Task Force 6
Social Cohesion and the Future of Welfare Systems

Policy brief

REBUILDING EDUCATION SYSTEMS FOR RECOVERY – A CRISIS-SENSITIVE AND EQUITY FOCUSED APPROACH

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Lead Authors
Prachi Srivastava University of Western Ontario
Alejandra Cardini Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento (CIPPEC)

Contributing Authors
Sonja Anderson Inter-agency Network of Education in Emergencies (INEE)
Kiran Bhatty Centre for Policy Research
Amélie A. Gagnon IIEP-UNESCO (UNESCO International Institute for Educational Planning)
Robert Jenkins UNICEF
Iván Matovich Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento (CIPPEC)
Kate Moriarty Inter-agency Network of Education in Emergencies (INEE)
Nicolas Reuge UNICEF
Thalia Séguin IIEP-UNESCO (UNESCO International Institute for Educational Planning)

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ABSTRACT

Globally, the majority of education systems are operating in a climate marked by recurrent school closure and reopening cycles for the second consecutive academic year. This threatens sustainable recovery. Mass education disruption has individual- and institutional-level effects. There are negative consequences for individual life opportunities which are heightened for marginalized groups; and for macro-economic and societal development at the country level. This policy brief, aimed at G20 countries and donors, recommends a first-open last-close strategy for schools contingent on a strong crisis-sensitive inclusive approach to educational policy and planning for response, recovery, and future prevention. It recommends a 'twin-track approach' to address equity concerns, that is, to institute and support mechanisms and policies in education financing, provision, and regulation to boost education resources overall, and to proactively target supplementary resources to the disadvantaged at all levels, i.e., countries, sub-national administrations, communities, schools, and individual groups. At the individual level, the most disproportionately affected students experiencing new pandemic-related vulnerabilities, and students who entered the pandemic in existing vulnerable circumstances, compounded crises, and with intersecting inequities, must be prioritized. The brief considers actions in four key areas: (i) emergency digital distance learning; (ii) education financing; (iii) education management and information systems (EMIS) and micro-planning; and (iv) citizen engagement for accountability and transparency in education.

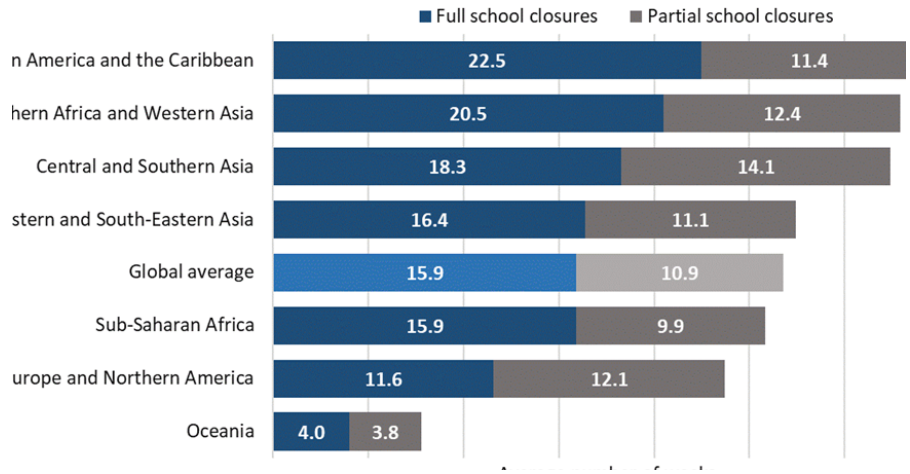
CHALLENGE

The global education emergency caused by COVID-19 poses a pressing policy problem with immediate and long-term societal and economic effects. Globally, education systems in all but a handful of countries are operating under **volatile circumstances for a second consecutive academic year marked by recurrent cycles of school closures and reopening, threatening sustainable recovery**. The crisis **underscores the centrality of the inalienable right to education, and the obligation on states** as the principal duty-bearers under international human rights law to respect, protect, and fulfill that right (UNESCO n.d.).[1]

Education disruption has institutional and individual-level effects. Institutional-level inequities will affect education systems governance. Individually, inequities **will compound on those in existing vulnerable circumstances, emergency and conflict contexts, and facing 'hard core' exclusion** (Kabeer 2000) due to intersecting characteristics (e.g., relative poverty, gender, race, language, disability, etc.), **and those experiencing new pandemic-related vulnerabilities and exclusions**.

UNESCO estimated 800 million children had not returned to school or had returned in precarious circumstances by January 2021 (UNESCO 2021), constituting 52% of the global population of children.[2] Data variations make estimating the length of school closures difficult (see Box 1). We estimate that between **March 2020 and March 2021, schools were closed globally for an average of 6.7 months (26.8 weeks), due to full nationwide (4 months/16 weeks) and partial (2.7 months/11 weeks) school closures** (Figure 1).[3 4]

FIG. 1 – AVERAGE NUMBER OF WEEKS OF SCHOOL CLOSURES BY REGION



Note: Full school closures refer to instances where all schools were closed at the national level due to COVID-19. Partial school closures refer to school closures in some regions, or for some grades, or with reduced in-person instruction.

Source: Authors' calculations based on UNESCO map on school closures (**https://en.unesco.org/covid19/educationresponse**) and UIS Education database, accessed 13 March 2021

Variability in School Closure Estimates

The estimation of the number of learners affected by school closures is dependent on two types of information: the accuracy of school-age population estimates by country, and the capacity to collect precise calendar dates for full or partial school closures for countries.[8] Data issues complicate estimating the extent and length of school closures. This effects the ability to accurately estimate losses, and assess and target interventions to priority regions within countries, and globally for donors. The following are best current estimates from global monitoring exercises. Methods are evolving.

UNESCO Global School Closures Monitoring Data
Full systems-wide closures reached their peak in April 2020 with 190 countries instituting nationalized closures. In January 2021, 30 countries were reported as having full school closures, with the vast majority instituting partial, localized closures. Over the period March 2020 – 29 March 2021, the duration of closures varied greatly by region, from as many as 5.6 months (22.5 weeks) of complete nation-wide closures on average in Latin America and the Caribbean, to 2.9 months (11.6 weeks) in Europe and North America, and just one month in Oceania. There are regional variations accounting for localized closures. The duration of full and localized closures combined, exceeded 8.5 months (33.9 weeks) on average in Latin America and the Caribbean compared to the global average of 6.7 months (26.8 weeks).[9]

UNICEF, UNESCO, World Bank, UIS Survey
A joint UNICEF, UNESCO, and World Bank survey conducted during August – October 2020 found, on average, 40 days of school were lost in countries where an academic year was already completed at the time of the survey, and 55 days in countries where the academic year was ongoing. Low-income countries lost more days (completed academic year: 48 days, ongoing: 77 days) than richer countries, high-income countries (completed academic year: 28 days, ongoing: 23 days), and upper-middle-income (completed academic year: 36 days, ongoing: 43 days).[10] Most countries projected school closures would be extended as was generally the case.

Box 1 Scale of School Closures and Variability in Estimates

Negative effects of school closures on learning, mental health, social development, child welfare and protection, and lifetime earnings are increasingly documented (see also Box 2).[5] At the country level, cumulative costs of lost learning and earnings of this cohort threaten economic and social recovery (Psacharopoulos, Collis, Patrinos, and Vegas 2021). Initial studies from Belgium (Maldonado and De Witte 2020), the Netherlands (Engzell, Frey, and Verhagen 2020), South Africa (Spaull et al. 2021), Switzerland (Tomasik, Helbling, and Moser 2020), the United States (Kuhfeld et al. 2020), and the United Kingdom (Christodoulou 2020), indicate **disproportionate effects of learning losses on students from lower socio-economic backgrounds, marginalized groups, and with less educated parents**.

COVID-19 losses come on top of severe pre-existing learning gaps between groups of students and across country groups (Box 2, some potential effects). A study of harmonized learning outcomes across 164 countries found that while years of schooling increased on average across all regions between 2000-17, learning outcomes were highly variable across countries and regions, with high-income countries (HICs) outpacing other country groups (Angrist et al. 2021). Globally, it is estimated that 53 out of every 100 children were either out of school or in school but not learning – an additional 10 of every 100 children may be added to this total (Save our Future 2020). Learning loss coupled with extended closures may lead to delayed enrolment, lower levels of re-enrolment, and aggravated completion rates, particularly in low-income (LICs) and lower-middle-income countries (LMICs).

Potential Effects of Temporary Closures

The potential immediate effects of temporary closures from two global modelling studies are presented.

Temporary school closures could result in a 25% increase in the share of lower secondary-aged children achieving below the minimum levels of proficiency.[18] Pre-COVID-19, it was estimated that 53% of children were living in 'learning poverty', i.e., children unable to read and understand a simple text by age 10.[19] Given COVID-19 disruptions, the target to halve learning poverty to 27% by 2030 will be delayed by more than two decades without accelerated performance. If schools are closed for five months, mitigation effectiveness is moderate. COVID-19 could result in a loss of between 0.3 and 0.9 years of schooling, adjusted for quality, reducing the effective years of basic schooling that students achieve in their lifetime from 7.9 years to between 7.0 and 7.6 years. The interlocking pandemic factors of being out of school and the loss of family livelihoods may exacerbate exclusion and inequality, particularly for girls, persons with disabilities, and other marginalized groups.

Another modelling study on LICs/LMICs finds that if learning in grade 3 is reduced by one-third, roughly the amount of time many children had already been out of school, learning levels in grade 10 will be a full year lower. And if reduced by a half, learning will be 1.5 years lower.[20] The most effective remediation was modelled to include formative assessments, teacher training to adapt instruction at the appropriate level, and prioritizing essential skills.

Regional Focus: Latin America and the Caribbean

According to initial estimates (Figure 1 above), Latin America and the Caribbean had the highest average number of weeks of school closures. Azevedo et al.'s global modelling study shows at least 1.2 million children and youth could be excluded from education systems in Latin America and the Caribbean due to the pandemic, representing an increase of 15% to the already 7.7 million excluded before the pandemic.[21] The same study shows the majority of students excluded due to the pandemic (977,000) were from vulnerable backgrounds – 38% from families living in poverty and 44% from vulnerable middle-classes.

Box 2 Potential Effects of School Closures: global and regional focus on Latin America and the Caribbean

The losses are detrimental to life opportunities. Cumulatively, they will have severe macro-economic effects on countries. A global modeling study of education and earnings data from 205 countries estimates lifetime earnings losses due to COVID-19 school closures could range from US$ 364 billion in LICs to US$ 6.8 trillion in MICs, and US$ 4.9 trillion in HICs – globally this amounts to US$ 15.3 trillion (Psacharopoulos, Collis, Patrinos, and Vegas 2021). In short, **despite emergency distance education efforts during the initial closure period, substantial lifetime earning losses for this cohort are estimated with negative consequences for longer-term domestic economic growth**.

Given the context specificity of the pandemic, this brief does not detail measures on school reopening. Existing guidance from relevant agencies is recommended.[6] It presents a macro-level framework with guiding considerations in four suggested areas of action: (i) emergency digital distance learning; (ii) education financing; (iii) education management and information systems (EMIS) and micro-planning; and (iv) citizen engagement for accountability and transparency, to address equity concerns as relevant for G20 countries and G20 OECD DAC donors in supporting recovery.

PROPOSAL

FRAMEWORK FOR EQUITABLE EDUCATION RECOVERY

Education recovery to unlock human potential is contingent on **countries instituting pro-equity measures**. **G20 countries and donors must institute and support mechanisms and policies in education financing, provision, and regulation that proactively boost education resources overall, and target supplementary resources to the most disadvantaged at all levels,** i.e., countries, sub-national administrations, communities, schools, and individual groups.[7] Pro-equity measures should build on an **integrated crisis-sensitive inclusive approach to educational policy and planning for response, recovery, and future prevention, ensuring the needs of all learners and prioritizing vulnerable groups** (Boxes 3 and 4).

Definition of crisis-sensitive planning in education

"involves identifying and analyzing existing risks of conflict and natural hazards and understanding the two-way interaction between these risks and education to develop strategies that respond appropriately. It aims to contribute to minimizing the negative impacts of risk on education service delivery and to maximize the positive impacts of education policies and programming on preventing conflict and disaster or mitigating their effects. It also requires identifying and overcoming patterns of inequity and exclusion in education" –IIEP UNESCO

Box 3 Crisis-sensitive educational planning definition

Crisis-sensitive approach for pandemic educational planning and policy

Involves four key considerations:
(i) managing a crisis and instituting first responses;
(ii) planning for (interrupted) reopening with appropriate measures;
(iii) sustained crisis-sensitive planning;
(iv) adjusting existing policies and strengthening policy dialogue.

In all instances the needs of all learners must be considered with priority to vulnerable groups. – Srivastava et al., 2020, *COVID-19 and the Global Education Emergency: planning systems for recovery and resilience*, 2020 T20 Special Task Force 11 on COVID-19

Box 4 Crisis-sensitive educational planning and approach for pandemic recovery

At ***the institutional level***, this brief recommends addressing ***systems-level issues of governance*** by: **(i) extending system capacities and addressing equity concerns; (ii) being attuned to bidirectional relationships of education with other outcomes;** and **(iii) through cross-sectoral and multi-stakeholder coordination and collaboration**. **At *the individual level***, governments and donors should **support those experiencing new exclusions and vulnerabilities caused by the pandemic and those in existing vulnerabilities and compounded crises and with intersecting inequities** by redressing individual experiences of disruption for marginalized groups.

GUIDING CONSIDERATIONS

1. NEW EXCLUSIONS AND VULNERABILITIES, COMPOUNDED CRISES, AND INTERSECTING INEQUITIES

The number of children in new vulnerable circumstances is unknown. One study estimates 37,300 to 43,000 children in the United States alone have lost one parent or grandparent due to COVID-19 (Kidman, Margolis, Smith-Greenaway, and Verdery 2021). **A new large cohort of children will likely become orphans or suffer family bereavement and other vulnerable circumstances.** The intersection of new and existing inequities further jeopardizes access to quality education. **Solutions must redress individual experiences of disruption for new and existing marginalized groups**[8].

Negative effects are compounded for marginalized children and young people in all contexts. They are further heightened in contexts of existing humanitarian crisis where there were socio-economic barriers to education, and education systems were already under strain. Globally, approximately half of all out-of-school primary and secondary-aged children live in crisis-affected countries, yet they have 29% of the total school-age population (INEE 2020a). Furthermore, while girls living in conflict contexts represent just 14% of the world's primary and secondary school-aged population, they make up more than 25% of out-of-school children and youth (INEE 2020a).

2. BIDIRECTIONAL RELATIONSHIPS AND MULTI-SECTORAL SUPPORT

Education has long been shown to produce positive effects on health outcomes, economic participation, health and well-being, child protection and security, and citizen engagement, among others. Given the many positive outcomes, **multi-sectoral support to fill gaps and strengthen systems for recovery is cogent** (Box 5, effects in crisis-affected and post-conflict settings).

Multiple negative outcomes of mass closures

New research shows that widespread school closures in crisis-affected and post conflict settings is negatively affecting children and young people in three ways: [24]

i. **Loss of academic and social-emotional learning and impediments to accessing inclusive and equitable quality education:** distance education programs are often piecemeal, low quality, and at times, compound inequalities. Children and young people with disabilities are commonly left without inclusive distance education, as digital and non-digital offerings lack accessibility.[25]

ii. **Negative effects on child and youth well-being and healthy development:** Other services typically provided in schools which support healthy development came to end, with COVID-19 school closures. For example, the World Food Programme suggests that 396 million children missed school meals at the height of school closures, placing them at risk of becoming underweight or wasting.[26]

iii. **Amplified child protection risk and harms experienced by children and young people:** adolescent girls face increased risk of early and forced marriage and sexual and gender-based violence. Evidence also suggests that since the start of the pandemic there has been a rise in incidence of female genital mutilation and cutting. With schools closed there is less opportunity for monitoring and reporting.[27]

Box 5 Multiple Negative Effects of Closures: evidence from crisis-affected and post-conflict settings

3. CROSS-SECTORAL AND MULTI-STAKEHOLDER PLANNING, PROGRAMMING, AND COORDINATION

Ensuring effective coordination among stakeholders, including other key sectors (e.g., education, health, child protection, labor, etc.)**, and multi-stakeholder coordination between donors and government and international agencies** creates a foundation that will be sustainable before, during, and after a crisis. It may also supplement or share education financing resources. Such planning and coordination can take place through formal existing bodies, or ad-hoc mechanisms, and can help facilitate decision-making as part of COVID-19 recovery efforts, or in the event of future crises (Box 6, examples).

COVID-19 Education Recovery Group: Scotland
The COVID-19 Education Recovery Group was established by the Scottish Government to draw cross-sectoral stakeholders and decision-makers together for the delivery of childcare, early learning, and education. The group included government representatives from education and skills, children and young people, early learning and relevant authorities, and representatives of headteachers, teachers, parents, and youth, with engagement from the scientific and technical COVID-19 Advisory Sub-Group on Education and Children's Issues. Among its aims was to: 'provide leadership and advice to ministers and local government leaders in developing the strategic approach to the response and recovery of the ELC and education system; and work across organisational and structural boundaries to support the response and recovery efforts'.

A cross-sectoral approach to education decision-making during COVID-19: example from Jordan

In Jordan, cross-sectoral coordination and support played a key role as the country planned for school reopening in February 2021 following COVID-19 closures for most of 2020. The creation of 'three-layer established committees' integrated a range of stakeholders at national, sub-national, and school levels in decision-making processes. The committees were organised as such:

- National level: Steering committee included ministries such as the Ministry of Health and the Ministry of Education, and the National Centre for Crisis Management to plan, endorse, and direct national interventions.
- Sub-national level: Executive committees composed of members including representatives from the Ministry of Education directorates and municipalities to monitor and assess operating procedures of schools and directorates.
- School level: Education councils and community members to ensure the adoption of preparedness and response measures.

The Ministry of Education also developed a 'reopening and reclosing schools decision model' based on an education risk assessment, which included a focus on maintaining learning outcomes, increasing equitable access to education, and strengthening the health, safety, and well-being of school communities, while closely observing and basing decisions on the evolving health situation in the country.

Box 6 Cross-sectoral Approach to Education Decision-making During COVID-19
Sources. https://www.gov.scot/publications/coronavirus-covid-19-advisory-sub-group-on-education-and-childrens-issues/
https://www.gov.scot/groups/covid-19-education-recovery-group/
Ministry of Education Jordan, 2021

Cross-sectoral Planning and Coordination for COVID-19 and Education: example from Scotland
The Scottish Government instituted two groups to direct the early learning and education response in view of COVID-19. The COVID 19: Advisory Sub-Group on Education and Children's Issues was a scientific and technical advisory group established as a subgroup of the Scottish Government COVID-19 Advisory Group. The COVID-19 Education Recovery Group was established to address education-sector specific concerns for delivery.

The COVID 19: Advisory Sub-Group on Education and Children's Issues
The aim of the sub-group was to 'cover…all issues affecting early learning centres and schools, and linked children's services issues' and to provide 'detailed consideration of how public health advice can be applied to operational implementation', in supporting ministers and government officials. It included members across with cross-disciplinary expertise from: public health, clinical medicine, behavioural sciences and statistical modelling, education, early learning and development, and children's services. The Chair of the Sub-group is a full member of the larger COVID-19 Advisory Group.

KEY ACTION AREAS

EMERGENCY DISTANCE DIGITAL LEARNING

An estimated 463 million (31%) children who were attending school prior to the pandemic were not reached by digital and broadcast remote learning programs (UNIFEC 2020). Three-quarters were from the poorest households and/or rural areas, a share that is much higher in LICs (UNICEF 2020). Even in HICs, there is a digital divide with limited access in rural or remote areas and less economically advantaged households (Gallagher-Mackay et al. 2021).

A study of seven European countries found parental and child experiences of emergency home-schooling measures with distance digital learning to be negative, with limited support from schools (Thorell et al. 2021). In the best case scenario, as in relatively better-served HICs, emergency mitigation strategies may only compensate between 15% to 60% of losses (Azevedo et al. 2020). In LICs and crisis-affected contexts the outcomes will be far worse. Despite these shortcomings, emergency distance digital learning has been widely adopted to implement some measure of education continuity. Although many countries have taken action to improve connectivity and reach, almost all examples are from upper-middle and HICs, and were shown to have access gaps (Macheroni et al. 2020).

Given low access to the internet (6%) and radio or television (about 50%) in LICs and LMICs (Dreesen 2020; UNICEF 2020), extended disruption of face-to-face learning during the pandemic will exacerbate the learning crisis. The digital divide, within and across countries and social groups, can further aggravate inequities without increased open access to free and affordable services. UNICEF recommends using multiple delivery channels for distance learning, with a combination of digital and non-digital (high- and low-tech) approaches (UN 2014).[9] Developing material for learners with special needs, supported by the use of, for example, closed captions and audio recordings, live sign language, Braille, and large print is essential.

RECOMMENDATIONS FOR EMERGENCY DISTANCE DIGITAL LEARNING

1. Adapt regular curriculum and pedagogical practices, and introduce accelerated and accessible learning programs for all and specific, targeted initiatives for the most disadvantaged, based on identified needs.

2. Diversify modes of delivery, including high- and low-tech interventions as appropriate to the context as part of the overall delivery of education.[10] To increase access, all materials and infrastructure should be provided without additional cost to households, particularly the most marginalized. Appropriate actions should also include:

1. Relevant and accessible distance education integrated with an adapted curriculum:
    - Providing learning materials in adapted formats and languages, and ensuring that content is accessible for all students, especially those in hard-to-reach areas and with people with disabilities. Distributing equipment to facilitate access to distance education where required (e.g. solar radios, school kits, information and communications [ICT] technology).[11]
    - Investing in reducing the digital divide, including bringing together community/collective resources for use by children.

2. School reintegration
    - Fostering student reintegration, particularly for students in existing or new vulnerable circumstances such as students with disabilities, girls, including pregnant teenagers and young parents, and children who have needed to work to support themselves or their families.
    - Providing extra support to encourage re-enrolment[12] and intensive additional targeted learning support once enrolled[13]
    - Implementing school-level policies and invigorate systems-wide allied services and programs to enhance equity and foster recovery[14]
    - Providing teachers with training and support for school reintegration or continued shorter-term disruptions, and on an adapted curriculum (where it is instituted), and with new variations in learning.

EDUCATION FINANCING

It is critical to protect and increase education sector financing (UNSG 2020). Governments must boost resources for the system overall, and additional resources should be targeted to vulnerable areas and groups. Equity-oriented financing strategies can be implemented by governments through a 'twin-track' approach that allocates general funding for an inclusive learning environment for all and targeted funding for the most disadvantaged, with early interventions as quickly as possible (UNESCO 2020).

The Global Education Monitoring Report Team estimates an existing US$ 148 billion annual financing gap for LICs/LMICs to achieve good quality education for all by 2030. Additional costs due to COVID-19-related school closures increased the financing gap to an additional US$ 30 to US$ 45 billion; however, early investments in remedial and re-enrolment programs can reduce the additional cost by as much as 75%.[15]

Examining education budget allocations can provide insights into the different strategies that governments put in place to tackle the social and economic costs of the pandemic. G20 countries are balancing public budgets against competing priorities. Early indications for G20 countries show variable patterns, with a number of countries announcing financing cuts (Box 7, preliminary analysis).[16] Further concerted analysis is required, but if early indications persist, system recovery will be threatened by inadequate resourcing.[17]

Early evidence indicates that public education budgets have been reduced in two-thirds of LICs and LMICs since the start of the pandemic (UNESCO and World Bank 2020). Official development assistance for education remains low and unpredictable. While there has been a slow upward trend in humanitarian financing of education since 2012, it remains at just 2.6% (INEE 2020b), which is significantly lower than the 10% target of the European Union (EU 2017). While humanitarian aid to education has increased marginally overall, many countries are being left behind – 11 of 30 countries identified as 'forgotten crises',[18] launched a humanitarian appeal for education, with 10 of them receiving less than 50% of the funding required. Of the 10, six were located in sub-Saharan Africa.[19] The implications for the education of children and young people in these forgotten crises were dire even before the COVID-19 pandemic. Without increased and predictable multi-year funding for education, their futures, and their countries, will be bleak.

Preliminary Education Budgetary Analysis of G20 Countries

Examining the national level, some countries, such as Spain and Argentina, have announced increases to education financing. Spain presented an important contingency plan for COVID-19 recovery with a total increase of nearly 140% in educational expenditures at all education levels. Argentina announced it will increase resources by + 29%, Indonesia +8.6%, United Kingdom +6.1%, and France +3.4%. Two jurisdictions in Australia (New South Wales + 9.6%; and Victoria +7.1%) increased allocations. Amongst them, some are reportedly reducing tertiary education expenditure (e.g., Australia), while increasing budgets overall.

Some countries are maintaining public education expenditure similar to 2020 levels. This might be a gamble for Mexico (+0.2%), Japan (+0.1%), and Germany (-0.3%). However, if other social programmes can complement educational efforts, they may compensate.

Early indications show a large group of G20 member states announced education budget cuts in 2021: United States (-50%, mostly in Federal outlays), Brazil (-18.2%), India (-6.1%), China (-4.8%), Saudi Arabia (-3.8%), Russia* (-3.7%), and one jurisdiction in Canada (Ontario -2.1%) for which data were available. This raises further concerns for global education and economic recovery, as included amongst them, are education systems with the largest share of global school-age populations.

Box 7 Preliminary Analysis of Education Budgetary Analysis in G20 Countries
Note: The authors analyzed the information available on G20 ministries of finance, ministry of education, and if needed, analyses from the press reporting on public expenditure in education. Analysis show data for 2021 to 2022 when 2020 to 2021 was not available; see annex.

RECOMMENDATIONS FOR EDUCATION FINANCE

3. Adopt a 'twin track' strategy that protects and boosts education resources for the system overall and allocates supplemental resources to targeted areas and groups, ensuring specific earmarked resources for existing and marginalized groups.

   - Commit longer-term resources to education to account for medium- to long-term effects of education disruption
   - Consider cross-sectoral resources and multi-sectoral financing strategies to supplement education budgets where and if appropriate
   - Decentralize fund management to the lowest administrative level possible so that spending can best reflect local priorities and expectations

4. Donors should increase and protect humanitarian and development aid to education, with cross-sectoral and multi-stakeholder financing, particularly if domestic educa-

tion budgets are reduced. Aid should be flexible, predictable, multi-year, and equitable to ensure that education needs in forgotten crises are met.

- Include capacities for humanitarian donors to fund structural challenges to equity[20]
- Support crisis-affected contexts and education for displaced children and youth
- G20 donors should match EU commitment to allocate 10% of total humanitarian aid to education

EMIS AND MICRO-PLANNING

Reliable, accessible, and relevant data enable informed decisions in crises and during recovery. The pandemic highlighted gaps in existing EMIS for rapid crisis response (Box 8, EMIS definition) (UNESCO 2008). Rethinking and adapting data architectures and monitoring systems to spur recovery require more frequent and flexible data collection exercises beyond the routine[21]. Adaptations should institute comparable data collection and analysis systems across geographic units so as to factor in local contexts. This can ensure that the needs of vulnerable students and communities can be quickly identified for decision-making processes, and to implement targeted responses.

Accessible, relevant, comparable, and transparent public data are needed to target responses and boost and mobilize resources for the most marginalized. The *2021 World Development Report* details the role of such data to: (1) improve service delivery, (2) prioritize scarce resources, and (3) hold governments accountable and empower individuals (World Bank 2021). However, to realize the potential of data for the public good, addressing inadequate coverage, timeliness, frequency, geospatial gaps, lack of granularity, accuracy and comparability must be considered, alongside safeguarding data against misuse, particularly in an era of disinformation (World Bank 2021).

EMIS can be defined as 'a system for the collection, integration, processing, maintenance and dissemination of data and information to support decision-making, policy-analysis and formulation, planning, monitoring and management at all levels of an education system. It is a system of people, technology, models, methods, processes, procedures, rules and regulations that function together to provide education leaders, decision-makers and managers at all levels with a comprehensive, integrated set of relevant, reliable, unambiguous and timely data and information to support them in completion of their responsibilities'

Box 8 EMIS Definition [63]

The safeguards of the UN Fundamental Principles for Official Statistics provide a touchstone to collecting, managing, and using key data and cover scientific standards and professional ethics; the need of independence of political pressures to collect, process, store, and disseminate statistical data; confidentiality; utility, accountability, and transparency (UN 2014). Increasingly, there are calls for governments and international agencies to provide open data as the default modality to strengthen accountability and citizen engagement.[22]

Education monitoring exercises should be coordinated with local education authorities and, when relevant, humanitarian partners to avoid duplication. The UNESCO Institute for Statistics suggests the following three measures for relevant data collection regarding education disruption and the pandemic (UIS 2020):

1. rapid data collection formats focusing on key indicators and sampling schools and students rather than the full population;
2. monitoring equity by over-representing vulnerable students (e.g., girls, students in poverty, students with special needs, minority or linguistic groups);
3. frequent low-stakes learning measurement.

Instituting targeted education recovery interventions will depend on a comprehensive understanding of gaps caused by education disruption alongside micro-planning exercises to identify specific communities and groups of students that are disproportionately affected. Geospatial data can play an integral role in a pro-equity micro-planning approach by enabling the identification of micro-level profiles of exclusion. Relevant geospatial data can be collected by governments and a range of partners as part of rapid assessments. In cases where these activities are not centralized, the data should be made available to ministries of education for planning purposes. Proactive measures can be taken by ministries of education for data curation and storage, such as creating data portals or open repositories for independent data to be collated. Longer-term, governments can improve EMIS by including information on context-specific risks and vulnerable populations to inform planning for safety, resilience, and social cohesion (IIEP-UNESCO; PEIC; IBE-UNESCO 2015). Meaningful efforts to build feedback loops with communities for ongoing engagement are required.

Despite the gaps, emergencies may provide an opportunity to strengthen EMIS than was in place before the crisis (IIEP-UNESCO 2010). This requires strong national data policies to integrate data collection and monitoring exercises to prepare for recovery and future crises, and could involve the use of harmonized and aligned tools by governments and partners for any data produced.

RECOMMENDATIONS FOR EMIS AND MICRO-PLANNING

5. Rethink and adapt existing EMIS data architectures and monitoring systems to spur recovery and strengthen education systems

    - Extend capacities of decentralized data collection with a feedback loop to higher administrative-level policymakers and planners and integrate into a centralized data system

- Implement comparable, more frequent, and flexible data collection exercises beyond the routinely scheduled ones
- Employ measures to produce open data and to safeguard data for public use and for the public good

6. Proactively create data structures and exercises to identify marginalized areas and groups

- Disaggregated data on vulnerable learners are often fragmented or unavailable, making crisis response for these groups more difficult. Collect and update data on the most marginalized learners as a necessary first step to mitigate existing disparities and facilitate inclusive and equitable planning (UNESCO 2021b)
- Create geospatial datasets that record the location of schools, and other relevant entities[23] that might be useful for educational micro-planning during and beyond emergency situations
- Undertake a systematic mapping of the impact of COVID-19 and related school closures on different groups of students to support the development of targeted outreach and support measures (UNESCO 2021b). This can be done as part of a joint sector review or education sector analysis, or even as part of an annual review of the implementation of a country's education sector plan.

CITIZEN ENGAGEMENT FOR ACCOUNTABILITY AND TRANSPARENCY IN EDUCATION

A multi-faceted approach to accountability, in which citizen engagement is one key aspect, is needed to foster shared responsibility, heightened in times of extended education disruption.[24] Extending open government initiatives, along its three principles – transparency, accountability, and citizen engagement – [25] can bolster education service delivery commitments for recovery (Huss and Keudel 2020). In particular, citizen engagement can spur government accountability regarding education commitments on the one hand, and provide critical information on gaps to administrators and policymakers on the other. Governments providing accessible open data with feedback loops on data reporting is one way to strengthen citizen engagement for transparency and accountability.

Community participation is a foundation standard for education.[26] Engaging parents, teachers, learners, and school leaders in decision-making can help ensure that selected measures address the evolving needs of school communities. This will enable better monitoring of progress, increase transparency, and through citizen engagement, enable households with greater access to information for better decision-making. However, as marginalized groups may be excluded from general calls to participation, it is crucial that targeted initiatives are implemented to ensure their engagement is institutionalized. A social or citizen audit can be key a mechanism to increase citizen engagement in education (Box 9, example from India). Creating platforms of state-citizen interaction that can facilitate government response and addressing grievances is key.

Social audits in education – a citizen-led initiative for enhancing transparency and accountability in India

A social audit is a form of 'direct audit' by which citizens can check the authenticity and veracity of programs meant for them through modalities to collect and share information and platforms for citizen voice. Social audits involve examining information that conventional audit mechanisms and agencies may not assess, such as government-held information accessed by citizens and brought into the public domain, or new information collected from citizens and included for public scrutiny.

A social audit exercise regarding the implementation of India's *Right of Children to Free and Compulsory Education Act, 2009* was conducted in 10 states across India, between 2011- 2013. This initiative was undertaken by the National Commission for the Protection of Child Rights, which was mandated to monitor the rights of children under the Act.

The following principles were used to guide the process: keeping the rights of the child at the centre, transparency, accountability, objectivity, participation, and dialogue. The social audit involved the following broad steps:

1. Collecting, simplifying and sharing official data on education with citizens, many of whom were unable to read, and were previously unable to access this information.
2. Collecting new information, on issues not included in official data, such as teacher attendance, quality of infrastructure facilities, social discrimination, etc.
3. Creating platforms for citizen-state dialogue, through which gaps or inconsistencies in data along with other citizen concerns regarding the functioning of schools, could be shared directly with the officials in a spirit of collaboration and problem solving. This was empowering for marginalized groups as they were able to directly voice their concerns to these powerholders.
4. Holding dialogues at regular intervals, to facilitate follow up on the issues raised. Several longstanding problems of infrastructure, regularity of teacher attendance, quality of mid-day meals, etc., were addressed through these social audits. Above all they created a belief among communities that it was possible for them to effect change.

Box 9 Social Audits in Education – a citizen-led initiative for enhancing transparency and accountability in India

RECOMMENDATIONS FOR CITIZEN ENGAGEMENT FOR ACCOUNTABILITY AND TRANSPARENCY

7. Implement targeted open and public initiatives to ensure participation from marginalized groups. They should be institutionalized in the formal decision-making and educational planning processes.

   - Institute processes of data verification by the public and citizen engagement to facilitate more equitable planning and to find more relevant solutions for specific groups.
   - Institute grievance mechanisms for accountability towards citizens
   - Create a platform for communication and interaction amongst citizens and cross-sectoral stakeholders.
   - Ensure a regulatory or legal framework for citizen participation[27].

CONCLUSION

G20 countries and donors must institute and support mechanisms and policies in education financing, provision, and regulation that proactively boost education resources overall, and target supplementary resources to the most disadvantaged at all levels. Pro-equity measures should build on an integrated crisis-sensitive inclusive approach to educational policy and planning. At the institutional level, policies should address systems-level issues of governance by (i) extending capacities and addressing equity concerns, (ii) being attuned to bidirectional relationships of education with other outcomes; and (iii) through cross-sectoral coordination and collaboration. At the individual level, governments and donors should support those experiencing new exclusions and vulnerabilities caused by the pandemic and those in existing compound crises and with intersecting inequities by redressing individual experiences of disruption for marginalized groups.

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NOTES

[1] UN ECOSOC. 1999. "Implementation of the International Covenant on Economic, Social, and Cultural Rights. General Comment No. 13 (Twenty-first Session, 1999)." The Right to Education (Article 13 of the Covenant). Committee on Economic, Social, and Cultural Rights. Twenty-first Session, November 15-December 3, 1999. E/C.12/1999/10. December 8, 1999. https://tbinternet.ohchr.org/_layouts/15/treaty-bodyexternal/Download.aspx?symbolno=E%2fC.12%2f1999%2f10&Lang=en

[2] The school-age population for ISCED 0 to 3 on which are based the estimates is 1,524,845,235.

[3] Authors' calculations, using UNESCO map on school closures (http://en.unesco.org/covid19/educationresponse) and UIS Education database, accessed 13 March 2021. Definitions and methodology can be found here https://en.unesco.org/sites/default/files/en_methogological_note_-_unesco_map_on_covid-19_caused_school_closures_reopening_final.pdf

[4] UNESCO (2021).

Global averages are difficult to estimate since the school calendar and number of days in school vary across countries. Furthermore, number of days and contact hours are two different measures. For this reason, it is important that local education authorities conduct localised assessments and data collection to more accurately estimate the true time of in-person instruction lost.

[5] See Viner et al., 2020 for a systematic review. Specific studies are referenced throughout the brief as appropriate. Research in all areas is not equally well-developed. Comparative studies in a number of areas are emerging and work is urgently required. For example, child well-being and protection are under-addressed (INEE & ACPHA, 2020).

[6] See for example, the Framework for Reopening Schools https://www.unicef.org/documents/framework-reopening-schools and the Supplement to Framework for reopening schools: emerging lessons from country experiences in managing the process of reopening schools jointly developed by UNESCO, UNICEF, World Bank, WFP, and UNHCR https://en.unesco.org/news/new-supplement-framework-reopening-schools.

[7] Adapted from SDG Indicator 4.5.3 'existence of funding mechanisms to reallocate education resources to disadvantaged populations'.

[8] This includes but not limited to: Indigenous and under-served communities, girls, socio-economically vulnerable, racialized groups, internally displaced persons and refugees, linguistic, cultural, and other minorities, and students with disabilities.

[9] Examples include special radio and television broadcasts, SMS messaging, tele-helplines, and take-home print-based packages for guided instruction.

[10] This may draw on radio, TV, cellular on internet, and modalities accessible for people with disabilities

[11] For more on programmatic options and activities to promote equity in crisis contexts, see Booklet 4: Programming: How do we get there? (IIEP-UNESCO; PEIC; UNESCO IBE, 2015).

[12] E.g., waiving school fees; school feeding programs; health support

[13] For example, targeted tutorial support at no additional cost

[14] E.g., waiving school fees; re-introducing school feeding programs; health, counselling, diagnostic, therapeutic support, and extending programs outside of the regular academic year.

[15] GEM Report.Act now: reduce the impact of COVID-19 on the cost of achieving SDG4. https://en.unesco.org/gem-report/COVIDcostSDG4

[16] Authors' calculations based on publicly available data. These are not final estimates and are likely to be revised. Data available in: https://bit.ly/35Kny4g

[17] Given formal budgeting processes and data releases, these indications are preliminary and not fully clear at the time of writing.

[18] Forgotten crises are taken from the European Civil Protection and Humanitarian Aid Operations index. This is based on four criteria: 1. vulnerability index, 2. media coverage, 3. public aid per capita, and 4. qualitative assessment based on regional experts.

[19] European Civil Protection and Humanitarian Aid Operations index.

[20] E.g. teacher salaries, or pre-service teacher training in crisis-affected areas.

[21] For example, rapid response surveys and interviews; targeted collection on marginalized groups; baseline and follow-up learning monitoring; psycho-social effects of education disruption, etc.

[22] https://opendatacharter.net/

[23] For example, access pathways to school, water points, zones affected by droughts, food insecurity, etc.

[24] GEM Report 2017/18 on accountability

[25] https://etico.iiep.unesco.org/en/open-budget-learning-open-school-platform-donetsk-oblast-ukraine

[26] Inter-agency Network for Education in Emergencies (INEE). (2010a). INEE Minimum Standards for Education: Preparedness, response, recovery. https://inee.org/resources/inee-minimum-standards

[27] E.g., regulations for public consultations, petitions, grievances

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ABOUT THE AUTHORS

LEAD AUTHORS

Prachi Srivastava University of Western Ontario (Canada)

Associate Professor at the Western University, specialising in education and global development. She is also Member, World Bank Expert Advisory Council on Citizen Engagement, and Senior Research Fellow, NORRAG. In addition to T20 2020 and 2021, Professor Srivastava has provided expertise on COVID-19 education disruptions for the UNICEF Office of Global Insight and Policy, UNESCO, the BE2 education donor working group, and a range of global and Canadian civil society organisations. She holds a doctorate from the University of Oxford.

Alejandra Cardini Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento (CIPPEC), Buenos Aires (Argentina)

Director of Education CIPPEC. She is a Professor of education policy at Austral University and San Andres University. She has led education discussions in the Think20 as Task Force Co-chair since 2018. She worked as a researcher and advisor for Argentina's National Ministry of Education. She is a teacher, a sociologist, she holds an MA in Education Policy and a Ph.D. in Education from University of San Andres – Institute of Education, University of London.

CONTRIBUTING AUTHORS (Alphabetical order)

Sonja Anderson Inter-agency Network of Education in Emergencies (INEE), New York (USA)

Data & Evidence Coordinator at the INEE. She manages INEE's various evidence initiatives including the E-Cubed Research Fund, the INEE Reference Group on EiE Data, and the INEE Learning Agenda consultation process to develop an online interactive EiE Evidence Platform. Dr Andreson holds an M.Ed. from the Harvard Graduate School of Education in International Education Policy.

Kiran Bhatty Centre for Policy Research, New Delhi (India)

Senior Visiting Fellow at the Centre for Policy Research, where her research focuses on institutional aspects of education provision. She is currently conducting research at the EHESS, Paris on education and citizenship. She was the first National Commissioner for the Right to Education Act, India and continues to be a member of several national committees on education policy. She has published in several academic journals and the national media.

Amélie A. Gagnon IIEP-UNESCO (UNESCO International Institute for Educational Planning), Paris (France)

Demographer that designs tools and methodologies that improve educational planning and management, at UNESCO's International Institute for Educational Planning. Dr Gagnon's experience focuses on education statistics, data management, and school mapping, and serves as UNESCO Observer to the United Nations Committee of Experts on Global Geospatial Information Management.

Robert Jenkins UNICEF

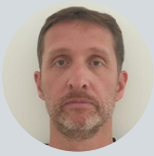
Global Director of Education UNICEF. He brings over 20 years of experience in international development and humanitarian programming in Africa, Asia and the Middle East. Prior to his current appointment, Dr Jenkins served as the UNICEF Representative, Jordan, from 2014-2019 and Deputy Director, Division of Policy and Strategy in UNICEF Headquarters from 2009-2014. He holds a Doctor of Education Degree, University of Bath and a master's degree, London School of Economics.

Iván Matovich Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento (CIPPEC), Buenos Aires (Argentina)

Program Coordinator in Education at CIPPEC, where he leads projects focused on Latin American and international education policy. Dr Matovich works as an Assistant Professor of Educational Policy at the School of Politics and Government of Austral University. He holds a Policy Studies in Education MA from the Institute of Education, University College London and he completed the Global Competitiveness Leadership program from the McDonough School of Business at Georgetown University.

Kate Moriarty Inter-agency Network of Education in Emergencies (INEE), New York (USA)

Senior Advisor, Strategic Engagement & Dialogue, INEE, is responsible for leading INEE's strategic engagement and thought leadership globally. Dr Moriarty has been working in the field of education for more than 20 years, before joining INEE in 2019, She worked for several international NGOs and the UN, including as Chief of Section for Peace and Human Rights Education at UNESCO. Her Doctorate in International Education provides a critical examination of SDG 4.



Nicolas Reuge UNICEF

Senior Adviser Education in UNICEF, team leader for the Sector Planning, Innovation, Data and Evidence for Results team. He joined UNICEF in 2009 as Chief Education in Mauritania, and from 2011 spent 8 years in UNI CEF West and Central Africa Regional Office. Dr Reuge has worked with French Ministry for Foreign affairs, Pole de Dakar, UNESCO, the World Bank and as independent consultant. He holds a Bachelor in Econometrics and a Master's in finance from University of Toulouse.

Thalia Séguin IIEP-UNESCO (UNESCO International Institute for Educational Planning), Paris (France)

Associate Programme Specialist at UNESCO's International Institute for Educational Planning. Dr Séguin works on crisis-sensitive planning in the education sector, including planning for displaced populations, as part of the Institute's crisis-sensitive educational planning programme, which aims to reinforce capacities of ministries of education and support countries as they plan and manage education systems that are resilient to crisis.