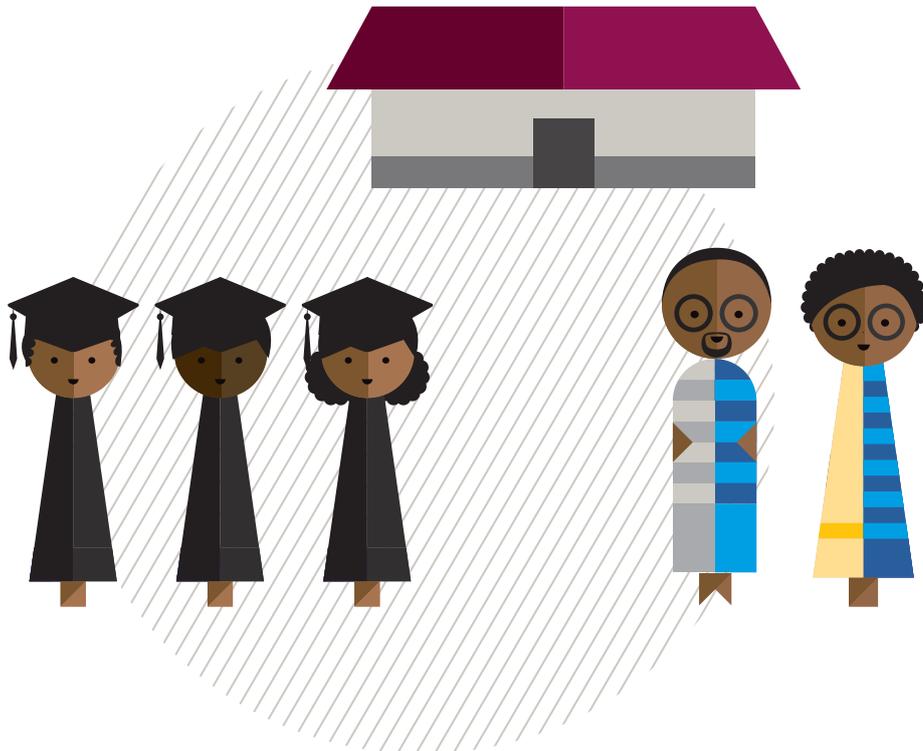
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