



SECONDARY EDUCATION IN AFRICA:
PREPARING YOUTH FOR THE FUTURE OF WORK
EXECUTIVE SUMMARY

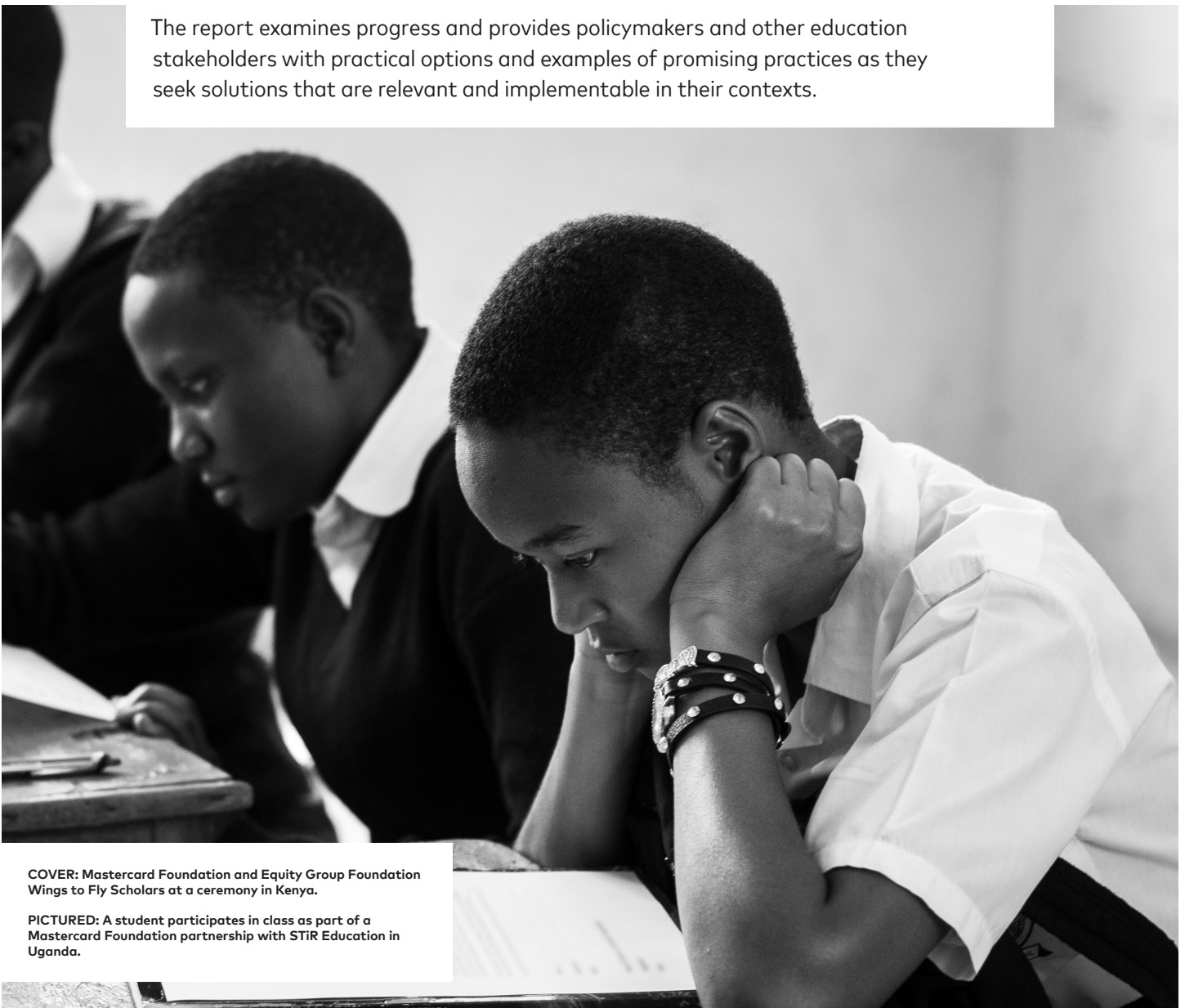
JULY 2020



ABOUT THE SECONDARY EDUCATION IN AFRICA REPORT

Secondary Education in Africa: Preparing Youth for the Future of Work focuses on the role of secondary education in helping African youth prepare for employment and fulfill their potential given the changing nature of work. Background papers covering a range of topics relevant to secondary education in Africa inform the Report and can be accessed here: <https://mastercardfdn.org/secondary-education-in-africa>

The report examines progress and provides policymakers and other education stakeholders with practical options and examples of promising practices as they seek solutions that are relevant and implementable in their contexts.



COVER: Mastercard Foundation and Equity Group Foundation Wings to Fly Scholars at a ceremony in Kenya.

PICTURED: A student participates in class as part of a Mastercard Foundation partnership with STIR Education in Uganda.

WHY SECONDARY EDUCATION? WHY NOW?

The global workforce will increasingly be African. Africa is currently the youngest continent in the world and will continue to be for the next several decades. By 2075, the youth population in Africa will surpass that of India and China combined.¹ Africa's young and growing population positions the region well to realize the benefits of a demographic dividend. Secondary education that prepares youth, and in particular young women, with the skills they need to enter the global workforce will play a critical role in unlocking that potential.

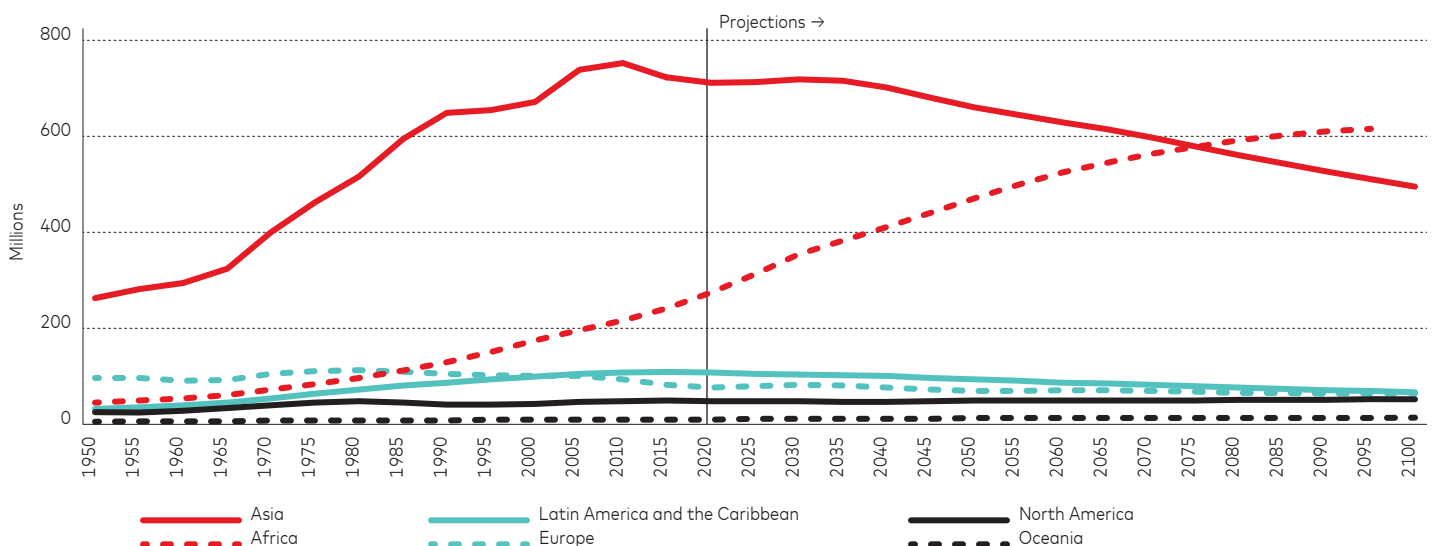
Ensuring that Africa's young people secure employment or can create their own livelihoods is one of the most significant tasks facing African policymakers today.

Young people will need to be prepared with the knowledge and skills sought by employers and to succeed as entrepreneurs, and the majority of youth will need to find work in the informal sector for the foreseeable future.

Digitalization, automation, and technological advances are changing the nature of work globally, including in Africa. Those trends will increase uncertainty and the pace of change, raising the premium on skills that help young people be adaptable, resilient, and creative problem solvers. Endowing youth with those skills will help drive productivity gains in both the formal and informal sectors, improving livelihoods and potentially spurring economic transformation.

Secondary education will be a key platform for young people in Africa to enter the world of work. The vast majority of youth in Africa leave the education system and transition into the world of work before entering tertiary education. Of the 98 percent of young people who enroll at the primary level in Sub-Saharan Africa, only nine percent make it to tertiary education and only six percent graduate.² While preparing students for tertiary education remains critical, secondary education systems will increasingly be called upon to prepare youth to earn an income and lead meaningful lives as citizens of a global world.

AFRICA IS THE ONLY REGION WITH A GROWING YOUTH (15-24) POPULATION



Source: UN Department of Economic and Social Affairs (UN-DESA) Population Division database, accessed August 2019.

Secondary education can contribute to broad-based economic growth through improved labour productivity. That is particularly so in the informal sector, which is characterized by vulnerable employment in household enterprises that face significant obstacles to growth, such as access to finance, markets, technology, and critical skills. Further, the provision of relevant skills through secondary education is crucial in order to ensure young Africans are well-equipped to take advantage of new opportunities in an increasingly digital, automated, and connected world.

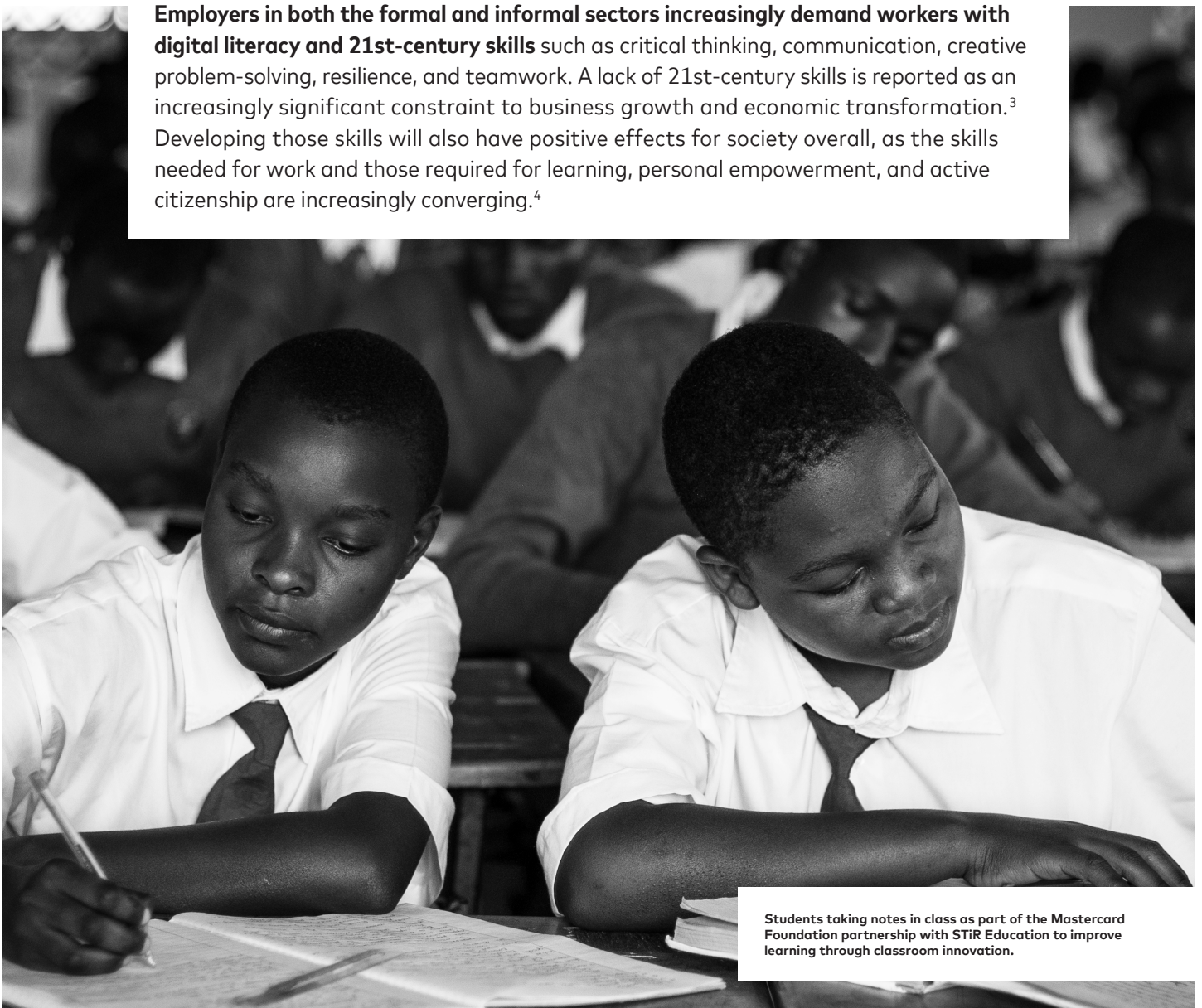
Secondary education is central to achieving the African Union's Agenda 2063 and the 2030 Sustainable Development Goals. Investments to improve education and to stimulate employment will allow this generation of young people to play a pivotal role in realizing the vision of economic transformation laid out by today's African leaders — a vision of inclusive growth driven by investments in human capital, science, technology, and innovation.

The challenge of expanding access to high-quality, relevant secondary education today is unprecedented, but if investments are made now, secondary education has transformational potential. Due to the widespread success at increasing enrolment in and completion of primary school, a growing share of a growing population is reaching a stage where they will be ready to transition to secondary. That expansion of secondary education systems will take place in a context where there are still gaps in enrolment and low learning achievement at the primary level, significant population growth, and increasingly constrained fiscal space due to economic headwinds in the region. Those factors underline the urgency of identifying promising approaches to expanding access to high-quality, relevant secondary education in Africa. Building on the success of African governments in expanding access to primary education, opening doors to quality, relevant education at the secondary level is the next frontier. Now is the time to rethink what skills young people require, and to intentionally design secondary education systems with those skills in mind.

IMPROVING THE RELEVANCE OF CURRICULA TO BUILD KNOWLEDGE AND SKILLS

As African economies change, young people need knowledge and skills that respond to the trends and challenges shaping the future of work. Skills that are essential include foundational literacy and numeracy, 21st-century skills, digital skills, and skills and knowledge in the STEM fields, which underpin innovation and are an excellent vehicle for developing critical thinking and problem-solving abilities. Technical skills will be needed throughout the formal and informal sector. Entrepreneurship skills are also critical as they can support youth to create their own employment and thrive in a largely informal economy. Work-readiness skills can enable young people to make effective transitions to, and maintain, dignified and fulfilling work.

Employers in both the formal and informal sectors increasingly demand workers with digital literacy and 21st-century skills such as critical thinking, communication, creative problem-solving, resilience, and teamwork. A lack of 21st-century skills is reported as an increasingly significant constraint to business growth and economic transformation.³ Developing those skills will also have positive effects for society overall, as the skills needed for work and those required for learning, personal empowerment, and active citizenship are increasingly converging.⁴




Students taking notes in class as part of the Mastercard Foundation partnership with STIR Education to improve learning through classroom innovation.

Many African governments have taken steps to foster the development of more relevant skills and knowledge through competency-based curriculum reform or have revised curricula to increase their relevance to national development aspirations. Reforms typically include changing the weight given to certain subjects (such as science, mathematics, and world languages), integrating important contemporary issues across the curriculum, such as environmental sustainability or peace and tolerance, and increasing provision of vocational subjects. Avoiding curriculum overload in the reform process, as well as making complementary investments in, for example, new learning materials and teacher training, are critical to promoting successful curriculum reform.

Extracurricular and co-curricular activities are an important and often-overlooked mechanism to promote the development of 21st-century skills. Consultations with young people and teachers carried out for this report stressed the transformative potential of extracurricular and co-curricular activities in the lives of young people. Further, there is evidence from OECD countries that extracurricular and co-curricular activities play a particularly important role in improving social and academic outcomes among marginalized young people.⁵

Effective education systems align curriculum, pedagogy, and assessment, so that different elements of the system work towards a common set of educational goals. In much of Africa, curriculum reforms have preceded changes to assessments. Reforming assessments so they provide insights into student learning, test for the application rather than acquisition of knowledge, and underpin improvements to teaching practices to support learning across the range of skills are vital next steps.



Avoiding curriculum overload in the reform process, as well as making complementary investments in, for example, new learning materials and teacher training, are critical to promoting successful curriculum reform.

ENSURING A HIGHLY SKILLED TEACHING WORKFORCE

Over 10 million additional secondary school teachers will be needed by 2030 to meet demand for secondary education on the continent.⁶ Due to the rapid expansion of education systems, many teachers lack necessary qualifications. Teachers need to be better prepared not just in subject matter knowledge, but also in the types of pedagogies that are shown to impart 21st-century skills and in the integration of digital skills throughout the teaching and learning process.

Ensuring that high-quality teachers are in classrooms is one of the most strategic investments a country can make to enable all students to develop the skills they will need in their working lives.⁷ With competency-based curricula, which depend on teachers skilled in learner-centred and interactive teaching methods, the quality of teaching is even more important than for curricula focused on the acquisition of knowledge.⁸ A significant transformation in teacher recruitment and education is therefore needed to ensure that young people receive high-quality, relevant secondary education.

The world's best education systems have succeeded in making teaching a high-status profession, which attracts students with strong academic backgrounds and motivation to teach and to develop their practice to high professional standards. By contrast, many African education systems struggle to attract well-qualified candidates into a profession that has declined in status and relative pay in recent years, and which is perceived to have relatively limited promotion prospects.⁹

Improving teaching quality will lead to a virtuous cycle with investment in good-quality pre-service education for teachers, alongside strong support for new and existing teachers, and effective school leadership, leading to improved learning outcomes. That will in turn enable efficiencies due to reduced grade repetition as well as a better-educated cadre of new entrants to the profession. Improving the quality of pre-service education is therefore a critical strategic intervention point to boost the quality of teaching and of students' learning and skill development.¹⁰


PROVIDING FLEXIBLE PATHWAYS AT SCALE

Many secondary-school-age young people do not transition through their education in a linear manner. Sixty-five million young people of secondary school age are currently out of school in Sub-Saharan Africa.¹¹ Young people who face economic disadvantages often experience significant pressure to leave the education system to seek work and help support their families. Those affected by conflict or climate change often must interrupt their education to seek safety or new livelihoods. Young women face additional pressures that can inhibit their ability to complete school.

Few pathways, if any, exist between TVET and general education in most African countries. Once a student has entered a technical track, during or after lower secondary school, there are often few opportunities for them to re-enter general secondary school or gain entrance to a non-technical university. That rigidity contributes to the lower status of TVET in the eyes of students and parents. TVET is often considered a "dead-end choice," an option for those who failed in general education. Pathways can be created through "flexible admission procedures and guidance, credit accumulation and transfer, bridging programs and equivalency schemes that are recognized and accredited by relevant authorities."¹²

Alternative education and training programs that cater to out-of-school youth, or to those who prematurely leave the education system, are limited in number and scope, and should be aligned with mainstream curricula to facilitate pathways back to the formal system. While important in helping to fill a gap, and valuable for their ability to innovate in ways to teach 21st-century skills and other learning approaches, few such alternative programs exist at sufficient scale to accommodate the large numbers of out-of-school youth.

By mapping and benchmarking skills acquired, national qualifications frameworks (NQFs) have the potential to enable youth to move between informal training and formal education. NQFs can support a more modular approach to education, whereby youth can train for and be accredited in the specific skills required at a given point in their school-to-work journey, when the time and financial resources are available to them, and such that they can build up their portfolio of credentials over time. By incorporating a Recognition of Prior Learning system, NQFs can also enable validation of the technical skills of informal sector workers, which can boost their job opportunities and chances to gain increased remuneration, as well as their options to undertake further education and training.¹³



By mapping and benchmarking skills acquired, national qualification networks can enable validation of technical skill of informal workers, boosting job and remuneration opportunities.

REFORMING EDUCATION SYSTEMS TO PREPARE YOUNG PEOPLE FOR THE FUTURE OF WORK

Strengthening and reforming education systems to achieve the promise of quality, relevant education for all is a complex, long-term process requiring sustained commitment and investment. Yet, while difficult, it can be done. Case studies from Sierra Leone and Senegal demonstrate impressive reforms that are already bearing fruit in the form of improved attendance, completion, and equity. Sustained progress to improve learning outcomes has been more difficult to achieve.

Evidence shows several practices are crucial for facilitating successful reform.

Those include: vision and political will at the highest levels as demonstrated by clear policies and provision of the resources needed to implement reforms; broad coalitions supporting reform efforts; focused attention on equity gaps; partnerships with the private sector, civil society, and international institutions; use of data in decision-making; and setting clear roles and responsibilities while holding actors accountable for outcomes.

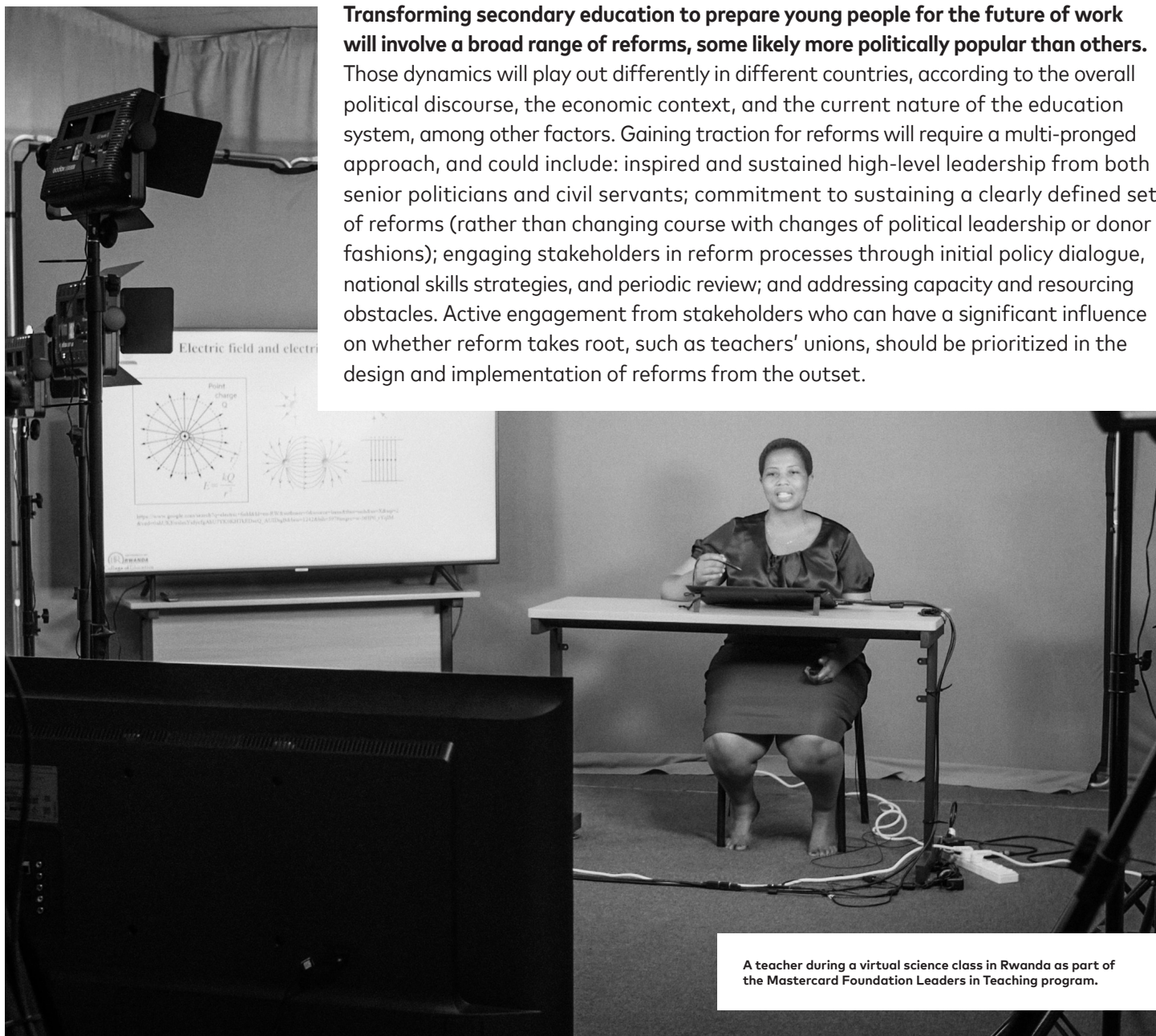
The fast pace of social and economic change today means that innovation that seeks to reinvent and transform secondary education will be increasingly required.

In addition to steady investment and political commitment to reform over several decades, finding ways to embed experimentation and innovation to promote scalable, catalytic interventions will be necessary. It is important to recognize, however, that innovation encompasses incremental changes, adaptations, or improvements, as well as more radical departures from current practice.

Supporting governments to incubate and drive innovation in education may improve the potential for new ideas to be mainstreamed and scaled. Improving government capacity to directly pilot, evaluate, and scale innovations is one approach. Another is for governments to create a more conducive environment for innovation, including: leadership that clearly supports innovation; a culture of openness and space to fail; innovation hubs within or outside of ministries of education; partnering with non-state innovators; learning networks; and adequate resourcing. Moving from testing ground to scale is critical for innovation to have systemic impact.

Transforming secondary education to prepare young people for the future of work will involve a broad range of reforms, some likely more politically popular than others.

Those dynamics will play out differently in different countries, according to the overall political discourse, the economic context, and the current nature of the education system, among other factors. Gaining traction for reforms will require a multi-pronged approach, and could include: inspired and sustained high-level leadership from both senior politicians and civil servants; commitment to sustaining a clearly defined set of reforms (rather than changing course with changes of political leadership or donor fashions); engaging stakeholders in reform processes through initial policy dialogue, national skills strategies, and periodic review; and addressing capacity and resourcing obstacles. Active engagement from stakeholders who can have a significant influence on whether reform takes root, such as teachers' unions, should be prioritized in the design and implementation of reforms from the outset.



A teacher during a virtual science class in Rwanda as part of the Mastercard Foundation Leaders in Teaching program.

FINANCING WITH EQUITY

Ensuring that all young people in Sub-Saharan Africa have access to secondary education that prepares them for the future of work will require substantial new resources. The Education Commission has estimated that a total investment of US\$175 billion per year, or 4.5 percent of GDP, is needed between now and 2050 for Sub-Saharan Africa to reach nearly universal enrolment in lower and upper secondary education. That is substantially more than the expenditure of \$25 billion, or two percent of GDP, spent on lower and upper secondary education in Sub-Saharan Africa in 2015.¹⁴ In addition to expanding resources available to education, efforts should be made to find efficiencies, crowd in other actors, and make more strategic use of official development assistance. Yet, investment at the secondary education level must not be at the expense of primary education, where enrolment has expanded but is still not universal, and serious learning challenges persist.

A growing number of alternative and innovative financing mechanisms are emerging across Africa to marshal significant new resources to the education sector, particularly from the private sector. These include existing experiments with impact bonds, as well as new efforts underway such as the Education Outcomes Fund, the International Finance Facility for Education, and the Africa Education Fund. Reducing the cost of sending remittances could also free up household resources for education.

Efforts to identify efficiencies in current education spending are necessary to free up additional resources. Key areas to unlock resources include improving teacher deployment and utilization, reducing unit costs of secondary education delivery, addressing high repetition and low learning levels, and improving education system management.

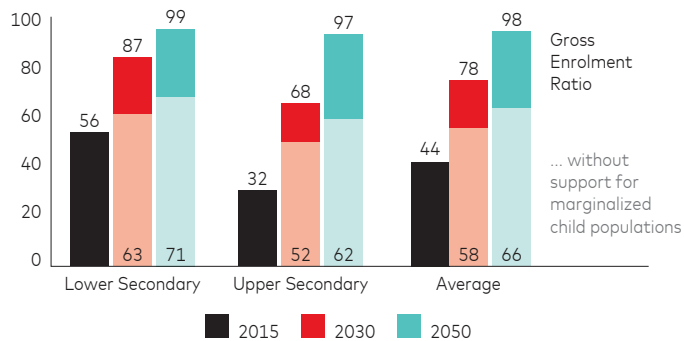
Many governments are moving to offer fee-free lower secondary education, yet, while important, these reforms have often not benefitted the poorest students. Because poor and marginalized students often do not complete primary education, they do not benefit from policies offering free lower secondary education. Those who do transition out of primary often cannot afford lower secondary, even if tuition is free, due to other direct and indirect costs, including school-related fees (such as parent-teacher association fees), uniforms, textbooks, and transportation.

Research has demonstrated that equity-based funding formulas, targeted need-based scholarships, and cash transfers for the poor can remove the barriers to secondary education. These instruments can be effective in countries both with and without fee-free lower secondary education. Yet, such tools must be informed by strong data, policy, and community involvement to ensure that funds are targeted to those most in need.

Progress is possible. Modelling by the Education Commission shows that if all countries in Sub-Saharan Africa improved at the rate of the continent's top 25 percent of performers, and invested particularly in expanding access to the most marginalized, 100 million more students could access and complete secondary education by 2050. That requires implementing reforms and targeting 30 percent more spending to marginalized students and districts at the lower secondary level, and 40 percent at the upper secondary level. Such additional spending on marginalized students and districts is part of the total US\$175 billion per year in investment that the Education Commission estimates is needed to reach these goals by 2050.¹⁵

PROJECTED GROSS ENROLMENT RATES TO 2050

PROJECTIONS WITH AND WITHOUT ADDITIONAL SUBSIDIES FOR MARGINALIZED CHILD POPULATIONS



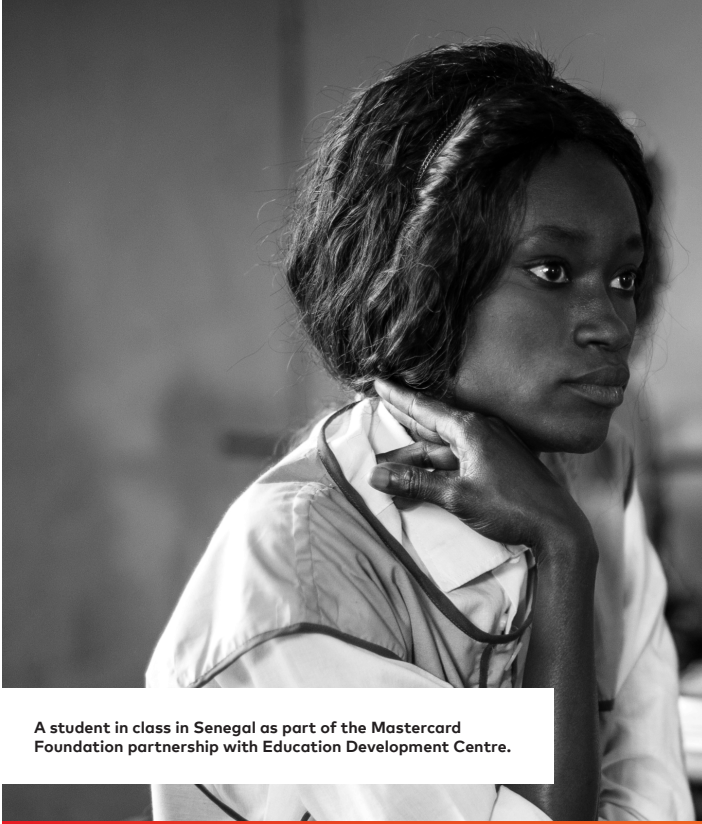
Source: Education Commission, "Costing and Financing Secondary Education," Background Memo on Education Commission Costing Model Results Developed for Mastercard Foundation Report, Secondary Education in Africa: Preparing Youth for the Future of Work (New York: Education Commission, May 2019).



A student helps a teacher with a demonstration during science class in Rwanda as part of the Mastercard Foundation Leaders in Teaching program.

RECOMMENDED ACTIONS

- 1. Provide political vision and leadership at the highest levels to support and prioritize investments and policies to reform and innovate in secondary education.** That includes:
 - Invest in creating a **shared vision and buy-in to system reforms** that expand the focus on skills for work in secondary education and responds to the needs of young people and their communities
 - Enable implementation through **viable plans with clear roles and responsibilities** for specific outcomes, accountability mechanisms, and adequate funding
 - Strengthen the **capacity of ministries** to translate inputs into outcomes through greater technical expertise, the ability to use and analyse data, and to overcome political economy constraints
- 2. Integrate seven key skills relevant to labour market needs into secondary education curricula and pedagogy.** Specifically:
 - Strengthen **foundational skills** in literacy, numeracy and fluency in the language of instruction through greater curriculum time, stronger pedagogies, and remediation support where necessary
 - Develop **21st-century skills** through interactive and group-based learning, experiential learning, and leadership development
 - Develop **digital skills** by strengthening teacher and student capacity to use digital technology and invest in hardware and software at school level
 - Strengthen **STEM knowledge and skills** through enhancing the quality of science teaching, increasing practical problem-solving activities, and reducing gender barriers
 - Expand opportunities for developing relevant **technical and vocational skills** through offering TVET courses in general secondary education, ensuring TVET courses include foundational, 21st-century and digital skills and aligning technical and vocational courses to labour market needs
 - Promote **entrepreneurship and work-readiness skills** through co- and/or extracurricular courses, experiential learning and skills courses in business planning and management, financial literacy, and work-readiness
 - Ensure **alignment between competency-based curriculum reforms, pedagogy and assessment systems**, including reducing the number of high-stakes examinations, greater focus on assessment of skills, and conducting national assessments of learning to support teachers and schools falling behind



A student in class in Senegal as part of the Mastercard Foundation partnership with Education Development Centre.

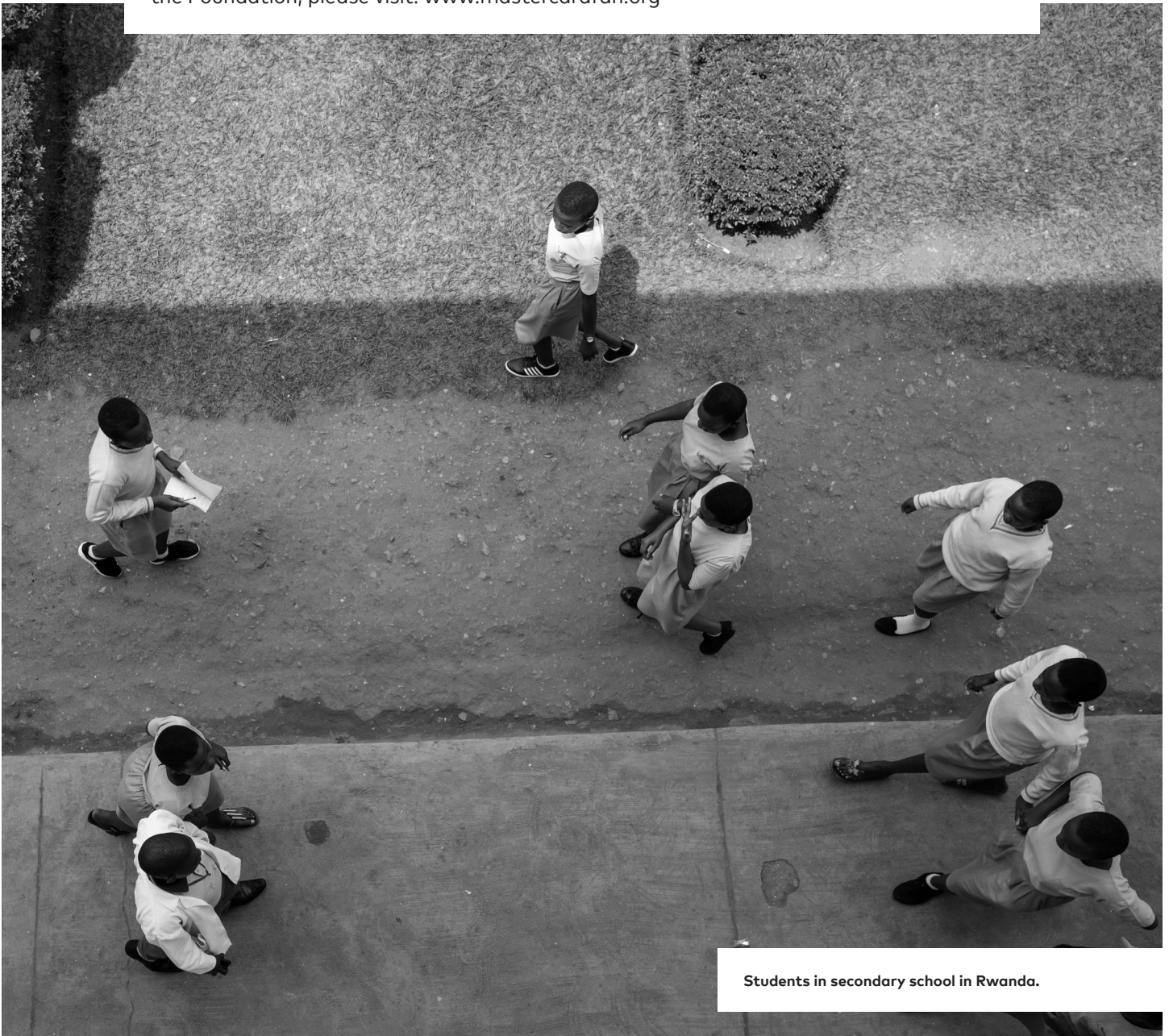
- 3. Expand recruitment and training to fill projected gaps (10.8 million secondary school teachers by 2030).** That will require a huge expansion in teacher recruitment and training while also improving teachers' working conditions to attract good-quality new entrants and reduce attrition. In addition:
 - Invest in **high-quality pre-service teacher training** that equips new teachers with subject matter content, pedagogical skills and fluency in the language of instruction, as well as supervised practice with experienced teachers
 - Develop stronger **promotion and leadership pathways** for high-performing teachers that allow them to provide instructional leadership and mentor junior colleagues
 - Institute **certification programs for unqualified teachers** using face-to-face and distance learning approaches
 - Prioritize **digital skills development** for all teachers
 - Invest in strengthening **school leaders' capacity** to provide instructional leadership

- 4. Establish and formalize alternative pathways between non-formal and formal education with portable accreditation to increase access for out-of-school youth.** Secondary systems must be increasingly structured in a flexible way to offer large numbers of youth alternative education pathways that allow for re-entry into formal schooling. Specifically:
 - Scale successful and equitable education and training programs**, including those provided by non-state actors, through links to the formal education system
 - Facilitate **re-entry to school for adolescent mothers**
 - Create an **effective regulatory environment to harness the potential of non-state actors** to expand provision of high-quality secondary education, TVET and ancillary services
 - Create **national skills strategies and/or national qualifications frameworks** that map available training and qualifications and create such pathways between levels and types of education and the labour market
- 5. Create pathways between secondary-level general education, TVET, and post-secondary and tertiary education.** Governments and private institutions should create flexible admissions procedures, guidance, credit transfer procedures, bridging programs, and equivalency mechanisms that are recognized and accredited by the relevant authorities to formalize pathways between general and TVET education at all levels. National Qualifications Frameworks can also facilitate that process.

- 6. Institutionalize capacity to innovate in education within government.** As the pace of social and economic change increases, and as greater numbers of youth seek to access secondary education, the need for innovation in education will intensify. Ministries of education should:
- Develop **embedded innovation units** that use an approach of continual piloting, testing, adaptation, and scaling of successful models so that promising approaches can be mainstreamed
 - Establish **education innovation ecosystems** that engage stakeholders across the public, private and not-for-profit sectors and foster critical debate with space to learn and fail
- 7. Generate substantial new resources for secondary education through a mix of strategies.** Those include:
- Improve **domestic resource mobilization**
 - Explore **innovative financing mechanisms** such as results-based finance through social and development impact bonds
 - **Crowd-in additional resources** from the private and philanthropic sectors
 - Make more **strategic use of Official Development Assistance**
 - Reduce the **cost of sending remittances** to free up household spending on education
- 8. Complement efforts to provide fee-free secondary education with equity-based financing.** Target the most disadvantaged students, girls in particular, with bursaries, scholarships, or cash transfers to enable them to meet secondary school costs such as uniforms, transport, and boarding. Targeted funding formulas to disadvantaged regions, schools, or groups also have strong potential.
- 9. Use available resources more efficiently.** While more resources are needed in secondary education, much more can be done by using existing resources more efficiently, including:
- Improve **teacher quality, deployment, and utilization**, and reduce teacher absenteeism
 - Counter **high repetition and low learning**, particularly at the primary level
 - Explore **alternative forms of secondary education delivery**, including reducing reliance on boarding facilities
 - Improve **education system management**
 - Ensure investments in secondary education are **not at the expense of improving access and quality of primary education**, which contributes to making spending on secondary education teaching and learning more effective and efficient
- 10. Develop systems for cross-sectoral dialogue.** Create mechanisms to bring together and facilitate dialogue between education sector stakeholders and other government and labour market actors such as ministries of finance, labour, youth, and ICT, as well as employers, industry associations, and unions. That can help increase the relevance of secondary education and strengthen broad-based support for reform.

ABOUT MASTERCARD FOUNDATION

Mastercard Foundation works with visionary organizations to enable young people in Africa and in Indigenous communities in Canada to access dignified and fulfilling work. It is one of the largest, private foundations in the world with a mission to advance learning and promote financial inclusion to create an inclusive and equitable world. The Foundation was created by Mastercard in 2006 as an independent organization with its own Board of Directors and management. For more information on the Foundation, please visit: www.mastercardfdn.org



Students in secondary school in Rwanda.



Students attend secondary school in Tanzania, as part of the Mastercard Foundation partnership with Fundación Paraguaya.

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