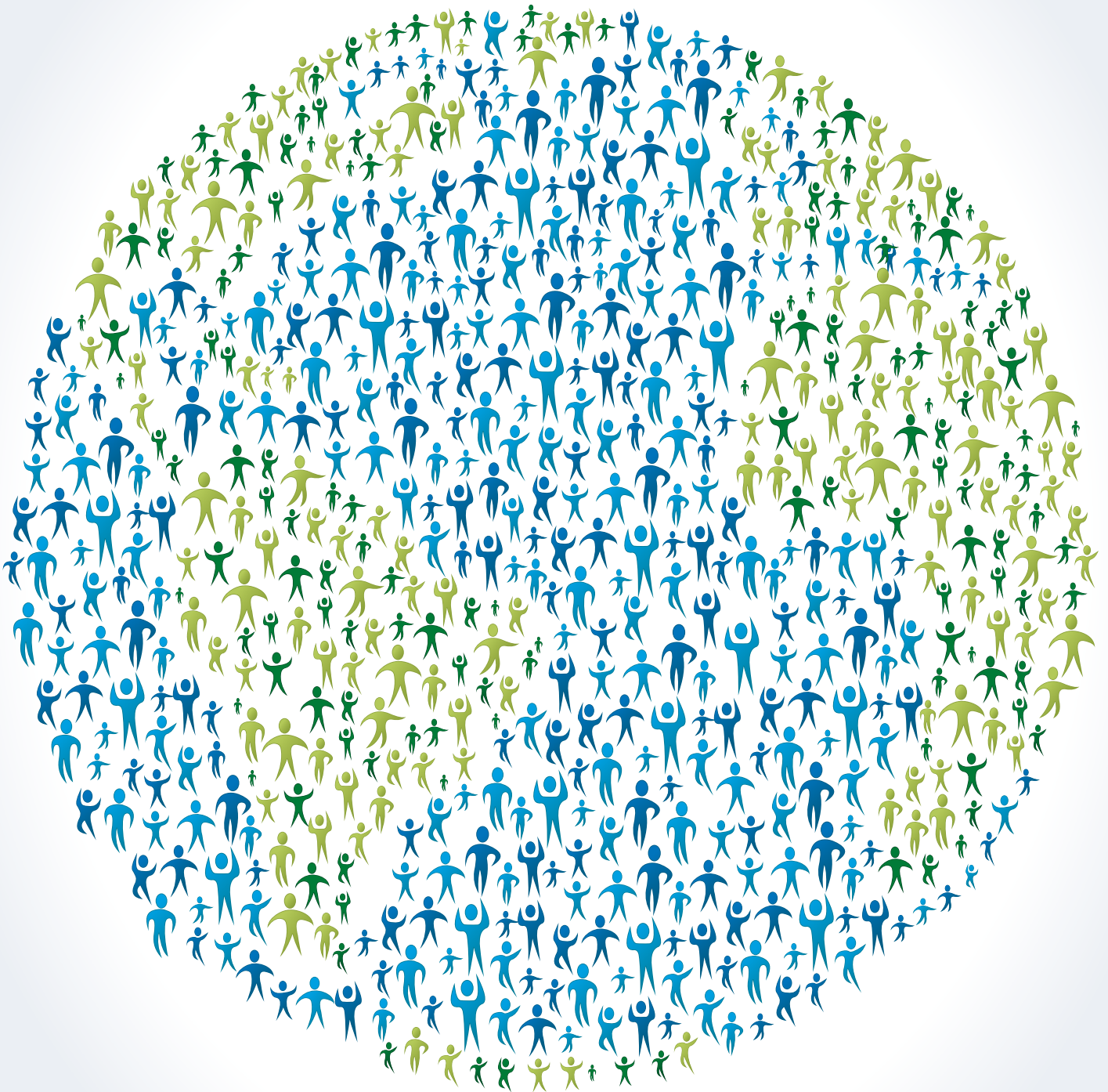


Supporting Education and Skills Development Systems for Informal Workers: Recovery After the Pandemic



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List of acronyms

4IR	Fourth Industrial Revolution
BEAR	UNESCO's Better Education for Africa's Rise Project
BTEB	Bangladesh Technical Education Board
BTVET	Business, Technical and Vocational Education and Training Strategic Plan - Uganda
CapED	Capacity Development for Education Programme - UNESCO
CEDEFOP	European Centre for the Development of Vocational Training (Thessaloniki)
CNMC	National Framework of Certifications - Madagascar
ECCE	Early Childhood Care and Education
Eg-NQF	National Strategy for Lifelong Learning, a National Qualification Framework - Egypt
ETF	European Training Foundation (Turin)
GAN	Global Apprenticeship Network
GDP	Gross Domestic Product
GIZ	The German Agency for International Cooperation
GVCs	Global Value Chains
ICCDPP	International Centre for Career Development and Public Policy
ICLS	International Conference of Labour Statisticians
ICT	Information and communications technology
IFS	Institute for Fiscal Studies (London)
ILO	International Labour Organization
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
ISER	Institute for Social and Economic Research (University of Essex)
IZA	Institute of Labour Economics (Bonn)
LAC	Latin America and the Caribbean
LAYS	Learning Adjusted Years of Schooling
MENA	Middle East and North Africa
MSEs	Micro and Small Enterprises
MSMEs	Micro, Small and Medium-sized Enterprises
NAQAAE	National Authority for Quality Assurance and Accreditation of Education - Egypt

NBER	National Bureau of Economic Research (Cambridge, Massachusetts)
NGO	Non-Governmental Organization
NQF	National Qualifications Framework
NSQAS	National Skills Quality Assurance System (Bangladesh)
NTVQF	National Technical and Vocational Qualifications Framework (Bangladesh)
OECD	Organization for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PNEFP	National Employment and Vocational Training Policy - Madagascar
SAQA	South African Qualifications Authority
SDG	Sustainable Development Goal
SMEs	Small and Medium Enterprises
TVET	Technical Vocational Education and Training
UACGEA	Ukraine established an Association for Career Guidance and Educational Advising
UNAF	Uganda National Apprenticeship Framework
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UVQF	Uganda Vocational Qualifications Framework
WBG	World Bank Group
WIEGO	Women in Informal Employment: Globalizing and Organizing (Manchester)

Executive summary

This paper examines the impact of the COVID-19 pandemic on learning and skills development, focusing primarily at the informal sector in low-income and middle-income economies. It reviews the available evidence beginning mid-2022 with a focus on informal households – a term used to describe households that live in rural and peri-urban, often slum, areas and derive their incomes from activities in the informal sector. From there, it provides recommendations on what can be done in the short term for education and training systems to recover lost ground, on how to establish foundations for achieving universal basic, primary, and secondary education, and on the creation of integrated national skills development systems, both for new entrants to the labour market and lifelong learning for current workers.

While the pandemic's future impacts are uncertain, there is evidence of the effects it has already had. Not only has there been a decline in learning outcomes in schools since 2019 and an increase in student dropout rates, but there has been a disproportionate impact on students from disadvantaged households and schools – and this is true even in high-income countries. However, the impact on students from poorer households in developing countries has been even more marked. Globally, nearly half a billion children could not be reached by digital and remote learning programmes during school closures, with three out of four unreached students coming from disadvantaged households or rural areas. Learning poverty (the share of children unable to read and understand a simple text by age 10) in low- and middle-income countries has gone from 57 % pre-pandemic to 70 %, along with increasing dropout rates, child labour and early marriages and early pregnancies.

Against these developments that are adversely affecting the labour supply side, the secular decline in informality till the 1980s has not only been halted by the forces of globalization, automation, and the recent twin crises (the financial one in 2008 and the pandemic in 2020), but has been reversed since, even in high-income countries. The effects of the pandemic call for urgent measures to recover the loss in school-based learning for would-be workers and the decrease in skills development among workers which followed

the decline in economic activity and a reduction in post-employment training. Such measures should address the widening gaps in education created by the pandemic, restore the amount of lost learning, prevent students from dropping out-of-school, and ensure that the historically increasing trends in enrolments continue – all particularly important for students and workers in poor and informal households. These efforts should be complemented by measures that would increase the take-up rate of “second chances” through lifelong learning and training among those who have missed out opportunities during the pandemic and others who may be added. This applies to all pathways of learning and skills development, be they institution- or employment-based, formal or informal.

In addition to the required institutional reforms, a big challenge will be to secure the necessary funding for expanding and improving the quality of education and training. The funds allocated to education were merely 3 % of the total COVID-19 stimulus packages in most countries, although this percentage was higher in high-income countries. Additional financing for education is already constrained by the narrowing fiscal space after the onset of the pandemic from increases in public spending on health and social protection, and from reductions in public revenues due to the decline in economic activity. More recently, the efforts to reduce the public debt that has piled up have been reinforced by measures to tame the rising inflation rates against the prospect of globally declining economic growth rates. In this respect, the policy question is not whether to spend more on education but what the losses from not doing so will be on current and future generations.

Policy choices to be considered for addressing the impact of the pandemic while laying the foundation for the future development of education and training especially for informal workers:

- the creation of flexible pathways to lifelong learning;
- the development and implementation of national frameworks for the recognition and certification of skills;

- the recognition of prior learning including that acquired through informal apprenticeship systems;
- the early Identification of required skills for the transition to digital and green economies; provision of career guidance;
- the continuous upgrading of TVET teachers to be able to use the new curriculum requirements for the enhancement of STEM and entrepreneurial skills;
- the improved governance of TVET institutions and collaboration with the private sector;
- the promotion of TVET institutions as places for social integration, cohesion, and green citizenship;
- the advancement of national, regional, and global networks and partnerships to share knowledge and encourage policy learning.

1. Introduction and Summary

The COVID-19 global pandemic has added to the uncertainty the labour markets were already facing both on the labour demand side and the labour supply side. Even if informal workers, who comprise most of the labour force in low- and middle-income countries, were equally affected as formal workers in terms of employment and income losses, they are less able to mitigate the consequences of the pandemic given their low education and skills and their low incomes. This paper reviews the country, regional and global evidence to date of the impact of COVID-19 on education and the labour market, with a particular focus on informal employment.

The Two Sides of the Labour market

Starting with the labour market, the pandemic has adversely affected production levels and economic growth rates and, as a result, the level and type of labour demand. It did so by the introduction of social distancing measures domestically and, internationally, by the reduction in the movement of people, goods and services. Firms had to adjust to the global disruption in supply chains and the sales contraction that followed. The subdued labour demand since the pandemic has led to an increase in unemployment as the labour market continues to favour the more educated and more skilled workers. Thus, not only has the pandemic accentuated the effects of globalization and the recent technological advances on the labour market, but the fiscal responses aiming to cushion its economic and health impact have increased the already elevated levels of public debt since the 2008 global financial crisis. The governments' adoption of a variety of fiscal measures aimed to support the workers and firms after the pandemic has severely impacted their debt vulnerability: gross borrowings of member states of the Organisation for Economic Co-operation and Development (OECD) alone jumped by 70 % in 2020.¹ Countries now face limited fiscal space and lower rates of future economic growth. While the global economic growth rate stood at 5.7 % in 2021, it is now expected

to be reduced by half in 2022 (to 2.9 % according to the latest forecast in May 2022). This is even a lower forecast than that made just before the start of the war in Ukraine (4.9 % in January 2022).²

On the labour supply side, the social distancing measures adopted during the pandemic and the downsizing of economic production that followed have inflicted an unprecedented shock on both pre-employment education enrolments, school attendance and learning as well as post-employment skills development. Vocational Education and Training programmes have faced specific challenges due to their work-based component and the inability to deliver practical education when businesses were closed. Specifically for education, the early evidence on the effects of the pandemic clearly shows that negative have mostly fallen on those who can afford them least: students from underprivileged backgrounds who are predominantly found in informal sector households in developing countries.³ These are also the students who cannot fully benefit from distant learning as they lack the appropriate equipment and often access to Internet, if not to electricity. Globally, at least 463 million children could not be reached by digital and broadcast remote learning programmes during school closures. Of those, 75% were from rural areas and/or poor households, as well as students with disabilities who were disproportionately excluded from remote learning modalities.⁴

The Economy and Informality

The effects of the pandemic on these two sides of the labour market are still evolving across countries. However, it is already known that they differ much by the level of country income and domestic characteristics, as well as the stage of economic and social development at which countries were at the start of the pandemic. To the difficulties of "formalizing the informal" in developing countries that existed before, they have now been added the difficulties to prevent

1 OECD. 2022.

2 World Bank. 2022a.

3 ILO. 2021b.

4 UNESCO. 2020a.

the “informalization of the formal,” a phenomenon that is now present even in high-income countries. Although to different extents, all countries are now facing rising shares of various forms of employment in precarious jobs offering low pay, and not only in the informal sector. More and more workers are joining the gig economy, which is characterized by the prevalence of short-term contracts, freelancers and contingent workers, independent contractors in temporary and part-time jobs, or by workers who are under non-standard employer-employee relationships as opposed to permanent contracts. Also increasing are the numbers of “platform workers” in organizations that provide specific services using an online platform serving other organizations or individuals.

Enhancing skills development either through education or training increases employability but not necessarily employment in decent jobs. Attaining higher levels of education does not necessarily reduce informality and poverty. These two observations imply that, when a crisis hits, students and workers in informal and poor households are disproportionately negatively impacted. As such, countries should also adopt mitigating policies. The pandemic made clear the need for extending universal health coverage and its quality and for increasing the adequacy and coverage of social protection.⁵ The impact of policies on skills development systems, as well as on health and social protection, will depend on two factors. First, whether these policies can be scaled up, as, in the short term, they require a substantial resource commitment in a context of difficult fiscal conditions. Second, and in the longer term, whether the forces of globalization and automation will continue to create economic, social and digital divides between and within countries as they have done over the last three decades. Informal households in developing countries are doubly impacted.

Education and Training: Key Findings

The Challenge of Financing

One conclusion from this paper is that the adverse effects of the pandemic on learning outcomes and the labour markets are likely to be significant, with the effects on students from disadvantaged backgrounds

being particularly pronounced. This involuntary underinvestment in education of current students, in the form of lost learning or premature dropping out of schools, is likely to reduce their future productivity. Those who graduated recently and join the labour market in a recession year are bound to initially face limited choices and lower wages and likely to be deskilled in the future. The fall in Gross Domestic Product (GDP) immediately after the start of the pandemic combined with the more recent increase in inflation has reduced the amount of disposable household incomes and the ability of poorer and informal households to invest in learning today for returns that would accrue in the distant future. These adverse developments call for urgent investments in skills development and lifelong learning. However, the prospect of additional government spending on education and training have already been challenged by the diversion of public funds towards the health sector, the reduction in the revenue base due to subdued economic activity, efforts to reduce the public debt that has piled up in the attempt to contain the immediate impact the pandemic. Moreover, additional measures are being introduced to tame the rising level of inflation that is bound to be accompanied with some austerity.

These worsened macroeconomic conditions will certainly limit the range of possible policy responses in the education field. Indeed, forecasts assume that the global share of public budgets allocated to education will decrease by 10 %⁶ In addition, the declining household incomes may result in enrolment transitions from private to public schools, which will exacerbate the pressure on government budgets dedicated to education. Furthermore, private sector financing for skills development may not be forthcoming if enterprises have to continuously train increasing numbers of adequately educated workers to perform the required tasks, other than tasks that call for very rare high level skills. Finally, firms may be unable to allocate resources for training due to a contraction of sales, even when such allocations are mandated, for example, in the case of levy-grant schemes.

Still, financing education may not be an issue if there exists political will to do so. Additional financing can be justified both from the small relative size of the required amounts and from the sizeable adverse

⁵ World Health Organization (WHO). 2020.

⁶ World Bank. 2020.

effects from not doing so. First, a global report by the International Labour Organization (ILO) estimated that achieving universal enrolments from early childhood care and preschool education (under the age of 5) up to and including tertiary education by 2030 would require an increase in annual education expenditures by approximately 1 % of the global GDP of which only 0.2 percentage points would need to be allocated to primary and secondary education.⁷ Second, another global study published by the International Monetary Fund (IMF) estimated that the failure to achieve Sustainable Development Goal 4 (SDG4, ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030), would result in a (discounted) loss in the global GDP during the remaining part of the century equivalent to an annual loss of the current global GDP of 11 %, with most of the losses occurring in developing countries.⁸ It remains to be seen whether and to what extent this clear reasoning for investing now in human capital, whose returns materialize in the future, would be accepted amid the fiscal and political pressures countries are facing today. This issue is compounded by the fact that, even before the pandemic, the world was far off track to achieve SDG4, a goal that was adopted by the international community in 2015.⁹

While financing training is less straightforward than financing education, especially at basic level, there are interventions such as vouchers, tax allowances, grants, subsidies and training funds that can contribute to skills development when properly designed. Levy-grant schemes can be useful under fair and effective collection and distribution mechanisms. More broadly, public–private partnerships can reduce pressure on public funds and increase the relevance of skills. The fact that there is no part of education and training in which non-state actors are not involved requires the participation of all stakeholders in the design, setting the objectives and implementation of policies to ensure that there is policy coherence, and the benefits are shared.¹⁰

What can be done?

As this paper notes, there are encouraging signs that new thinking towards skills development has emerged and

in the right direction over the course of the last four or so decades – since the onset of globalization. It is now increasingly recognized that the fast-changing world calls for major and swift changes in the education and training systems in both high-income and developing countries. First, education enrolment should be universal, including in secondary education. Second, it is not enough to keep all young people in school as the key issue that remains is the low quality of education, especially in developing economies. Third, the education system should focus on enhancing cognitive skills and the ability of students to apply routine procedures, draw direct inferences or employ basic approaches to solve calculations and numerical problems. The development of such basic skills is universally accepted that it later contributes to lifelong learning that is necessary in an ever-changing world. The recent empirical estimates included in this paper have confirmed what was already known before the pandemic: efforts to achieve high quality universal basic education can be cost-effective and self-financing as it will add trillions to the global economy and proportionally much more for low-income countries.

Depending on the availability of funding, there are many policies for skills development that can be used not only for getting back to the pre-pandemic normal but also for creating a “new normal”. Achieving this would enable informal workers to increase their productivity and eventually facilitate their integration with the formal economy, especially if there is recognition of prior learning of skills acquired through various forms outside the official systems. Other relevant promising interventions include conditional cash transfer programmes, school feeding and the free provision of instructional materials, all of which have been proven to be potent interventions for increasing access to education, reducing the dropout rate of poor students in informal households, and promoting equitable development. Initially acquired education and skills can be enhanced by inclusive lifelong learning across the many forms that it takes. These alternative paths should be flexible and competency-based so their outcomes can be merged and complement each other within a coherent national skills development system. To this effect, they call for the creation of a national qualifications framework (NQF) that enable

7 ILO. 2018. Chapter 5, pp 259–260

8 Hanushek and Woessmann. 2022.

9 UNESCO, the World Bank, UNICEF and OECD. 2021.

10 UNESCO. 2022a.

identification and certification of skills irrespective how they were accumulated, formally or informally including apprenticeships. The pandemic revealed the importance of eliminating the digital divide both in learning, between poor and non-poor students and, at work, between less skilled workers and informal households compared to their better off counterparts. Reducing the costs of participating in the digital world and ensuring connectivity can benefit both students and workers in the informal sector by expanding the outreach of training, especially in hard-to-reach areas thereby linking informal workers to customers. This paper cites several examples of such promising interventions that are increasingly introduced in developing countries.

The case of skills development post-basic education is complex. First, it involves choices that are made by individuals across a wide range of productive alternatives at different points of their lives along with changes in their personal and family circumstances. Second, skills development is influenced not only by labour supply but also by labour demand that is constantly changing, at times faster than the society can adjust to changing economic circumstances. Third, there are many different paths leading to skills acquisition during adulthood including, on the one hand, training in its many forms (formal or informal, on- or off-the-job, employer-provided, or government-funded) and, on the other hand, various forms of lifelong learning. Fourth, policy objectives, beneficiaries and costs vary significantly, from targeting individuals or sectors and companies that are deemed to be critical accelerating economic growth, to who provides and pays for training. Finally, skills development is linked to many policy sectors such as education policy, labour market policy, industrial policy and social policy that are often uncoordinated among the many actors responsible for them.

The Role of Information and International Cooperation

All in all, the pandemic has increased the size and complexity of the challenge to increase the availability of skills and match them better with the changing nature of work. In a globalizing world, this situation calls on the one hand, for more evidence-based analysis and design of education and training interventions and, on the other hand, for more cooperation between national authorities and international organizations

involved in these areas. A critical area that needs to be addressed for moving ahead is the lack of reliable and timely statistics for learning outcomes: for example, half of the world's young people live in just 35 countries that do not participate in international testing and thus are deprived of having foundational performance information's that can guide policies for improvement.¹¹ With respect to international cooperation, many developing countries depend on external support from donors. Such assistance, technical or financial, should first ensure that non-governmental organizations (NGOs), educationalists, learners, training providers, parents, youth organizations and traditional leaders are all engaged at national and local levels; and second, be coherent and aligned with the economic and social conditions, needs and objectives of the countries it supports rather than with the mandates of international organizations and the political agendas of donor countries.

Outline of the paper

The next sections of this paper detail and expand the above observations. We first present the characteristics and trends of the many pathways to skills development including general education and vocational education and training, internships, apprentices and lifelong learning; second; their linkages with the informal economy and informal employment; third, new approaches to skills development in selected developing economies and specific interventions; fourth, the evidence on how students and workers have been impacted by the pandemic; fifth, the prospects for economic recovery and its implications for the informal sector; and, finally, several policy directions.

¹¹ Hanushek and Woessmann. 2022.

2. Skills development and the informal sector

Informality effectively refers to what is left out of the formal economy and formal employment. Many different terms are used for the economy, often interchangeably, ranging for the obvious “out of the formal economy” to the shadow economy, hidden economy, grey economy, black economy, cash economy, parallel economy or lack economy (of taxes, public services, scale).¹² Such definitions remain broad and “an internationally accepted definition is missing” though all definitions agree that illegal, criminal, and household activities are excluded.¹³ The ILO definition of informality adopted below is the most widely accepted.¹⁴

ILO distinguishes informality between employment in the informal sector and informal employment.¹⁵ Employment in the informal sector is an enterprise-based concept and takes place in *economic units* that operate informally or are run by own-account workers with or without family members, as well as cooperatives, and social and solidarity economy units.¹⁶ Informal employment is a job-based concept and is defined in terms of the employment relationship and protections associated with the job of the worker. It includes own-account workers, employers, family workers, and those in informal jobs in formal enterprises or those who are employed “through subcontracting and in supply chains and more broadly workers in unrecognized or unregulated employment relationships.”¹⁷

Cognitive development starts with birth and nurturing it has traditionally been the responsibility of the family, particularly women or older siblings, mainly girls. Despite the critical importance of family care, children from disadvantaged households may encounter developmental challenges due to their environment – for example, a lack of socioemotional or cognitive stimulation. However, there has been a gradual increase

in access to early childhood care and education services (ECCE) paying additional attention to its quality.

The low enrolment in pre-primary education is linked to lack of supply rather than of demand. Accordingly, the provision of ECCE is much higher in higher income countries than in low-income ones where many children receive little to no early childhood care and education.¹⁸ In fact, much of the increase has come from non-state providers, such as private providers paid by the families or being employer-sponsored, NGOs, faith-based organizations and community groups. Between 2000 and 2019, the share of private institutions in total pre-primary education enrolment increased from 29 to 37 % which is a much higher proportion than those found in primary education (19 %) or secondary education (27 %).

While the share of services provided by private institutions in pre-primary education varies by country and region, it is much higher in developing countries than industrialized ones, and rural and poorer children have much lower access to non-state education and early childhood education.¹⁹

Taken together, these statistics suggest inequality in education very much starts at birth (and accelerates later in life as noted below). What needs to be done in the case of ECCE is so straightforward that needs not be mentioned further in the limited space of this paper: It should include generally free state provision with user fees levied to higher income families, encourage non-state provision, when such demand exists by households, and be subject to “strong governance”.²⁰

The rest of this section provides a bird’s eye view of enrolments and recent trends for primary, secondary (including vocational education) and training (including lifelong learning) and compares them with profiles

¹² Medina and Schneider. 2018.

¹³ Deléchat and Medina. 2020.

¹⁴ For example, the definitions used by the OECD, the World Bank and the statistical agency of the European Union, EUROSTAT, are in line with that of ILO’s (Elgin, 2021). For the World Bank see Maloney et al. (2007).

¹⁵ ILO. 2015.

¹⁶ *ibid.*

¹⁷ *ibid.*

¹⁸ UNESCO. 2021a.

¹⁹ UNESCO. 2022a. p. 247

²⁰ UNESCO. 2022a. p. 144.

of informality. In addition to this descriptive part, this section summarizes the current state of global learning outcomes and presents estimates of their shortcomings and gaps.

Basic Education

Primary and Secondary Levels

Primary education is the most homogeneous and best-defined component of education compared to subsequent levels of education, as it includes children generally up to the age of 12 and curricula are relatively standardized aiming to build basic reading, comprehension and math skills. Globally the number of out-of-school children in primary school-age has declined by over 40 % since 2000, and the net enrolment rate in primary education has now reached 87 %. In the last school year before the pandemic, 64 million children of primary school age, most of them from marginalized groups in low-income countries were out of school.²¹ Missing out on ECCE and the foundational skills imparted from primary education provide fertile ground for lost opportunities and lower productivity later in life.

The enrolment rate in secondary education has also increased in the last two decades. The gross enrolment rate has now reached 76 % for both girls and boys, with net enrolment at 66 % for both sexes.²² However, as in the case of primary education, 63 million students are missing from lower secondary education and as many as 132 million from upper secondary education. As is the case in primary education, these figures have been mostly stagnant for a decade. The various reasons for children not attending school include not only lack of access to education but also provision of low quality or low relevance education, or the need for family income that incentivizes households to withdraw their children from school and encourages child labour.²³

Secondary education is more differentiated than primary education as it takes place at two levels (lower and upper) with lower education having a completion rate of only 77 %. It is also differentiated between general education and Technical and Vocational Education and Training (TVET), the latter usually introduced at the upper level. The global number of students in secondary education is about 700 million with just under 10 % of them following the vocational stream.²⁴ Enrolments in TVET vary significantly with lowest rates found in sub-Saharan Africa (around 1 % among those in the 15 to 24 age group) and the highest rates in Central Asia, Central and Eastern Europe, and in East Asia and the Pacific (up to 15 %).²⁵ The education sector after secondary level becomes more complex (see **ANNEX 2**).²⁶

Summarizing, the seeds of inequity and missing out on cognitive development and skills are sown during early childhood and are compounded during the age when children are expected to complete basic education and many do not. In simplified terms, out of 100 children 69 will complete primary education, 50 lower secondary education and only 25 will complete upper secondary education.²⁷ This does not imply that all of those who have completed a level have fully benefited from it. The effects of this failure are discussed next from an economic perspective. Indeed, ILO data indicate that more than one in five youths (aged 16-24) worldwide are not in education, training, or employment (NEET). Two-thirds of youth NEET are young women.

21 UNESCO. 2022a, pp. 215.

22 For gross enrolment see UNESCO Institute for Statistics (uis.unesco.org). Data as of September 2021. See <https://data.worldbank.org/indicator/SE.SEC.NENR.MA?locations=1W>

23 UNESCO. 2022a.

24 Vocational education and training at upper secondary level is intended to ensure the transfer and acquisition of knowledge and skills needed to carry out the tasks associated with an occupation. Vocational education may also include vocational guidance, but this component is not commonly found in developing countries and is generally left to parents. This omission can particularly affect informal households.

25 UNESCO. 2021a.

26 Given that most informal workers do not have post-secondary education (Table 2), this level is not extensively covered below.

27 Calculated from UNESCO. 2022a. Table 2.

The Skill Gap Starts with Basic Education

Though the increasing enrolments in basic education are encouraging, there are still more than 250 million out-of-school children and youth. Globally, nearly 90 % of children attend primary school, but in poor households, attendance drops to 74 % while almost 20 % of children attending primary education do not complete it, and many of the others who complete it do not have foundational reading and numeracy skills²⁸ In fact, primary education students may leave school being functionally illiterate as they “cannot engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community’s development.”²⁹

Achievement rates for the lowest of the six skill levels of the international Programme for International Student Assessment (PISA) test are a relatively reliable indicator of basic skills worldwide. A study estimated that two-thirds of the world’s young people fail to reach the minimum skill levels required to be competitive in the international economy, and the share is greater in the poorest countries.³⁰ A calculation of what this implies for lost production, and as result for financing skills development, is presented in **Table 1**. The resulting gain from achieving universal basic skills is equivalent to 11 % of the discounted future GDP over the same time period. These estimates are based on pre-pandemic data that have globally changed the education outcomes and economic prospects of the current cohorts of students (Sections 3 and 4 of this report).

Table 1: Discounted economic gains until 2100 from achieving universal basic skills

Region	Gain (trillions US\$)	% Share of gains by region	Population share by region %
World	706	100	100
South Asia	258	37	37
Sub-Saharan Africa	124	18	18
Latin America and the Caribbean	76	11	11
East Asia and the Pacific	75	11	11
Middle East and North Africa	67	9	9
Europe and Central Asia	66	9	9
North America	41	6	6

Source: Hanushek and Woessmann (2022) for economic gains; WB Development Indicators for population.

28 UNICEF. 2022. Primary Education Latest Update (June).

29 UNESCO. 1978.

30 Hanushek and Woessmann. 2022.

Pathways outside basic education

Internships and Apprenticeships

Apprenticeships and internships are alternatives to TVET outside the school system. School enrolments are lower in low- and middle-income countries, and these two forms of skills acquisition are also less common when compared to high-income countries. In addition, given the high level of informality in low- and middle-income countries, most apprenticeships and internships tend to be informal, thus difficult to be captured in official statistics. According to the ILO's "School-to-Work Transition Surveys" in 33 developing countries, only one in five respondents below the age of 35 had participated in at least one internship or apprenticeship. As well, where self-reported estimates exist, their incidence was found to be higher among well-off households (28 %) compared to 11 % among poor households.³¹

This finding, combined with the fact that the more educated tend to be offered more employer-based training than those with less education, suggests that inequality continues beyond basic education: those with secondary education are twice as likely to be offered apprenticeships than those with primary education only (36 % compared to 19 %) and the percentage of such beneficiaries is much higher for those working in the formal sector.³² A critical factor underlying these differences is likely to be that new entrants to the labour market from better off households are in a much better position to get ahead of their peers through social networking.³³ However, informal apprenticeships tend to dominate in low-income countries and, despite their significant contribution to skills development, they are not included in the official statistics while they are viewed by many as the lowest value route into a job.

In conclusion, apprenticeships, and internships "do not deliver on their potential in low- and middle-income countries."³⁴ Furthermore, they accentuate pre-employment inequalities in skills development and subsequently in labour market outcomes with its incidence being more pronounced among informal households. Nevertheless, the general tendency is for countries to initiate reforms that aim to strengthen the

capacity of TVET authorities to respond to the short-term training needs of those employed in the informal sector; involve local trade associations in designing competency-based training programmes, in selecting participants for training, and in choosing the tools to be included in equipment kits; create closer links between trade associations, public and private training institutions, and the government; and reorient the focus of private and public training institutions away from the provision of long pre-employment training to the provision of short post-employment competency-based training for those in the informal sector.³⁵

Training

Training is delivered in many more diverse forms than education. This is not unexpected as training should be related to the labour market in which jobs and skill needs are very diverse as evidenced from the many different groups of informal workers presented in **Table 2**. In addition to measurement issues, training has generally encountered more challenges than education with some of the more common summarized in **Box 1** and showing that training systems require substantial and long-term reforms to address systemic issues. This suggests that addressing the immediate effects of the pandemic on learning and skills development may more promisingly focus on correcting the learning losses from school closures while continuing the efforts to bring those out-of-school (and those who dropped out during the pandemic) into the education system.

31 As reported for upper-middle-income countries in Central and Eastern Europe, including Moldova, Serbia and Ukraine. UNESCO. 2022a. pp. 256.

32 Bonomelli Carrasco. 2021.

33 Wright and Mulvey. 2021.

34 UNESCO. 2022a. pp. 256.

35 World Bank. 2010.

BOX 1: Can training systems quickly overcome their historic challenges post-COVID-19?

Training systems across the world entered the pandemic era with pre-existing challenges especially for the informal sector. Public formal TVET systems have been criticized for being supply driven and, almost by definition, unresponsive to labour market demands and the needs of the informal private sector being “oriented to the formal economy, neglecting the large sections of the population working in situations of informality.” Skills policies have not been aligned with policies that influence the supply and demand for skills in agriculture, trade, industry resulting in considerable mismatches.

There has been a lack of recognition of prior skills acquired outside of the formal education and training systems. While the emphasis has been on technical skills, a critical skill constraint for the development of informal workers has received less attention, namely, the lack of core business skills for the self-employed, life skills, negotiation skills, entrepreneurship skills, and digital skills.

Public funding for skills remains oriented to (the often small) formal economies thereby “neglecting the large sections of the population working in situations of informality”. It is disproportionately allocated to formal training versus non-formal or informal training. Levy-grant training funds around the world have been unable to reach the marginalized, most of whom are not employed in formal firms contributing to such training fund.

A systemic challenge for training systems has been that of governance that is affected by the “weak representation and organization of informal workers and employers”. Formal governance arrangements (such as training councils, employers’, and workers’ organizations) have been built for and are dominated by the formal economy and “do not reach the majority of the world’s workers, many of whom work in the rural and informal economy. This has led to their exclusion from social dialogue and decisions affecting their lives have been made without their participation”.

Addressing these challenges would require evidence-based radical reforms of sizeable proportions to be implemented consistently over long periods.*

*A summary of proposals for post-COVID-19 training reforms is included in the concluding section of this review.

Source: Author’s compilation from ILO (2013a, 2019), Adams et al. (2013), OECD (2017), Brown and Slater (2018), GIZ (2019), Arias et al. (2019), and OECD and ILO (2019).

In addition to the issues associated with formal training, there are even more significant issues associated with informal training. Informal training may not present a problem in sectors supported by strong professional associations and with resources to support such training, including support for participating workers. However, informal training tends to be the dominant form of skills development in the context of informal employment but remains an undocumented pathway from which a large proportion of informal economy workers get their skills. Informal apprenticeships have historically evaded recognition or, when known, they have largely been neglected by the national training

authorities and evaded certification. They take different forms but form a continuum that may start from caretaker-child relationships all the way to producing skills equivalent to those acquired through regulated apprenticeships. They exist primarily in countries where there is little choice of pathway as there are no resources for them while most young people need to earn at least enough to survive while training. Either way, informal training fulfils the same function as formal training, but lacks official recognition and consequently the resources that formal apprenticeships attract.³⁶

³⁶ Informal apprenticeships cover a wide range of areas such as carpentry, hairdressing, masonry, dressmaking, tailoring, welding, weaving, repairs (from electrical to car maintenance and more recently mobile phone repairs) plumbing. ILO. 2013.

A critical issue for designing effective training interventions is to have realistic expectations of what training can achieve. For example, the objective of training policies related to the informal economy should “be seeking to increase the productivity and improve the working conditions of those who work in it *so as to facilitate transitions to formality*.”³⁷ That training can influence productivity is almost certain although the cost-effectiveness of some forms of training can be debated. Whether this would lead to a reduction in informality, at least over a relevant time horizon is less certain as this would depend on the nature of the economy and the rate of growth, is less certain (see discussion below).

Unlike education, which has a well-established impact on economic growth, the effectiveness of training interventions is more difficult to evaluate. A training intervention that is found to be successful in one area of skills development may not be so in another area; and an intervention that has produced positive results in one country may not do so in another country context. Some interventions may also not be scalable beyond a certain point.

Lifelong Learning

Lifelong learning is more like an approach to learning that takes places along one’s lifetime, rather than a learning system in itself. Lifelong learning may encompass various forms of learning, including ECCE, primary education, academic or diversified secondary education, formal and non-formal TVET and more. As workers’ aspirations change over time and the nature of jobs change, it is important that skills development continues throughout a worker’s career.³⁸ Such enhancement of skills can be intentional or deliberate and may not be institutionalized. It can be “informal” or “non-formal” and can be offered early or as “adult education.” However, as in the case of internships and apprenticeships, those adults with more education are significantly more likely to benefit from skills acquisition during their lifetimes compared to their less educated counterparts, the latter being more likely to be informal workers. Globally, only in 30 % of countries do vocational secondary school graduates have direct access to tertiary education, while in one-quarter of

countries, vocational secondary schooling does not allow such access.³⁹ Among European countries, 90 % of adult education participation is employer-sponsored, of which nearly half is also employer- provided.⁴⁰

Education and Informal Employment

The many paths to education and training need to be matched with available employment structure and opportunities. This is not an easy task as there are many different types of employment each requiring different approaches to training and lifelong learning such as what type each one of them should be, for how long, when to be offered and who will pay. This is particularly so in the case of informality. The components of informality combining employment in the informal sector and informal employment are shown in **Table 2**.

37 ILO. 2014.

38 For integrated approaches to literacy and skills development see cases of best practice in adult learning programs in UIL., 2021.

39 UNESCO. 2022a. pp. 257.

40 UNESCO. 2022a. pp. 253

Table 2: Components of Informal Employment

Production units by type	Jobs by status in employment								
	Own-account workers		Employers		Contributing family workers	Employees		Members of producers' cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	Formal	Informal	Formal
Formal sector enterprises					1	2			
Informal sector enterprises^(a)	3		4		5	6	7	8	
Households^(b)	9					10			

(a) As defined by Fifteenth International Conference of Labour Statisticians (excluding households employing paid domestic workers).
(b) Households producing goods exclusively for their own final use and households employing paid domestic workers.
Note: Cells shaded in the dark blue refer to jobs, which, by definition, do not exist in the type of production unit in question. Cells shaded in light blue refer to formal jobs. Un-shaded cells represent the various types of informal jobs.
Informal employment: Cells 1 to 6 and 8 to 10.
Employment in the informal sector: Cells 3 to 8.
Informal employment outside the informal sector: Cells 1,2,9 and 10.

Source: ILO, 2011.

A detailed profile of informality, which includes 2 billion of the 3.2 billion employed people worldwide aged 15 and above, is outlined in **ANNEX 1**. This corresponds to almost two-thirds of all workers (61 %).⁴¹ Developing and emerging economies have substantial rates of informal employment (90 % and 67 %, respectively). The informality rate falls to only 18 % of total employment in industrialized economies,⁴² and is nearly double in rural areas (80 %) than in urban areas (44 %). Excluding agriculture, the global level of informal employment falls to 52 %. However, the number reaches 82 % of total employment in South Asia, compared with 10 % in Eastern Europe and Central Asia.⁴³

According to the research, informality is negatively related to education and with conditions for decent work including protection of labour rights, both in terms of sufficient remuneration and access to social protection that provides job security as well as health and safety at work. Globally, the share of informal employment among workers with no education is 94 %⁴⁴ The share declines but only slightly to 85 % among those with primary education and is significantly lower, at 52 % among those with secondary education and 24 % among those with tertiary education (**Table 3**).

Table 3: Percentage of Informal workers by Highest Education Level and Gender

Gender	Highest Education Level			
	None	Primary	Secondary	Tertiary
Male	70	41	37	23
Female	92	59	35	23

Source: ILO (2018)

Given the lower relevance of tertiary education to informal employment, this level of education is not discussed in detail. However, it is worth mentioning, first, that the gross enrolment rate at tertiary level across the world has reached 39 %; second, tertiary enrolments have had a steady growth of around one percentage point per year since 2000; third, there are 118 million women and 110 million men enrolled in tertiary education; and fourth, there are sizeable difference across countries, with regional averages ranging from 9 % in sub-Saharan Africa to 78 % in Europe and Northern America.⁴⁵

Several conclusions can be derived from the previous, albeit very aggregate, presentation of facts. An important one is that inequality in education starts at pre-primary level and then increases at successive levels

41 The estimates of the incidence of employment informality and its composition presented below are based on ILO.

42 ILO, 2018.

43 ILO, 2017.

44 This high share reflects to some extent legacy issues in the sense that those with no education tend to be older individuals.

45 UNESCO, 2022a, pp. 253.

of education and different modes of skills acquisition. The socioeconomic status of households is an important factor for investing in their offspring's human capital and subsequently for their employment outcomes. Related, better off households tend to be located in urban areas and be engaged in formal employment. These differences are more pronounced in developing countries. Their effects have become more serious as income inequality has increased since the late 20th century together with the increase in the private provision of education. The pandemic has aggravated these trends. As discussed in Section 3, the impact of the pandemic on both enrolments and learning has been more severe among disadvantaged students. Even at the top end, taking the United States as an example, undergraduate enrolment fell by 6.5 % between 2019 and 2021, and by at least 13 % in four year private for-profit institutions.⁴⁶

Another conclusion is that that education and informality are not mutually exclusive. This suggests that there are many other factors in operation and focusing alone on skills development is unlikely to eliminate informality. Given the low share of formal employment in developing countries, even substantial increases in skills through whatever of the many modes available might not necessarily lead to a fast decline in informality unless there is fast economic growth and substantial structural changes in the economy thereby increasing the demand for education in formal activities. These two issues are discussed in more detail in Sections 4.

Aligning the Pathways of Learning With Employment: Recent Developments

The education and employment challenges discussed above have predictably led to new thinking about skills development. However, generalizations about skills approaches and outcomes is complex given the vast differences among countries with respect to their development stage, institutions, and labour market characteristics. For example, from a regional perspective sub-Saharan Africa is characterized by sharp urban/rural differences and the highest rates of informality

to the point that “informal activities are viewed as a genuine way to make a living.”⁴⁷ Central and Eastern Europe countries have relatively high levels of education but many workers in the formal economy are working informally while seasonal migration and rates of part-time employment are high, and “trade union structures are not adapted and do not have experience in how to work with the informal economy.”⁴⁸ The Middle East and North Africa region includes countries whose diversity ranges from the very high-income oil-producing countries to low-income states such as Yemen while several are in conflict. Informality rates in Latin America and the Caribbean (LAC) range from very high (more than 80 % in Bolivia) to low (less than one-third in Uruguay) but from a regional perspective informal employment is said to be the most pervasive “structural weakness”⁴⁹ associated with several development traps, including weak institutions, rigid regulations, vulnerability, and lack of social protection.⁵⁰

Rather than attempting a generalization, the progress towards the integration of different paths to skills development is examined through the lens of country cases. Albeit selective and less ambitious, the five country cases examined below are indicative of reforms that are under way in developing countries, often with donor assistance, in their effort to create more integrated and synergistic skills development systems through the adoption of flexible paths, the introduction of competency-based training and the development of national qualifications systems. The country cases are then supplemented by the presentation of selective interventions either in different sectors (such as agriculture) or groups (such as women).

Country experiences

BANGLADESH

Having adopted a National Skills Development Policy (2011), the National Skills Quality Assurance System 2012 aims to move the national TVET system away from time-based institutional offerings towards flexible pathways for developing skills based on Competency-Based Training and Assessment. It envisages pre-employment vocational education, apprenticeships

46 UNESCO. 2022a. pp. 270

47 Galdino et al. 2018.

48 Kelly et al. 2021.

49 Basto et al., 2020; OECD, 2020.

50 Kelly. 2021.

and livelihood skills training will all be part of a newly established National Technical and Vocational Qualifications Framework that will formally recognize skills obtained both formally and informally including the recognition of prior learning. The government assigned the Bangladesh Technical Education Board as the regulatory and operational body responsible for managing the reformed TVET system and coordinating the many Ministries and government agencies, public training institutions, private organizations, community groups and NGOs that deliver formal and non-formal skills training for industry and community development, on-and-off-the-job training in enterprises and pre-departure training for prospective migrant workers.

MADAGASCAR

Similarly, Madagascar's National Employment and Vocational Training Policy initiated activities to develop a national framework of certifications and recognize prior learning (RPL) involving reforms relating to the country's diplomas and certification system. These activities were supported by UNESCO's Capacity Development for Education (CapED) Programme⁵¹ that has expanded to include several other countries.⁵² The Programme supports systematic improvements in the quality and efficiency of TVET at the national level through the establishment of a modern certification system drawn on international standards that can support youth and adults on their path of lifelong learning. The RPL enables working people to formally document the skills and knowledge they have developed throughout their life, and to obtain a corresponding diploma or certificate based on a standardized reference system. Importantly, the country has included the individual right to RPL in the law, which was then protected in a decree in 2018. The following year the regulatory framework and RPL technical devices were finalized and tested in two priority sectors and the first diplomas obtained through RPL were awarded. The Programme's design is based on a partnership approach with all stakeholders, including ministries, the economic sector and training operators. The Programme has subsequently been scaled up to gradually cover the whole country and is expected to be completed by 2023. More broadly and with reference to other countries that have since been supported by the CapED Programme, the reforms have not been restricted to the policy level but have included specific

interventions to integrate rural out-of-school youth into the world of work, offer adult literacy opportunities, improve teacher quality, and enhance literacy skills for girls' and women's empowerment through the adoption of gender-sensitive approaches.

EGYPT

Recognizing the need for more flexible pathways between general and technical education with multiple points of entry leading to internationally recognizable outputs, Egypt has also launched a reform agenda that focuses on increasing access and raising the quality of education, developing assessment systems, and improving the quality of instruction including the incorporation of technology. Having established a National Authority for Quality Assurance and Accreditation of Education in 2006 and passed legislation for the creation of an Authority for Quality Assurance and Accreditation of TVET (March 2021), new initiatives include a National Qualifications Framework Law that calls for the creation of a National Strategy for Lifelong Learning, a National Qualification Framework (Eg-NQF), a national system for recognition, validation, and accreditation. The aim is to recognize prior learning, integrate non-formal, informal, and formal learning and enable the transfer of knowledge, skills and competencies acquired through different forms of education and training.

UGANDA

Following the establishment of the Uganda Vocational Qualifications Framework (UVQF), the Ministry of Education and Sports issued a Business, TVET (BTVET) Strategic Plan 2011–2020. The Plan envisages a shift from education certification to competency-based skills formation; from catering to the needs of underperforming early school leavers to all citizens; from school-based delivery to flexible workplace-oriented provision; and from government provided to public/private partnerships for the funding and developing formal, non-formal and informal skills together with NGOs, faith-based organizations, and commercial providers of skills development. The Plan calls for an expansion and improvement of agriculture training and skills formation in the informal sector; the introduction of competency-based training including in agriculture; and strengthening the links between

⁵¹ UNESCO. 2021b.

⁵² These additional countries are Afghanistan, Cambodia, the Democratic Republic of the Congo, Haiti, Lao PDR, Madagascar, Mozambique, Myanmar, Nepal, Niger, Senegal and Uganda. <https://en.unesco.org/themes/education/caped/country-examples>.

BTVET and research institutions, industry, farmers, and micro and small enterprises (MSEs); making non-formal training an integral part of the BTVET system; and ensuring lifelong learning opportunities for all. In parallel it calls for an expansion of the coverage of the UVQF, and for institutional improvements through the creation of an independent skills development authority, and the introduction of new policies to support internships, apprenticeships, and industrial placements through the Sector Skills Councils within the Uganda National Apprenticeship Framework.

SOUTH AFRICA

In 1996, the South African Qualifications Authority was established and assigned to develop a NQF. The Authority's members are appointed by the Minister of Education in consultation with the Minister of labour thus encouraging greater cooperation between these two leading ministries in the area of skills development. The NQF Act (67/2008) followed for the recognition of prior learning. The Act sets out the principles, guidelines and the organizational structure for the development of a national qualifications system. The aim is to integrate the education and training systems into unified structure of recognized qualifications reflecting the learners' achievements, and to encourage lifelong learning. The NQF consist of 10 levels divided into three bands; Levels 1 to 4 equate to high school grades 9 to 12, levels 5 to 7 to college diplomas and technical qualifications, and levels 7 to 10 to university degrees.

KYRGYZ REPUBLIC

The Strategy for Education Development in the Kyrgyz Republic 2020–2040 amended the Education Law to include the concepts of "national qualifications system" and "professional standard". It established a National Qualifications System that would formally recognize qualifications, knowledge and skills acquired in formal, non-formal and informal education or through professional experience. The Strategy still emphasizes formal learning and the supply side of education and training by maintaining the previous focus on vocational education and formal training programmes for adults and young people. However, it also calls for the creation of interdisciplinary training areas,

the application of flexible training formats including distance learning using technology, the introduction of certified open access courses, improvements in the system of independent accreditation of education/training providers, and a transition to compulsory 11th grade education through general schools (gymnasium for humanities, lyceums for science or comprehensive schools), vocational (professional) lyceums and technical colleges.

Sectoral interventions

ADULT LEARNING OUTSIDE THE WORKPLACE

India introduced the Saakshar Bharat initiative in 2009 aiming to provide literacy to 70 million adults. The Mexican National Institute for Adult Education has developed flexible modules to deliver education programmes equivalent to primary or secondary education aiming to provide out-of-school individuals a second chance. Kenya's Ninaweza programme is offering skills training to women living in informal settlements in Nairobi and has increased the likelihood of obtaining employment and higher earnings by 14 %⁵³ Nepal's Adolescent Girls Employment Initiative provides vocational training to women and has nearly double their employment outside of agriculture.⁵⁴ In Argentina, the Entra21 programme provides adult skills training and internships that have increased the earnings of the beneficiaries by 40 %⁵⁵ Similar programmes in Ghana have yielded labour market returns of more than 66 %⁵⁶

FORMAL TRAINING FOR THE INFORMAL SECTOR

In China vocational training institutions are increasingly using distance learning in subjects such as English, information and communication technology (ICT) and business skills, in order to reach informal economy and workers in poorly serviced areas. Tanzania is developing new TVET curricula with a focus on skills for self-employment. TVET institutions in Kenya and business centres offer services to small-scale entrepreneurs. A network of rural vocational training institutes in Ghana set up in the 1980s (the Integrated Community Centres for Employable Skills) traditionally provided pre-employment training to the informal economy but has gradually increased its offerings to include

⁵³ Alvares de Azevedo, Thomaz and Munene. 2013.

⁵⁴ Chakravarty et al. 2017.

⁵⁵ J J-PAL (Abdul Latif Jameel Poverty Action Lab). 2017.

⁵⁶ Blunch et al. 2018.

theoretical classes, core subjects (math and English) and entrepreneurial skills. In Honduras, the Education Centres for Work conducts local needs assessments and offers vocational training targeting the poor in rural and urban communities. In India, the National Rural and Livelihood Mission Programme and community polytechnic institutions provide skills training to workers in the informal economy.⁵⁷

RECOGNIZING INFORMAL APPRENTICESHIPS

In collaboration and agreement with the local authorities and local crafts associations, the Government of Benin has developed national certificates that recognize skills gained in informal apprenticeships.⁵⁸ The certificates apply to two levels of skills. First, an Occupational Qualification Certificate is awarded to youth who have not finished primary school but had a traditional apprenticeship with an expert craftsman and have acquired a standardized set of skills and competencies. And second, a Professional Qualification Certificate for youths with primary education and above who have gone through a three-year “dual type” apprenticeship combining work experience with classroom training. Both qualifications are awarded after the apprentices pass the required exam and are expected to eventually cover all 210 recognized occupational trades in Benin.⁵⁹ In Côte d’Ivoire, the Youth Employment and Skills Development Project seeks to recognize informal apprenticeships via classroom training, formal certification and a training wage for apprentices. Similar efforts to link informal apprenticeships with formal training, and to incorporate elements of theory are being developed in Burkina Faso, Mali, Niger, and Togo.⁶⁰ In Montenegro, informal workers have access to professional training through a universal and open internship programme.⁶¹ In Bangladesh the Rural Advancement Committee piloted a TVET Reform Project aims to upgrade informal apprenticeships, on the one hand, through on-the-job training that includes

practical training delivered by a master craftsman and is based on a structured format and training content using a competency skills log book and, on the other hand, off-the-job classroom training that includes theoretical skills related to the participant’s trade areas as well as to life skills, financial literacy and basic English.⁶² South Africa has introduced a national policy for the recognition of prior learning that can include any type of prior learning (non-formal, informal, and formal) across all 10 levels of the NQF. Tanzania has also moved closer towards the recognition of prior learning and the informally acquired competencies initially by focusing on the development of 10 competency-based occupational standards between 2011 and 2018. Those with more than three years of work experience can apply, are then assessed, and can obtain a craftsman’s endorsement.⁶³

REVISITING AGRICULTURE

Training farmers in the best farming techniques has been shown to raise productivity. For example, the Integrated Growth Poles Project in Madagascar, which provided farmers with training on improved cocoa processing practices and business management skills, resulted in beneficiaries seeing on average an increase in their net revenue by nearly 50 %. In Afghanistan, farmer field schools tripled the income of participants — and there have been similar gains in East Africa.⁶⁴ Agricultural training combined with active social ties in villages that encouraged peer learning (and competition) increased the learning outcome of training sessions among female farmers in Uganda.⁶⁵ Several community-based and farmer-to-farmer extension approaches have been found to result in high cost-benefit ratios of the order of 8 in Ghana, 7 to 12 in Malawi, and 14 in Uganda.⁶⁶ There are also several examples of how technology can support training. Through text messaging, farmers in Kenya can better use lime to control soil acidity and also to control pests.

57 Quoted from Palmer (2020) based on Arias, Evans and Santos, 2019; Darvas and Palmer, 2014.

58 Palmer. 2020. Based on OECD and ILO. 2019.

59 World Bank. 2014.

60 Palmer. 2020. pp. 21.

61 ILO. 2021a.

62 Palmer. 2020. pp. 25.

63 Hofmann and Kirsch. 2020.

64 Davis et al. 2012.

65 Vasilaky and Islam. 2018.

66 Wellard et al. 2013.

A farmers' information call centre and SMS services help farmers improve their skills through learning from agricultural experts. In Ghana, a free voice and SMS text messaging teach small-scale cocoa farmers about farm safety, child labour, health, farming practices, crop disease prevention and marketing.⁶⁷ However, training alone is not enough and need supportive policies. Studies from Indonesia and Kenya have found that improvements in rural areas are necessary to narrow the formal/informal gap.⁶⁸ Therefore, mobile technology and having the ability to use it, can offer farmers beneficial applications that range from alerts for weather changes to better access to local and export markets through enhanced cooperation among small farmer, better processing and packaging, as in Colombia and Turkey.⁶⁹

CAREER GUIDANCE

Finally, career guidance services are another area where progress is being made. Such services are an important component for guiding skills development as they can be deployed to assess skills needs, offer focused information for training and retraining activities, and provide job search assistance. Both high- and low-income countries are expanding and reforming their career guidance services. In Belgium, an online system *Mijn Loopbaan* (My career) was introduced where visitors use their e-ID to log in and then can create a fully personalized online portfolio (keeping track of competences and qualifications), search for jobs and multiple types of education and training opportunities, create a CV and upload it to an online platform used by employers. In Denmark, the eGuidance system provides a service to learners in secondary and tertiary education and also adults which contains comprehensive labour market information including during recessions. Ukraine established an Association for Career Guidance and Educational Advising (UACGEA) in 2010 that monitors

activities in career guidance, undertakes research on effective practice and supports the professional development of the guidance community through training programmes and certification. In Slovakia, *KomposyT* provides information and specialist tools for supporting case-based counselling to pupils with special educational needs, their families and professionals working with them. With the support of UNESCO's Better Education for Africa's Rise (BEAR) career guidance services are being developed to increase national capacities and improve the relevance, quality, and perception of TVET systems.⁷⁰ Still a 2018 global review revealed that too few teenagers have access to the guidance they need to make informed decisions about their futures and, on average, even in OECD countries just half of students have spoken to a career counsellor in school by the age of 15.⁷¹

INFORMALITY AND WOMEN

The Botswana Training Authority introduced measures to expand access to vocational training for women in the informal economy. Part of the effort was directed at reducing stereotyping in curricula. It also initiated regular data collection on gender differences in vocational training institutions so to reduce gender occupational segregation between men and women.⁷² The objective was to make male-dominated courses more appealing to women.⁷³ A nationwide programme in Bangladesh provided poor women with skills training (and livestock) as well as advice on their legal, social and political rights. As a result, their earnings increased together with their business assets and the likelihood of owning land.⁷⁴ A similar programme in Uganda offered adolescent girls vocational training (together with information on sexual health and reproduction so to reduce early pregnancies). Within four years of the programme, there was a higher likelihood for women to be engaged in income generating activities.⁷⁵ Liberia's

67 Mitchell. 2018.

68 Hicks et al. 2017.

69 Examples from Kenya, Rwanda and Tanzania include the use of smartphones by more than a million workers who receive messages from weather stations that monitor changes in the weather. In a similarly way orchard farmers in Kastamonu Province in Turkey get alerts regarding frosts and pest cycles that have enabled them to reduce both costs and the use of pesticides by 50%. Alquería, the third-largest dairy company in Colombia, is expanding exports based on the outputs from the 13,000 small dairy farmers from which it sources raw milk (World Bank, 2019).

70 See UNESCO "Skills for work and life: Learning for the changing world of work" at <https://en.unesco.org/themes/skills-work-and-life>.

71 UNESCO. 2021c.

72 Arias, Evans and Santos (2019); Darvas and Palmer (2014); ILO (2013).

73 HEART. 2016.

74 Bandiera et al. 2017a.

75 Bandiera et al. 2017b.

Economic Empowerment of Adolescent Girls and Young Women provided young girls in-classroom training focusing on life and technical skills as well as follow-up job placement support to either enter a paying job or start a new business. The programme increased their employment by nearly 50 % and their earnings by 80 % while their households saw improvements in food security.⁷⁶

Concluding remarks

The country cases presented above confirm a trend that skills development systems have followed over time. This trend has been set at least since in the 1980s when countries started developing coherent systems based on both formal and non- formal modes in an attempt to break the silos involved in skills development, which were no longer appropriate for meeting the increasing complexity of modern production.⁷⁷ In line with this, the World Bank, a main funding organization for training, has increasingly “deemphasized support for lengthy, formal pre-service training in favour of short, focused in-service training. Competition for funds is proving to be a useful instrument and led indirectly to greater supply responsiveness by public institutions.”⁷⁸ As things stand today “The position of skills development on the agenda of policymakers and development agencies improved markedly around the turn of the 21st century” both among developing and the more industrialized world. But more effort and funding are required to improve the skills development system in its many forms in developing countries especially for informal workers.

Similarly, the list of sectoral interventions suggests that, while basic education is a prerequisite for skills development and labour market outcomes – including its effect on informality, there are many interventions that can start at the end of education for would-be workers and continue over the lifecycle of current workers. The recognition of informal apprenticeships and career guidance services are probably the most feasible ones and can be advanced easier than others.

⁷⁶ Adoho et al. 2014.

⁷⁷ Middleton and Demsky. 1989.

⁷⁸ Canagarajah et al. 2002.

3. Effects of the pandemic

Given the short time that has elapsed since the start of the pandemic and the uncharted novelty of the combined economic and health crisis, many of the estimates of the impact of COVID-19 on learning reported below include a combination of likely effects as simulated in several studies along with those that have been empirically established so far. The effects of the pandemic are presented in terms of their overall impact on learning, the impact on disadvantaged students, and that on the economy, and labour market, the latter with respect to employment and wages. This section also presents the post-pandemic extent of the disruption in training though there are no detailed estimates of this disruption on productivity and wages so far.

Effect on Enrolments

At the height of preschool and kindergarten closures in early April 2020, more than 180 million children had their pre-primary schooling disrupted. One study estimated that closures between March 2020 and February 2021, equivalent to 19 billion person-days of instruction lost, would result in 11 million more children being developmentally off track.⁷⁹

Social distancing measures associated with the pandemic led to school and university closures in practically all countries (192). At its peak of the pandemic, UNESCO reported that nearly 1.6 billion learners, or 94 % of the world's student population, were impacted by educational institution closures. An early estimate by UNESCO was that three million more children were added to those out-of-school before the pandemic (2019 numbers), bringing their total to 260 million by September 2021 and a subsequent one estimated that a further 24 million learners were at risk of dropping out of education.⁸⁰ In 2021 learning was fully remote in 40 countries.⁸¹

Effects on Learning

In addition to the impact on enrolment levels, a global study of 157 countries conducted three months after the onset of COVID-19 simulated the likely effects of the pandemic on a series of education outcomes.⁸² Results were reported for three scenarios (optimistic, intermediate, and pessimistic) assuming three, five and seven months of school closures. Bearing in mind that before the pandemic 53 % of children in low- and middle-income countries were living in "learning poverty" (unable to read and understand a simple text by age 10), the results of closures for five months under the intermediate scenario suggested (a) the loss of Learning Adjusted Years of Schooling (LAYS) could be as high as 0.6 years compared to the global average of LAYS of 7.9 years; (b) the reduction in PISA test scores could be 16 points from its level of 440 in 2019; (c) the share of lower secondary school aged children who are below the minimum level of proficiency could increase by as much as 25 % (from 40% to 50%); and (d) nearly seven million students from primary up to secondary education could drop out due to the income shock of the pandemic.

A recent study (March 2022) confirmed that the learning losses across the world have been real and significant. On average the losses came to a six months' worth of learning.⁸³ Another recent study estimated that, due to the closure of schools during the coronavirus pandemic, a 12-year education may amount to what was previously 7.4-year education.⁸⁴ Another global study simulated that, if learning in Grade 3 is reduced by one-third, which roughly corresponds to the length of school closures, by the time they enrol in Grade 10 they would have fallen a full year behind where they would have been without COVID-19.⁸⁵ Another more immediate effect is likely to be the increase in the likelihood to drop out-of-school and a decrease in attending

⁷⁹ Nugroho et al. 2021.

⁸⁰ UNESCO. 2020b.

⁸¹ UNESCO. 2022b.

⁸² Azevedo et al. 2020.

⁸³ Patrinos, Vegas and Carter-Rau. 2022.

⁸⁴ Molineus. 2022.

⁸⁵ Lekfuangfu et al. 2020.

post-secondary education. An earlier review that summarized the evidence of student learning loss in eight high-income countries found that learning losses occurred across a range of subjects, grade levels, and geographical regions but not all students experienced a learning loss, nor did all students experience a loss in all subjects.⁸⁶

Country specific estimates of learning losses are illuminating. In the United Kingdom, it has been estimated that primary school children have fallen behind in mathematics by over two months relative to the previous year's group.⁸⁷ In Portugal, after the school closures there was a significantly higher than normal percentage of students with a reading level on or below the tenth percentile of scholastic achievement. In one case (Spain), learning progress actually improved but, unlike in the case of the aforementioned study, the students were university students in Science, Technology, Engineering and Mathematics subjects at one university.⁸⁸ One can assume that students studying such subjects at university level came mainly for higher socioeconomic groups.

While the evidence so far suggests that the learning losses in months are up to double the length of school closures, they may rise to much more than that, such as three to four times to the point that “two decades of growth [are] wiped out by the two years of the pandemic.”⁸⁹ Such projections can be debatable, but the learning (and developmental) losses of the pandemic and school closures have been based on assessments of school-age children. In other words, how the crisis has impacted children below the age of five remains unknown partly because these children are too young

to be tested. Either way, many children who dropped out of schools may never get back what they missed.

Distributional Effects

The losses from disruptions in pre-primary schooling are heavily concentrated in low- and lower-middle-income countries.⁹⁰ At the preschool level, closures averaged 78 days in 2020 — but only 46 days in high-income countries, compared to 122 days in lower-middle-income countries. Only 25 % of low-income countries compared to 96 % of high-income countries reported being able to meet regular spending levels or make extra expenditures.⁹¹ The allocation to education in total COVID-19 stimulus packages also varied by country income as indicated by regional figures. In Europe and North America, the share of additional expenditures allocated to education were nearly 4 % (3.92 %) compared to less than 1 % in Asia and the Pacific (0.41 %), LAC (0.64 %) and Africa (0.82 %).⁹² Even within the more homogeneous member states of the European Union, countries have experienced the COVID-19 crisis differently according to the characteristics of their educational systems.⁹³

From the perspective of students, learning losses due to school closures affected vulnerable children disproportionately.⁹⁴ This is also the case for less educated workers in lower paying jobs and workers in the informal sectors.⁹⁵ Indeed, learning losses across the world increased unevenly, with some groups much more impacted than others.⁹⁶ Even in France, where the evidence suggests very low levels of learning loss on average, there was still inequity, with more disadvantaged students suffering more severely impacted.⁹⁷

86 All surveyed countries were high income countries: Australia, Belgium, Germany, the Netherlands, Spain, Switzerland, and the United States (US). On average school closures lasted between eight and ten weeks. See Donnelly and Patrinos, 2021. For information on Europe and Central Asia see Patrinos et al. (2022).

87 The Economist. 2022.

88 For individual, albeit also early, estimates of the economic effects of school closures due to COVID-19, see Andresen, Bensnes, and Løkken (2020) for Norway; Dorn et al. (2020) for the US; Abel and Deitz (2020) for the United Kingdom (UK), and Frenette, Messacar, and Handler (2020) for Canada.

89 This prediction is for the US. See Mathews (2022).

90 UNESCO-UNICEF-World Bank-OECD. 2020.

91 UNESCO, (2021d); UNESCO-UNICEF-World Bank-OECD, (2020).

92 UNESCO (2021e). For earlier estimates, see Al-Samarrai, Gangwar and Gala (2020).

93 Zancajo, Verger and Bolea. 2022.

94 Spiteri et al. 2022.

95 Examples from Argentina, Greece, Latvia, Mexico and Venezuela. For other global studies of the impact of COVID-19 on learning loss, see Azevedo et al. (2020) and Kaffenberger and Pritchett (2020).

96 Patrinos, Vegas and Carter-Rau. 2022.

97 Thorn and Vincent-Lancrin. 2021.

In the UK, poor children (those who received free school meals) have slipped by an additional half a month. Those in London were 0.8 months behind where they should be but those in the less prosperous North England were three months behind.⁹⁸ In Portugal since the onset of the pandemic, the performance of students from low socioeconomic status has seen the most negative impacts.⁹⁹ In the Netherlands school closures caused an average learning loss of 2.47 months in mathematics and 2.35 in reading comprehension in schools serving a high percentage of students from disadvantaged backgrounds.¹⁰⁰ In a review of high-income countries, learning losses were more concentrated in primary students than secondary students, as primary students are less able to independently pursue learning due to the differences in developmental and cognitive abilities.¹⁰¹

With respect to disadvantaged schools, the initial loss in “unfinished learning” during the first year of the pandemic has been higher.¹⁰² A report of the European Commission examined the impact of the pandemic on children from at-risk households (those from lower socioeconomic backgrounds whose parents have limited financial and academic resources to support learning from home, and those from fragile family contexts where support and care for the child is limited) as well as on children in refugee, migrant, and minority

households.¹⁰³ Both groups of children have lower levels of education achievement and the households they live in account for the bulk of informal economy households. The report painted a bleak picture of the consequences of the pandemic (so far) arising from interlinked effects on learning due to closures, and the switch from face-to-face to distance education that has at times been slow or inefficient and could not benefit disadvantaged students. It noted that the pandemic has already resulted in reversals in academic progress.

Similarly, in Australia the losses were associated with geographical location especially among students from low socio-educational backgrounds as measured by their parents’ occupation and education, and the school’s proportion of indigenous students. In the aforementioned study of high-income countries, half of them experienced an increase in within school inequality by 17 % for math, 20 % for language and as much as 60 % among students from uneducated homes (in the Netherlands). In developing countries, the adverse effect of the pandemic on learning can be particularly pronounced among informal households that are less likely to make use of distant learning (Table 4).

Table 4: Household Access to Technology (% of all households)

Income	Mobile	Radio	Landline	TV	Internet	Computer
High-income countries					79	81
Upper middle-income countries	92	51	19	83	41	44
Lower middle-income countries	84	44	7	59	19	21
Low-income countries	75	49	3	35	6	7

Source: Constructed from UNICEF https://public.tableau.com/profile/unicefdata#!/vizhome/EduViewv1_0/home

⁹⁸ The Economist. 2022.

⁹⁹ Sucena, Silva and Marques. 2022.

¹⁰⁰ Tessa et al. 2021.

¹⁰¹ Donnelly and Patrinos. 2021.

¹⁰² According to a US study, the impact of the pandemic on K–12 student learning was significant, leaving students on average five months behind in mathematics and four months behind in reading by the end of the school year. This loss increases by one month for students in “black schools” and two months for those in low-income schools. McKinsey. 2021.

¹⁰³ Koehler, Psacharopoulos and van der Graaf. 2022. Report to the European Commission.

At the other end of the socioeconomic spectrum, higher levels of education in parents has been found to reduce the adverse effects of pandemic-induced school lockdowns on children.¹⁰⁴ These parents have access to more resources and knowledge and tend to be more active in child-rearing.¹⁰⁵ In some cases, parents from higher socioeconomic groups hired private tutors for their children,¹⁰⁶ which, combined with their ability to telework and support their offspring's home learning mitigated the learning loss.¹⁰⁷

Compared to their less privileged counterparts, such children have managed to compensate, even overcompensate, for the negative effects of school closures.¹⁰⁸

The evidence suggests that the impact on students from low-income countries will be greater than that among students in high-income countries. For poor students in poor countries, any loss will be devastating. Irrespective of the country they live in, students from lower socioeconomic groups will be more affected than their better off counterparts. Even among students who have enrolled at the same education institution and attended the same subjects, the labour market outcomes for those from lower socioeconomic group are inferior.¹⁰⁹

Effects outside Basic Education

The COVID-19 pandemic has seriously disrupted the skilling, upskilling and reskilling of employees, apprentices, and interns in all types of enterprises and organizations around the world.¹¹⁰ By the end of the first year of the pandemic many firms had been suspended or closed. TVET enrolment suffered during the COVID-19 pandemic because up to 80 % of programmes focus on practical skills, which require in-person practice.¹¹¹

A global survey of enterprises in mid-2021 found that four out of five enterprises had completely or partially suspended their operations in enterprises with the impact being greater on micro, small and medium-sized enterprises (MSMEs) than it was on large enterprises where the incidence was 65 %. Practically all enterprises (95 %) of large enterprises introduced work from home measures compared to only 75 % of MSMEs. The interruptions to skilling, upskilling and reskilling were a natural outcome: Training was interrupted for 90 % of employees, 86 % of apprentices and 83 % of interns/trainees with the MSMEs impacted the most. Nearly half of enterprises and organizations stopped paying a stipend or wages to apprentices and interns/trainees. Although online learning increased following the lockdowns and social distancing measures, training delivery faced considerable challenges arising mainly from infrastructure issues (e.g., inadequate Internet connectivity and poor access to computers). Other factors were limited digital literacy among users; a lack of adapted training programmes and resources; and the difficulty of delivering practical training online. This last factor was the most significant challenge to training apprentices and interns/trainees online.

104 Bonal and Gonzáles. 2020.

105 Blasko and Schnepf. 2020.

106 Bayrakdar and Guveli. 2020

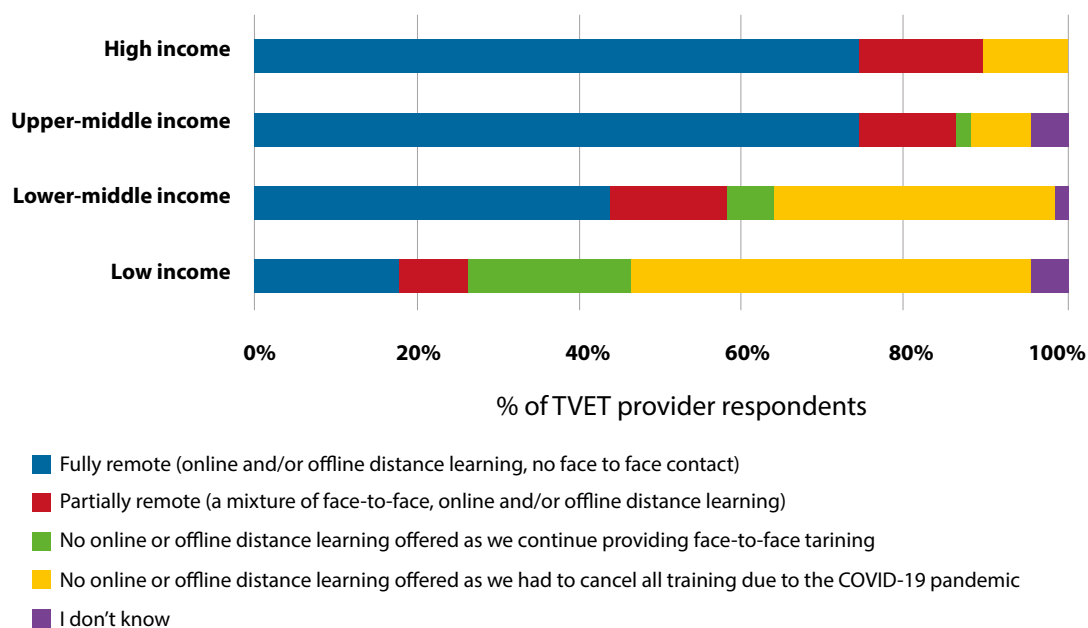
107 Bol, 2020; Zancajo, 2020.

108 Andrew et al., 2020; Bayrakdar and Guveli, 2020.

109 For example, in the UK students from higher income families have median earnings which are around 25 per cent more than those from lower income families. For the few from the former group that managed to enrol in the same university and graduated in the same subject, there is still a significant difference of 10 percent. (Institute of Fiscal Studies, 2016).

110 ILO et al. 2021.

111 UNESCO. 2022a. pp. 253.

Figure 1: Training delivery modalities during the COVID-19 pandemic by incomes group.

Source: ILO-UNESCO-World Bank online survey, 2020

Note: Respondents from initial and continuing TVET providers represent 92 countries (985 responses out of a sub-sample of 985 comprising TVET providers only) - high-income (39 responses); upper-middle-income (709 responses); lower-middle-income (192 responses); low-income countries (45 responses); tax percentages (unweighted).

The report noted a significant digital divide between developed and developing countries. (Figure 1.¹¹² It also noted that TVET lacks resilience when faced with a crisis of the scale and nature of COVID-19 arising from factors such as lack of adequate technological infrastructure, digital skills, and pedagogical resources. There can be serious longer-term consequences that can erase the progress that has been made in improving access to and quality of TVET programmes over time if the drop in access to and affordability of TVET programmes continues.

Moreover, the survey found that some partnerships during the pandemic among TVET institutions and schools, telecommunication operators, technology providers and governments resulted in the provision of digital equipment to teachers and disadvantaged learners. While TVET providers in one-third of the surveyed countries reported that they were not using distance learning at all prior to the pandemic, nearly two-thirds reported that they provided courses entirely based on remote learning. This opens up the possibility of new and more promising approaches to training in the future.

Social distancing measures affected not only school-based education but training directly, through the

closures of training centres and, indirectly, through the reduction, if not complete stoppages, of economic activities thereby reducing opportunities for training. The latter is difficult to assess but the impact of the pandemic on centre-based training has been documented in a global survey conducted jointly by the ILO, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank in mid-2020.¹¹³ The survey was addressed to representatives of technical and TVET providers, policymakers, social partners and representatives from career counselling and employment services. The results were used to document the extent of disruption to TVET programmes due to COVID-19 arising from closures of training centres and identify obstacles to continuity in the provision of training.

The results clearly showed the disruption in the delivery of apprenticeships, assessments, and certification as well as the transition to alternative modes of training and assessment such as distance learning modalities. As many as 90 % of respondents reported a complete closure of TVET centres in their countries. In most countries there was a shift towards remote training measures to ensure continuity of training but faced challenges arising from lack of necessary skills and

¹¹² Also notable is that 10 per cent of TVET providers in high-income countries provided no online learning.

¹¹³ ILO. 2021b.

technological infrastructure including electricity, Internet connectivity and devices, low bandwidth, and the lack of network capacity to cope with increased data usage while similar problems were encountered by the trainees. These constraints were found not only in developing countries but also in high-income countries with substantial urban/rural differences. An additional issue was the lack of appropriate pedagogical resources to continue to provide training aggravated by the sudden loss of income from sources such as tuition fees and the income-earning activities of TVET centres.

Practical training was particularly affected as it was not simple to deliver through remote modalities. Apprenticeships and internships were disrupted due to the closure or reduced operations of many of firms affecting many occupational areas. In addition to the practical training modules provided in workshops and laboratories, TVET programmes often include a work-based learning component where trainees participate in practical training at the workplace in the form of apprenticeships and internships. Even when essential enterprises in the construction, manufacturing, and personal services sectors remained open, on-the-job training activities either stopped or continued in restricted due to the enforcement of strict health and safety measures. Placements were also cancelled, and several countries reported complete suspension of work-based learning activities with no clear strategy for restarting activities. Certifying exams and assessments were postponed and, in some cases, cancelled. This was particularly so in assessing learning outcomes related to practical skills developed in workshops or laboratories, or through work-based learning and apprenticeships.

Effects on Career Guidance Services

The demand for career guidance services has increased worldwide under the COVID-19 pandemic. However, such services have been adversely affected by the lockdowns and social distancing.¹¹⁴ While several aspects of career guidance services were at least in part successfully adapted, others were dramatically reduced, especially the highly individualized activities such as counselling. In many cases the provision and operation of career guidance services was transferred online but to lower-tech solutions, such as telephone support.

Generally, the effects of the lockdowns were more limited in higher-income countries than in developing countries, due to the existence of strong digital-based services already widely used by the population.

Narrowing the digital divide both between (and within) countries remains a huge challenge. Only 25 % of low-income countries compared to 96 % of high-income countries reported regular or extra expenditure on digital learning.¹¹⁵ Those in households with low-income faced limited access to digital services and lower capacity to benefit from them, due to lower literacy and digital skills. People with higher levels of vulnerability became even more difficult to engage in online activities when compared to face-to-face engagements that were more common before the pandemic.¹¹⁶ Students in their final year of schooling were particularly affected by the reduction in career services.

COVID-19 has deeply disrupted demand for workers and accelerated patterns of automation and digital transformation that are radically changing the character of work and increasing risks of joblessness and precarious employment. What is more, globalization, demographic trends, and growing efforts to create greener economies are changing the character of demand for skills in labour markets around the world. Career guidance has an essential part to play in recovery plans and in helping people of all ages and backgrounds to navigate such disruption. Evidence reviews give policymakers confidence that investment in career guidance can provide positive economic, educational and social returns to both individuals and society. International data shows, however, that in too many countries access to guidance is insufficient, particularly for those who are in greatest need.¹¹⁷

¹¹⁴ da Fonseca and Katayama (2021); CEDEFOP (2020; 2021).

¹¹⁵ UNESCO, World Bank, UNICEF, & OECD. 2021.

¹¹⁶ UNESCO. 2021c.

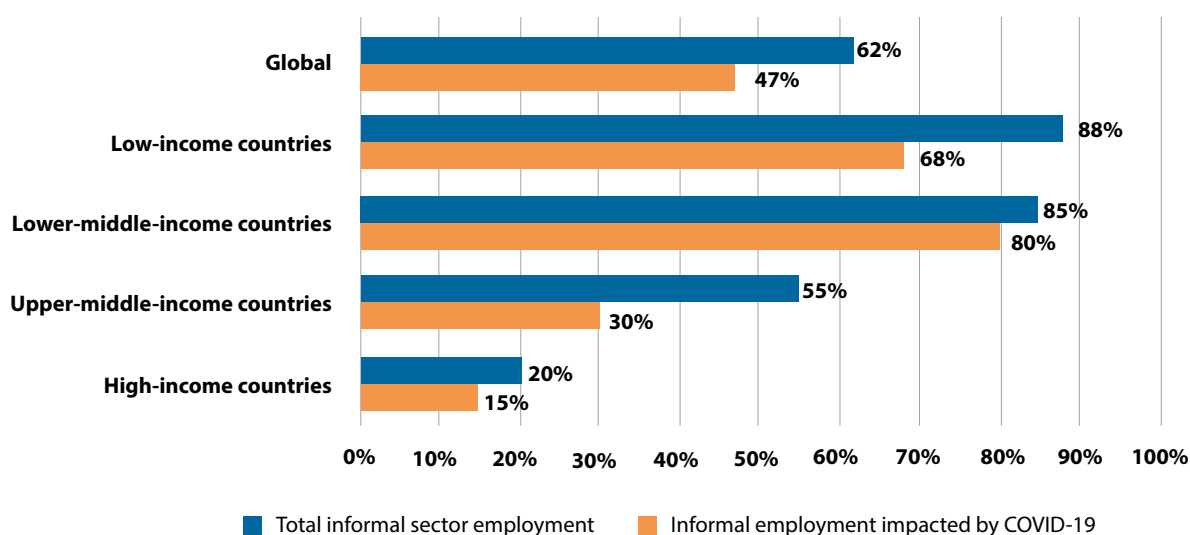
¹¹⁷ CEDEFOP. 2021.

Effects on the Labour Market

An early estimate reported that 114 million jobs were lost globally in 2020 relative to 2019.¹¹⁸ A more recent estimate indicated that one-third of workers stopped working and two-thirds of workers lost income since the implementation of lockdown measures.¹¹⁹ The impact on the informal economy alone is shown in Figure 2. The COVID-19 pandemic has reversed some of the gains in economic development and poverty reduction achieved in recent decades and has accentuated the trend towards non-standard forms of employment in the gig economy.¹²⁰ There have also been specific effects on certain groups of workers. These include older workers who prematurely left the labour force

after they lost their jobs during the lockdowns as well as women, particularly mothers with young children.¹²¹ Remittances back to migrants' home countries, which are critical for many informal households and have been found to enable poor households to keep their children in schools, may have decreased by a record 20 % during the first year of the pandemic, a much larger decline than that after the 2008 Global Financial Crisis.¹²² The pandemic has inflicted the largest economic shock upon the world economy for more than a century.¹²³ It has also increased poverty, inequality while global unemployment is projected to increase by more than 10 % compared to 2019 and to reach 207 million persons in 2022.¹²⁴

Figure 2: Impact of COVID-19 on Informal Employment



Source: ILO. 2020. *COVID-19 Crisis and the Informal Economy: Immediate Responses and Policy Challenges*. Geneva, Switzerland: ILO.

The pandemic is bound to also have long-term effects on the labour market. The involuntary underinvestment in education that followed the pandemic can reduce the rate of progression to higher education levels and affect the occupational choices of new entrants into the labour market compared to those that they would have

otherwise made. Also new entrants, even those who graduated in 2019 or 2020 and have largely been spared from the closure of education institutions, are likely to face lower wages compared to those in the immediate past, as the typical case is for those who enter the labour market in a recession year. Such a loss in earnings could

118 ILO. 2021C.

119 Palacios-Lopez et al. 2021.

120 ILO and OECD. 2020.

121 For example, the evidence in the US shows that as much as 70 % of the difference between the pre-pandemic and latest estimate of the level of employment is accounted by older workers' and women's withdrawal from the labour force. This difference is reduced to 45 % in the UK. Source: Fabrizio et al. 2021.

122 Quinn. 2020.

123 World Bank. 2022b.

124 ILO. 2022a.

last a decade or more.¹²⁵ In the longer run, as education is one of the strongest predictors of the health of a country's future workers, learning losses can permanently reduce productivity and, with it, workers' earnings.¹²⁶

A recent study simulated the earnings loss on the assumptions that school closures end after four months, with schools re-opening in the new academic year, and that school quality will not suffer. In this scenario, the present value of the cumulative lifetime earnings loss was estimated at more than US\$11,000 or 65 % of the current global average of annual earnings that is around US\$17,000 (**Table 5**).¹²⁷ When the lifetime losses are expressed in terms of annual loss of current earnings, they

come to around 4 %. If this wage loss is not exceedingly elevated, it certainly contributes to push low paid workers and the households in which they live below the poverty line. It should be noted that the productivity of informal sector workers is only one-third compared to that among formal sector workers.

Another estimate for the current generation of students brings the economic cost of the learning losses from COVID-19 to \$17 trillion in lifetime earnings.¹²⁸

Pre-primary school closures in 2020 alone have been estimated to cost the current cohort of pre-primary-age children US\$1.6 trillion in lost future earnings.¹²⁹

Table 5: Present value of a worker's lifetime lost earnings and GDP losses (US\$)

Country income	PV of lost earnings	Current earnings	Current GDP (trillions)	% of GDP
Low	2,833	4,377	0.3	43
Middle	6,777	10,470	4.8	15
High	21,158	32687	3.4	6
World	11,117	17,175	10.6	12

Source: Psacharopoulos et al. (2021)

When expressed in terms of global output loss, the estimates presented in the table above amount to a present value of lost production of more than 12 % (or US\$10 trillion) of current global output. Another study of 205 countries estimated that it might decrease by 0.8 percentage points on average across the world.¹³⁰

As also shown in **Table 5**, the study found that losses will be greater in low- and middle-income relative to high-income countries. The post-pandemic economic prospects are discussed next.

¹²⁵ Cockx, B. 2016; Altonji, Kahn, and Speer. 2016.

¹²⁶ Viner et al. 2020.

¹²⁷ The present value of future earnings was calculated using a discount rate of 3 %. Reporting figures are in purchasing power parity US dollars.

¹²⁸ UNICEF. 2021.

¹²⁹ Nugroho et al. 2021.

¹³⁰ World Bank. 2022a. This estimate is lower than the current forecast by the World Bank that the global growth rate will decelerate markedly from 5.5 per cent in 2021 to 4.1 per cent in 2022 and 3.2 per cent in 2023.

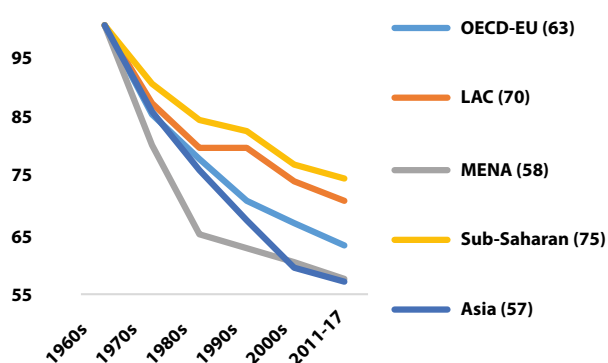
4. Post-COVID Prospects

The informal economy was initially interpreted as a temporary phenomenon that would disappear with the development and industrialization of countries.¹³¹ However, this phenomenon has not only persisted but has started increasing over time, becoming a challenge of international importance by accounting for nearly two-thirds of total employment but only one-third of total GDP. The pandemic has accentuated the effects of globalization and the effects from the emergence of the gig economy on the labour market. The increase in informality has taken place despite the fact that the education level of workers has also been increasing. Differences in earnings are narrowing, save for the rarest skills, reducing the returns for education and subsequently the demand for education especially by poorer households. Even formal middle-class households are losing ground together with the ability

to pay for education that has shown a strong tendency to become privatized partly because public budgets have been shrinking over time.

The fate of the informal sector, especially in developing countries and for informal households, will vary much depending on the future course of the economy and what form the recovery will take. The long-term prospects are relatively well known in the development discourse: the size of the informal economy decreases at the expense of the formal economy over time. Second, the formalization of the economy does not necessarily reduce the informalization of employment. Third, is substantial variation of these two indicators across countries and over time (Figure 3).¹³² However, the adverse impact of the pandemic on growth will continue for some time (Figure 4).¹³³

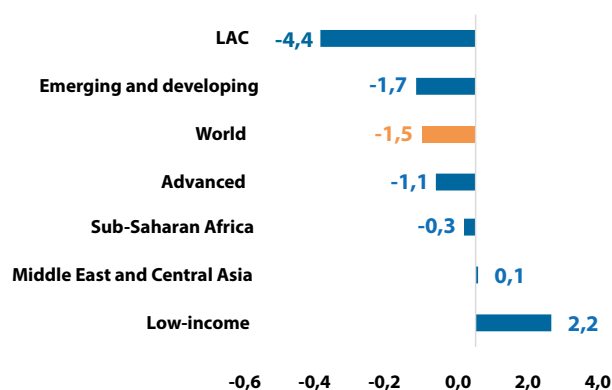
Figure 3: Regional Trends in Informal Economy
(index 1960s = 100)



Note: Figures in parentheses are the share of the informal economy, latest available year.
Source: Elgin. 2021.

The post-pandemic pace of job recovery has been slow.¹³⁴ Even before the war in Ukraine starting in February 2022, global employment in 2022 was expected to be below 2019 levels by more than 60 million workers resulting in an increase in worldwide

Figure 4: Slowdown in Projected Economic Growth
in 2022 (in percentage points)



Note: The figures are the difference between projected growth in 2021 and projected growth in 2022.
Source: IMF. 2022.

unemployment of more than 20 million and an increase in unemployment rate of 9 %. The unemployment rate was still expected to increase by 22 % in low-income countries, 10 % in middle-income countries and 2 % in high-income countries. (**Appendix Table A-1**).

¹³¹ Chen. 2012.

¹³² For example, the percentage of informal employment in Costa Rica increased from 36 % to almost 45 % in the last decade. See Cheng. 2018.

¹³³ The forecasts assume the adverse health outcomes will be declining, vaccination rates will improve worldwide, treatment will become more effective, inflation will subside within a year and expectations to remain "well anchored." See IMF. 2022.

¹³⁴ ILO. 2021c.

The future course of the pandemic is uncertain. However, the unprecedented fiscal response has resulted in higher debt, which is bound to have implications for the economic growth and employment.¹³⁵ The future ability of governments to accelerate economy growth through fiscal measures, an approach that is more relevant for the “demand deficient” developing countries, has been severely curtailed by the massive increase in public expenditures after the onset of the pandemic, which aimed to address the dual health and economic effects on lives and livelihoods. In parallel, public revenues have been reduced following the shrinking of the tax base due to the decrease in economic activities GDP. The increase in public spending and the decrease in the size of GDP as a result of social distancing and supply chain disruptions have given rise to inflation. This has led to the adoption of tighter monetary policies that comes with the predictable cost of slower economic growth and further delaying the already subdued employment recovery despite the continuing decline in unit labour costs since early 2020.¹³⁶

Education planners and informal employment are affected by the GDP losses, and also by the nature of future work. For example, teleworking technology has disproportionately been adopted by formal workers at the upper end of the income distribution in industrial economies, though often under new types of employment informality characterized by an absence of formal employment contracts, increased insecurity and lack of employment protection. In developing countries, workers in agriculture, construction, and several services (such as street sellers and repair workers) such possibilities do not exist. Moreover, electricity coverage may be limited in developing countries that often lack reliable Internet connectivity or, when available it may be preventatively expensive for lower income households.¹³⁷

Even after employment recovers, according to the ILO, many of the new jobs are expected to be of low productivity and poor quality.¹³⁸ While industrialized countries find themselves at the heart of the Fourth Industrial Revolution (4IR), developing countries and within them their informal economies, are trailing behind. The 4IR has joined the physical, digital, and biological worlds and, on the production side, has integrated the global economy through smart technology, automation, new industrial practices, improved communications, and supply chains.¹³⁹ Developing countries and informal households within them are not able to take advantage of new technologies in the immediate future. Even at the rather elementary level, that of the use of electronic mail, developing countries have a long way to go.

As it was recently reported for Asia “the growth of online platforms holds little promise for informal sector firms” though the presence of digital financial services can make it easier for larger informal firms to register as formal businesses.¹⁴⁰ In conclusion, education does not eliminate informality and many educated workers, even at tertiary level, are found in informal employment. Moreover, the recent increase in informality in industrial countries has come primarily from more educated workers. Overall, the extent to which an increase in education and training will lead to a reduction in informality in the future remains to be seen – as this has not been evident in the past (**Box 2**). What is more likely is that there can be a further increase in income inequality thereby reducing the ability of poorer households to invest in the education of their children. Preliminary evidence suggests that global income inequality has risen as a result of the COVID-19 pandemic,¹⁴¹ and the richest 10 % of the global population now accounts for 52 % of the total income, while the poorest half accounts for only 8 %.¹⁴²

¹³⁵ Also uncertain is the impact of the 2022 war in Ukraine on world production, the global financial system, the prices of commodities, food and energy, value chains as well as further effect on employment and inequality.

¹³⁶ IMF. 2022. Figure 2(1).

¹³⁷ The global average of the population who use the internet is 50 per cent (World Development Indicators. 2017.).

¹³⁸ ILO. 2021c.

¹³⁹ An example of the speed at which automation is being introduced is that the number of industrial robots has tripled to more than three million robots by 2020 compared to a decade earlier. In 2020, China alone installed 168,400 industrial robots, amounting to 44 per cent of global installations. Richter. 2021.

¹⁴⁰ World Bank. 2021.

¹⁴¹ World Bank. 2022a.

¹⁴² World Inequality Report. 2022.

BOX 2: Lack of education and skills is only one of the determinants of informality

The ILO's Recommendation 2015 (No. 204) emphasizes the importance of access to education and training for informal economy workers, and that skills development and recognition can help facilitate transitions by providing incentives for formalization. This said, a major challenge for education planners and training authorities is not only to well document the multifaceted nature and evolution of informality over time but also to understand the determinants of informality and, within them, how skills are developed and what role skills can play regarding their impact on productivity and output growth, the latter being a critical factor for transitioning to the formal economy.

Economists have different views about the causes of informality. They can be distinguished between dualists, structuralists, legalists and voluntarists (Chen, 2012). In addition to the difficulty of measuring informality both conceptually and due to lack of relevant and timely statistics, the nature of informality has been changing over time. It is no longer a disequilibrium phenomenon arising from the exodus from agriculture into urban areas. And it has recently been increasing as evidenced from the emergence of new forms of employment associated with globalization and technological innovations.

Is informality a “curse and fate” related to underdevelopment, an “opportunity and choice” among households or the result of government policies arising from excessive regulations or elite capture of the economy? Several recent studies have provided empirical answers to this question suggesting that all these factors can be in operation though in various proportions. Still, some generalization can be made.

First, a study found that the elasticity of informality to economic growth is initially positive in low-income countries and then turns negative for middle-income countries meaning that economic growth reduces informality but not by much: At its maximum impact, a 10 % increase in economic growth reduces the informal economy by 5 %. In high income countries it can increase or decrease with economic growth (Loayza and Rigolini, 2006).

Second, a study of informality in Latin America found that the elasticity of self-employment with respect to a change in relative formal sector earnings is only 0.03 implying that a significant 20 % decrease in the relative attractiveness of formal labour would lead to an increase in the size of the informal self-employed sector by only 0.6 % (Maloney, 1998). If so, one should not expect substantial formalization effects from policies that aim at reducing registration costs.

Third, only a minority of informal firms are potentially productive and formalize once the formal sector's entry costs are removed. Most informal firms either choose informality to exploit the cost advantages of non-compliance (even though they are productive enough to survive in the formal sector) or are too unproductive to ever become formal (Ulyssea, 2018).

Finally, a comprehensive database using a wide range of informality measures from 160 countries over the 1990-2018 period, found, first, that fluctuations in informal-sector output are positively and strongly correlated with those in formal-sector output. Second, that movements in the formal economy have spillover effects on the informal economy and causality runs from the formal-sector into the informal-sector output, not vice versa (Elgin et al., 2021).

One conclusion from these findings is that “stayers” (always formal or always informal) are more common and persist longer than “switchers”. This implies that formalization is a slow process especially in low- and middle-income countries where the size of their informal economies is big. Another conclusion is that improvements in the skills of those working in the informal economy are a necessary, but insufficient condition for formalization as there are other more important determinants of formalization that, in various proportions, include monetary reasons (such as the incentive to avoid paying taxes and social security contributions), structural reasons (lack of infrastructure, capital and technology), regulatory reasons (such as heavy handed government bureaucracy), institutional reasons (including corruption) and quality of governance (weak rule of law and political institutions).

These remarks can guide what the focus of on skills development should be, including as a response to COVID-19: Should it aim to improve productivity of informal firms or try to formalize them? (Choi et al. 2019).

From a skills development perspective, the future trajectory of the economy in developing countries is likely to continue the trend presented in a stylized way in Figure 5 with services being the prominent sector. Economic growth in the high-income countries of today has initially followed a path through early industrialization that absorbed the labour surplus in the informal sectors, mainly agriculture, accompanied by advances in education and skills development while the expansion of services followed later (left panel).

However, the reality in many developing countries today is what can be called “premature deindustrialization” in the presence of continuing informality within manufacturing and low labour absorption capacity in developing countries where the natural resource sector is sizeable (right panel). Though not shown, the share of global value chains (GVCs) in global output has been increasing over time but accounts for only a small share in the total labour force particularly in low-income countries.¹⁴³

Figure 5: The Changing Paradigm of Economic Development

A. The traditional development model

	agriculture	manufacturing	services
informal			
organized			

B. Most developing countries today

	agriculture	manufacturing	services
informal			
organized			

Source: Rodrik (2022).

Under these conditions that are expected to continue for some time, not only is education an important factor for imparting general and soft skills but, as the country cases presented earlier demonstrated, developing countries should continue integrating their skills development systems keeping basic education at their centre. Whether this will be adequate to ensure more and better employment in the near future is to be seen as labour demand may not change accordingly.¹⁴⁴ A study that examined employment changes by level of education across the world found that employment among the highly educated has increased since the 1990s, remained rather constant among those with intermediate education but declined drastically among those with low education.¹⁴⁵

All in all, labour demand is increasingly getting biased against the lower educated who form the bulk of the labour force in developing countries. Moreover, labour demand will continue to take advantage of the persisting labour surpluses in low-income countries thereby suppressing wages even for workers who are well educated but are employed in jobs that do not require high skills. And according to a recent IMF study, absent significant and sustained external financing, the persistence of loss of learning effects on labour productivity is likely to make the post-COVID recovery more attenuated and more expensive than many contemporary analyses suggest¹⁴⁶

¹⁴³ Pahl et al.2022.

¹⁴⁴ Rodrik. 2022.

¹⁴⁵ Reijnders, Timmer and Ye. 2021.

¹⁴⁶ Buffie et al. 2022.

5. Policies

It is too early to say how future public spending on education and training will be affected by the diversion of funds to health services and social protection following the pandemic, the rising levels of public debt to meet the response to the pandemic and, more recently, the war in Ukraine. The looming inflation and the fiscal austerity efforts to contain it have already reduced the rate of economic growth and will increase unemployment (and household incomes) before they had an opportunity to recover their pre-pandemic levels. Household finances are threatened by further losses of income and the purchasing power of what they are left with. This reduces their ability to finance investments in the human capital of their members, young and older. These effects are particularly pronounced in developing countries and among informal households. Skills, from education to lifelong learning, are increasingly supplied by private and non-state providers and, though this is a welcome addition, it leaves out those who cannot afford to pay user fees. Scholarship aid has not kept pace with the increasing demand for education among poorer students, thereby restricting the opportunities among the academically capable students.¹⁴⁷ Public support to correct for learning losses, bringing children who dropped out of education back to schools, and enrol the millions who are out of school, is likely to fall short of what is required. If post-pandemic informal family-based learning increases its share in early childhood care and basic education, future knowledge and skills building are likely to be adversely affected. Developing countries face the additional challenge to cater for population increases and rising urbanization rates both of which are likely to increase informality in the near future.

The current situation calls, as it has done in the past but in a more pressing way now, for prudent use of public funds and greater partnerships towards the creation of effective, equitable integrated education and training systems. In doing so, policymakers can take into account one side effect of the pandemic, probably the only one, that is, the acceleration of the use of digital applications and social media platforms. Schooling is a strong predictor of ICT skills in low- and middle-income countries, with girls scoring higher in overall digital literacy.¹⁴⁸ As such, an immediate priority is to achieve

universal enrolment in basic education that would have an immediate impact on the millions of children who are not in school, reduce inequality in general and gender inequality in particular, and make all future workers able to participate more fully in the increasingly digitalized world by gaining access to up-to-date information, digitalized public services and new markets.

The proposals below provide an indicative list of policy choice that can be considered for addressing the impact of the pandemic while laying the foundation for the future development of formal and informal education and training leading to a “new” normal.

Education: Old Policies Still Relevant

In the short term, the adverse effects of the pandemic should be addressed in a decisive way. The pandemic has resulted in learning losses that have been impacted mostly on students from underprivileged backgrounds. Although it is too early to assess the extent of early dropouts from schools, even if this is a small rate initially, it can impede progression to higher grades. Even before the pandemic, the dropout rate from a lower secondary general education was, on average, 27.5 % in low-income countries and 13.3 % and 4.8 % in middle- and high-income countries, respectively.¹⁴⁹

The well-tested path to skills development is no other than through universal enrolments at least in basic education. Past trends have been encouraging with respect to enrolments, which have been increasing over time. More emphasis should be paid to the quality of education in view of the increasing inequality between publicly and privately provided education, and the resulting inability of informal households to participate in the education race.

There are numerous policies to increase education enrolments and improve the quality of education, which are well known. The outcomes of the policies depend on how they are implemented at country level across the complex nexus between curricula, teaching methods, student progression, teacher qualifications, school governance and country priorities than vary from creating productive citizens to promoting nationalism.

¹⁴⁷ UNESCO. 2022a. pp. 276.

¹⁴⁸ *ibid.*

¹⁴⁹ Based on the “cumulative drop-out rate to the last grade of lower secondary general education” indicator published by the UNESCO Institute for Statistics. Data are available for 112 economies.

Education financing can critically affect progress in education. Though the ability and willingness of governments to fund education in the future remains to be seen, there are several measures that can support poorer households to participate in the education race by reducing the cost of education. These include fee waivers, conditional cash transfers, scholarships, school meals, reductions in the costs of study materials and expanding the use of technology in schools. In parallel, there should be public support for lifelong learning especially for informal economy workers and poorer households.¹⁵⁰

It is therefore important to immediately prioritize public spending on education for at least maintaining the pre-pandemic *rate* of education enrolments (given that the school-age population increases over time) and addressing the leaning losses that have already taken place and may also continue for some time. Especially within secondary education the relatively new awareness regarding the benefits of delaying vocationalization should be put into practice and, when offered, vocation education should balance the theoretical and practical aspects of learning, with the latter being offered in close consultation and with the participation of employers.

Training: Past Reforms Should Continue

Like in the case of education, the principles of effective training are known especially those relating to demand-driven training and, in the case of government provided training, the substantial role the private sector can play for the co-financing and co-management of training. These general principles of training and how they apply to informal workers are not going to change either during and soon after of the pandemic or in the longer run.

The issues of what type and how long training should be and for whom are country specific. They become even more complicated in the case of workers in informal households. As **Table 2** showed, there are 10 different types of employment informality. Each may require different types of training and, to the extent that it does, this can vary by location as well as the gender and other demographic and economic characteristics of informal workers.

Identifying training priorities for informal households therefore requires country specific information regarding

the status of the economy and the causes of informality. Critical in this respect would be a better understanding of how *informal* skills development takes places. Yet informal skills development is a largely unknown quantity and, when it is, it is generally ignored by the national training authorities. This important deficiency is now increasingly addressed in several ways including a shift towards shorter and more modular training delivery. Additional improvements in training can result from being offered at a time that it will not take informal workers away from work; the introduction of competency-based pathways to acquiring skills that can, at a minimum, increase their productivity and possibly broaden future options for exiting informality; offering training incentives and introducing awareness campaigns; expanding business advisory and employment services; and shifting financing to results-based funding that can make training providers more accountable for training outcomes, especially those servicing people in the informal economy.

Lifelong Learning

In the past, school-based vocational and technical education, as well as institution- and time-based training and formal apprenticeship schemes used to be treated as if they occupied separate compartments in the real world. This might have been justified then as the linkages between different economic activities were weak following the sharp differences that existed between production in the traditional and modern sectors, and the geographical distances between rural and urban areas.

This is less so today as production is becoming more integrated and locations become more interlinked. Divisions within the education and training systems and between them are no longer justified in the emerging integrated and interdependent nature of the national economies and across the globalizing world. This has made all types of work-related *learning* relevant no matter from which of its many various education and training paths it is derived.

In fact, there has been an international shift in development thinking and practices favouring general education and more flexible forms of training at the expense of pre-employment narrow skills development. In addition to increased efforts to identify the characteristics, measure the extent and documenting the trends of various forms of informality, practically all international organizations and many countries

¹⁵⁰ Hofmann et al. 2022.

now recognize the role of formal, informal, non-formal and lifelong education as well as the acquisition and development of skills through formal and informal training, including formal and informal apprenticeships.

Globally, more and more countries have started recognizing prior learning and are strengthening their systems of skills validation and certification so that skills acquired informally and non-formally can be more easily recognized.¹⁵¹ NQFs can set the criteria against which skills and competencies developed in non-formal and informal settings should be evaluated and which certificates should be attributed to people mastering them. In addition to the recognition of skills acquired through time-based training, formal apprenticeships and competency-based qualifications, the recognition of prior learning approach supports non-formal and informal learning in national qualifications systems, encourages certification for non-formal education and training, and harnesses technology to certify skills.¹⁵² An additional benefit of recognition of prior learning is that it can lead to the international harmonization of skills recognition and certification.¹⁵³

Concluding Remarks

Following the adverse impact of the pandemic on learning and skills development, the immediate priority for informal households in developing countries, and not only, should be to quickly reverse the losses and get back to the pre-pandemic normal while aiming for a “new normal”. The new normal would require that nobody is left behind and that all will be able to utilize their full productive potential. In this respect the unequal distributional impact of the pandemic should receive special attention as it will impact not only informal households but also the prospects for economic growth.

In addition to the promotion of good quality general education, a new approach to learning and skills development calls for:

- In addition to the promotion of good quality general education, a new approach to learning and skills development calls for:

- the creation of flexible pathways to lifelong learning through competency-based approaches;
- the development of national frameworks for the recognition and certification of skills;
- the recognition of prior learning including that acquired through informal apprenticeship systems;
- the early identification of required skills for the transition to digital and green economies,
- the development of career guidance;
- the continuous upgrading of TVET teachers to be able to use the new curriculum requirements for the enhancement of STEM and entrepreneurial skills that emerging forms of green and digital economies would require;
- the institutions to improve governance, and seek more collaboration with the private sector in order to develop skills that will increase productivity and promote inclusive societies and gender equality;
- the integration of rights-based education for global and participatory citizenship and the promotion of TVET institutions as places for social integration, cohesion and green citizenship;
- the advancement of national, regional and global networks and partnerships to share knowledge and encourage policy learning in line with UNESCO’s call for renewed international solidarity and cooperation paving the way to a new social contract, increased assistance, and technical cooperation. (Footnote¹⁵⁴ UNESCO. 2021a.)

Finally, as the discussion on the difficulty for measuring informality revealed, the role of labour market information systems and capacity to analyse skills in the informal economy cannot be overrated.¹⁵⁵ Strengthening both can provide policymakers with the necessary facts to correctly identify the characteristics and causes of informality and their relationship to the formal the economy. It is the formal economy which is the key driver for growth and which informal households aspire to join.

151 ILO (2022b); OECD (2018a; 2018b).

152 Recognizing prior learning (RPL) – Skills acquired in the informal economy remain recognized by informal economy actors only. Opening pathways to further learning opportunities and to formal sector jobs requires the engagement of actors in the formal economy and mechanisms to validate and recognize skills acquired.

153 OECD. 2018a; 2018b.

154 UNESCO. 2021a.

155 Palmer. 2017.; Adams et al. 2013; Betherman and Khan. 2015.; Říhová and Strietska-Ilina. 2015.

Annex 1: The global profile of informality

Globally, the informal sector accounts for nearly two-thirds of employment and one-third of output.

Regional and intraregional differences: The share of informal employment varies across world regions. It is highest in Africa (86 %), followed by Asia and the Pacific and the Arab States both at nearly 70 %. It is lower in the Americas (40 %) and in East Europe and Central Asia (25 %) where less than half of employment is informal. The differences in informal employment across countries within regions are equally large. In sub-Saharan Africa the share of informal employment ranges from 33 % in South Africa to 82 %, in Latin America from 40 % in Uruguay to 75 % in Bolivia, in the Middle East and North Africa from 31 % in Turkey to 59 % in the Occupied Palestinian territory, and from 30 % in the Republic of Korea to 85 % in India.

Informality by sector: The agriculture sector has the highest share of informal employment (94 %), with the industry sector being second (57 %) followed by the service sector (47 %). The informal sector accounts for the majority of informal employment (1.7 million or 52 %). This is followed by informal workers in the formal sector (220 million nearly 7 %) and is composed primarily of employees and to a lesser extent by contributing family workers. Informal employment in the household sector officially accounts for only 6.7 million globally (2.5 % of all informal employment) but their number may be undercounted. Globally, informal employment accounts for more than four of five own-account workers, one of two employers, two of five employees and the totality of contributing family workers.¹⁵⁶

Informality by employment status: The highest shares of informal workers are found among own-account workers (45 %) followed by employees (36 %), contributing family workers (16 %) and employers (below 3 %). There are significant differences in the incidence of informality even among the more homogeneous group of employees: Globally the highest share of informal employment is found among

temporary part-time workers (64%) and the lowest in permanent full-time workers (16 %) .¹⁵⁷ However, as the share of employees in total employment increases during the course of development, so does the share of formal employees, for example, the share of formal employees in developed countries has now reached just over 50 %.

Gender differences: Globally, informal employment constitutes a greater share of employment for men than women, though this can be due to undercounting female work. Out of the 2 billion workers in informal employment worldwide, just more than 740 million are women¹⁵⁸ Within each gender, 63 % of men are in informal employment compared to 58 % of women. However, in some cases these shares are reversed. In three out of the seven conventionally defined regions, informal employment as a share of total employment is a higher from women than men by six percentage points in sub-Saharan Africa, four percentage point in South Asia and two percentage points in LAC.¹⁵⁹

Younger and older workers: Informality is more prevalent among younger (below 25) and older workers (at and above 65). More than three-quarters of them are in informal employment, compared with 57 persons of those aged 25–64. Of some 362 million young people in informal employment worldwide, more than half are found in sub-Saharan Africa and Southern Asia.

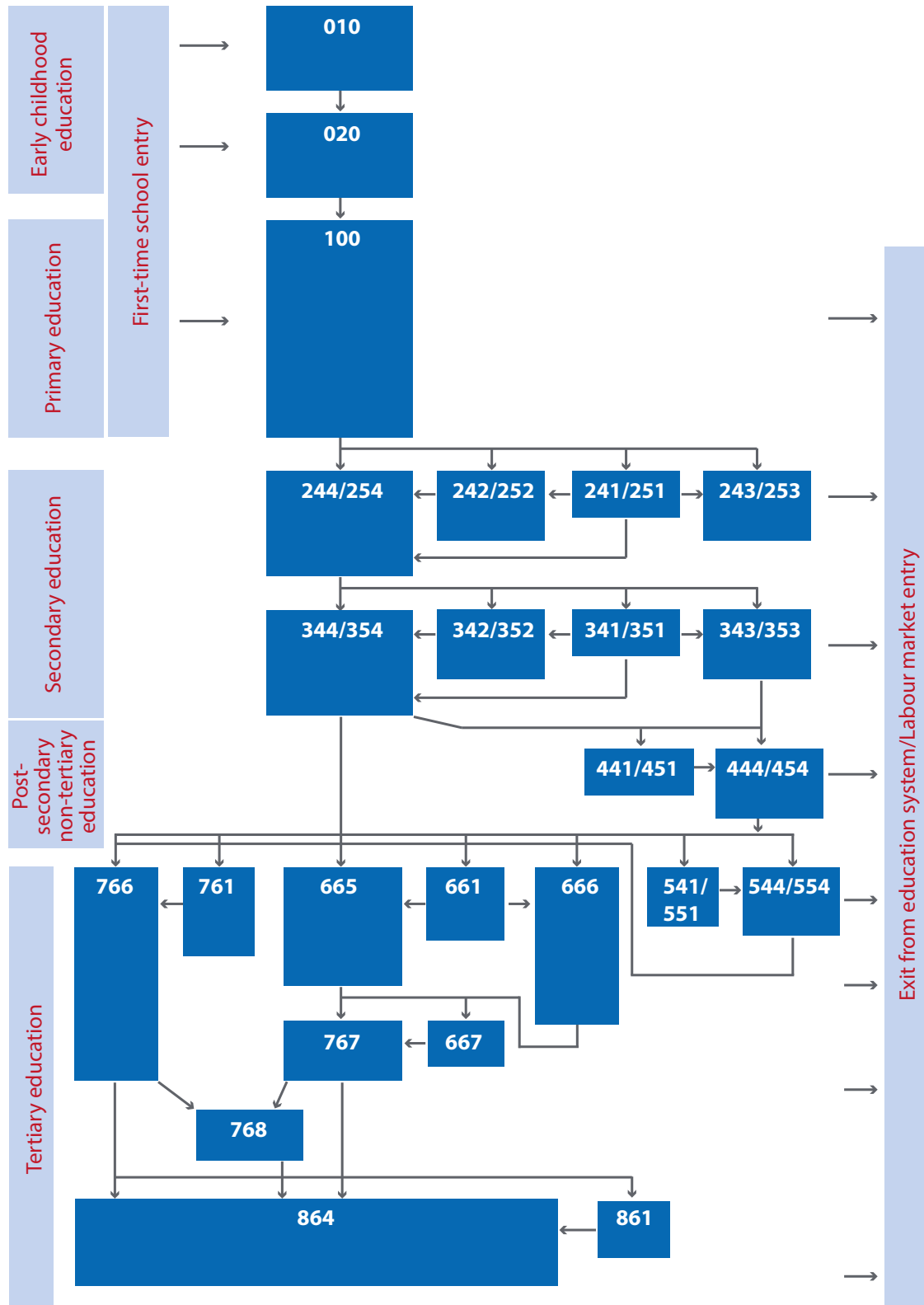
¹⁵⁶ OECD and ILO. 2019.

¹⁵⁷ ILO. 2018.

¹⁵⁸ Bonnet et al. 2020.

¹⁵⁹ The other regions are East Asia, North America, East Europe and Central Asia, and North Africa/Arab States.

Annex 2: Potential education pathways



Note: For codes see Annex 3.

Source: UNESCO. 2011. ISCED Mappings. Institute of Statics

<http://uis.unesco.org/en/isced-mappings>

Annex 3: ISCED Codes

010	Never attended an education programme
010	Early childhood educational development (incl. some early childhood education under 020)
020	Pre-primary education including some early childhood education (020) and some primary without completion (030)
100	Primary education
Lower secondary	
241	insufficient for level completion or partial level completion, without direct access to upper secondary education
242/252	Lower secondary, partial level completion, without direct access to upper secondary education
243/253	Lower secondary, level completion, without direct access to upper secondary education
244/254	Lower secondary, level completion, with direct access to upper secondary education
Upper secondary	
341/351	Upper secondary, insufficient for level completion or partial level completion, without direct access to tertiary education
342/352	Upper secondary, partial level completion, without direct access to tertiary education 342/352
343/353	Upper secondary, level completion, without direct access to tertiary education 343/353*
344/354	Upper secondary, level completion, with direct access to tertiary education 344/354
Post-secondary non-tertiary	
441/451	Post-secondary non-tertiary, insufficient for level completion, without direct access to tertiary education
443/453	Post-secondary non-tertiary, level completion, without direct access to tertiary education
444/454	Post-secondary non-tertiary, level completion, with direct access to tertiary education 444/454
Tertiary (first degree)	
541/551	Short-cycle tertiary, insufficient for level completion
544/554	Short-cycle tertiary, level completion
641/651/661	Bachelor's or equivalent level, insufficient for level completion
645/655/665	Bachelor's or equivalent level, first degree (3 to 4 years)
646/656/666	Bachelor's or equivalent level, long first degree (more than 4 years)
647/657/667	Bachelor's or equivalent level, second or further degree following a Bachelor's
Master's	
741/751/761	Master's or equivalent level, insufficient for level completion 640/650/660
746/756/766	Master's or equivalent level, long first degree (at least 5 years)
747/757/767	Master's or equivalent level, second or further degree following a Bachelor's or equivalent
748/758/768	Master's or equivalent level, second or further degree following a Master's or equivalent
Doctoral	
841/851/861	Doctoral or equivalent level, insufficient for level completion
844/854/864	Doctoral or equivalent level, level completion

Appendix Table A- 1: Selected labour market indicators

by country income and in the world, 2019-2022* (in millions, except for the unemployment rate)

	2019	2022	% change
Hours**			
World	2,883	2,908	1%
Low-income	174	186	7%
Lower-middle-income	1,125	1,142	2%
Upper-middle-income	1,127	1,125	0%
High-income	457	455	0%
Employment			
World	3,287	3,325	1%
Low-income	240	257	7%
Lower-middle-income	1,198	1,228	3%
Upper-middle-income	1,262	1,252	-1%
High-income	587	588	0%
Unemployment			
World	186	207	11%
Low-income	12	16	33%
Lower-middle-income	64	72	13%
Upper-middle-income	80	88	10%
High-income	29	31	7%
Labour Force			
World	3,473	3,532	2%
Low-income	253	273	8%
Lower-middle-income	1,262	1,300	3%
Upper-middle-income	1,342	1,340	0%
High-income	617	618	0%
U-rate (%)			
World	5.4%	5.9%	9%
Low-income	4.9%	6.0%	22%
Lower-middle-income	5.1%	5.6%	10%
Upper-middle-income	6.0%	6.6%	10%
High-income	4.8%	4.9%	2%

* 2022 as forecast in November 2021.

**Total weekly working hours in full-time equivalent jobs (FTE=48 hours/week)

Source: ILOSTAT: ILO modelled estimates

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Supporting Education and Skills Development Systems for Informal Workers: Recovery After the Pandemic

Supporting Education and Skills Development Systems for Informal Workers: Recovery After the Pandemic report examines the impact of the COVID-19 pandemic on learning and skills development, focusing primarily at the informal sector in low-income and middle-income economies. It reviews the available evidence beginning mid-2022 with a focus on informal households. Not only has there been a decline in learning outcomes in schools since 2019 and an increase in student dropout rates, but there has been a disproportionate impact on students from disadvantaged households and schools – and this is true even in high-income countries. The effects of the pandemic call for urgent measures to recover the loss in school-based learning for would-be workers and the decrease in skills development among workers which followed the decline in economic activity and a reduction in post-employment training. The policy question is not whether to spend more on education but what the losses from not doing so will be on current and future generations.

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