The Need to Collect Essential Education Data During the COVID-19 Crisis

As the custodian agency for SDG 4 data, the UNESCO Institute for Statistics develops the indicators and methodologies needed to track progress towards international education goals.
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This fact sheet presents the latest education data available as of May 2020.

The COVID-19 crisis has brought to the forefront the need to focus on learning equity and inclusion. The most challenging issue in education under the current crisis is to ensure that equity in access and learning are not set back. Given the nature of the crisis, *all* countries need to lend support to the most vulnerable children to keep them from being further marginalized and ensure they remain engaged in learning. Equity and inclusion in learning needs to continue being a key objective in crisis management.

Statistical institutes in low- and middle-income countries face significant pressures to collect education data in this time of crisis. This pressure reflects the need to mitigate the many impacts of the COVID-19 pandemic, which threaten the economic and social fabric of the world – as documented by the Committee for the Coordination of Statistical Activities (CCSA) where all heads of statistical units of the UN statistical (UNS) systems convene.[1] Given the difficulties imposed by the COVID crisis, the basic questions for ministries of education, their agencies and statistical institutions are: (i) *What data to collect*, and (ii) *How to collect it*.

Schools are currently closed in most countries. In many countries where the school year is split between two calendar years, there still remains about a month of class time left while in countries where the school year falls within one calendar year, classes are just starting (*see Figure 1*). In the former case, policy decisions on education delivery revolve around temporary measures to bridge the gap between the middle of the second semester and the end of the school year while in the latter case, decisions revolve around new policies for

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[1] The CCSA is comprised of international and supranational organizations, whose mandate includes the provision of international official statistics in the context of the *Principles Governing International Statistical Activities* (https://unstats.un.org/unsd/ccsa/principles_stat_activities/) and which have a permanent embedded statistical service in their organization and regular contacts with countries. The mandate of the CCSA is to ensure the efficient functioning of the international statistical system; develop common standards, platforms and methodologies; provide inter-institutional support; outreach; and advocacy for high quality official statistics. More information can be found on the CCSA webpage: https://unstats.un.org/unsd/ccsa/

the incoming school year, such as implementing a reduced curriculum; implementing online and distance education; implementing in-service teacher training on a massive scale; and monitoring student participation and performance on a continuous basis.

Figure 1. School year split around the world
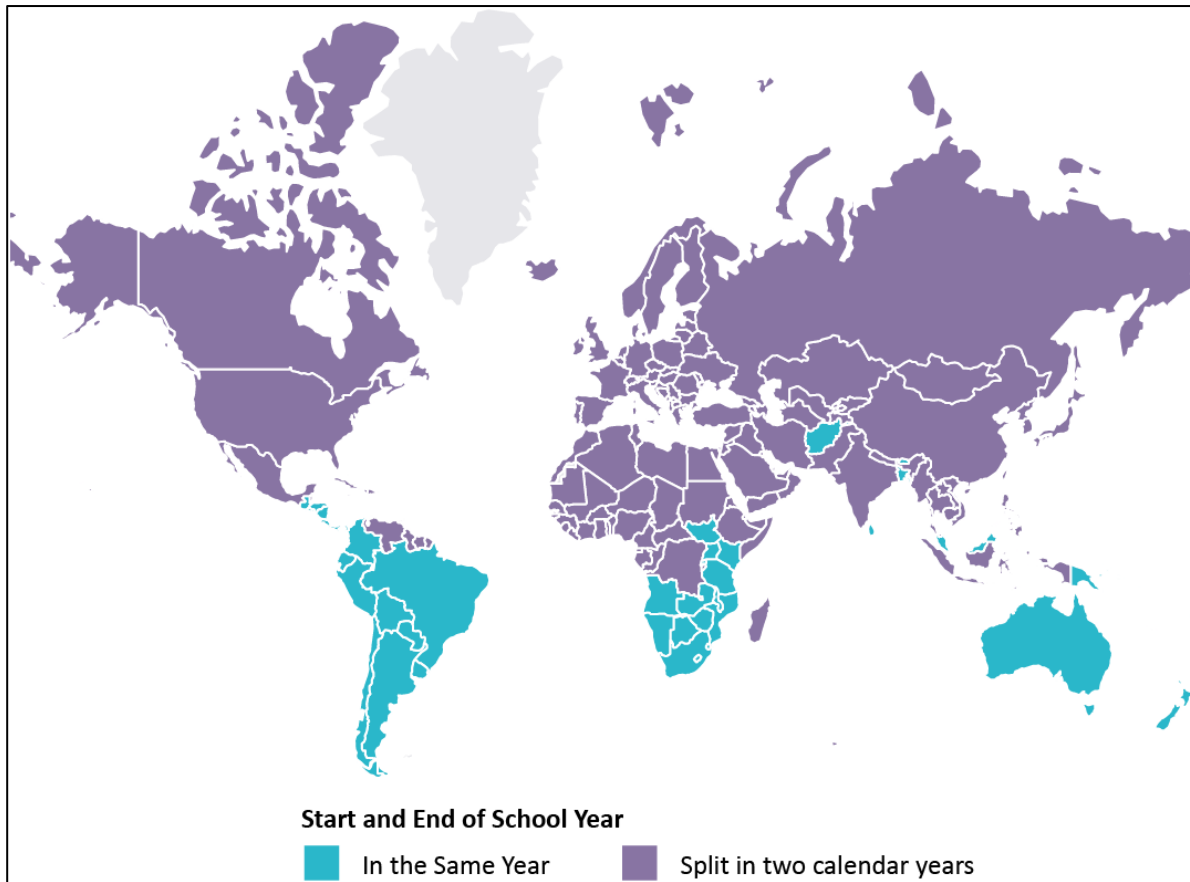
Source: UNESCO and UIS, May 2020.

In both cases, education data need to reflect the consequences of school closings and, where available, distance education – at a time when obtaining accurate headcounts of students and teachers is difficult. There have been negative impacts on equity and inclusion during the pandemic, especially in terms of how learning opportunities are shared, with some children likely to suffer more than others. In these circumstances, statistical institutes need to decide which are the most essential education variables that can be collected for immediate use and to monitor the structural changes that may remain after the COVID 19 crisis is over.

School closures carry high social and economic costs, especially for poor communities and disadvantaged students and their families. A few of the problems associated with school closing can make life difficult for students and parents, including:

- **Interrupted learning**, especially among students living in poverty, in areas with little access to online education and those with learning disabilities.
- **Lack of preparation in parents** helping with distance education or home schooling, especially those parents with limited education and resources.
- **Increased stress among teachers**, especially those without training in distance education, where teaching resources may be unfamiliar and where contact with students requires increasingly larger shares of a teacher's personal time.
- **Increased stress among parents** due to work-related issues, quarantine issues and the potential for incidents of home violence.
- **Increased probabilities of student drop out** due to pressures on family income – often in combination with low quality of distance education.

In addition, one of the most pressing problems faced by low- and middle-income countries is how to prevent **child malnutrition** in vulnerable areas. Currently, a large percentage of young children in the developing world get most of their daily food intake at school. The COVID crisis has left 368 million children without access to school meals due to school closures (*see **Figure 2***).

Figure 2. Number of children missing out on school meals
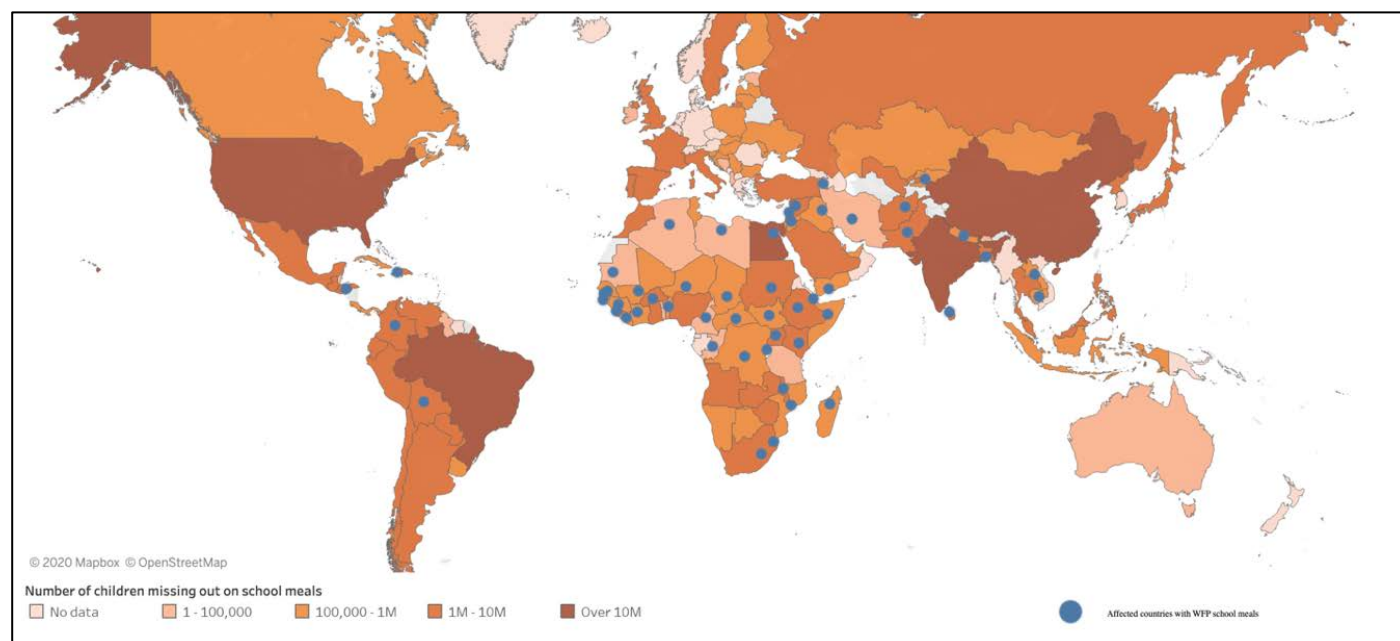
Source: WFP (https://cdn.wfp.org/2020/school-feeding-map/)

Although child nutrition is not strictly an education variable, the fact that school feeding programs are used as incentives to increase student attendance suggests a need to closely monitor food delivery, especially in light of the potential for displacement of children enrolled in online and distance education programs. As of late April, there were 70 countries that had an alternative program for food delivery in place for school children (*see **Figure 3***), including the use of schools as hubs for the distribution of take-home rations for students' families, home delivery of food packages and direct cash transfers. Information on school feeding programs for most countries is still lacking, which means that statistical institutes could collect and report on these data.

Figure 3. Countries with alternative programs for delivery of school meals
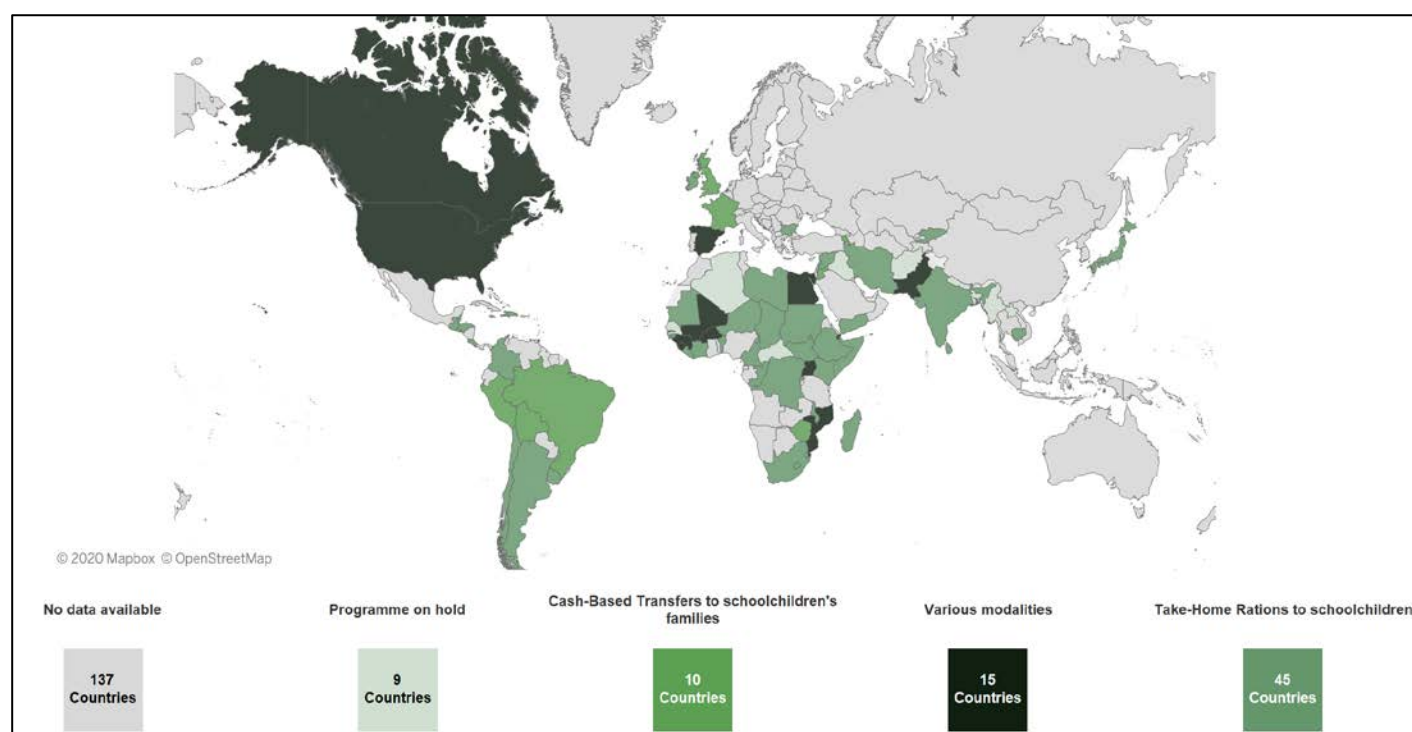
Source: WFP (https://cdn.wfp.org/2020/school-feeding-map/).

To help make decisions on the choice of data, statistical institutes can collect logistics information in countries where the school year is about to end, and inquire:

- What has changed in education delivery since the COVID crisis began?
- How do these changes affect learning and learning equity?
- Who is enrolled in distance education, but not participating?
- Who is participating in distance education, but not learning?

Tracking losses in learning equity and inclusion

Learning under different scenarios of distance and online education will probably vary depending on a child's age. Besides differences in learning between well-off students and students in vulnerable conditions, learning losses could be disproportionately larger in the first two or three grades of primary as children in later grades are likely to be capable of learning more on their own, requiring less direct contact with a teacher. Due to the differences in mental maturity between younger and older children, maintaining a low pupil-teacher ratio in lower grades could be crucial to recovering learning losses. Hence, learning should also be analysed across children's ages, and measuring and mapping learning equity should be made a policy priority.

The analysis of learning should be linked to the methods of education delivery used in different grades. For example, it may be okay to use phone apps, emails and social media to connect teachers and students in some grades, but not in others. Access to online education may not be less effective among young children than watching canned classes on TV. Analysing the impact of different methods of distance education in the same age group will prove useful for establishing clear guidelines for delivery.

Measuring and reporting on learning should be a key component of a country's post-COVID strategy, particularly the continuous monitoring and evaluation of student performance. Each country needs to define its list of essential variables that can be used to monitor school and student performance as soon as possible, and be cognizant that some of those data may require new ways to collect it, including new test instruments; the use of sampling and panels; immediate feedback after testing; online performance results; and confidentiality protocols.

What data to collect and how to collect it

Collecting data for education indicators in the midst of the crisis is very difficult. Teachers may not be able to report attendance in the same way as they did under normal conditions; students may not have access to the same tools used by the school system to deliver daily lessons and homework; and teachers may not possess the same skills to navigate the different platforms used in education delivery. Given these circumstances, statistical institutes need to adjust quickly and select only the crucial data that decision makers need to keep the system running at a minimum level of the acceptable standard. The negative economic impact of the COVID-19 crisis may have forced teachers to leave the profession, move to other places or stop teaching to take care of family members. Students of working age may be joining the labour force to help the family cope financially. These are some of the scenarios that can describe the possible changes in education after the pandemic that would have to be documented by education data. However, statistical institutes cannot overburden schools with requests for large amounts of data that they cannot feasibly deliver. As a result, only data for a few selected indicators may be deemed necessary and non-traditional methods of data collection may be needed for the sake of expediency.

How should ministries of education, their agencies and statistical institutes collect these data in the midst of the pandemic? First, they may have to focus on only *a few key indicators* and *collect data from samples* of the school and student populations instead of the entire education system in a rapid collection format. Second, oversampling of vulnerable students (i.e. students in poverty, with special needs and who use minority languages) may have to be used to *monitor equity*. Third, *frequent measurement of learning* may have to be implemented to allow the system to compare learning under different methods of instruction and anticipate needs for teacher training, instruction platforms and operational performance. The UIS in collaboration with the World Bank and the Global Partnership for Education (GPE) is in the process of developing short standardized tests to measure learning under a global proficiency framework. These tests will soon be freely available and accessible through the global commons.

In addition to sampling methods used to capture data that are deemed essential, some statistical institutes may have to *establish panels of informants* that can be consulted periodically for some of these indicators – under the assumption that policy makers may need the information quicker than census-based data collection allows. Finally, further background information may be needed to gain a macro picture on school calendar changes, affected examination schedules, adjusted promotion procedures, and remedial education plans.

In summary, a short list of essential indicators is needed that should be collected during the pandemic and in the future. A country-level strategy to manage education data in the pursuit of learning equity during and after the Covid-19 pandemic should include – at a minimum – the collection and reporting of data on:

- Student participation in all platforms of education delivery disaggregated by individual student characteristics, such as gender and poverty
- Teacher participation in all platform of education delivery disaggregated by individual teacher characteristics, such as gender and contract status
- Use of quick and short tests for the frequent measurement of student learning.