Online Tool for Visualization of the MLSS Data

Proposal / Inception Report

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# Summary

The objective of this Inception Report is to provide a clear and detailed plan to set up an online dashboard to enable a friendly visualization of key MLSS indicators over time, and to enable browsing of these indicators at the school, teacher, and student level across regions and districts. The report is divided into 5 sections: **Section 1** describes the data management system of all the rounds of the longitudinal survey. Based on the findings of this section, **Section 2** proposes a data management system for an efficient implementation of the dashboard; **Section3** describes the elements of the dashboard to enable visualisation of indicators, present background information of the MLSS, and to facilitate administrators to add data for future rounds of the survey; **Section 4** Outlines the software that is recommended for the setup of the online tool; and **Section 5** presents a workplan for the development of the dashboard.

As it is understood from the ToRs developed by the World Bank, the online tool should enable a friendly visualization of key indicators of the MLSS but should also facilitate administrators to add additional data for existing indicators from future rounds.

The findings of the Data Management System show that although the current system achieves a good degree of harmonization and creates derived data for each round, it is still a system made of a complex interrelation of scripts that depend on human inspection of the data, that uses costumed functions, and that relies a great deal on manual coding to achieve its goals. This system, that is described in **Section 1**, applies over 40 scripts to more than 600 datasets to clean the data as the data is derived. The main conclusions of this section are: 1) it is unlikely that the cleaning system could be separated from the derivation one, and most importantly 2) it would be very risky and complex for an online tool to replicate the whole process in an automatic and systematic process with out detailed human inspection.

For the reasons mentioned above, it is suggested that the initial input of the dashboard should be the derived data that contains the estimated indicators at the school, teacher, and student level. The advantages of using the derived data as the online tool’s input is that it increases the chances of future data being added into the tool and would reduce the amount of time spent in reproducing a complex data management system. Therefore, the recommendation is for the current data management system to continue happening off-line and for the online tool to execute the process of formatting and visualising the data. This process is detailed in **Section 2**.

The online tool will manipulate the derived data and will transform its format into a data architecture of relational tables that will enable the tool to perform an efficient analysis, visualisation, and integration of future rounds of the MLSS. This architecture has multiple purposes. First, it will allow to effectively organize the data, will enable a faster interaction with secondary data sources (like shapefiles), and more importantly, it will allow to have control over the harmonization of the data over the different rounds of the MLSS.

The suggested design of the tool, presented in **Section** **3**, is a simple but efficient User Interface (UI) that enables an easy navigation of the dashboard. Basically, the proposed design is made of 6 web pages: a home page that introduces the MLSS and the dashboard, three pages to enable the browsing of indicators by region/district and level (school, teacher, student), a background section that has links to relevant sources, and a password protected page for the administration to enter data of future rounds into the system.

Finally, **Section 4** presents the software that will be used for the development of the dashboard and **Section 5** shows the workplan for a successful and timely deliverable of the milestones.

# Data Management System of the MLSS Survey

The objective of this section is to map and assess every process of the MLSS data management system and to identify the likelihood of an online dashboard to atomate these processes. To do so, the MLSS data management system is analysed from its starting point, which is the raw data of the Survey, until the creation of indicators at the school, teacher, and student level. The following subsections describe each of these processes and identify possibilities and challenges for the online tool to replicate this complex system. After having conducted this analysis, a division of steps of process between off-line and on-line process is suggested in Section 2.

Because the MLSS is a Longitudinal Survey (there are multiple rounds of the data), the aim of this system is to clean the raw data, conduct necessary manipulations, and create derived data that inform about the school conditions, practices, and learning outcomes that can be traced over time. This complex system that is replicated for each sub-round of the MLSS is summarised by Figure 1 below.

Figure 1. Description of the MLSS Data Management System[[1]](#footnote-1).

Diagram

Description automatically generated

## Assessment of the Raw Data

This section explores the raw data, or the initial stage of the data management system. This data is stored in the 01\_Firm directory directory (throughout the document, the words folder and directory are use indistinctly). Each sub-round 01\_1AB\_2016 and 02\_1C\_2018, 01\_2A\_2018, and 01\_2B\_2019 has its own dedicated directory where the raw data is stored: 05\_Data/{round}/ {sub-round /01\_Firm.

To try to understand the volume of data and its consistency across sub-rounds, this assessment mapped all the directories within each sub-round’s raw data and counted the number of data files (\*.dta) stored in each. Apart from counting the number of data files, a comparison of the folder architecture was conducted to try to have an estimate of the level of consistency between rounds. Thus, as can be seen in Figure 2 below, that displays all the folders that exist in the raw data directory and counts the number of files that exist in each sub-round, there are 662 Stata datasets (\*.dta) across all sub-roundsof Baseline and Midline, 183 in sub-round 1AB\_2016 (1B), 194 in sub-round 1C\_2018 (1C), 54 (2A\_2018), and 324 (2B\_2019).

From that Figure, it is noticeable that there are some folders that do exist in one sub-round but do not exist in the rest. For example, the folders HT2\_NONC1, TEACHER\_NONC1, COMMM\_TRACK only exist in round 2B\_2019.

Another example is the folder HT2 that exists in all the sub-rounds but in the 2B\_2019. In summary, Figure 2 shows that there is a great number of databases saved in the raw data folders (01\_Firm) and that there is an important level of discrepancy between the structure of the directories between rounds.

Figure 2. Number of Raw Databases by Folder and Sub-Round.

A picture containing chart

Description automatically generated

Moreover, to assess the level of data heterogenicity between rounds, Figure 3 below displays all the databases stored in the folder 01\_Firm of the Baseline and Midline sub-rounds and colour codes if the file exists in each round. The main objective of this Figure is to map which datasets exist in sub-round 1B, sub-round 1C, sub-round 2A, sub-round 2B and in all the rounds.

Chart

Description automatically generatedAs part of this assessment, Figure 3 attempts to show the volume of data contained by each sub-round and the difference in terms naming across directories.

Figure 3. Consistency of dataset names across rounds

In summary, Figure 3 shows that from the 324 datasets that exist in Baseline’s round 1B and round 1C, only 53 (16.4%) exist in both sub-rounds. Moreover, from the 378 data files stored in Midline’s raw data directory, **none** exist in both sub-rounds.

This finding shows that there’s is a big inconsistency in file names between sub-rounds. And that this is even more notorious for the midline raw data.

The original chart in its best format to inspect it can be seen by clicking this [link](https://github.com/araupontones/MLS_concept/blob/main/report/plots/Harmonization/databasesAcrossRounds.png).

The conclusion of the analysis of the raw data is that there is a high degree of discordance in terms of folder architecture and names of the datasets across sub-rounds. Although the analysis does not inspect the name of the variables, it is likely that the discordance is even deeper at that level. Therefore, to make it possible to analyse indicators over time and to have a friendlier system, a harmonization process is required. Therefore, the data management system of the MLSS includes a process to harmonize the folder architecture and naming protocols between rounds. This harmonization process is explained in the next section.

## Harmonization System

The main objective of this system is to solve the differences in terms of folder architecture, file and variable naming across rounds which was partially described in the previous section.

The harmonization system is a very important step in the Data Management System because without it, it would not be possible to conduct a longitudinal analysis of the data. The main input for this process is the data stored in 01\_Firm (described in the previous section) and the output for each round is stored in the 03\_Harmonized folder. For every round the data is first combined and then cleaned. The scripts/dofiles (throughout the document, the words dofile and script are use indistinctly) that run the harmonization process are stored in the 06\_Coding/{round}/{sub-round}/02\_Harmonization directory.

Although there are some small differences between rounds, the harmonization approach is very similar for all, below is a detailed description of each:

1. All the paths to key folders are defied in a dofile called 0\_00\_00\_Master\_NEW.do. Since this dofile defines the paths, it must be ran before starting or running any other script in the system. Below is an example of how the paths are defined:

|  |
| --- |
| Box 1: Extract of the definition of paths in the Master dofile of the harmonization system    global bl16 "${root}/01\_Baseline/01\_1AB\_2016"  global bl18 "${root}/01\_Baseline/02\_1C\_2018"  global ml2a "${root}/2. Midline/01\_2A\_2018"  global ml2b "${root}/2. Midline/01\_2B\_2019"  global el\_a "${root}/03\_Endline/01\_3AB\_2021"  global el\_b "${root}/03\_Endline/02\_3B\_2021" |

As it can see above, there is a dedicated and predefined directory for each round. Thus far, in the system, there is a folder for 01\_Baseline, 02\_Midline, 03\_Endline, and 04\_Longitudinal. Each of these rounds is subdivided into more directories that are based on sub-rounds (e.g., 01\_1AB\_2016, 02\_1C\_2018, 01\_2A\_2018, and 01\_2B\_2019).

1. Within each sub-round, there is a specific dofile to harmonize each module of the dataset. This system is composed of 13 dofiles:

* Append\_16BLto18BL.do
* 01. CFO\_recode.do
* 02. CLO\_recode.do
* 03. HT1\_recode.do
* 04. HT2\_recode.do
* 04. HT2\_recode\_other.do
* 05. HT3\_recode.do
* 06. MG\_PTA\_SMC\_recode.do
* 07. LAT\_recode.do
* 08. LATAK\_recode.do
* 09. student\_recode.do
* 10. teacher\_recode.do
* 11. SFO\_recode.do

The most important file of this system is 00.Append because all the other scripts are ran from this *“master”* script. In simpler words, the 00.Append runs all the other scripts listed above to replicate the complete analysis flow. Apart from running all the scripts needed for the harmonization, this dofile creates two functions (or commands) that are used for all the other dofiles: mpss\_scvalues that harmonises the single select value labels, and mpss\_kickout that removes old options and recode them accordingly.

After defining these functions, the 00.Append dofile runs all the other dofiles to mainly: assign harmomized labels to the variables, and , export the data to the 03\_Harmonized directory.

Below is an example of the code used during harmonization process for the CLO data.

|  |
| --- |
| Box 2: Extract of the harmonization process for the CLO data    use "$path2/CLO/CLO\_main.dta", clear  ren qnum qq1  ren moecode MOEcode  ren class\_id classid  ren q1\_name school\_name  ren q3 enum\_first\_visit1  ren q5 enumerator\_name2  ren q13 teachername  ren q14 teacherid  \* CB  gen sup\_date = date(q15a3, "DMY")  drop q15a3  ren q15a4 reasons  replace q7=. if q7==777 | q7==999  gen q7new=1 if q7>=10  replace q7new=0 if q7<10  replace q7new=. if q7==. |

Even though there is some level of automation, each dataset requires a manual (very specific) manipulation of the variable names for the harmonization to be effective. Apart from the manual manipulation, in the harmonization system there are some other customed functions that help with the consistency of the naming protocols between rounds. For example, in the dofile 02.CLO\_recode, there is a note that explains what the fre command does:

|  |
| --- |
| Box 3: Example of the use of customed commands to clean the data    \*Task 1:  \*i) the variable names in BL18 align with the BL18 instrument and  \*ii) value labels align.  \*Using fre commandreplace q7new=. if q7==. |

Thus, as it was shown in the description of the harmonization process, this system relies on a complex combination of customed functions and manual coding for the harmonization to be successful. The next section describes in detail the output of the harmonization process (the harmonized data).

## Harmonized Data

The output data from the Harmoization system is stored, for each sub-round, in 05\_Data/{round}/{sub-round}/03\_Harmonized. Based on an analysis of this folder, it was found that there is “harmonized data” for the two sub-rounds of baseline but there is no data for the midline sub-rounds[[2]](#footnote-2). There are, in total, 60 datasets between sub-rounds 1AB and 1C. From all these datasets, 43 (71.7%) exist in both rounds.

Figure 4. Number of Harmonized Databases by Folder and Sub-Round

Diagram

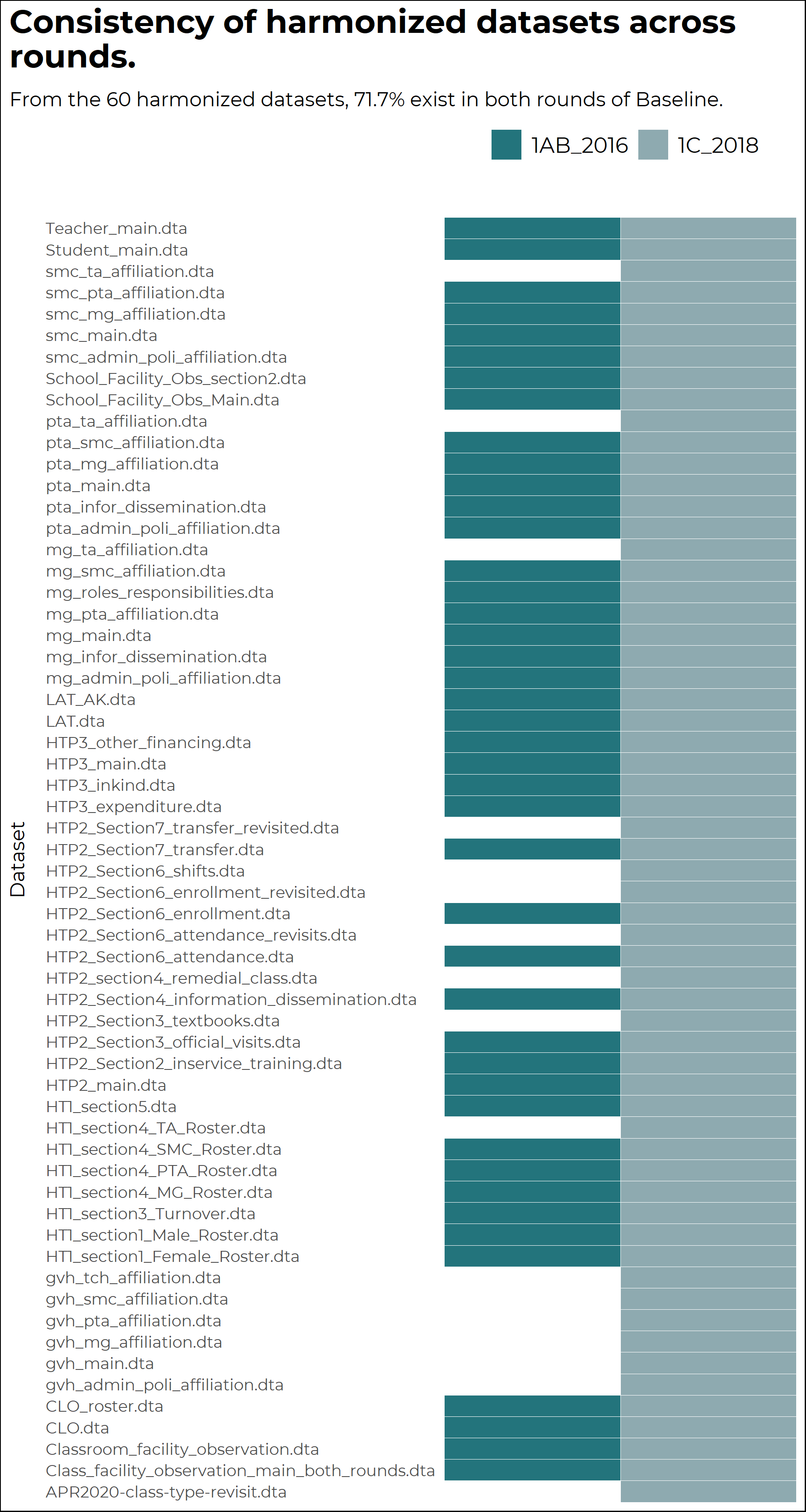
Description automatically generated

Figure 4 above shows the number of datasets that exist for each folder by each round in the harmonized directories. As it can be seen in the Figure, the module with the largest number of datasets is HT2 (20 stata data files), followed by HT1 (15 datasets). Although the Figure makes evident that the harmonization process does increased the homogenization of the folder architecture and the name of the files, there are still some inconsistencies and gaps between rounds: The number of datasets by module differs between rounds (see the case of HT2), not all the folders exist for both rounds (see the case of the GVH folder), and there is no harmonized data for any of the sub-rounds of the Midline round.

Figure 5 below shows that though the harmonization process considerably reduced the inconsistencies in terms of folder architecture and file naming, there are still some gaps between rounds. For example, the file smc\_ta\_affilitation.dta exists in sub-round 1C but does not exist in 1AB. In total there are 16 files present in round 1C that are missing in round 1AB. The analysis does not include the harmonized data from Midline because at the time of writing this report that data was not present in the project’s directory.

The original chart in an efficient format to be inspected can be access by accessing this [link](https://github.com/araupontones/MLS_concept/blob/main/report/plots/Harmonization/databasesAcrossRoundsHarm.png).

Figure 5. Consistency of Harmonized Databases Across Rounds.



Once the data is harmonized, the next step of the system is to combined the data at the round level, to clean it, and to create a derived version of the data at the school, teacher, and student level for each round. The findings of the inspection of this process are described in the next section.

## Derivation System

The derivation system is done at the round level (not at the sub-round). This system that is made of 27 dofiles, takes the data from the clean folder[[3]](#footnote-3), performs some cleaning like dropping duplicates and recoding variables, merges different datasets, creates indicators, defines a consistent naming and labelling, and exports the data to the Derived folder. In summary, the derivation cleans and prepares the data for analysis, creates intermediate datasets, estimates statistical weights, and finally creates indicators at the school, student, and teacher levels.

The main or master dofile for this system is 001\_master\_all\_indicators. This script reproduces the data flow of the derivation system by running in a sequence manner all the dofiles that create all the indicators:

* 000\_CFO-CLO-common-variables.do
* 000\_Records\_Available.do
* 001\_master\_all\_indicators.do

**These dofiles create intermediate datasets (data is exported to clean/Output\_dump):**

* 002\_distance\_quintile.do[[4]](#footnote-4)
* 003\_std\_offered.do
* 004\_enrollment\_by\_standard.do
* 005\_teacher\_roster\_list.do
* 006\_class\_size\_enrol\_unrestricted.do
* 007\_class\_size\_hc\_unrestricted.do
* 008\_PTR\_hc\_unrestricted.do
* 009\_school\_characterisitcs\_1.do
* 010\_enrollment\_calculation\_3\_periods.do
* 011\_attendance\_calculation\_3\_periods.do
* 012\_absence\_rate\_calculation\_3\_periods.do
* 013\_dr\_rr.do

**These dofiles create indicators at the school, student, and teacher level:**

* 014\_school\_characteristics\_2.do
* 015\_school\_characteristics\_3.do
* 016\_school\_characteristics\_1+2+3.do
* 017\_MLSS\_weights\_generation.do
* 018\_LAT\_IRT\_pct.do
* 019\_LAT\_IRT\_fitting\_raven.do
* 020\_student\_charcacteristics.do
* 021\_school\_characteristics\_final.do
* 022\_LAT\_AK\_score.do
* 023\_teacher\_characteristics.do

**Cleans the indicator names**

* 024\_label\_final\_indicators.do: Has more than 1,300 lines of code

Within each of these dofiles there is a considerable manual process to clean, recode, and merge the data. See example below from the 017\_MLSS\_weights\_generation.do:

|  |
| --- |
| Box 4: Example of code to generate the sample weights    \*population number of schools  gen tot\_sch\_strata=.  replace tot\_sch\_strata=248 if strata==7  replace tot\_sch\_strata=990 if strata==1  replace tot\_sch\_strata=1108 if strata==2  replace tot\_sch\_strata=1266 if strata==3  replace tot\_sch\_strata=503 if strata==4  replace tot\_sch\_strata=750 if strata==5  replace tot\_sch\_strata=550 if strata==6  \*\*\* Student/teacher level weight  merge 1:1 MOEcode using "$bl\_dta\_clean/Output\_dump/school\_level\_indicators\_merged",keep(3) |

The above example shows the level of detailed and manual work necessary to create only one output of the derivation system which is, in this case, the sample weights of the baseline.

Moreover, as it is pointed out in the list of dofiles that are part of the system, there are some aspects that make this process very difficult to automate: **1**) Some scripts rely on customed reference files (like 02\_Data/962\_IE\_IDENTIFICATION\_COMPONENT\_101118\_complete\_infor") to produce outputs; **2)** The system is very intense for cleaning the data before it is ready to estimate indicators (the derivation process is both a cleaning and an indicator generator); **3)** Most, if not all, the dofiles require a manual inspection of the data before making cleaning decisions.

## Derived Data

The derivation system exports datasets that contain indicators at the school, teacher, and student level for each round (not sub-round) of the survey. At the moment of writing this report, there were derived datasets for the Baseline round only. Within the Baseline derived folder, there are 3 files - school\_level\_indicators\_final, student\_level\_indicators\_final, and teacher\_level\_indicators -.

The amount of data for each derived dataset is described below

* School derived dataset has 750 observations and 846 variables
* Students’ dataset has 18,512 observations and 501 variables
* Teachers’ dataset has 6,766 observations and 82 variables

The tables that contain information about the detailed name of each variable and its label for each derived data set presented in Annex 1.

The findings of this section show that the steps to transform the data from its raw format to a clean version of estimated indicators at the school, teacher, and student level is a complex system that relies on some customed functions, a human inspection of the data, and in associations of different scripts that are heavily dependent on each other. Based on this findings, Section 2 proposes a feasible data management system of the online tool that allows an effective visualization of key MLSS indicators over time but that also a facilitates administrators to add additional data for existing indicators from future rounds of MLSS/other sources.

# Section 2: Suggested Data Management for the Online Tool

The understanding from the ToRs is that the dashboard should enable the visualization of key MLSS indicators over time, enabling the browsing of key indicators by different levels (school, teacher, and student). But also, that it must facilitate administrators to add additional data from future rounds of the survey. The later is very important for the decision of which data management approach the dashboard should follow.

As it was described in Section 1, the current data management system that transforms the raw data into indicators is a very complex system of over 40 scripts that although is replicable for the current sub-rounds, it is very unlikely that it could be transformed into an automatic system that allows adding raw or even harmonized data into it. Moreover, it was also described that the process to clean the data and to create the derived data is not separated but it is rather embedded into one (i.e., the data is cleaned as the data is derived). Thus, in the current state of the system, it is not straightforward to separate the clean data from the derived one.

Based on this analysis, it is suggested that the input of the dashboard should be the derived version of the data. If this advice is not approved, it is very likely that the online tool will crash when new data from future rounds is added to it. Moreover, it will be extremely time intense to develop a system that automatically replicates the data management system without facing errors. And more importantly, this valuable time would be taken away from the design of the UI and backend process which will be translated into a poorer user experience.

Figure 6. Suggested Data Flow for the Online Tool.

Diagram

Description automatically generated

Therefore, as it is displayed by Figure 6 that shows the suggested data management system of the online tool, it is advised to continue with the current off-line process and to input the data into the dashboard only when the indicators have been created. The suggested steps for an efficient and agile system are the following:

* 1. The World Bank’s team will transform the data from its raw version into a derived format.
  2. The dashboard will have a system to allow inputting that data into the online system.
  3. Once that the data is inputted, the online tool will check for the consistency of the file and variable names. This step will be conducted by a specific system that will confirm that the inputted round of the data does not exist in the system yet and that the variable names are consistent with the previous rounds (this will assure that visualizations over time can be conducted). The list of indicators and their names will be defined by the Baseline derived data. In the case of a future round having new variables, the online tool should identify that these were not part of previous rounds.

**3.a** In the case of the data not passing the test (if the names are not consistent with previous rounds), the online tool will inform the user about the problem, and this should be rectified by the off-line team.

**3.b** If the quality test is positive (if the names are consistent with previous rounds), the online system will use a script to transform the data into a format for effective visualisation and will append the data with the previous rounds (See Figure 7).

* 1. The online tool will integrate secondary data sources like shapefiles[[5]](#footnote-5) or population estimates (if necessary) to create customed visualization. This process will require a cleaning process to assure that the geographic variables of the data (region and district) match with the secondary data sources.
  2. A series of scripts will be developed for the user to interact with the data and for the dashboard to create customed charts. The creation of these charts will require an intense coding period where functions will be defined so they can run and respond based on user events or requests.

Figure 7 below shows the data architecture and the relationship of tables for the online tool to perform an efficient analysis, visualisation, and integration of future rounds of the MLSS.

Once the data is imported into the dashboard, the data will be transformed into different tables that will allow an effective interaction of the system’s components. This architecture has multiple purposes. First, it will allow to effectively organize the data. Moreover, it will enable a faster interaction with secondary data sources (like shapefiles), and more importantly, it will allow to have control over the harmonization of the data over the different rounds of the MLSS.

As can be seen in Figure 7 below, the consistency of the data across rounds is very important for the correct interaction of the tables. This means, that to visualise key indicators across time it is necessary that the Parent Keys (PK or ID) of the datasets are consistent over time. For example, the IDs of the districts, regions, and schools should be consistent across rounds for the system to be able to aggregate the data and create a longitudinal format. The same applies for the name of the indicators, any change in the system will affect the capacity to trace that indicator over time, or to identify that the indicator is the same across rounds.

Thus, the main objective of introducing the architecture of the data in this report, is for the World Bank to be conscious about the importance of assuring the structure and naming consistency of the data between rounds of the MLSS. Not complying with this would make the system to fail to enable administrators to add new rounds of data and or to visualise indicators over time.

Figure 7. Data Architecture and Relationship of Tables for the Online Tool.

Diagram

Description automatically generated

It is suggested that during the first phases of the development of the online tool, the consultant will meet with the World Bank to agree on a naming protocol for the files and the names of the variables. A guide document with clear information about these will be produced so future rounds of the survey can follow the naming protocols.

The next section describes the suggested user interface and content of the online tool.

# Section 3: Elements and Content of the Online Tool

This section presents a sketch for the conceptual design of the online tool. This preliminary design intends to respond to the objectives of the tool as they are expressed in the ToRs:

* Enable visualization of key MLSS indicators over time (across rounds) and across space (region/district).
* Enable browsing of key indicators by level (school/teacher/student), topic (e.g. infrastructure, facilities, procedures, student profiles, learning outcomes),
* Additionally present background information on the MLSS and associated impact evaluations (provided by Task Team) including instruments, sampling, and interventions, Facility for administrators to add additional data for existing indicators from future rounds of MLSS/other sources,
* Facility for higher-level administrators to add new indicators in future, and
* Ability for administrators/’power users’ selected by administrators to extract visualizations for use in analytical outputs.

In terms of content, it suggested for the World Bank to define the final set of indicators that will be part of the online tool. The tables presented in Annex 1 can be used to facilitate the prioritization process. The ideal scenario, for a friendlier user interface would be to define the subset of indicators that are more likely to be of interest for the audience of the dashboard.

Thus, the content of the dashboard is expected to be formalized during the initial stages of the development and programming process in January 2022 (see work plan).

To improve the user experience (UX) of the online tool, it is suggested to design a basic but effective interface that enables an easy navigation of the dashboard. Examples of how the elements of the dashboard could look like are presented below:

* + 1. **A home page** that briefly introduces the MLSS and the objectives of the online dashboard, this page will include the logos of the participating organizations and two buttons to direct the user to the dashboard and to its background information.

Figure 8. Proposed Design of the Homepage.

Graphical user interface, text

Description automatically generated

The content, including the introductory text and the logos, displayed in the home page will be provided by the World Bank during the development phase of the online tool.

1. **Three separate pages to visualize indicators over time**, enabling the analysis to be conducted at the region and district level, and allowing the user to browse key indicators. These pages will present the data at the school, student, and teacher level respectively. The final layout will be decided based on UX tests that will aim to understand which display and elements work more effectively for the experience of the users. Since there are many alternatives to visualize the indicators over time, the decision of which visualization to use will also be decided during the programming phase.

The figures below are only examples of what can be possible in terms of layout and UI.

Figure 9. Proposed Design of the Visualization of Indicators.

A picture containing graphical user interface

Description automatically generated

It could also be possible to add more alternatives for the user. For example, the ability to display the distribution of any of the indicators or to change.

Figure 10. Example Of Alternative Visualizations.

Graphical user interface

Description automatically generated

For the students’ level, the online tool will be capable to allow the users to compare indicators between girls and boys. These indicators could be displayed longitudinally or by round of the MLSS. The figure below shows and example of how this information can be displayed:

Figure 11. Example Of Possibilities To Compare Between Girls and Boys

Timeline

Description automatically generated with medium confidence

1. **A page to present background information** of the MLSS. This information, that will be provided by the Task Team, can include things like instruments, sample, etc. Apart from static text, this page can include links to external websites or other resources that can help to contextualize the importance and scope of the MLSS. The content of this page will be discussed at the beginning of the design phase.

Figure 12. Proposed Design of the Background Information.

Graphical user interface, application

Description automatically generated

1. Finally, a very important requirement of the online tool is that it should facilitate administrations to add data for existing indicators from future rounds of the MLSS. The suggested approach is to create **a specific page that is password protected**. Only users with the right set of credentials will be able to access this page. Once the password is validated, the administrators will be able to load more data into the system. To reduce the risk of the data not being in the right format, the administrator will be able to download a guide that will include the detail information about the necessary conditions that the data needs to meet to be accepted. These conditions, as it was explained in the section above, will be things like format of the file, variable names, etc.

Figure 13. Suggested Design for the Administrators Page.

Graphical user interface

Description automatically generated

# Section 4: Software and tools

This section introduces the software and tools expected to be used for the development and maintenance of the online tool.

During the inception phase, Power BI was considered as an alternative tool to program and deployed the dashboard. Using this software would make the programming less complicated. However, based on the requirements of the system, and specifically because the need of administrators to add future data into the system, this possibility was discarded. The main reason is that Power BI has limited capacity to manipulate datasets and it does not allow a user to import data directly into it. Therefore, the suggestion is to program the dashboard using a combination of HTML, JavaScript, and an analytical software like R.

The table below shows the software, programming languages, and costs for programming the online tool:

Table 1. Software and Tools

|  |  |  |  |
| --- | --- | --- | --- |
| **Software** | **Programming language** | **Process** | **Cost** |
| Atom | HTML | Create the User Interface of the application | - |
| Atom | CSS | Create custom styling of the app | - |
| Atom | JavaScript | Create reactive events for the User Interface | - |
| RStudio | R | Manipulation and visualisation of the data | - |
| GitHub | Git | Storing and management of the data | - |
| Digital Ocean | Linux | Set up an online server to execute the back end of the app | USD 20 / monthly \*this would be only while the dashboard is hosted in a customed server. However, this cost won’t apply once the dashboard is transferred to the server of the Government of Malawi. |
| GoDaddy | URL | Set up domain for the dashboard | USD 15 /yearly \*As for the server, the cost of the domain is only applicable during the time that the dashboard is hosted in its customed server. This cost wont be applied once that the dashboard is transferred to the server of the Government of Malawi |

As it can be seen in Table 1, most of the tools and software are open sources except for the configuration of the online server and the creation of a custom domain. Both costs are estimates but they could vary depending on the size of the application and the availability of the desired domain. It is expected that during the first phase of the programming, the World Bank and the Government of Malawi will suggest a list of domains that could be used as the URL address of the online tool.

In terms of the server, it is expected that a dedicated server will be configure during the programming of the online tool. However, all the configurations will be documented for a potential transition to the Government of Malawi’s server. The same holds for the domain. Once the online tool is up and running, and the pilot phase has concluded, the Government of Malawi could transfer all the content of the server into their own’s.

It is advised, to assure future sustainability and ownership of the application, that the payments of the software and tools will be made directly from the World Bank or by the Government of Malawi.

# Section 5: Work Plan

Based on the ToRs, it has been agreed that the consultant will work remotely and that the estimated duration of the assignment is eight months. The appointment is on part-time basis for 60 contracted days to June 30, 2021.

The suggested workplan is presented in Figure 12 below.

Figure 14. Workplan.



# Annex 1: Variable names and labels for the derived datasets

Table 2. Variable Names, Labels, and Fomat of the Derived Data at the School Level.

|  |  |  |
| --- | --- | --- |
| var\_name | label | format |
| school\_id | School ID | %10.0g |
| MOEcode | MOE code | %10.0g |
| school\_nam | School Name | %9s |
| division\_num | Division\_num | %10.0g |
| division\_nam | Division\_nam | %16s |
| district\_num | District Number | %8.0g |
| district\_nam | District Name | %19s |
| enrol\_std1 | Enrollment (std 1) | %9.0g |
| enrol\_std2 | Enrollment (std 2) | %9.0g |
| enrol\_std3 | Enrollment (std 3) | %9.0g |
| enrol\_std4 | Enrollment (std 4) | %9.0g |
| enrol\_std5 | Enrollment (std 5) | %9.0g |
| enrol\_std6 | Enrollment (std 6) | %9.0g |
| enrol\_std7 | Enrollment (std 7) | %9.0g |
| enrol\_std8 | Enrollment (std 8) | %9.0g |
| enrol\_tot | Total Enrolment | %9.0g |
| enrol\_lower\_tot | Lower Primary Enrolment | %9.0g |
| enrol\_upper\_tot | Upper Primary Enrolment | %9.0g |
| enrol\_std1\_f | Female Enrollment (std 1) | %9.0g |
| enrol\_std2\_f | Female Enrollment (std 2) | %9.0g |
| enrol\_std3\_f | Female Enrollment (std 3) | %9.0g |
| enrol\_std4\_f | Female Enrollment (std 4) | %9.0g |
| enrol\_std5\_f | Female Enrollment (std 5) | %9.0g |
| enrol\_std6\_f | Female Enrollment (std 6) | %9.0g |
| enrol\_std7\_f | Female Enrollment (std 7) | %9.0g |
| enrol\_std8\_f | Female Enrollment (std 8) | %9.0g |
| enrol\_tot\_f | Female Enrollment (total) | %9.0g |
| enrol\_lower\_tot\_f | Female Enrollment (std 1-4) | %9.0g |
| enrol\_upper\_tot\_f | Female Enrollment (std 4-8) | %9.0g |
| enrol\_std1\_m | Male Enrollment (std 1) | %9.0g |
| enrol\_std2\_m | Male Enrollment (std 2) | %9.0g |
| enrol\_std3\_m | Male Enrollment (std 3) | %9.0g |
| enrol\_std4\_m | Male Enrollment (std 4) | %9.0g |
| enrol\_std5\_m | Male Enrollment (std 5) | %9.0g |
| enrol\_std6\_m | Male Enrollment (std 6) | %9.0g |
| enrol\_std7\_m | Male Enrollment (std 7) | %9.0g |
| enrol\_std8\_m | Male Enrollment (std 8) | %9.0g |
| enrol\_tot\_m | Male Enrollment (total) | %9.0g |
| enrol\_lower\_tot\_m | Male Enrollment (std 1-4) | %9.0g |
| enrol\_upper\_tot\_m | Male Enrollment (std 4-8) | %9.0g |
| output\_efficiency\_grade4 | Output Efficiency (std 4) | %9.0g |
| output\_efficiency\_grade8 | Output Efficiency (std 8) | %9.0g |
| output\_efficiency\_grade4\_f | Female Output Efficiency (std 4) | %9.0g |
| output\_efficiency\_grade8\_f | Female Output Efficiency (std 8) | %9.0g |
| output\_efficiency\_grade4\_m | Male Output Efficiency (std 4) | %9.0g |
| output\_efficiency\_grade8\_m | Male Output Efficiency (std 8) | %9.0g |
| multi\_shift | TO CHECK LATER | %9.0g |
| num\_non\_tch\_staff | Number of non-teaching staff | %9.0g |
| ptxt\_ratio\_eng\_tot | Pupil:txt ratio English | %9.0g |
| tot\_txt\_math\_tot |  | %9.0g |
| ptxt\_ratio\_math\_tot | Pupil:txt ratio Math | %9.0g |
| tot\_txt\_chi\_tot |  | %9.0g |
| ptxt\_ratio\_chi\_tot | Pupil:txt ratio Chichewa | %9.0g |
| tot\_txt\_lower\_eng |  | %9.0g |
| tot\_txt\_lower\_math |  | %9.0g |
| tot\_txt\_lower\_chi |  | %9.0g |
| tot\_txt\_lower |  | %9.0g |
| tot\_txt\_upper\_eng |  | %9.0g |
| tot\_txt\_upper\_math |  | %9.0g |
| tot\_txt\_upper\_chi |  | %9.0g |
| ptxt\_ratio\_upper | Pupil:txt ratio upper | %9.0g |
| ptxt\_ratio\_lower\_eng |  | %9.0g |
| ptxt\_ratio\_lower\_math |  | %9.0g |
| ptxt\_ratio\_lower\_chi |  | %9.0g |
| ptxt\_ratio\_upper\_eng |  | %9.0g |
| ptxt\_ratio\_upper\_math |  | %9.0g |
| ptxt\_ratio\_upper\_chi |  | %9.0g |
| ptxt\_ratio\_tot | Pupil-Textbook Ratio | %9.0g |
| feed\_pro\_yes |  | %9.0g |
| smc\_yes |  | %9.0g |
| pta\_yes |  | %9.0g |
| mg\_yes |  | %9.0g |
| smc\_mg\_pta\_yes |  | %9.0g |
| smc\_pta\_yes |  | %9.0g |
| smc\_mg\_yes |  | %9.0g |
| pta\_mg\_yes |  | %9.0g |
| psip\_yes | PSIP (y or n) | %9.0g |
| maintain\_enrol\_record\_yes | additional enrolment record keeping indicator (y or n) | %9.0g |
| co\_edu\_sch | coeducational school gender category (y or n) | %9.0g |
| public | school’s ownership type: Government, Non-religious NGO, Religious Agency (specif | %9.0g |
| num\_clas\_new\_uc | number of classrooms that are new (less than one year old) or under construction | %9.0g |
| num\_toilet\_new\_uc | Toilets under construction | %9.0g |
| num\_time\_affected\_rain | number of times school affected by rain/flood | %9.0g |
| closure\_in\_rain\_yes | school is closed during recent rainy seasons | %9.0g |
| num\_meet\_on\_rec\_smc | Number of SMC meetings in book (HT2 147) | %9.0g |
| num\_meet\_on\_rec\_pta | Number of PTA meetings in book (HT2 156) | %9.0g |
| num\_meet\_on\_rec\_mg | Number of MG meetings in book (HT2 163) | %9.0g |
| psip\_prepared\_2016 | the most recent PSIP prepared in 2016 | %9.0g |
| num\_stfmeet\_ht | Number of staff meetings held since sep 2015 | %9.0g |
| num\_parentinvi\_ht | Number of times of parent invited to the school | %9.0g |
| tenure\_ht | HT tenure at this school | %9.0g |
| yrs\_ht | HT experience | %9.0g |
| absent\_days\_ht | HT days of absent on other duties | %9.0g |
| LT\_yes\_ht | HT received leadership training | %9.0g |
| IST\_yes\_ht | HT received in-service training | %9.0g |
| no\_rw\_tch\_yes\_ht | HT does not rewards teacher performance | %9.0g |
| no\_rw\_ht | HT is not rewarded | %9.0g |
| num\_vacant\_tch | number of vacant teaching positions | %9.0g |
| PEA\_assess | PEA Assesses performance | %31.0g |
| stu\_verb\_bully\_fre | Students verbally abuse other students once a week or more | %9.0g |
| stu\_phys\_bully\_fre | Students physically abuse other students once a week or more | %9.0g |
| tch\_verb\_bully\_fre | Teachers verbally abuse other students once a week or more | %9.0g |
| tch\_phys\_bully\_fre | Teachers physically abuse other students once a week or more | %9.0g |
| rmdl\_class | 131\_m1: Does the school offer remedial classes for poor performing students? | %8.0g |
| rmdl\_class\_std1 | Remedial Classes offered (std 1) | %9.0g |
| rmdl\_class\_std2 | Remedial Classes offered (std 2) | %9.0g |
| rmdl\_class\_std3 | Remedial Classes offered (std 3) | %9.0g |
| rmdl\_class\_std4 | Remedial Classes offered (std 4) | %9.0g |
| rmdl\_class\_std5 | Remedial Classes offered (std 5) | %9.0g |
| rmdl\_class\_std6 | Remedial Classes offered (std 6) | %9.0g |
| rmdl\_class\_std7 | Remedial Classes offered (std 7) | %9.0g |
| rmdl\_class\_std8 | Remedial Classes offered (std 8) | %9.0g |
| rmdl\_class\_free\_std1 | Remedial Classes offered for free (std 1) | %9.0g |
| rmdl\_class\_free\_std2 | Remedial Classes offered for free (std 2) | %9.0g |
| rmdl\_class\_free\_std3 | Remedial Classes offered for free (std 3) | %9.0g |
| rmdl\_class\_free\_std4 | Remedial Classes offered for free (std 4) | %9.0g |
| rmdl\_class\_free\_std5 | Remedial Classes offered for free (std 5) | %9.0g |
| rmdl\_class\_free\_std6 | Remedial Classes offered for free (std 6) | %9.0g |
| rmdl\_class\_free\_std7 | Remedial Classes offered for free (std 7) | %9.0g |
| rmdl\_class\_free\_std8 | Remedial Classes offered for free (std 8) | %9.0g |
| rmdl\_classes\_freq\_std1 | No. of remedial Classes offered per month (std 1) | %9.0g |
| rmdl\_classes\_freq\_std2 | No. of remedial Classes offered per month (std 2) | %9.0g |
| rmdl\_classes\_freq\_std3 | No. of remedial Classes offered per month (std 3) | %9.0g |
| rmdl\_classes\_freq\_std4 | No. of remedial Classes offered per month (std 4) | %9.0g |
| rmdl\_classes\_freq\_std5 | No. of remedial Classes offered per month (std 5) | %9.0g |
| rmdl\_classes\_freq\_std6 | No. of remedial Classes offered per month (std 6) | %9.0g |
| rmdl\_classes\_freq\_std7 | No. of remedial Classes offered per month (std 7) | %9.0g |
| rmdl\_classes\_freq\_std8 | No. of remedial Classes offered per month (std 8) | %9.0g |
| rmdl\_stu\_m\_std1 | No. of male students attending remedial classes per month (std 1) | %9.0g |
| rmdl\_stu\_m\_std2 | No. of male students attending remedial classes per month (std 2) | %9.0g |
| rmdl\_stu\_m\_std3 | No. of male students attending remedial classes per month (std 3) | %9.0g |
| rmdl\_stu\_m\_std4 | No. of male students attending remedial classes per month (std 4) | %9.0g |
| rmdl\_stu\_m\_std5 | No. of male students attending remedial classes per month (std 5) | %9.0g |
| rmdl\_stu\_m\_std6 | No. of male students attending remedial classes per month (std 6) | %9.0g |
| rmdl\_stu\_m\_std7 | No. of male students attending remedial classes per month (std 7) | %9.0g |
| rmdl\_stu\_m\_std8 | No. of male students attending remedial classes per month (std 8) | %9.0g |
| rmdl\_stu\_f\_std1 | No. of female students attending remedial classes per month (std 1) | %9.0g |
| rmdl\_stu\_f\_std2 | No. of female students attending remedial classes per month (std 2) | %9.0g |
| rmdl\_stu\_f\_std3 | No. of female students attending remedial classes per month (std 3) | %9.0g |
| rmdl\_stu\_f\_std4 | No. of female students attending remedial classes per month (std 4) | %9.0g |
| rmdl\_stu\_f\_std5 | No. of female students attending remedial classes per month (std 5) | %9.0g |
| rmdl\_stu\_f\_std6 | No. of female students attending remedial classes per month (std 6) | %9.0g |
| rmdl\_stu\_f\_std7 | No. of female students attending remedial classes per month (std 7) | %9.0g |
| rmdl\_stu\_f\_std8 | No. of female students attending remedial classes per month (std 8) | %9.0g |
| rmdl\_stu\_tot\_std1 | No. of students attending remedial classes per month (std 1) | %9.0g |
| rmdl\_stu\_tot\_std2 | No. of students attending remedial classes per month (std 2) | %9.0g |
| rmdl\_stu\_tot\_std3 | No. of students attending remedial classes per month (std 3) | %9.0g |
| rmdl\_stu\_tot\_std4 | No. of students attending remedial classes per month (std 4) | %9.0g |
| rmdl\_stu\_tot\_std5 | No. of students attending remedial classes per month (std 5) | %9.0g |
| rmdl\_stu\_tot\_std6 | No. of students attending remedial classes per month (std 6) | %9.0g |
| rmdl\_stu\_tot\_std7 | No. of students attending remedial classes per month (std 7) | %9.0g |
| rmdl\_stu\_tot\_std8 | No. of students attending remedial classes per month (std 8) | %9.0g |
| rmdl\_class\_tot |  | %9.0g |
| rmdl\_class\_free\_tot |  | %9.0g |
| rmdl\_classes\_freq\_tot |  | %9.0g |
| rmdl\_stu\_m\_tot |  | %9.0g |
| rmdl\_stu\_f\_tot |  | %9.0g |
| rmdl\_stu\_tot\_tot |  | %9.0g |
| multi\_grade | Multi Grade | %23.0g |
| zone\_num | zone\_num | %8.0g |
| zone\_nam | zone\_nam | %16s |
| address1 | address1 | %9s |
| address2 | address2 | %9s |
| phone | phone | %12s |
| paypoint | Paypoint | %13s |
| regno | RegNo | %14s |
| establish\_year | Estblish year | %8.0g |
| proprietor | Proprietor | %8.0g |
| propspecify | PropSpecify | %35s |
| insttype | InstType | %8.0g |
| constituency | Constituency | %25s |
| tradauth | TradAuth | %21s |
| baseline\_559 | 559 schools covered in initial baseline | %9.0g |
| phase\_a\_559\_381\_yes |  | %9.0g |
| phase\_b\_559\_178\_yes |  | %9.0g |
| sch\_outside\_924 | 38 schools sampled in the extended round because they are RD schools of CP1 | %9.0g |
| extended\_baseline\_round\_273 | 273 schools for the extended baseline in 2018 | %9.0g |
| baseline\_extension\_228\_yes |  | %23.0g |
| baseline\_yes |  | %9.0g |
| latitude1 |  | %9.0g |
| longitude1 |  | %9.0g |
| nid |  | %8.0g |
| km\_to\_nid | km\_to\_nid | %10.0g |
| num\_tch\_std1 | number of teachers in standard 1 | %9.0g |
| num\_tch\_std2 | number of teachers in standard 2 | %9.0g |
| num\_tch\_std3 | number of teachers in standard 3 | %9.0g |
| num\_tch\_std4 | number of teachers in standard 4 | %9.0g |
| num\_tch\_std5 | number of teachers in standard 5 | %9.0g |
| num\_tch\_std6 | number of teachers in standard 6 | %9.0g |
| num\_tch\_std7 | number of teachers in standard 7 | %9.0g |
| num\_tch\_std8 | number of teachers in standard 8 | %9.0g |
| senior\_tch | No. Senior Teachers in School | %9.0g |
| std\_tch | No. General Teachers in School | %9.0g |
| jun\_tch | No. Junior Teachers in School | %9.0g |
| oth\_tch | No. Other Teachers in School | %9.0g |
| aux\_tch | No. Auxilliary Teachers in School (roster) | %9.0g |
| std\_offered | Q51.What standards are offered in this school? | %15.0g |
| num\_tch\_tot | Total Teachers | %9.0g |
| num\_tch\_lower | Lower Primary Teachers | %9.0g |
| num\_tch\_upper | Upper Primary Teachers | %9.0g |
| num\_tch\_std1\_f | number of female teachers in standard 1 | %9.0g |
| num\_tch\_std2\_f | number of female teachers in standard 2 | %9.0g |
| num\_tch\_std3\_f | number of female teachers in standard 3 | %9.0g |
| num\_tch\_std4\_f | number of female teachers in standard 4 | %9.0g |
| num\_tch\_std5\_f | number of female teachers in standard 5 | %9.0g |
| num\_tch\_std6\_f | number of female teachers in standard 6 | %9.0g |
| num\_tch\_std7\_f | number of female teachers in standard 7 | %9.0g |
| num\_tch\_std8\_f | number of female teachers in standard 8 | %9.0g |
| num\_tch\_tot\_f | total number of female teachers, std1-std8 | %9.0g |
| num\_tch\_lower\_f | number of female teachers, std1-std4 | %9.0g |
| num\_tch\_upper\_f | number of female teachers, std5-std8 | %9.0g |
| num\_tch\_std1\_m | number of male teachers in standard 1 | %9.0g |
| num\_tch\_std2\_m | number of male teachers in standard 2 | %9.0g |
| num\_tch\_std3\_m | number of male teachers in standard 3 | %9.0g |
| num\_tch\_std4\_m | number of male teachers in standard 4 | %9.0g |
| num\_tch\_std5\_m | number of male teachers in standard 5 | %9.0g |
| num\_tch\_std6\_m | number of male teachers in standard 6 | %9.0g |
| num\_tch\_std7\_m | number of male teachers in standard 7 | %9.0g |
| num\_tch\_std8\_m | number of male teachers in standard 8 | %9.0g |
| num\_tch\_tot\_m | total number of male teachers, std1-std8 | %9.0g |
| num\_tch\_lower\_m | number of male teachers, std1-std4 | %9.0g |
| num\_tch\_upper\_m | number of male teachers, std5-std8 | %9.0g |
| female\_tch\_ratio\_std1 | number of female teachers in standard 1 / number of teachers in standard 1 | %9.0g |
| female\_tch\_ratio\_std2 | number of female teachers in standard 2 / number of teachers in standard 2 | %9.0g |
| female\_tch\_ratio\_std3 | number of female teachers in standard 3 / number of teachers in standard 3 | %9.0g |
| female\_tch\_ratio\_std4 | number of female teachers in standard 4 / number of teachers in standard 4 | %9.0g |
| female\_tch\_ratio\_std5 | number of female teachers in standard 5 / number of teachers in standard 5 | %9.0g |
| female\_tch\_ratio\_std6 | number of female teachers in standard 6 / number of teachers in standard 6 | %9.0g |
| female\_tch\_ratio\_std7 | number of female teachers in standard 7 / number of teachers in standard 7 | %9.0g |
| female\_tch\_ratio\_std8 | number of female teachers in standard 8 / number of teachers in standard 8 | %9.0g |
| female\_tch\_ratio\_upper | number of female teachers in std 5 to std 8 / number of teachers in std 5 to std | %9.0g |
| female\_tch\_ratio\_lower | number of female teachers in std 1 to std 4 / number of teachers in std 1 to std | %9.0g |
| female\_tch\_ratio\_tot | total number of female teachers / total number of teachers | %9.0g |
| male\_tch\_ratio\_std1 | number of male teachers in standard 1 / number of teachers in standard 1 | %9.0g |
| male\_tch\_ratio\_std2 | number of male teachers in standard 2 / number of teachers in standard 2 | %9.0g |
| male\_tch\_ratio\_std3 | number of male teachers in standard 3 / number of teachers in standard 3 | %9.0g |
| male\_tch\_ratio\_std4 | number of male teachers in standard 4 / number of teachers in standard 4 | %9.0g |
| male\_tch\_ratio\_std5 | number of male teachers in standard 5 / number of teachers in standard 5 | %9.0g |
| male\_tch\_ratio\_std6 | number of male teachers in standard 6 / number of teachers in standard 6 | %9.0g |
| male\_tch\_ratio\_std7 | number of male teachers in standard 7 / number of teachers in standard 7 | %9.0g |
| male\_tch\_ratio\_std8 | number of male teachers in standard 8 / number of teachers in standard 8 | %9.0g |
| male\_tch\_ratio\_upper | number of male teachers in std 5 to std 8 / number of teachers in std 5 to std 8 | %9.0g |
| male\_tch\_ratio\_lower | number of male teachers in std 1 to std 4 / number of teachers in std 1 to std 4 | %9.0g |
| male\_tch\_ratio\_tot | total number of male teachers / total number of teachers | %9.0g |
| female\_male\_tch\_ratio\_std1 | number of female teachers in std 1 / number of male teachers in std 1 | %9.0g |
| female\_male\_tch\_ratio\_std2 | number of female teachers in std 2 / number of male teachers in std 2 | %9.0g |
| female\_male\_tch\_ratio\_std3 | number of female teachers in std 3 / number of male teachers in std 3 | %9.0g |
| female\_male\_tch\_ratio\_std4 | number of female teachers in std 4 / number of male teachers in std 4 | %9.0g |
| female\_male\_tch\_ratio\_std5 | number of female teachers in std 5 / number of male teachers in std 5 | %9.0g |
| female\_male\_tch\_ratio\_std6 | number of female teachers in std 6 / number of male teachers in std 6 | %9.0g |
| female\_male\_tch\_ratio\_std7 | number of female teachers in std 7 / number of male teachers in std 7 | %9.0g |
| female\_male\_tch\_ratio\_std8 | number of female teachers in std 8 / number of male teachers in std 8 | %9.0g |
| female\_male\_tch\_ratio\_upper | number of female teachers in std 5 to std 8 / number of male teachers in std 5 t | %9.0g |
| female\_male\_tch\_ratio\_lower | number of female teachers in std 1 to std 4 / number of male teachers in std 1 t | %9.0g |
| female\_male\_tch\_ratio\_tot | total number of female teachers / total number of male teachers | %9.0g |
| num\_tch\_std1\_q | number of qualified teachers in standard 1 | %9.0g |
| num\_tch\_std2\_q | number of qualified teachers in standard 2 | %9.0g |
| num\_tch\_std3\_q | number of qualified teachers in standard 3 | %9.0g |
| num\_tch\_std4\_q | number of qualified teachers in standard 4 | %9.0g |
| num\_tch\_std5\_q | number of qualified teachers in standard 5 | %9.0g |
| num\_tch\_std6\_q | number of qualified teachers in standard 6 | %9.0g |
| num\_tch\_std7\_q | number of qualified teachers in standard 7 | %9.0g |
| num\_tch\_std8\_q | number of qualified teachers in standard 8 | %9.0g |
| num\_tch\_tot\_q | total number of qualified teachers, std 1 - std 8 | %9.0g |
| num\_tch\_lower\_q | total number of qualified teachers, std 1 - std 4 | %9.0g |
| num\_tch\_upper\_q | total number of qualified teachers, std 5 - std 8 | %9.0g |
| num\_tch\_std1\_f\_q | number of female qualified teachers in standard 1 | %9.0g |
| num\_tch\_std2\_f\_q | number of female qualified teachers in standard 2 | %9.0g |
| num\_tch\_std3\_f\_q | number of female qualified teachers in standard 3 | %9.0g |
| num\_tch\_std4\_f\_q | number of female qualified teachers in standard 4 | %9.0g |
| num\_tch\_std5\_f\_q | number of female qualified teachers in standard 5 | %9.0g |
| num\_tch\_std6\_f\_q | number of female qualified teachers in standard 6 | %9.0g |
| num\_tch\_std7\_f\_q | number of female qualified teachers in standard 7 | %9.0g |
| num\_tch\_std8\_f\_q | number of female qualified teachers in standard 8 | %9.0g |
| num\_tch\_tot\_f\_q | total number of female qualified teachers, std 1 - std 8 | %9.0g |
| num\_tch\_lower\_f\_q | total number of female qualified teachers, std 1 - std 4 | %9.0g |
| num\_tch\_upper\_f\_q | total number of female qualified teachers, std 5 - std 8 | %9.0g |
| num\_tch\_std1\_m\_q | number of male qualified teachers in standard 1 | %9.0g |
| num\_tch\_std2\_m\_q | number of male qualified teachers in standard 2 | %9.0g |
| num\_tch\_std3\_m\_q | number of male qualified teachers in standard 3 | %9.0g |
| num\_tch\_std4\_m\_q | number of male qualified teachers in standard 4 | %9.0g |
| num\_tch\_std5\_m\_q | number of male qualified teachers in standard 5 | %9.0g |
| num\_tch\_std6\_m\_q | number of male qualified teachers in standard 6 | %9.0g |
| num\_tch\_std7\_m\_q | number of male qualified teachers in standard 7 | %9.0g |
| num\_tch\_std8\_m\_q | number of male qualified teachers in standard 8 | %9.0g |
| num\_tch\_tot\_m\_q | total number of male qualified teachers, std 1 - std 8 | %9.0g |
| num\_tch\_lower\_m\_q | total number of male qualified teachers, std 1 - std 4 | %9.0g |
| num\_tch\_upper\_m\_q | total number of male qualified teachers, std 5 - std 8 | %9.0g |
| female\_tch\_ratio\_std1\_q | number of female qualified teachers in std 1 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std2\_q | number of female qualified teachers in std 2 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std3\_q | number of female qualified teachers in std 3 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std4\_q | number of female qualified teachers in std 4 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std5\_q | number of female qualified teachers in std 5 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std6\_q | number of female qualified teachers in std 6 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std7\_q | number of female qualified teachers in std 7 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_std8\_q | number of female qualified teachers in std 8 / number of qualified teachers in s | %9.0g |
| female\_tch\_ratio\_upper\_q | number of female qualified teachers in std 5 - std 8 / number of qualified teach | %9.0g |
| female\_tch\_ratio\_lower\_q | number of female qualified teachers in std 1 - std 4 / number of qualified teach | %9.0g |
| female\_tch\_ratio\_tot\_q | total number of female qualified teachers, std 1 - std 8 / total number of quali | %9.0g |
| female\_male\_tch\_ratio\_std1\_q | number of female qualified teachers in std 1 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std2\_q | number of female qualified teachers in std 2 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std3\_q | number of female qualified teachers in std 3 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std4\_q | number of female qualified teachers in std 4 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std5\_q | number of female qualified teachers in std 5 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std6\_q | number of female qualified teachers in std 6 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std7\_q | number of female qualified teachers in std 7 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_std8\_q | number of female qualified teachers in std 8 / number of male qualified teachers | %9.0g |
| female\_male\_tch\_ratio\_upper\_q | number of female qualified teachers in std 5 to std 8 / number of male qualified | %9.0g |
| female\_male\_tch\_ratio\_lower\_q | number of female qualified teachers in std 1 to std 4 / number of male qualified | %9.0g |
| female\_male\_tch\_ratio\_tot\_q | total number of female qualified teachers / total number of male qualified teach | %9.0g |
| enrol\_PTR\_std1 | enrolment in std1 / number of teachers in std1 | %9.0g |
| enrol\_PTR\_std1\_f | female enrolment in std1 / number of female teachers in std1 | %9.0g |
| enrol\_PTR\_std1\_m | male enrolment in std1 / number of male teachers in std1 | %9.0g |
| enrol\_PTR\_std2 | enrolment in std2 / number of teachers in std2 | %9.0g |
| enrol\_PTR\_std2\_f | female enrolment in std2 / number of female teachers in std2 | %9.0g |
| enrol\_PTR\_std2\_m | male enrolment in std2 / number of male teachers in std2 | %9.0g |
| enrol\_PTR\_std3 | enrolment in std3 / number of teachers in std3 | %9.0g |
| enrol\_PTR\_std3\_f | female enrolment in std1 / number of female teachers in std3 | %9.0g |
| enrol\_PTR\_std3\_m | male enrolment in std3 / number of male teachers in std3 | %9.0g |
| enrol\_PTR\_std4 | enrolment in std4 / number of teachers in std4 | %9.0g |
| enrol\_PTR\_std4\_f | female enrolment in std4 / number of female teachers in std4 | %9.0g |
| enrol\_PTR\_std4\_m | male enrolment in std4 / number of male teachers in std4 | %9.0g |
| enrol\_PTR\_std5 | enrolment in std5 / number of teachers in std5 | %9.0g |
| enrol\_PTR\_std5\_f | female enrolment in std5 / number of female teachers in std5 | %9.0g |
| enrol\_PTR\_std5\_m | male enrolment in std5 / number of male teachers in std5 | %9.0g |
| enrol\_PTR\_std6 | enrolment in std6 / number of teachers in std6 | %9.0g |
| enrol\_PTR\_std6\_f | female enrolment in std6 / number of female teachers in std6 | %9.0g |
| enrol\_PTR\_std6\_m | male enrolment in std6 / number of male teachers in std6 | %9.0g |
| enrol\_PTR\_std7 | enrolment in std7 / number of teachers in std7 | %9.0g |
| enrol\_PTR\_std7\_f | female enrolment in std7 / number of female teachers in std7 | %9.0g |
| enrol\_PTR\_std7\_m | male enrolment in std7 / number of male teachers in std7 | %9.0g |
| enrol\_PTR\_std8 | enrolment in std8 / number of teachers in std8 | %9.0g |
| enrol\_PTR\_std8\_f | female enrolment in std8 / number of female teachers in std8 | %9.0g |
| enrol\_PTR\_std8\_m | male enrolment in std8 / number of male teachers in std8 | %9.0g |
| enrol\_PTR\_tot | Overall Pupil-Teacher Ratio | %9.0g |
| enrol\_PTR\_tot\_f | total female enrolment / total number of female teachers | %9.0g |
| enrol\_PTR\_tot\_m | total male enrolment / total number of male teachers | %9.0g |
| enrol\_PTR\_tot\_lower | Lower Primary Pupil-Teacher Ratio | %9.0g |
| enrol\_PTR\_tot\_upper | total upper class (std5-std8) enrolment / total number of teachers in upper clas | %9.0g |
| enrol\_PTR\_tot\_lower\_f | total lower class (std1-std4) female enrolment / total number of female teachers | %9.0g |
| enrol\_PTR\_tot\_upper\_f | total upper class (std5-std8) female enrolment / total number of female teachers | %9.0g |
| enrol\_PQTR\_std1 | enrolment in std1 / number of qualified teachers in std1 | %9.0g |
| enrol\_PQTR\_std2 | enrolment in std2 / number of qualified teachers in std2 | %9.0g |
| enrol\_PQTR\_std3 | enrolment in std3 / number of qualified teachers in std3 | %9.0g |
| enrol\_PQTR\_std4 | enrolment in std4 / number of qualified teachers in std4 | %9.0g |
| enrol\_PQTR\_std5 | enrolment in std5 / number of qualified teachers in std5 | %9.0g |
| enrol\_PQTR\_std6 | enrolment in std6 / number of qualified teachers in std6 | %9.0g |
| enrol\_PQTR\_std7 | enrolment in std7 / number of qualified teachers in std7 | %9.0g |
| enrol\_PQTR\_std8 | enrolment in std8 / number of qualified teachers in std8 | %9.0g |
| enrol\_PQTR\_tot | total enrolment / total number of qualified teachers | %9.0g |
| enrol\_PQTR\_tot\_lower | total lower class (std1-std4) enrolment / total number of qualified teachers in | %9.0g |
| enrol\_PQTR\_tot\_upper | total upper class (std5-std8) enrolment / total number of qualified teachers in | %9.0g |
| num\_visit\_PEA | number of visits by PEA | %9.0g |
| num\_visit\_sch\_inspector | number of visits by school inspector | %9.0g |
| num\_visit\_vill\_chief | num\_visit\_vill\_chief | %9.0g |
| num\_visit\_ward\_counc | number of visits by ward councillor | %9.0g |
| num\_visit\_DEM | number of visits by DEM | %9.0g |
| num\_visit\_DCPR | number of visits by DCPR | %9.0g |
| num\_visit\_CMO | number of visits by CMO | %9.0g |
| num\_visit\_MP | number of visits by MP | %9.0g |
| num\_visit\_electorate | number of visits by electorate | %9.0g |
| fb\_visit\_yes\_PEA | PEA gave feedback on visit (y or n) | %9.0g |
| fb\_visit\_yes\_sch\_insp | School inspector gave feedback on visit (y or n) | %9.0g |
| fb\_visit\_yes\_vill\_chief | Village chief gave feedback on visit (y or n) | %9.0g |
| fb\_visit\_yes\_ward\_counc | Ward councillor gave feedback on visit (y or n) | %9.0g |
| fb\_visit\_yes\_DEM | DEM gave feedback on visit (y or n) | %9.0g |
| fb\_visit\_yes\_elect | Electorate gave feedback on visit (y or n) | %9.0g |
| tot\_num\_visits | total number of visits by all | %9.0g |
| PEA\_visited | at least visited once by PEA | %9.0g |
| sch\_inspector\_visited | at least visited once by school inspector | %9.0g |
| vill\_chief\_visited | at least visited once by village chief | %9.0g |
| ward\_counc\_visited | at least visited once by ward councillor | %9.0g |
| DEM\_visited | at least visited once by DEM | %9.0g |
| electorate\_visited | at least visited once by electorate | %9.0g |
| PT4\_share | (mean) PT4 | %9.0g |
| PT3\_share | (mean) PT3 | %9.0g |
| PT2\_share | (mean) PT2 | %9.0g |
| PT1\_share | (mean) PT1 | %9.0g |
| PT4\_share\_f | (mean) PT4 | %9.0g |
| PT4\_share\_m | (mean) PT4 | %9.0g |
| leader\_yes | (mean) leader\_yes | %9.0g |
| ODL | (mean) ODL | %9.0g |
| IPTE | (mean) IPTE | %9.0g |
| perm\_tch | (mean) perm\_tch | %9.0g |
| tch\_age | average teacher age (using ht1 roster) | %9.0g |
| tenure\_sch | average teacher school tenure (using ht1 roster) | %9.0g |
| above\_high\_qualification | share of above MSCE qualification teachers (using ht1 roster) | %9.0g |
| tenure | teacher experience in the education sector | %9.0g |
| abs\_rate\_tot | Absence Rate Total (HC) | %9.0g |
| abs\_rate\_std1 | Absence Rate in std 1 (HC) | %9.0g |
| abs\_rate\_std2 | Absence Rate in std 2 (HC) | %9.0g |
| abs\_rate\_std3 | Absence Rate in std 3 (HC) | %9.0g |
| abs\_rate\_std4 | Absence Rate in std 4 (HC) | %9.0g |
| abs\_rate\_std5 | Absence Rate in std 5 (HC) | %9.0g |
| abs\_rate\_std6 | Absence Rate in std 6 (HC) | %9.0g |
| abs\_rate\_std7 | Absence Rate in std 7 (HC) | %9.0g |
| att\_rate\_tot | Absence Rate Total (HC) | %9.0g |
| att\_rate\_std1 | Attendance Rate in std 1 (HC) | %9.0g |
| att\_rate\_std2 | Attendance Rate in std 2 (HC) | %9.0g |
| att\_rate\_std3 | Attendance Rate in std 3 (HC) | %9.0g |
| att\_rate\_std4 | Attendance Rate in std 4 (HC) | %9.0g |
| att\_rate\_std5 | Attendance Rate in std 5 (HC) | %9.0g |
| att\_rate\_std6 | Attendance Rate in std 6 (HC) | %9.0g |
| att\_rate\_std7 | Attendance Rate in std 7 (HC) | %9.0g |
| electricity\_yes | School has electricity (y or n) | %9.0g |
| num\_water\_points | Number of Water Points | %9.0g |
| quality\_water | quality of drinking water spots | %9.0g |
| electricity\_yes\_sfo | Electricity | %9.0g |
| num\_toilets\_girl | Girl Toilets | %9.0g |
| num\_toilets\_boy | Boy Toilets | %9.0g |
| num\_toilets\_tot | Total number of toilets available for girls and boys | %9.0g |
| num\_toilets\_func\_girl | number of functional toilets for girls | %9.0g |
| num\_toilets\_func\_boy | number of functional toilets for boys | %9.0g |
| num\_toilets\_functional | total number of functional toilets for boys and girls | %9.0g |
| enrol\_pupil\_toilet\_ratio\_tot | total pupil enrolment / total number of functional toilets for boys and girls | %9.0g |
| enrol\_num\_func\_toilet\_per\_stu | total number of functional toilets for boys and girls / total pupil enrolment | %9.0g |
| enrol\_pupil\_toilet\_ratio\_girl | total female enrolment / number of toilets for girls available | %9.0g |
| enrol\_pupil\_toilet\_ratio\_boy | total male enrolment / number of toilets for boys available | %9.0g |
| functional\_toilet\_yes | functional toilets for either girls, boys or both (y or n) | %9.0g |
| block\_yes | School has blocks (y or n) | %9.0g |
| num\_tch\_house | number of teacher housing units in school | %9.0g |
| tch\_house\_yes | majority of the teachers have housing unit (defined as over half), y or n | %9.0g |
| signboard\_yes | School has signboard (y or n) | %9.0g |
| electricity | electricity line to the school (y or n) | %9.0g |
| num\_block | number of blocks at the school | %9.0g |
| good\_road\_yes | school accessible for quality road (tarmac road or gravel road), y or n | %9.0g |
| num\_drink\_water\_spots |  | %9.0g |
| sch\_open\_stu\_present | school is open and stu/tch present on first visit | %9.0g |
| block\_condi\_complete\_bad | school blocks need to be completely rebuilt | %9.0g |
| block\_condi\_part\_major | school block’ major parts need to be reparied | %9.0g |
| block\_condi\_part\_minor | school block’ minor parts need to be reparied | %9.0g |
| block\_condi\_good | school block is in a good condition | %9.0g |
| tch\_house\_available | school has teacher housing (based on SFO) | %9.0g |
| tch\_h\_condi\_complete\_bad | teacher housing need to be completely rebuilt | %9.0g |
| tch\_h\_condi\_part\_major | teacher housing’s major parts need to be reparied | %9.0g |
| tch\_h\_condi\_part\_minor | teacher housing’s minor parts need to be reparied | %9.0g |
| tch\_h\_condi\_good | teacher housing is in a good condition | %9.0g |
| min\_dis\_tc | km\_to\_nid | %10.0g |
| office\_yes | school has ht/dht/teacher/offices (y or n) | %9.0g |
| staff\_room\_yes | school has staff rooms (y or n) | %9.0g |
| lib\_yes | school has library rooms (y or n) | %9.0g |
| lab\_yes | school has laboratory rooms (y or n) | %9.0g |
| storage\_room\_yes | school has storage rooms (y or n) | %9.0g |
| wall\_material | (mean) wall\_material | %9.0g |
| wall\_condition | (mean) wall\_condition | %9.0g |
| wall\_painted | (mean) wall\_painted | %9.0g |
| roof\_material | (mean) roof\_material | %9.0g |
| roof\_condition | (mean) roof\_condition | %9.0g |
| floor\_type | (mean) floor\_type | %9.0g |
| floor\_condition | (mean) floor\_condition | %9.0g |
| window\_type | (mean) window\_type | %9.0g |
| window\_condition | (mean) window\_condition | %9.0g |
| door\_condition | (mean) door\_condition | %9.0g |
| infra\_quality\_index | Infrastructure Quality Index | %9.0g |
| infra\_quali\_index\_below\_50th | school is below the 50th percentile of the infrastructure quality index (y or n | %9.0g |
| iqi\_20th | 20th percentile of infrastructure quality index | %9.0g |
| IQI\_bottom\_quintile | school is at the bottom quintile of Infra qulaity index | %9.0g |
| LM\_corner\_yes | (mean) LM\_corner\_yes | %9.0g |
| bb\_yes | (mean) bb\_yes | %9.0g |
| chalk\_yes | (mean) chalk\_yes | %9.0g |
| chair\_tch\_yes | (mean) chair\_tch\_yes | %9.0g |
| hc\_share\_chair\_above\_50 | (mean) hc\_share\_chair\_above\_50 | %9.0g |
| class\_faci\_availability\_index2 | (mean) class\_faci\_availability\_index2 | %9.0g |
| IQI\_above\_50th | (mean) IQI\_above\_50th | %9.0g |
| CAFI\_20th | school is at the 20th percentile of CAFI | %9.0g |
| CAFI\_bottom\_quintile | school is at the bottom quintile of CAFI | %9.0g |
| hc\_share\_chair | (mean) hc\_share\_chair | %9.0g |
| permanent\_class | (mean) permanent\_class | %9.0g |
| temporary\_class | Number of temporary classes | %9.0g |
| open\_air\_class | (mean) open\_air\_class | %9.0g |
| classroom | Number of temporary/permanent classes | %9.0g |
| class | Number of temporary/temporary, permanent or open air classes | %9.0g |
| wall\_yes | (mean) wall\_yes | %9.0g |
| wall\_fine | (mean) wall\_fine | %9.0g |
| wall\_paint | (mean) wall\_paint | %9.0g |
| display\_on\_wall | (mean) display\_on\_wall | %9.0g |
| instr\_on\_wall | (mean) instr\_on\_wall | %9.0g |
| enroll\_class | (mean) enroll\_class | %9.0g |
| source\_clasid | (mean) source\_clasid | %8.0g |
| txt\_share | (mean) txt\_share | %9.0g |
| LM\_share | (mean) LM\_share | %9.0g |
| chair\_share | (mean) chair\_share | %9.0g |
| uniform\_share | (mean) uniform\_share | %9.0g |
| permanent\_class\_share | (mean) permanent\_class\_share | %9.0g |
| temporary\_class\_share | (mean) temporary\_class\_share | %9.0g |
| open\_air\_class\_share | (mean) open\_air\_class\_share | %9.0g |
| classroom\_share | (mean) classroom\_share | %9.0g |
| class\_share | (mean) class\_share | %9.0g |
| no\_open\_air | no open-air classrooms | %9.0g |
| num\_class\_perm | number of permanent classrooms (based on class id) | %9.0g |
| num\_class\_temp | number of temporary classrooms (based on class id) | %9.0g |
| num\_class\_open\_air | number of open-air classrooms (based on class id) | %9.0g |
| num\_class19 | 19 num\_class | %9.0g |
| num\_class33 | 33 num\_class | %9.0g |
| num\_clr\_tot | number of all types of classrooms (based on class id) | %9.0g |
| open\_air\_class\_yes | the school has open-air classes (based on type of classrooms of CFO and CLO) | %9.0g |
| share\_open\_air | share of open-air classrooms of all types of classrooms (based on classroom type | %9.0g |
| tch\_present\_clas | Teacher Present in class | %9.0g |
| tch\_present\_tch | Teacher Present & teaching | %9.0g |
| num\_perm\_std1 | No. perm classes in std 1 | %9.0g |
| num\_temp\_std1 | No. temp classes in std 1 | %9.0g |
| num\_open\_std1 | No. open classes in std 1 | %9.0g |
| num\_class\_std1 | Number of classes in Std 1 | %9.0g |
| num\_classrooms\_std1 | Number of Classrooms std1 (exc. open air/tempr) | %9.0g |
| num\_perm\_std2 | No. perm classes in std 2 | %9.0g |
| num\_temp\_std2 | No. temp classes in std 2 | %9.0g |
| num\_open\_std2 | No. open classes in std 2 | %9.0g |
| num\_class\_std2 | Number of classes in Std 2 | %9.0g |
| num\_classrooms\_std2 | Number of Classrooms std2 (exc. open air/tempr) | %9.0g |
| num\_perm\_std3 | No. perm classes in std 3 | %9.0g |
| num\_temp\_std3 | No. temp classes in std 3 | %9.0g |
| num\_open\_std3 | No. open classes in std 3 | %9.0g |
| num\_class\_std3 | Number of classes in Std 3 | %9.0g |
| num\_classrooms\_std3 | Number of Classrooms std3 (exc. open air/tempr) | %9.0g |
| num\_perm\_std4 | No. perm classes in std 4 | %9.0g |
| num\_temp\_std4 | No. temp classes in std 4 | %9.0g |
| num\_open\_std4 | No. open classes in std 4 | %9.0g |
| num\_class\_std4 | Number of classes in Std 4 | %9.0g |
| num\_classrooms\_std4 | Number of Classrooms std4 (exc. open air/tempr) | %9.0g |
| num\_perm\_std5 | No. perm classes in std 5 | %9.0g |
| num\_temp\_std5 | No. temp classes in std 5 | %9.0g |
| num\_open\_std5 | No. open classes in std 5 | %9.0g |
| num\_class\_std5 | Number of classes in Std 5 | %9.0g |
| num\_classrooms\_std5 | Number of Classrooms std5 (exc. open air/tempr) | %9.0g |
| num\_perm\_std6 | No. perm classes in std 6 | %9.0g |
| num\_temp\_std6 | No. temp classes in std 6 | %9.0g |
| num\_open\_std6 | No. open classes in std 6 | %9.0g |
| num\_class\_std6 | Number of classes in Std 6 | %9.0g |
| num\_classrooms\_std6 | Number of Classrooms std6 (exc. open air/tempr) | %9.0g |
| num\_perm\_std7 | No. perm classes in std 7 | %9.0g |
| num\_temp\_std7 | No. temp classes in std 7 | %9.0g |
| num\_open\_std7 | No. open classes in std 7 | %9.0g |
| num\_class\_std7 | Number of classes in Std 7 | %9.0g |
| num\_classrooms\_std7 | Number of Classrooms std7 (exc. open air/tempr) | %9.0g |
| num\_perm\_std8 | No. perm classes in std 8 | %9.0g |
| num\_temp\_std8 | No. temp classes in std 8 | %9.0g |
| num\_open\_std8 | No. open classes in std 8 | %9.0g |
| num\_class\_std8 | Number of Classrooms std8 (inc. open-air) | %9.0g |
| num\_classrooms\_std8 | Number of Classrooms std8 (exc. open air/tempr) | %9.0g |
| perm\_class\_lower | No. perm classes (std 1-4) | %9.0g |
| perm\_class\_upper | No. perm classes (std 5-7) | %9.0g |
| perm\_class\_tot | No. perm classes (tot) | %9.0g |
| temp\_class\_lower | No. temp classes (std 1-4) | %9.0g |
| temp\_class\_upper | No. temp classes (std 5-7) | %9.0g |
| temp\_class\_tot | No. temp classes (tot) | %9.0g |
| open\_class\_lower | No. open classes (std 1-4) | %9.0g |
| open\_class\_upper | No. open classes (std 5-7) | %9.0g |
| open\_class\_tot | No. open classes (tot) | %9.0g |
| classrooms\_lower | Lower Primary Classrooms (Perm+Temp) | %9.0g |
| classrooms\_upper | No. classrooms classes (std 5-7) | %9.0g |
| classrooms\_tot | Total Classrooms (Perm+Temp) | %9.0g |
| enrol\_class\_size\_std1 | Class size std 1 (enrol approach) | %9.0g |
| enrol\_class\_size\_std2 | Class size std 2 (enrol approach) | %9.0g |
| enrol\_class\_size\_std3 | Class size std 3 (enrol approach) | %9.0g |
| enrol\_class\_size\_std4 | Class size std 4 (enrol approach) | %9.0g |
| enrol\_class\_size\_std5 | Class size std 5 (enrol approach) | %9.0g |
| enrol\_class\_size\_std6 | Class size std 6 (enrol approach) | %9.0g |
| enrol\_class\_size\_std7 | Class size std 7 (enrol approach) | %9.0g |
| enrol\_class\_size\_std8 | Class size std 8 (enrol approach) | %9.0g |
| PCR\_std1 |  | %9.0g |
| PCR\_std2 |  | %9.0g |
| PCR\_std3 |  | %9.0g |
| PCR\_std4 |  | %9.0g |
| PCR\_std5 |  | %9.0g |
| PCR\_std6 |  | %9.0g |
| PCR\_std7 |  | %9.0g |
| PCR\_std8 |  | %9.0g |
| num\_stu\_per\_clas\_std1 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std2 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std3 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std4 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std5 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std6 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std7 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_stu\_per\_clas\_std8 | No. of enrolled students per classroom (exc. open air/temp) | %9.0g |
| num\_clas\_tot | No. classes total | %9.0g |
| num\_classrooms\_tot | Number of Classrooms Total (exc. open air/temp) | %9.0g |
| enrol\_class\_size\_tot | Class size std total (enrol approach) | %9.0g |
| PCR\_tot | Overall Pupil-Classroom Ratio | %9.0g |
| PCR\_lower | Lower Primary Pupil-Classroom Ratio | %9.0g |
| PCR\_upper |  | %9.0g |
| class\_size\_lower | Class size lower (enrol approach) | %9.0g |
| class\_size\_upper\_57 | class size upper (enrol approach) | %9.0g |
| hc\_class\_size\_std1 | Class size std 1 (HC approach) | %9.0g |
| hc\_class\_size\_std2 | Class size std 2 (HC approach) | %9.0g |
| hc\_class\_size\_std3 | Class size std 3 (HC approach) | %9.0g |
| hc\_class\_size\_std4 | Class size std 4 (HC approach) | %9.0g |
| hc\_class\_size\_std5 | Class size std 5 (HC approach) | %9.0g |
| hc\_class\_size\_std6 | Class size std 6 (HC approach) | %9.0g |
| hc\_class\_size\_std7 | Class size std 7 (HC approach) | %9.0g |
| hc\_class\_size\_tot | Class size std total (HC approach) | %9.0g |
| hc\_tot | Headcount total | %9.0g |
| hc\_num\_stu\_per\_clas | headcount approached number of classrooms per student | %9.0g |
| hc\_PTR\_std1 | PTR std 1 (HC) | %9.0g |
| hc\_PTR\_std2 | PTR std 2 (HC) | %9.0g |
| hc\_PTR\_std3 | PTR std 3 (HC) | %9.0g |
| hc\_PTR\_std4 | PTR std 4 (HC) | %9.0g |
| hc\_PTR\_std5 | PTR std 5 (HC) | %9.0g |
| hc\_PTR\_std6 | PTR std 6 (HC) | %9.0g |
| hc\_PTR\_std7 | PTR std 7 (HC) | %9.0g |
| hc\_PTR\_tot | PTR total (HC) | %9.0g |
| hc\_num\_tch\_per\_stu | headcount approached number of teachers per student | %9.0g |
| rr\_std1 | Repetition rate std 1 | %9.0g |
| rr\_std1\_f | Female repetition rate std 1 | %9.0g |
| rr\_std1\_m | Male repetition rate std 1 | %9.0g |
| rr\_std2 | Repetition rate std 2 | %9.0g |
| rr\_std2\_f | Female repetition rate std 2 | %9.0g |
| rr\_std2\_m | Male repetition rate std 2 | %9.0g |
| rr\_std3 | Repetition rate std 3 | %9.0g |
| rr\_std3\_f | Female repetition rate std 3 | %9.0g |
| rr\_std3\_m | Male repetition rate std 3 | %9.0g |
| rr\_std4 | Repetition rate std 4 | %9.0g |
| rr\_std4\_f | Female repetition rate std 4 | %9.0g |
| rr\_std4\_m | Male repetition rate std 4 | %9.0g |
| rr\_std5 | Repetition rate std 5 | %9.0g |
| rr\_std5\_f | Female repetition rate std 5 | %9.0g |
| rr\_std5\_m | Male repetition rate std 5 | %9.0g |
| rr\_std6 | Repetition rate std 6 | %9.0g |
| rr\_std6\_f | Female repetition rate std 6 | %9.0g |
| rr\_std6\_m | Male repetition rate std 6 | %9.0g |
| rr\_std7 | Repetition rate std 7 | %9.0g |
| rr\_std7\_f | Female repetition rate std 7 | %9.0g |
| rr\_std7\_m | Male repetition rate std 7 | %9.0g |
| rr\_std8 | Repetition rate std 8 | %9.0g |
| rr\_std8\_f | Female repetition rate std 8 | %9.0g |
| rr\_std8\_m | Male repetition rate std 8 | %9.0g |
| rr\_tot | Repetition rate total | %9.0g |
| rr\_lower\_pri | Lower Primary Repetition Rate | %9.0g |
| rr\_upper\_pri | Upper Primary Repetition Rate | %9.0g |
| rr\_tot\_f | Female repetition rate total | %9.0g |
| rr\_lower\_pri\_f | Female repetition rate lower | %9.0g |
| rr\_upper\_pri\_f | Female repetition rate upper | %9.0g |
| rr\_tot\_m | Male repetition rate total | %9.0g |
| rr\_lower\_pri\_m | Male repetition rate lower | %9.0g |
| rr\_upper\_pri\_m | Male repetition rate upper | %9.0g |
| dr\_std1 | Dropout rate std 1 | %9.0g |
| dr\_std1\_f | Female dropout rate std 1 | %9.0g |
| dr\_std1\_m | Male dropout rate std 1 | %9.0g |
| dr\_std2 | Dropout rate std 2 | %9.0g |
| dr\_std2\_f | Female dropout rate std 2 | %9.0g |
| dr\_std2\_m | Male dropout rate std 2 | %9.0g |
| dr\_std3 | Dropout rate std 3 | %9.0g |
| dr\_std3\_f | Female dropout rate std 3 | %9.0g |
| dr\_std3\_m | Male dropout rate std 3 | %9.0g |
| dr\_std4 | Dropout rate std 4 | %9.0g |
| dr\_std4\_f | Female dropout rate std 4 | %9.0g |
| dr\_std4\_m | Male dropout rate std 4 | %9.0g |
| dr\_std5 | Dropout rate std 5 | %9.0g |
| dr\_std5\_f | Female dropout rate std 5 | %9.0g |
| dr\_std5\_m | Male dropout rate std 5 | %9.0g |
| dr\_std6 | Dropout rate std 6 | %9.0g |
| dr\_std6\_f | Female dropout rate std 6 | %9.0g |
| dr\_std6\_m | Male dropout rate std 6 | %9.0g |
| dr\_std7 | Dropout rate std 7 | %9.0g |
| dr\_std7\_f | Female dropout rate std 7 | %9.0g |
| dr\_std7\_m | Male dropout rate std 7 | %9.0g |
| dr\_std8 | Dropout rate std 8 | %9.0g |
| dr\_std8\_f | Female dropout rate std 8 | %9.0g |
| dr\_std8\_m | Male dropout rate std 8 | %9.0g |
| dr\_tot | Dropout rate total | %9.0g |
| dr\_lower\_pri | Lower Primary Dropout Rate | %9.0g |
| dr\_upper\_pri | Upper Primary Dropout Rate | %9.0g |
| dr\_tot\_f | Female dropout rate total | %9.0g |
| dr\_lower\_pri\_f | Female dropout rate lower | %9.0g |
| dr\_upper\_pri\_f | Female dropout rate upper | %9.0g |
| dr\_tot\_m | Male dropout rate total | %9.0g |
| dr\_lower\_pri\_m | Male dropout rate lower | %9.0g |
| dr\_upper\_pri\_m | Male dropout rate upper | %9.0g |
| dr\_tot\_f\_68 | Dropout rate total female std 6-8 | %9.0g |
| dp\_std1\_2016 | Dropouts Stadard 1 (2016) | %9.0g |
| dp\_std2\_2016 | Dropouts Stadard 2 (2016) | %9.0g |
| dp\_std3\_2016 | Dropouts Stadard 3 (2016) | %9.0g |
| dp\_std4\_2016 | Dropouts Stadard 4 (2016) | %9.0g |
| dp\_std5\_2016 | Dropouts Stadard 5 (2016) | %9.0g |
| dp\_std6\_2016 | Dropouts Stadard 6 (2016) | %9.0g |
| dp\_std7\_2016 | Dropouts Stadard 7 (2016) | %9.0g |
| dp\_std8\_2016 | Dropouts Stadard 8 (2016) | %9.0g |
| dp\_2016 | Dropouts Total (2016) | %9.0g |
| rp\_std1\_2016 | Repeaters Stadard 1 (2016) | %9.0g |
| rp\_std2\_2016 | Repeaters Stadard 2 (2016) | %9.0g |
| rp\_std3\_2016 | Repeaters Stadard 3 (2016) | %9.0g |
| rp\_std4\_2016 | Repeaters Stadard 4 (2016) | %9.0g |
| rp\_std5\_2016 | Repeaters Stadard 5 (2016) | %9.0g |
| rp\_std6\_2016 | Repeaters Stadard 6 (2016) | %9.0g |
| rp\_std7\_2016 | Repeaters Stadard 7 (2016) | %9.0g |
| rp\_std8\_2016 | Repeaters Stadard 8 (2016) | %9.0g |
| rp\_2016 | Repeaters Total (2016) | %9.0g |
| std1\_male\_rp | 239 std1\_male | %8.0g |
| std1\_female\_rp | 239 std1\_female | %8.0g |
| std2\_male\_rp | 239 std2\_male | %8.0g |
| std2\_female\_rp | 239 std2\_female | %8.0g |
| std3\_male\_rp | 239 std3\_male | %8.0g |
| std3\_female\_rp | 239 std3\_female | %8.0g |
| std4\_male\_rp | 239 std4\_male | %8.0g |
| std4\_female\_rp | 239 std4\_female | %8.0g |
| std5\_male\_rp | 239 std5\_male | %8.0g |
| std5\_female\_rp | 239 std5\_female | %8.0g |
| std6\_male\_rp | 239 std6\_male | %8.0g |
| std6\_female\_rp | 239 std6\_female | %8.0g |
| std7\_male\_rp | 239 std7\_male | %8.0g |
| std7\_female\_rp | 239 std7\_female | %8.0g |
| std8\_male\_rp | 239 std8\_male | %8.0g |
| std8\_female\_rp | 239 std8\_female | %8.0g |
| std1\_male\_dp | 237 std1\_male | %8.0g |
| std1\_female\_dp | 237 std1\_female | %8.0g |
| std2\_male\_dp | 237 std2\_male | %8.0g |
| std2\_female\_dp | 237 std2\_female | %8.0g |
| std3\_male\_dp | 237 std3\_male | %8.0g |
| std3\_female\_dp | 237 std3\_female | %8.0g |
| std4\_male\_dp | 237 std4\_male | %8.0g |
| std4\_female\_dp | 237 std4\_female | %8.0g |
| std5\_male\_dp | 237 std5\_male | %8.0g |
| std5\_female\_dp | 237 std5\_female | %8.0g |
| std6\_male\_dp | 237 std6\_male | %8.0g |
| std6\_female\_dp | 237 std6\_female | %8.0g |
| std7\_male\_dp | 237 std7\_male | %8.0g |
| std7\_female\_dp | 237 std7\_female | %8.0g |
| std8\_male\_dp | 237 std8\_male | %8.0g |
| std8\_female\_dp | 237 std8\_female | %8.0g |
| abs\_rate\_std1\_dov | Absence rate std 1 (day of visit) | %9.0g |
| abs\_rate\_std1\_f\_dov | Female absence rate std 1 (day of visit) | %9.0g |
| abs\_rate\_std1\_m\_dov | Male absence rate std 1 (day of visit) | %9.0g |
| abs\_rate\_std2\_dov | Absence rate std 2 (day of visit) | %9.0g |
| abs\_rate\_std2\_f\_dov | Female absence rate std 2 (day of visit) | %9.0g |
| abs\_rate\_std2\_m\_dov | Male absence rate std 2 (day of visit) | %9.0g |
| abs\_rate\_std3\_dov | Absence rate std 3 (day of visit) | %9.0g |
| abs\_rate\_std3\_f\_dov | Female absence rate std 3 (day of visit) | %9.0g |
| abs\_rate\_std3\_m\_dov | Male absence rate std 3 (day of visit) | %9.0g |
| abs\_rate\_std4\_dov | Absence rate std 4 (day of visit) | %9.0g |
| abs\_rate\_std4\_f\_dov | Female absence rate std 4 (day of visit) | %9.0g |
| abs\_rate\_std4\_m\_dov | Male absence rate std 4 (day of visit) | %9.0g |
| abs\_rate\_std5\_dov | Absence rate std 5 (day of visit) | %9.0g |
| abs\_rate\_std5\_f\_dov | Female absence rate std 5 (day of visit) | %9.0g |
| abs\_rate\_std5\_m\_dov | Male absence rate std 5 (day of visit) | %9.0g |
| abs\_rate\_std6\_dov | Absence rate std 6 (day of visit) | %9.0g |
| abs\_rate\_std6\_f\_dov | Female absence rate std 6 (day of visit) | %9.0g |
| abs\_rate\_std6\_m\_dov | Male absence rate std 6 (day of visit) | %9.0g |
| abs\_rate\_std7\_dov | Absence rate std 7 (day of visit) | %9.0g |
| abs\_rate\_std7\_f\_dov | Female absence rate std 7 (day of visit) | %9.0g |
| abs\_rate\_std7\_m\_dov | Male absence rate std 7 (day of visit) | %9.0g |
| abs\_rate\_std8\_dov | Absence rate std 8 (day of visit) | %9.0g |
| abs\_rate\_std8\_f\_dov | Female absence rate std 8 (day of visit) | %9.0g |
| abs\_rate\_std8\_m\_dov | Male absence rate std 8 (day of visit) | %9.0g |
| abs\_rate\_tot\_dov | Absence rate total (day of visit) | %9.0g |
| abs\_rate\_tot\_f\_dov | Female absence rate total (day of visit) | %9.0g |
| abs\_rate\_tot\_m\_dov | Male absence rate total (day of visit) | %9.0g |
| abs\_rate\_upper\_dov | Absence rate upper (day of visit) | %9.0g |
| abs\_rate\_lower\_dov | Absence rate upper (day of visit) | %9.0g |
| abs\_rate\_upper\_f\_dov | Female absence rate upper (day of visit) | %9.0g |
| abs\_rate\_upper\_m\_dov | Male absence rate upper (day of visit) | %9.0g |
| abs\_rate\_lower\_f\_dov | Female absence rate lower (day of visit) | %9.0g |
| abs\_rate\_lower\_m\_dov | Male absence rate lower (day of visit) | %9.0g |
| abs\_rate\_2017 | Absense rate 2017 | %9.0g |
| abs\_rate\_2018 | Absense rate 2018 | %9.0g |
| hc\_std1 | (sum) enrol\_class | %9.0g |
| hc\_std1\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std1\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std2 | (sum) enrol\_class | %9.0g |
| hc\_std2\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std2\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std3 | (sum) enrol\_class | %9.0g |
| hc\_std3\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std3\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std4 | (sum) enrol\_class | %9.0g |
| hc\_std4\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std4\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std5 | (sum) enrol\_class | %9.0g |
| hc\_std5\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std5\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std6 | (sum) enrol\_class | %9.0g |
| hc\_std6\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std6\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_std7 | (sum) enrol\_class | %9.0g |
| hc\_std7\_f | (sum) enrol\_class\_f | %9.0g |
| hc\_std7\_m | (sum) enrol\_class\_m | %9.0g |
| hc\_lower\_pri | HC lower primary | %9.0g |
| hc\_upper\_pri | HC upper primary | %9.0g |
| hc\_tot\_f | HC female total | %9.0g |
| hc\_lower\_pri\_f | Female HC lower primary | %9.0g |
| hc\_upper\_pri\_f | Female HC lower primary | %9.0g |
| hc\_tot\_m | Male HC total | %9.0g |
| hc\_lower\_pri\_m | Male HC lower primary | %9.0g |
| hc\_upper\_pri\_m | Male HC lower primary | %9.0g |
| English\_klg\_score | (mean) English\_klg\_score | %9.0g |
| Math\_klg\_score | (mean) Math\_klg\_score | %9.0g |
| Chi\_klg\_score | (mean) Chi\_klg\_score | %9.0g |
| total\_klg\_score | (mean) total\_klg\_score | %9.0g |
| EnglishTotal\_Percent | (mean) EnglishTotal\_Percent | %9.0g |
| MathsTotal\_Percent | (mean) MathsTotal\_Percent | %9.0g |
| ChichewaTotal\_Percent | (mean) ChichewaTotal\_Percent | %9.0g |
| Total\_percent | Total Percent | %9.0g |
| EnglishTotal\_Percent\_m | EnglishTotal\_Percent\_m | %9.0g |
| MathsTotal\_Percent\_m | MathsTotal\_Percent\_m | %9.0g |
| ChichewaTotal\_Percent\_m | ChichewaTotal\_Percent\_m | %9.0g |
| EnglishTotal\_Percent\_f | EnglishTotal\_Percent\_f | %9.0g |
| MathsTotal\_Percent\_f | MathsTotal\_Percent\_f | %9.0g |
| ChichewaTotal\_Percent\_f | ChichewaTotal\_Percent\_f | %9.0g |
| Total\_percent\_m | Total\_percent\_m | %9.0g |
| Total\_percent\_f | Total\_percent\_f | %9.0g |
| English\_klg\_score\_m | 1 English\_klg\_score | %9.0g |
| Math\_klg\_score\_m | 1 Math\_klg\_score | %9.0g |
| Chi\_klg\_score\_m | 1 Chi\_klg\_score | %9.0g |
| total\_klg\_score\_m | 1 total\_klg\_score | %9.0g |
| English\_klg\_score\_f | 2 English\_klg\_score | %9.0g |
| Math\_klg\_score\_f | 2 Math\_klg\_score | %9.0g |
| Chi\_klg\_score\_f | 2 Chi\_klg\_score | %9.0g |
| total\_klg\_score\_f | 2 total\_klg\_score | %9.0g |
| location | B11. Location of the school - urban or rural | %10.0g |
| strata | Strats | %16.0g |
| wtg\_sch | school weights | %9.0g |
| wtg\_stu | student weights | %9.0g |
| wtg\_tch | teacher weights | %9.0g |
| enrol\_num\_tch\_per\_stu | num of teachers per student (enrollment approach) | %9.0g |
| female\_enrol\_share | share of female enrollment of total enrollment | %9.0g |
| ptr\_90 | PTR 90th percentile | %9.0g |
| PTR\_top\_decile | school’s PTR (enrollment approach) is at top decile | %9.0g |
| non\_tch\_staff\_yes | school has non-teaching staff | %9.0g |
| IQI\_45th | IQI 45th | %9.0g |
| IQI\_55th | IQI 55th | %9.0g |
| median\_IQI | the IQI index is between 45th and 55th percentile | %9.0g |
| dist\_quintiles | Distance to nearest trading centre quintile | %8.0g |
| SR\_grade4 | SR grade 4 | %9.0g |
| SR\_grade4\_f | SR grade 4 f | %9.0g |
| SR\_grade4\_m | SR grade 4 m | %9.0g |
| SR\_grade5 | SR grade 5 | %9.0g |
| SR\_grade5\_f | SR grade 5 f | %9.0g |
| SR\_grade5\_m | SR grade 5 m | %9.0g |
| SR\_grade7 | SR grade 7 | %9.0g |
| SR\_grade7\_f | SR grade 7 f | %9.0g |
| SR\_grade7\_m | SR grade 7 m | %9.0g |
| SR\_grade8 | SR grade 8 | %9.0g |
| SR\_grade8\_f | SR grade 8 f | %9.0g |
| SR\_grade8\_m | SR grade 8 m | %9.0g |
| share\_lower\_primary\_tch | Share of lower primary teachers | %9.0g |
| TR\_grade54 | Transition rate (grade 5 to grade 4) | %9.0g |
| OE\_upper | Output efficiency proxy | %9.0g |
| num\_stu\_progressed\_std1 | Number of students progressed to next grade std1 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std2 | Number of students progressed to next grade std2 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std3 | Number of students progressed to next grade std3 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std4 | Number of students progressed to next grade std4 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std5 | Number of students progressed to next grade std5 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std6 | Number of students progressed to next grade std6 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std7 | Number of students progressed to next grade std7 (repeater measure) | %9.0g |
| num\_stu\_progressed\_std8 | Number of students progressed to next grade std8 (repeater measure) | %9.0g |
| \_assignment |  | %17.0g |
| \_merge |  | %23.0g |

Table 3. Variable Names, Labels, and Format of the Derived Data at the Student Level.

|  |  |  |
| --- | --- | --- |
| var\_name | label | format |
| school\_id | School ID | %8.0g |
| student\_id | Student ID: | %8.0g |
| English\_IRT\_score\_bl | Baseline empirical Bayes means for Theta | %9.0g |
| Math\_IRT\_score\_bl | Baseline empirical Bayes means for Theta | %9.0g |
| Chi\_IRT\_score\_bl | Baseline empirical Bayes means for Theta | %9.0g |
| English\_klg\_score\_bl | Baseline English Knowledge score | %9.0g |
| Math\_klg\_score\_bl | Baseline Math Knowledge score | %9.0g |
| Chi\_klg\_score\_bl | Baseline Chichewa Knowledge score | %9.0g |
| MOEcode\_bl | Baseline School MoE code | %10.0g |
| school\_na\_bl | Baseline School Name | %30s |
| female\_bl | Baseline Female child (=1, 0 otherwise) | %9.0g |
| stu\_age\_bl | Baseline stu\_age | %9.0g |
| stu\_age\_above\_m\_bl | Baseline age is above the median age | %9.0g |
| Chewa\_speaking\_bl | Baseline Which language (s) do you usually speak at home?:Chewa | %9.0g |
| Tumbuka\_speaking\_bl | Baseline | %9.0g |
| less\_than\_15min\_dist\_bl | Baseline Distance to school <15 minutes | %9.0g |
| asset\_index\_bl | Baseline Scores for component 1 | %9.0g |
| above\_SES\_40th\_bl | Baseline asset\_index>SES\_40th | %9.0g |
| above\_SES\_10th\_bl | Baseline asset\_index>SES\_10th | %9.0g |
| above\_SES\_20th\_bl | Baseline asset\_index>SES\_20th | %9.0g |
| above\_SES\_40th\_sch\_bl | Baseline asset\_index>SES\_40th\_sch | %9.0g |
| above\_SES\_60th\_bl | Baseline asset\_index>SES\_60th | %9.0g |
| above\_SES\_75th\_bl | Baseline asset\_index>SES\_75th | %9.0g |
| live\_with\_parents\_bl | Baseline live with both mom and dad | %9.0g |
| live\_with\_parent\_bl | Baseline live with mom, dad, or both | %9.0g |
| both\_parent\_lit\_bl | Baseline both mom and dad literate (y or n) | %9.0g |
| parent\_lit\_bl | Baseline either mom, dad or both literate (y or n) | %9.0g |
| total\_raven\_bl | Baseline overall percentage raven score | %9.0g |
| total\_raven2\_bl | Baseline total raven score (out of 6) | %9.0g |
| absent\_last\_week\_yes\_bl | Baseline absent from school on any day last week (y or n) | %9.0g |
| hw\_help\_yes\_bl | Baseline student got homework last week (y or n) | %9.0g |
| stu\_repeat\_before\_bl | Baseline whether students repeated grades before (y or n) | %9.0g |
| exp\_score\_english\_bl | Baseline Expected score in English | %9.0g |
| exp\_score\_math\_bl | Baseline Expected score in Math | %9.0g |
| exp\_score\_chichewa\_bl | Baseline Expected score in Chichewa | %9.0g |
| stu\_self\_perception\_bl | Baseline student self-perception | %9.0g |
| a71a\_bl | Baseline 71a. You can score higher marks on tests/exams if you work hard) | %8.0g |
| a71b\_bl | Baseline 71b. You are interested in talking to new kids in school) | %8.0g |
| a71c\_bl | Baseline 71c. When you start your homework, you tend to finish it) | %8.0g |
| a71d\_bl | Baseline 71d. If your class fellows scores higher by putting in more effort, it | %8.0g |
| a71e\_bl | Baseline 71e. Failing in a test frustrates you) | %8.0g |
| a71f\_bl | Baseline 71f. You would prefer getting 2 sweets now instead of 5 tomorrow) | %8.0g |
| a71g\_bl | Baseline 71g. Teachers often tell you that you are not performing as well as you | %8.0g |
| a71h\_bl | Baseline 71h. Your parents often tell you that you are not performing as well as | %8.0g |
| a71i\_bl | Baseline 71i. School is boring for you) | %8.0g |
| a71j\_bl | Baseline 71j. Sometimes your friends lie to you and you lie to them) | %8.0g |
| think\_above\_ave\_bl | Baseline student self-evaluation of performance | %9.0g |
| general\_positive\_index\_bl | Baseline general positive mindset index (0-3) | %9.0g |
| growth\_mindset\_index\_bl | Baseline growth mindset index (0-5) | %9.0g |
| negative\_fb\_index\_bl | Baseline negative feedback: number of people given negative feedback (0-2) | %9.0g |
| stu\_tch\_perception\_bl | Baseline Student teacher perception | %9.0g |
| q65a\_bl | Baseline 65. Does the teacher encourage you to ask questions in the class? - En | %8.0g |
| q65b\_bl | Baseline 65. Does the teacher encourage you to ask questions in the class? - Ma | %8.0g |
| q65c\_bl | Baseline 65. Does the teacher encourage you to ask questions in the class? - Ch | %8.0g |
| q66a\_bl | Baseline 66. Does the teacher encourage you to answer questions in the class? - | %8.0g |
| q66b\_bl | Baseline 66. Does the teacher encourage you to answer questions in the class? - | %8.0g |
| q66c\_bl | Baseline 66. Does the teacher encourage you to answer questions in the class? - | %8.0g |
| ask\_the\_same\_anoth\_stu\_a\_bl | Baseline English teacher asks another student/the group the same question if stu | %9.0g |
| ask\_the\_same\_anoth\_stu\_b\_bl | Baseline Math teacher asks another student/the group the same question if studen | %9.0g |
| ask\_the\_same\_anoth\_stu\_c\_bl | Baseline Chichewa teacher asks another student/the group the same question if st | %9.0g |
| angry\_punish\_a\_bl | Baseline English teacher gets angry/upset and punishes me | %9.0g |
| angry\_punish\_b\_bl | Baseline Math teacher gets angry/upset and punishes me | %9.0g |
| angry\_punish\_c\_bl | Baseline Chichewa teacher gets angry/upset and punishes me | %9.0g |
| explain\_wrong\_anw\_a\_bl | Baseline English teacher explains what is wrong with the answer | %9.0g |
| explain\_wrong\_anw\_b\_bl | Baseline Math teacher explains what is wrong with the answer | %9.0g |
| explain\_wrong\_anw\_c\_bl | Baseline Chichewa teacher explains what is wrong with the answer | %9.0g |
| q68a\_bl | Baseline 68. Does the teacher mark your homework? - English Teacher | %8.0g |
| q68b\_bl | Baseline 68. Does the teacher mark your homework? - Maths Teacher | %8.0g |
| q68c\_bl | Baseline 68. Does the teacher mark your homework? - Chichewa Teacher | %8.0g |
| q69a\_bl | Baseline 69. Does the teacher explain the marks given on your homework? - Engli | %8.0g |
| q69b\_bl | Baseline 69. Does the teacher explain the marks given on your homework? - Maths | %8.0g |
| q69c\_bl | Baseline 69. Does the teacher explain the marks given on your homework? - Chich | %8.0g |
| q70a\_bl | Baseline 70. Is the teacher available after class if you need help with the less | %8.0g |
| q70b\_bl | Baseline 70. Is the teacher available after class if you need help with the less | %8.0g |
| q70c\_bl | Baseline 70. Is the teacher available after class if you need help with the less | %8.0g |
| asset\_index\_sum\_bl | Baseline the simple sum of all pca items on asset index | %9.0g |
| stu\_behav\_index\_bl | Baseline student part behavior indicators, general\_positive\_index + growth\_minds | %9.0g |
| greater\_than\_exp\_eng\_bl | Baseline whether greater than expected score english (y or n) | %9.0g |
| greater\_than\_exp\_math\_bl | Baseline whether greater than expected score Math (y or n) | %9.0g |
| greater\_than\_exp\_chi\_bl | Baseline whether greater than expected score Chichewa (y or n) | %9.0g |
| pca\_stu\_behav\_bl | Baseline Scores for component 1 | %9.0g |
| toilet\_bl | Baseline Is there a toilet at/ near your house that you use? Y or N | %9.0g |
| electricity\_bl | Baseline Do you have electricity in your house? Y or N | %9.0g |
| piped\_water\_bl | Baseline Do you have running water supply (pipe water) at your house? Y or N | %9.0g |
| tv\_bl | Baseline Does your family have … TV? Y or N | %9.0g |
| bed\_bl | Baseline Does your family have … Bed(s)? Y or N | %9.0g |
| radio\_bl | Baseline Does your family have … Radio? Y or N | %9.0g |
| phone\_bl | Baseline Does your family have … Mobile phone? Y or N | %9.0g |
| stove\_bl | Baseline Does your family have … Stove / Mafuwa / Mbaula? Y or N | %9.0g |
| bike\_bl | Baseline Does your family have … Bicycle? Y or N | %9.0g |
| motor\_bl | Baseline Does your family have … Motor cycle/ scooter? Y or N | %9.0g |
| truck\_bl | Baseline Does your family have … Tractor/ Truck/ Car? Y or N | %9.0g |
| chicken\_bl | Baseline Does your family have … Chickens? Y or N | %9.0g |
| goats\_bl | Baseline Does your family have … Goats/ Sheep? Y or N | %9.0g |
| pig\_bl | Baseline Does your family have … Pigs? Y or N | %9.0g |
| cattle\_bl | Baseline Does your family have … Cattle? Y or N | %9.0g |
| live\_with\_single\_parent\_bl | Baseline live with only mom or only dad (single parent) | %9.0g |
| hw\_time\_bl | Baseline How much time do you usually spend at home every day doing homework? | %9.0g |
| district\_na\_bl | Baseline District Name | %9s |
| school\_loc\_bl | Baseline Rural/urban location | %10.0g |
| visit\_filter\_bl | Baseline Is this a first (unannounced) visit or a second (announced) visit? | %23.0g |
| enum\_first\_visit1\_bl | Baseline Enumerator on first Visit | %24.0g |
| time\_first\_visit\_bl | Baseline Time Started | %9.0g |
| enum\_second\_visit1\_bl | Baseline Enumerator on second Visit | %10.0g |
| time\_second\_visit\_bl | Baseline Time Started | %9.0g |
| consent\_bl | Baseline Consent | %8.0g |
| a1\_bl | Baseline 1.First, middle and last name | %9s |
| a2\_bl | Baseline 2.Student Learner Identification Number (LIN) | %20s |
| a3\_bl | Baseline 3. Sex [Observed] | %8.0g |
| a4\_bl | Baseline 4. How old are you? | %8.0g |
| a5\_bl | Baseline 5. What is your father<U+FFFD>s full name? | %9s |
| a6\_bl | Baseline 6. Did you find any physical disability in this child? | %8.0g |
| a7a\_bl | Baseline 7. Which language (s) do you usually speak at home? | %14.0g |
| a7b\_bl | Baseline 7. Which language (s) do you usually speak at home? | %14.0g |
| a7c\_bl | Baseline 7. Which language (s) do you usually speak at home? | %14.0g |
| a7d\_bl | Baseline 7. Which language (s) do you usually speak at home? | %14.0g |
| a8\_bl | Baseline 8. Where do you live? | %30s |
| a9\_bl | Baseline 9. Do you live with both your mom and dad? | %8.0g |
| a10\_bl | Baseline 10. Who do you live with? | %21.0g |
| a10\_spec\_bl | Baseline 10. Who do you live with? - Other specify | %29s |
| a11\_bl | Baseline 11. Have you seen your mom reading the Bible, a book or a newspaper at | %8.0g |
| a12\_bl | Baseline 12. What does your mom do while you are in school? If child does no | %33.0g |
| a12\_spec\_bl | Baseline 12. What does your mom do while you are in school? If child does no | %74s |
| a13\_bl | Baseline 13. Have you seen your dad reading the Bible, a book or a newspaper at | %8.0g |
| a14\_bl | Baseline 14. What does your dad do while you are in school? | %33.0g |
| a14\_spec\_bl | Baseline 14. What does your dad do while you are in school? [Other (specify)] | %88s |
| a15\_bl | Baseline 15. How many brothers do you have? | %8.0g |
| a15\_m\_bl | Baseline 15\_m. How many of your brothers are older than you? | %8.0g |
| a16\_bl | Baseline 16. How many sisters do you have? | %8.0g |
| a16\_m\_bl | Baseline 16\_m. How many of your sisters are older than you? | %8.0g |
| a17m\_a\_bl | Baseline 17a. I get nervous when I don<U+FFFD>t know how to solve a task at school) 17\_ | %8.0g |
| a17m\_b\_bl | Baseline 17b. I perform poorly at school whether or not I study for my exams) 17 | %8.0g |
| a17m\_c\_bl | Baseline 17c.<U+FFFD>If I put in enough effort, I can succeed in school) 17\_m. Do you a | %8.0g |
| a17m\_d\_bl | Baseline 17d. I learn most when I work with other students) 17\_m. Do you agree w | %8.0g |
| a17m\_e\_bl | Baseline 17e.<U+FFFD>Many things I learn at school will help me in my life later on.) 1 | %8.0g |
| a18a\_bl | Baseline 18. On a typical day, how do you come to school from your home? Do you<U+FFFD> | %21.0g |
| a18b\_bl | Baseline 18. On a typical day, how do you come to school from your home? Do you<U+FFFD> | %21.0g |
| a21\_bl | Baseline 21. On a typical day, how long does it take for you to get to school fr | %18.0g |
| a22\_bl | Baseline 22. Do you usually reach school on time, before the start of first peri | %8.0g |
| a23\_bl | Baseline 23. How long would you like to stay in school? | %36.0g |
| q24\_bl | Baseline 24. What type of house do you live in? | %80.0g |
| q25\_bl | Baseline 25. What is the type of roof of your house? | %10.0g |
| q25\_spec\_bl | Baseline 25. What is the type of roof of your house? [Other (specify)] | %30s |
| q26\_bl | Baseline 26. What is the type of walls of your house? | %39.0g |
| q26\_spec\_bl | Baseline 26. What is the type of walls of your house? [Other (specify)] | %61s |
| q27\_bl | Baseline 27. What is the type of floor in your house? | %31.0g |
| q27\_spec\_bl | Baseline 27. What is the type of floor in your house? [Other (specify)] | %30s |
| q28\_bl | Baseline 28. Is there a toilet at/ near your house that you use? | %8.0g |
| q29\_bl | Baseline 29. Do you have electricity in your house? | %8.0g |
| q30\_bl | Baseline 30. Do you have running water supply (pipe water) at your house? | %8.0g |
| q31\_bl | Baseline 31. Does your family have farmland (cultivable land)? | %8.0g |
| a32a\_bl | Baseline 32. Does your family have -? (a. TV ) | %8.0g |
| a32b\_bl | Baseline 32. Does your family have -? (b. Bed(s) ) | %8.0g |
| a32c\_bl | Baseline 32. Does your family have -? (c.<U+FFFD>Radio ) | %8.0g |
| a32d\_bl | Baseline 32. Does your family have -? (d. Mobile phone ) | %8.0g |
| a32f\_bl | Baseline 32. Does your family have -? (f.<U+FFFD>Stove / Mafuwa / Mbaula) | %8.0g |
| a32g\_bl | Baseline 32. Does your family have -? (g.Bicycle ) | %8.0g |
| a32h\_bl | Baseline 32. Does your family have -? (h.Motor cycle/ scooter ) | %8.0g |
| a32i\_bl | Baseline 32. Does your family have -? (i.Tractor/ Truck/ Car) | %8.0g |
| a32k\_bl | Baseline 32. Does your family have -? (k.Chickens ) | %8.0g |
| a32l\_bl | Baseline 32. Does your family have -? (l.Goats/ Sheep) | %8.0g |
| a32n\_bl | Baseline 32. Does your family have -? (n.Pigs ) | %8.0g |
| a32o\_bl | Baseline 32. Does your family have -? (o.Cattle ) | %8.0g |
| a32o\_m\_bl | Baseline 32. Does your family have -? (o\_m.Other large items (Specify)) | %8.0g |
| a32o\_m\_spec\_bl | Baseline 32o\_m. Specify Other large items | %46s |
| a32m\_a\_bl | Baseline 32ma.<U+FFFD>It is completely my choice whether or not I do well at school) | %8.0g |
| a32m\_b\_bl | Baseline 32mb.<U+FFFD>I do certain things that are bad for me, if they are fun) | %8.0g |
| a32m\_c\_bl | Baseline 32mc.<U+FFFD>I often set a goal but later choose to pursue a different one.) | %8.0g |
| a32m\_d\_bl | Baseline 32md. I often worry that it will be difficult for me taking a test.) | %8.0g |
| a32m\_e\_bl | Baseline 32me. I prefer doing exercises in a group to doing them alone.) | %8.0g |
| sec1\_comments\_bl | Baseline Interviewer comments for this section | %215s |
| a33\_bl | Baseline 33. In which standard did you join this school? | %10.0g |
| a34\_bl | Baseline 34. Which standard are you currently in? | %10.0g |
| a35a\_bl | Baseline 35. How many years were you in<U+FFFD>Standard 4 | %8.0g |
| a36a\_bl | Baseline 36.Why did you repeat this grade? | %32.0g |
| a36a\_spec\_bl | Baseline 36.Why did you repeat this grade?…Standard 4.Other Specified | %9s |
| a35b\_bl | Baseline 35. How many years were you in<U+FFFD>Standard 3 | %8.0g |
| a36b\_bl | Baseline 36.Why did you repeat this grade? | %32.0g |
| a36b\_spec\_bl | Baseline 36.Why did you repeat this grade?…Standard 3.Other Specified | %120s |
| a35c\_bl | Baseline 35. How many years were you in<U+FFFD>Standard 2 | %8.0g |
| a36c\_bl | Baseline 36.Why did you repeat this grade? | %32.0g |
| a36c\_spec\_bl | Baseline 36.Why did you repeat this grade?…Standard 2.Other Specified | %9s |
| a35d\_bl | Baseline 35. How many years were you in<U+FFFD>Standard 1 | %8.0g |
| a36d\_bl | Baseline 36.Why did you repeat this grade? | %32.0g |
| a36d\_spec\_bl | Baseline 36.Why did you repeat this grade?…Standard 1.Other Specified | %9s |
| a35e\_bl | Baseline 35. How many years were you in<U+FFFD>Pre-school | %8.0g |
| a36e\_bl | Baseline 36.Why did you repeat this grade? | %32.0g |
| a36e\_spec\_bl | Baseline 36.Why did you repeat this grade?…Pre-school.Other Specified | %9s |
| a47\_m1\_bl | Baseline 47\_m1. Do you have a school bag? | %8.0g |
| a47\_m2\_bl | Baseline 47\_m2. Do you have a uniform? | %8.0g |
| a47\_m3\_bl | Baseline 47\_m3. Do you have a notebook/ exercise book/ workbook? | %8.0g |
| a47\_m4\_bl | Baseline 47\_m4. Did you get the notebook/ exercise book/ workbook from the schoo | %8.0g |
| q48\_bl | Baseline 48. Do you do your homework? | %23.0g |
| q49\_bl | Baseline 49. How much time do you usually spend at home every day doing homework | %8.0g |
| q50\_bl | Baseline 50. Who helps you the most with homework at home? | %14.0g |
| q50\_spec\_bl | Baseline 50. Who helps you the most with homework at home? [Other (specify)] | %36s |
| a51\_bl | Baseline 51. Last week, were you absent from school on any day? | %8.0g |
| a52\_bl | Baseline 52. Why were you absent? | %31.0g |
| a52\_spec\_bl | Baseline 52. Why were you absent? [Other (specify)] | %9s |
| q53\_bl | Baseline 53. Last week, were you absent from school on all days? | %8.0g |
| q54a\_bl | Baseline 54. During the last school week did your - teacher give you a written t | %8.0g |
| q54b\_bl | Baseline 54. During the last school week did your - teacher give you a written t | %8.0g |
| q54c\_bl | Baseline 54. During the last school week did your - teacher give you a written t | %8.0g |
| q55a\_bl | Baseline 55. During the last school week did your - teacher give you homework? ( | %8.0g |
| q55b\_bl | Baseline 55. During the last school week did your - teacher give you homework? ( | %8.0g |
| q55c\_bl | Baseline 55. During the last school week did your - teacher give you homework? ( | %8.0g |
| q56a\_bl | Baseline 56. Did your- teacher end class early on some days last week? (a. Engl | %8.0g |
| q56b\_bl | Baseline 56. Did your- teacher end class early on some days last week? (b. Math | %8.0g |
| q56c\_bl | Baseline 56. Did your- teacher end class early on some days last week? (c. Chic | %8.0g |
| q57a\_bl | Baseline 57. How many days last week was your - teacher absent from school? (a. | %8.0g |
| q57b\_bl | Baseline 57. How many days last week was your - teacher absent from school? (b. | %8.0g |
| q57c\_bl | Baseline 57. How many days last week was your - teacher absent from school? (c. | %8.0g |
| q58\_bl | Baseline 58. In your opinion how are you performing in school tests compared to | %15.0g |
| q59a\_bl | Baseline 59. If you are given 100-\_\_\_ questions from the topics in the textbook | %8.0g |
| q59b\_bl | Baseline 59. If you are given 100-\_\_\_ questions from the topics in the textbook | %8.0g |
| q59c\_bl | Baseline 59. If you are given 100-\_\_\_ questions from the topics in the textbook | %8.0g |
| q59\_m\_a\_bl | Baseline 59\_m\_a. I finish whatever I begin.) | %8.0g |
| q59\_m\_b\_bl | Baseline 59\_m\_b. I do the right thing, even if others do not like it.) | %8.0g |
| q59\_m\_c\_bl | Baseline 59\_m\_c.<U+FFFD>I often stay mad at people even when they apologize.) | %8.0g |
| q59\_m\_d\_bl | Baseline 59\_m\_d. If I get good grades at school it will not make a difference in | %8.0g |
| qsec2\_comments\_bl | Baseline Interviewer comments for this section | %271s |
| q60a\_bl | Baseline 60a.What is the name of your English teacher | %30s |
| q60b\_bl | Baseline 60b.What is the name of your Maths teacher? | %30s |
| q60c\_bl | Baseline 60c.What is the name of your Chichewa teacher? | %31s |
| q61a\_bl | Baseline 61a.Teacher ID - English Teacher | %12.0g |
| q61b\_bl | Baseline 61b.Teacher ID - Maths Teacher | %8.0g |
| q61c\_bl | Baseline 61c.Teacher ID - Chichewa Teacher | %8.0g |
| q67a\_bl | Baseline 67. What does the teacher do if you give wrong answer to the question? | %58.0g |
| q67b\_bl | Baseline 67. What does the teacher do if you give wrong answer to the question? | %58.0g |
| q67c\_bl | Baseline 67. What does the teacher do if you give wrong answer to the question? | %58.0g |
| q67\_m1\_aa\_bl | Baseline a.The teacher has to wait a long time for students to quiet down | %20.0g |
| q67\_m1\_ba\_bl | Baseline b.The teacher gives extra help when students need it | %20.0g |
| q67\_m1\_ca\_bl | Baseline c.The teacher explains things in different ways until I understand | %20.0g |
| q67\_m1\_da\_bl | Baseline d.The teacher tells me how I can improve my performance | %20.0g |
| q67\_m1\_ab\_bl | Baseline a.The teacher has to wait a long time for students to quiet down | %20.0g |
| q67\_m1\_bb\_bl | Baseline b.The teacher gives extra help when students need it | %20.0g |
| q67\_m1\_cb\_bl | Baseline c.The teacher explains things in different ways until I understand | %20.0g |
| q67\_m1\_db\_bl | Baseline d.The teacher tells me how I can improve my performance | %20.0g |
| q67\_m1\_ac\_bl | Baseline a.The teacher has to wait a long time for students to quiet down | %20.0g |
| q67\_m1\_bc\_bl | Baseline b.The teacher gives extra help when students need it | %20.0g |
| q67\_m1\_cc\_bl | Baseline c.The teacher explains things in different ways until I understand | %20.0g |
| q67\_m1\_dc\_bl | Baseline d.The teacher tells me how I can improve my performance | %20.0g |
| q70\_m1\_bl | Baseline 70m1.Do you agree with this statement: ’If I had different teachers, I | %17.0g |
| q70\_m2\_a\_bl | Baseline a) Teachers said something insulting to me in front of others | %30.0g |
| q70\_m2\_b\_bl | Baseline b) Teachers called on me less often than they called on other students | %30.0g |
| q70\_m2\_c\_bl | Baseline c) I got called names by other students | %30.0g |
| q70\_m2\_d\_bl | Baseline d) Other students took away or destroyed things that belonged to me | %30.0g |
| a72\_bl | Baseline 72. Which figure follows? Fc 1 | %8.0g |
| a73\_bl | Baseline 73. Which figure follows? Fc 2 | %8.0g |
| a74\_bl | Baseline 74. Which figure follows? Fc 3 | %8.0g |
| a75\_bl | Baseline 75. Which figure follows? Fc 4 | %8.0g |
| a76\_bl | Baseline 76. Which figure follows? Fc 5 | %8.0g |
| a77\_bl | Baseline 77. Which figure follows? Fc 6 | %8.0g |
| sec5\_comments\_bl | Baseline Interviewer comments for this section | %103s |
| activity\_6am\_7am\_bl | Baseline Activity (6am-7am) | %26.0g |
| activity\_6am\_7am\_spec\_bl | Baseline Specify activity | %88s |
| housework\_6am\_7am\_bl | Baseline Type of House Work (6am-7am) | %30.0g |
| housework\_6am\_7am\_spec\_bl | Baseline Specify Work | %39s |
| paidwork\_6am\_7am\_bl | Baseline Type of Paid Work (6am-7am) | %25.0g |
| paidwork\_6am\_7am\_spec\_bl | Baseline Specify Work | %9s |
| activity\_7am\_8am\_bl | Baseline Activity (7am\_8am) | %26.0g |
| activity\_7am\_8am\_spec\_bl | Baseline Specify activity | %62s |
| housework\_7am\_8am\_bl | Baseline Type of House Work (7am\_8am) | %30.0g |
| housework\_7am\_8am\_spec\_bl | Baseline Specify Work | %32s |
| paidwork\_7am\_8am\_bl | Baseline Type of Paid Work (7am\_8am) | %25.0g |
| paidwork\_7am\_8am\_spec\_bl | Baseline Specify Work | %9s |
| activity\_8am\_9am\_bl | Baseline Activity (8am\_9am) | %26.0g |
| activity\_8am\_9am\_spec\_bl | Baseline Specify activity | %127s |
| housework\_8am\_9am\_bl | Baseline Type of House Work (8am\_9am) | %30.0g |
| housework\_8am\_9am\_spec\_bl | Baseline Specify Work | %9s |
| paidwork\_8am\_9am\_bl | Baseline Type of Paid Work (8am\_9am) | %25.0g |
| paidwork\_8am\_9am\_spec\_bl | Baseline Specify Work | %9s |
| activity\_9am\_10am\_bl | Baseline Activity (9am\_10am) | %26.0g |
| activity\_9am\_10am\_spec\_bl | Baseline Specify activity | %47s |
| housework\_9am\_10am\_bl | Baseline Type of House Work (9am\_10am) | %30.0g |
| housework\_9am\_10am\_spec\_bl | Baseline Specify Work | %28s |
| paidwork\_9am\_10am\_bl | Baseline Type of Paid Work (9am\_10am) | %25.0g |
| paidwork\_9am\_10am\_spec\_bl | Baseline Specify Work | %9s |
| activity\_10am\_11am\_bl | Baseline Activity (10am\_11am) | %26.0g |
| activity\_10am\_11am\_spec\_bl | Baseline Specify activity | %36s |
| housework\_10am\_11am\_bl | Baseline Type of House Work (10am\_11am) | %30.0g |
| housework\_10am\_11am\_spec\_bl | Baseline Specify Work | %9s |
| paidwork\_10am\_11am\_bl | Baseline Type of Paid Work (10am\_11am) | %25.0g |
| paidwork\_10am\_11am\_spec\_bl | Baseline Specify Work | %9s |
| activity\_11am\_12pm\_bl | Baseline Activity (11am\_12am) | %26.0g |
| activity\_11am\_12pm\_spec\_bl | Baseline Specify activity | %34s |
| housework\_11am\_12pm\_bl | Baseline Type of House Work (11am\_12am) | %30.0g |
| housework\_11am\_12pm\_spec\_bl | Baseline Specify Work | %16s |
| paidwork\_11am\_12pm\_bl | Baseline Type of Paid Work (11am\_12am) | %25.0g |
| paidwork\_11am\_12pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_12pm\_1pm\_bl | Baseline Activity (12Pm\_1Pm) | %26.0g |
| activity\_12pm\_1pm\_spec\_bl | Baseline Specify activity | %37s |
| housework\_12pm\_1pm\_bl | Baseline Type of House Work (12Pm\_1Pm) | %30.0g |
| housework\_12pm\_1pm\_spec\_bl | Baseline Specify Work | %17s |
| paidwork\_12pm\_1pm\_bl | Baseline Type of Paid Work (12Pm\_1Pm) | %25.0g |
| paidwork\_12pm\_1pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_1pm\_2pm\_bl | Baseline Activity (1Pm\_2Pm) | %26.0g |
| activity\_1pm\_2pm\_spec\_bl | Baseline Specify activity | %55s |
| housework\_1pm\_2pm\_bl | Baseline Type of House Work (1Pm\_2Pm) | %30.0g |
| housework\_1pm\_2pm\_spec\_bl | Baseline Specify Work | %29s |
| paidwork\_1pm\_2pm\_bl | Baseline Type of Paid Work (1Pm\_2Pm) | %25.0g |
| paidwork\_1pm\_2pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_2pm\_3pm\_bl | Baseline Activity (2Pm\_3Pm) | %26.0g |
| activity\_2pm\_3pm\_spec\_bl | Baseline Specify activity | %101s |
| housework\_2pm\_3pm\_bl | Baseline Type of House Work (2Pm\_3Pm) | %30.0g |
| housework\_2pm\_3pm\_spec\_bl | Baseline Specify Work | %36s |
| paidwork\_2pm\_3pm\_bl | Baseline Type of Paid Work (2Pm\_3Pm) | %25.0g |
| paidwork\_2pm\_3pm\_spec\_bl | Baseline Specify Work | %32s |
| activity\_3pm\_4pm\_bl | Baseline Activity (3Pm\_4Pm) | %26.0g |
| activity\_3pm\_4pm\_spec\_bl | Baseline Specify activity | %42s |
| housework\_3pm\_4pm\_bl | Baseline Type of House Work (3Pm\_4Pm) | %30.0g |
| housework\_3pm\_4pm\_spec\_bl | Baseline Specify Work | %42s |
| paidwork\_3pm\_4pm\_bl | Baseline Type of Paid Work (3Pm\_4Pm) | %25.0g |
| paidwork\_3pm\_4pm\_spec\_bl | Baseline Specify Work | %33s |
| activity\_4pm\_5pm\_bl | Baseline Activity (4Pm\_5Pm) | %26.0g |
| activity\_4pm\_5pm\_spec\_bl | Baseline Specify activity | %45s |
| housework\_4pm\_5pm\_bl | Baseline Type of House Work (4Pm\_5Pm) | %30.0g |
| housework\_4pm\_5pm\_spec\_bl | Baseline Specify Work | %33s |
| paidwork\_4pm\_5pm\_bl | Baseline Type of Paid Work (4Pm\_5Pm) | %25.0g |
| paidwork\_4pm\_5pm\_spec\_bl | Baseline Specify Work | %107s |
| activity\_5pm\_6pm\_bl | Baseline Activity (5Pm\_6Pm) | %26.0g |
| activity\_5pm\_6pm\_spec\_bl | Baseline Specify activity | %71s |
| housework\_5pm\_6pm\_bl | Baseline Type of House Work (5Pm\_6Pm) | %30.0g |
| housework\_5pm\_6pm\_spec\_bl | Baseline Specify Work | %101s |
| paidwork\_5pm\_6pm\_bl | Baseline Type of Paid Work (5Pm\_6Pm) | %25.0g |
| paidwork\_5pm\_6pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_6pm\_7pm\_bl | Baseline Activity (6Pm\_7Pm) | %26.0g |
| activity\_6pm\_7pm\_spec\_bl | Baseline Specify activity | %39s |
| housework\_6pm\_7pm\_bl | Baseline Type of House Work (6Pm\_7Pm) | %30.0g |
| housework\_6pm\_7pm\_spec\_bl | Baseline Specify Work | %66s |
| paidwork\_6pm\_7pm\_bl | Baseline Type of Paid Work (6Pm\_7Pm) | %25.0g |
| paidwork\_6pm\_7pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_7pm\_8pm\_bl | Baseline Activity (7Pm\_8m) | %26.0g |
| activity\_7pm\_8m\_spec\_bl | Baseline Specify activity | %36s |
| housework\_7pm\_8pm\_bl | Baseline Type of House Work (7Pm\_8m) | %30.0g |
| housework\_7pm\_8pm\_spec\_bl | Baseline Specify Work | %22s |
| paidwork\_7pm\_8pm\_bl | Baseline Type of Paid Work (7Pm\_8m) | %25.0g |
| paidwork\_7pm\_8pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_8pm\_9pm\_bl | Baseline Activity (8Pm\_9Pm) | %26.0g |
| activity\_8pm\_9pm\_spec\_bl | Baseline Specify activity | %28s |
| housework\_8pm\_9pm\_bl | Baseline Type of House Work (8Pm\_9Pm) | %30.0g |
| housework\_8pm\_9pm\_spec\_bl | Baseline Specify Work | %9s |
| paidwork\_8pm\_9pm\_bl | Baseline Type of Paid Work (8Pm\_9Pm) | %25.0g |
| paidwork\_8pm\_9pm\_spec\_bl | Baseline Specify Work | %9s |
| activity\_9pm\_10pm\_bl | Baseline Activity (9Pm\_10Pm) | %26.0g |
| activity\_9pm\_10pm\_spec\_bl | Baseline Specify activity | %35s |
| housework\_9pm\_10pm\_bl | Baseline Type of House Work (9Pm\_10Pm) | %30.0g |
| housework\_9pm\_10pm\_spec\_bl | Baseline Specify Work | %9s |
| paidwork\_9pm\_10pm\_bl | Baseline Type of Paid Work (9Pm\_10Pm) | %25.0g |
| paidwork\_9pm\_10pm\_spec\_bl | Baseline Specify Work | %9s |
| sec6\_comments\_bl | Baseline INTERVIEWER COMMENTS | %276s |
| visit4\_bl | Baseline Is this still your first Visit ? | %20.0g |
| enum\_second\_visit2\_bl | Baseline Enumerator on second Visit | %9s |
| time\_second\_visit2\_bl | Baseline | %8.0g |
| refusal\_reason\_bl | Baseline Reasons of refusal | %9s |
| supervisor\_name\_bl | Baseline Select the name of the supervisor who accompanied you. | %24s |
| time\_review\_bl | Baseline Time | %9.0g |
| review\_result\_bl | Baseline Review Result | %24.0g |
| incomplete\_reason\_bl | Baseline Reason to why the questionnaire is incomplete | %9s |
| formdef\_version\_bl | Baseline Form version used on device | %12.0g |
| key\_bl | Baseline Unique submission ID | %41s |
| column1\_bl | Baseline Column1 | %16s |
| submissiondate\_bl | Baseline Date/time submitted | %tc |
| start\_bl | Baseline | %tc |
| date\_first\_visit\_bl | Baseline Date of Interview | %td |
| date\_sec\_visit1\_bl | Baseline Date of Interview | %td |
| date\_sec\_visit2\_bl | Baseline Date of Interview | %td |
| date\_review\_bl | Baseline Date | %td |
| BL16\_bl | Baseline | %8.0g |
| qnum\_bl | Baseline questionnaire number | %8.0g |
| q4\_bl | Baseline 4. date [first unannounced visit] | %10s |
| q5\_bl | Baseline 5. enumerator’s name & code [second unannounced visit if applicable] | %8.0g |
| q6\_bl | Baseline 6. date [second unannounced visit if applicable] | %10s |
| q8\_bl | Baseline 8. at what time did you end the survey? (24 hts format) first visit | %6s |
| q9\_bl | Baseline 9. at what time did you start the survey? (24 hts format) second visit | %6s |
| q10\_bl | Baseline 10. at what time did you end the survey? (24 hts format) second visit | %6s |
| q11a1\_bl | Baseline a. supervisor | %8.0g |
| q11a2\_bl | Baseline name and signature | %8.0g |
| q11a3\_bl | Baseline date | %10s |
| q11a4\_bl | Baseline reason | %9s |
| q11b1\_bl | Baseline a. supervisor | %8.0g |
| q11b2\_bl | Baseline name and signature | %8.0g |
| q11b3\_bl | Baseline date | %10s |
| q11b4\_bl | Baseline reason | %1s |
| q11c1\_bl | Baseline c. data entry clerk 2 | %8.0g |
| q11c2\_bl | Baseline name and signature | %1s |
| q11c3\_bl | Baseline date | %10s |
| q11c4\_bl | Baseline reason | %1s |
| q11d1\_bl | Baseline d. m&e supervisor (manager) | %8.0g |
| q11d2\_bl | Baseline name and signature | %8.0g |
| q11d3\_bl | Baseline date | %10s |
| q11d4\_bl | Baseline reason | %1s |
| int\_start\_bl | Baseline may i now beging the interview | %8.0g |
| A2\_bl | Baseline new student code | %10s |
| a7\_spec\_bl | Baseline Q1.7. Which language (s) do you usually speak at home? (Other (Specify | %27s |
| a17\_bl | Baseline 17. are there any brothers/sisters older than you? | %8.0g |
| a18c\_bl | Baseline 18. how do you come to school from your home? do you? | %21.0g |
| a18\_spec\_bl | Baseline other specify | %1s |
| a19\_bl | Baseline 19. at what time do you leave for school in the morning? | %9.0g |
| a20\_bl | Baseline 20. at what time do you get to school? | %9.0g |
| a32e\_bl | Baseline 32. does your family have e) fridge | %8.0g |
| a32j\_bl | Baseline 32. does your family have j) car/van/taxi/bus | %8.0g |
| a32m\_bl | Baseline 32. does your family have m) sheep | %8.0g |
| a37a\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (a. English) | %8.0g |
| a37b\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (b. Math) | %8.0g |
| a37c\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (c. Chichewa) | %8.0g |
| a37d\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (d. Science) | %8.0g |
| a37e\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (e. Social St | %8.0g |
| a37f\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (f. Religious | %8.0g |
| a37g\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (g. Life Skil | %8.0g |
| a37h\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (h. Expressiv | %8.0g |
| a37i\_bl | Baseline 37. Which subjects do you study at school? Do you study<U+FFFD> (i. Agricultu | %8.0g |
| a37j\_bl | Baseline 37. which subjects do you study at school. do you study…. j. other | %8.0g |
| a37\_spec\_bl | Baseline specify | %20s |
| a47\_bl | Baseline 47. do you have learning materials (pens, pencils, notebooks) | %8.0g |
| q62a\_bl | Baseline 62. do you like your english teacher? | %8.0g |
| q62b\_bl | Baseline 62. do you like your math teacher? | %8.0g |
| q62c\_bl | Baseline 62. do you like your chichewa teacher? | %8.0g |
| q63a\_bl | Baseline 63. does english teacher provide you with examples if you do not unders | %8.0g |
| q63b\_bl | Baseline 63. does math teacher provide you with examples if you do not understan | %8.0g |
| q63c\_bl | Baseline 63. does chichewa teacher provide you with examples if you do not under | %8.0g |
| q64a\_bl | Baseline 64. does the english teacher help you if you have any difficulty in the | %8.0g |
| q64b\_bl | Baseline 64. does the math teacher help you if you have any difficulty in the le | %8.0g |
| q64c\_bl | Baseline 64. does the chichewa teacher help you if you have any difficulty in th | %8.0g |
| source\_bl | Baseline | %8.0g |
| A2\_STRING\_bl | Baseline school\_id\_a34 | %9s |
| base\_bl | Baseline | %9.0g |
| stu\_age\_square\_bl | Baseline square of student age | %9.0g |
| travel\_time\_bl | Baseline On a typical day, how long does it take for you to get to school from h | %9.0g |
| live\_with\_no\_parent\_bl | Baseline live with neither mom nor dad | %9.0g |
| mom\_literate\_bl | Baseline mom literate (y or n) | %9.0g |
| dad\_literate\_bl | Baseline dad literate (y or n) | %9.0g |
| perm\_room\_bl | Baseline Permanent structure (mostly the house is made of concrete, brick, mud e | %9.0g |
| SES\_10th\_bl | Baseline 10th percentile of asset index | %9.0g |
| SES\_20th\_bl | Baseline 20th percentile of asset index | %9.0g |
| SES\_40th\_bl | Baseline 40th percentile of asset index | %9.0g |
| SES\_40th\_sch\_bl | Baseline 40th percentile of asset index, by school | %9.0g |
| SES\_60th\_bl | Baseline 60th percentile of asset index | %9.0g |
| SES\_75th\_bl | Baseline 75th percentile of asset index | %9.0g |
| a\_72\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 1? Y or N | %9.0g |
| a\_73\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 2? Y or N | %9.0g |
| a\_74\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 3? Y or N | %9.0g |
| a\_75\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 4? Y or N | %9.0g |
| a\_76\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 5? Y or N | %9.0g |
| a\_77\_bl | Baseline Correct answer for Which figure follows in FLASHCARD 6? Y or N | %9.0g |
| get\_hw\_yes\_bl | Baseline student got English, Math or Chichewa homework last week (y or n) | %9.0g |
| stu\_verb\_abuse\_bl | Baseline Student was recently called names | %9.0g |
| stu\_oth\_abuse\_bl | Baseline Student recently had things taken away or destroyed | %9.0g |
| qq1\_bl | Baseline QQ number | %8.0g |
| class\_id\_bl | Baseline Class ID: | %8.0g |
| enumerator\_name\_bl | Baseline Enumerator name & Code | %50s |
| start\_time\_hours\_bl | Baseline Start Time(hours) | %8.0g |
| start\_time\_min\_bl | Baseline Start Time(Min) | %8.0g |
| end\_time\_hours\_bl | Baseline End Time(hours) | %8.0g |
| end\_time\_min\_bl | Baseline End Time(Min) | %8.0g |
| studnet\_full\_name\_bl | Baseline Studnet Full Name | %9s |
| gender\_bl | Baseline Gender: | %1s |
| standard\_bl | Baseline Standard | %8.0g |
| stream\_bl | Baseline Stream: | %3s |
| e21a\_bl | Baseline 7a) Write sentences using the following words\_\_\_ ; WATER ; | %41s |
| e21b\_bl | Baseline 7b) Write sentences using the following words\_\_\_ ; EAT ; | %40s |
| studentid1\_bl | Baseline Student ID1 | %8.0g |
| entry1\_id\_bl | Baseline 1st Data entry (ID) | %18.0g |
| dd1\_bl | Baseline Day [1st Data Entry] | %8.0g |
| yr1\_bl | Baseline Year [1st Data Entry] | %8.0g |
| entry2\_id\_bl | Baseline 2nd Data entry (ID) | %18.0g |
| dd2\_bl | Baseline Day [2st Data Entry] | %8.0g |
| yr2\_bl | Baseline Year [2st Data Entry] | %8.0g |
| missing\_page\_bl | Baseline | %8.0g |
| version1\_bl | Baseline | %9.0g |
| version2\_bl | Baseline | %8.0g |
| version3\_bl | Baseline | %8.0g |
| version4\_bl | Baseline | %8.0g |
| version5\_bl | Baseline | %8.0g |
| version6\_bl | Baseline | %8.0g |
| date\_bl | Baseline Date of Interview | %10s |
| AEnumerator\_name\_bl | Baseline Enumerator Name | %19s |
| ra\_id\_bl | Baseline Enumerator ID | %8.0g |
| gender\_2016\_bl | Baseline Gender | %8.0g |
| pq1\_bl | Baseline 1). Circle the missing letter of the alphabet | %1s |
| pq2\_bl | Baseline 2) Circle the correct name for the objects below | %1s |
| pq3\_bl | Baseline 3) Pezani nambala yomwe ikusowa mundondomeko ya manambala awa | %1s |
| pq4\_bl | Baseline 4) Zungulizani nambala yopezeka mukaphatikiza nambala mwapatsidwazi | %1s |
| pq5\_bl | Baseline 5) Chithunzi ichi ndi cha\_\_\_\_\_\_\_\_\_\_\_ | %9s |
| pq6\_bl | Baseline 6) Zungulizani mawu omwe akuyimira dzina mchiganizo ichi | %1s |
| start\_time\_min\_2016\_bl | Baseline | %9s |
| AEnd\_time\_hours\_bl | Baseline | %10.0g |
| AEnd\_time\_min\_bl | Baseline | %10.0g |
| EnglishTotal\_Percent\_bl | Baseline percentage score for English | %9.0g |
| MathsTotal\_Percent\_bl | Baseline percentage score for Maths | %9.0g |
| ChichewaTotal\_Percent\_bl | Baseline percentage score for Chichewa | %9.0g |
| Total\_percent\_bl | Baseline overall percentage score for English, Math and Chichewa | %9.0g |
| division\_num\_bl | Baseline Division\_num | %10.0g |
| division\_nam\_bl | Baseline Division\_nam | %16s |
| district\_num\_bl | Baseline District\_num | %8.0g |
| district\_nam\_bl | Baseline District\_nam | %19s |
| strata\_bl | Baseline strata | %16.0g |
| wtg\_sch\_bl | Baseline school weights | %9.0g |
| wtg\_stu\_bl | Baseline student weights | %9.0g |
| wtg\_tch\_bl | Baseline teacher weights | %9.0g |
| total\_klg\_score\_bl | Baseline mean average score across 3 subjects) | %9.0g |

Table 4. Variable Names, Labels, and Format of the Derived Data at the Teacher Level.

|  |  |  |
| --- | --- | --- |
| var\_name | label | format |
| school\_id | school id | %10.0g |
| teacher\_id | teacher id | %8.0g |
| ODL | Highest level of teacher training = ODL | %9.0g |
| IPTE | Highest level of teacher training = IPTE | %9.0g |
| ODL2 | 1=ODL, 0=IPTE | %9.0g |
| leader\_yes | Has Leadership role in school | %9.0g |
| tch\_present | Teacher Present | %9.0g |
| tch\_present\_tch | Teacher present and teaching | %9.0g |
| a63a | 63 a) preparing lesson plans. | %9.0g |
| a63b | 63 b) teaching students of my own class | %9.0g |
| a63c | 63 c) marking and evaluating homework/ classroom work | %9.0g |
| a63d | 63 d) school administrative tasks | %9.0g |
| a63e | 63 e) helping other teachers | %9.0g |
| a63f | 63 f) other | %9.0g |
| time\_prepare\_lesson | time spent on preparing lesson plan(in hours) | %9.0g |
| time\_tch\_stu | Time spent teaching students | %9.0g |
| time\_mark\_hw | Time spent marking hw | %9.0g |
| time\_sch\_adm | Time spent on school admin | %9.0g |
| time\_help\_oth | Time spent helping others | %9.0g |
| time\_other | Time spent on other activities | %9.0g |
| time\_all |  | %9.0g |
| lesson\_based\_on\_txt | lesson plan is based on textbooks | %9.0g |
| ht\_observe |  | %37.0g |
| tch\_reward |  | %15.0g |
| perm\_tch | Permanent teacher | %9.0g |
| PT4 | Grade 4 | %9.0g |
| PT3 | Grade 3 | %9.0g |
| PT2 | Grade 2 | %9.0g |
| PT1 | Grade 1 | %9.0g |
| grade\_missing | Grade missing | %9.0g |
| tenure | Tenure as teacher | %9.0g |
| tenure\_sch | Tenure at this school | %9.0g |
| male | Teacher is male | %9.0g |
| tch\_married | Teacher Married | %9.0g |
| tch\_educ\_years | Years in education | %9.0g |
| tch\_educ\_years\_squared | Years in education (squared) | %9.0g |
| tch\_age | Teacher age | %9.0g |
| tch\_age\_square | Teacher age (squared) | %9.0g |
| tch\_same\_vill\_sch | Teacher same village | %9.0g |
| tch\_same\_district\_sch | Teacher same district | %9.0g |
| tch\_commu\_time | Average commute time | %9.0g |
| num\_pri\_age\_child | Number of primary aged children | %9.0g |
| pri\_age\_child\_yes | Primary aged children | %9.0g |
| child\_attend\_same\_sch | Children attend same school | %9.0g |
| basic\_qualification | Teacher has basic qualifications | %9.0g |
| above\_high\_qualification | Teacher has above high-school qualifications | %9.0g |
| transfer\_better\_amenity | Transferred from school because of better amenities | %9.0g |
| tch\_trained | Teacher trained | %9.0g |
| years\_since\_trained | Years since trainng | %9.0g |
| district\_num | District number - name is in a separate table | %8.0g |
| district\_nam | District Name | %19s |
| same\_district\_salary | Salary received in same district | %9.0g |
| tch\_salary | tch\_salary | %9.0g |
| hsa\_yes | HAS received | %9.0g |
| amount\_hsa | Amount of HAS | %9.0g |
| unpaid\_claim\_yes | teacher has unpaid claim including salary delays | %9.0g |
| salary\_delay\_yes | Salary has been delayed | %9.0g |
| num\_salary\_delay | number of salary delays in the past 12 months | %9.0g |
| other\_non\_paid\_claim\_yes | teacher has any other non-paid claims other than salary delay | %9.0g |
| eff\_score\_self | Teachers self perception | %9.0g |
| eff\_score\_ht | Perception of head teacher | %9.0g |
| eff\_score\_lower\_pri | Perception of lower primary teachers | %9.0g |
| eff\_score\_upper\_pri | Perception of upper primary teachers | %9.0g |
| output\_effi\_score | % of students teacher expects will continue to secondary | %9.0g |
| in\_service\_train | Received in-service training | %9.0g |
| tch\_age\_pt4 | age of teacher if in grade 4 | %9.0g |
| source | source | %8.0g |
| division\_num | Division\_num | %10.0g |
| division\_nam | Division\_nam | %16s |
| EnglishTotal\_Percent | English percent score | %9.0g |
| MathsTotal\_Percent | Math percent score | %9.0g |
| ChichewaTotal\_Percent | Chichewa percent score | %9.0g |
| Total\_score\_percent\_tch | Total percent score | %9.0g |
| ENG\_hard\_item\_percent | English hard item percent score | %9.0g |
| MATH\_hard\_item\_percent | Math hard item percent score | %9.0g |
| tch\_female | Teacher female | %9.0g |
| strata | strata | %16.0g |
| wtg\_sch | school weights | %9.0g |
| wtg\_stu | student weights | %9.0g |
| wtg\_tch | teacher weights | %9.0g |
| km\_to\_nid |  | %10.0g |
| status\_distance | Distance status | %27.0g |

1. This diagram shows the state of the data management system when this report was written in November 2021. It is possible that the system has been updated by the time of reading this report. [↑](#footnote-ref-1)
2. At the time of the report writing in November 2021. [↑](#footnote-ref-2)
3. After the harmonization, the data is combined for each round and then cleaned. [↑](#footnote-ref-3)
4. This dofile imports a file that seems to created outside the system 01\_MLSS\_SAMPLE/02\_Data/962\_IE\_IDENTIFICATION\_COMPONENT\_101118\_complete\_infor [↑](#footnote-ref-4)
5. The support of the World Bank to access these secondary sources may be required. [↑](#footnote-ref-5)