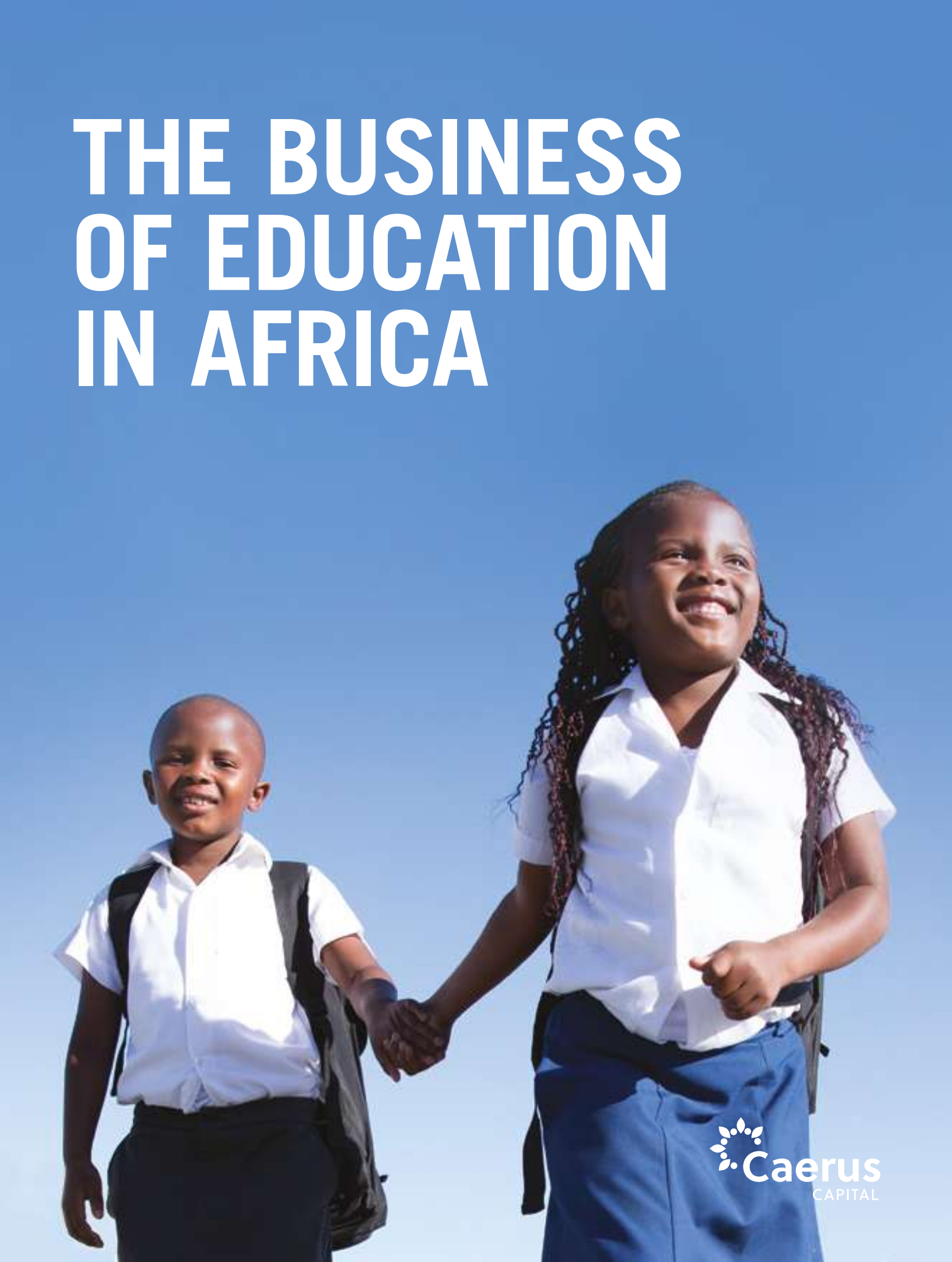
THE BUSINESS OF EDUCATION IN AFRICA



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Caerus Capital LLC is an investment and advisory firm focused on healthcare and education in emerging markets. Scott Featherston and David Ferreira are partners in Caerus Capital and have a long history of involvement in the education sector. Scott's experience includes having headed up the IFC's health and education investing in Africa and he is currently a non-executive director of the Luminus Group in Jordan and George Health Enterprises in Australia. David was a partner in a South African private equity firm that invested in health and education businesses, was for 10 years a non-executive director of listed education company ADvTECH, and is currently an advisor to the IFC on investments in health and education.

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THE BUSINESS OF EDUCATION IN AFRICA

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FOREWORD

Ellen Johnson Sirleaf, President of Liberia

Ellen Johnson Sirleaf
President of Liberia

My first teacher was my mother. This is not just because my mother taught me how to make my way in the world, but because she started the school I attended throughout my childhood.

The school was a simple but tidy place, about a mile from my childhood home and steeped in my mother's Christian values. Later, I attended College of West Africa, Liberia's oldest and most prestigious high school.

My schools, and then my first university and later my graduate school, were private institutions rather than public ones. Of course, this distinction between public and private shouldn't matter; a school's outcomes should.

My Government in Liberia is seized by a sense of urgency. Our country and people have been deeply scarred by crises and wars that all but ruined our most important institutions, including crippling our education system.

We know we need to act fast to keep hope alive, and education is the single most important tool we have in rebuilding our nation. We cannot afford to wait. We need to act now so that we do not fail our children.

Our Government recognizes that we need to be creative and pragmatic about tapping into the private sector to contribute to the education of our children. One of our most important pilot initiatives in this vein, the public-private Partnership Schools for Liberia program, is among the case studies profiled in this new report.

"The Business of Education in Africa" focuses on the contribution of the private sector and on how government can act as the steward of the whole education system. We know that the private sector is already making a significant contribution on the continent and believe there is potential to do even more in partnership.

As per Sustainable Development Goal (SDG) 4, governments have and must continue to commit to access to a free, quality education for our children, but the reality is there are still many obstacles to overcome to achieve this. It is not a question of either a role for the public sector or the private sector, but how governments across Africa can use a variety of means to deliver the best education outcomes for our children and our people. I welcome this report and its detailed, practical, and actionable recommendations.

If you care about the future of education in Africa, please read it.

REPORT SCOPE AND APPROACH

This report was developed in two phases. Phase 1, completed in August 2016, entailed a literature review, desktop research, a limited number of expert interviews, and analysis. This phase drew on available research, primarily from the 15 largest countries in sub-Saharan Africa (SSA) by population, to build a picture of the current landscape for private education in SSA. The Phase 1 report (which was limited in circulation) was completed, in most part, to provide input into "The Learning Generation" report published by the International Commission on Financing Global Education Opportunity.

This report builds from this first phase. It involved detailed, on-the-ground research in six countries between July 2016 and February 2017: Kenya, Nigeria, and South Africa (larger and relatively more established Anglophone markets), Ethiopia (a fast-emerging economy to watch), Senegal (a promising Francophone market), and Liberia (a post-conflict, resource-constrained smaller country).

The research has involved nearly 260 interviews and consultations with SSA and global education sector leaders representing donors, private providers, investors, and government officials; covered more than 135 private not-for-profit and for-profit education case studies; and assessed the regulatory context for education.

REPORT SCOPE AND APPROACH

1. STRUCTURE OF REPORT

The report is in eight parts:

- **An Introduction**, which identifies the challenges and potential solutions to the education crisis in SSA
- **Section I,** which details the current role and outlook for the private sector in SSA
- **Section II,** which explores the ways in which policy-makers could better engage private providers to generate their greater contribution to education outcomes
- **Section III,** which highlights the investment opportunity in education in SSA
- **Looking Ahead,** the conclusion to the report
- **Annexes,** comprising 20 detailed case studies, six detailed country reports, details on market sizing and investment requirement methodology, a full list of case studies cited in the report, a list of recent commercial investments in SSA, and a glossary with abbreviations and key definitions
- **Acknowledgments**, which includes a full list of individuals who provided guidance on the report, either in a formal capacity or as interviewees or correspondents
- **Works Cited and Notes**

2. TYPOLOGY

In this report "education" includes:

- **Core delivery** – comprising the student life cycle, including pre-primary, K-12 (primary and secondary), higher education, and technical and vocational education and training (TVET)
- **Ancillary services** – including teacher training, education technology, publishing, supplementary education (after-school tutoring; language learning; test preparation), student finance, and institutional finance.

Figure 1 illustrates these segments.

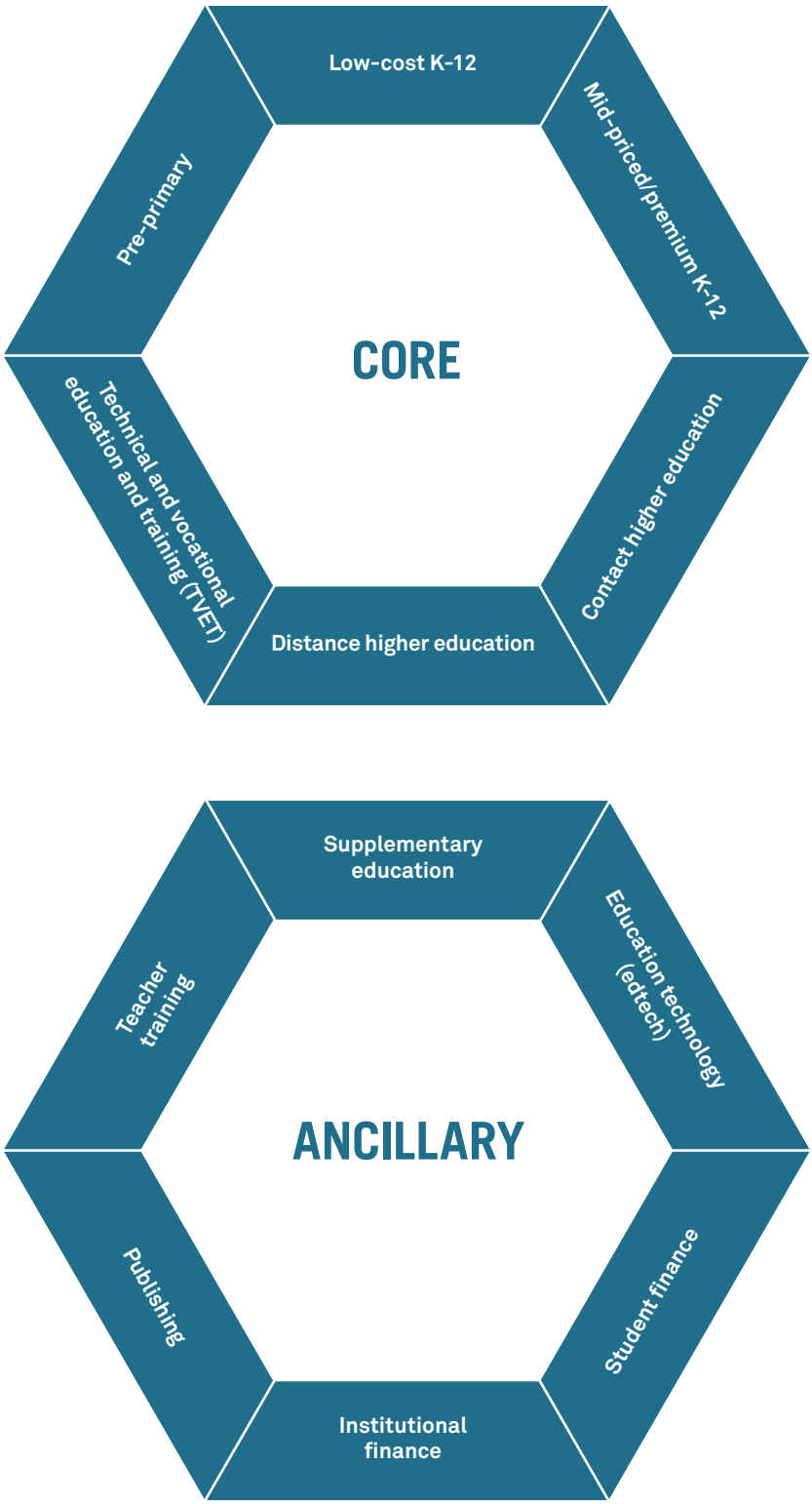
For the purposes of shorthand in the report, and acknowledging that many schools incorporate a kindergarten element, we refer to "K-12 schools" as a segment. Where UNESCO statistics are cited and where we provide our own assessment of enrollments, enrollment scale is provided separately for pre-primary, primary, and secondary.

For the purpose of this report, "tertiary education" refers to education after secondary school and includes higher education and TVET. Where our own assessment of enrollments is provided (beyond publicly reported statistics), enrollment scale is provided for tertiary education as a single segment. The investment opportunity is separately sized for higher education and technical and vocational education and training (TVET). Where publicly reported data for tertiary is provided, for some countries this may include both higher education and TVET, and for others only higher education. TVET data is not systematically collected.

3. GENERAL NOTES

Currencies have been converted to US dollars (denoted as $) in February 2017 figures unless data is historic. Revenue scale for private providers has either been vetted with organizations or, where not available, estimated from publicly available fees and enrollment data. Where possible, substantial case studies (of ~50 words or more) have been reviewed by the profiled organization. In the event that organizations did not respond to queries, such data has been collected from the most recent publicly available information.

FIGURE 1: CORE AND ANCILLARY EDUCATION PROVISION



IN APPRECIATION

This report has benefited from the generosity, insight, time, and hard work of many individuals. Foremost among these are the report's funders and sponsors: the Aga Khan Foundation, CDC Group, The ELMA Foundation, the IDP Foundation, the UK Department for International Development, the US Agency for International Development, the Vitol Foundation, and Yellowwoods Investments – through its inclusive growth catalyst.

David Ferreira
Partner

Scott Featherston
Partner

We greatly appreciate the trust they have placed in us by funding this work and we value the intellectual leadership they have provided throughout every stage of the report's development.

We would also like to recognize the strategy consulting firm Parthenon-EY's Education Centre of Excellence team, under the leadership of **Amit Garga, Sudeep Laad,** and **Maryanna Abdo**. Over the course of nine months they have worked with us on this report, from supporting our initial research to spending six months in sub-Saharan Africa, leveraging their knowledge and networks to assess the challenges and opportunities facing the private sector, and later synthesizing their critical analysis into this report. We thank them for their support.

Our thanks go to the team at Oxford Analytica led by **Olivia Hamill, Giles Alston,** and **John Stinson.** They led work on the first phase of this report, which provided input to "The Learning Generation" report published by the International Commission on Financing Global Education Opportunity. Their research and analysis provided an invaluable foundation for our understanding of the issues and potential in the region, and we are grateful for their contribution.

A Steering Committee comprising leaders in education, particularly in Africa, was established to oversee this work. The Steering Committee comprised:

- **Peter Colenso**
  Consultant, IDP Foundation
- **Beau Crowder**
  Education Advisor, Vitol Foundation
- **Ed Davis**
  Senior Education Advisor, the UK Department for International Development
- **Nicola Galombik**
  Executive Director, Yellowwoods
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  Education Finance Specialist, the US Agency for International Development
- **Tressa Johnson**
  Director of Education, The ELMA Philanthropies Services
- **Rob Jordan**
  Investment Manager, CDC Group
- **Matt Reed**
  Chief Executive Officer, Aga Khan Foundation (UK)

Throughout the course of this project, this committee gave significant input, from helping to generate initial hypotheses to providing critical feedback when required. We are grateful for their leadership.

Our work was greatly enhanced by the advice provided by a Technical Advisory Board, consisting of a cross-section of experts with experience in the public and private sectors, international development, and academe. This group comprised:

- **Monazza Aslam**
  Education Economist and Honorary Senior Researcher, Institute of Education at University of London
- **Marc Bernal**
  Regional Advisor for Sub-Saharan Africa, UNESCO Institute for Statistics
- **Matt Greenfield**
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- **Silvia Montoya**
  Director, UNESCO Institute for Statistics
- **Harry Patrinos**
  Manager, Education Sector, World Bank
- **Fred Swaniker**
  Founder and Executive Chairman, African Leadership Academy

Their input was essential and we thank them for their many contributions, without which this report would not have been possible.

Lastly, we extend our thanks to the many African and international experts who provided their perspectives on this complex sector and region. This report was possible only because of their insights and candid discussions with our team. Together with a full list of team members at Parthenon-EY and Oxford Analytica, they are listed in the Acknowledgments section of this report.

Scott Featherston
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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Whether or not we live in Africa, all of our futures will be affected by the success or failure of education on the continent.

THIS REPORT AIMS TO SHINE A LIGHT ON OPPORTUNITIES IN EDUCATION FOR INVESTORS AND THE OPPORTUNITIES FOR POLICYMAKERS TO LEVERAGE THE PRIVATE SECTOR IN THEIR EDUCATION SYSTEMS.

Progress has been made, but not enough. The private sector can help address Africa's daunting educational challenges, but both investors and policymakers must seize opportunities if it is to do so. This report aims to describe these opportunities in a tangible and actionable way.

This new research finds that 21% of African children and young people are already being educated in the private sector, with this percentage likely to rise to one in four by 2021. It identifies an investment need in private sector education in the region of $16–$18 billion over the next five years, of which ~$1.5–$2.0 billion is expected to be in the formal sector.

The private education sector will continue to play a complementary role in educating Africa's children, young people, and working adults. The future of education in emerging markets, within Africa and beyond, will be hybrid systems — not a monopoly of public financing and public provision of education services, but mixed public and private. This is being driven by consumer demand, by the market stimulating innovations in supply, and by the fiscal realities of governments that are increasingly engaging private sector capital and delivery solutions to provide services and products for rapidly growing populations. These governments are also increasingly seeking support in establishing enabling environments and public-private partnership (PPP) frameworks that can harness and regulate private actors, while focusing keenly on equity and the needs of the poorest.

This report aims to shine a light on opportunities in education in sub-Saharan Africa (SSA) for investors and the opportunities for policymakers in the region to leverage the private sector in their education systems.

MEETING THE CHALLENGE: LEVERAGING ALL RESOURCES

SSA has had the best record of improvement in primary education of any region since the Millennium Development Goals (MDGs) were established.[1] However, daunting challenges remain and the region's education systems now confront **three key challenges: access to, quality of, and relevance of education.** SSA still has 30 million children who are not receiving any form of schooling, and tertiary education is capacity constrained. SSA is also the worst-performing region globally for educational quality and learning outcomes, with up to 40% of children not meeting basic learning outcomes in literacy and numeracy.[2] Moreover, by 2035, the number of Africans joining the workforce (15–64) will exceed that of the rest of the world combined,[3] but SSA's education systems are not meeting workforce needs.

Public demand for education at all levels will only increase with larger, urban-dwelling middle-class populations, while growing economies and technology can surely provide resources and inputs to support education transformation. But, even with increases in resources, the public sector lacks and will continue to lack sufficient capital or capacity to operate alone. Complementary solutions from the private sector, both for-profit and not-for-profit, can help to fill the gap.

THE CURRENT ROLE AND OUTLOOK FOR THE PRIVATE SECTOR

The private sector is already making a significant contribution to education delivery and services. "Private" in this context means services and financing outside of public sector provision and includes for-profit, charitable, non-governmental, faith-based, and community provision. "Education" includes **core delivery** — comprising the student life cycle from pre-primary, to K-12 (primary and secondary), to higher education, and technical and vocational education and training (TVET), as well as **ancillary services,** which include teacher training, supplementary education (after-school tutoring, language learning, and test preparation), education technology, student finance, institutional finance, and publishing.

Publicly reported data indicates that the private sector enrolls 13.5% of pupils in SSA, but this figure fails to take account of non-formal education. When accounted for, this number could be as high as one in five pupils. Unsurprisingly, the private sector proportion of provision varies considerably (from 10%–30%) across countries and segments of education. Not only does the private sector already comprise a significant share of education provision, its rapid growth outstrips public sector growth in most segments. This report estimates that by 2021, one in four, or approximately 66 million students will be enrolled in the private sector.

A vibrant private sector, particularly when operating in an engaged, flexible, and concordant relationship with government, can help drive **access, quality, relevance, and innovation**. Private offerings may complement the public sector by helping to increase access to segments poorly covered by government provision. It can also reduce the burden on government, creating the fiscal space for government to create access for those in greater need. In terms of innovation, the private sector has flexibility to rapidly trial and scale new approaches, models, and learning methods. Where this delivers better quality at the same cost, this can improve public provision and the education system as a whole. Finally, private providers often have a greater focus on relevant education, particularly if students are looking to move immediately into employment after graduation.

However, it is important to recognize that engaging with the private sector brings limitations and consequences too. The private sector can reinforce inequities in provision, as it is out of reach for most Africans. At the same time, there are emerging, low-cost models that provide access to education – sometimes high-quality education – for children who otherwise would not have it. To be sure, private provision can be of variable quality (like public provision), and effective regulation and licensing are vital. Private education can also compete with government, for example for teachers and high-performing students. This can be a source of tension. Finally, the private sector has certain kinds of financial risk not present in the public sector. On balance, this report argues that the benefits of private education far outweigh the potential challenges.

MAXIMIZING THE CONTRIBUTION OF PRIVATE EDUCATION

Governments face a fundamental choice when considering private education provision. They can either proactively engage it, with the aim of maximizing its contribution to the education system, or they can ignore or actively act against it and so limit the contribution it might make. Currently, in much of SSA, the contributions of the private sector are too often stymied because of poor policy environments, limiting both the effectiveness of current provision and the scope for expansion.

Governments perform three key roles in relation to educational systems: steward, enabler, and partner, and policymakers have a range of tools at their disposal if they want to encourage and regulate private sector participation in education.

As stewards of education systems, governments can improve broader ecosystems for doing business; streamline education governance, including reducing fragmentation and improving data collection and transparency; set and enforce standards, particularly quality standards; and establish frameworks to accommodate and encourage education actors, such as low-cost schools, social enterprises, and TVET providers.

As enablers, governments shape licensing, operations, and investment regulations that create environments that encourage socially beneficial private provision. In licensing, governments can consider modifying infrastructure requirements for private providers; streamlining, accelerating, and depersonalizing processes; and facilitating expansion within and between countries. In

operations, they can establish policy frameworks to reduce transaction costs and introduce concessions and incentives for private operators. And in finance and investment, policymakers can remove restrictions on private provision, allow FDI and profit repatriation, and improve availability of finance.

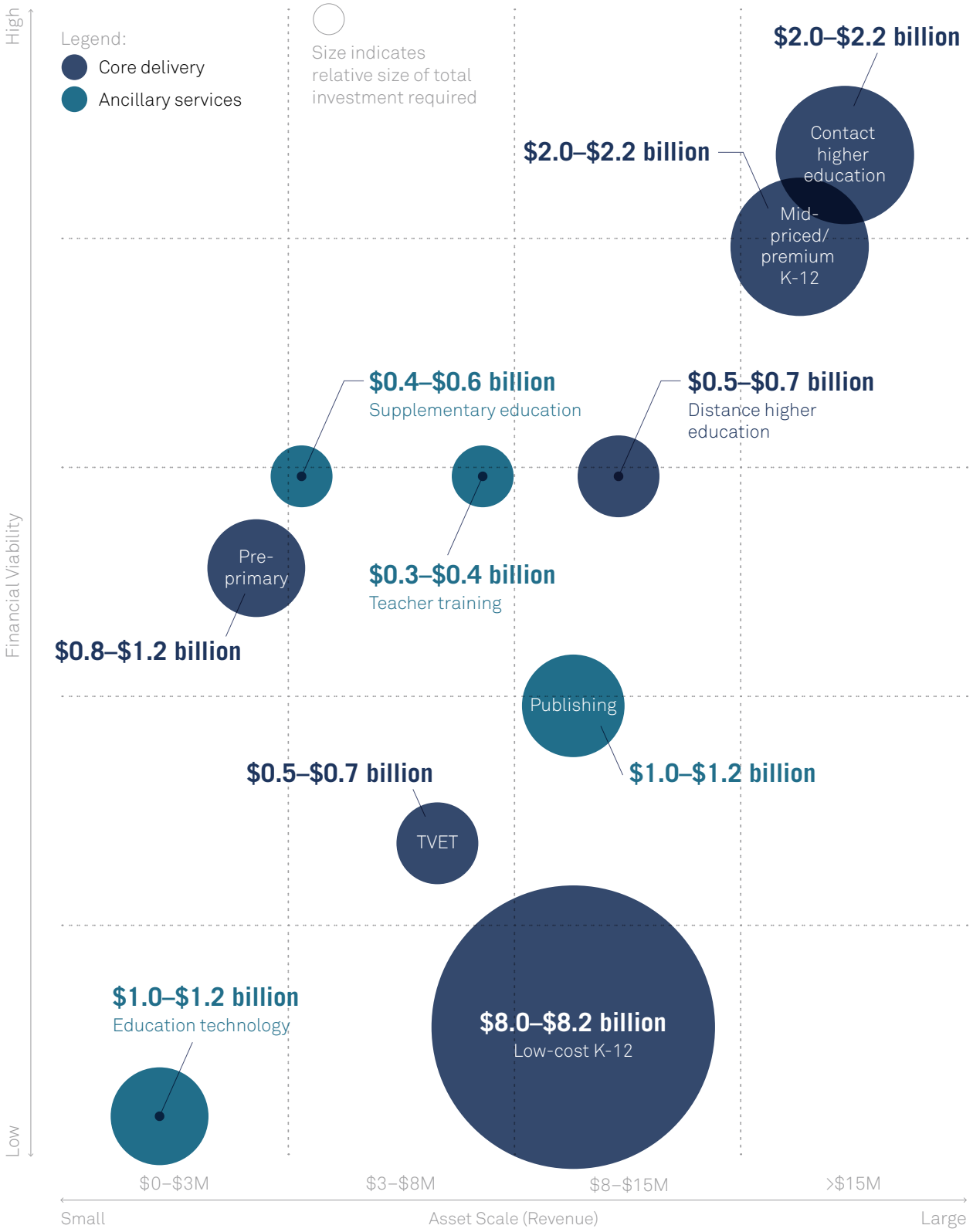
As partners, governments have significant potential to expand access and improve quality and relevance through public-private partnerships (PPPs), broadly defined. These can be for education delivery, for example, in school management or funding; developing infrastructure, such as building or managing education facilities; and procuring services, such as teacher training services, edtech, and data systems.

It is both important and probable that the coming years will see closer partnership between governments and the private sector in SSA as they jointly address the challenges of improving quality, access, and relevance of education.

OPPORTUNITIES FOR INVESTING IN PRIVATE EDUCATION IN SSA

The recent growth of private education and investment in education in SSA are characteristic of the global education sector as a whole: emerging markets education investments increased more than 5,000% between 2001 and 2015. **Education businesses have five key attributes** that make them attractive for investors: 1) demand is usually greater than supply; 2) prices grow faster than inflation; 3) they have long-term revenue visibility; 4) there is access to negative working capital; and 5) barriers to entry are high. However, despite strong business fundamentals and investor attractiveness, there are challenges specific to investing in the education sector: regulatory complexity and uncertainty; long gestation periods; high levels of fragmentation; lack of corporatization; and a skills shortage (i.e., in qualified teachers). Different investment opportunities are suited for different kinds of investors and SSA has opportunities for investors of varying risk appetites, return expectations, investment capabilities, and social impact objectives. These include early-stage commercial investors, commercial and strategic investors, impact investors, and donors and foundations.

FIGURE 2: FIVE-YEAR INVESTMENT OPPORTUNITY IN PRIVATE EDUCATION IN SUB-SAHARAN AFRICA



As noted, the private investment requirement for the next five years in various education sectors is estimated to be **$16–18 billion** (see figure 2). It is important to note that the non-formal sector makes up a large share of private provision, and that the formal sector comprises a diverse set of providers. Only 10%–20% of these have a revenue scale large enough to merit attention from institutional investors. This translates into a more realistic investment requirement of ~**$1.5–$2.0 billion** over the next five years in the formal sector.

The **total opportunity in core delivery is estimated to be $14–$15 billion** ($1.3–$1.5 billion in the formal sector) across pre-primary, low-cost K-12, mid-priced/premium K-12, contact higher education, distance higher education, and TVET. The **total opportunity in the ancillary services segment is estimated to be $2.0–$3.0 billion** ($0.2–$0.4 billion in the formal sector) across teacher training, supplementary education (after-school tutoring, test preparation, and English language tutoring), education technology, and publishing.

Within core education, the largest opportunity for investment is in low-cost K-12, with an estimated $8.0–$8.5 billion in investment required over the coming five years. Contact higher education and mid-priced/premium K-12 are both significant opportunities at $2.0–$2.5 billion. Pre-primary, distance higher education, and TVET are all in the $1.0 billion range in terms of opportunity size.

Within core education, for commercial investors, the most promising opportunities are greenfield and consolidation possibilities within mid-priced/premium K-12, and contact and distance higher education, given the high margin potential (20%–30%) in these segments and the rapid pace of market growth. For impact investors and donors in core education, pre-primary education, low-cost K-12, and TVET have significant potential to deliver impact and to deliver sustainable business models. Donors will have a particular opportunity to leverage private grants to drive equity of access in education. Impact investors also have a compelling opportunity in greenfield contact higher education.

Within ancillary services, opportunities are smaller scale but growing rapidly. The opportunity size is $1.0–$1.2 billion in both edtech and publishing, and it is under $0.5 billion in teacher training and supplementary education.

The opportunities for investment in ancillary education will appeal to different investor types.

HARNESSING THE CONTINENT'S ENORMOUS POTENTIAL, WHILE ADDRESSING SOME OF ITS KEY ISSUES, IS THE GREATEST CHALLENGE AHEAD FOR THOSE ENGAGED IN THE REGION.

For commercial and strategic investors, there are opportunities across ancillary education, with particular potential in services that benefit most from expansion of core education, such as teacher training, supplementary education, student finance, and publishing. For early-stage commercial investors, the most compelling opportunities will be in edtech, given the proliferation of models that are improving quality and driving access across segments. For impact investors and donors, there is a significant role to play in supporting PPPs in teacher training, promoting innovations in edtech, and experimenting with newer student and institutional finance models that have the potential to transform the sector.

LOOKING AHEAD

In conclusion, we take a wider lens on the region with **five observations**.

1. **Policy challenges are present, but they don't change fundamentals — the outlook for investors is very strong.**

2. **A window exists for proven global education providers to enter the African education market, with the proviso that they must contextualize their approach to Africa.**

3. **There is significant potential for local conglomerates to become education providers, and this type of diversification is observed in other emerging markets.**

4. **Africa serves as an innovation platform and can be leveraged to develop solutions for global replication.** SSA's unique market challenges have already produced many globally relevant and applicable innovations, within education as well as other sectors.

5. **Setting national learning goals would refocus the public versus private debate for policymakers.** Change is much needed but too often hindered by ideological concerns. Strong results in the private sector in line with learning goals could be more quickly and widely disseminated, potentially through PPP models.

These five observations are a reflection both of the challenge and the opportunity for education in SSA. Harnessing the continent's enormous potential, while addressing some of the key issues that are hindering its growth and development, is the greatest challenge ahead for the governments, investors, companies, donors, not-for-profits, and individuals engaged in the region. The potential for investment and the potential for impact have rarely been greater.

THE POTENTIAL FOR INVESTMENT AND THE POTENTIAL FOR IMPACT HAVE RARELY BEEN GREATER.

INTRODUCTION

INTRODUCTION

One of sub-Saharan Africa's most famous sons said, "Education is the most powerful weapon which you can use to change the world."

Mandela was right: education is arguably the most important driver of growth and development for sub-Saharan Africa (SSA) in the longer term, particularly given the acute challenges SSA faces: rapid population growth, urbanization, technological change, and making its way in a globalizing world. It is well established that education delivers economic returns to individuals, but less well known that these returns are higher in SSA than anywhere else.[4] Education also has the power to change lives for the better in myriad other ways: better educated women have fewer, healthier children[5] and lower rates of maternal mortality.[6] Every additional year of schooling reduces an adolescent boy's risk of becoming involved in armed conflict by 20%.[7] And while education's other benefits are harder to measure — including its role in helping individuals to reach their full potential — those who have benefited from an education will understand them intrinsically.

This section explores the extraordinary progress SSA has made since 2000, but acknowledges the challenges still ahead and identifies positive forces set to shape education systems in the years to come.

TREMENDOUS PROGRESS SINCE 2000

Since the signing of the Millennium Development Goals (MDGs) in 2000, tens of millions of children in SSA have benefited from a dramatic increase in access to all levels of education (see figure 3).[8] SSA has had the best record of improvement in primary education of any region since the MDGs were established, albeit from a very low base.[9] Countries in the region spend a higher proportion of their budgets on education (18.4%) than others[10] and total public expenditure on education grew $12.5 to $57 billion from 1999–2011.[11] The numbers tell an extraordinary story:[12]

- The number of young children enrolled in some form of pre-primary education more than doubled, from 6.6 million in 2000 to 17.9 million in 2014. In many countries it is becoming part of formal public provision.

- Total enrollment of primary school-age children rose from 91 million in 2000 to 158 million in 2014, bringing the adjusted net enrollment rate up from 60% to 78%. This compares to 91% globally.

- In secondary education, the number of pupils enrolled leapt from 24 million in 2000 to 56 million in 2014. This brought the net enrollment rate to 33%, although this is half of the global average of 66%.

- Growth in higher education has been most significant, rising from 2.7 million in 2000 to an estimated 7.8 million today. The gross enrollment ratio (GER) has almost doubled, from 4.5% in 2000 to over 8.5% today.

- There have been more moderate increases in technical and vocational education and training (TVET). Estimates of TVET enrollment suggest that enrollment has doubled from 2000 levels, but this still comprises less than three million.[13] Qualifications are rarely required to practice skills and there are few employment-oriented apprenticeships, offering limited incentives to pursue TVET.

HOWEVER, DAUNTING CHALLENGES REMAIN

Despite, and indeed in part because of, this extraordinary progress, SSA's education systems now confront enormous challenges. They fall a long way short of meeting the continent's educational need and fail to support development of the human capital essential to drive growth. There are three key challenges: **access, quality, and relevance**.

1. Access

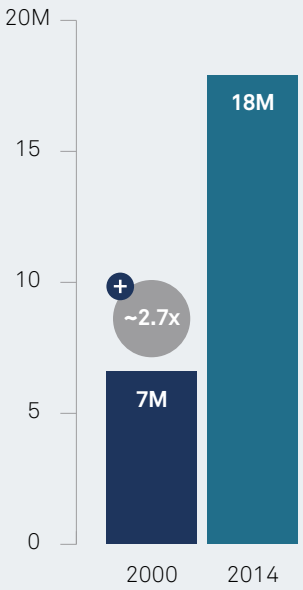
SSA still has 30 million children who are not receiving any form of schooling, with Nigeria alone home to 11.4 million, the highest number globally. As children age, issues become more acute: there are both fewer school places and more pressure to begin earning. In 2011, just 58% who began primary school completed this education, the same figure as in 1999.[14] Moreover, lack of access to higher education, which is capacity constrained, is driving emigration (SSA students are the second most mobile globally).[15] This contributes to a long-term "brain drain": One in nine Africans with a tertiary qualification lives in an OECD country, compared to one in 13 Latin Americans and one in 30 Asians.[16]

Many are marginalized from education due to rurality, gender, special needs status, socioeconomic status, and other factors. For example, on current trends, the poorest girls in SSA will achieve universal primary completion 20 years after the poorest boys,[17] while rural children and conflict-affected children are over-represented among out-of-school children globally. The effects of economic inequality on student attainment are also significant. For example, in Nigeria, 98% of children from the richest quintile complete primary school, compared with 20% from the poorest,[18] while 89% of adolescents from the richest quintile complete lower secondary school compared with only 9% of those from the poorest.[19]

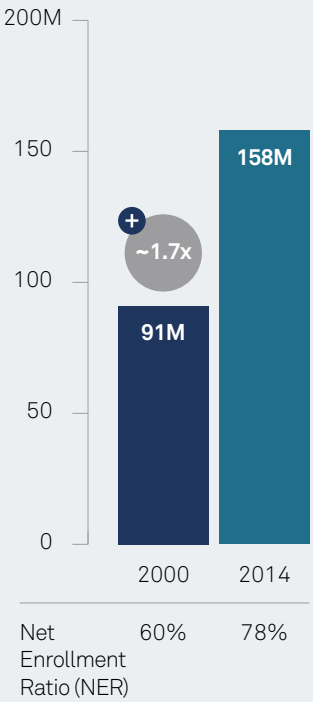
The challenge of addressing access will only become more acute given current demographic trends. SSA has both the fastest growing and youngest population in the world.[20] The average African woman will give birth to five children, or around twice the global average,[21] and from about one billion people today, SSA will grow to two billion by 2050.[22] This means around one billion children will need to be educated over the coming three decades. Keeping pace with this demand requires enormous investment in schools, universities, and other infrastructure; recruitment and training of teachers, school

FIGURE 3: ENROLLMENT GROWTH IN CORE EDUCATION SEGMENTS IN 15 KEY COUNTRIES IN SSA, 2010–2014

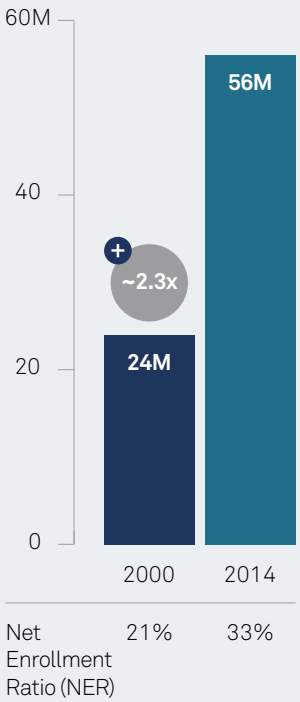
Total enrollment, pre-primary, SSA, 2000–2014



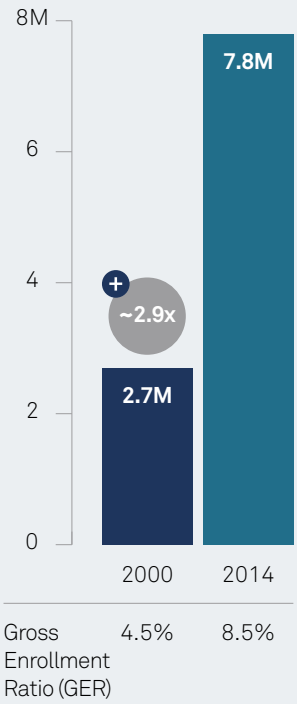
Total enrollment, primary, SSA, 2000–2014



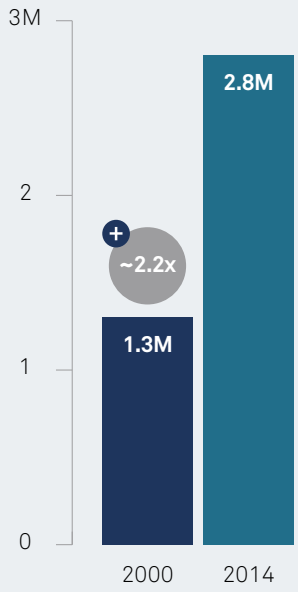
Total enrollment, secondary, SSA, 2000–2014



Total enrollment, tertiary, SSA, 2000–2014



Total enrollment, TVET, SSA, 2000–2014



AROUND ONE BILLION CHILDREN IN SUB-SAHARAN AFRICA WILL NEED TO BE EDUCATED OVER THE COMING THREE DECADES.

leaders, and support staff; and learning materials. Public education systems will struggle to keep up with this unprecedented increase in demand.

2. Quality

Beyond the challenge of access, SSA is the worst-performing region globally in education quality. Findings from a study commissioned by UNICEF suggest that up to 40% of its children are failing to meet basic learning outcomes in literacy and numeracy.[23] It is difficult to assess SSA's performance against global standards, because in the past most SSA countries have not participated in international student examinations. This is gradually changing, with Senegal and Zambia participating in OECD's Programme for International Student Assessment (PISA) for Development. The few SSA countries that have participated in TIMSS, an international math and science test, have performed in the bottom quartile of countries globally (indeed, Botswana and South Africa are in the bottom five).[24]

Other examples of poor education quality include:

- In Malawi, only 5% are achieving basic mathematics learning outcomes.[25]
- A survey in Nigeria's Sokoto State found that 80% of Grade 3 pupils (8–9 year-olds) could not read a single word.[26]
- Even in the best-performing countries (Cameroon and Swaziland), 40% do not meet basic numeracy targets.[27]

There are also strong income and gender correlations to uneven performance. For example, girls repeat grades more often than boys, a trait unique to the region.[28]

Reasons for poor education quality may be due to teacher absenteeism, inferior quality of learning materials, and widespread pedagogical methods across SSA, which remain focused on rote learning, as well as other underlying issues, such as poverty, malnutrition, or health issues.

3. Relevance

Relevance of education is also a challenge for education systems in SSA. By 2035, the number of Africans joining the working age population (15–64) will exceed that of the rest of the world combined.[29] Without dramatic changes to its education systems, SSA will fail to reach its potential as an engine of global growth and could indeed be a drag on the global economy.

SSA has the highest share of social science and humanities students of any world region. They comprise over 70% of graduates in SSA, versus 53% in Asia and 61% in Latin America.[30] There is insufficient attention to professional, agricultural, hospitality, retail, vocational, and mid-level technical training, as well as on-the-job training. The International Labor Organization finds that nearly two-thirds of SSA youth are undereducated for the work they do, the highest figure among all regions (see figure 4).[31] Surveys among employers confirm these trends: 54% of SSA employers state that job seekers' skills do not match their needs.[32] In part because of these issues, SSA has high unemployment rates, with 21% of tertiary graduates unemployed (versus 14% in Asia-Pacific).[33]

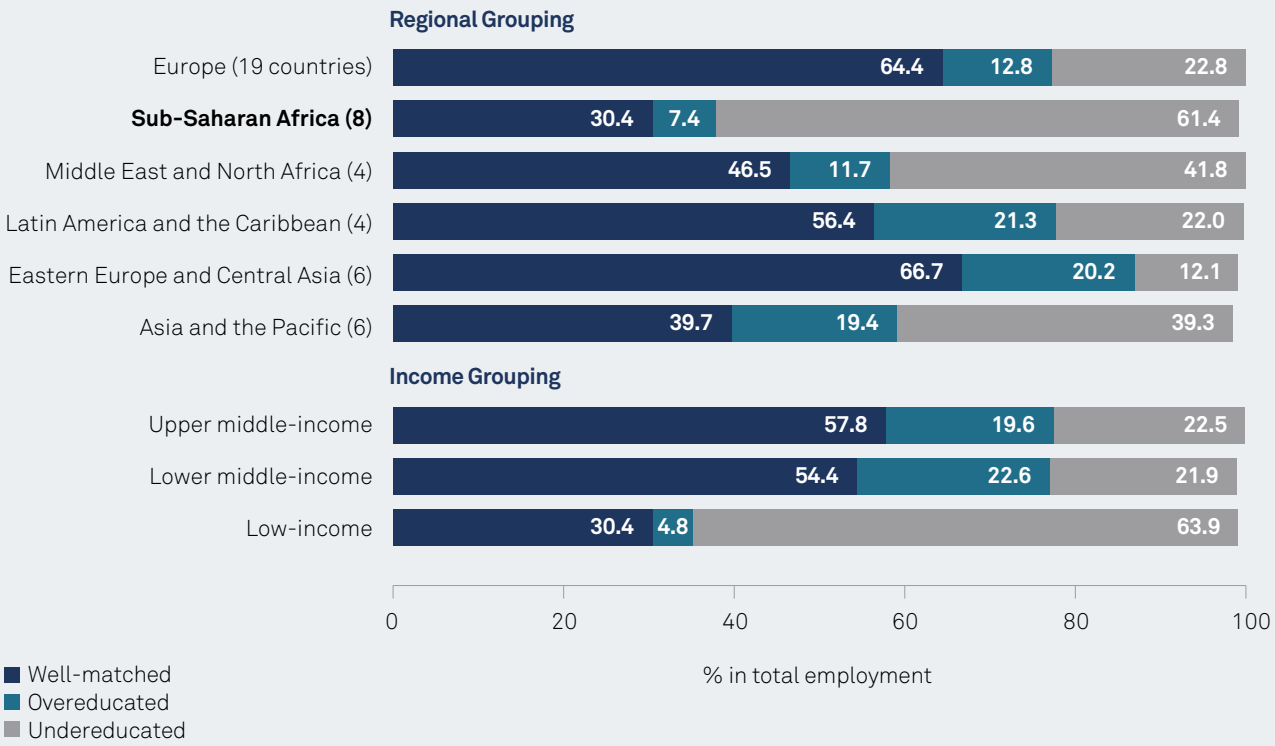
54% OF AFRICAN EMPLOYERS STATE THAT JOB SEEKERS' SKILLS DO NOT MATCH THEIR NEEDS.

If left unaddressed, the mismatch between rising enrollments at all levels and the system's ability to equip pupils with skills for employment risks creating what the World Bank has called a "demographic disaster."[34]

EDUCATION RELEVANCE: SPOTLIGHT ON GHANA

When commercial oil production commenced in 2010 in Ghana, the country struggled to identify engineers, drillers, and other specialized professionals. Even now, only 35% of undergraduates in Ghana are studying in the sciences. However, it is estimated that training a STEM graduate is equivalent to the cost of training five graduates in humanities and therefore even more investment would be required in already-strained systems.

FIGURE 4: INTERNATIONAL LABOR ORGANIZATION ANALYSIS, QUALIFICATIONS MISMATCH OF YOUTH, BY INCOME AND REGIONAL GROUPING, 2012–2013



POSITIVE FORCES ARE SET TO SHAPE EDUCATION SYSTEMS

However, the very forces underpinning these challenges are also an opportunity to drive improvements in education. Some of these key forces include:

1. **Huge demographic shift**
2. **Emergence of a middle class**
3. **Rapid urbanization**
4. **Proliferation of technology**

1. **Huge demographic shift**

Even now, SSA is the youngest region on the planet with a median age of around 20 and 50%–60% of the population below 25 years of age.[35] Emerging economies globally have recently experienced demographic shifts, as declining child mortality and rising wealth lead within a generation to declines in birthrates. The result is a demographic balance in which the working age population exceeds the population of dependents.

SSA is set to not only see significant increases in population (Africa will account for 1.2 billion of the 2.4 billion expected increase in the global population by 2050[36]) but also to see a dramatic swelling of its working age population (see figure 5, p.28[37]). The population in most countries in the region (except South Africa) is expected to grow at more than 1.5% per annum over the next 35 years (2015–2050).[38] This presents an opportunity for economies to harness a demographic dividend, with an accompanying drop in the dependency ratio. SSA's income per capita could be 25% higher in 2050 solely as a result of the demographic transition.[39]

To realize this dividend, SSA must produce new, high-productivity jobs over the next two decades at a rate of about 18 million per year. The informal sector currently accounts for about 90% of the 400 million jobs in low-income SSA, and this will need to transition to non-agricultural formal sector employment.[40]

THE FOUR FORCES SHAPING EDUCATION

1. HUGE DEMOGRAPHIC SHIFT

20 SSA is the youngest region on the planet with median age of around 20

<25 50%–60% of SSA's population is below 25 years old

18m SSA must produce 18 million high-productivity jobs per year until 2035

IMPACT ON THE EDUCATION SYSTEM
Creating public and policy pressure to improve access, quality, and relevance, and creating a greater resource pool in the economy

2. EMERGENCE OF A MIDDLE CLASS

5% GDP in African countries is growing at rate of ~5%

7%+ Ethiopia and Kenya expected to grow at 7%+

11% 11% (6 million households) will move from earning $5,000/year to earning $5,000–$20,000 by 2025

IMPACT ON THE EDUCATION SYSTEM
Creating demand from middle-class parents for quality and accountability in the education system

3. RAPID URBANIZATION

15 SSA's top 15 cities account for 40% of Africa's overall economic output

40% 40% of the population live in cities; this will grow to 64% by 2050

IMPACT ON THE EDUCATION SYSTEM
Transforming demand for education through driving economies of scale, supporting greater efficiency in infrastructure development and delivery, and driving women's labor force participation (creating demand for pre-primary education)

4. USE OF TECHNOLOGY

20x From 2009–2014, Africa's international bandwith increased 20-fold

445 SSA has an estimated 445 million unique mobile subscribers up from 200 million in 2010

IMPACT ON THE EDUCATION SYSTEM
Transforming learning through greater internet access, improving outcomes tracking by schools, and enabling best practice sharing within geographies

The demographic dividend is likely to have two effects on education systems: first, it will create public and policy pressure to improve access, quality, and relevance. Second, it will create a greater resource pool in the economy as working age individuals outnumber dependents — resources that can be redirected to education sector investment.

2. Emergence of a middle class

The GDP of most African countries is growing at a rate of ~5%. While slower growth is forecast for the next three to four years for large countries such as Nigeria and South Africa, in the long term growth is expected to accelerate. Other nations in SSA are considered rising stars (both in the continent and globally) with countries such as Ethiopia and Kenya expected to continue growing at 7%+ rates over the next 5–10 years.[41]

While estimates of the size of SSA's middle class depend on the income bracket used to define it (see figure 6[42]), there is little doubt that consumers in SSA have more discretionary spending power than they did a decade or so ago. McKinsey Global Institute finds that across SSA, large numbers of families are moving from a level of income that meets only their basic needs to a level defined as "emerging consumers." In East Africa alone, they estimate that more than six million households (11% of households) will move from earning less than $5,000 a year to earning between $5,000 and $20,000 a year by 2025.[43] Evidence suggests that when it comes to education, parents in Africa's burgeoning middle class are increasingly demanding quality and accountability. These demands are likely to translate, over time, into improved education systems.

COLLECTIVELY, SSA'S TOP 15 CITIES ALREADY ACCOUNT FOR ABOUT 40% OF AFRICA'S OVERALL ECONOMIC OUTPUT.

3. Rapid urbanization

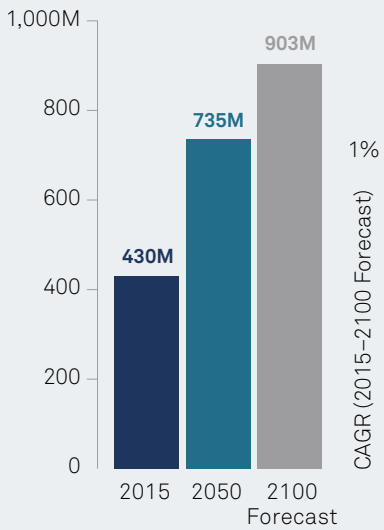
Collectively, SSA's top 15 cities already account for about 40% of Africa's overall economic output.[44] While only 40% of the population lives in urban areas today, UN projections show this figure reaching 64% by 2050 (see figure 7).[45] The pace and scale of urbanization is transforming the scope and shape of demand for education: driving economies of scale in education delivery; supporting greater efficiency in infrastructure development and delivery, as private providers and public-private partnerships emerge to meet new system demands; and driving women's labor force participation (which, in turn, is likely to create demand for pre-primary education).

4. Proliferation of technology

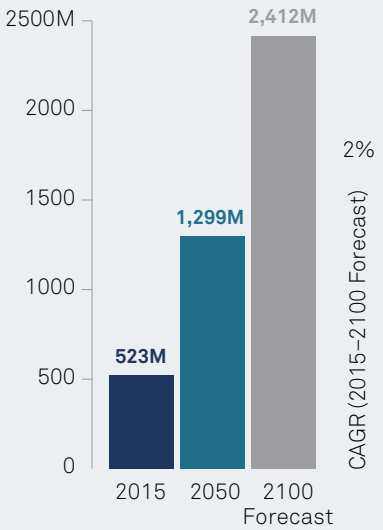
From 2009 to 2014, Africa's international bandwidth increased 20-fold and its terrestrial network more than doubled.[46] There are an estimated 445 million unique mobile subscribers up from 200 million in 2010. The transition to higher-speed networks and smartphones continues, and mobile broadband connections are set to increase from around 20% of the connection base in 2015 to almost 60% by 2020.[47] The education sector is beginning to harness these technological developments to address access, quality, and relevance:

FIGURE 5: POPULATION GROWTH PROJECTIONS, 2015–2100, SUB-SAHARAN AFRICA

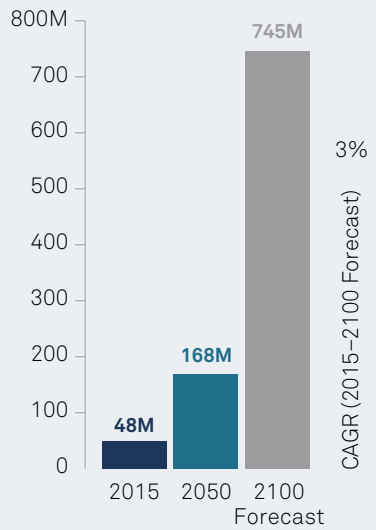
Population (0–14 years), 2015–2100 Forecast



Population (15–59 years), 2015–2100 Forecast



Population (60+), 2015–2100 Forecast



- **Transforming learning:** Growing internet access opens up opportunities for new learning platforms such as massive open online courses (MOOCs), virtual learning communities, and "m-learning" through mobile phones. This can reduce provision gaps within countries, while making international resources available.

- **Evaluating outcomes:** Technology is able to provide indicators for performance at the level of the school, the class, and the individual student.

- **Scalable sharing:** The use of education technology offers the opportunity to share scalable models of best practice within and across geographies, helping to narrow disparities across the region.

Although the potential of technology to leapfrog more traditional methods of education delivery can be overstated, the first-mover advantages in SSA's technology market, and its use in the education sector, are likely to be significant.

MEETING THE CHALLENGE: LEVERAGING ALL RESOURCES

Despite progress, the challenges for Africa's education systems are unparalleled. Public demand for education at all levels will only increase with larger, urban-dwelling middle-class populations, while technology and a larger population size can surely provide resources and inputs to support education transformation. But, even given increases in resources, the public sector lacks sufficient capital or capacity to operate alone. The enormity of the challenges, as well as the resources needed to make the most of growing opportunities, means that traditional government policies and donor-led approaches will not be sufficient going forward.

There is nothing radical about this. Education systems around the world work with the private sector to improve educational outcomes. Chile, Brazil, Singapore, and the Netherlands are only a few examples of countries that have integrated private education services as a core component of national education systems. In Liberia this year, the Government launched a pilot for not-for-profit and for-profit providers to manage public sector schools, and Indian states including Andhra Pradesh are piloting similar programs. While policymakers' attitudes in SSA are starting to reflect an evolving understanding of the role of the private sector, concerns are still deeply rooted.[48]

This report addresses the opportunities that the realities on the ground in SSA create for investors, as well as for policy-makers, regulators, and public funders. It aims to shed light on the activity of the private sector, the opportunities and challenges for private organizations, companies, and investors, and the ways governments can engage and enable a thriving private education system that, in partnership with the public sector, is a strong net contributor to the development of SSA's human capital. The report highlights the potential for involvement in the private sector by a range of donor and investor types and with a variety of target populations. In particular, it is worth examining how the private for-profit and not-for-profit sectors can play a role in reaching the most marginalized populations—those who are most likely to have been left behind despite progress in achieving the Sustainable Development Goals (SDGs).

The next section examines the current role and outlook for the private education sector.

SSA HAS AN ESTIMATED 445 MILLION UNIQUE MOBILE SUBSCRIBERS, UP FROM 200 MILLION IN 2010.

FIGURE 6: SSA MIDDLE-CLASS POPULATION GROWTH IN TERMS OF DAILY CONSUMPTION, 2000–2010 (IN 2005 PPP USD)

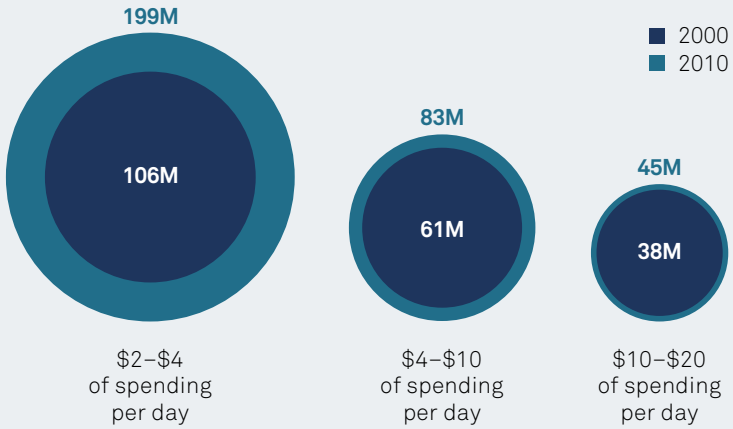
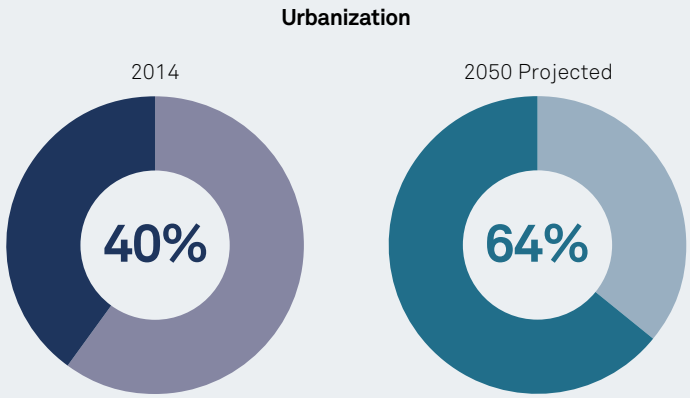


FIGURE 7: SHARE OF POPULATION IN URBAN AREAS 2014–2050 PROJECTED, SSA



EVEN GIVEN INCREASES IN RESOURCES, THE PUBLIC SECTOR LACKS SUFFICIENT CAPITAL OR CAPACITY TO OPERATE ALONE.

SECTION I
CURRENT ROLE AND OUTLOOK OF PRIVATE EDUCATION IN SUB-SAHARAN AFRICA

SECTION I

The private sector is already making a significant contribution in the delivery of education sector in SSA.

The section that follows showcases the scale of this contribution, including providing what we believe are more accurate assessments of enrollments and provision than are available from traditional data sources. The section goes on to detail what the private sector is uniquely well positioned to offer; explores its inherent limitations and challenges; and highlights the likely growth of the sector.

"Private" in this context means services and financing outside of public sector provision and includes for-profit, charitable, non-governmental, faith-based, and community provision, among others.

Charities, non-governmental, and faith-based organizations provide services on a not-for-profit basis (and are hence referred to collectively in this report as not-for-profits) but fees may still be associated with their services in order to sustain operations. These institutions can be further classified as:

1. **Charitable enterprises** (aimed at creating social impact, typically dependent on donations/grants)

2. **Social enterprises** (create surplus and reinvest this into programming)

3. **Trust-owned** (community-owned/ religious organization-owned)

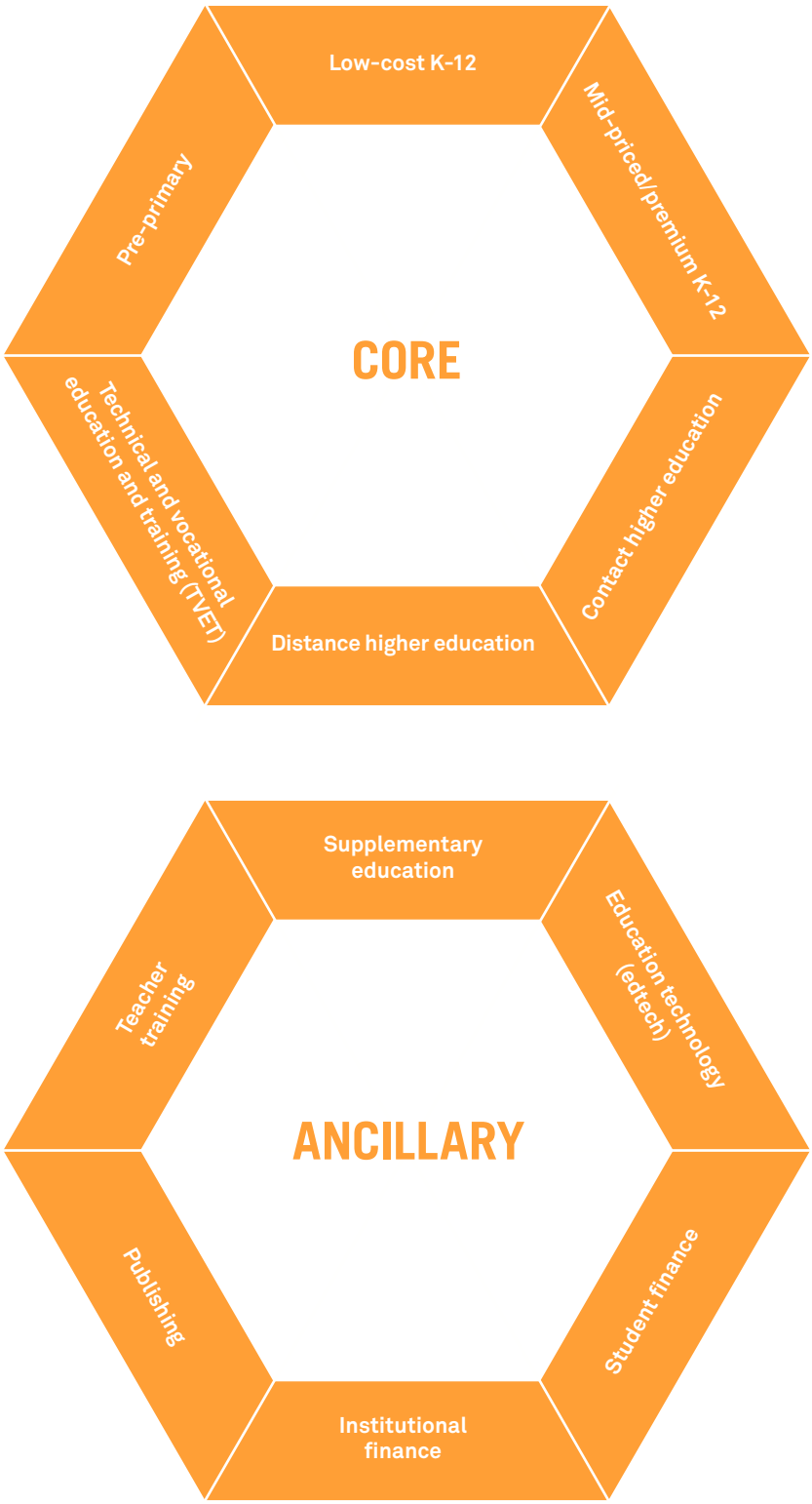
Because both public and private providers can receive financing from public and private sources, the report covers both private provision and private financing of education when it refers to "private" education (see table 1).

"Education" includes **core delivery** – comprising the student life cycle, including pre-primary, K-12 (primary and secondary), higher education, and technical and vocational education and training (TVET); and **ancillary services** – including teacher training, education technology, publishing, supplementary education (after-school tutoring, language learning, and test preparation), student finance, and institutional finance (see figure 8).

TABLE 1: TYPES OF PUBLIC AND PRIVATE DELIVERY AND FINANCING OF EDUCATION[49]

			Type of financing	
			Public	**Private**
Type of provider	**Public**		e.g. traditional public schools	e.g. adopt a school
	Private	Not-for-profit	e.g. faith based community schools; charter schools	e.g. philanthropic or NGO schools
		For-profit	e.g. charter schools	e.g. contact higher education

FIGURE 8: CORE AND ANCILLARY EDUCATION PROVISION



THE PRIVATE SECTOR PLAYS A COMPLEMENTARY ROLE IN THE CORE DELIVERY OF EDUCATION

The private sector is already playing a significant role in SSA. Publicly reported data compiled by UNESCO indicates that the private sector enrolls 23.5 million students across 15 countries.[50] However, a more accurate estimation of private enrollment conducted for this report (beyond the reported data) finds that as many as 41 million pupils are enrolled in private institutions in these countries (see figure 9 and see Annex III for Methodology). This indicates that the actual share of private provision could be as high as 21% (or one in five pupils), compared to the reported number of 13.5%. This number is likely to rise to one in four by 2021.

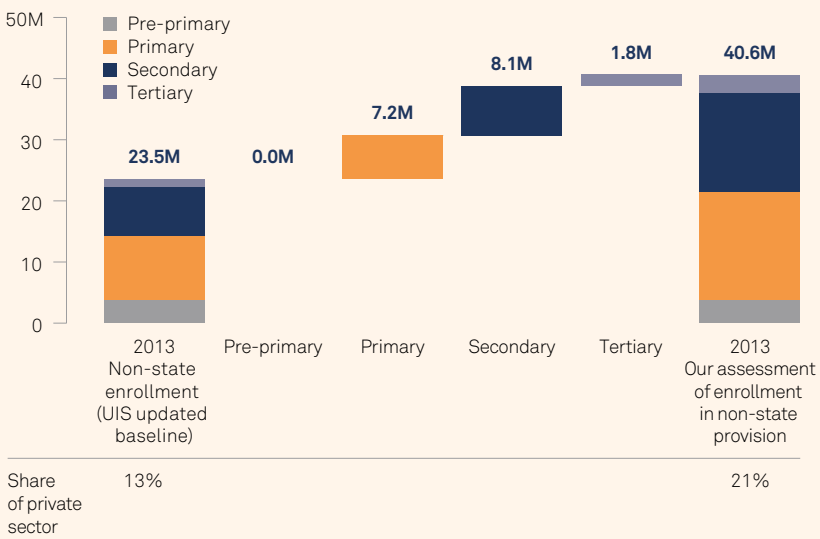
The drivers of data discrepancy include the fact that there are many unregistered schools across the region, and a large proportion of these do not participate in national surveys. Unsurprisingly, the private sector proportion of provision varies considerably (typically from 10%–30%) across countries and levels of education.

Not only does the private sector already have a significant share of education, it is growing quickly, with growth outstripping public sector growth in most segments (see figure 10).

Private education is already playing a role in SSA in the following segments.

THE ACTUAL SHARE OF PRIVATE PROVISION COULD BE AS HIGH AS 21% (ONE IN FIVE PUPILS), COMPARED TO THE REPORTED NUMBER OF 13.5%.

FIGURE 9: PRIVATE ENROLLMENT IN EDUCATION, UNESCO INSTITUTE OF STATISTICS REPORTED DATA VERSUS REVISED ESTIMATES, 2013



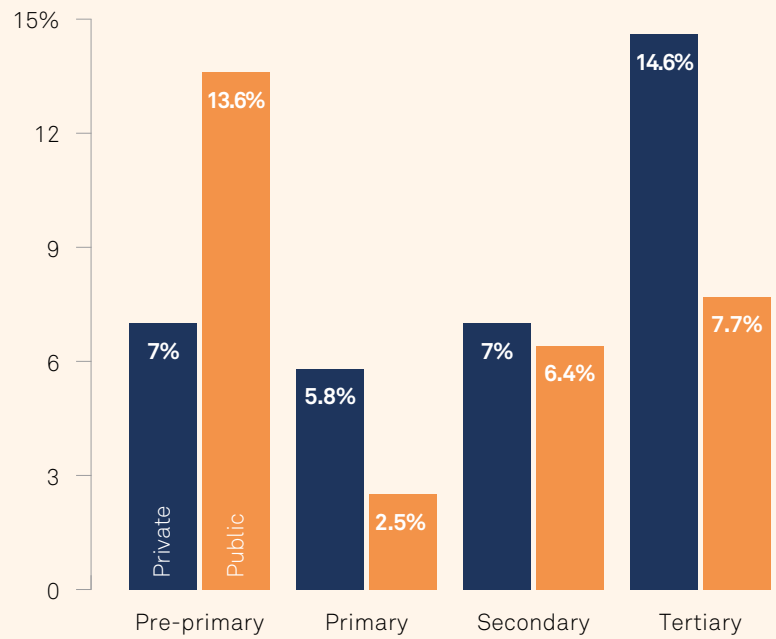
1. **Pre-primary**
   Rates of pre-primary enrollment in SSA are lower than in many parts of the world. Eight of the 10 countries globally with the lowest pre-primary net enrollment rates are in SSA.[51] However, participation in pre-primary education makes children more likely to enroll in primary school and better equipped to learn.[52] Pre-primary education has not historically been part of core government provision of education in SSA, and as a result, the private sector has played a significant role, with an estimated ~26% market share. However, laws are changing to make pre-primary part of compulsory education (for example in Kenya, Nigeria, and South Africa), and consequently, public sector provision has recently grown faster than private sector provision.

2. **K-12 schools**
   The switch to fee-paying private schools may not be as significant in SSA as in other geographies because families are already accustomed to public education coming at a cost as it is commonly subject to non-tuition fees (e.g., for uniforms). A study in Ghana, for example, found that private schools are 50% more costly than government schools, but that both have associated fees, with households spending over a third of their income on education.[53]

Private provision can be categorized into five models based on ownership and funding (see table 2). "Private" schools within these categories should also not be perceived as homogeneous.

Private provision comprises about 20% of market share in K-12 (with 32% in secondary education and 14% in primary education). In SSA, providers like Curro, Reddam House, and the ADvTECH schools division (including Crawford Schools, Trinityhouse, Abbotts College, Centurus Colleges, Junior Colleges, and Maravest Group) have achieved scale upward of $50 million in annual tuition revenue. However, the K-12 sector is dominated by "mom-and-pop" and non-formal education providers that serve the lion's share of students. Providers such as Omega Schools, Bridge International Academies, and Promoting Equality in African Schools (PEAS) are reshaping the sector by developing scale models for low-cost K-12 education.[54] Not all private schools are recognized by government: registered schools are recognized and approved, while unregistered or non-formal schools either cannot meet government registration requirements or wish to remain below the official radar.

FIGURE 10: PRIVATE VERSUS PUBLIC ENROLLMENT GROWTH AND MARKET SHARE, 2005–2013



	Pre-primary	Primary	Secondary	Tertiary
Our assessment of share of the private sector (%)	26%	14%	32%	38%

FAMILIES IN SSA ARE ALREADY ACCUSTOMED TO PUBLIC EDUCATION COMING AT A COST.

TABLE 2: TYPES OF PRIVATE EDUCATION PROVISION[55]

Description	Ownership	Contract	Financing	Examples	Case studies – SSA and other markets
PRIVATE SCHOOLS					
Owned by non-state actor and financed typically through fees or philanthropy (can be for-profit, not-for-profit)	Non-state	No	Non-state	Private schools, Philanthropic/ Trust/Faith-based schools	– Aga Khan Academies (Mozambique, Kenya, India) – Aga Khan Schools (200 schools in nine countries including Kenya, Tanzania, and Uganda) – Braeburn Schools (Kenya, Tanzania) – Innova Schools (Peru) – Jnana Karanji Trust Private Schools for the Poor
PRIVATE-FUNDED SCHOOLS					
Owned by non-state actor and managed with funding from government (but not on a contractual per student basis)	Non-state	No	State	Government aided schools in India; Academies in the UK	– Andhra Education Society – Kerala Education Society (India)
PRIVATE CONTRACTED SCHOOLS					
Owned and managed by non-state actor with funding from government based on contract with funding depending on certain conditions	Non-state	Yes, with government	State	Not-for-profit independent schools in South Africa	– Christel House (India) – LEAP Science & Maths Schools (South Africa)
PRIVATE MANAGEMENT SCHOOLS					
State-owned but non-state operated and managed (e.g., charters, academies, concession schools)	State	Yes, with government	State	Charter schools in the USA	– KC Thackrey Vidya Niketan (India) – KIPP Public Charter Schools (USA)
MARKET-CONTRACTED SCHOOLS					
State schools that are non-state-owned with contract, or publicly owned with non-state management; where funding follows the student to the school of their choice (vouchers)	State and non-state (mixed)	Yes, with students	State	Education Voucher Scheme in Punjab, Pakistan	– Punjab Education Foundation Partner Schools (Pakistan)

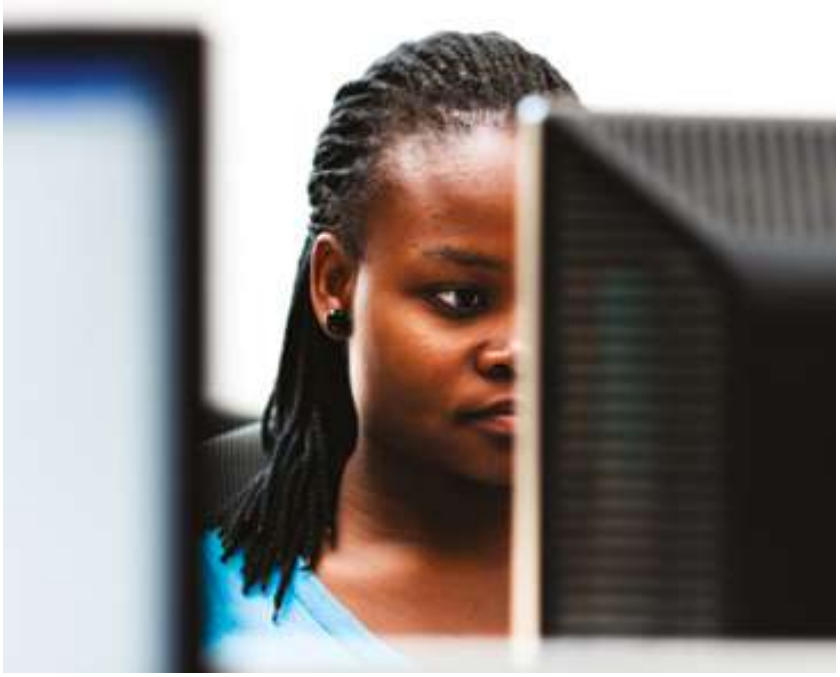
3. **Higher education**

There is a shortage of higher education places available in SSA, with a high applicant-to-seat ratio in many countries (as high as two to four applicants per place). This is partly driven by the upstream surge in primary and secondary enrollment rates. Moreover, the quality of public higher education in SSA is generally poor, with just 12 universities in the top ~1,000 globally.[56] Higher education experts in the region note that classrooms are overcrowded and that there is a shortage of qualified lecturers. These circumstances have driven students to access other options, such study abroad programs and online courses. There is unmet demand for qualified graduates in the labor market (see the Introduction) and therefore a need for expansion of university places. Part of the problem is also the cost for governments to fund tertiary places: expenditure per tertiary student as a percentage of GDP per capita is reaching 290% in Ethiopia, 185% in Mozambique, and 102% in Madagascar.[57]

Given these factors, private education growth in this segment has been nearly 15% since 2008 and looks set to continue. Private higher education comprises ~30% of market share. Within SSA, there are large leading providers like ADvTECH, Pearson, and Mount Kenya University, as well as local private higher education providers. New models like Kepler (which leverages massive open online courses to reduce course delivery costs) and distance providers, such as Management College of Southern Africa (MANCOSA), are reshaping the landscape for higher education across the region. Adult education is also a growing trend, with a large number of non-traditional learners returning to higher education in order to upskill.

4. **TVET**

In SSA, as in other emerging markets, the TVET segment is fragmented with few scale providers. While data is poor, it is agreed that there is under-provision of TVET and that existing provision is of poor quality, despite the need for skilled technical labor. Returns to TVET are low in SSA (as in other emerging markets), as there are fewer regulations about the use of licensed technicians in, for example, the construction or automotive sectors. Moreover, few SSA countries have national skills frameworks that align TVET to standard sets of requirements for industry. Finally, there are not often pathways between TVET and non-TVET tracks of study, and TVET courses do not lead to a bachelor's or higher degree. The consequence is that the sector remains largely informal and apprenticeship-based because TVET certification does not deliver economic returns to individuals. However, new demand-driven models like Andela (which supplants a traditional degree with on-the-job training in a high-value growth sector) hold promise for the sector. Demand-focused, work-readiness bridging programs in high-growth areas like ICT/digital, financial services, and managerial skills, such as those offered by Harambee Youth Employment Accelerator in South Africa, also provide innovative new models of education to employment as an alternative to formalized or accreditation-driven education. These models often lend themselves to blended financing models and cross-sectoral co-investment.



TEACHER TRAINING CASE STUDY

The Aga Khan Development Network has worked toward both pre-service and in-service training of teachers in Africa.

Aga Khan Academies: Professional Development Centres

The Aga Khan Academies are three need-blind academies targeted at high-caliber students in sub-Saharan Africa and India. Each Academy has a Professional Development Centre (PDC), which strengthens the profession of teaching in the region by investing substantially in teachers' professional development. Programs offer both theoretical and applied opportunities to build professional competence by enhancing subject knowledge and examining how to teach the subject effectively, as well as providing specialized programs focusing on skills and understanding related to education.

Aga Khan University: Institutes for Education Development

Aga Khan University (AKU) operates two Institutes for Educational Development (IED): in Karachi, Pakistan (founded 1993), and Dar es Salaam, Tanzania (founded 2007). The latter serves Tanzania, Kenya, and Uganda. These train educators to replace traditional methods of rote learning with a student-centered approach that builds problem-solving skills and encourages independent thinking. IED East Africa has awarded more than 250 master's degrees and trained more than 3,000 educators through certificate programs, short courses, and workshops.

THE PRIVATE SECTOR IS A KEY PARTICIPANT IN ANCILLARY SERVICES

Beyond its role in core education delivery, the private sector is a vital participant in ancillary services, providing services in areas that support and complement core education delivery.

1. Teacher training

In markets with a supply-demand gap in teacher numbers, with low underlying public quality of education, and where the private sector is allowed to offer teacher training courses, it plays a significant role. For example, in Kenya the private sector has a share of 40%, while in Nigeria, the private sector share is 20%, and in South Africa the share is less than 5%.[58]

There is a current and projected shortage of quality teachers. To achieve universal primary and secondary education, SSA needs 4.6 million new teachers. This excludes the replacement teachers required due to attrition.[59] Beyond this, there are serious quality concerns about the existing pool of teachers. For example, only ~22% of primary teachers in Uganda are proficient in numeracy and ~39% are literate in English.[60]

In light of this shortfall, there are examples of private K-12 companies now expanding into teacher training to fulfill in-house requirements, including Corona Schools' Trust Council (Corona) (Nigeria) and Embury Institute for Teacher Education (Embury) (South Africa), as well as International Baccalaureate and SABIS (both global). In addition to pre-service training, there are many providers offering in-service training in public and private schools, such as Instill Education (South Africa)

and Teacher Education in Sub-Saharan Africa (TESSA) (pan-Africa). Some donors, including the Clinton Foundation, have prioritized "train the trainer" programs to reach greater numbers.[61]

2. **Supplementary education**
   - **After-school tutoring:** Though the market is fragmented with multiple small, single-center providers, there are examples of global companies, such as Kumon, which has about 200 centers in SSA. Not-for-profit initiatives, such as IkamvaYouth, provide free after-school tutoring to underserved populations in South Africa.
   - **Test preparation:** High applicant-to-seat ratios in higher education make entrance exams highly competitive, driving demand for test prep. For example, in Nigeria, ~1.6 million people appear for university entrance exams every year, competing for less than 650,000 tertiary education places. As a result, an estimated 500,000 enroll in test prep courses in Nigeria every year.[62] Examples of operators include PrepClass (Nigeria) and Mak-Addis Tutors (Ethiopia).
   - **English language training (ELT):** Though there are no large chains, there are multiple single-center operators in SSA teaching English in non-Anglophone communities (even within Anglophone SSA). There are also a range of not-for-profit initiatives to support English language learning. For example, the British Council has begun a project to distribute solar-powered MP3 players with English learning materials to teacher training colleges and schools across Ethiopia (the Learn English Audio Project).

3. **Education technology**
   Private models in edtech are evolving to reduce costs of delivering education, with new models for distributing content, engaging students, and widening access, making quality education available to larger segments of the population. This can include:
   - **Core delivery:** Wherein online or hybrid higher education providers provide access to degree and short courses, typically focused on employability. Providers include UNICAF (pan-Africa), OneUni (Kenya), Kepler (Rwanda), and GetSmarter (South Africa).
   - **Supplementary education:** Models typically use technology to lower costs, widen access, and address issues of school quality. Examples include Eneza Education (Kenya, Ghana, and Tanzania) and Siyavula (South Africa).
   - **School management and services:** These improve operational efficiency and data-driven decision-making, with offerings in management systems, assessments, payment systems, anti-plagiarism software, and parent-teacher communication. Examples include Blackboard, Moodle, and Canvas (global and pan-Africa) as well as Accelerated Ethiopia (Ethiopia) and mobile teacher payments systems (observed in Democratic Republic of the Congo).
   - **Directory services:** Such services help address information asymmetry and act as aggregators of information to match demand with supply. Examples include Teach2me and Firsttutors (South Africa).

4. **Student and institutional finance**
   Private sector finance can make education affordable for more students and enable education institutions to function with greater stability. As financial ecosystems develop (e.g., with the introduction of credit bureaus, as has happened in Zimbabwe and Zambia in the last five years), education finance is likely to become more mainstream. Student loans for higher education can be obtained in at least 14 SSA countries from public student loan boards. However, the loans are usually not large enough to cover all of a student's needs, and only a fraction of the total number of students have access to them. There are limited formal models for education finance in K-12 schools. The sector is nascent but a group of promising models is emerging.
   - **Student finance:** This type of finance is predominantly in the tertiary space, with some examples of lending to support K-12 students. Examples include Brighter Investment (Ghana), Fundi (South Africa), Trustco (Namibia), and Opportunity International (Ghana, Uganda).
   - **Institutional finance:** This is a small but growing sector, with finance becoming available to operators of schools. These institutions are typically unbanked, with high levels of cash transactions and poor fee collection systems. Examples include Opportunity International (pan-Africa) and Accion Microfinance Bank (Nigeria).

5. Publishing

The private sector, both through the retail market and through government contracts, plays a dominant role in publishing learning and assessment materials in SSA. Large international providers such as Pearson, Learn Africa, and Cambridge University Press have a presence in Africa, while domestic providers such as Juta and Company (South Africa) and Longhorn Publishers (pan-Africa) also cater to a portion of the market.

THE PRIVATE SECTOR BRINGS STRENGTHS

The not-for-profit and for-profit private sector can offer strengths, with the potential to improve access, quality, relevance, and innovation. The private sector also provides choice which, in itself, is a good thing. Its strengths are explored in the following:

1. Improving access

Private offerings may complement the public sector by helping to increase access to segments poorly covered by government provision, and the share of private provision is therefore typically higher in pre-primary and secondary than in primary.[63] The not-for-profit private sector is particularly active in segments where access to education is less equitable. While the private sector can in some cases compete with government, it also takes a burden off government, freeing resources to improve access elsewhere. Moreover, there is a growing number of scale providers serving underserved, low-income groups (and doing so without public subsidy), such as Livingstone College and Lekki Peninsula Affordable Schools in Nigeria. In other sectors apart from core delivery, innovative models provide low-cost solutions (for example, Eneza Education, Siyavula, IkamvaYouth, and LEAP Science & Maths Schools). While the private sector has limited presence in rural areas across SSA due to challenges of infrastructure and human capital, there are some examples of not-for-profit, donor-funded models addressing regional and gender disparities, such as Educating Nigerian Girls in New Enterprises (ENGINE), funded by Coca-Cola and Department for International Development (DFID) and aimed at enrolling 10,000 marginalized girls and young women in Nigeria.

Private education cannot be seen as a panacea for reaching marginalized populations. The private sector is for low-income groups, as it is for all population segments, a complement to public sector provision. It is also worth noting that for-profit operators targeting scale in low-income segments (which, given typical fee levels, is the only way to achieve profitability) have come under significant public criticism because they are for-profit but serving poorer populations, which may deter investors.

2. Accelerating innovation through flexibility

The private sector can drive new practices influencing both public and private provision. Failure is the handmaiden of innovation, but it is not typically accepted within public education institutions or within the policy community. However, the private sector has flexibility to test and scale new approaches, models, and learning methods which can be adopted as mainstream education practice (for example, Studio Schools in the UK and Escuela Nueva in Colombia). For example, a 2016 report from the Brookings Institution profiled a range of private providers with innovative approaches. Two case studies include:

a) **BRAC Education Programme** (in operation in South Sudan, among other geographies) is a not-for-profit that reaches children who dropped out of or never enrolled in primary school. It condenses the primary curriculum, allowing students to take national secondary school exams. The program is taught by local teachers, the dropout rate is below 5%, and it reaches more than 1.6 million students per year in five countries.

b) **Educate!** (Uganda, Rwanda) is a not-for-profit organization working with teachers and youth mentors to provide entrepreneurship, leadership, and workforce readiness skills to African youth who start real businesses at school. From its inception in 2009 it now reaches 120,000 students in 12% of Ugandan secondary schools. Educate! has influenced both Rwanda and Uganda's national curriculum. Students' post-graduation incomes are double that of non-participants', and they are 64% more likely to start businesses.[64]

Economies of scale may also be more achievable by private providers, and if similar or better quality can be achieved with lower cost, this would be preferable to higher cost public alternatives. According to industry participants, the private sector in some cases has been able to operate at the same or lower cost per student, while also delivering higher quality. For example, at least one private low-cost chain consulted for this report spends less per pupil than the public sector and is also able to deliver better outcomes. Some low- to mid-priced schools (such as SPARK Schools in South Africa) operate at nearly equivalent cost per student as

public schools. Where private provision offers better quality at the same or lower cost, this can improve public education and the education system as a whole.

3. Improving quality

Data on private education quality versus public education quality is insufficient to claim that private provision is superior to public, but in some cases and contexts, private education delivers better quality of education. A 2011 study in Nigeria found that private school students consistently achieve significantly better outcomes than government school students.[65] A 2013 study found that the presence of private schools in Kenyan school districts had a positive effect on average test scores.[66] The 2016 National Education Assessments in Ghana found a 23.5 percentage point difference between the highest average scores for private versus public school pupils.[67] Some of these studies control for student income, while others do not.

Private schools may have more favorable classroom fundamentals, such as lower student-teacher ratio and lower rates of teacher absenteeism. While these inputs do not in themselves drive positive outputs, they may be a helpful contributor to achieving higher quality. For example, the student-teacher ratio (STR) in public schools in South Africa is 31:1 compared to 16:1 in private schools.[68] In Ethiopia the STR in public schools is 46:1 compared to 30:1 in private schools.[69] According to a World Bank report, private school teachers are also a third less likely to be absent from the classroom and they spend 50% more time in the classroom, translating into, on average, one hour and nine minutes more teaching time per day; 30% of public school classrooms had an absent teacher, almost twice the rate in private schools.[70] A DFID report finds that teaching in private schools is characterized by approaches that are more likely to deliver improved outcomes than those in state schools.[71]

Parental and student choice is also an important factor in driving quality: schools with good outcomes build a reputation, and word-of-mouth recommendations remain a key factor in school selection in emerging markets.[72] However, while choice of private education (over public alternatives) could, in some cases, be a reflection of actual quality, like any consumer decision, selection may also be based on perceptions rather than reality. A recent study found, for example, that 98% of low-income Indian parents of pre-primary children looked to developmentally inappropriate markers such as regular homework and exams as evidence of school quality.[73]

4. Improving relevance

Private providers often have a greater focus on providing relevant education, particularly within sectors where students are looking to move immediately into employment after graduation. For example, a greater proportion of employability-related courses are provided by private universities. While Tier 1 public universities are typically students' first choice, they are capacity constrained, and private institutions provide an alternative. Private institutions may be preferred over mid- and lower-tier public universities given their focus on employment and outcomes, translating into more assured return on investment. For example, 80% of enrollment in public and private universities in Kenya is in non-Science, Technology, Engineering, and Mathematics (STEM) courses, however, private universities have a higher proportion of business courses which are more employability-oriented.[74]

RECOGNIZING THE REALITIES OF ENGAGING THE PRIVATE SECTOR

Private education has vocal detractors, and the concerns of these stakeholders are sometimes well founded. Education is rightly perceived as a shared social good. Moreover, policymakers face challenges in regulating this fragmented and fast-evolving landscape. Unscrupulous education providers hamper the overall reputation of the sector.

As policymakers and investors look to harness the potential of the private sector, it is vital to acknowledge the limitations of private provision in order to address these in practice and develop robust systems for managing the sector's contributions.

Private sector education brings strengths, but discussions about its potential should be leavened by two key, related considerations. First, private provision — whether for-profit or not-for-profit — has inherent consequences and limitations that differ from public provision. Second, the private sector is enabled and constrained by the policy environment in which it operates. The first proviso is explored in what follows. The second is explored in Section II, which looks at an enabling policy environment for private education.

There are four key areas in which engaging with the private sector has limitations and consequences:

1. **Quality**
2. **Equity**
3. **Sustainability**
4. **Competing for resources**

These are explored in what follows.

1. Quality

Private providers have a range of motivations, from donor-funded projects using new models to dramatically increase education quality, to fly-by-night operators that disappear after they have collected would-be students' tuition fees. There is therefore variability in quality in private education (as there is, of course, in public sector education). There are also concerns that private provision may be parasitic on public education systems and thereby erode their quality, for example, employing teachers and lecturers who have other (public sector) teaching commitments and who are "moonlighting" in the private sector. Regulation and licensing, particularly through quality assurance frameworks (explored in Section II), are an important part of the solution, but in free markets regulation can never completely address inherent variability in provision.

2. Equity

Most private education is inaccessible for most people in most countries. With important exceptions, private providers are not established to provide equitable education to all, regardless of income level, location, or need. They typically target a market segment (whether low-cost or premium, urban or rural, online or off) and pursue this group without considering consequences for those left out. Marginalized students such as rural populations, girls, special-needs pupils, and conflict-affected children may be further marginalized by private provision. That said, the not-for-profit sector often makes particular provisions for or specifically targets these groups. For example, the Aga Khan Academies have a social mission to provide high-quality education regardless of economic need. Moreover, emerging low-cost models targeted at the "bottom of the pyramid" can drive access for children who are not currently in school. Finally, governments can and should make private education affordable for a range of students where the private sector can offer a better quality/cost trade-off.

3. Sustainability

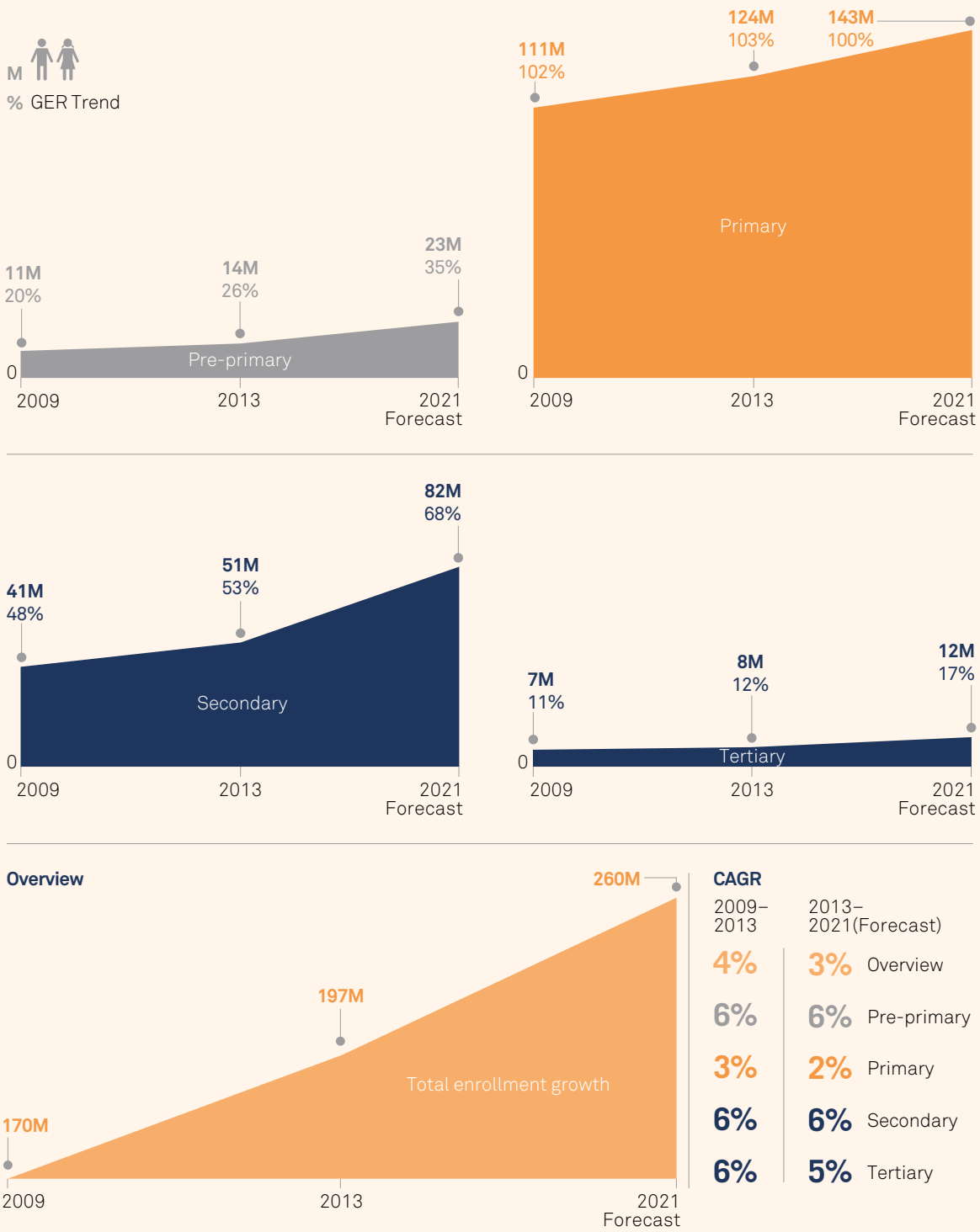
Businesses go out of business. Donor funding runs out. Impact investing pilots run their course. The private sector involves financial risks not present in the public sector. For example, it is usually reliant on year-to-year revenues, investment, or grant income to drive operations. In some cases, over-reliance on private provision can create supply gaps if market conditions (including policy environments) change.

4. Competing for resources

In environments with limited resources, private education can in some cases compete with government, for example for teachers and high-performing students. This can be a source of tension.

Appropriate regulatory policies and interventions (investigated in Section II) could be used to encourage, engage with, and leverage the benefits of the private sector. Moreover, it is precisely through sensible deregulation of operating environments for private education that policymakers can create quality. Poor education can survive in supply-constrained markets but is less likely to succeed in the face of active competition. That said, the fundamental limitations and consequences of private provision of education will not change. Policymakers must weigh these shortcomings against the compelling upside of engaging with the sector. Given the challenges in education provision in SSA, dramatic changes are required if the region is to meet its potential. On balance, this report argues that the benefits of private education far outweigh these potential costs.

FIGURE 11: ENROLLMENT IN EDUCATION SYSTEM ACROSS 15 SSA COUNTRIES BY LEVEL OF EDUCATION, 2009–2021 (FORECAST)[75]



PRIVATE PROVISION OF EDUCATION IS LIKELY TO SEE SIGNIFICANT GROWTH IN THE MEDIUM TERM

Beyond considerations of the benefits and costs of private education, the facts on the ground are plain: the sector is large and growing. In SSA, education provision in absolute terms is expected to increase over the next 15 years. The key drivers for this growth are both an increase in the relevant population cohort (described in the Introduction), as well as a policy push to increase enrollments to meet the SDG targets of universal completion of primary and secondary education and universal access to pre-primary education, TVET, and university.

Based on population growth and GER trends, our total revised assessment of enrollment in the 15 countries finds that across SSA, enrollment is expected to rise to 260 million students by 2021, from 197 million in 2013 (see figure 11).[76] Primary and secondary enrollment would account for about 80% of the incremental enrollments. This would translate to a requirement of $50 billion in capital expenditure. Governments do not have the requisite funds nor, in many cases, the institutional and human resource capacity to support the need for infrastructure and new trained teachers. The private sector will play a greater role in meeting demand.

Enrollment in private education is forecast to be in the range of 63 million to 69 million by 2021. This figure is dependent on whether the GDP growth rate for the countries varies by +/-100 basis points from the base forecasts used by the International Monetary Fund (IMF). The private enrollment forecast is not very sensitive to economic growth forecasts, as GER growth and increase in penetration are expected to drive growth in private enrollments.

In addition, the share of the private sector in provision is expected to increase over the next 15 years. The main drivers of this increase in share are income growth and urbanization (referenced in the Introduction), and resultant rising affordability of education and demand for greater choice and accountability. The private sector has historically taken a 30% share of incremental enrollment, and its total share grew from 19% to 21% from 2009 to 2013. Based on historic share evolution and forecast economic conditions, the share of private provision is expected to increase to 26% (66 million enrollments) by 2021 (see figure 12).

Globalization will also play a role, as international interest in SSA is increasing, with more companies investing in the region. Although growth has slowed, SSA will remain the second-fastest-growing region in the world for the foreseeable future, after emerging Asia.[77] Increased investment and industrialization will help to unlock the potential for job creation and poverty reduction in African countries. Foreign direct investment (FDI) in the region hit a record $60 billion in 2013, five times its 2000 level.[78] The pressure for SSA to compete on a global scale — including in terms of its population's relevant skills — is likely to grow. Technology will enable greater innovation in delivery models and is likely to be more rapidly adopted by the private sector. There will be growth across education sectors (see figure 13) given projected enrollments, global trends, and increased investment and industrialization. While core education is predicted to grow faster, with pre-primary growing at 29%, ancillary education is also anticipated to grow rapidly, with an increase in adoption of services, such as after-school tutoring.

FIGURE 12: ENROLLMENT BY TYPE OF INSTITUTION ACROSS 15 SSA COUNTRIES, 2009–2021 (FORECAST)

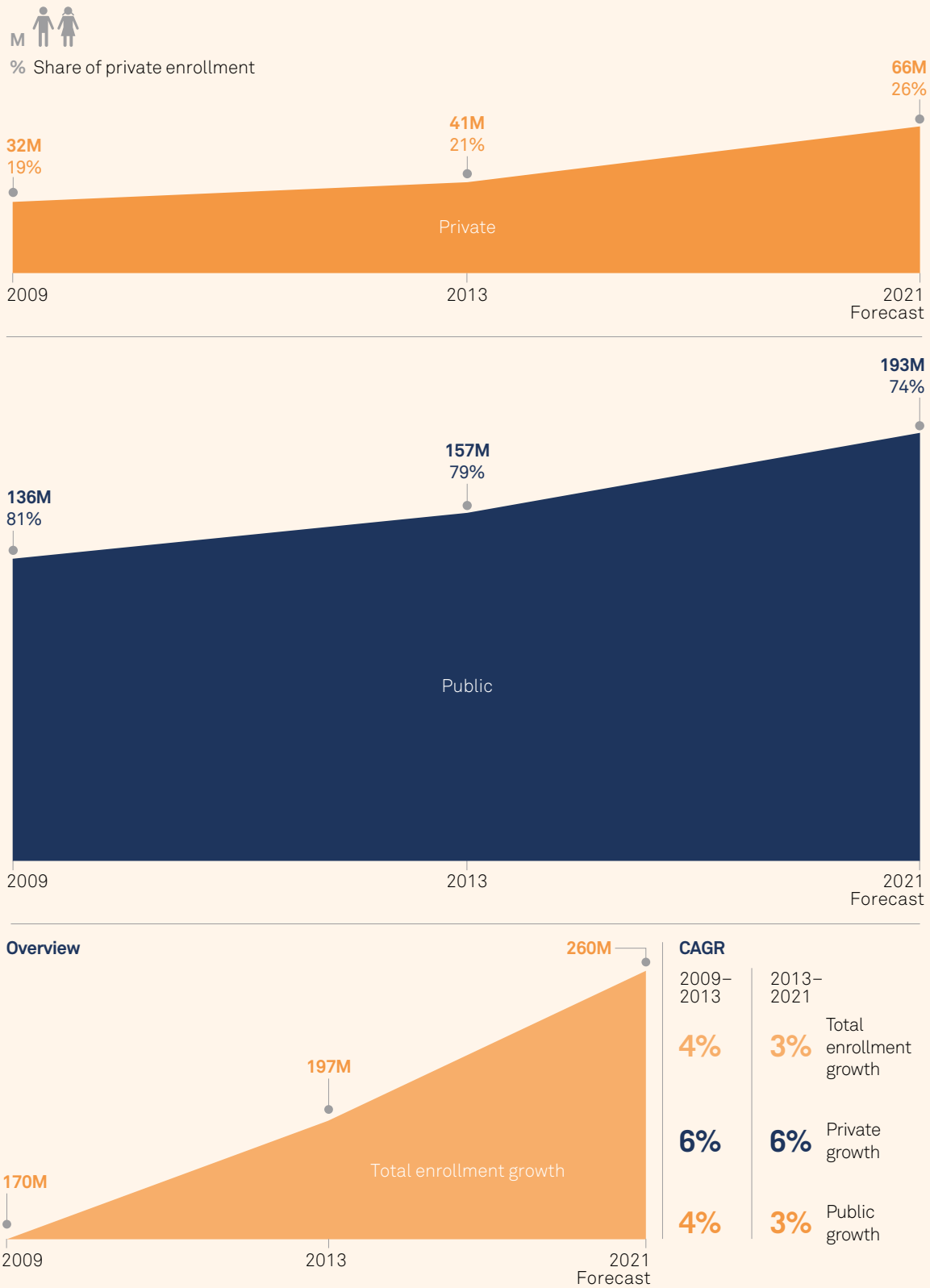
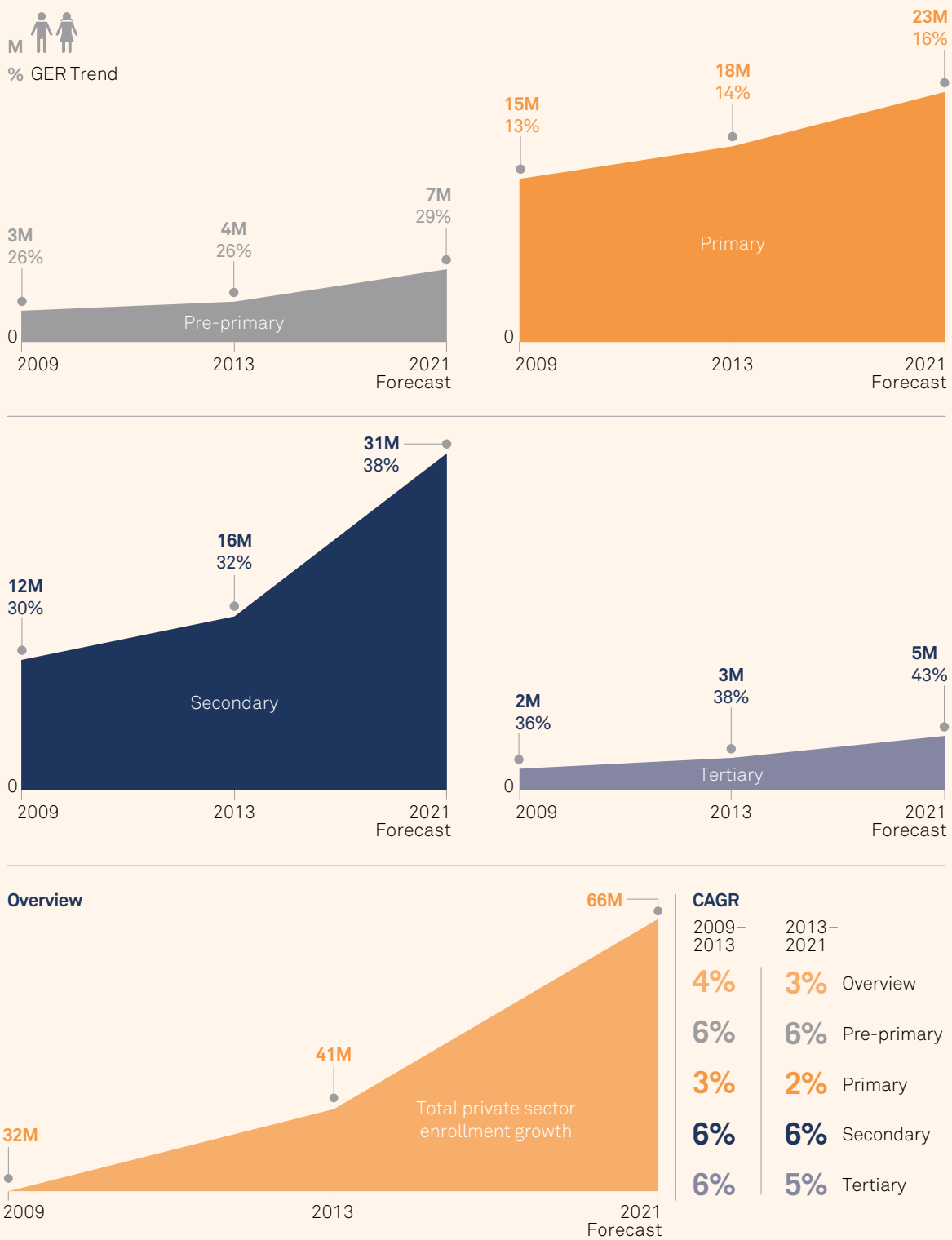


FIGURE 13: PRIVATE SECTOR GER, BY LEVEL OF EDUCATION, SSA, 2009–2021 (FORECAST)



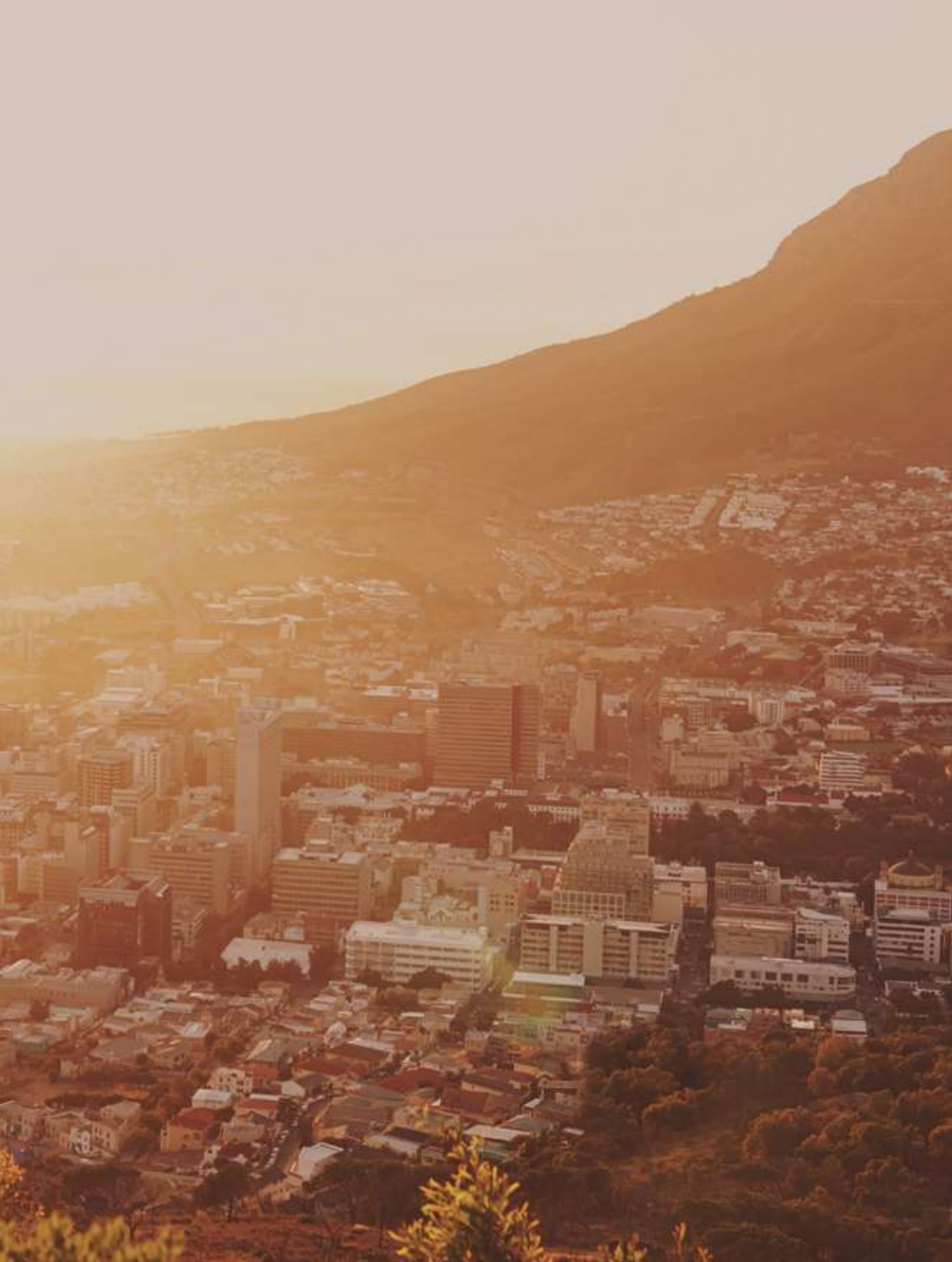
CONCLUSION

The private sector currently plays a significant role in provision in SSA and will likely play an even larger role in the future.

To harness the full potential of complementary solutions provided by the private sector, investment is of course required, but to be effectively leveraged, the sector needs policy and regulation that help private education to play its role efficiently and effectively. The next section explores the policy enablers that will support high-quality participation by the private sector.

SECTION II

MAXIMIZING THE CONTRIBUTION OF PRIVATE EDUCATION



SECTION II

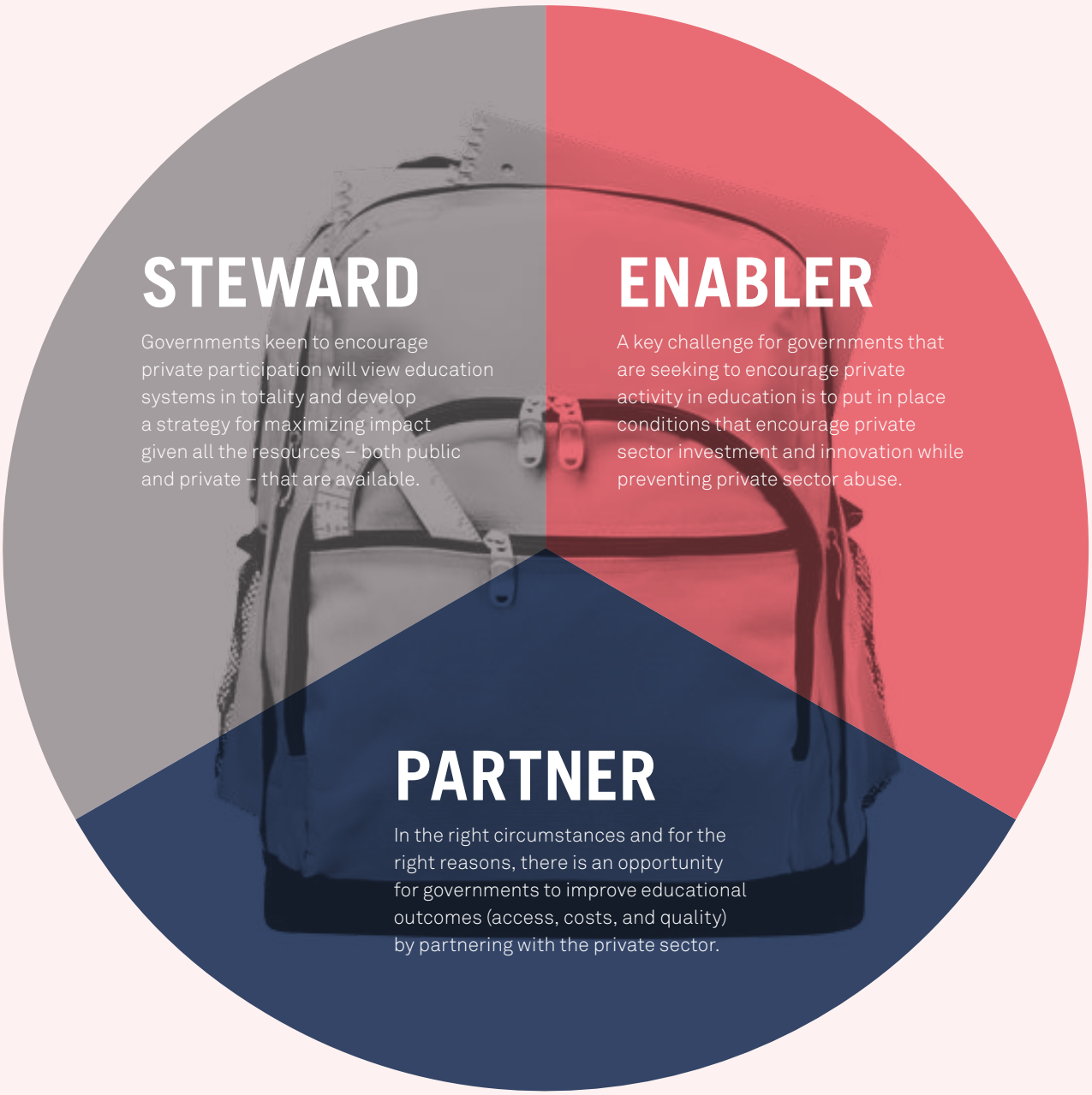
Government actors alone are guardians of equal education opportunity. Ideal policy for private education seeks to maximize social impact while encouraging an efficient and competitive free market for private providers.

Despite the significant contributions of the private sector, these are too often divorced from public policy or stymied because of poor policy environments, limiting both the efficiency and effectiveness of provision and the scope for expansion. One operator working in multiple countries noted: "No one worth their salt would ever suggest they be allowed to bypass the rules, but the lack of clarity and consistency in regulations across the region is a huge challenge."[79]

This section highlights what governments might do if they want to encourage and regulate private sector participation in education. Given diverse underlying policy environments and stages of policy reform, different approaches will make sense in differing contexts and these should be consistent with the prevailing policy posture across government.

THE ROLES OF GOVERNMENTS IN PRIVATE EDUCATION

FIGURE 14: GOVERNMENTS PERFORM THREE KEY ROLES IN RELATION TO PRIVATE EDUCATION



POLICY CHALLENGES AND RECOMMENDATIONS

On the following pages, we investigate the roles of government (see figure 14) and identify current challenges alongside potential interventions to improve the policy landscape. This section draws extensively on insights from interviewees for this report, as well as on international best practice. The challenges and recommendations for policy have a focus on the six study countries assessed in detail for the report, including South Africa, Nigeria, Kenya, Ethiopia, Senegal, and Liberia. A detailed profile with country-specific findings, including on policy challenges and recommendations, is available for each country in Annex II.

GOVERNMENT AS STEWARD

As the steward of the education system, governments have a range of levers for intervention. These include:

1. **Improving the ecosystem**
2. **Streamlining governance**
3. **Setting and enforcing standards**
4. **Establishing frameworks**

These are investigated in turn in what follows.

1. Improving the ecosystem

Political instability (for example, in Ethiopia, which recently declared a state of emergency), the wider business environment, corruption, transparency, and bureaucratic red tape can make it more difficult for education providers to operate and to secure financing, as investors may be wary of deploying capital in less secure environments. The six study countries rank outside the top 70 of 190 globally in the Ease of Doing Business Rankings[80] and none rank above a score of 45 in the Corruption Perceptions Index, which indexes countries from 100 (least corrupt) to 0 (most corrupt) (see table 3).[81]

As governments improve overall business environments, this will have positive benefits for private education as well.

2. Streamlining governance

Good governance within education systems is multifaceted. A few of the key potential opportunities for intervention are described in the following.

a) Reducing fragmentation:

One of the key challenges across the region (not exclusive to SSA and common across emerging markets) is the fragmentation of governance within the education sector at the national and provincial/state/district level, and between different departments (see tables 4 and 5 for Kenya and South Africa education responsibilities). As a result, education systems are not necessarily coordinated in terms of curriculum progression and degree life cycle, and education providers must work with multiple government stakeholders. There are also challenges of working between departments. For example:

- In Nigeria, K-12 education is a joint responsibility of federal, state, and local governments, which one observer said, "creates overlaps of duties and has resulted in loopholes, opaqueness and leakages."[82]
- Devolution in Kenya has resulted in private participants in K-12

TABLE 3: ECOSYSTEMS FOR DOING BUSINESS, STUDY COUNTRIES, 2016

	Ease of Doing Business Ranking	Corruption Perception Index Score
Ethiopia	159	34
Kenya	92	26
Liberia	174	37
Nigeria	169	28
Senegal	147	45
South Africa	74	45

TABLE 4: KENYA EDUCATION SYSTEM OVERSIGHT

Segment	Oversight bodies	Role
Pre-primary	Department of Early Childhood Development Education (Central) and County Governments	Licensing and registration, quality assurance and monitoring (duplicated role, lack of clarity due to devolution)
K-12	Department of Basic Education	Licensing and registration, quality assurance and monitoring
Higher education	Department of Higher Education	Licensing and registration
	Commission for University Education	Quality accreditation
TVET	Department of Vocational Education and Training	Licensing and registration
	TVETA (TVET Authority)	Quality accreditation

TABLE 5: SOUTH AFRICA EDUCATION SYSTEM OVERSIGHT

Segment	Role	Oversight bodies
Pre-primary	Department of Basic Education	Registration and monitoring of all ECD centers
	Department of Social Development	Registration and monitoring of ECD centers which offer Grade R (the grade before Grade 1)
K-12	Provincial Department of Education	Licensing and registration
	Umalusi	Quality accreditation
Higher education	Department of Higher Education and Training	Licensing and registration
	Council on Higher Education	Quality accreditation
	South Africa Qualifications Authority	Oversight of the National Qualifications Framework
TVET	Department of Higher Education and Training	Licensing and registration
	Umalusi	Quality accreditation

"THE INSPECTING AUTHORITIES WOULD RATHER COUNT YOUR BENCHES THAN CHECK HOW YOU TEACH THE STUDENTS."

and Higher Education dealing with federal as well as county governments for approvals, generating longer timelines and greater bureaucracy.

To address these issues, governments can merge key departments and functions to avoid duplication and improve coordination. Global examples of governments that have undertaken this approach include:

- Saudi Arabia merged the Ministry of Education and Ministry of Higher Education in 2015 to boost educational standards and outcomes. While there are some concerns that this will diminish funding and political importance for higher education, it is likely to improve coordination.[83]
- South Africa's Department of Higher Education and Training (DHET) was formed in 2009 to bring together all post-school education and training institutions, merging those previously under the Department of Education and Department of Labor.

Beyond these structural reforms, introducing cross-departmental working groups, initiating policies and systems for data sharing, and jointly developing and agreeing objectives would improve coordination.

b) Improving data collection and transparency:
Quality data is not available in SSA, presenting one of the biggest challenges to effective system management. This is a particular issue in both the private and non-formal education sector. Across the region, very limited data is available on access, quality, and relevance indicators, including specifically for girls and special-needs children. Establishing a publicly available Education Management Information System (EMIS) incorporating private sector data is an important step. This would help to improve coordination between departments and would also play a role in quality assurance (to be covered later in this section).

3. Setting and enforcing standards
A key challenge in the market is variability in quality of private sector provision, particularly when standards fall below a minimum acceptable level. This, of course, has negative consequences for individuals and the community, but it also adversely affects legitimate private operators, who may experience negative public perception or over-regulation after lapses in the same sector. For example, a few recent quality issues include:

- 66 doctorates awarded by Kampala International University during 2012–13 were declared invalid by the Uganda National Council for Higher Education as they did not meet required academic standards.

- In 2014–15, Nigeria's NUC published a list of 57 "illegal" universities that it had shut down.

There is a range of interventions to support policymakers in improving quality assurance and inspection regimes:

a) **Establishing quality assurance frameworks to guide inspection:** Inspections typically focus on infrastructure-related parameters without assessing other quality drivers.[84] One operator in Kenya noted, "The inspecting authorities would rather count your benches than check how you teach the students."[85] This applies to the higher education sector as well: ~36% of higher education leaders in East Africa cite the lack of a "legal framework for quality assurance"[86] as a key impediment to quality assurance implementation at their institutions. Many education systems globally have quality-based inspection systems that offer transparency and are consistently applied in inspections. For example, the UK's Ofsted conducts assessments for schools, further education, and other services, with a common framework used to assign grades from 1–4 (Outstanding to Inadequate). Ethiopia, Kenya, Nigeria, and South Africa have frameworks in place but industry participants note they are insufficient, either in guidelines or implementation. Senegal introduced a Quality Assurance Agency in 2013 with support from UNESCO and the World Bank.[87] Liberia lacks a quality assurance framework.

b) **Improving regularity of inspection:** Under current guidelines, schools and universities ought to be inspected regularly. However, oversight is often irregular or inefficient due to capacity constraints. For example:

- Only 5%–10% of schools in South Africa are inspected as required.[88]
- In Ethiopia, education bodies are understaffed, causing delays in initiating and completing inspections.
- In Tanzania, there is a shortage of ~370 school inspectors (about 25% fewer than required).[89]

c) **Making inspection results public:** A related opportunity for government to improve system quality is to create a public system of performance ratings for schools. Publicizing inspections results makes providers accountable to parents. For example, Ofsted inspections are publicly available.

d) **Linking funding to outcomes:** How a government funds and regulates the education system can affect overall quality of education. South Africa has tied its education funding to no-fee public schools and private not-for-profit schools to enrollments, without any officially published quality inspections. This encourages these schools to drive enrollment and lower costs, without incentives to ensure quality. South Africa is among the lowest-performing countries in education quality metrics. If governments decide to subsidize private schools, they should do so on the basis of outcomes, not fees or enrollments. For example, Dubai's Knowledge and Human Development Authority (KHDA) has linked school performance to allowable increases in fees[90] and a World Bank report notes: "This mechanism serves as an excellent incentive for those schools capable of improvement on the verge of changing rating."[91]

CASE STUDY

Knowledge and Human Development Authority (KHDA), Dubai

KHDA is the independent regulator for private education across K-12, higher education, and TVET, and is responsible for the growth, direction and quality of private education and learning in Dubai. The Dubai Schools Inspection Bureau (a subsidiary of KHDA) carries out a detailed inspection of each school annually and provides a rating in one of six categories (Outstanding to Very Weak) based on the quality of learning, teaching, and management.

The School Inspection reports are available to stakeholders on KHDA's website and a mobile app, and provide information on ratings, management, enrollment data, and other key area.

KHDA links the allowed fee increases for private schools each year to their ratings, thereby linking fees to the quality of education offered. The permitted fee increment is calculated based on an Education Cost Index (ECI) annually and linked to a school's prior year's rating. Schools ranked Outstanding may increase the fees by ECIx2, for example, where those with low ratings may only increase by the ECI.

4. **Establishing frameworks**
   Healthy environments for private operators offer frameworks to accommodate a variety of actors, which may include:

a) **Establishment of regulations to govern the non-formal sector:** There are no current guidelines suitable to regulate low-cost K-12 education in most study countries, despite the emergence of a large non-formal sector. There are ~18,000 non-formal schools in Lagos, Nigeria alone.[92] These operators do not typically qualify for licensing under current regulatory frameworks. The consequence is an effective "grey market" in which governments cannot track attendance or manage quality and supply, while operators have limited access to finance, and in many cases, their pupils may not sit for national exams. As one operator noted:

> "THE STATE DOESN'T KNOW WHERE THE KIDS ARE."

"The state doesn't know where the kids are."[93] Governments must take steps to link these schools into the formal sector. Kenya's Alternate Provision of Basic Education and Training (APBET) guidelines, established in 2015, are an example of good practice (see table 6), though they have not yet been enacted (and may indeed be repealed).

b) **Developing a National Qualifications Framework (NQF) and improvement of vocational pathways:** It is essential that industry is aligned with reforms in licensing for technical experts. Developed countries such as the US, UK,

and Australia have established Qualifications Frameworks. In SSA, South Africa follows a NQF, while Ethiopia and Kenya are implementing them. Regulators should also look to world-leading TVET systems (such as Germany's, where ~65% of students pursue vocational studies[94]) and seek to similarly develop clear pathways between vocational and non-vocational studies with degree-equivalent vocational qualifications. However, in some segments, alternative, demand-driven education-for-employment pathways are also being developed (propelled by demand-supply mismatches in growth sectors and enabled by technology) and may involve more innovative proxies for work-readiness and skills development that do not align with traditional qualifications frameworks.

c) **Introducing specialized regulations for social enterprise:** The landscape for private provision is evolving and new, mixed-revenue models are emerging. It is a challenge for current providers that there are limited regulations on social enterprise. Frameworks governing social enterprise are needed, since not all providers charging fees and generating revenue are for-profit (though this is usually how they are treated by tax authorities). One example of existing practice is the Aga Khan Academies' mixed-revenue model in Mozambique, which will incorporate real estate income to offset the cost of providing scholarships to over 70% of students. Some examples of effective social enterprise policy include:

- The United Kingdom has one of the most developed social enterprise regulatory structures in the world and the sector contributes ~$30 billion (~£24 billion) to the economy. The UK has introduced social investment tax relief and legal status for social enterprises, among other regulatory measures.[95]
- Vietnam introduced a new Enterprise Law in 2014 that provides a legal definition of social enterprises and notes that they should enjoy preferential conditions in the granting of licenses and certificates, and that they are eligible for financial support from foreign and domestic sources to cover costs.[96]

d) **Modifying licensing and requirements for teachers:** A range of steps may be taken with regard to teachers. Policymakers should consider creating a professional/degree pathway for pre-primary teachers. This would go some distance in helping to professionalize and improve delivery in this fast-growing segment, and such initiatives are in line with developments globally. For example, in 2016 in Singapore, the Early Childhood Development Authority created a new training and career pathway for pre-primary professionals, as part of a wider effort to professionalize the sector. Moreover, given the shortage of teachers across SSA and the high reliance of the non-formal sector on para-trained teachers, regulations acknowledging this reality and creating allowances for schools to employ them would be more effective than those currently in place.

TABLE 6: KENYA APBET PROVISIONS FOR NON-FORMAL SCHOOLS

Area	Regular K-12 provisions	APBET provisions
Teachers/faculty	– All teachers must be registered with the Teachers Service Commission	– At least 30% of teachers must be registered with the Teachers Service Commission
Land requirements	– A minimum of 20 acres of land is required to set up a new K-12 school	– APBET institutions can have facilities that may be smaller than regular schools – However, they still need to meet the conditions of the School Safety Manual
Teaching methods	– No specific provisions on multi-grade or multi-shift teaching	– APBET institutions use innovative teaching approaches such as multi-grade and multi-shift classrooms as required

GOVERNMENT AS ENABLER

On-the-ground investigation finds that, for the most part, current regulations for private education in the study countries allow private participation and are clearly defined. The regulations are similar for for-profit and not-for-profit operators, with the latter experiencing more favorable regulatory support (e.g., tax relief). The current regulations include:

1. **Licensing regulations:** Requirements such as land, number and qualifications of faculty, and facilities required for setting up private institutes are well defined in the six countries across sectors.
2. **Operating regulations:** Most of these countries allow private providers to operate with minimal intervention on factors such as fee increases, space use, and curriculum offering.
3. **Finance and investment regulations:** For the most part, foreign participation is permissible in the private education sector, along with for-profit operations and profit repatriation in most countries.

The regulatory landscape for these countries in pre-primary, K-12, higher education, and TVET is described below (see tables 7-10).

There is also a range of regulatory interventions that are relevant for the not-for-profit sector, social enterprises, charities, and religious organizations. These are detailed in table 11.

The following recommendations highlight how governments can improve the enabling environment for private education. One operator noted: "Policy is a big barrier in Africa and determines the investment interest. We might hit a big wall soon if policy does not adapt to the market."[97]

> **"WE MIGHT HIT A BIG WALL SOON IF POLICY DOES NOT ADAPT TO THE MARKET."**

TABLE 7: PRE-PRIMARY EDUCATION REGULATIONS IN SUB-SAHARAN AFRICA

	South Africa	Nigeria	Kenya	Ethiopia	Senegal	Liberia
LICENSING						
Duration	●	●	●	●	●	●
OPERATIONS						
Enrollment growth	●	●	●	●	●	●
Non-national curriculum	●	●	●	●	●	●
FINANCE AND INVESTMENT						
For-profit operations	●	●	●	●	●	●
Foreign ownership	●	●	●	●	●	●

● Allowed – no approvals required / simple process
● Allowed – approvals required
● Not Allowed

TABLE 8: K-12 REGULATIONS IN SUB-SAHARAN AFRICA

	South Africa	Nigeria	Kenya	Ethiopia	Senegal	Liberia
LICENSING						
Duration	●	●	●	●	●	●
OPERATIONS						
Enrollment growth	●	●	●	●	●	●
Non-national curriculum	●	●	●	●	●	●
FINANCE AND INVESTMENT						
For-profit operations	●	●	●	●	●	●
Foreign ownership	●	●	●	●	●	●

● Allowed – no approvals required / simple process
● Allowed – approvals required
● Not Allowed

TABLE 9: HIGHER EDUCATION REGULATIONS IN SUB-SAHARAN AFRICA

	South Africa	Nigeria	Kenya	Ethiopia	Senegal	Liberia
LICENSING						
Duration	●	●	●	●	●	●
OPERATIONS						
Enrollment growth	●	●	●	●	●	●
Non-national curriculum	●	●	●	●	●	●
FINANCE AND INVESTMENT						
For-profit operations	●	●	●	●	●	●
Foreign ownership	●	●	●	●	●	●

● Allowed – no approvals required / simple process
● Allowed – approvals required
● Not Allowed

TABLE 10: TVET REGULATIONS IN SUB-SAHARAN AFRICA

	South Africa	Nigeria	Kenya	Ethiopia	Senegal	Liberia
LICENSING						
Duration	●	●	●	●	●	●
OPERATIONS						
Enrollment growth	●	●	●	●	●	●
Non-national curriculum	●	●	●	●	●	●
FINANCE AND INVESTMENT						
For-profit operations	●	●	●	●	●	●
Foreign ownership	●	●	●	●	●	●

● Allowed – no approvals required / simple process
● Allowed – approvals required
● Not Allowed

TABLE 11: NOT-FOR-PROFIT REGULATION IN SSA

	South Africa	Nigeria	Kenya	Ethiopia	Senegal	Liberia
Ease of setting up	●	●	●	●	●	●
Exemption from income taxes	✓	✓	✓	✓	✓	✓
Permissibility of foreign aid	✓	✓	✓	✓	✓	✓
Special legislation for social enterprises	×	×	×	×	×	×
Availability of government grants/subsidies	✓	×	×	×	×	✓

● Straightforward and rapid
● Straightforward but lengthy
● Not straightforward and lengthy
✓ In place
× Not in place

1. Licensing

a) **Modifying infrastructure requirements:**
Some current licensing policy over-emphasizes infrastructure requirements (particularly in higher education), presenting a challenge for operators, and should be modified to reflect diversity in potential provision. Not every university campus needs a generous land footprint. For example, in Nigeria, the requirement of 250 acres of land to establish a university has resulted in most new private universities setting up outside city limits, and Kenyan universities are required to be on 50 acres, making their entry into urban areas all but impossible. In both countries, land regulations have likely hindered growth of segments such as adult education and part-time education, which predominantly serve employed urban adults.

A greater focus on delivery-related parameters as part of the licensing process is recommended. For example, differential land requirements based on rural versus urban locations could be explored, and special categories established for infrastructure-light "University Colleges" to specialize in fewer programs, partner with industry, and deliver adult and executive education. Beyond this, licensing could take more account of academic plans and pedagogical methods to encourage innovation and quality.

b) **Streamlining, depersonalizing, and accelerating processes:**
None of the study countries provides easily accessible, simple, and transparent guidelines on registration and oversight of private providers, and industry participants report a lack of clarity on requirements, timelines, and processes, presenting a challenge for licensing. One website consulted for the study has a Q&A section on timing of TVET certification that illustrates the issue: in response to the question, "When will registered institutions receive their registration certificates?" the guidance reads, "Once certificates are ready."[98] For example, obtaining approval in South Africa and Nigeria for both K-12 and higher education can take up to three years, with multiple bodies involved and lack of capacity in oversight bodies.

Moreover, systems are often over-reliant on personal relationships and the attitudes and alliances of individual officials. One K-12 operator with experience in multiple markets noted: "It is entirely personality-dependent."[99] A Nigerian higher education interviewee echoed this sentiment: "Setting up a private institute is a monumental task, and you need to know the right people for your application to move ahead. There are hundreds of applications pending with the National Universities Commission (NUC) for over 10 years."[100]

Priorities for system governance to address these issues are:

- Increasing human resource capacity within educational oversight bodies to handle increased volume
- Establishing single window clearance systems to address duplications in approvals and reduce the involvement of multiple bodies
- Introducing transparent and time-bound licensing processes. These should be publicly available on websites with timings indicated. Singapore, for example, has time-bound entry processes, with Government commitment to respond on an agreed timescale.

c) **Facilitating expansion within and between countries:**
Higher education providers face restrictions on adding additional campuses. For example, universities in Nigeria are not allowed to open satellites without undergoing a fresh registration process. Regulators should reduce the duration and complexity of the licensing process if providers already have established operations in the country. A more significant shift would be accelerated licensing for established international players. For example, Dubai and Sri Lanka both consider the international accreditation of higher education providers without accrediting programs afresh.

2. Operations

a) **Establishing a policy framework to reduce transaction costs:**
Education materials like books and other products are typically taxed, without special provisions despite their social benefits. For example:

- In Kenya, value-added tax (VAT) on books and other learning materials was introduced at 16% in 2013, resulting in decreased affordability and a consequent increase in piracy, according to industry participants.
- While Ethiopia has identified some priority sectors (e.g., textiles) where its tax regime is more favorable, education does not enjoy special provisions.

Policymakers can introduce concessions for educational products and services and thereby both reduce costs for operators (which may be passed on to students) and reduce the risk of piracy.

b) Introducing concessions and incentives for the sector:
The education sector is not privileged by policy in the study countries. However, countries including Dubai and Malaysia have set up Education Cities to promote participation in education by offering incentives and concessions for providers who set up institutes. This is in line with efforts to improve quality and access. Dubai allows 100% foreign ownership within the Education City, charges no taxes, and allows full repatriation of profits. Malaysia guarantees 100% tax exemption for 10 years and allows education institutes to operate in other currencies.

3. Finance and investment

a) Removing limitations on provision:
Private participation is not allowed in some segments. For example:

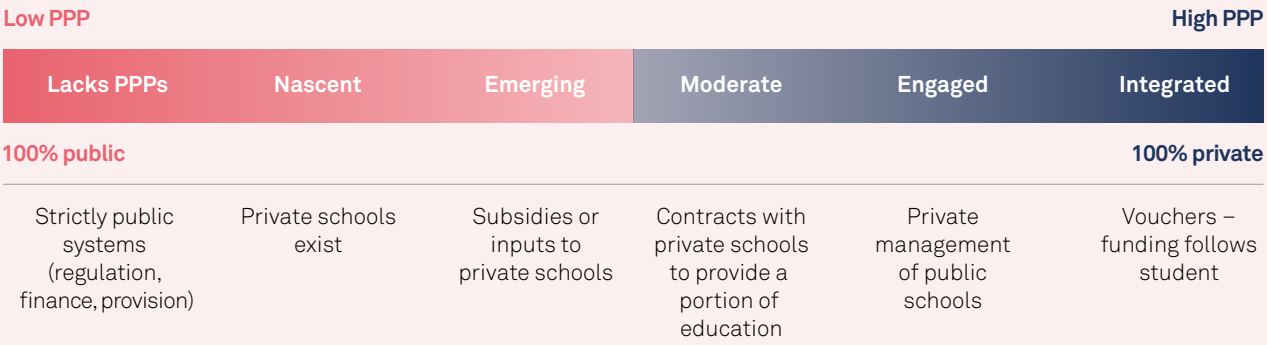
- Private providers can set up Higher Education Institutes (HEIs/colleges) in South Africa, accredited by the Government, but are not allowed to set up universities (this policy is currently under review).
- Private participation is not allowed in the establishment of teacher training colleges in Ethiopia, despite a shortage of teachers and low quality of education in public institutes.
- In Kenya, private for-profit higher education is not explicitly allowed, creating a grey area for legality.

Allowing private participation and profit-making in all segments would help to fill gaps in provision.

b) Allowing foreign investment and profit repatriation:
There are restrictions related to foreign participation that limit investment. For example, FDI is not permitted in primary education and publishing in Ethiopia, and foreign providers are not allowed to lease buildings to be used for education purposes. While profit repatriation is not explicitly prohibited, it is challenging and market participants indicate it can take up to two years. Liberalizing FDI in all segments would facilitate private involvement in the sector.

c) Improving availability of finance:
The underdevelopment (and, in some cases, over-regulation) of the institutional financing sector and the lack of lending available for private schools creates challenges, as these tend to be cash-based businesses and/or unbanked. There is limited availability of student loan products for both K-12 and higher education, which limits the addressable market for these institutions and, ultimately, their potential for growth. Intervention to build much-needed credit facilities would facilitate growth. Governments can develop risk sharing arrangements to encourage lending and reduce interest rates. Nigeria's Government has been active in setting aside funds of $6.3 billion (N2 trillion) for schemes in other sectors through revolving credit facilities.

FIGURE 15: PUBLIC-PRIVATE PARTNERSHIP CONTINUUM



GOVERNMENT AS PARTNER

There is significant potential to expand access and improve quality and relevance through public-private partnerships (PPPs). The private sector can be most effectively engaged by government in partnership when it can deliver more quickly, in a more cost-effective manner, and/or with a greater degree of innovation than the public sector. Individual PPP agreements can fall anywhere along a spectrum that runs from a "nascent" situation, in which the conditions for private sector involvement are only just being met, to situations in which the private sector is "engaged" or "integrated" into public delivery (see figure 15).

PPP models in education are across a range of areas (see table 12).[101] There are existing models in SSA and globally, illustrative examples of which are included below.[102] However, though governments recognize the capabilities of the private sector and are willing to partner, there have been only limited examples of concrete steps taken for PPP models in the study countries. According to industry participants, challenges have included opposition from teacher unions, creating political pressure on governments.

TABLE 12: TYPES OF PPPS IN EDUCATION

PPP Type	Examples
Education delivery	i. Outsourced school management ii. Providing funding for private operators iii. Promoting innovation
Developing infrastructure for education	i. Building and/or managing public facilities ii. Sharing of public infrastructure
Procuring services	i. Teacher training programs ii. Procurement – Language learning – Edtech – Building data systems – Accessing learning systems

1. **Education delivery**
   PPP delivery models are plentiful given the urgent need for access and innovative solutions at all levels of education, but more activity is needed to meet demand. There will be significant opportunities in particular in the pre-primary segment for PPPs, since this segment is now becoming part of core education delivery in many countries, but budgets are limited. Examples of PPPs for delivery include:

a) **Outsourced school management:** In this model, government works with the private sector to fill delivery gaps or augment quality, for example:

   - **Partnership Schools for Liberia** (Liberia) involves not-for-profit and for-profit operators managing education delivery in Liberian schools (see case study in Annex I).

   - **Collaboration Schools** (South Africa) is a partnership between Ark, a not-for-profit, and the Western Cape Education Department (WCED) in South Africa. The pilot scheme aims to strengthen the quality of teaching and learning in public schools by partnering them with school operating partners.[103]

   - **Aga Khan Development Network** provides public service in a range of countries through its School Improvement Programmes, wherein they provide teacher training, curricular improvement, and management systems in order to improve public schools.

b) **Providing funding for private providers:** Government can also support financing for private providers, including through vouchers, subsidies, and bonds Examples from SSA and globally are included below.

   - **Social Impact Bonds (SIBs)** are a relatively new financing method (also known as "pay for success bonds") in which an outcomes payer (typically the government) pays investment returns to a bond holder whose financing enables a socially beneficial intervention. One example in emerging markets is Educate Girls' $1 million Development Impact Bond (DIB) in India in 2014 with the Children's Investment Fund Foundation (CIFF) and UBS Optimus Foundation.[104]

   - **Promoting Equality in African Schools (PEAS)** (Uganda, Zambia) is a not-for-profit, low-cost school network. It raises funds to build schools, then uses a mix of government subsidies (provided through a PPP), lunch fees, and boarding fees to run 30 secondary schools. Government subsidies of about $10 per pupil per term are available in 20 of 28 PEAS schools in Uganda. The average PEAS student is poorer than peers in government schools. The organization has agreed to a government subsidy in Zambia worth 90% of the cost of educating a child in a government school.

   - **Government of Punjab** Pakistan announced a large-scale PPP effort in 2015, with funding funneled to the private sector through the Punjab Educational Foundation (PEF). Schemes include school vouchers and initiatives for entrepreneurs to set up schools, particularly in rural areas. The PPP aims to enroll 2.8 million students by 2018 (about two million are already enrolled).[105]

c) Promoting innovation:
Governments can take advantage of private sector innovation capabilities by creating frameworks or funding mechanisms enabling and incentivizing the private sector to experiment. Examples are below:

- **Youth Leadership Fund** (UK) was a 2009–2011 Department of Education-sponsored innovation fund giving £1 million ($1.5 million at the time) to not-for-profits to support scaling and best practice dissemination.

- **Investing in Innovation (i3) Fund** (USA) was started by the Department of Education. In 2010, 12 national foundations committed $500 million to leverage the Government's $650 million commitment to aligned investments, mobilizing more than $1 billion to help expand promising education innovations.[106]

- **Children's Investment Fund Foundation (CIFF)** (Kenya) commenced an investment of approximately $16.5 million in 2014 in the design, piloting, and initial scaling of pre-school models, named 'Tayari'. If successful, the aim is for the Government to establish 1,700 centers by 2018, servicing 108,000 children.

2. **Developing infrastructure for education:**
Infrastructure models enable private providers to improve provision by building, accessing, and/or managing facilities.

a) **Building and/or managing public facilities:**
In this model, government outsources construction and/or management of public education facilities to the private sector. Examples include:

- **Belo Horizonte** (Brazil), the country's third largest city, turned to private sector funding and expertise to expand and strengthen the school system. The concession — Brazil's first public-private partnership in the education sector — was awarded in July 2012 to the Educar Consortium to build and provide services (e.g., maintenance, security) to 37 sites serving 18,000 children from low-income areas.

- **Africa Integras** (Ghana, Kenya) signed two groundbreaking 2015 "Build-Operate-Transfer" agreements for up to 20 years with the University of Ghana for $63 million and with Kenyatta University (Kenya) for $53 million, toward the establishment of hostels and academic buildings.[107]

- **PPP for School Infrastructure (PSIP)** (Philippines) is a three-year initiative with an aim to reduce classroom backlog. The PPP is structured as a "Build-Lease-Transfer" model and will run for 10 years. By December 2015 it had enabled the design, financing, and construction of ~9,300 classrooms.[108]

b) **Sharing of public infrastructure by private providers can support efficient resource use:**

One example is:

- **Monash** in South Africa started offering engineering courses in 2016 but doesn't have all facilities required. University of South Africa (Unisa) is predominantly a distance education provider (~90% of students). Monash now pays to use Unisa facilities, and will do so until it builds new infrastructure.

3. **Procuring services**
Services contracts enable governments to tap into the efficiency and delivery capabilities of the private sector to fill gaps beyond core delivery. Key examples are in teacher training and procurement:

a) **Partnering on teacher training programs:**
Given the current and anticipated shortage of teachers across the continent, teacher training is emerging as a key area for PPPs. Current examples include:

- **N-Power Teach programme** (Nigeria) is a two-year paid "volunteership" that aims to train 500,000 unemployed graduates and deploy them as teaching assistants in primary and secondary schools. The Government has partnered with private stakeholders such as Learn Africa, Samsung, MTN Group, and Microsoft for curriculum development and ICT provision, among other areas.

- **Partners for Possibility (PfP)** (South Africa) has strengthened leadership and management capacity in more than 500 public schools. It partners school principals from under resourced schools with seasoned business leaders, and these pairs are facilitated through a one-year leadership development and principal support process. While less than 10% of its funding comes from the Government, PfP is endorsed by the Ministry of Education, has received provincial government support and funding, and receives referrals from districts that invite principals to join the program.

- **Teacher Education and Professional Development (TEPD)** (Kenya) manages a program to improve the quality of teaching. Interventions include improvement to instruction at all 23 public teacher training colleges through a PPP involving donors, private companies (e.g., Microsoft, Cisco), and the Government. To date, 8,000 tutors and educators and 32,000 current and future teachers have been trained.

- **India School Leadership Institute (ISLI)**, established in 2013, is a not-for-profit model that works with leaders of private, government, and NGO-run schools to improve in-service leadership. The program works with municipal governments that permit ISLI to work with school leaders. Municipalities then may pay a subsidized fee for participation and/or contract ISLI to do additional work. By 2018, ISLI aims to train more than 1,000 teachers reaching nearly half a million students.

b) **Procuring services:**
There are a range of areas where private providers can offer services and products to governments to support the

effective running of education systems. These may include content for teachers, edtech provision, and management/ data systems for schools.

- **Language learning:** Governments could partner with providers such as British Council, Cambridge University Press, and others to support language training for students and content (in the form of books, audiovisual tools, and other resources) for teachers.

- **Edtech:** Providers can be partners to schools in the public system, providing both hardware and services to augment learning. Several examples from SSA and globally include:

  - **Siyavula** (South Africa) is a math and science open textbook provider. It has partnered extensively with the Government to develop and distribute curriculum-aligned materials sponsored by corporates, which, in some cases, have supported the cost of distribution.

  - **Geekie** (Brazil) is a for-profit adaptive e-learning application that prepares students for the high-stakes ENEM higher education exam. It analyzes a student's academic weaknesses and customizes a study plan. Geekie works with the Ministry of Education as well as state governments to support public school pupils. It has served five million across ~5,000 schools.

  - **Green Shoots** (South Africa) is a not-for-profit/social enterprise hybrid providing resources to more than 55,000 children in ~100 public schools. Its online math curriculum provides real-time analytics to track and support learning. The program works with public schools from no-fees schools in disadvantaged communities to the best-performing public schools. Nearly 10% are supported by provincial governments, individual districts, or the Office of the Premier.

- **Data systems:** Another critical service governments can contract to private providers is data systems. Data is a critical part of improving quality in schools, but neither school-level administrators nor systems-level officials can reliably access or use most existing systems. One example is:

  - **Data-Driven Districts (DDD)** (South Africa) is an easy-to-use data dashboard (funded by the Michael & Susan Dell Foundation) that allows officials to visualize content immediately, glean insights, and understand and improve outcomes. The project has collected data from more than 14,000 schools and seven million learners — nearly 60% of the country's pupils.[109]

- **Learning systems:** These providers offer schools an integrated system to support learning. This may support public systems to improve and standardize quality. An example is:

  - **Sistemas** (Brazil) are private companies responsible for supplying ~17% of public schools and ~40% of private schools with learning systems or "sistemas," which include curriculum design, educator support, classroom content, and assessments technology. Sistemas reach 5.9 million pupils, out of a total enrollment of 51 million.[110]

TABLE 13: SUMMARY OF POLICY RECOMMENDATIONS

Function	Recommendations
GOVERNMENT AS STEWARD	
1. Improving the ecosystem	i. Improving the overall business environment
2. Streamlining governance	i. Reducing fragmentation ii. Improving data collection and transparency
3. Setting and enforcing standards	i. Establishing quality assurance frameworks to guide inspection ii. Improving regularity of inspection iii. Making inspection results public iv. Linking funding to outcomes
4. Establishing frameworks	i. Establishment of regulations to govern the non-formal sector ii. Developing a National Qualifications Framework (NQF) and improvement of vocational pathways iii. Introducing specialized regulations for social enterprise iv. Modifying licensing and requirements for teachers
GOVERNMENT AS ENABLER	
1. Licensing	i. Modifying infrastructure requirements ii. Streamlining, depersonalizing, and accelerating processes iii. Facilitating expansion within and between countries
2. Operations	i. Establishing a policy framework to reduce transaction costs ii. Introducing concessions and incentives for the sector
3. Finance and investment	i. Removing limitations on provision ii. Allowing foreign investment and profit repatriation iii. Improving availability of finance
GOVERNMENT AS PARTNER	
1. Education delivery	i. Outsourced school management ii. Providing funding for private operators iii. Promoting innovation
2. Developing infrastructure for education	i. Building and/or managing public facilities ii. Sharing of public infrastructure
3. Procuring services	i. Partnering on teacher training programs ii. Procuring services – Language learning – Edtech – Data systems – Learning systems

There are likely to be challenges for governments in effectively engaging with and regulating the private sector, given:

- The fragmentation and diversity of the sector
- Resistance from a range of actors (including donors, government, and others) to the notion of private sector providers delivering a shared social good
- Concerns from teachers (unionized or otherwise) about changes to their profession and working conditions
- The private sector's reluctance to engage with government (due to impressions, appropriate or not, of potential corruption and obstruction)

Despite these challenges, it is both important and probable that the coming years will see closer partnership between governments and the private sector in SSA as they jointly address the challenges of improving quality, access, and relevance of education. An enabling environment for education that incentivizes high-quality delivery from private providers will help to create the conditions for investment in the sector. Section III explores these opportunities, investigating the potential for a variety of investors to realize social and financial returns within education.

SECTION III

OPPORTUNITIES FOR INVESTING IN PRIVATE EDUCATION IN SUB-SAHARAN AFRICA

SECTION III

Private education and investment in education in SSA have seen rapid growth in recent years.

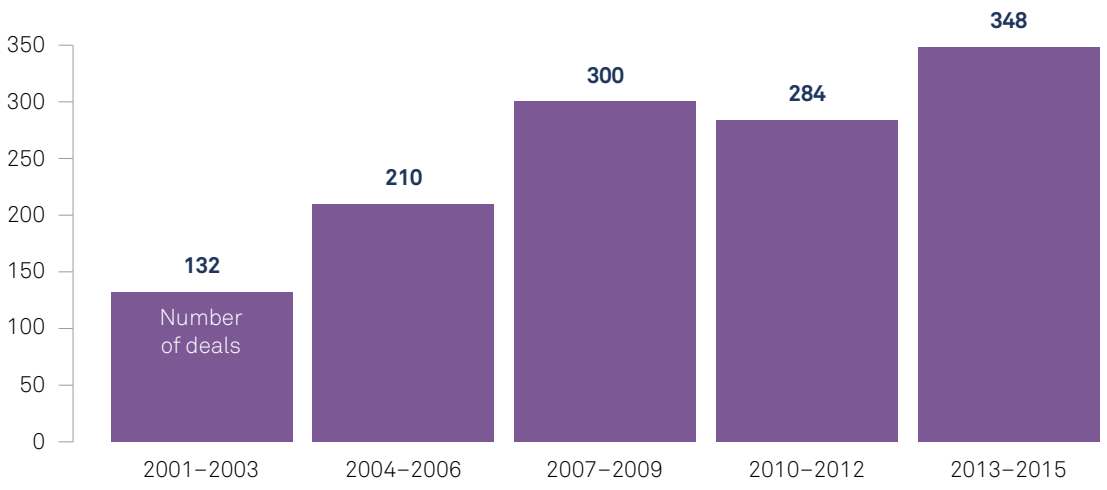
This is also the case globally: the number of global acquisitions in education nearly tripled from 2001–03 to 2013–15 (see figure 16), with private equity in particular growing as investors move beyond developed markets. For example, the value of this investment in Brazil, China, India, and SSA increased more than 5,000% from 2001–15.

SSA has a diversity of opportunities and business environments suiting all investor types. To date, the majority of investments have been executed by leading SSA providers, such as ADvTECH and Curro, but there are examples of global providers pursuing acquisitions. In what follows, we explore the attractions and challenges of education investment; examine the scalability of business models in the SSA context; explore investment opportunities in education in SSA; and showcase opportunities by different investor type. The section identifies a private investment requirement over the next five years of $16–$18 billion ($1.5–$2.0 billion in the formal sector – see Annex III for market sizing methodology), which will be explored later.

THERE IS A PRIVATE INVESTMENT REQUIREMENT IN SSA OVER THE NEXT FIVE YEARS OF $16–$18 BILLION, $1.5–2.0 BILLION OF WHICH IS IN THE FORMAL SECTOR.

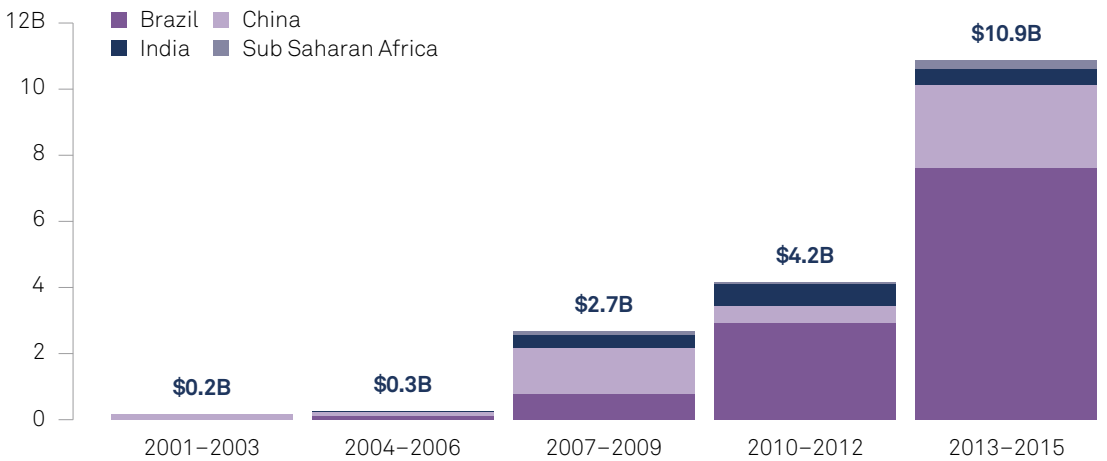
FIGURE 16: INVESTMENT IN EDUCATION

The number of global acquisitions nearly tripled from 132 in 2001–2003 to 348 in 2013–2015



	2001–2003	2004–2006	2007–2009	2010–2012	2013–2015
Total deal value	$21B	$57B	$61B	$43B	$47B

The value of investment in education in Brazil, China, India, and SSA increased over 5,000% from 2001–2015



	2001–2003	2004–2006	2007–2009	2010–2012	2013–2015
Total deals	2	7	61	64	88
Total value of deals in world	$21B	$57B	$61B	$43B	$47B
% of total deal value (world)	1%	0%	4%	10%	23%

EDUCATION INVESTMENT IN EMERGING MARKETS: ATTRIBUTES AND CHALLENGES

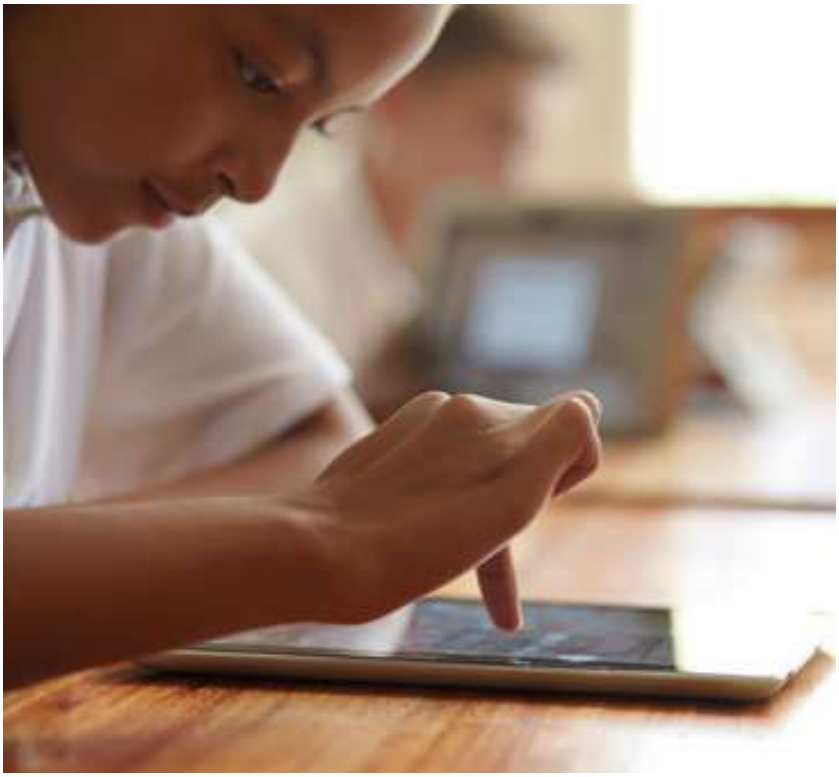
First, it is useful to understand the unique characteristics of education investments, with a particular focus on emerging markets. Education businesses have five key attributes (see below) that make them attractive for investors. These factors hold true across most emerging markets for many segments of education.[111]

POSITIVE ATTRIBUTES OF EDUCATION BUSINESSES IN EMERGING MARKETS

1. **Demand greater than supply:** Demand for education typically exceeds supply, which can be slower to catch up given high barriers to entry and long lead times to set up education operations. New market entrants can therefore more easily tap into incremental demand and gain share.
2. **Prices grow faster than inflation:** Education is perceived by students/parents as an investment with high returns over a long period of time, and prices are linked to white-collar salaries, which typically grow at a premium to inflation. In contrast, teacher salaries — which are the largest cost driver in education — typically grow in line with inflation. This difference leads to healthy margins, though this may not hold true for education businesses serving the "bottom of the pyramid."
3. **Long-term revenue visibility:** Providers can forecast longer-term revenue in sectors where completion of courses takes multiple years (e.g., K-12), providing a multi-year revenue outlook and a single point of "acquisition" (the time of enrollment).
4. **Negative working capital:** Most education programs require that fees be paid in advance, providing operators with liquidity to invest with reduced risk. This "negative working capital" makes education more operationally and financially efficient than other sectors.
5. **High barriers to entry:** Barriers to enter the education market typically (though not always) prevent markets from overcrowding, allowing quality providers to build strong brands. The main barriers that exist are high capital requirements, the importance of reputation in driving viability for providers, and government regulations.

> **"IT FEELS GOOD [TO INVEST IN EDUCATION] AND I THINK IT MATTERS THAT IT FEELS GOOD."**

Of course, education is also a compelling investment opportunity because it delivers wider benefits too (as explored in the Introduction to this report). Investors and donors willing to secure lower financial returns (or a purely social return on investment) already recognize that education has high individual, social, and economic returns. While non-financial returns may not always be first in the minds of traditional commercial investors, operators report that even for profit-focused investors, the potential to have an impact can be a powerful pull to make investments and to retain education operators in a portfolio: "It feels good," one commented, "and I think it matters [for investors] that it feels good."[112]



However, despite strong business fundamentals and investor attractiveness, there are challenges specific to investing in the education sector. These are compounded in emerging markets like SSA where the business environment is generally highly challenging (many are also addressed in Section II):

THE CHALLENGES SPECIFIC TO EDUCATION SECTOR INVESTING ARE COMPOUNDED IN EMERGING MARKETS LIKE SSA, WHERE THE WIDER BUSINESS ENVIRONMENT IS MORE CHALLENGING.

1. **Regulatory complexity and uncertainty:** Education is highly context-dependent, and education markets are typically more highly regulated and politicized than other sectors where the government is not also a major provider. Emerging market education landscapes are rapidly changing, and the picture for private providers and investors can shift over time. This complexity and uncertainty presents challenges for deploying capital.

2. **Long gestation periods:** Traditional brick-and-mortar education has high up-front capex requirements. Moreover, these businesses may take multiple years to reach maturity (for example, private K-12 schools and universities often add additional cohorts as their starting batch matures). As one leader of a large global K-12 chain noted: "A single [premium] school can take five to seven years … to become sustainable."[113] These long maturation periods mean full return potential is realized only after a number of enrollment cycles.

3. **High level of fragmentation and lack of corporatization:** Despite being a major global industry, the sector has relatively few scale businesses, particularly in emerging markets. There is a high degree of fragmentation, and family-run "mom-and-pop" enterprises are the norm. These aspects can make investment more challenging.

4. **Skills shortage:** Human capital is the single most important resource for education businesses, without which they cannot grow. However, there is a shortage of education-sector professionals at all levels, from skilled pre-primary teachers to professors at higher education levels.

TABLE 14: CHARACTERISTICS OF EDUCATION SEGMENTS IN MOST EMERGING MARKETS

	Demand greater than supply	Prices grow faster than inflation	Long-term revenue visibility	Negative working capital	High barriers to entry
Description	– Predictable demand – Resilience to economic volatility	– Prices linked to white-collar salary growth	– High student life-time value	– Strong margins – Demonstrated location scale	– Regulatory requirements – Capital requirements – Brand advantages
CORE DELIVERY					
Pre-primary	✓ (Dependent on catchment)	✓	×	✓	×
Low-cost K-12	✓ (Dependent on catchment)	✓	×	×	✓
Mid-priced/ premium K-12	✓ (Dependent on catchment)	✓	✓	✓	✓
Higher education	✓ (Dependent on course)	✓	✓	✓	✓
TVET	✓ (Only for some industries such as IT)	✓ (Only for some industries such as IT)	×	×	×
ANCILLARY SERVICES					
Teacher training	✓	✓ (For pre-service training, which is similar to higher education)	✓ (For pre-service training, which is similar to higher education)	✓ (For pre-service training, which is similar to higher education)	✓
Supplementary education (test prep, tutoring, language learning)	✓ (test prep, language) × (tutoring)	✓ (test prep, language) × (tutoring)	×	×	×
Education technology	×	×	×	×	×
Student and institutional finance	✓	×	✓	×	✓
Publishing	✓	×	×	×	✓

SCALABILITY OF BUSINESS MODELS WITHIN EMERGING MARKETS EDUCATION SEGMENTS

Models in emerging markets demonstrate the positive attributes of education businesses to varying degrees (see table 14). While differences will exist between segments and countries, core delivery models typically demonstrate all of the five key attributes (except at low-cost price points), while ancillary models demonstrate these to a varying degree and tend to have lower scale by comparison. In what follows, we explore the typical scalability of education businesses within each segment, drawing on specific examples.

1. **Core delivery**

In most emerging markets, core delivery models demonstrate many, if not all, of the five positive attributes described above and have achieved scale with well-established chains and strong internal investment. The strongest segments from this perspective are mid-priced/premium K-12 and higher education (traditional degrees). Pre-primary and low-cost K-12 demonstrate some, but not all, of these attributes, while TVET is the most challenging segment.

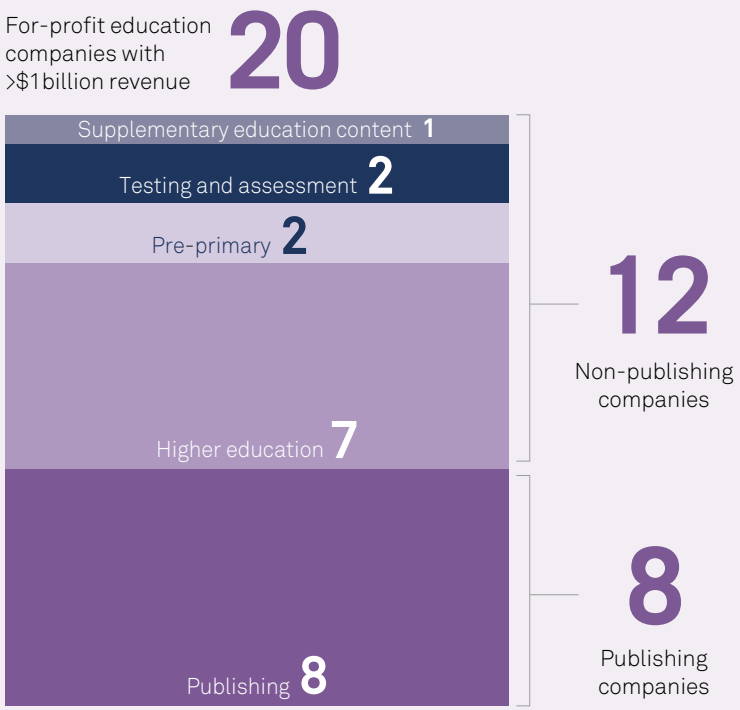
a. Pre-primary:

Due to parental preference for lower drive times for small children, catchments for pre-primary are smaller than those for K-12 and higher education. This limits the scale of pre-primary businesses, which are center-based. Though there are no chains above $10 million revenue scale in SSA, there are examples of companies that have achieved scale through geographic expansion in emerging markets, such as Busy Bees, Bright Horizons, and KinderCare.

b. Low-cost K-12:

The low-cost K-12 market is highly fragmented, with small-scale operators dominating provision. There are some scale examples of low-cost K-12, such as Bridge International Academies (SSA and India, ~100,000 children), Innova

FIGURE 17: GLOBAL FOR-PROFIT EDUCATION COMPANIES WITH REVENUE OVER $1 BILLION



Schools (Peru, ~13,000 children), and Gyan Shala (India, ~44,000 children). However, these models typically struggle to achieve profitability without enormous scale. Bridge, for example, will not reach profitability until it has enrolled 500,000 children. These models may operate in the informal or unregulated sector (for example, Gyan Shala operates in rented homes and employs para-skilled teachers).

c. Mid-priced/premium K-12:
This segment is one of the most attractive and scalable in emerging markets, as relatively affluent families and expatriates drive demand. However, the scale of K-12 education businesses, while still significant, is constrained by parental expectations of size and the necessity of serving smaller catchment areas. There are large-scale global providers like Cognita and Nord Anglia Education, but no providers have revenues over $1 billion. In SSA, providers include Curro, Reddam House, and Crawford Schools, which have achieved scale upward of $50 million in annual tuition revenue.

d. Higher education:
Globally, higher education dominates private education, with seven of the world's 12 largest education companies (excluding education publishing) in the segment (see figure 17). This also holds true for SSA, where large providers like ADvTECH, Pearson, and Mount Kenya University have achieved scale upward of $50 million in annual tuition revenue. In the distance higher education space, there are models such as MANCOSA (South Africa), UNICAF (pan-Africa) and Kepler (Rwanda).

e. TVET:
Providers of TVET have not achieved scale in most emerging markets due to the limited extent to which qualifications are required to practice skills. In countries such as Australia and UK, which have regulations on mandatory certifications for many professions, scale and adoption is higher. TVET is therefore not a highly attractive segment for operators and investors, and has therefore seen less significant private provision. It also typically has shorter student life cycle and lower price points, driving margin pressure.

2. Ancillary services
In emerging markets, ancillary services are less likely to have all five of the positive attributes typical of brick-and-mortar core education businesses. However, the participation of these businesses in segments adjacent to core delivery means that they are likely to benefit from a "halo" of being in the sector as a whole.

a. Supplementary education businesses (after-school tutoring, test prep, and ELT):
These businesses tend to be center-based with smaller catchments. Because supplementary education is discretionary, its adoption depends on family preference and service affordability. There are a few select examples of global tutoring companies, such as Kumon, in SSA. While there are examples of scale test-prep businesses in regions with high-stakes examinations (e.g., in India, where companies have reached scale of $50+ million), no scale providers yet exist in SSA.

IN EMERGING MARKETS, ANCILLARY SERVICES ARE LESS LIKELY TO HAVE ALL FIVE OF THE POSITIVE ATTRIBUTES TYPICAL OF CORE EDUCATION BUSINESSES.

b. Teacher training:
The pre-service teacher training segment has traditionally been dominated by public provision in emerging markets, though supply is unable to match demand (in terms of both quality and quantity), providing an opportunity for the private sector. In-service teacher training models tend to be smaller due to the fragmented schools market. International providers such as Cambridge International Examinations are active alongside local models, such as TESSA (pan-Africa) and Instill Education (South Africa).

c. Education technology:
This growing segment has promise but its financial sustainability has yet to be demonstrated. Global models of edtech providers in emerging markets include ALISON, a MOOC provider that provides skills-oriented courses to nine million learners. There are also many start-ups, like India's UpGrad, an online professional education provider that has enrolled ~2,000 students to date. In SSA, there are promising models, for example, in the supplementary school education space such as Eneza Education (Kenya, Ghana, and Tanzania), PrepClass (Nigeria), BRCK Education (Kenya), and Siyavula (South Africa).

d. Student finance:
Despite the need for student finance in emerging markets, there are few scale private providers. However, as demand for tertiary education (both in higher education and TVET) increases, student finance will help to expand the addressable market of students who can attend tertiary institutions. Global examples in emerging market non-banking financial institutions (NBFIs) offering student finance include Ideal Invest (Brazil), Credila (India), Kiva (global), and Lumni (USA and Latin America). Notable examples in SSA include Fundi (formerly Eduloan, South Africa), Trustco Bank (Namibia), Brighter Investment (Ghana), and Student Finance Africa (pan-Africa). K-12 loans are becoming more widespread as well.

e. Institutional finance:
Demand for institutional finance is primarily served by banks and other financial institutions in emerging markets, leaving gaps in provision. However, there are emerging market models such as Avanse and ISFC in India, and other microfinance models globally, such as Opportunity International and Accion Microfinance Bank (both in SSA), which provide loans to the education sector.

f. Publishing:
There are global examples of large publishing companies with scale upward of $1 billion (Pearson, Cengage Learning, Houghton Mifflin Harcourt, McGraw-Hill Education, et cetera). Many global publishers have also established presence in Africa, including Pearson, Cambridge University Press, Oxford University Press, and others, alongside well-established domestic players, such as Juta and Company (South Africa) and Longhorn Publishers (Kenya).

DIFFERENT INVESTMENT OPPORTUNITIES ARE SUITED FOR DIFFERENT KINDS OF INVESTORS

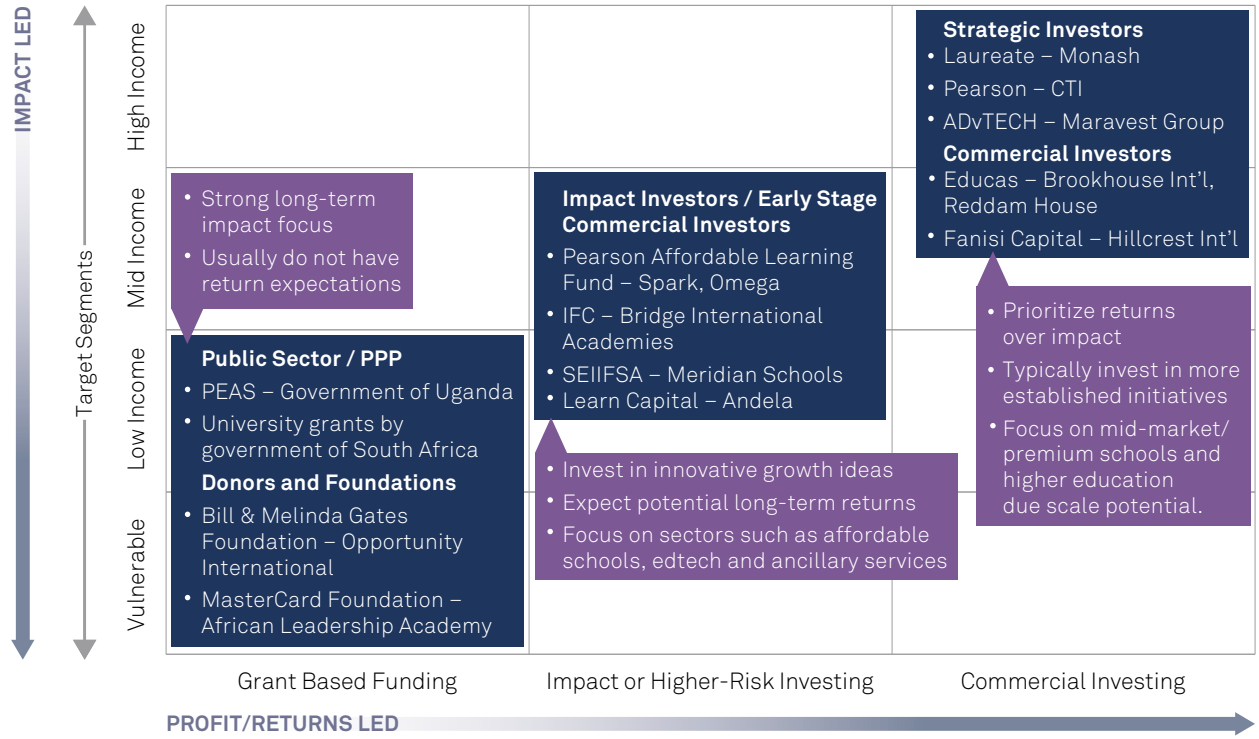
Different investment opportunities are suited for different kinds of investors and SSA is replete with opportunities for investors of varying risk appetites, return expectations, investment capabilities, and social impact objectives (see figure 18). Different investor types and their observed investment behavior within education include the following:

1. **Early-stage commercial investors**, including seed funders, venture capitalists, and angel investors, look for opportunities to support early-stage companies to grow. Within education, these investors have had a particular interest in education technology, as well as innovative core delivery business models.

2. **Commercial and strategc investors** tend to focus on two subsectors. Mid-priced/ premium K-12 schools and higher education, given that these subsectors have the most attractive underlying economics and largest potential to scale. Traditional players tend to be profit-led rather than impact-led.

3. **Impact investors** focus on sub segments where sustainable business models have yet to be demonstrated, but where market need and potential demand for scale businesses is significant.Impact investors typically have a higher risk appetite and lower or "patient" return expectations. Attractive segments include pre-primary franchise models, low-cost K-12, institutional finance, vocational education, and edtech.[114]

FIGURE 18: TYPES OF EDUCATION INVESTORS IN SSA



4. Donors and foundations focus both on sectors with high potential for social impact and low demonstrated potential for market-driven solutions, as well as sectors where sustainable business models have yet to be demonstrated. These sectors may be aimed at delivering access or demonstrating better quality, such as low-cost K-12, schools or universities with significant scholarship provision, and models to address equity.

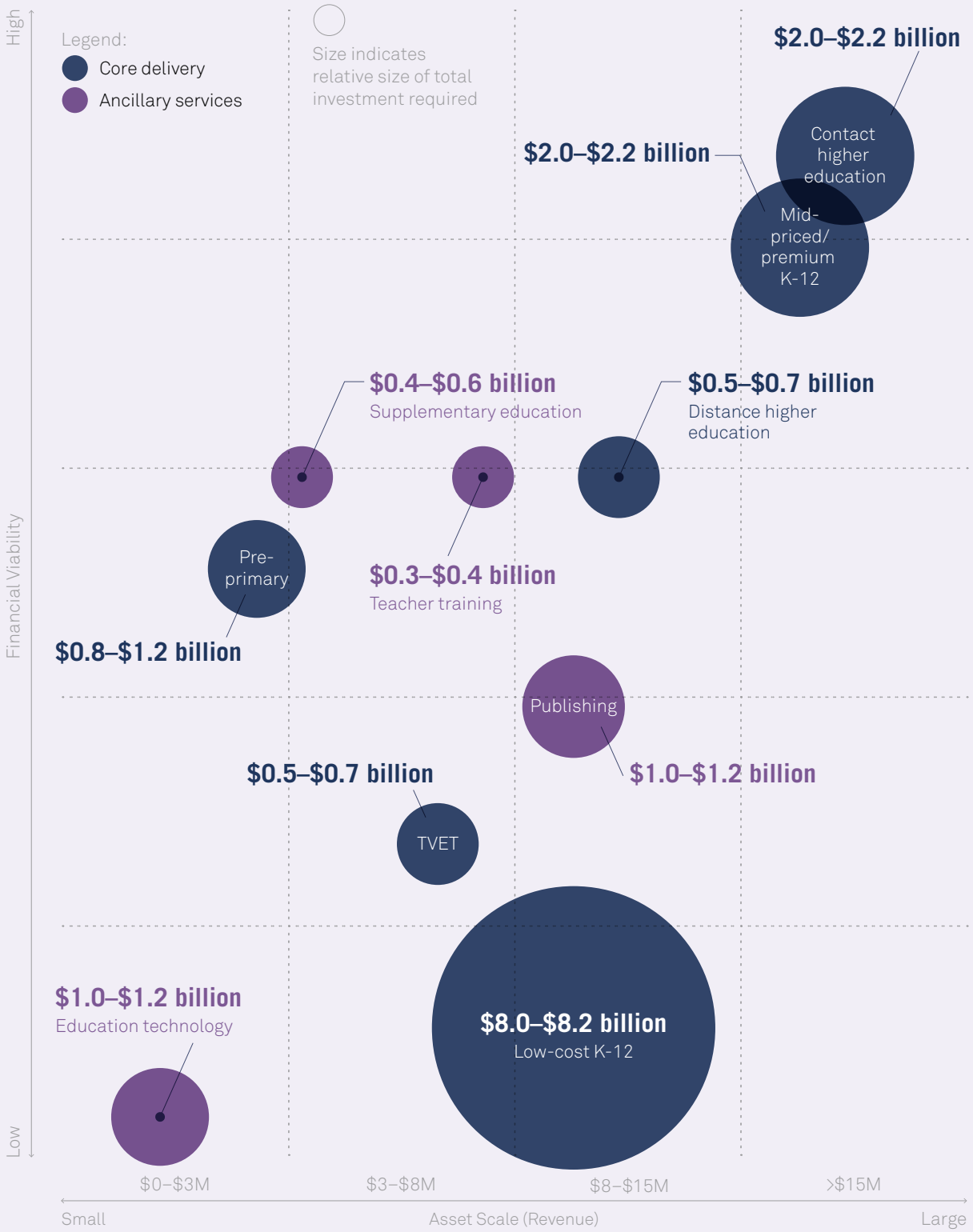
One distinctive feature of the current investment landscape in education in SSA is that some companies, such as Andela and Bridge International Academies, have received investment from highly varied investor types, indicating that in SSA, the impact motive and the profit motive may be more closely aligned.

THE INVESTMENT OPPORTUNITY IN EDUCATION IN SUB-SAHARAN AFRICA

The private investment requirement for the next five years in various education sectors is estimated to be $16–$18 billion (see figure 19). The methodology for calculating this figure is in Annex III. The sector offers a major opportunity for private sector participation. Core sectors represent the largest opportunity, with 90% of the total, and have demonstrated the largest asset scale.

As demonstrated opposite, investment opportunities are present across various segments of the education sector. The themes that follow explore these opportunities in detail across core delivery and ancillary services. These themes capture the opportunities for traditional commercial and strategic investors, as well as impact investors and donors. Although there is a significant need for student finance, the ecosystem has not yet fully developed. The size of the opportunity for this segment has therefore been excluded from the investment opportunity analysis. The opportunity for institutional financing is equivalent to the sum of financing required for capacity building in other segments. The opportunity has therefore not been explicitly stated to avoid double counting.

FIGURE 19: FIVE-YEAR INVESTMENT OPPORTUNITY IN PRIVATE EDUCATION IN SUB-SAHARAN AFRICA



Size of addressable opportunity for institutional investors

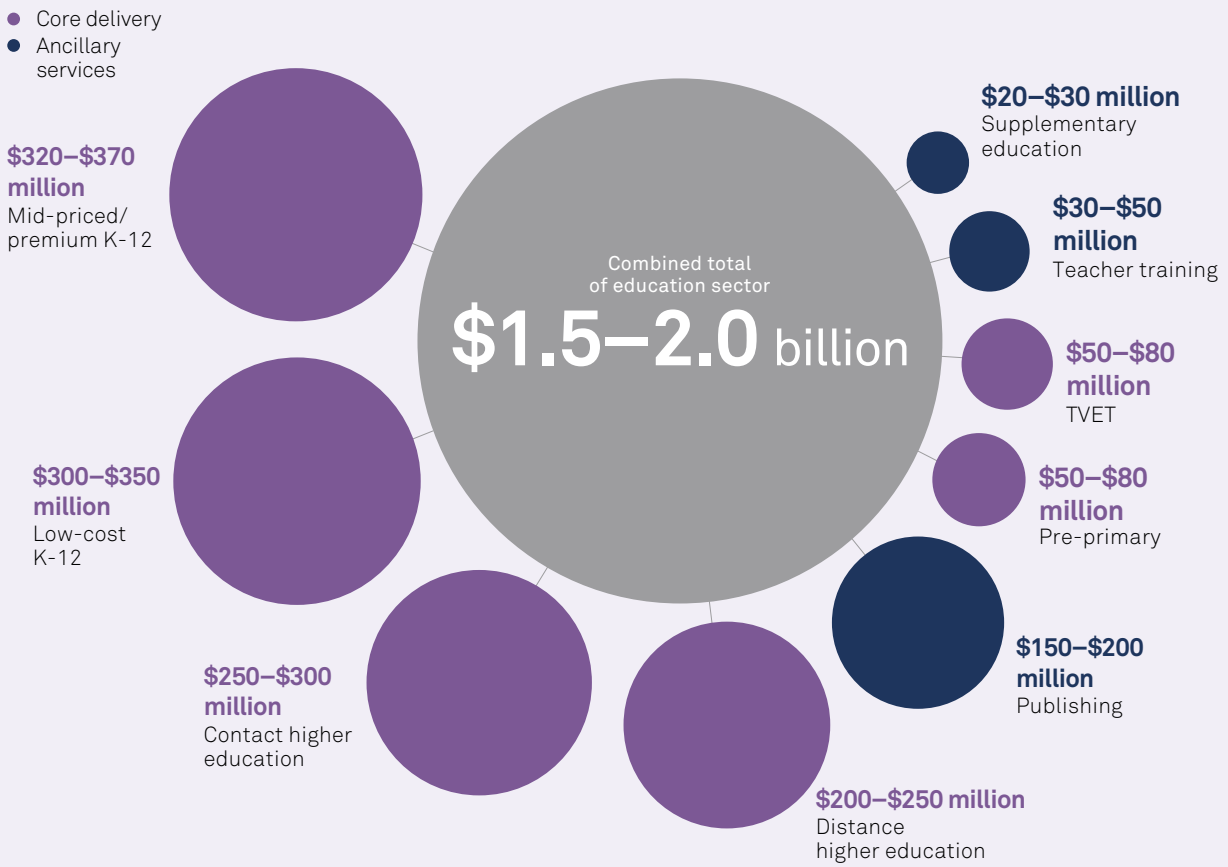
The non-formal sector comprises a large share of private provision, variable by subsector of education and estimated to be much higher in pre-primary (50%) and low-cost K-12 (40%) than in mid-priced/premium K-12 (10%) and higher education and TVET (20%). Donors and impact investors work with providers in this sector but it remains largely unorganized, predominantly financed and operated by communities and/or local entrepreneurs, and unsuitable for large institutional investors.

The formal sector is made up of a very diverse set of providers, including stand-alone schools and colleges, community schools and pre-primary centers, and school and institution chains. Aside from chains, these institutions typically have individual or community ownership, and the nature and scale of these businesses make it difficult for them to attract investment from large investors. Based on field study in select countries, only 10%–20% of institutions in the formal private sector have a revenue scale large enough to make investment viable for large investors. This translates into an investment requirement of $1.5–$2.0 billion over the next five years, or $300–$400 million every year to build capacity in the formal organized education sector (see figure 20). Much of the other funding required in the market will come from domestic sources and remittances.

INVESTMENT OPPORTUNITIES IN CORE DELIVERY

The opportunity in core delivery is estimated to be $14–$15 billion across pre-primary, low-cost K-12, mid-priced/ premium K-12, contact higher education, distance higher education, and TVET (See table 15). $1.3-$1.5 billion of this would be in the formal sector.

FIGURE 20: OPPORTUNITY SCALE BY SEGMENT, ORGANIZED EDUCATION SECTOR



**Within the edtech segment there is not a meaningful distinction between formal and non-formal provision and therefore it has not been included as part of the organized sector opportunity set*

TABLE 15: OPPORTUNITIES IN CORE DELIVERY

Pre-primary	Low-cost K-12	Mid-priced/ premium K-12	Contact higher education	Distance higher education	TVET
CAPITAL DEPLOYMENT REQUIRED (FIVE YEARS)					
– $0.8–$1.2 billion	– $8.0–$8.2 billion	– $2.0–$2.2 billion	– $2.0–$2.2 billion	– $0.5–$0.7 billion	– $0.5–$0.7 billion
SELECT EXAMPLES IN SUB-SAHARAN AFRICA					
– SmartStart (RSA) – Kidogo (Kenya) – Madrasa Early Childhood Program (Kenya, Uganda, Tanzania) – Gigiri Montessori (Kenya)	– Bridge International Academies (Kenya, Uganda, Liberia, and Nigeria) – Lekki Peninsula Affordable Schools (Nigeria) – SPARK Schools (South Africa)	– Braeburn Schools (Kenya and Tanzania) – Curro Schools (RSA) – ADvTECH (RSA, Botswana, Zambia)	– Mount Kenya University (Kenya) – Afe Babalola University (Nigeria) – Admas University (Ethiopia) – Ashesi University (Ghana)	– IMM (RSA) – UNICAF (pan-Africa) – Rosebank College (RSA)	– Damelin College (RSA) Harambee Youth Accelerator (RSA) – R-labs (RSA) – Andela (Kenya, Nigeria, Uganda) – WAVE Academy (Nigeria)
TYPICAL COMPANY REVENUE AND MARGINS					
– $3–$6 million – 15%–20%	– $5–$15 million – 10%–15%	– $15–$30 million – 25%–30%	– $15–$50 million – 25%–30%	– $10–$15 million – 20%–25%	– $5–$10 million – 10%–20%
INVESTMENT REQUIREMENT					
– $50,000–$200,000 per center	– $100,000–$300,000 per school	– $1–$5 million per school	– $3–$7 million per institution	– $2–$4 million per institution	– $1–$3 million per institution
IMPACT					
Provides a foundation for all future learning	Provides access to basic education to the "bottom of the pyramid"	Provides an alternative to public education, often with a scholarship function	Improves access and quality of higher education	Improves access to higher education in non-urban areas and for working adults	Provides skills to reduce youth unemployment and to support work readiness
EXAMPLES OF EXTERNAL INVESTMENT					
– Yellowwoods has invested in SmartStart	– CDC, DFID, IFC and others have invested in Bridge International Academies – Pearson Affordable Learning Fund has invested in Omega Schools (Ghana, Liberia) and SPARK Schools	– Fanisi Capital has invested in Hillcrest International Schools (Kenya) – Educas has invested in Brookhouse School (Kenya)	– Emerging Capital Partners has invested in Maarifa Education (pan-Africa) – Providence and Galileo have invested in ISM (Senegal)	– Lereko Metier Capital Growth Fund has invested in IMM – ADvTECH has invested in Rosebank College	– Yellowwoods has invested in Harambee Youth Accelerator – Google Ventures, Chan Zuckerberg Initiative, Spark Capital, and Learn Capital have invested in Andela

PRE-PRIMARY EDUCATION

Size of opportunity

$0.8–$1.2 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in pre-primary education:

ADvTECH
Aga Khan Development Network
Bridge International Academies
ChildFund Senegal
Partnership Schools for Liberia

Pre-primary has only recently become part of the compulsory education system in many countries in SSA and is therefore at a relatively nascent stage in enrollment scale (see figure 21). Despite shifts (e.g., in Kenya, South Africa, and Nigeria) to make one or two years of pre-primary part of compulsory education, evidence indicates that public provision is both insufficient and of poor quality in the study countries.[115]

There are two key opportunities in pre-primary education:

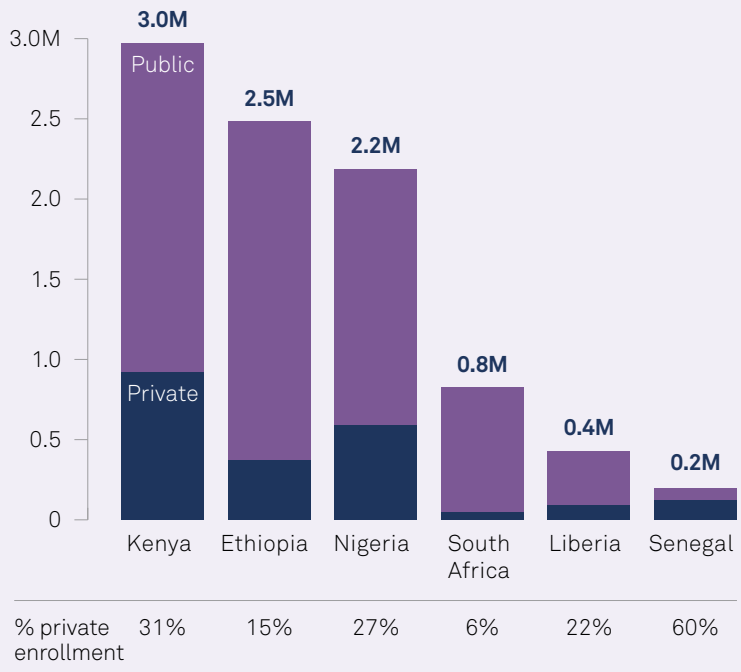
1. **Greenfield opportunity for commercial investors to expand private education provision. Further, given the high levels of fragmentation, there are opportunities to merge existing providers as well.**
2. **Expansion opportunity for donors and impact investors in pre-primary provision through innovation-oriented pilots and through social franchise models.**

These are explored in what follows.

1. **Greenfield opportunity for commercial investors to expand private education provision. Further, given the high levels of fragmentation, there are opportunities to merge existing providers as well:** Even where it has been made compulsory in SSA, only one or two years of pre-primary education is offered as a part of core public provision. Private provision is significant, with 26% of share. However, pre-primary still lags enrollment in other segments of education: just 13.4 million children are currently enrolled in pre-primary education in SSA, and pre-primary GER is 26% compared with 103% in primary and 53% in secondary. Given the capacity constraints in the public system, expected increases in demand due to urbanization and rising incomes, and the potential for PPPs, there is a large opportunity for commercial investors to offer pre-primary education through independent centers and as a part of primary schools.

The majority of current provision is through centers with typical enrollment scale of 50–100 students. These are typically owned by families or jointly owned and operated by communities. There are

FIGURE 21: PUBLIC AND PRIVATE PROVISION IN PRE-PRIMARY EDUCATION, BY COUNTRY, 2014



no scale examples of dedicated pre-primary chains with multiple centers, but some K-12 chains include integrated pre-primary provision. This is in part due to characteristics of pre-primary education, including parental preference for smaller center size.

A specific sub segment is in provision for early childhood care (for 0–3 year-olds), which is not typically included in countries' new commitments. This is typically provided through unregulated private informal centers regulated by Departments of Social Development/Health, with minimal public provision, offering greenfield and consolidation opportunities. Given the nascent stage of this sub segment, there are opportunities for innovation-driven scale models for private providers. Regional estimates point to 60% of ECE now provided by the private sector.[116]

2. **Expansion opportunity for donors and impact investors in pre-primary provision through innovation-oriented pilots and through social franchise models:** There is a significant potential opportunity for consolidation of small standalone centers in the region through a micro-franchise model. There are established, as well as emerging, models in this space. These models typically train, provide materials to, and/or license pre-school operators and may use model schools to demonstrate good practice. Beyond this, Children Investment Fund Foundation's Tayari program is an example of a donor organization spearheading a pilot to explore innovative means of delivering early learning models that can then be adopted by government.

CASE STUDIES: PRE PRIMARY EDUCATION

Examples of models for commercial investors

Curro Castles (South Africa): Part of Curro, an education provider with 110 schools in the pre-K-12 segment, Curro Castles is a chain of nursery schools, at an annual average fee of $2,300.

Junior Colleges Pre-school Group (South Africa): A chain of eight pre-schools across South Africa, owned by the ADvTECH Group. They offer pre-primary education for children from three months to six years old, at an average annual fee of $4,000–$5,000.

Montessori House (Kenya): A small chain operating four pre-primary centers in Nairobi, Kenya, at an annual tuition fee of $4,000–$5,000, enrolling 300 students and currently scaling up to 10 centers within three to five years.

Examples of models for impact investors/donors

Aga Khan Foundation's Madrasa Early Childhood Program (Kenya, Uganda, Tanzania): Established in 1986 by the Aga Khan Foundation, Madrasa Early Childhood Program (MECP) it helps local communities in the establishment, development, and management of pre-schools. The MECP has funding support from multilateral organizations such as USAID and DFID, and has reached over 68,000 students since inception. MECP offers professional development and training courses to new and practicing preschool teachers, and provides technical support to preschools, government and private organizations. Interested communities enter an agreement with MECP to set up, manage, and operate their own community preschools. These preschools are mentored by the MECP for up to three years on community awareness, teacher training, infrastructure development, and school management support.

Kidogo (Kenya): This social enterprise is building a network of financially sustainable Early Childhood Development (ECD) centers, based on a "hub and spoke" model. The hubs are "model ECD centers," while the spokes are child care micro-businesses run by local women ("mamapreneurs") through Kidogo's social franchising program, which provides training, mentorship, and learning materials. They currently have two "hubs" and five "spokes" in Nairobi, serving over 250 children daily.

Tayari (Kenya): Tayari, funded by CIFF, is a three-year, $16.5 million pilot program rolled out in the counties of Laikipia, Siaya, Nairobi, and Uasin Gishu, to develop a high-quality, cost-effective and scalable pre-primary model that focuses on providing student material, teacher guides and training, and ongoing coaching support to public and low-cost private ECD centers. The aim is for the Government to support 1,700 pilot centers by 2018, serving 108,000 children.

SmartStart (South Africa): Established in 2015, SmartStart is a social franchise which aims to bring quality early learning to one million pre-school pupils in South Africa annually by 2025. The SmartStart model is designed to enable growth and scale, with 850 franchisees established reaching 10,000 children in just one year.

LOW-COST K-12

Size of opportunity

$8.0–$8.2 BILLION

The low-cost K-12 segment has high enrollment potential, as it has higher affordability for a larger segment of the population. Low-cost education reaching the "bottom of the pyramid" has both social and economic potential for investors. While the market for mid-priced/premium schools is limited to major cities and accessible to only 10%–15% of the population, there exists a larger potential market for low-cost schools. There are two key opportunities to invest in K-12 education for investors and donors:

1. **Potential to develop new models for impact investors and donors/foundations.**
2. **Opportunity for donors to address inequity in access (particularly issues of gender, disability, and regional disparity).**

These are explored in what follows.

1. **Potential to develop new models for impact investors and donors/foundations:** Innovative models in this segment, such as Bridge International Academies, LEAP Science & Maths Schools, Omega Schools, and Livingstone College, have emerged to cater to this growing demand. These models leverage technology and run asset-light businesses to reduce costs. Bridge has established more than 500 schools and enrolls more than 100,000 students at a an average price point of just under $7 per month, while Omega Schools operates 38 schools at a price point of $0.65 per day in Ghana. Both are participating in the Partnership Schools for Liberia PPP. SSA countries together have a huge addressable market for low-cost schools amounting to ~135 million students.[117] Nigeria represents the largest opportunity in the low-cost segment with over 40 million children, followed by Ethiopia with ~20 million children, and Kenya and South Africa with 12–13 million children each (see figure 22).

Although revenue scalability and profitability of these models have yet to be demonstrated, this is an attractive investment opportunity for impact investors and donors to reach a wider population base, and particularly to pioneer new, innovative models, potentially in partnership with governments. There have been few new players in the scale low-cost segment in SSA in recent years, perhaps — as one education sector participant noted during this study — because would-be entrepreneurs have observed that the regulatory and political environment around the sector has recently become more heated. In this context, impact investors' and donors' higher risk appetite (and, in some cases, existing political capital) may help them to continue to pioneer and experiment with new models in a way that traditional commercial investors would struggle to do.

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in low-cost K-12 education:

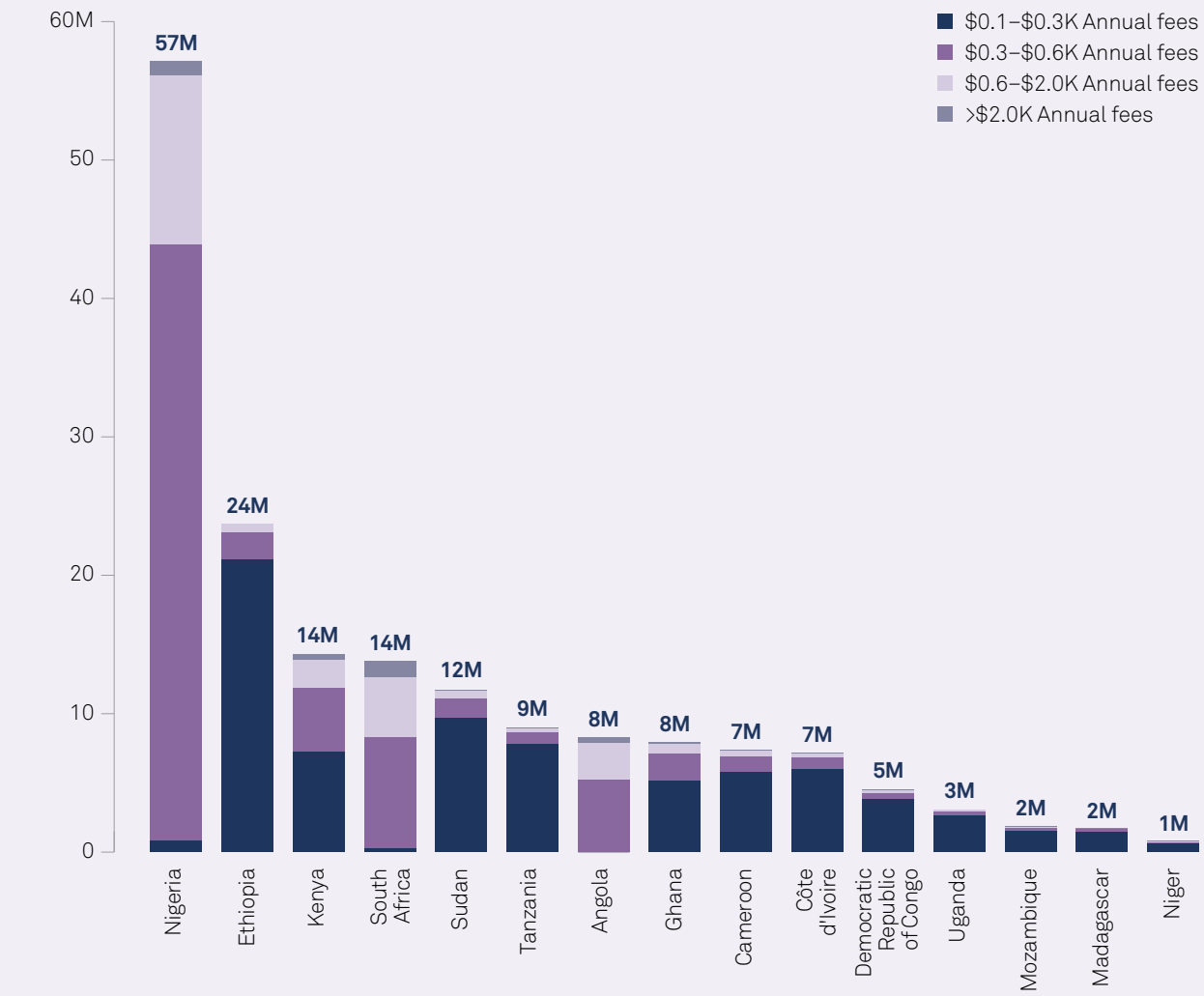
Aga Khan Development Network
Bridge International Academies
ChildFund Senegal
Omega Schools
Partnership Schools for Liberia

LOW-COST EDUCATION HAS BOTH SOCIAL AND ECONOMIC POTENTIAL FOR INVESTORS.

2. **Opportunity for donors to address inequity in access (particularly issues of gender, disability, and regional disparity):** There are large regional disparities in the education levels within countries (for example, in Kenya secondary GER is as low as 10% in northern counties such as Mandera and Turkana, as compared to national secondary GER of 60%).[118] There are also significant disparities in education access for boys and girls: no country in SSA has achieved gender parity in primary and secondary education as of 2015. Children with disabilities are also at a disadvantage. For example, in Malawi and Swaziland, fewer than half of those aged 15 to 29 with disabilities has ever been to school.[119]

Donors and impact investors can seed and support innovative initiatives (including PPPs) reaching marginalized children in regions and for population segments that are currently underserved.

FIGURE 22: ADDRESSABLE MARKET FOR K-12 SCHOOLS, BY FEE SEGMENT, SSA (TOP 15 COUNTRIES), 2016



Income classifaction	Nigeria	Ethiopia	Kenya	South Africa	Sudan	Tanzania	Angola	Ghana	Cameroon	Côte d'Ivoire	Democratic Republic of Congo	Uganda	Mozambique	Madagascar	Niger
Upper middle (UM) / Lower middle (LM) / Low (L)	LM	L	LM	UM	LM	L	UM	LM	LM	LM	L	L	L	L	L
Upper limit for low-cost K-12 fee ($K)	0.6	0.3	0.6	2.0	0.6	0.3	2.0	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3
Market for low-cost as % of total market %	77	89	83	91	83	87	95	89	93	95	84	84	83	85	77

CASE STUDIES: LOW-COST PROVIDERS IN SSA

LEAP Science & Maths Schools (South Africa):
This provider is free for qualifying students. LEAP has expanded to six schools, enrolling over 1,500 students.

Lekki Peninsula Affordable Schools (Nigeria):
Lekki Peninsula Affordable Schools is a stand-alone low-cost school, charging an average annual fee of $125. They have received funding from Village Capital and Pearson Affordable Learning Fund of ~$75,000.

Livingstone (Nigeria):
Established in 1999, Livingstone College is a not-for-profit K-12 education provider, operating at an annual fee of less than $150. With 30 secondary schools under the Livingstone College brand and 27 primary schools under its sister brand, "Great Jed Kiddies," the schools comprise the largest indigenous low-fee chain in Africa.

School of Tomorrow (Ethiopia):
This chain of nine private schools in Ethiopia provides education to over 5,000 children from ages 2.5–18 years old.

Silverleaf Academy (Tanzania):
This chain of low-cost pre-primary and primary private schools was founded in 2016 and currently has two schools in Tanzania, charging a daily fee of $1.50 per day. Silverleaf offers a tablet-based curriculum, and trains its teachers in-house to deliver lessons using this technology-enabled approach. It aims to open 15 schools serving 8,000 students in Tanzania and to expand to other countries in SSA.

CASE STUDIES: DONOR OPPORTUNITIES IN K-12

Educating Nigerian Girls in New Enterprises (ENGINE) (Nigeria):
This project is funded by Coca-Cola and DFID and aims to enroll 10,000 marginalized girls and young women in Nigeria.

MID-PRICED/PREMIUM K-12

Size of opportunity

$2.0–$2.2 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in mid-priced/premium K-12 education:

ADvTECH
Aga Khan Development Network
Braeburn Schools
Enko Education

The mid-priced/premium K-12 segment is a large and growing market driven by poor quality in many public schools and increasing affordability for middle-class Africans. These schools typically offer superior facilities and infrastructure, as well as classroom fundamentals that may deliver better student outcomes (lower STRs, international curricula, and smaller class sizes). Many companies and stand-alone schools cater to growing demand, with fees ranging from $500 in Ethiopia (an unusually low price point), to $10,000 in South Africa. The addressable market for this segment is ~22 million students and is growing at ~4%.[120] There are for-profit and not-for-profit providers in SSA, including Aga Khan Schools (Kenya, Tanzania, and Uganda), Aga Khan Academies (Mozambique, Kenya), ADvTECH (South Africa , Botswana, Zambia), Curro (South Africa), Reddam House (South Africa), United Herzlia Schools (South Africa), Corona (Nigeria), and Braeburn Schools (Kenya, Tanzania). There are also a large number of stand-alone private schools. Within the segment there are two strong opportunities for commercial investors:

1. **Opportunities to launch new schools driven by high capacity utilization and increasing affordability.**
2. **Consolidation potential given market fragmentation in the segment.**

These are explored in what follows:

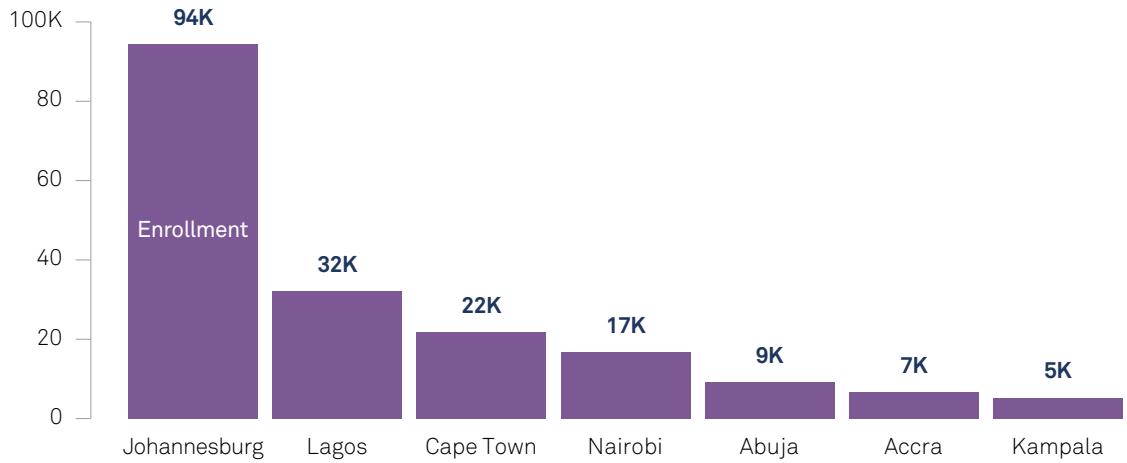
1. **Opportunities to launch new schools driven by high capacity utilization and increasing affordability:**
   Given the stage of development of most countries in SSA, the population that can afford these schools is concentrated only in major cities, with ~40% concentrated in the top 15 cities in SSA. Cities have both the concentration of affluence and population density to support catchment-based K-12 models. Geographies that will be the strongest markets for K-12 include Nigeria, South Africa, Angola, and Kenya, which represent more than 70% of this segment.

   Penetration in the segment is currently estimated to be ~25%, implying headroom for growth and a greenfield opportunity. Moreover, capacity utilization within existing schools is high, with rates of 80%–90% (see figure 23), indicating supply-demand imbalance. Though the market is small in absolute student numbers, its revenue and profit potential make it an attractive segment. Schools in South Africa, Nigeria, and Kenya typically achieve scale in three to four years. Reddam House (South Africa), Corona (Nigeria), Pioneer Academies (South Africa)/Nova (Kenya) and Flipper International School (Ethiopia) are examples of providers that have grown through a greenfield strategy. In Senegal, schools in the mid-priced segment, like Yalla Sur En, Sacré Coeur, and St. Pierre, attained scale of 2,500–3,000.

2. **Consolidation potential given market fragmentation in the segment:**
   Providers such as ADvTECH, Curro, and Braeburn Schools have consolidated the market to some extent. However, the market is still fragmented (see figure 24) and offers opportunity for consolidation, which could lead to higher efficiency and better quality.[121]

PENETRATION IN MID-PRICED/PREMIUM K-12 IS CURRENTLY ESTIMATED TO BE ~25%, IMPLYING HEADROOM FOR GROWTH AND A GREENFIELD OPPORTUNITY.

FIGURE 23: STUDENT ENROLLMENT IN MID-PRICED SCHOOLS, BY CITY, 2015



	Johannesburg	Lagos	Cape Town	Nairobi	Abuja	Accra	Kampala
Enrollment CAGR (2011–2015)	5%	5%	3%	4%	10%	5%	15%
Revenue CAGR (2011–2015)	15%	10%	11%	12%	11%	11%	17%
Capacity utilization	80%	90%	80%	90%	68%	84%	75%

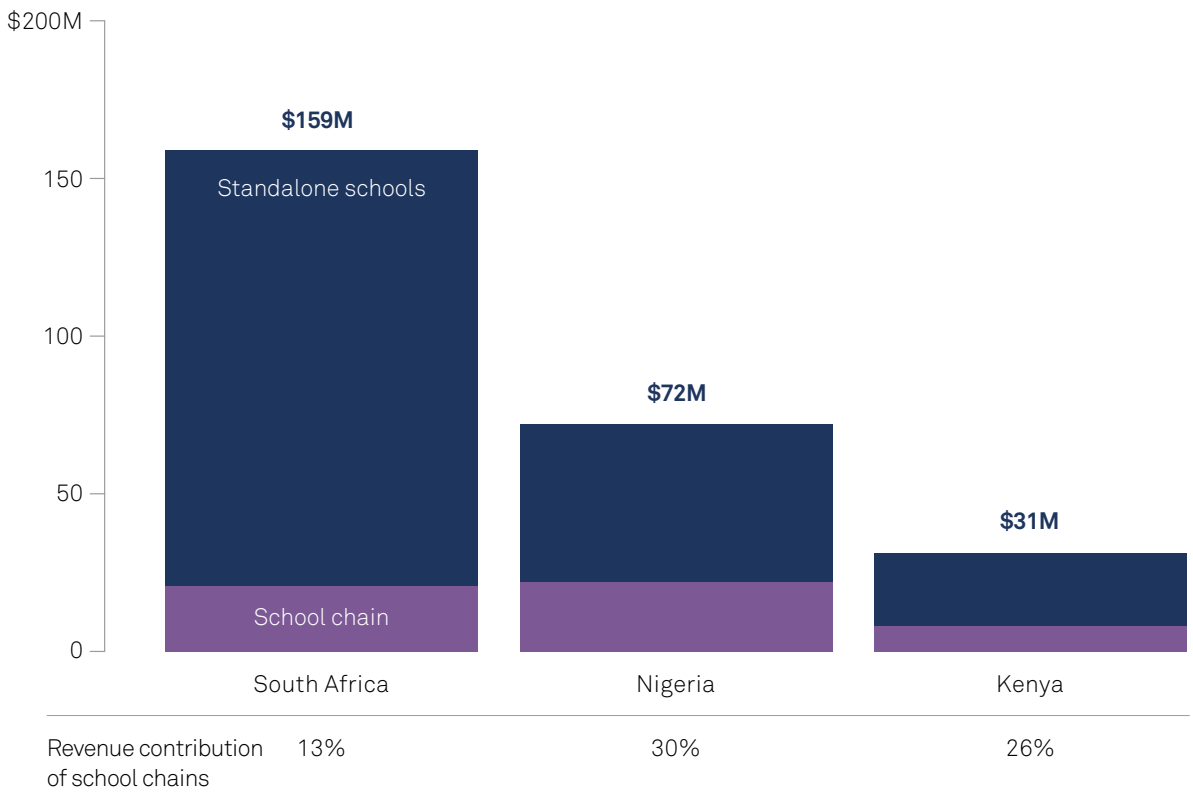
CASE STUDIES: PROVIDERS THAT HAVE GROWN THROUGH A GREENFIELD STRATEGY

Inspired (Kenya, South Africa): This global premium group of schools has over 17,000 students on four continents. Inspired owns 11 schools in South Africa under the Reddam House and Reddford House brand and two schools in Kenya under the Brookhouse brand. Its EBITDA is over $53 million (€50 million). Inspired is fully controlled by Educas, an education investment firm founded by Nadim Nsouli.

Corona Schools' Trust Council (Nigeria): Corona operates five primary, one nursery and one secondary school, charging an average annual fee of $4,000. It offers a blended curriculum, which prepares the students for the WASSCE, Nigerian national examinations, and the International General Certificate of Secondary Education (IGCSE).

Nova Academies (Kenya)/ Pioneer Academies (South Africa): Nova/ Pioneer Academies is a network of pre-K-12 schools, charging tuition in the $2,000–$4,000 range, with four schools in Johannesburg and two schools in Nairobi. Nova/ Pioneer Academies blend local curriculum with inquiry-based learning methods to develop 21st century skills. They aim to expand to 100 schools by 2025, serving over 50,000 students across SSA.

FIGURE 24: TUITION REVENUE OF MID-PRICED K-12 SCHOOLS, BY SCHOOL TYPE, BY COUNTRY, 2015–16[122]



CASE STUDIES: PROVIDERS THAT HAVE GROWN THROUGH CONSOLIDATION

ADvTECH (South Africa, Botswana): ADvTECH operates pre-K-12 schools under multiple brands, including Crawford Schools, Abbotts College, Trinityhouse, Centurus Colleges, Junior Colleges, Maravest Group; schools all have different fee levels. ADvTECH also has a school in Botswana. It plans to diversify geographically and generate ~30% of its revenue from other countries in sub-Saharan Africa.

Curro Schools (South Africa): Enrolling more than 40,000 students, Curro currently operates 48 schools across provinces in South Africa. The chain offers the national curriculum and charges an average annual fee of $2,500. Curro has expanded through a mix of acquisitions and greenfield expansion.

CONTACT HIGHER EDUCATION

Size of opportunity

$2.0–$2.2 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in contact higher education:

ADvTECH
Ashesi University College

Currently about 30% of all higher education places are provided by the private sector, and the segment saw nearly 15% growth from 2009–2013 in SSA, larger than all other core education segments (see Section I).

Given the segment's high growth, high margins, and high revenue potential tied to enrollment scale, contact higher education is arguably the most attractive segment for commercial investors. There are two key opportunities:

1. **Potential for commercial and strategic investors in private contact higher education to develop new institutions, driven by capacity constraints in the public sector and demand for employability-oriented education.**
2. **Consolidation/partnership opportunity for commercial investors given fragmented market.**

These are explored in what follows:

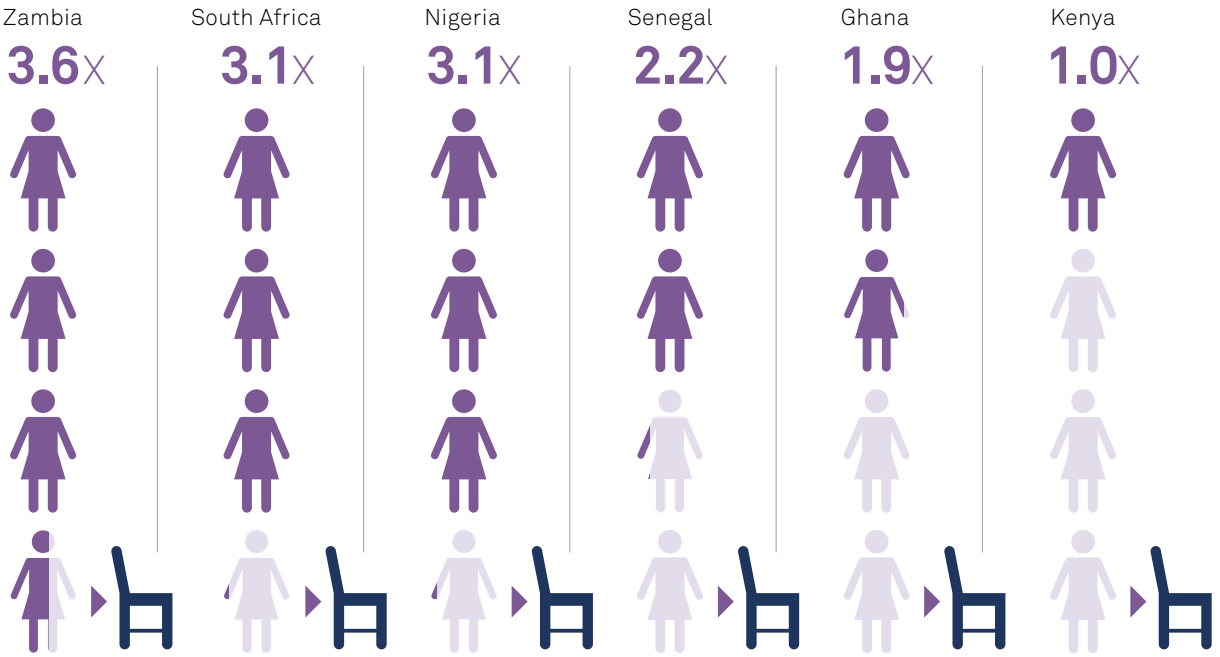
1. **Potential for commercial and strategic investors in private contact higher education to develop new institutions, driven by capacity constraints in the public sector and demand for employability-oriented education:**
   As indicated in Section I, there is a significant shortage of higher education places across SSA (see figure 25) and the quality of public higher education in SSA is generally poor, with a shortage of qualified lecturers. Classroom overcrowding is common. For example Université Cheikh Anta Diop de Dakar (UCAD), Senegal's largest university (accounting for ~80% of public higher education enrollment), is estimated to run at more than 300% capacity and students often have to arrive two hours in advance to secure a place.[123] According to the World Bank, there has been a "severe decline in the quality of instruction ... universities are finding it increasingly difficult to maintain a teaching staff, lecture halls are overcrowded, and buildings are falling into disrepair."[124]

   Many talented students look for opportunities abroad.

   Given the surge in primary and secondary enrollment rates and the labor market demand for skilled graduates, there is rising demand for higher education, and private providers are filling the gap in state provision. Private education providers tend to offer more relevant, employability-oriented degrees than public education providers.[125]

   There is a greenfield opportunity for contact higher education in the region to set up private universities and colleges. The opportunity is suited for commercial investors and offers significant revenue potential. Average profitability of higher education assets in SSA is 25%–30%. There are a range of providers (see case studies below) that have built greenfield education businesses across the continent. Some of these are legacy operators like Babcock University (established in 1959 in Nigeria) and Rosebank College (1948) and Varsity College (1991), both now owned by ADvTECH.

FIGURE 25: APPLICANT TO SEAT RATIO, SSA PUBLIC TERTIARY INSTITUTIONS, BY COUNTRY, SELECT GEOGRAPHIES[126]



CASE STUDIES: CONTACT HIGHER EDUCATION THROUGH GREENFIELD

Mount Kenya University (Kenya): Launched in 2006, it has grown to enroll 40,000 students across its 10 campuses, with revenues of over $50 million.

Afe Babalola University (Nigeria): This private university was established in 2009 with the mission to focus on maintaining world-class quality. The university has grown to 7,000 students across five colleges.

St. Mary's University (Ethiopia): This institution was established in 1998 with 70 students and now offers 11 degree and vocational programs with a student population of more than 6,000. St. Mary's University is also the largest distance education provider in Ethiopia, catering to nearly 30,000 students.

African Leadership University: This pan-African institution, founded by Ghanaian entrepreneur and educationalist Fred Swaniker (also founder of African Leadership Academy), focuses on holistic education and employability, developing entrepreneurial leaders. It seeks to build 25 campuses across the continent grooming three million leaders by 2060. Two campuses, one in Mauritius and one in Rwanda, are already in operation. Tuition is $4,000 per annum.

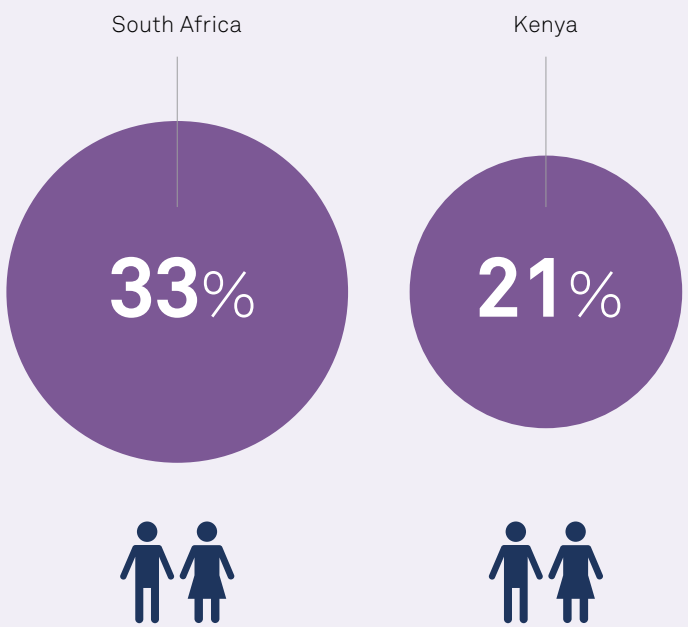
Université Privée de Marrakech (UPM) (Senegal): Increasing purchasing power in Senegal has encouraged private higher education providers, such as the Morocco-based UPM, to enter the market. UPM launched in Senegal in 2015 and has attained an enrollment of ~200 students.

ISM (Senegal): This provider already has a network of 14 campuses across Senegal and plans to expand to other sites while growing its current course portfolio. The private equity group Providence Equity and post-secondary education group Galileo Global Education have invested in ISM to support its growth in Senegal and across Africa.

Existing and new higher education providers may also want to expand their addressable market, enhance their product offerings, and improve efficiency by capitalizing on emerging trends. Some of these are below:

- **Expand addressable market by supporting adult learners to return to education:** There is a large adult population aged 22–40 who did not pursue higher education at a younger age due to access and affordability issues. A significant proportion of the workforce in SSA does not currently hold a degree. A high proportion of current university students are adult learners (see figure 26): ~200,000 South Africans are enrolled in Adult Education and Training programs and in Kenya, ~80,000 students aged over 21 are returning to formal education, comprising ~40% of the student population in private universities. Adult education and modified degrees (e.g., part-time, evening) are highly popular in private universities and colleges in other emerging markets (e.g., Malaysia).[127]
- **Enhance product offerings with STEM-based courses:** Further, humanities and social sciences made up over 70% of graduates.[129] There is a shortage of graduates in the STEM fields and expanding provision of these courses will improve graduate employability and degree relevance, enhancing both institutional impact and revenue potential. For example, BlueCrest University College in Liberia, established in 2016, is a private for-profit institution that provides computer science certifications. It has achieved a scale of ~600 students. Similar programs have had ~20% annual enrollment growth over the last two years.
- **Drive efficiency through hybrid/blended learning:** There is opportunity to reduce capital and operating costs by leveraging technology in delivery. This is particularly relevant for working professionals, as blended and online degrees improve convenience and affordability. This is further developed in the next section on distance higher education and also in the upcoming section on edtech. Examples include ADvTECH's Rosebank College in Polokwane, which is a technology-enabled campus in South Africa, UNICAF across Africa, and emerging models such as OneUni in Kenya.

FIGURE 26: PROPORTION OF ADULT LEARNERS IN TERTIARY EDUCATION, SOUTH AFRICA AND KENYA, 2014[128]



A HIGH PROPORTION OF CURRENT UNIVERSITY STUDENTS IN SSA ARE ADULT LEARNERS

DESPITE THE SEGMENT'S ATTRACTIVENESS, IT HAS UNIQUE REGULATORY AND OPERATIONAL CHALLENGES.

2. **Consolidation/partnership opportunity for commercial investors given fragmented market:** The current private higher education market in SSA is fragmented, with many small providers and average institution scale of 2,500 in Kenya and Nigeria and 1,300 in South Africa (by comparison, public university average scale is ~12,900 in Kenya and ~38,000 in South Africa). This presents opportunities for external investment and consolidation. However, this may be a more limited opportunity, given that many current universities are owned by faith-based entities which might not be seeking partnerships. There are, nonetheless, examples of higher education platforms like Educor and ADvTECH that have scaled through consolidation of multiple higher education operators. The consolidation strategy leads to benefits of scale, manifested in superior student acquisition, optimal pricing, and enhanced valuation.

Despite the segment's attractiveness, prospective investors should be aware of regulatory and operational challenges. As explored in Section II, obtaining appropriate licenses for new private universities can be a time-consuming and expensive process, and many countries still require new approvals for every existing site. There is also a shortage of lecturers with PhDs,[130] presenting human capital challenges, and underdeveloped student finance across the region, limiting the addressable student market.

CASE STUDIES: CONTACT HIGHER EDUCATION THROUGH ACQUISITION

Emerging Capital Partners (ECP) (Uganda, Zambia and Kenya): Emerging Capital Partners (ECP) has invested in Maarifa Education, with a vision to build a world-class, pan-African education company that provides high-quality, market-relevant tertiary education to more than one million Africans over the next 30 years. Maarifa Education has invested in three universities in Africa, with total enrollments of over 9,000 students.

Educor (South Africa): Educor is the one of the largest higher education and further education providers in South Africa, with multiple brands including Lyceum, INTEC, Damelin, Damelin Correspondence, ICESA, CityVarsity, Dermatech, Central Technical College and the London College of International Business Studies (LCIBS), engaged in both traditional and online offerings, enrolling about 50,000 students, with an annual revenue of more than $60 million.

DISTANCE HIGHER EDUCATION

Size of opportunity

$0.5–$0.7 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in distance higher education:

ADvTECH
MANCOSA
UNICAF

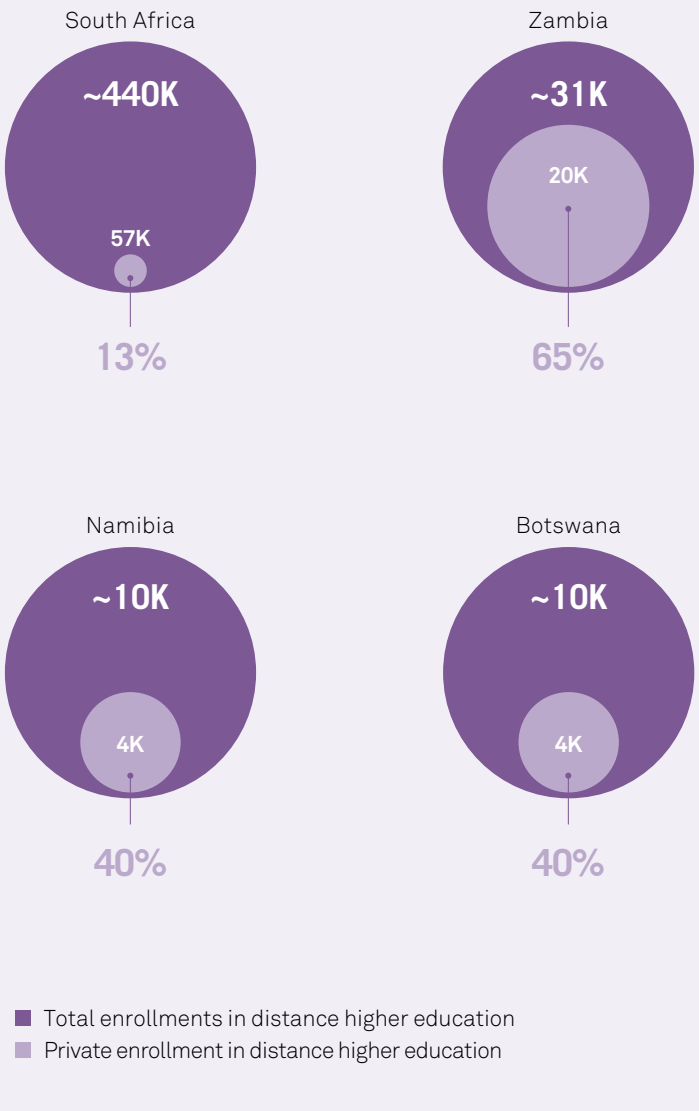
Distance higher education has emerged as a major and growing segment and presents an opportunity for strategic and commercial investors to expand access and leverage the significant addressable market in the region. There is considerable headroom for growth given the likely persistence of the shortage of higher education seats in SSA, as well as trends in the labor market toward wider acceptance of online education qualifications for employment. There are two key opportunities for commercial investors and operators in the segment:

1. **Potential for private providers to capitalize on burgeoning demand.**
2. **Acquisition/partnership opportunity for global investors with existing distance education providers.**

These are described in what follows:

1. **Potential for private providers to capitalize on burgeoning demand:** The demand for distance education has been driven by the same factors that drive contact education. A subset of demand is also due to students' inability to afford costs of accommodation and maintenance in locales far from home. Finally, some students work while pursuing higher education, resulting in preference for more convenient, on-demand options. South Africa, Nigeria, and Ethiopia offer public

FIGURE 27: PRIVATE DISTANCE HIGHER EDUCATION ENROLLMENT, BY COUNTRY, 2015–2016[131]



provision of distance education, and public providers are large-scale. For example, University of South Africa (Unisa) is the largest open distance learning institution in Africa. Nigeria's Open University (NOUN) enrolls ~160,000 students, making it the country's largest tertiary provider. Virtual University of Senegal was launched by the Government in 2013 and currently enrolls 13,000 students. There is significant private provision of distance education (see figure 27), with providers achieving scale of ~$10 million. For example, MANCOSA is the largest private provider of distance education in South Africa, with revenue of ~$20 million, followed by Milpark Education ($8–$9 million), and IMM Graduate School of Marketing (~$5 million).

The segment globally is known for high student dropout levels, and these are reflected in SSA.[132] For example, Unisa faces issues with high dropout rates of more than ~60%. By contrast, private providers typically are able to maintain dropout rates of ~20% or less due to targeted and sustained student support. Some providers, like MANCOSA, have improved persistence by providing offline and online tutor support as well as preparatory sessions before exams.

2. **Acquisition/partnership opportunity for global investors with existing distance education providers:** Investors can enter into the region by acquiring and expanding small or mid-sized operators. Distance education can benefit from economies of scale, given consolidation of platforms, courses, and related material. Fixed costs are lower than in contact education, and variable cost per student is significantly lower and, in some cases, close to zero. For this reason, acquisition and consolidation of distance providers has high margin potential.

CASE STUDIES: DISTANCE HIGHER EDUCATION PROVIDERS

IMM (South Africa): The IMM Graduate School of Marketing is one of the leading distance higher education providers in South Africa, enrolling over 5,000 students. Lereko Metier Capital Growth Fund, a private equity investor, acquired a stake in IMM in 2013.

Rosebank College (South Africa): This brand is part of the ADvTECH Group and has opened a digitally enabled "Connected Campus" in Polokwane, South Africa, and is expected to reach students in remote areas and working professionals, who cannot attend regular classroom-based lectures.

Apollo Education Group acquired an 81% stake in South African private distance higher education provider Milpark Education for ~$25.6 million.

TVET

Size of opportunity

$0.5–$0.7 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in TVET:

Andela
ChildFund Senegal
GetSmarter

There is a growing demand for TVET as it can help bridge the skills gap as SSA grows. It has been a focus area for the development community within many emerging markets. Given high youth unemployment, coupled with a need for human capital (addressed in the Introduction), the TVET sector should have high enrollment growth potential. However, as noted earlier in this report, given low returns to formalized TVET linked to limited labor market requirements to attain professional certification, the sector has not realized its potential.

However, this situation may be set to change, as countries in SSA, including, for example, Kenya and Ethiopia, are adopting skills qualifications frameworks to govern technical sectors and skills courses. Countries have taken steps to increase enrollment in TVET programs: Republic of South Africa (RSA) released a list of scarce skills and identified 50–60 TVET courses that are in high demand from employers but not widely offered by institutions. The Department of higher Education and Training, which was set up to focus on higher education and TVET, has also set a target of more than tripling TVET enrollment in the next 15 years.

Although the perception of TVET is still poor in SSA countries, government-led reform is increasing awareness and acceptability, leading to higher growth in the segment. A role must be played by governments and industry to develop a skills qualification framework (covered in Section II) and certification requirements for professions. Growth has been strong since 2000, but the segment still comprises just three million individuals.

The segment provides two key opportunities for longer-term commercial and impact investors:

1. **Consolidation opportunity for commercial investors given sector fragmentation.**
2. **Innovation opportunities for PPPs and program development and delivery by strategic and impact investors.**

These are described in what follows.

1. **Consolidation opportunity for commercial investors given sector fragmentation:**
Existing private provision in traditional TVET is highly fragmented. Fully 70% of the market is made up of multiple subscale providers operating one to three campuses and offering only two or three courses per campus.[133] An opportunity exists for commercial investors to consolidate these operators and increase quality, relevance, and efficiency in the network. TVET programs typically require high capital investment to build necessary infrastructure (e.g., training centers allowing for practical, rather than classroom-based, learning), and these costs are, in part, a barrier to existing subscale providers growing in size. For example, in South Africa, Educor's Damelin brand and Boston City Campus & Business College are the largest providers and account for just 7%–8% of the market. This fragmentation presents an opportunity for investors to consolidate the market, driving scale benefits in quality, delivery standards, student outcomes through employer relationships, and improvement in student acquisition and course pricing.

2. **Innovation opportunities for PPPs and program development and delivery by strategic and impact investors:**
There are opportunities for actors in the sector, both private education companies and private industry, to partner with the public sector and policymakers to develop workforce-ready graduates. The TVET sector remains subscale and fragmented, but its impact potential is significant. There are examples of new "education to employment" TVET models marrying business needs with public sector objectives to create employment in high-value disciplines (case studies below). There is the potential for a range of actors, including companies, governments, and impact investors, to develop innovative models that support the development of scaled and sustainable private sector operations in TVET.

CASE STUDIES: TVET

Traditional TVET:

NIIT (Nigeria): Established in 1981 in Nigeria as a branch of an Indian provider, this TVET provider offers multidisciplinary learning and skills development. It has expanded to enroll ~16,000 students across 21 centers.

Damelin (South Africa): Among the two largest TVET providers in South Africa, Damelin has 17 campuses and holds ~10% of the large-scale TVET provider market.

Boston City Campus & Business College (South Africa): Boston City Campus & Business College is a tertiary education provider that offers numerous higher education and TVET programs. It has over 40 support centers offering personalized support to more than 25,000 students.

Emerging Education to Employment Models:

WAVE Academy (Nigeria): WAVE offers a three-week skills training course for unemployed youth in Nigeria, which is followed by placement in entry-level jobs within high-growth industries. About 170 companies have hired 55% of its nearly 1,200 graduates, and WAVE now operates courses for more than 100 students a month.

Harambee Youth Employment Accelerator (South Africa): This program has more than 300,000 young people participating in its growing network and employability-upgrading programs and since inception in 2011, has placed over 20,000 unemployed youth in sustained jobs, with ~10,000 more placed each year. It is funded through a blend of commercial fees, government grants, and social investment. Harambee Youth Employment Accelerator matches unemployed youth with employers by assessing candidate competencies and exposing individuals to tailored and cost-effective bridging programs.

RLabs (South Africa): RLabs offers free skills development training to young people while generating revenue from its corporate training, consulting and business ventures. It trains 15,000 students each year and ~85% of its graduates are able to generate an income through employment or small business development.

Generation Initiative (Kenya): Facilitated by USAID and other donors, Generation offers a six-week "boot camp" training program aimed at low-income, 20–30 year-olds who are currently unemployed or underemployed. It has trained more than 1,000 students in Kenya and placed 97% of graduates in jobs.

WeThinkCode (South Africa): This tech incubator has partnered with Africa 2.0 and Ecole 42 in France to launch a peer-to-peer tech institution in Johannesburg, with the aim of training world-class software engineers. With a highly scalable model and the objective of training 1,000 pupils annually by 2018 – from the current 100 in the 2016 class – WeThinkCode is run as a not-for-profit and sponsored by corporations, reflecting a shift from private investment in formal institutions to investment in complementary education programs.

The Insurance SETA (INSETA) (South Africa): In South Africa, a training levy amounting to 1% of every employee's pay is paid by all companies operating in the country. Statutory Bodies, known as Sector Education and Training Authorities (SETAs) have been set up to steward skills development in the country. SETAs provide funding in a PPP arrangement to training providers from the training levy paid by the companies. A successful TVET program implemented under the PPP framework in 2000 involved SETAs in the insurance sector called INSETA. Here, a TVET college provided the training and companies provided the workplace practicum. The companies also provided workplace training, additional remuneration, and placement support to learners, and wages for learners. INSETA provided the assessment, moderation, and certification.

INVESTMENT OPPORTUNITIES IN ANCILLARY SERVICES

The opportunity in the ancillary services segment is estimated to be $2.0–$3.0 billion across teacher training, supplementary education (after-school tutoring, test preparation, English language tutoring), education technology, and publishing (see table 16). $0.2–$0.4 billion of this would be in the formal sector.

THE OPPORTUNITY IN THE ANCILLARY SERVICES SEGMENT IS ESTIMATED TO BE $2.0–$3.0 BILLION

TABLE 16: OPPORTUNITIES IN ANCILLARY SERVICES

Teacher training	Supplementary education	Education technology	Student finance	Institutional finance	Publishing
CAPITAL DEPLOYMENT REQUIRED (5 YEARS)					
– $0.3 –$0.4 billion	– $0.4–$0.6 billion	– $1.0–$1.2 billion	–	–	– $1.0–$1.2 billion
EXAMPLES IN SUB-SAHARAN AFRICA					
– Embury Institute for Teacher Education (RSA) – INSTILL (RSA) – Teacher Education and Professional Development (Kenya) – Aga Khan University (Tanzania)	– Kumon (Kenya, Botswana, Namibia, South Africa, and Zambia) – Tutor.NG (Nigeria) – Eneza Education (Kenya, Ghana, Tanzania)	– Siyavula (RSA) – GetSmarter (RSA) – UNICAF (pan-Africa) – Kepler University (Rwanda) – Green Shoots (RSA) – PrepClass (Nigeria)	– Brighter Investment (Ghana) – Fundi (RSA) – Trustco (Namibia) – RenMoney (Nigeria)	– Opportunity International (Kenya) – Accion Microfinance (Nigeria)	– Learn Africa (Nigeria) – Longhorn Publishers (pan-Africa) – Juta & Co. Ltd. (RSA)
TYPICAL COMPANY REVENUE AND MARGINS					
– $5–$10 million – 15–20%	– $3–$6 million – 15–20%	– $2–$4 million	– $10–20 million – 10–15%	–	– $10–$15 million – 15–20%
INVESTMENT REQUIREMENT					
– $0.5–$2 million per institution	– $15,000–$50,000 per center	–	–	–	– $8–$10 million per company
DEVELOPMENT IMPACT					
Improves teacher availability and quality	Bridges the quality gap in core provision of education	Provides access to education more cheaply and at scale	Improves access to education by boosting affordability	Aids in capacity building in the education sector	Provides access to educational content for students and teachers
EXAMPLES OF EXTERNAL INVESTMENT					
USAID has invested in Teacher Education and Professional Development	Omidyar Network has invested in Ikamva Youth (RSA)	Spark Fund and Savannah Fund have invested in Eneza Education (Kenya, Ghana, Tanzania)	IFC has invested in Trustco	No observed examples	Centum Investments has invested in Longhorn Publishers

TEACHER TRAINING

Size of opportunity

$0.3–$0.4 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in teacher training:

Aga Khan Development Network
Instill Education

There is a significant shortage of quality teachers in both public and private schools in SSA (as explored in Section I). The current student-teacher ratio for primary grades in SSA is 42:1 compared to an average of 24:1 for most middle-income countries (see figure 28).[134] Although private schools have lower STRs compared to public schools across countries, there is still room for improvement. In addition, teacher quality is often inadequate (see Section I) and absenteeism is estimated to be 20%.[135] Moreover, private providers often face a shortage of teachers able to move beyond traditional pedagogical styles, which emphasize rote learning, in order to develop students' 21st century skills and leverage technology to deliver lessons. The existing and planned capacity in public teacher training provision cannot meet the this supply gap and provides an opportunity to private investors and operators.

FIGURE 28: STUDENT-TEACHER RATIO (STR)

There are three opportunities for strategic and commercial investors and impact investors:

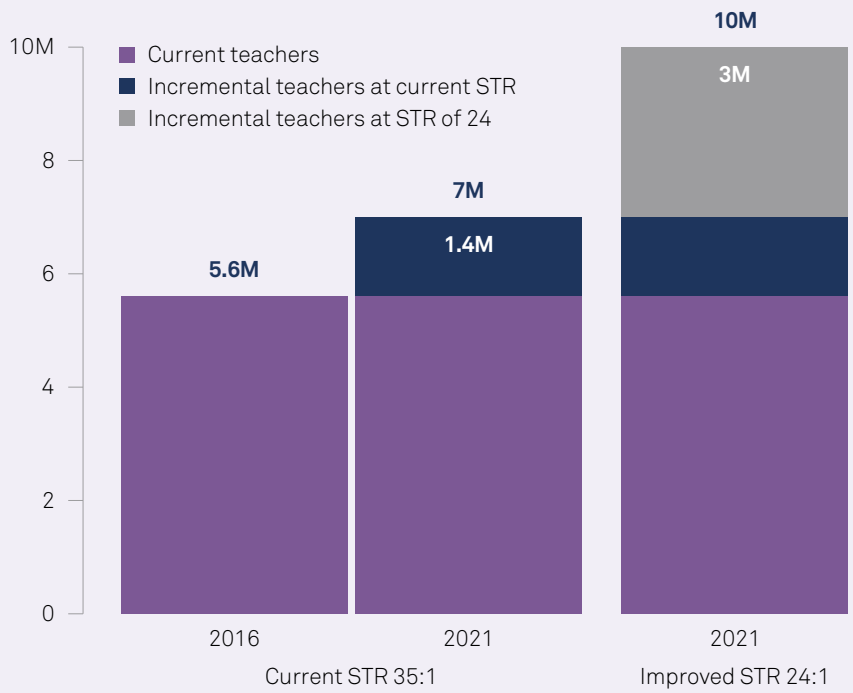
1. **Both greenfield and consolidation opportunities for commercial and strategic investors to provide teacher training (pre-service and in-service) to meet demand in both public and private sector schools.**
2. **Opportunity for existing private schools to provide teacher training services to other private operators.**
3. **PPP opportunity for impact investors and donors to improve quality and capacity of public sector teacher training.**

These are explored in what follows.

1. **Both greenfield and consolidation opportunities for commercial and strategic investors to provide teacher training (pre-service and in-service) to meet demand in both public and private sector schools:** SSA currently has 5.6 million teachers in its primary and secondary schools, and 2.5 million teachers are required to reduce the STR from 35:1 (42:1 in primary and 26:1 in secondary) to 24:1. Moreover, given the increase in access to education and the subsequent increase in enrollment, the number of teachers required would increase to seven to ten million by 2021. Governments would need to increase spend by 5% to meet future demand at current STR levels and by 11% to meet demand at an improved STR of 24:1 (see figure 29).

Although the private sector currently has a low share in teacher training, governments are typically open to private providers investing in teacher training (except in cases such as Ethiopia, which does not allow private providers to offer teacher training courses). There are examples of global organizations with teacher training capabilities and local organizations that are filling gaps in provision.

FIGURE 29: TEACHER REQUIREMENTS TO ACHIEVE TARGET STR, 2016–2021



CASE STUDIES: TEACHER TRAINING – OUTSOURCED

Teacher Education in Sub-Saharan Africa (TESSA): TESSA is a network of teachers and teacher educators working alongside The Open University, UK, to improve the quality of classroom practice and access to teacher education resources across sub-Saharan Africa. It does this through offering a range of Open Educational Resources (OERs) in four languages to support school-based teacher education: English, French, Swahili, and Arabic. It has reached 500,000 teachers since 2005.

Cambridge International Examinations: There are over 830 schools in sub-Saharan Africa offering Cambridge programs and qualifications. Teachers teaching in these schools are trained by Cambridge according to the teachers' experience and needs. These trainings include Introductory Training, Extension Training, and Enrichment Professional Development, and are offered in online, face-to-face, or blended modes.

EXISTING AND PLANNED CAPACITY IN PUBLIC TEACHER TRAINING CANNOT MEET THE SUPPLY GAP AND PROVIDES AN OPPORTUNITY TO PRIVATE INVESTORS AND OPERATORS.

2. **Opportunity for existing private schools to provide teacher training services to other private operators:** There is an opportunity for private school providers to start their own teacher training institutes or partner with teacher training providers to develop bespoke training programs. There are examples of school providers in SSA providing teacher training services.

CASE STUDIES: TEACHER TRAINING – LINKED TO SCHOOL PROVIDERS

Embury Institute for Teacher Education (South Africa): Established in 1995, Embury is a higher education institute based in KwaZulu-Natal that provides teacher education, specifically for pre-primary and primary teachers, with full-time and distance learning qualification courses across multiple teaching levels, in addition to short CPTD courses. It enrolls about 900 students annually and has a campus in Durban, with plans to add two new campuses in Gauteng Province (Midrand and Pretoria) by 2018 and one in Western Cape by 2019. Curro Holdings acquired a 100% stake in Embury in 2013.

Corona Teachers College (Nigeria): This initiative was started in 2007 by the Corona Schools' Trust Council, which also owns a chain of schools in Nigeria. The College provides training to pre-primary, primary, and emerging teachers and aims to improve teacher quality in Nigeria.

3. **PPP opportunity for impact investors and donors to improve quality and capacity of public sector teacher training:** Given the poor quality of public teacher training institutes, there is a significant opportunity for impact investors and donors to participate in the segment by seeding and funding innovative initiatives. These may be private initiatives that train pre-service and in-service public school teachers, or they may be capacity and quality-enhancing initiatives within government-run teacher training colleges.

CASE STUDIES: TEACHER TRAINING – PPPS

N-Power Teach programme (Nigeria): This two-year paid "volunteership" aims to train 500,000 unemployed graduates and deploy them as teaching assistants in primary and secondary schools. The Government has partnered with private stakeholders such as Learn Africa, Samsung, MTN Group, and Microsoft for curriculum development and ICT provision, among other areas.

Partners for Possibility (PfP) (South Africa): This project has strengthened leadership and management capacity in more than 500 public schools. It partners school principals from under-resourced schools with seasoned business leaders, and these pairs are facilitated through a one-year leadership development and principal support process. PfP is endorsed by the Ministry of Education; has received government support in Gauteng Province, where the Government funded participation for 66 principals; and receives referrals from district officials, who invite principals to join the program.

Teacher Education and Professional Development (TEPD) (Kenya): This initiative manages the Accelerating a 21st Century Education (ACE) program, aimed at improving the quality of teaching in Kenya. Interventions include improvement of the quality of instruction at all 23 of Kenya's public teacher training colleges through a public-private partnership involving donors, private companies (e.g., Microsoft, Cisco), and the Government of Kenya. To date 8,000 tutors and educators and 32,000 current and future teachers have been trained.

LTTP (Liberia): With no commercial providers, donors and NGOs have provided the majority of teacher training in the last decade through the Liberia Teacher Training Programs (LTTP) I (2006–10) and II (2010–15), funded by USAID and led by NGOs, FHI 360. Operated by Academy for Educational Development (AED), LTTP Phase 1 had two focus areas: teacher training and capacity building. Subsequently, Phase 2 (2010–15) was operated by FHI 360 and focused on primary teacher training, early years reading, and MoE capacity building. Challenges to teacher training included a lack of incentives and logistical constraints for teachers.

Strengthening Education Systems in East Africa (SESEA): Since 2012, four Aga Khan Development Network agencies (the Aga Khan University, the Aga Khan Academy in Mombasa, the network of private Aga Khan Education Services schools, and the Aga Khan Foundation) have combined forces to strengthen public education systems in Kenya, Tanzania, and Uganda. Working with national and local governments, as well as donors such as Canada and Dubai Cares, this systems-strengthening effort has targeted teaching practices, community and parental involvement, and the ability of the Government to provide quality ongoing support to its schools. To date, the program has reached 1,300 public schools, trained 6,000 teachers, and covers 500,000 students. During this time, it has also exerted broader influence on government policy and is poised to be taken to scale across 20,000 public schools.

SUPPLEMENTARY EDUCATION

Size of opportunity

$0.4–$0.6 BILLION

MORE INFORMATION
See **Annex I** for a case study of the following provider involved in supplementary education:

PrepClass

The large addressable market for after-school tutoring, test prep, and language learning segments is highly fragmented in brick-and-mortar centers by small-scale providers. There is a significant addressable market of students for after-school tutoring and test-prep segments, given the low quality of public schools and the importance of high-stakes examinations (explored in Section I), as well as international examinations (gaining interest among students keen to study abroad). There is also demand for ELT in countries such as Ethiopia, where the medium of instruction switches to English-only starting in grade 7. There is also disparity in English fluency within countries due to widespread indigenous languages, with youngsters in rural areas less likely to have English fluency. While there is emerging demand for ELT in Francophone Africa, French remains the dominant language and outbound students typically look to opportunities in France, Canada, and North Africa.

There are three key opportunities for investors in supplementary education:

1. **Given limited use of technology, a large opportunity for commercial and strategic investors to expand offline (brick and mortar) provision through new centers, as well as expansion and consolidation of existing tutoring and test-prep centers.**
2. **Opportunity for early-stage investors, impact investors, and donors to support emerging models leveraging technology.**
3. **Impact investors and donor potential to offer language learning solutions in underserved countries and regions.**

These opportunities are described in what follows.

1. **Given limited use of technology, a large opportunity for commercial and strategic investors to expand offline (brick and mortar) provision through new centers, as well as expansion and consolidation of existing tutoring and test-prep centers:** Current provision is predominantly offline, with center-based tutoring and test prep dominating offerings. With the exception of Kumon (see case study), there are no scale center-based providers and the market is highly fragmented. Commercial and strategic investors have a range of opportunities in the segment. This includes opening new (greenfield) tutoring and test-prep businesses, as well as expansion of existing businesses. Further, given the degree of fragmentation, investors can consider consolidation of existing centers, which would drive economies of scale through standardization of provision and centralization of core functions (marketing, tutor recruitment).

CASE STUDY: SUPPLEMENTARY EDUCATION – TRADITIONAL CENTER-BASED

Kumon (pan-Africa): Started in 1958 in Osaka, Japan, Kumon is a private offline tutoring provider operating through franchisees, with a reach of over four million students across nearly 50 countries. In SSA, Kumon is present in Kenya, Botswana, Namibia, South Africa, and Zambia in more than 200 centers.

2. **Opportunity for early-stage investors, impact investors, and donors to support emerging models leveraging technology:** Given significant demand and fragmented current supply, there is potential for investors with higher risk appetite or lower return expectations to support emerging technology-driven models targeting students, as well as out-of-school learners. However, the opportunity for widespread adoption faces challenges, such as low broadband penetration and power outages. Accordingly, providers have worked out ways to operate within the constraints of infrastructure.

3. **Impact investors and donor potential to offer language learning solutions in underserved countries and regions:** While there is not demonstrated market potential for scale language training operators in SSA, there is likely to be growing demand for English-language learning. Africa has more than 1,000 languages, with Arabic, French, Swahili, Hausa, Yoruba, and Oromo among the most commonly spoken first languages. As urbanization increases and more young people enter the (predominantly English-speaking) urban and global labor markets, learning English will become even more important. Impact investors and donors have a role to play in developing models in this space to ensure that the maturing African labor force is globally competitive. These solutions may be technology-based or center-based.

CASE STUDIES: SUPPLEMENTARY EDUCATION – TECHNOLOGY-DRIVEN

Tutor.NG (Nigeria): Launched in January 2014, Tutor.NG is an innovative online tutoring platform with support across a variety of subjects, including test prep for national examinations, and topics such as public speaking and computer programming.

CTIC Dakar (Senegal): CTIC is the first incubator and accelerator devoted to IT entrepreneurs in Francophone SSA. Registered in 2011 as a not-for-profit, CTIC is an entrepreneurial PPP supported by the Government, the World Bank, GIZ, Centre for the Development of Enterprise, and Orange S.A.. CTIC has supported multiple education ventures, including online learning platforms such as Azerty School, Samaskull, and Ecoles au Sénégal (EAS). EAS is an online platform with instructional videos for upper secondary STEM subjects in both French and Wolof.

CASE STUDY: SUPPLEMENTARY EDUCATION – LANGUAGE LEARNING

Learn English Audio Project (LEAP) (Ethiopia): The British Council has begun a project to distribute 500 solar-powered MP3 players with English-language learning materials into teacher training colleges and schools across Ethiopia. The project costs less than $1.25 (£1.00) per student per year, and more than 250,000 students are being reached and 2,000 teachers are being trained in how to better incorporate listening into the core curriculum.

EDUCATION TECHNOLOGY

Size of opportunity

$1.0–$1.2 BILLION

MORE INFORMATION
See **Annex I** for case studies of the following providers involved in edtech:

Eneza Education
Mwabu

Edtech is expected to be a key enabler of innovative delivery to achieve wider education access and improved quality and relevance. While it is a diverse segment, there are three broad categories in education technology:

- Education delivery (e.g., edtech-enabled supplementary education and online tertiary education)
- Institutional management and operational efficiency improvement (e.g., school and learning management systems, tech-enabled assessments, anti-plagiarism software)
- Directory services and connections (e.g., private tutor matching programs)

Use of technology can, in principle, reduce capital investment in core and ancillary services as well as widen access at a lower cost. However, edtech requires investment to develop new platforms, populate them with content, and build the necessary technology infrastructure. Given that edtech models are inherently innovation-driven, the opportunity presents potential for more risk-seeking capital from early-stage investors, such as seed funds, venture capital, and angel investors, as well as impact investors. There are three key opportunities aligned to the categories detailed above:

1. **Partnership opportunity for early-stage and impact investors to leverage edtech for expansion of access and quality in core, as well as supplementary and higher, education.**
2. **Potential for early-stage investors to offer school management products and solutions, primarily to private, mid-priced/premium schools.**
3. **Given information asymmetry, opportunity for early-stage investors to aggregate information and provide quality assurance in the supplementary education market through directory services.**

These opportunities are detailed in what follows.

1. **Partnership opportunity for investors to leverage edtech for expansion of access and quality in core, as well as supplementary, education:**
   There has been a significant increase in access to and usage of technology in SSA over the last 10 years (see Introduction), with dramatic increases in smartphone and broadband penetration. There has been an emergence of education providers leveraging technology to increase access and quality. Providers such as Eneza Education have been able to reach out-of-school learners through m-learning and have already crossed one million users.

   However, widespread adoption of technology faces challenges given that broadband penetration is still insufficient and there are frequent power outages. Though there are limited examples of providers yet demonstrating financial returns and scale, there are many dynamic earlier stage ventures. The tertiary education sector in particular features providers looking to solve access issues through leveraging technology, either through distance education (examined earlier in this section); online-only courses like OneUni; or courses using technology to reduce delivery costs (Kepler).

CASE STUDIES: EDTECH – EDUCATION DELIVERY

Supplementary School Education

Siyavula (South Africa): A math and science open textbook provider, Siyavula also enables teachers to track student performance. It has partnered extensively with the Government to develop and distribute curriculum-aligned materials sponsored by corporates, which, in some cases, have supported the cost of distribution. Siyavula implements an adaptive learning technique using a machine-learning base. About 10 million exercises have been completed on the platform.

Green Shoots (South Africa): A not-for-profit/social enterprise hybrid edtech provider, Green Shoots offers a range of resources to more than 55,000 children across ~100 public schools, including Maths Curriculum Online for grades 1–9. The digital curriculum provides real-time learning analytics, enabling teachers to track and support individual children's learning.

Edtech in Tertiary

OneUni (Kenya): Established in 2016, OneUni offers a mobile learning platform, and partners with reputed universities to provide degrees. These offer the partner institution's curriculum, with in-person final exams at approved testing centers.

Kepler (Rwanda): Started in 2013, Kepler operates in Kigali and offers American-accredited degrees (in collaboration with Southern New Hampshire University) at about $1,000 per year, at par with local universities. Students are taught using MOOCs and are then supported by course facilitators who help them understand the concepts.

CASE STUDIES: EDTECH – SCHOOL AND INSTITUTIONAL MANAGEMENT

Moodle: This online learning platform provides a system to create personalized learning environments to educational institutes. Moodle was the second-largest provider in the United States' higher education market, with 23% market share in 2013. It currently has ~76,000 active sites in ~230 countries. Of these, over 1,500 sites are present in SSA.

Blackboard: This edtech company offers "Blackboard Learn," a learning management system for educational institutes. Blackboard also has other products, such as "Blackboard Collaborate" for distance learning and "Blackboard Mobile" for learning on mobile devices.

Canvas: Canvas is a learning management system, developed by Instructure. Launched in 2011, Canvas is now used by more than 2,000 educational institutes across the world.

2. **Potential to offer school management products and solutions, primarily to private, mid-priced/premium schools:** Edtech providers globally have developed a range of products and services to serve educational institutions, particularly schools. These offerings can help to improve quality of education in both public and private schools and support more efficient resource deployment, and may include: school information management systems; testing and placement systems; adaptive learning tools; anti-plagiarism software; and classroom management applications.

   While there may be a good deal of interest among public and low-cost schools, budget constraints make it more challenging to serve them sustainably. Providers such as Geekie (supplementary test prep, Brazil) cross-subsidize their lower-priced offerings to public and low-cost school services with revenues from private schools, while Green Shoots (math resources, South Africa) has donor support to reach many of the public schools in its network. Others provide a "freemium" service that offers a basic level of access to a widespread and economically mixed user base while charging for more exclusive access.

   There is also potential for donors and impact investors to play a role in improving access to data for education stakeholders. For example, USAID developed a data collection system for government which produces reports on education metrics such as student-teacher ratios, prevalence of qualified teachers, and resources available at specific schools. The Michael & Susan Dell Foundation has funded "Data-Driven Dashboards" in South Africa (see Section II).

3. **Given information asymmetry, opportunity for early-stage investors to aggregate information and provide quality assurance in the supplementary education market through directory services:** New models are emerging in the after-school tutoring space to address information asymmetry and enable tutors and students seeking tutoring to find each other online. Many tutors in SSA offer supplementary education independently and are not yet organized by providers. Online tutor aggregators provide a platform for students to hire independent tutors by providing listings alongside quality reviews and fees. These services present an opportunity for early-stage investors.

CASE STUDIES: EDTECH – SCHOOL AND INSTITUTIONAL MANAGEMENT

Teach Me 2 (South Africa): Teach Me 2 is an online tutoring platform based in South Africa that has tutored more than 9,000 learners since its establishment in 2007.

First Tutors: Started in the United Kingdom in 2005, this platform helps users to find local private tutors. Their website provides tutor information and past feedback that the tutors have received. First Tutors is now present in seven countries, including South Africa.

EDTECH HAS POTENTIAL FOR MORE RISK-SEEKING CAPITAL FROM EARLY-STAGE INVESTORS AND IMPACT INVESTORS.

STUDENT FINANCE

MORE INFORMATION
See **Annex I** for a case study of the following provider involved in student finance:

Brighter Investment

There is increasing demand for tertiary education across SSA and the private sector has grown at a rate of ~15% in recent years. However, private tertiary education — both traditional university degrees and TVET — is unaffordable for many despite a motivation to study. Lack of access to finance constrains private education sector growth. There are similar issues in K-12, where families with irregular income may struggle to pay lump-sum school fees despite having sufficient cumulative income. There are two key investment opportunities in student finance:

1. **Potential for provision of medium-term loans to tertiary education students, supported by commercial and strategic investors and impact investors.**
2. **Opportunity for Microfinance Institutions (MFIs) supported by impact investors and donors to offer short-term financing (3–12 months) to parents of children in low-cost schools.**

These opportunities are explored in what follows:

1. **Potential for provision of medium-term loans to tertiary education students, supported by commercial and strategic investors and impact investors:** The ecosystem for student finance is underdeveloped in SSA due to the lack of credit bureaus across much of the region. Moreover, traditional banks globally struggle to serve this segment because students are inherently risky borrowers and margins are low, given high administrative costs and lower interest rates (often regulated). Within many state-backed schemes, there are high default rates, and loans operate as effective grants.[136] Moreover, the loan provisions that do exist, e.g., the Higher Education Loans Board (HELB) in Kenya, and National Student Financial Aid Scheme (NSFAS) in South Africa, may either have income-linked eligibility limitations or are unavailable to students in private institutions. Currently, individuals seeking finance often obtain personal loans or resort to borrowing from co-operative societies or community based institutions (for example, SACCOs in Kenya).

There are promising examples, both in SSA and elsewhere, of models — typically offered by NBFIs—that target students, typically those pursuing private or fee-paying public tertiary education. Models suited for commercial providers, such as Fundi in South Africa and Trustco Bank in Namibia, use unique approaches to limit risk (e.g., lending to professionals in civil services). Innovative models are emerging, such as Brighter Investment (Ghana), which uses intelligent acquisition methods and tracks performance to lower default rates. Other models like Ideal Invest (Brazil) require in-term repayments and create term-by-term contracts, meaning that they can act quickly to manage risk.

Given the limited availability of finance and the potentially transformative role it would play in opening access to tertiary education, there is an opportunity for commercial investors, including banks, and impact investors/donors to develop this market. There may also be opportunities for institutions or groups of institutions to set up their own student finance schemes by partnering with NBFIs, MFIs, or traditional banks to offer tailored products. Many tertiary providers internationally discount degrees or subsidize interest rates for loan-taking students, or take some measure of the loss risk in a loan portfolio. The potential revenue upside per student is worth this investment.

Given high base rates in some markets (e.g., Ghana at 25.5%, Malawi at 24%, Mozambique at 23.25%), student finance may not be a viable offering, but in other markets rates are more reasonable and can cover administration and risk while delivering margins and remaining affordable for students (e.g., Kenya at 10%, South Africa at 7%).

INNOVATIVE MODELS ARE EMERGING THAT USE INTELLIGENT ACQUISITION METHODS, IN-TERM REPAYMENTS, AND STUDENT ACADEMIC PERFORMANCE TO LOWER DEFAULT RATES.

2. **Opportunity for Microfinance Institutions (MFIs) supported by impact investors and donors to offer short-term financing (3–12 months) to parents of school-aged children:** In addition to higher education, new models for school fee loans have emerged. Some notable private providers include the Equity Group Foundation's Wings to Fly program and Opportunity International's school loans. Given the low margins and high risk within microfinance, as well as the relative novelty of education-specific loans within MFIs, this opportunity is most suitable for impact investors and donors.

CASE STUDIES: STUDENT FINANCE

Tertiary Student Finance

Fundi (South Africa): Previously known as Eduloan, Fundi is one of the leading privately funded student lending providers in South Africa, and differentiates itself by not only funding tuition fees, but also supporting the costs of registration fees, accommodation, books, and laptops. It bridges the gap between those who exceed the income to qualify for the state-funded National Student Financial Aid Scheme and those without commercial bank loans. Since its inception in 1996, it has distributed $350 million (R4.5 billion) in loans to 850,000 students.

Trustco (Namibia): Trustco Group Holdings is a Namibian company whose subsidiaries include Trustco, which distributes education loans, as well as the Institute for Open Learning (IOL), an online degree provider. Trustco loans are provided predominantly to civil servants, including teachers, for upskilling through the IOL.

K-12 Student Finance

The Equity Group Foundation's "Wings to Fly" program (Kenya): With funding of ~$100m from Equity Group Foundation, The MasterCard Foundation, USAID, DFID, and KfW, this program provides scholarships to students from economically disadvantaged groups who are transitioning from primary to secondary school. The program has sponsored more than 12,000 learners since it was established in 2010. The program aims to work with these students and build programs to provide them with higher education finance and placements, as well as employment opportunities.

Opportunity International (Ghana, Uganda): Opportunity International offers student finance (predominantly K-12) by raising money from donors, MFIs, and commercial debt investors. It has placed greater than $70m in educational loans of 3–12 months' duration to parents of children in low-cost schools, with typical loan size of $50–$250/year.

RenMoney (Nigeria): Established in 2012, RenMoney is a consumer microfinance organization with over 25,000 customers. In 2016, RenMoney introduced an education loan product, School Fees Loan, to finance school fee payments. The loan product requires no collateral and has a 24-hour cash disbursement cycle after approval. With a 3%–5% monthly interest rate, and tenure ranging from 3–12 months, parents can access a loan of up to $8,000. RenMoney has also entered into a partnership with Greensprings School, which charges an average annual fee of $4,200. Parents of children who attend schools that are partnered with RenMoney receive subsidized interest rates.

INSTITUTIONAL FINANCE

Both large and small education businesses in SSA find it difficult to access the financing they need. This lack of expansion and working capital constrains the size and growth of the education sector. There are two key opportunities for investors in institutional finance:

1. **Opportunity for commercial investors to offer loans via NBFIs to educational institutions to expand (capital).**
2. **Potential for impact investors to work via NBFIs and MFIs to offer working capital (and management support) to low-cost schools.**

These opportunities are explored in what follows:

1. **Opportunity for commercial investors to offer loans via NBFIs to educational institutions to expand (capital):**
   There has been an increasing interest among investors in the education sector in SSA. This drives demand for debt financing options from large commercial investors as well as individual investors. The capital required to meet the increasing demand for education in SSA countries is estimated to be $16–$18 billion (excluding government spend). With a current private share of 15%–20%, the private sector might require at least $2–$3 billion for capital investments in the next five years. However, education is not a priority sector for lending in SSA countries currently, making it difficult for private investors to raise capital for investment from commercial banks. This provides an opportunity for NBFIs and commercial investors to meet the demand for institutional financing.

2. **Potential for impact investors to work via NBFIs and MFIs to offer working capital (and management support) to low-cost schools:**
   School owners active in SSA note that access to finance is one of their key operating and expansion challenges. For example, there is a potential demand of $2.4 billion in property and development loans by the private school sector in Lagos (Nigeria) alone over the next three years.[137] For these providers, bank financing is difficult to procure and is usually on unfavorable terms, with high interest rates and short tenures. Moreover, loans may only be available for schools that are registered as corporate entities, and these typically require collateral.

   Further, low-cost schools find it even more challenging to obtain loans due to added issues such as lack of revenue visibility (creating default risk), and uncertain regulatory environments, creating worries about government intervention or closure. There are emerging models, such as Accion Microfinance Bank (Nigeria) and Opportunity International (Uganda, Ghana), which are making capital available for schools through community-based MFIs.

   Moreover, impact investors and donors can deepen impact by providing value-added support alongside financial support. Sole proprietorships and mini chains not only require financing but would value training in management and administration (both of loans and of schools themselves), as well as proven learning inputs. Investors should seek platforms that are actively aggregating these providers to provide loans and debt financing, as well as quality inputs.[138]

MORE INFORMATION
See **Annex I** for a case study of the following provider involved in institutional finance:

IDP Rising Schools Program

CASE STUDIES: INSTITUTIONAL FINANCE

Accion Microfinance Bank (Nigeria): Accion Microfinance Bank (Accion) serves micro entrepreneurs. In education, Accion has a loan product named “My School Plus” which caters specifically to low-fee schools and has reached over 580 schools.

Opportunity International (Kenya): In partnership with Faulu Kenya, a microfinance institution (part of the Old Mutual Group), Opportunity International has launched products targeting educational institutions, primarily K-12 schools. The typical ticket size of such loans is $10,000, with a plan to target about 1,000 schools in the next three.

PUBLISHING

Size of opportunity

$1.0–$1.2 BILLION

MORE INFORMATION
See **Annex I** for a case study of the following provider involved in publishing:

Longhorn Publishers

Education publishing is the largest private education segment globally, with 60% of education companies worth more than $1 billion in the publishing sector. Within SSA, the growth of the publishing industry will be driven by the growth of core education delivery. Textbooks are also recognized as core for the new SDGs on education. This segment is suitable for commercial investors and there are two key opportunities:

1. **Opportunity for commercial investors to support existing, established providers to leverage growth in the publishing industry driven by growth in student volume and textbook adoption.**
2. **Potential for commercial investors to invest in existing providers for growth within their markets and into new countries in the region.**

These opportunities are explored in what follows:

1. **Opportunity for commercial investors to support existing, established providers to leverage growth in the publishing industry driven by growth in student volume and textbook adoption:** Books in primary public schools are typically provided free by the government, while parents pay for textbooks in secondary schools and higher education, as well as private schools. The educational publishing market is expected to grow, driven by growth in enrollments in core delivery of education; increased adoption (current pupil-to-textbook ratio in SSA is about 2.4:1, compared to a target of 1:1[139]); and curriculum reforms which will likely require new textbooks.

There are challenges within the publishing industry. These can include:

- Policy challenges, including government funding constraints; government decisions to publish their own textbooks and materials; and changes in curriculum (presenting both challenges and opportunities)
- Operational challenges, including high import cost for machinery and raw material; supply and cost of raw materials; reliability of power; piracy issues; and transaction costs (in the form of VAT)

Despite these challenges, there is an opportunity for established providers to grow organically within existing markets and to enter other SSA markets where the publishing industry is underdeveloped. The market is dominated by large domestic and international players, such as Juta and Company (South Africa), Longhorn Publishers (Kenya), Oxford University Press, and Macmillan Education South Africa, and is fairly consolidated (see case studies).

Though globally the publishing industry is facing pressure with low margins and threat from digitization, the uptake and adoption of digital content is low in SSA, driven by uncertainty in government policy and infrastructure challenges. Established providers can grow sales volumes through organic growth and increased adoption, as well as leverage opportunities created due to curriculum reforms. They may also enter neighboring SSA markets which currently do not have a well-developed publishing market and rely on imports from other countries (e.g., Ethiopia, Tanzania, Uganda, and Zambia).

Additionally, publishers have the opportunity to partner with the government for teacher training initiatives by providing relevant materials. Large international publishers such as Oxford University Press are participating in these programs in South Africa.

2. **Potential for commercial investors to invest in existing providers for growth within their markets and into new countries in the region:** There is an opportunity for commercial investors to partner with existing providers and contribute to growth capital, enabling them to expand. Textbook publishing has some capital-intensive elements, including access to raw materials and manufacturing of learning materials. Growth capital can support investment in companies to enable their expansion. For example, Centum Investments, a private equity firm, holds a 60% stake in Longhorn Publishers in Kenya.

CASE STUDIES: PUBLISHING

Local Publishers

Learn Africa (Nigeria): Started in 1961 as Longman Nigeria, Learn Africa is now a subsidiary of Pearson Education. The main business of Learn Africa is educational publishing, and it is currently Nigeria's largest educational publisher.

Juta and Company (South Africa): Established in 1853, Juta and Company (Juta) is South Africa's oldest publishing company, with a product portfolio ranging from academic, legal, professional, and school-related publications. Juta is the largest local publisher of tertiary textbooks. To consolidate its position, the company recently acquired a controlling stake in Future Managers, a leading publisher in the TVET sector in South Africa.

Global Publishers

The Oxford University Press (OUP): OUP is the largest university press in the world. In Africa, it is present in southern Africa, including South Africa, Botswana, Namibia, Lesotho, and Swaziland. The company is the largest dictionary and literacy publisher in South Africa.

Cambridge University Press (CUP): This publishing arm of the University of Cambridge is the oldest and second-largest university publishing house in the world. Its African branch, started in 1995, is based in Cape Town, South Africa, and publishes titles in more than 30 local languages.

TABLE 17: SUMMARY OF INVESTMENT OPPORTUNITIES FOR DIFFERENT INVESTOR TYPES

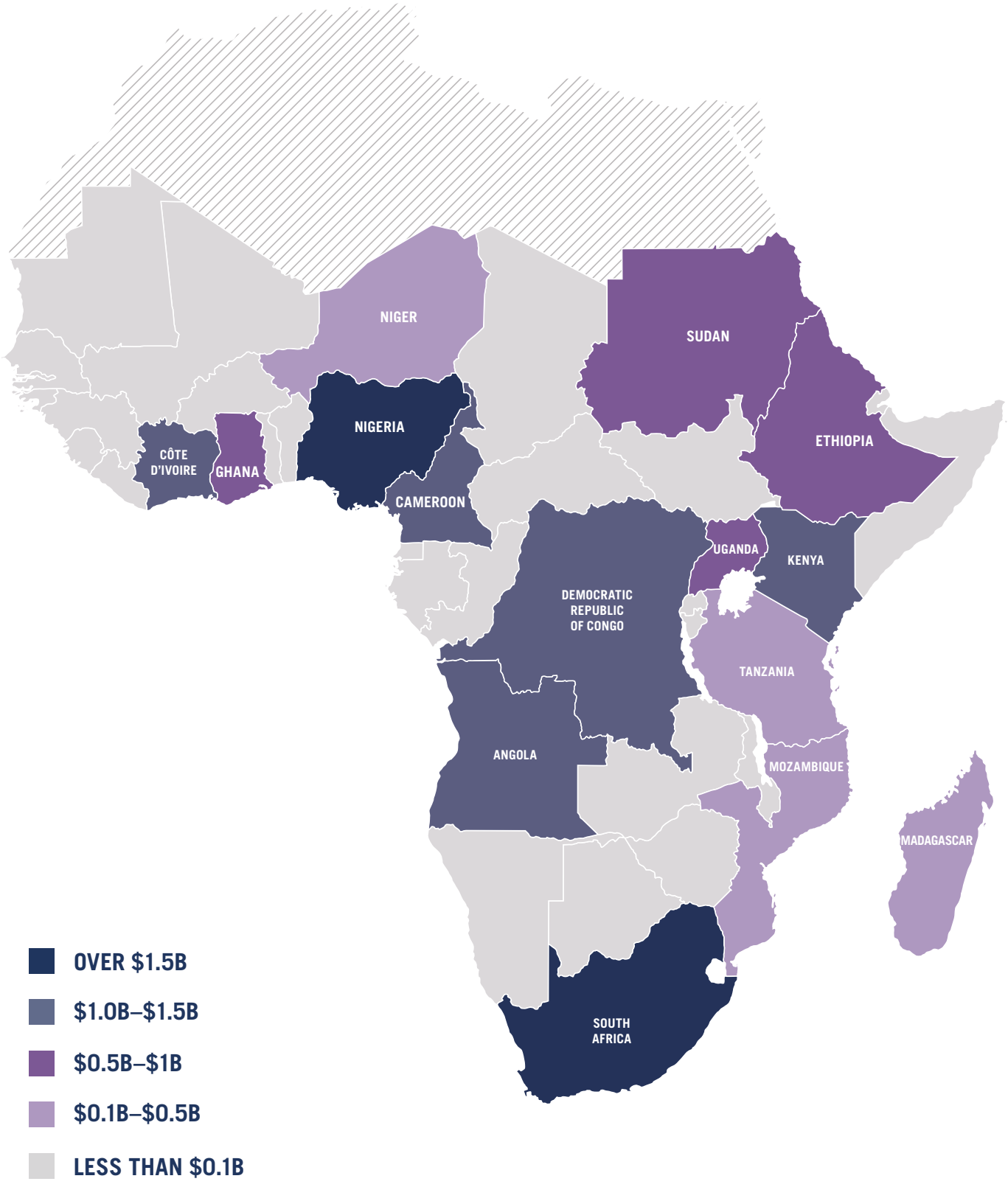
	Segment	Opportunity	Examples
	COMMERCIAL INVESTORS		
CORE EDUCATION	Pre-primary	Greenfield opportunity for commercial investors to expand private education provision. Further, given the high levels of fragmentation, there are opportunities to merge existing providers as well	– Gigiri Montessori House (Kenya) – Junior Colleges Pre-school Group (RSA) – Curro Castles (RSA)
	Mid-priced/ premium K-12	Opportunities to launch new schools driven by high capacity utilization and increasing affordability, and consolidation potential given market fragmentation in the segment	– Corona (Nigeria) – Nova/Pioneer Academies (RSA, Kenya) – Reddam House (RSA) – ADvTECH (RSA, Botswana, Zambia) – Curro (RSA) – Braeburn Schools (Kenya, Tanzania)
	Contact higher education	Potential for commercial and strategic investors in private contact higher education to develop new institutions, driven by capacity constraints in the public sector and demand for employability-oriented education	– Mount Kenya University (Kenya) – ADvTECH (RSA, Botswana, Zambia) – St. Mary's University (Ethiopia) – African Leadership University (pan-Africa) – Afe Babalola University (Nigeria) – Université Privée de Marrakech (UPM) (Senegal) – ISM (Senegal)
		Consolidation/partnership opportunity for commercial investors given fragmented private higher education market	– ADvTECH (RSA, Botswana, Zambia) – Emerging Capital Partners (Uganda, Zambia, Kenya) – Educor (RSA)
	Distance higher education	Potential for private providers to capitalize on burgeoning demand	– IMM Graduate School of Marketing (RSA) – UNICAF (pan-Africa) – ADvTECH's Rosebank College (RSA)
		Acquisition/partnership opportunity for global investors with existing distance education providers	– Apollo Education acquisition of Milpark Education (RSA)
	TVET	Consolidation opportunity for commercial investors given sector fragmentation	– NIIT (Nigeria) – Damelin (RSA) – Boston City Campus & Business College (RSA)

	Segment	Opportunity	Examples
	COMMERCIAL INVESTORS		
ANCILLARY SERVICES	Teacher training	Both greenfield and consolidation opportunities for investors to provide teacher training to meet demand in both public and private sector schools	– Instill Education (RSA) – TESSA (pan-Africa) – Cambridge International Examinations (Global)
		Opportunity for existing private schools to provide teacher training services to other private operators	– Corona (Nigeria) – Embury (RSA)
	Supplementary education	Opportunity for commercial and strategic investors to expand offline provision through new centers, as well as expansion and consolidation of existing centers	– Kumon (pan-Africa)
	Education technology (delivery)	Partnership opportunity for investors to leverage edtech for expansion of access and quality in core, as well as supplementary, education	– Eneza Education (Kenya, Ghana, Tanzania) – Siyavula (RSA) – Mwabu (Zambia) – UNICAF (pan-Africa) – Kepler (Rwanda) – OneUni (Kenya) – GetSmarter (South Africa)
	Education technology (institutional management)	Potential to offer school management products and solutions, primarily to private, mid-priced/ premium schools	– Green Shoots (RSA) – Moodle (Global) – Blackboard Learn (Global) – Canvas by Instructure (Global)
	Education technology (directory services)	Opportunity for early-stage investors to aggregate information and provide quality assurance in the supplementary education market through directory services	– Teach Me 2 (RSA) – PrepClass (Nigeria) – First Tutors (Global)
	Student finance	Potential for provision of medium-term loans to tertiary education students, supported by commercial, strategic, and impact investors	– Brighter Investment (Ghana) – Fundi (RSA) – Trustco (Namibia)
	Institutional finance	Opportunity for commercial investors to offer loans via NBFIs to educational institutions to expand (capital)	– Accion Microfinance Bank (Nigeria) – Opportunity International (Ghana, Uganda)
	Publishing	Opportunity for commercial investors to support existing providers to leverage growth driven by growth in student volume and textbook adoption	– Learn Africa (Nigeria) – Juta and Company (RSA) – Longhorn Publishers (pan-Africa) – The Oxford University Press (Global) – Cambridge University Press (Global)
		Potential for commercial investors to invest in existing providers for growth within their markets and into new countries in the region	– Centum Investments' investment in Longhorn Publishers, (pan-Africa)

	Segment	Opportunity	Examples
	IMPACT INVESTORS		
CORE EDUCATION	Pre-primary	Expansion opportunity for impact investors and donors in pre-primary provision through innovation-oriented pilots and through social franchise models	– Kidogo (Kenya) – SmartStart (RSA) – ChildFund (Senegal)
	Low-cost K-12	Potential to develop new models for impact investors	– LEAP Science & Maths Schools (RSA) – Bridge International Academies (Kenya, Uganda, Liberia, Nigeria) – Lekki Peninsula Affordable Schools (Nigeria) – Livingstone College (Nigeria) – School of Tomorrow (Ethiopia) – Silverleaf Academy (Tanzania)
	Contact directory services	Greenfield opportunity for private, seat-based education driven by capacity constraint in public sector and demand for employability-oriented education	– Ashesi University College (Ghana)
	TVET	Innovation opportunities for PPPs and program development and delivery by strategic and impact investors	– WAVE Academy (Nigeria) – Andela (Kenya, Nigeria, Uganda)
ANCILLARY SERVICES	Teacher training	PPP opportunity for impact investors to improve quality and capacity of public sector teacher training	– N-Power Teach programme (Nigeria)
	Supplementary education	Opportunity for early-stage investors, impact investors, and donors to support emerging models leveraging technology	– IkamvaYouth (RSA) – Eneza Education (Kenya, Ghana, Tanzania) – Tutor.NG (Nigeria) – CTIC (Senegal)
	Student finance	Potential for provision of medium-term loans to tertiary education students, supported by commercial and strategic investors and impact investors	– Opportunity International (Ghana, Uganda) – The Equity Group Foundation's "Wings to Fly" program (Kenya) – RenMoney (Nigeria)
	Institutional finance	Potential for impact investors to work via NBFIs and MFIs to offer working capital (and management support) to low-cost schools	– Accion Microfinance Bank (Nigeria) – Opportunity International (Ghana, Uganda)

	Segment	Opportunity	Examples
	DONORS AND FOUNDATIONS		
CORE EDUCATION	Pre-primary	Expansion opportunity for impact investors and donors in pre-primary provision through innovation-oriented pilots and through social franchise models	– Tayari (Kenya) – Madrasa Early Childhood Programme (MECP) (Kenya)
	Low-cost K-12	Opportunity for donors to address inequity in access (particularly issues of gender, disability, and regional disparity)	– Educating Nigerian Girls in New Enterprises (ENGINE) (Nigeria) – GEQIP program (Ethiopia) – Lagos Eko Secondary Education Project (Nigeria) – Nigeria State Education Sector Project (Nigeria)
	TVET	Innovation opportunities for PPPs and program development and delivery by strategic and impact investors	– Harambee Youth Employment Accelerator (RSA) – RLabs (RSA) – Generation Initiative (Kenya) – WeThinkCode (RSA) – The Insurance SETA (INSETA) (RSA)
ANCILLARY SERVICES	Teacher training	PPP opportunity for donors to improve quality and capacity of public sector teacher training	– Teacher Education and Professional Development (TEPD) (Kenya) – Partners for Possibility (RSA) – LTTP (Liberia)
	Supplementary education	Opportunity for early-stage investors, impact investors, and donors to support emerging models leveraging technology	– IkamvaYouth (RSA) – Eneza Education (Kenya, Ghana, Tanzania) – Tutor.NG (Nigeria) – CTIC (Senegal)
	Supplementary education (language learning)	Impact investors and donor potential to offer language learning solutions in underserved countries and regions	– Learn English Audio Project (LEAP) (Ethiopia)

FIGURE 30: INVESTMENT OPPORTUNITY IN SSA, BY COUNTRY



CONCLUSION

The investment opportunity in education in SSA is not only large but diverse, with opportunities for a variety of investors.

Given the high degrees of fragmentation and lack of large chains in nearly every segment of education, there is plenty of opportunity for investors to open new, greenfield businesses; expand existing providers; consolidate fragmented supply; and explore new innovations and riskier market segments.

LOOKING AHEAD

There is no other region that will experience the scale and pace of change in education over the next five to 50 years. SSA is and will remain peerless in its opportunities and its challenges. The size and scale of SSA's potential, together with the key policy recommendations and investment themes, have been well explored in the previous sections.

In conclusion, it is therefore useful to take a wider lens on the region with **five observations as we look ahead:**

1. **Policy challenges are present, but they don't change fundamentals — the outlook for investors is very strong:** While the regulatory landscape in SSA has its challenges, it is and will remain favorable for investment. As noted, the scale of the investment opportunity in the next five years alone is conservatively estimated at ~$3 billion per annum. Opportunities for commercial investors are disproportionately concentrated in sectors where regulation is already largely favorable and requires more incremental reform than root-and-branch re-imagining. Recent trends — for example, the near-15% growth in private higher education — look set to continue. Moreover, the diversity of opportunities and markets in SSA means that there is greater scope to move across geographies to seek more favorable conditions if some markets falter.

   While commercial investors can find avenues in the mid-priced/premium segments, there is ample opportunity for impact investors and early-stage commercial investors to invest in low-cost and technology-based solutions. Donors can play a role in models based on augmenting access and addressing issues of diversity, as well as building capacity in the region to prepare it for the next wave of growth.

2. **A window exists for proven global education providers to enter the African education market:** With unmet demand across education segments and shortages in supply, Africa is an attractive market for expansion for global education companies. There are examples of providers already present in the market, including:

   - Laureate International Universities (Monash South Africa, a private university founded in 2001)
   - Pearson (Pearson Institute of Higher Education and CTI Education Group, both higher education providers in South Africa)
   - Apollo Education Group (Milpark Education, a private distance higher education provider)
   - GEMS Education (GEMS Cambridge International School in Nairobi and GEMS Cambridge International School in Uganda, both premium K-12 schools with a focus on the British curriculum)

   A key proviso is that global companies should contextualize their approach to Africa, and indeed to each of the specific countries and regions where they operate. Interviewees for this study emphasized time and again that the African education landscape is unique and that global operators should be wary of importing models wholesale.

3. **There is significant potential for local conglomerates to become education providers:** Given the scale of demand and the return characteristics of education businesses (particularly mid-priced/premium K-12 and higher education), there is potential for African conglomerates in other sectors to expand their businesses into the education sector. This type of diversification is observed in other emerging markets, where trusted scale brands have expanded into the education sector. For example:

   - **Ayala (Philippines)** is the country's oldest and largest conglomerate, and its subsidiary Ayala Education has interests in K-12 and higher education, including Affordable Private Education Center (APEC), a chain of affordable secondary schools developed in a joint venture with Pearson.
   - **Mitsui (Japan)** is one of the country's largest general trading companies and has a range of interests in education, including an equity stake in QS Quacquarelli Symonds (which runs the QS World University Rankings) and a partnership with St Albans School International Management Company.
   - **Tata Group (India)** is the country's largest conglomerate and has a range of education holdings, including ClassEdge, an edtech interactive learning solution now in 15,000 Indian classrooms.
   - **Times Group (India)** is India's largest media conglomerate with the world's largest-selling English newspaper. Its education ventures include Bennett University, founded in 2016.
   - **VinGroup (Vietnam)** is one of the country's largest companies and operates Vinschool, a range of bilingual schools.

   Within Africa, many conglomerates and large companies are already involved in education, predominantly through their corporate social responsibility and corporate social investment activities, including:

   - **Anglo American (South Africa)** is a multinational mining company with holdings including De Beers. Its Chairman's Fund has invested ~$33 million (R431.5) since 2011 in South Africa, including in teacher development, rural school infrastructure, and skills development.
   - **Dangote Group (Nigeria)** is the largest conglomerate in Nigeria and has long-standing involvement in education through its foundation, the largest in Africa. CEO Aliko Dangote is a member of the UN Secretary-General's Global Education First Initiative steering committee and a member of the UN's International Commission on Financing Global Education Opportunity, among other commitments.

- **Equity Group Holdings Limited (Kenya)** is a financial services holding company headquartered in Kenya with six regional subsidiaries (focused on the African Great Lakes region). The Equity Group Foundation has led the "Wings to Fly" initiative, which offers scholarships and leadership development to secondary school students.

- **FirstRand Group (South Africa)** is a financial services provider and one of the largest financial institutions in SSA, operating in nine countries. The FirstRand Foundation has a diverse education portfolio covering tertiary employability, improvements to math teaching, and scholarship programs, among other activities.

- **Trustco Holdings (Namibia)** is a diversified listed company with interests in finance, property, insurance, media, education, and other areas. Its key education initiatives are a student finance platform (Trustco Bank), which provides loans to students pursuing degrees at the Institute for Open Learning, Namibia's largest distance learning institution, which it also owns.

4. **Africa serves as an innovation platform and can be leveraged to develop solutions for global replication:**
The challenges for education in Africa are daunting: much of the population is still rural and poor, governance and regulation are highly varied, the economic climate is changing rapidly, and the region is the world's most linguistically and ethnically diverse. However, as the proverb goes, necessity is the mother of invention. The imperatives for widening access and improving quality are driving globally unique innovations across the sector, with business and delivery models that often leverage technology and challenge traditional sector models.

India, a market characterized by many of the same issues as SSA, became a focus of global attention after the financial crisis when its jugaad innovation approach (a Hindi and Punjabi word denoting a "hack" or "workaround") came to signify creative improvisation and frugal management. India's unique innovations, for example in low-cost health care (Aravind Eye Care System; Narayana Health Heart Center), energy (Husk Power Systems), and micro-mortgages (Micro Housing Finance Corporation), have gained attention in their global sectors as well as the innovation community and are being explored in other geographies.

Similarly, SSA's unique market challenges have already produced globally relevant innovations such as mobile phone money transfers (M-Pesa) and crowd-sourced data platforms (Ushahidi). Its dynamic education landscape is likely to generate models that have influence beyond the region, particularly in edtech. Some existing innovations that have attracted global attention include:

- **Andela (Kenya, Nigeria, Uganda)** recruits talented young people and supports them to become world-class software developers through a four-year technical leadership program in which they receive on-the-job training as remote workers for global technology companies.

- **Bridge International Academies (Kenya, Uganda, India, Liberia, and Nigeria):** Bridge operates more than 500 schools, enrolling more than 100,000 students. It is focused on serving families earning less than $2 a day and leverages a common management system and instructional platform following the national curriculum.

- **Eneza Education (Kenya, Ghana, Tanzania)** is a subscription-based SMS platform for learning tools and quizzes based on the national curriculum that has reached more than one million children, including many out-of-school children.

- **Omega Schools (Ghana, Liberia)** is a low-cost school chain with a "pay-as-you-learn" model that charges students a daily fee equivalent to the out-of-pocket cost of sending a child to a government school.

- **Get Smarter (South Africa)** is a learning platform providing online content to working professionals who take certified courses in subjects such as project management, big-data analysis, and digital marketing in association with universities such as MIT, University of Cape Town, and University of the Witwatersrand.

5. **Setting national learning goals would refocus the "public versus private" debate for policymakers:**
Change is much needed but too often hindered by ideological concerns. Moreover, opposition is typically targeted at the very operators whose interventions are most likely to serve the "bottom of the pyramid." While regulation is functional for mainstream private offerings, there is limited acceptance among some public sector stakeholders of challenges to established ways of doing things, and as a result, limited provisions exist for low-cost schools and non-traditional higher education. APBET guidelines in Kenya, for example, which help to formalize the low-cost, informal sector, are in place but, according to operators, not applied—interviewees indicated that they may be repealed due to political pressure. Moreover, ideological opposition is not usually accompanied by commensurate improvements in public systems. "Negative reports are buried," one observer noted, "because fundamentally too many current system guardians are in the business of self-preservation, not education."[140]

The implication of these twin issues: opposition to private education and public systems that cannot meet increasing demands alone, is that innovations from the private sector may be lost, and that even when they are adopted, that the pace of change may be insufficient to meet the scale of need.

Setting national learning goals for student enrollment and achievement — as one interviewee described it, "moonshot targets"[141] that align stakeholders across the sector — would help to refocus debate on what actually matters in driving improved education outcomes. Strong results in the private sector, especially those achieved at a cost similar to public sector delivery, could be more quickly and widely disseminated, including through PPP models. The divisions between public provision and private provision would likely matter less, because the key shared objective of educating all children well would take center stage. A Nigerian provider noted, "Government needs to signal that it is willing to transform the education sector and in the process, partner with the private sector to achieve the desired results."[142]

CHALLENGE AND OPPORTUNITY

These five observations are a reflection both of the challenge and the opportunity for education in SSA. Another key issue for the African context will be addressing the effects of conflict and resulting regional fragility on participation in education. 25% of children in conflict zones are out of school.[143] The wider context of emergency intervention, aid, diplomacy, and post-conflict rebuilding take on additional importance in light of their effect on education.

Harnessing the continent's enormous potential, while addressing some of the key issues that are hindering its growth and development, is the greatest challenge ahead for the governments, investors, companies, donors, not-for-profits, and individuals engaged in the region. The potential for investment and the potential for impact have rarely been greater.

ANNEX I
DETAILED CASE STUDIES

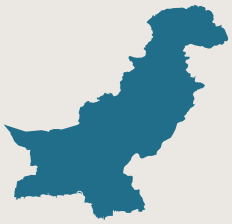
TABLE 18: DETAILED CASE STUDIES

Organization	Sub segment	SSA Countries of operation
	CORE DELIVERY	
Aga Khan Development Network	Pre-primary, low-cost and Mid-priced/ premium K-12, higher education, teacher training	East Africa
ADvTECH	Pre-primary, K-12, and higher education	Bostwana, South Africa, Zambia
ChildFund Senegal	Pre-primary, low-cost K-12, TVET	Senegal
Bridge International Academies	Pre-primary, low-cost K-12	Kenya, Liberia, Nigeria, Uganda
Omega Schools	Low-cost K-12	Ghana, Liberia
Partnership Schools for Liberia	Pre-primary, K-12 (primary)	Liberia
Braeburn Schools	Mid-priced/premium K-12	Kenya, Tanzania
Enko Education	Mid-priced/premium K-12	Cameroon, Côte d'Ivoire, Mozambique, Senegal, South Africa
Ashesi University College	Contact higher education	Ghana
MANCOSA	Distance higher education	Botswana, Malawi, Mauritius, Namibia, South Africa, Swaziland, Zambia
UNICAF	Distance and blended higher education	Pan-Africa
Andela	TVET (education to employment)	Kenya, Nigeria, Uganda
GetSmarter	TVET (education to employment)	South Africa

Organization	Sub segment	SSA Countries of operation
	ANCILLARY SERVICES	
Instill Education	Teacher training	South Africa
Mwabu	Education technology	Zambia
Eneza Education	Education technology	Kenya, Ghana, Tanzania
PrepClass	Supplementary education	Nigeria
Longhorn Publishers	Publishing	Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Rwanda, Senegal, Tanzania, Uganda, Zambia, Zimbabwe
Brighter Investment	Student finance	Ghana
IDP Rising Schools Program	Institutional finance	Ghana

AGA KHAN DEVELOPMENT NETWORK

Pre-primary, low-cost and mid-priced/premium K-12, higher education, and teacher training



KEY FACTS

Year established: 1905

Chairman: His Highness the Aga Khan

Sector: Pre-primary, low-cost and mid-priced/ premium K-12, higher education, teacher training

Ownership: Not-for-profit

Students: ~2 million

Annual budget: ~$700 million

People employed: ~18,000

Institutional partners: 250+

Countries of activity: 20+

AKA scale: ~3,000

AKES scale: ~80,000

AKU scale: ~2,500

AKF scale: ~2 million

Started in: Pakistan (Kenya was the 1st country in Africa)

International reach: Present in more than 30 countries and active in East Africa

SUMMARY

- AKDN programs cover a wide spectrum of activities, ranging from early childhood development programs to university education, including non-formal adult education. In Africa, several AKDN agencies deliver education programs: Aga Khan Academies (AKA), Aga Khan Education Services (AKES), Aga Khan Foundation (AKF), and Aga Khan University (AKU).

AGA KHAN ACADEMIES (AKA)

PRODUCT OFFERING

- AKA is a global network of K-12 schools offering the International Baccalaureate (IB) program. There are currently three academies located in Mombasa (Kenya), Hyderabad (India), and Maputo (Mozambique).

- Each academy is equipped with a Professional Development Center (PDC), which is responsible for teacher training and support to public schools.

HOW IT WORKS

- **Target students:** AKA targets students from all income groups. They follow a cross-subsidization model by providing financial aid to about half of the students, of whom ~50% receive full financial aid.

- **Professional Development Centers (PDC):** Each academy is equipped with a PDC for providing teacher training and other support. Often working with AKF, the training focuses on student-centered teaching methods and the use of interactive techniques in teaching delivery. The program also facilitates faculty exchanges between AKDN and partner education institutions (public and private).

AGA KHAN EDUCATION SERVICES (AKES)

PRODUCT OFFERING

- Globally, AKES operates over 200 affordable schools and pre-schools, of which 15 are in East Africa.

- AKES schools offer both national and international curricula. In Africa, they are present in Kenya, Tanzania, and Uganda.

HOW IT WORKS

- **Scholarships and need-based discounts:** The AKES schools offer scholarships and need-based discounts to reach students from low-income groups.

- **Teaching approach:** Aga Khan Schools promote relevant education through their portfolio of diverse school models and support 21st century pedagogy, including an increasing use of computers and technology to enhance student learning, underpinned by pluralist ethics and citizenship.

AGA KHAN FOUNDATION (AKF)

PRODUCT OFFERING

- AKF works in partnership with the public and private sectors to raise the quality and accessibility of public and private school

systems for students from marginalized backgrounds.

- Its flagship programs in East Africa include the Madrasa Early Childhood Program (MECP), focusing on pre-primary education and the School Improvement Program (SIP), focusing on primary and secondary education.

HOW IT WORKS

- **Madrasa Early Childhood Program (MECP):** MECP assists underprivileged communities establish, develop, and manage local pre-schools by training new preschool teachers and offering other professional development and technical support. Selected preschools are supported and mentored by MECP for two years, after which their performance is regularly reviewed.

- **School Improvement Program (SIP):** SIP improves access to quality education for primary and secondary students, especially girls and other marginalized students, by addressing school leadership, providing teacher support, encouraging child-centered learning, and facilitating community engagement to improve learning outcomes. Around one million students are supported through this program globally.

AGA KHAN UNIVERSITY (AKU)

PRODUCT OFFERING

- The Aga Khan University has six campuses and teaching sites spread across Pakistan and Afghanistan, Kenya, Tanzania, Uganda, and the UK. 30% of its students are based in Africa.

- It offers programs in medicine, educational development, media and communications, and health sciences, with planned expansion to human development and arts and sciences.

HOW IT WORKS

- **Fees and funding:** Admission to the AKU is only based on merit. The financial situation of students is not considered when granting admission. The university helps students fund their education through scholarships or loans.

- **Research activities:** AKU promotes research activities by helping researchers avail funding from both internal and external sources. It also offers services for patenting and commercialization of research products.

KEY DRIVERS OF GROWTH

- **Accessibility of education in SSA:** SSA has ~30 million children who are not receiving any form of schooling. These countries are unable to meet increasing demand for education. Most public schools and higher education institutions are inaccessible to students due to lack of finance and manpower.

- **Need for quality institutions:** SSA is the worst-performing region globally for educational quality and learning outcomes. Public schools grapple with teacher attendance and qualifications. Low-cost private school chains have the potential to reach out to students who otherwise are not reachable or who only have access to poor-quality public provision.

- **Favorable demographics:** SSA has both the fastest growing and youngest population globally. It is expected to add one billion people in the next 30 years, indicating a need for robust educational infrastructure.

FUTURE PLANS

- The Aga Khan Development Network (AKDN) has significant investment plans for educational institutions and programs in East Africa over the next 15 years.

The Aga Khan Development Network (AKDN) operates multiple education programs and institutions across age groups, from early childhood to university.

ADVTECH GROUP

Pre-primary, K-12, and higher education

KEY FACTS

Year established: 1948

CEO: Roy Douglas

Sector: Pre-primary, K-12, and higher education

Ownership: Private (listed)

Student enrollment: ~53,000

Revenue scale: ~$270 million

Started in: South Africa

International reach: Botswana, South Africa, and Zambia

ADvTECH Group is the largest private higher education company in South Africa, providing formal education across age groups. It is listed on the Johannesburg Stock Exchange (JSE).

PRODUCT OFFERING

- ADvTECH Group has 16 educational brands under its umbrella, catering to pre-primary, K-12, and higher education.
- There are seven school brands providing pre-primary and K-12 education. These include: Junior Colleges, Crawford Schools, Trinity House, Abbotts College, Centurus College, Maravest Group, and ADvTECH Academies.
- ADvTECH provides tertiary education through a number of brands, including Rosebank College, Vega, The Design School Southern Africa, Varsity College, The Business School at Varsity College, Capsicum Culinary Studio, Oxbridge Academy, and University of Africa (Zambia). ADvTECH ensures accreditation and quality across the tertiary division.

HOW IT WORKS

- **Schools division:** This division comprises 90 schools spread across 47 campuses.
  - **Academic excellence:** All school brands ensure implementation of prescribed quality goals. ADvTECH has a central academic team that develops quality management programs for all academic processes, including local and international benchmarking, teacher training and development, and exploration and implementation of effective teaching methodologies.
  - **Academic results:** ADvTECH schools achieved pass rates of 100% and 99% in IEB and NSC examinations, respectively, with 98% of students qualifying for higher education in 2016.
- **Higher education:**
  - **Academic excellence and student experience:** ADvTECH maintains the highest teaching quality standards and encourages student retention through student support, small class sizes, and other facilities.
  - **Placement opportunities:** ADvTECH's tertiary brands run graduate placement programs responsible for placing a significant number of graduates in employment with a range of companies. These programs connect students with prospective employers.
  - **Blended learning:** ADvTECH opened a Rosebank College connected campus in Polokwane in 2016 to offer technologically enabled learning, enhanced by face-to-face assistance from lecturers, all offered in a digitally enabled campus with free Wi-Fi connectivity.

KEY DRIVERS OF GROWTH

- **Limited public provision in higher education in South Africa:** Private higher education enrollments have grown at ~8% annually, compared to ~1% growth achieved by public institutions. Private providers have gained market share because of capacity

and funding constraints in public education. Also, government spending per student on higher education has declined over the last decade.

- **Increase in affordability:** Student loans are becoming more accessible to students in private institutions in South Africa, and there is a growing middle class.

- **Large and growing demand for high quality K-12 education:** Growing affordability and high aspirational value of quality education have resulted in an increase in demand from the rising middle class for mid-market private school education.

FUTURE PLANS

- IFC invested ~$22 million in ADvTECH in 2016 to support the Group's expansion in the rest of Africa. The acquisition of University of Africa is in line with this strategy.

- ADvTECH also plans to expand its reach in distance education. It recently acquired Oxbridge Academy and University of Africa to reach more students through distance education.

- ADvTECH plans to add more school chains through acquisitions. It recently acquired Elkanah House in Cape Town.

CHILDFUND SENEGAL

Pre-primary, low-cost K-12, and TVET

KEY FACTS

Year established: 1938

Founder: J. Calvitt Clarke

Sector: Pre-primary, low-cost K-12, and TVET

Ownership: Not-for-profit

Student enrollment: ~100,000

Annual budget (2017): ~$420,000

Reach: Senegal

ChildFund Senegal is a child-centered organization providing health and education assistance to deprived, excluded, and vulnerable children.

PRODUCT OFFERING

- ChildFund implements activities through funding received from individual donors in the form of sponsorships, as well as through grants from major donors.

- The funds are used to implement activities to improve access to quality K-12 education, improve the school environment, support youth employment, support early childhood development activities, and support vocational training.

- ChildFund Senegal implements its projects via its local partners who represent their respective communities.

HOW IT WORKS

- **Local partners:** ChildFund Senegal implements education programs through local partners (known as Federations). Each of these local partners represent a number of associations in their communities. Each Federation communicates local needs to ChildFund Senegal and through annual operating plans, effective programs are implemented to meet these needs.

- **Education programs:** ChildFund supports construction, provides equipment for classrooms, and provides teacher training in collaboration with local education authorities. Three programs target children from underserved communities:
  - **Early Childhood Development (ECD) Program (0–5 Years):** Provides preschool activities to 0–3 year-olds through

playgroups and learning through play. ChildFund also supports 97 Integrated ECD Centers for 3–5 year-olds, enrolling ~6,500 children.

- **Elementary Program (6-15 Years):** Supports 168 elementary schools that collectively enroll ~80,000 students. ChildFund supports teacher training, staff salaries, school libraries, and textbook publishing, as well as WASH activities. Students are also trained on governance of school clubs.

- **Post-Elementary Program (16–24 Years):** Supports ~100 high schools enrolling ~7,000 students. ChildFund also supports vocational and entrepreneurship training programs for youths. Financial support is provided for training, and starter kits are provided to students who wish to start their own businesses. ~3,000 students have been supported to date.

KEY DRIVERS OF GROWTH

- **Donor environment:** ChildFund's budget mostly comes from sponsorship funding and some engagements with major donors such as USAID, UNICEF, and others.

- **Government support:** ChildFund works in close collaboration with its government counterparts. Support from government agencies is required in execution of programs run by ChildFund.

- **Improvement in education sector:** In Senegal, one in 10 children aged 9–10 years is not in school; unemployment among people aged 15 years or older is at 13.4%; school dropout rate in elementary schools is at 9.8% at national level; and the literacy rate for adults is at 52%. There is a significant need for intervention.

FUTURE PLANS

- ChildFund Senegal will continue to support activities to improve the quality of education across all age groups and improve school results. To allow for sustainability, it plans to hand ECD centers over to the Government. ChildFund Senegal also plans to expand its education programs to other regions of Senegal.

KEY FACTS

Year established: 2008

CEO: Jay Kimmelman

Ownership: For-profit (unlisted)

User scale: 100,000

Funding received: ~$100 million+

Started in: Kenya

International reach: India, Kenya, Liberia, Nigeria, and Uganda

Bridge International Academies works with parents, donors, governments, and teachers to offer high-quality pre-primary and primary education for the children in greatest need.

BRIDGE INTERNATIONAL ACADEMIES

Pre-primary and low-cost K-12

PRODUCT OFFERING

- Bridge International Academies (Bridge) uses in-depth teacher training and support, advanced curriculum, and wireless technology to provide underserved families with affordable, high-quality education. Bridge serves parents, local communities, and governments.

HOW IT WORKS

- **Partnerships:** Bridge works primarily in partnership with local and national governments to offer pre-primary and primary education in areas of need, as well as to supply teacher training, learning material, and software services.

- **Teacher training:** Teachers are professionally trained at the Bridge International Training Institute and supported throughout their careers with continuous professional development. Bridge emphasizes teaching techniques that are demonstrably effective in enabling high-quality learning for children.

- **Measurable results:** Independently administered exams show that for reading in early grades, the gains from attending Bridge are equivalent to 64 more days of learning in a single school year. For mathematics, the gains are equivalent to 26 more days of learning in a single school year. More than 140 graduates have received scholarships to attend elite secondary schools in Kenya and the U.S.

- **Three types of engagement model:**

1. Bridge forms a PPP to run state schools. This allows parents to send their children to a Bridge-supported school for free and creates a close working relationship between the Ministry of Education and Bridge to enable system-wide change and scaled learning gains.
2. Bridge charges a very low fee to parents to create a sustainable and scalable high-quality local pre-primary and primary school, empowering local change-makers to become school leaders and supporting local teachers to excel in their profession.
3. Bridge develops and publishes teacher guides, textbooks and/or software, and operating platforms to better support governments' and school systems' service delivery.

- **Revenue model:** Parents, donors, or governments pay for service delivery of school management, or for specific services such as teacher training, textbooks, or software. Total fees are approximately $84 per year to attend a parent-funded community school.

KEY DRIVERS OF GROWTH

- **Demand for high quality pre-primary and primary education:** Demand for high-quality pre-primary and primary education far outweighs supply. Fully 263 million children and young people are out of school globally, and the number of primary-age children not in school is increasing. By designing an education service for scale and at costs affordable to parents, donors, and governments in emerging markets, Bridge has found demand for its services exceeds its current capacity to supply.

FUTURE PLANS

- Bridge aims to educate 10 million children by 2025, in partnership with parents, donors, and governments.

OMEGA SCHOOLS

Low-cost K-12

KEY FACTS

Year established: 2008

Founders: James Tooley, Ken Donkoh

Sector: Low-cost K-12

Ownership: For-profit (unlisted)

Student enrollment: ~20,000

Revenue scale: ~$3 million

Started in: Ghana

International reach: Ghana and Liberia

Omega Schools is a chain of low-cost private schools with an innovative revenue model and specialized pedagogy serving the "bottom of the pyramid."

PRODUCT OFFERING

- Omega Schools is a chain of 38 low-cost schools spread across Greater Accra, Eastern, and Central Ghana. The Liberian Government has also contracted Omega to operate 17 public schools in 2016, under its Partnership Schools for Liberia Program.

- Students are trained by both highly experienced education specialists and high school graduates. The education specialists are involved in curriculum design, supported by highly passionate and energetic high school graduates responsible for teaching delivery.

HOW IT WORKS

- **Pay-as-you-learn model:** In order to meet the cash flow of "bottom of the pyramid" families, Omega Schools collect an all-inclusive daily fee of $0.65 (GHS 3). This provides for tuition, lunch, workbooks, uniforms, mid-term and end-term assessment, and health insurance. Omega ensures that this fee matches the out-of-pocket cost of sending a child to a government school.

- **Customized curriculum:** Omega Schools follow the Ghanaian national curriculum. However, they have created custom content for each subject and grade, with lesson plans, workbooks, and online content.

- **Intelligent assessment:** Omega's assessment system consists of formative and summative assessment. Formative assessments track areas of improvement, while summative assessments grade students. Additionally, Omega also conducts external assessments to compare the performance of Omega students with those from other public and private schools.

- **Management system:** Omega leverages technology to track student and staff information, which keeps track of enrollment, attendance, and other performance indicators.

KEY DRIVERS OF GROWTH

- **Inaccessibility of public schooling system:** Public schools face high levels of congestion due to capacity constraints. These schools are not able to accommodate students from marginalized backgrounds. Low-cost private school chains have the potential to reach out to students who otherwise aren't reachable, and offer quality education.

- **Low affordability and demand for low-cost private education:** Private schools are relatively expensive for most of the population but there is demand among lower-income groups for more affordable options.

FUTURE PLANS

- Omega plans to expand to other countries, including to Francophone West Africa.

- Omega is also keen to expand its PPP with the Liberian Government and to explore further opportunities to partner with other governments.

PARTNERSHIP SCHOOLS FOR LIBERIA

Pre-primary and K-12 (primary)

KEY FACTS

Year established: 2016

Sector: Pre-primary and K-12 (primary)

Ownership: Public-private partnership

Year two projected enrollments (max.): 72,500

Year two projected cost: ~$8.5 million

Reach: Liberia

Partnership Schools for Liberia (PSL) is a pilot PPP involving nearly 100 schools serving 27,000 pre-primary and primary students across Liberia.

THE CONTEXT

- Education access and quality in Liberia has suffered due to the 14-year civil conflict that lasted until 2003, damaging 75% of the country's education infrastructure, and the Ebola outbreak in 2014 that forced nearly all schools to close for an extended period.
- Liberia is in the lowest percentile of NER globally, with 17% of primary-age children out of school. Fully 40% of those enrolled are at least three years older than the grade-appropriate age.
- The Ministry of Education (MoE) in Liberia has worked to repair schools, increase enrollments, expand the teaching workforce, and distribute textbooks and other learning materials. In 2015 MoE launched its "Getting to Best" reform agenda to address remaining challenges, prioritizing workforce and payroll reform, improved accountability systems, and accelerated learning outcomes. A payroll cleaning initiative has so far removed nearly 1,550 "ghost" teachers from the Government payroll and corrected salary levels, freeing up nearly $3.3 million to reinvest in hiring trained, qualified teachers. Reforms are ongoing under the MoE's new Education Sector Plan 2017-2021, which includes Partnership Schools for Liberia (PSL).

THE PARTNERSHIP

- The PSL program is a pilot involving eight school operators that the MoE selected through a competitive screening process. These providers manage 93 public schools serving 27,000 students across Liberia.
- These operators include international organizations such as Bridge International Academies (25 schools), BRAC (20), Omega Schools (17), Street Child (12), More Than Me (6), and Rising Academy (5), as well as Liberian providers including Stella Maris Polytechnic (4) and Liberia Youth Network (4).
- A Project Delivery Unit (PDU) within the MoE oversees the program, managing operator and other partnerships and monitoring provider activities. Partners and providers actively work with MoE to build Government capacity.

HOW IT WORKS

- **Dual management responsibility:** Teacher payroll and school infrastructure are managed by the Government, while private operators are responsible for delivering content aligned with the national curriculum, training and monitoring teachers, and improving school management.
- **Adherence to key performance indicators (KPIs):** PSL schools are evaluated on eight KPIs, including teacher attendance, student retention, and academic outcomes.
- **Free for students:** PSL schools do not charge any fees, including at the pre-primary level (though pre-primary public schools are not currently free in Liberia). Providers receive the value of $100 per pupil: $50 in kind from the Government as teacher salaries paid directly to teachers and school infrastructure and $50 from

a pool of philanthropic donations. The Government plans to increase the education budget over the next five years to reach a $100 per-pupil expenditure, helping to make the program sustainable on government funding.

THE BENEFITS

- **Raising school quality standards:** Students at PSL schools benefit from guarantees of one paid, trained, qualified teacher per grade; two school administrators; longer school days with more instruction time devoted to literacy; removal of all fees; innovative and engaging lesson plans; and regular monitoring to ensure teachers are reliably in class and delivering lessons. By raising school quality standards, the program is also raising the community's expectations for their children's education.

- **Regular monitoring:** The MoE regularly engages with providers to monitor and assess the program and ensure PSL schools are meeting their obligations to students, parents, teachers, and communities. PSL is also part of an independent evaluation, managed by the Center for Global Development and Innovations for Poverty Action, using a randomized controlled trial (RCT) to measure its effectiveness, equity, and sustainability.

- **Improved academic outcomes:** Bridge International Academies has already reported significant gains in literacy over a 15-week period compared to control schools. Learning outcomes at all PSL schools will be evaluated at the end of the first year as part of the RCT. Improved academic outcomes are expected to drive participation rates.

- **Improved teacher performance:** PSL operators regularly monitor teacher attendance and performance and provide training to teachers. They also actively invest in professional development and leadership training for administrators. This is expected to improve the quality of Liberia's education workforce, improving the learning experience for students.

- **Strengthening government capacity:** According to the Government, PSL has helped improve the technical and management capacities of MoE personnel. It has also led to improved payroll management processes, helping ensure teachers are added to the Government payroll and paid on time. These improvements benefit the entire education system in Liberia.

FUTURE PLANS

- The Government of Liberia sees PSL as an incubator for modular innovations and a catalyst for system-wide reform. The MoE intends to scale PSL based on lessons learned and evidence collected through the RCT evaluation, and hopes to establish PSL schools in every district of Liberia to serve as model schools and learning hubs. In the second year, the MoE is planning a pro-poor expansion of PSL to reach more remote areas of Liberia, ensuring equitable access to quality learning for children from all backgrounds. Liberia's near-term goal is for 10% of all Government primary schools, 250 in total, to meet the quality standards established through PSL. The MoE is also exploring DIBs and other results-based financing to scale PSL in the future.

BRAEBURN SCHOOLS

Mid-priced/premium K-12

KEY FACTS

Year established: 1980

Student enrollment: 3,750

Managing director: Rob Williams

Started in: Kenya

Sector: Mid-priced/ premium K-12

International reach: Kenya and Tanzania

Ownership: For-profit (unlisted)

Braeburn Schools has nine K-12 schools across Kenya and Tanzania offering international curricula (British and International Baccalaureate).

PRODUCT OFFERING

- A chain of international schools started in Kenya, Braeburn now has seven schools in Kenya and two schools in Tanzania.
- Braeburn aims to provide holistic education. Beyond academic rigor, it also places an intensive focus on extracurricular activities, including arts and sports, as well as developing skills such as social responsibility, communication, and critical thinking.

HOW IT WORKS

- **Well-identified and growing target market:** Braeburn Schools primarily cater to Western expatriates and upper-middle and high-income nationals. While expatriate growth has been fairly stagnant, there is a rising demand among middle-income nationals to provide an international education to their children.
- **Multi-pricing model:** Braeburn operates several types of schools charging different fees. While the "Braeburn" brand charges an annual fee of ~$15,000, the "Braeside" brand schools operate at a lower fee of ~$8,000 and attract a higher share of nationals (~70%).
- **Leveraging brand reputation to consolidate:** Braeburn started with one school in Kenya and now successfully operates nine schools. Braeburn is now able to reap the benefits of a consolidated position, including high market share and cost economies of central management, as well as better access to finance.

KEY DRIVERS OF GROWTH

- **Large and growing demand for high-quality K-12 education:** Growing affordability and high aspirational value of quality education has resulted in an increase in demand from the Kenyan middle class for mid-market private education ($1,000-$8,000). In fact, schools including Braeside in Kenya have reported waitlists.
- **Fragmented market:** The K-12 market is highly fragmented, with Braeburn among the few large chains. This has set the stage for consolidation opportunities.
- **Relatively transparent and favorable regulations for K-12 schools:** Regulations governing licensing and operations of K-12 schools are relatively favorable in Kenya.

FUTURE PLANS

- **Expansion of the "Braeside" brand:** Braeburn is looking into the possibility of expanding the Braeside brand, offering international curriculum at a lower fee ($5,000-$8,000).
- **Expansion to other geographies in SSA:** Braeburn has already expanded into Tanzania, with one acquisition and one greenfield school. The organization plans to continue exploring expansion opportunities in neighboring countries.
- **Exploring opportunities in the low-cost K-12 schools segment:** In the long term, Braeburn Schools is interested in exploring the low-cost K-12 segment (<$1,000), which it would cross-subsidize through its mid-priced and premium schools.

ENKO EDUCATION

Mid-priced/premium K-12

KEY FACTS

Year established: 2014

Founders: Cyrille Nkontchou, Eric Pignot

Sector: Mid-priced/ premium K-12

Ownership: For-profit (unlisted)

Student enrollment: ~1,800

Revenue scale: ~$5 million

Started in: South Africa

International Reach: Cameroon, Côte d'Ivoire, Mozambique, Senegal, and South Africa

Enko Education is a pan-African network of affordable, international secondary schools.

PRODUCT OFFERING

- Enko Education is a chain of nine schools spread across five countries. All these schools have or are in the process of receiving accreditation by the International Baccalaureate (IB) Organization. Their average tuition fees are ~$3,000 per annum, but 10% to 20% of students benefit from scholarships.

- Enko Education either invests in or operates high-potential, existing private schools in partnerships with local players. These schools aim to democratize high-quality school education in Africa at affordable prices. They specifically target students from middle-income backgrounds.

- Special emphasis is put on university placements. Graduating students are admitted to institutions like Yale University, Imperial College London, and King's College London.

HOW IT WORKS

- **Innovative economic model:** Enko Education's model relies on partnerships with private schools. The local partner brings knowledge of the local education system, connections to parents, and infrastructure. Enko Education provides expertise to obtain International Baccalaureate (IB) certification within a year. Enko Education also ensures a school's development and management are addressed by hiring highly experienced headmaster and teaching staff and administration management.

- **Low costs of education:** Enko's asset-light strategy, coupled with their ability to provide extensive training to local teachers, allows them to charge fees which are, on average, ~25% of fees charged by other equally reputable IB schools in SSA.

- **University counseling program:** All Enko schools deliver a university counseling program designed to help students enroll in top universities. Students are provided with preparation in identifying the right programs and universities matching their ambitions and skills.

KEY DRIVERS OF GROWTH

- **Rising interest in foreign higher education:** There has been a growing interest in foreign higher education in SSA. Enko Schools market themselves as a gateway to globally reputed institutions at affordable prices. Also, most stand-alone schools do not possess the management experience and know-how to deliver international education in SSA.

- **Income growth:** SSA is witnessing strong growth in the number of upper-middle-income households, which is the primary target for Enko Schools.

FUTURE PLANS

- Enko Education aims to offer international education in 40 schools in 20 countries within the next five years. Their aim is to reach an enrollment scale of ~22,000 by 2022.

ASHESI UNIVERSITY COLLEGE

Contact higher education

KEY FACTS

Year established:
2002

Founder:
Patrick Awuah

Sector:
Contact higher education

Ownership:
Not-for-profit

Student enrollment:
~800

Revenue scale:
~$5 million

Reach:
Ghana

Ashesi University College is a private, not-for-profit higher education institution offering undergraduate courses in technology and business.

PRODUCT OFFERING

- With a campus spread over 100 acres, Ashesi offers four-year, full-time undergraduate programs in technology and business.
- Ashesi's core curriculum aims to help students develop the ethics, innovativeness, critical thinking, and communication skills necessary for creating impact.
- Class sizes at Ashesi are kept small, and students are encouraged to speak up and interact with their classmates and teachers.

HOW IT WORKS

- **Sources of income:** Ashesi charges an annual tuition fee of $3,800 and supplements this with philanthropic funds ($12 million raised so far) and debt to support infrastructure development and scholarships.
- **Aid and scholarships:** Ashesi offers aid to around half its students through the MasterCard Foundation. Ashesi has offered $5 million in scholarships to date.
- **Course offerings:** Ashesi offers six undergraduate degree programs in business, technology, and engineering, with a liberal arts and sciences core, and all students at Ashesi take a course in computer programming.
- **The "Ashesi Advantage":** All classes have a student-faculty ratio of 22:1. There is a strong orientation to provide relevant education, and ~95% of graduates are employed within three months of graduation. More than 90% remain in Africa.

KEY DRIVERS OF GROWTH

- **Dissatisfaction with traditional public higher education institutions:** Public universities in Ghana are unable to provide good quality higher education due to constraints in government funding.
- **Focus on employment:** Payback period for a bachelor's degree in private higher education institutions is low. The average payback period is one to two years. Institutions like Ashesi which have a high placement rate are able to attract students on the back of this value proposition.
- **International students:** International student intake (particularly from Africa) has driven Ghana's enrollment growth and is expected to continue. This is in part due to lack of availability of university places in students' home countries.
- **Demand for STEM programs:** According to UNESCO, SSA needs 2.5 million new engineers. Ashesi is well placed in this space, given its focus on technology and engineering programs.

FUTURE PLANS

- Ashesi expects to enroll over 1,000 students by 2022.
- Ashesi plans to introduce new majors aimed at training students to engage more with Ghana's public sector and policy planning initiatives. Ashesi wants to be diverse and collaborative, by growing the non-Ghanaian students to 40%–50% from the current 20%, and to establish international educational exchanges.

MANCOSA

Distance higher education

KEY FACTS

Year established: 1995

Founder: Yusuf Karodia

Sector: Distance higher education

Ownership: For-profit (unlisted)

Student enrollment: ~10,000

Started in: South Africa

International reach: Botswana, Malawi, Mauritius, Namibia, Swaziland, and Zambia

Management College of Southern Africa (MANCOSA) is the largest private distance higher education institution in South Africa, headquartered in Durban.

PRODUCT OFFERING

- MANCOSA offers accredited distance undergraduate and postgraduate degree programs, primarily in business and management.
- Students receive instructional materials, offline and online tutor support, as well as preparatory sessions before exams.
- MANCOSA targets working professionals as well as high school graduates who wish to pursue higher education.

HOW IT WORKS

- **Relevant course offerings aligned with market needs:** MANCOSA offers in excess of 30 undergraduate and postgraduate programs in five broad areas of management: business management, marketing, human resources, finance, and public sector management.
- **Affordability:** True to its vision of providing affordable education, its annual tuition fees range from ~$1,500–$3,200. MANCOSA's bachelor's programs are among the most moderately priced distance programs in South Africa. Moreover, distance programs are typically priced competitively relative to contact programs.
- **Accessibility:** Provides much-needed accessibility to higher education. South Africa has seen a steady growth in the number of school graduates but is constrained by the limited availability of seats in contact higher education. The applicant to seat ratio for public higher education is more than three to one.

KEY DRIVERS OF GROWTH

- **Higher affordability and comparable outcomes of distance vis-à-vis contact education:** Distance education is priced at a discount to contact education, making it more accessible to lower-income groups. Also, employers do not differentiate significantly between distance and contact education graduates.
- **Greater flexibility for working professionals returning to education:** Distance education provides flexibility and convenience to professionals who are working part-time or full-time.
- **Limited public provision in higher education in South Africa:** With the limited number of seats at public higher education institutions and the current funding difficulties facing students at public universities, private education institutions can play a vital role in assisting with these challenges by offering affordable access to quality programs.

FUTURE PLANS

- MANCOSA plans on diversification of program offerings, including Teacher Education, Health Care Services Management, and Maritime Studies, as well as expansion into new regional markets.
- Moreover, it looks to increase the integration of technology into teaching and learning strategies.

UNICAF

Distance and blended higher education

KEY FACTS

Year established: 2012

CEO: Nicos Nicolaou

Sector: Distance and blended higher education

Ownership: For-profit (unlisted)

Student enrollment: ~9,000

Revenue scale: ~$16 million

Started in: Cyprus

International reach: Pan-Africa

UNICAF seeks to make international standard higher education accessible to African professionals by providing blended and distance courses in partnership with foreign institutions.

PRODUCT OFFERING

- UNICAF partners with Western universities to offer their degrees. Initially, the courses were only offered online, but they have now become increasingly blended (including some instruction on-ground in SSA); UNICAF has partner universities in the UK, US, and Europe.
- UNICAF also offers its own locally accredited degrees to African students through a combination of online and blended study; UNICAF has its own university in Malawi and is in talks with a number of other African governments to start campuses.

HOW IT WORKS

- **Blended learning:** UNICAF has developed a flexible system of largely online higher education, coupled with high-touch faculty support. This is explicitly targeted at the African working professionals, enabling them to access international-standard higher education while continuing to work.
- **Low cost of programs:** UNICAF has innovated to bring down the fee paid for these degrees to approximately 20% of the price paid in the West for the same degrees.
- **Learning centers:** UNICAF is setting up learning centers across major African cities to enable students to come together for group work, IT infrastructure (where needed), and some direct tuition.

KEY DRIVERS OF GROWTH

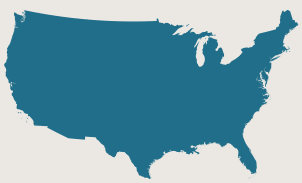
- **Online education:** Higher education is changing globally, and students in emerging markets are less interested in paying a premium for traditional campus-based education. Instead, they are looking to study largely online while they continue to work, with some contact with faculty and other students at locations near their workplaces, and with courses that have a direct impact on their employability and earnings.
- **Shortage of supply in higher education:** There is a mismatch between demand and supply in African higher education and a severe shortage of higher education infrastructure in Africa. African higher education is addressing the compound effects of growing population sizes, increasing affluence and desire for education, and the presence of an existing workforce who previously could not afford higher education now looking to return to education.
- **New groups that otherwise would not have accessed higher education:** The low cost and flexibility of blended education allows students from middle-income groups, and from the existing workforce, to pursue degrees.

FUTURE PLANS

- UNICAF has a vision to be the default higher education provider in Africa, with a learning center in every major city across the continent, allowing hundreds of thousands of African young professionals to access international-standard higher education. UNICAF is in the process of starting campuses in Zambia and Mauritius.

ANDELA

TVET, Education to employment



KEY FACTS

Year established: 2014

CEO: Jeremy Johnson

Sector: TVET, Education to employment

Ownership: For-profit (unlisted)

User scale: ~500

Funding received: ~$40 million

Started in: USA

International reach: Kenya, Nigeria, and Uganda

Andela is a global engineering organization that connects leading technology companies and talented software developers from around the world.

PRODUCT OFFERING

- Andela builds high-performing engineering teams for global companies with the most talented software developers from technology hubs across Africa.

- Andela provides a platform for technologists to accelerate their software development expertise, work with the world's leading engineering teams, and become technology leaders themselves.

HOW IT WORKS

- **Selection of candidates:** Of 50,000 applicants to date, Andela has accepted only 0.7% after a stringent selection process, which includes online psychometric testing, coding tests, and on-site simulations. The finalists receive an employment offer from Andela and begin a six-month immersion program before being placed with one of Andela's company partners.

- **Distributed team members within global companies:** Andela developers fly out to the headquarters of their companies for a two-week induction to prepare them for effective remote working. Developers work out of the Andela offices but in the time zone of their employers, communicating and participating in daily meetings through videoconferencing.

- **Revenue model:** Andela acts as an employment agency in the technology sector, and payment from clients with whom it places developers is the primary source of revenue.

KEY DRIVERS OF GROWTH

- **Demand for software developers:** There is a shortage of software developers across the board. It is challenging to find individuals skilled in programming languages such as Python, Javascript, and SQL, and the Bureau of Labor Statistics (BLS) projects a shortfall of one million programmers in the world by 2020. Moreover, finding the right talent is a challenge for tech companies, and 83% of hiring managers cite the technical talent shortage as detrimental to the success of their business.

- **Matching of talent to employers:** There is a dearth of platforms and institutions to support the training and employment of computer science graduates in Africa, a situation Andela can leverage.

- **Increased digital penetration:** By 2025, it is projected that internet penetration will reach 50% in Africa. This translates to 600 million people using 360 million smartphones. As the continent comes online, employers can increasingly access workers wherever there is an internet connection.

FUTURE PLANS

- Andela's mission is to empower the next generation of technology leaders in Lagos, Nairobi, and cities across Africa.

GETSMARTER

TVET, Education to employment

KEY FACTS

Year established: 2008

Founders: Sam Paddock, Rob Paddock

Sector: TVET (Education to employment)

Ownership: For-profit (unlisted)

User scale: ~15,000

Users to date ~40,000

Reach: South Africa

GetSmarter offers employability-linked short online courses to working professionals in collaboration with leading national and international universities.

PRODUCT OFFERING

- GetSmarter offers university-certified short online courses to working professionals in collaboration with top universities. It has partnerships with University of Cambridge, Goldsmiths University of London, University of Cape Town, University of Witwatersrand, University of Chicago, MIT, Harvard X, London School of Economics, and University of Stellenbosch Business School.

- GetSmarter offers employability-linked programs in business, management, marketing, finance, law, and other subjects.

- Students receive personal support during courses from GetSmarter instructors, tutors, and coaches, resulting in completion rates of more than 90%. Students can also interact with peers through group discussions, collaborative project work, and live classroom sessions.

HOW IT WORKS

- **Content generation and delivery:** University partners, together with GetSmarter's multidisciplinary education team, are responsible for content generation. The GetSmarter team is responsible for the teaching delivery, student support, and assessment with assistance from a designated professor from the partner university. GetSmarter generates revenue from student tuition fees (comparable to the cost of a three-credit course at an equivalent private university in Africa).

- **Certification:** GetSmarter provides proof of competency after course completion. This is recognized by the partner university, which differentiates the offering from traditional MOOC providers, where certification is only issued by the provider and not the university.

- **Course review:** The courses offered are reviewed regularly to ensure content relevance with industry requirements. Special emphasis is placed on imparting workplace-ready skills during course delivery through interactive discussions with industry experts and project-based work.

KEY DRIVERS OF GROWTH

- **Industry recognition of online courses:** There is increased recognition of online courses across industries. Organizations are also keen for employees to pursue courses in order to upskill. This trend is corroborated by the fact that over 88% of GetSmarter alumni report career advancement post-course completion.

- **Flexibility offered by online courses for working professionals:** Online courses provide flexibility and convenience to professionals who are working part-time or full-time.

- **Affordability and course time:** Short-term courses are more affordable than traditional distance programs, making them a viable option for working professionals.

FUTURE PLANS

- GetSmarter aims to reach 50,000 working professionals by 2018.

- The company also aims to partner with more foreign universities.

INSTILL EDUCATION

Teacher training

KEY FACTS

Year Established: 2015

Teachers Trained: ~100

Founder: Alim Ladha

Reach: South Africa

Sector: Teacher training

Ownership: For-profit (unlisted)

Instill Education provides teacher training to low-cost and mid-priced private schools in South Africa.

PRODUCT OFFERING

- Instill Education runs tailored teacher training programs for low-cost and mid-priced private schools as well as public sector schools.
- Instill puts special emphasis on innovative teaching delivery and the use of technology. They aim to bring global best practices in teaching to African schools.
- Instill Education has partnered with SPARK Schools, Pioneer/ Nova Academies, and Streetlight Schools for its pilot program, and it is currently delivering a year-long program to public schools in the Western Cape.
- Instill aims to work with partners over a period of at least a year and its programs target long-term skills development in teachers and leadership. However, programs can be tailored for specific environments depending on the needs of each partner.

HOW IT WORKS

- **Hands-on training program:** Instill's program focuses on building proficiency through online, interactive sessions, practical training, and support in the classroom. Trainees spend over 50% of their time in the classroom teaching and building expertise through practice.
- **Customized program:** The training is designed according to the needs of partner schools, in order to help teacher trainees transition seamlessly into the classroom. Teachers are provided with content using technology-based platforms enabled through tablet devices, mobile phones, and computers.
- **Teacher training partnerships:** Instill also partners with global teacher training institutions to implement best practices. These partners have regular interactive sessions with Instill's trainers on successful teaching methods followed globally and their implementation in the African context. Instill hires trainers who have extensive classroom experience in African schools to ensure optimal contextualization of concepts and training materials.

KEY DRIVERS OF GROWTH

- **Shortfall of teachers in Sub-Saharan Africa:** To achieve Universal Primary Education, SSA needs 2.1 million new primary teachers, and to achieve Universal Lower Secondary Education, SSA needs 2.5 million new lower secondary teachers. This excludes the replacement teachers required due to attrition. Teacher training is therefore essential to address this gap.
- **Growth in low and mid-priced private schools:** Low-cost and mid-priced school models have started gaining traction in SSA due to growing demand and capacity constraints in the public sector, leading to an increased need for well-trained teachers.

FUTURE PLANS

- Instill is currently seeking accreditation as a private higher education institution and plans to deliver both pre- and in-service training across the continent.

MWABU

Education technology

KEY FACTS

Year established: 2015

User scale (learners): ~200,000

CEO: Justin Reilly

Started in: Zambia

Sector: Education technology

International reach: Launching in South Africa in 2017

Ownership: For-profit (unlisted)

Mwabu provides interactive e-learning content and resources to support primary school education in Africa.

PRODUCT OFFERING

- Mwabu's e-learning content for primary schools is based on the national curriculum.
- Students and teachers can access the content using solar-powered e-learning tablets. The learning material includes lesson plans supported by interactive activities designed to provide a unique learning experience.
- Mwabu offers three types of e-learning tablet variants for pupils, teachers, and home learners. They differ in terms of content: teacher variants have lessons, while the pupil variant contains interactive lessons.
- Mwabu also develops bespoke e-learning courses, which, to date, have ranged from health care to financial education to wildlife.
- The "Mwabu Academy" offers an intelligent interconnected network of teachers, learners, and parents to share good practices across borders. It also offers continued training for teachers, advisors, and trainers.

HOW IT WORKS

- **Revenue model:** Mwabu disseminates its e-learning content to users via tablets in partnership with hardware providers. Users pay $80 for the tablet, which is provided at cost, and $1 per student per year for the content.
- **Content development:** Mwabu creates lessons and interactive activities at a granular level and focuses on core subjects to keep content replication easy across different countries. This approach maintains 70% to 80% overlap in content across geographies.
- **Teacher training:** Mwabu's interactive application also helps in teacher training. There are built-in tips on effective delivery for each lesson. Teachers are also introduced to the Mwabu pedagogy during their training program. They are trained on the practical use of lesson plans and leveraging technology. In addition, they receive continued mentoring and support.

KEY DRIVERS OF GROWTH

- **Shortfall of teachers:** UNESCO predicts a shortfall of over two million primary teachers and 2.5 million lower secondary teachers in SSA by 2030. The region needs innovative teaching methods, including the shrewd application of technology in classrooms, to counterbalance this shortage.
- **Customized learning experience:** Interactive e-content is tailored for each student, based on ability to grasp concepts. This ensures equitable learning, especially where class sizes are large and learner needs differ.

– **Promotion of technology platforms in classrooms by governments:** Governments are increasingly recognizing the benefits of use of technology in classrooms and want to partner with technology platforms for effective teaching delivery.

FUTURE PLANS

– Mwabu aims to reach 100 million learners.

– Mwabu also plans to shift its content onto mobile devices and to provide data analytics to track learners' progress.

ENEZA EDUCATION

Education technology

KEY FACTS

Year established: 2012

CEO: Kago Kagichiri

Sector: Education technology

Ownership: For-profit (unlisted)

Students reached: ~1.7 million

Funding received: ~$1.5 million

Started in: Kenya

International reach: Ghana, Kenya, and Tanzania

Eneza Education offers an online learning platform for in-school and out-of-school learners in Africa.

PRODUCT OFFERING

– Eneza offers an interactive study tool for primary and secondary school students through three platforms: Short Messaging Service (SMS), Freebasics, and virtual content on smart devices.

– Moreover, Eneza also offers content for teacher training and development on these platforms.

– The service is priced keeping in mind the affordability levels in SSA. The cost of a weekly subscription on the SMS platform is $0.10, while the virtual portal "Mwalimoo" is priced at $10 per week.

HOW IT WORKS

– **B2C model:** Eneza is a fully realized B2C model that offers its product in collaboration with telecom providers. Partners include Safaricom (the largest telecommunications company in Kenya) and Tigo (in Tanzania).

– **Localized content:** All the content available on Eneza is based on the country's national curriculum and is customized based on the learner's needs and pace.

– **Mobile learning:** Quizzes are available on mobile phones, and students receive tips and mini lessons based on their answers. Teachers can also track students' performance on the Mwalimoo portal and provide support.

- **Target students:** Eneza targets students from all income groups, from the most to least affluent; ~30% of students who use Eneza are out of school and take their exams independently.

KEY DRIVERS OF GROWTH

- **Mobile phone penetration:** Eneza is able to target the "bottom of the pyramid" through leveraging mobile phones, which are widely used (over 85% of the Kenyan population owns one). Moreover, building in collection of fees by deducting money from mobile airtime makes payment simple.

- **Large student base:** Low-cost models like Eneza's can reach the vast number of students who are not enrolled in formal education system, as well as students in school who do not receive adequate classroom attention due to large class sizes and poor STRs.

- **Mobile connectivity:** Although mobile phone ownership is high in most African countries, connectivity is patchy and poor, thus limiting potential reach. Increased mobile connectivity would drive growth.

- **Regulatory environment:** Most governments have limited policy regarding regulating digital content, making it challenging to receive approvals efficiently. An improved regulatory environment would be a future key driver.

FUTURE PLANS

- Eneza plans to reach 50 million students and be present in all countries in Africa.

- Eneza also wants to develop its B2B channel to provide learning management solutions to school districts.

PREPCLASS

Supplementary education

KEY FACTS

Year established: 2014

Co-Founder: Obanor Chukwu-wezam

Sector: Supplementary education

Ownership: For-profit (unlisted)

User scale: ~1,500

Revenue scale ~$2 million

Reach: Nigeria

PrepClass is an online platform providing supplementary education by connecting home tutors to students in Nigeria.

PRODUCT OFFERING

- PrepClass connects parents with home tutors based on their preference of subjects and location through a dynamic database of tutor profiles. They are currently operational in the cities of Lagos and Abuja in Nigeria.
- In addition to core subjects, home tutors for specialized subjects such as keyboard learning, programming, and website design are also listed on PrepClass.
- In addition to providing physical after-school tutoring, PrepClass is building a mobile app that would allow their huge pool of over 20,000 tutors to create and upload lessons for students to access, study, ask questions, and receive direct feedback from tutors at a fraction of the cost of physical tutoring.

HOW IT WORKS

- **"Online marketplace for tutors" model:** With over 5,000 listings, PrepClass connects parents with tutors based on their preferences and makes a commission on each tutoring session.
- **Target market:** PrepClass charges $100 a month per tutor on average. Students going to private schools represent the target market for the platform because of better affordability and inadequate provision of after-school tutoring provided by private schools in Nigeria.
- **Tutor quality:** PrepClass provides ratings of tutors on its platform for parents. It also provides parents with feedback on their previous experience with tutors. Replacement of tutors is also possible if the performance of the tutor is unsatisfactory.

KEY DRIVERS OF GROWTH

- **Favorable demographics:** ~42% of the Nigerian population is aged 0-14 years and ~20% of the population is aged 15-24 years, indicating huge market potential for after-school tutoring and test preparation in Nigeria.
- **Increased adoption of private schooling in Nigeria:** Students going to private schools represent the target market for after-school tutoring. Due to low access and quality within the public system, the share of the private sector in K-12 has grown to ~25%, with ~9.7 million students, representing a huge addressable segment for supplementary education.
- **Competitive environment in entrance examination for tertiary education:** ~1.6 million students compete for 650,000 seats in Nigeria's university entrance examination (UTME), indicating a strong demand for test preparation providers in order to successfully compete in these exams.

FUTURE PLANS

- PrepClass aims to expand to other major cities in Nigeria.

LONGHORN PUBLISHERS

Publishing

KEY FACTS

Year established: 1965

Chairman: Francis T. Nyammo

Sector: Publishing

Ownership: For-profit (listed)

Revenue scale: ~$15 million

Reach: Kenya

International reach: Democratic Republic of Congo, Ethiopia, Malawi, Rwanda, Senegal, Tanzania, Uganda, Zambia, and Zimbabwe

Longhorn Publishers is the largest book publisher in East Africa.

PRODUCT OFFERING

- Longhorn's core business is publishing and distribution of educational and other publications. It has published over 1,200 books to date.
- It was the first publishing company to be listed on the Nairobi Securities Exchange.
- Incorporated as a subsidiary of the UK-based Longman Group, Longhorn is now fully owned by Kenyan nationals, with the majority stake owned by Centum Investment.

KEY STRENGTHS

- **Product diversity:** Longhorn publishes both textbook and non-textbook materials as part of its product portfolio. It releases general publications under the Sasa Sema brand, which includes reference books, creative works, biographies, and general knowledge books.
- **Multi-regional reach:** Its expansion to nine countries has brought down costs by helping Longhorn achieve economies of scale.
- **Digital publishing:** Over 80% of Longhorn's published material is available in digital format. While the digital content market is still nascent, it continues to grow

KEY DRIVERS OF GROWTH

- **Shortfall in meeting the SDG targets:** Textbooks are recognized as core Sustainable Development Goal related to providing inclusive and effective learning environments for all. Most countries in SSA fall short of the recommended pupil to textbook ratio of 1:1. This issue is more acute at the secondary level. Against this backdrop, there is potential for growth and innovation in publishing.
- **Curriculum reforms requiring new textbooks:** In recent years, a number of efforts for large-scale curriculum reforms have been attempted in SSA or are about to be attempted. This would lead to an upsurge in demand for books, creating new opportunities for publishing providers.
- **Demand for post-secondary educational material:** The post-secondary education sector does not have as many titles as school education. This is a rapidly growing market due to improving GERs, and it presents an opportunity for publishers.

CHALLENGES

- **Tax structure on books:** Kenya and a few other countries charge value-added tax on the sale of books. Exemptions on taxation would improve the affordability of educational materials and add to the growth of the publishing industry.
- **Piracy:** Publishing companies lose a large share of potential revenue due to piracy in SSA. Governments need to introduce strict laws, as current intellectual property laws do not penalize offenders adequately.

BRIGHTER INVESTMENT

Student finance

KEY FACTS

Year established: 2014

CEO: Thijs Mathot

Sector: Student finance

Ownership: For-profit (unlisted)

User scale: 74

Funding scale ~$210,000

Reach: Ghana

Brighter Investment is a nascent model that provides higher education finance to students with an income-based repayment model.

PRODUCT OFFERING

- Brighter Investment sanctions student loans to cover the cost of higher education.
- It identifies high-potential students from its applicant pool who are pursuing higher education and then sanctions a loan, which covers tuition fees and an allowance for living expenses, books, and other related costs.
- Brighter Investment monitors the academic progress of these students in collaboration with the students' universities.
- Once employed, students are required to repay a fixed percentage of their income every month. The typical duration of repayment is set at six years.

HOW IT WORKS

- **Revenue model:** Brighter Investment pools and invests funds received from individual and institutional investors. The returns generated by investors are directly linked to the loan repayment, and average rate of return is currently almost 10% per annum. Brighter Investment deducts a management fee on the investments.
- **Identifying "high potential" students:**
  - Brighter Investment has developed a unique algorithm, which assesses students' career potential, in order to determine their ability to repay.
  - This algorithm considers factors such as academic performance and financial situation.
  - Moreover, the type of educational program being pursued is taken into consideration. The motive is to invest in programs that are high in demand by employers and have demonstrated average income levels to ensure predictable returns.

KEY DRIVERS OF GROWTH

- **Rising demand for higher education:** As the demand for tertiary education increases, student finance must become a core part of the education ecosystem.
- **Lack of financing options:** The market for student finance is underdeveloped in SSA due to lack of credit rating systems. Most students from a poor background do not even have access to bank loans because they lack the needed collateral. Informal sources often dry up after the first one or two years of university.
- **Unique repayment model:** Brighter Investment's "pay after you earn" model makes it more accessible to students than traditional loans. It also reduces the effect of inflation on investor returns, as this gets factored in wage increments.

FUTURE PLANS

- In 2017, Brighter Investment expects to raise $650,000 and accept 360 new students into the program.
- Brighter Investment intends to expand to other developing countries after 2018.

IDP RISING SCHOOLS PROGRAM

IDP Rising Schools Program

Institutional finance

KEY FACTS

Year established: 2009

Executive director: Allison Rohner

Sector: Institutional finance

Ownership: For-profit (unlisted)

User scale: ~132,000

Loans disbursed: ~$1.2 million

Reach: Ghana

The IDP Rising Schools Program is an initiative of IDP Foundation that provides credit to low-cost private schools, along with training support on school and financial management.

PRODUCT OFFERING

- The IDP Rising Schools Program (IDPRSP) is a partnership between the IDP Foundation and Sinapi Aba Trust, the largest microfinance institution in Ghana.
- IDPRSP provides microfinance to low-cost private schools for infrastructure development, vehicle acquisition, and working capital management. The majority of these low-cost schools charge a tuition fee of $85 (GHS 402) annually or less.
- The proprietors of recipient schools also receive training on financial and school management. The program also provides assistance in the school registration process with Ghana Education Service, as about 20% of schools are not registered at the time of loan sanctioning.

HOW IT WORKS

- **Loan sanctioning:** Loan officers at the Sinapi Aba Trust reach out to target schools through orientation programs regularly held across Ghana. Proprietors are educated about the benefits of the program, submit an application, and then undergo a thorough due diligence of their loan application. As a result of this diligence process, IDPRSP has a loan repayment rate of around 91%.
- **Proprietor training:** Borrowers are provided training, which includes nine modules spread across nine weeks. The training focuses on topics such as accounting, community relations, and human resources management. The cost of the training is factored into the loan product provided to the schools, and interest rates offered are below market rate. Nearly 560 schools have completed the IDPRSP training program.
- **Demonstrated benefits:** Schools enrolled under IDPRSP have demonstrated improvements in enrollment and infrastructure. These schools have added ~1.8 classrooms on average in the year after taking a loan and have witnessed average enrollment growth of about 16.5%.

KEY DRIVERS OF GROWTH

- **Increased participation of private sector in primary education:** The number of private primary schools increased by more than 46% between 2009 and 2015 in Ghana. Enrollment rates in private schools have also increased, from 18% to 25% of total primary enrollment due to the increase in number of low-cost private schools.
- **Demand for credit in low-cost schools:** It is estimated that Ghana has over 6,000 low-cost private schools; IDPRSP meets about 10% of potential demand. These schools do not have access to institutional financing, indicating market demand.

FUTURE PLANS

- IDPRSP aims to work in collaboration with the Ghanaian Government to ensure effective implementation of policies for low-cost private schools.
- It also aims to reach 150,000 students by July 2017.

ANNEX II
COUNTRY REPORTS

REPUBLIC OF SOUTH AFRICA

The Republic of South Africa (RSA) is the largest economy in SSA, comprising almost 20% of Sub-Saharan Africa's GDP,[144] with the highest GDP per capita. RSA accounts for 20% of the region's GDP.

KEY FACTS

GDP: $315 billion (2015)[145]

GDP per capita (constant): $7,593[146]

Five-year GDP growth forecast: 2%[147]

Population: 55 million[148]

Population growth: 1.5%[149]

Population under 25: 26 million[150]

Main industries
Finance and Business Services (25%)
Manufacturing (15%)
Government Services (15%)[151]

Corruption Perception Index Score: 45[152]

Ease of Doing Business Ranking: 74[153]

Key languages: Zulu, Xhosa, Afrikaans, English

EDUCATION LANDSCAPE

COUNTRY CONTEXT

South Africa's economy is largely driven by service sectors which account for nearly 70%[154] of GDP. Despite a recent slowdown in growth, it remains the region's powerhouse and is one of seven upper-middle-income economies in the region.[155] However, it is also the world's most unequal country: in 2016 10% of the population controlled 90% of its wealth.[156]

EDUCATION CONTEXT

After apartheid ended in 1991, South Africa focused on providing large-scale access to free education. The resulting public system is among the continent's largest, with the Government spending nearly 20% of the budget on education.[157] About 60% of this is allocated to K-12, while about 25% is allocated to higher education,[158] reflected in GERs of 96% and 84% for primary and secondary, respectively, with tertiary at 20%.[159]

CORE EDUCATION

Pre-primary education in South Africa, pre-primary education consists of two years, comprising grades pre-R and R. Grade R is compulsory, but the Government seeks to make two years of pre-primary compulsory. Public provision of Grade R has an enrollment share of 95%, but the private sector is growing faster.[160] Pre-R provision is typically provided by stand-alone community-based centers.

K-12 education reflects the country's income disparity. Public schools are grouped into quintiles, with the first three having no fees and enrolling nearly 80% of all students; government spending is about $1,000 per student at quintile 1-3 schools. These are poorer, lower-performing institutions than quintile 4 and 5 schools, which are priced higher and offer quality comparable to high-quality private schools. South Africa is consistently ranked among the last countries in TIMSS[161] and SACMEQ[162] rankings, but disparities between quintiles of schools are significant (see figure 33). Private education with fees greater than $2,000 is typically inaccessible to all but ~5% of the population[163] and is restricted to wealthy regions, such as the Gauteng Province, which accounts for 45% of all private K-12 provision in South Africa.[164] Roughly 6% of private K-12 share comprises unregistered schools.[165]

Higher education in South Africa is supply constrained, with an applicant to seat ratio of more than three to one at public institutions.[166] Though four of the country's public universities are in the global top 500[167], many struggle to deliver high-quality education, particularly with decreasing government funding per student.[168] Public university dropout rates are over 50% during the first year of study,[169] compared to private institution rates of 10%,[170] in part due to the availability of better student support systems at private institutions. Though the share of private higher education is only 13%,[171] private enrollments are growing much faster (at 8%) than public enrollments (at 1%).[172] Distance education is a growing trend in South Africa, due to greater affordability and flexibility for working professionals. The private distance education market is growing at 8% (see figure 34).[173]

TVET is experiencing increased focus and the Department of Higher Education and Training (DHET) plans to increase enrollment from 800,000 to three million by 2030.[174] The government has also set up the Sector Education Training Authorities (SETA), which coordinate skills development across sectors and receive funding through a 1% skill levy on the payroll of companies under their purview.[175] In practice, SETAs have been dysfunctional and inefficient in utilizing funds, according to industry participants.[176] The private TVET market is growing at 21% (from 2011–13),[177] though it is highly fragmented.

THOUGH THE SHARE OF PRIVATE HIGHER EDUCATION IS ONLY 13%, PRIVATE ENROLLMENTS ARE GROWING MUCH FASTER THAN PUBLIC ENROLLMENTS (8% VERSUS 1%).

ANCILLARY SERVICES

Teacher training faces supply challenges. South Africa requires an additional 100,000 teachers to reach an STR of 24:1 in public K-12 (currently at 31:1).[178] Moreover, growing demand for private schools is driving demand for more high-quality teachers. There is limited and low-quality provision in pre-service and in-service training, according to industry participants. Private provision of teacher training is growing, though few providers have achieved scale.

Supplementary education is in demand, driven by perceived low quality in public education. Multiple private after-school tutoring models have emerged. Kumon, a Japanese tutoring company, has 250 centers in South Africa and over 12,000 students, but otherwise the market is highly fragmented.

Student finance is largely provided through a public National Student Financial Aid Scheme (NSFAS) for public tertiary institutions. These loans and bursaries only cover 20% of all students[179] and have a default rate of 90%.[180] Some private-scale providers of student finance, such as Fundi (formerly Eduloan, 850,000 loans since 1996), are active in providing loans to students ineligible for NSFAS.

FIGURE 31: KEY EDUCATION FIGURES

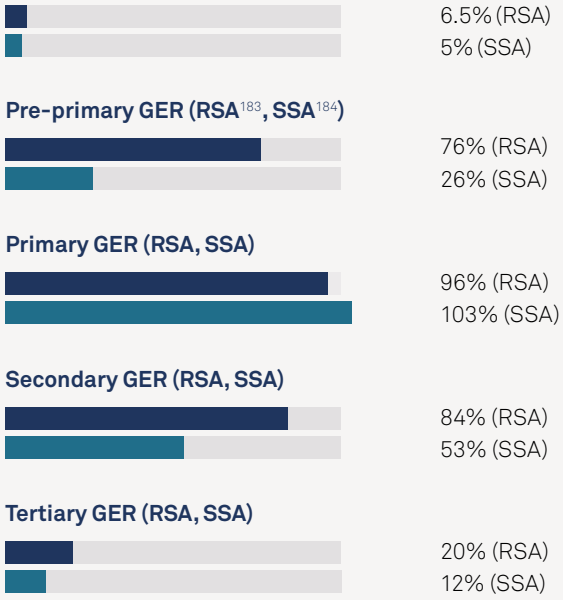


FIGURE 32: CURRENT ROLE OF THE PRIVATE SECTOR

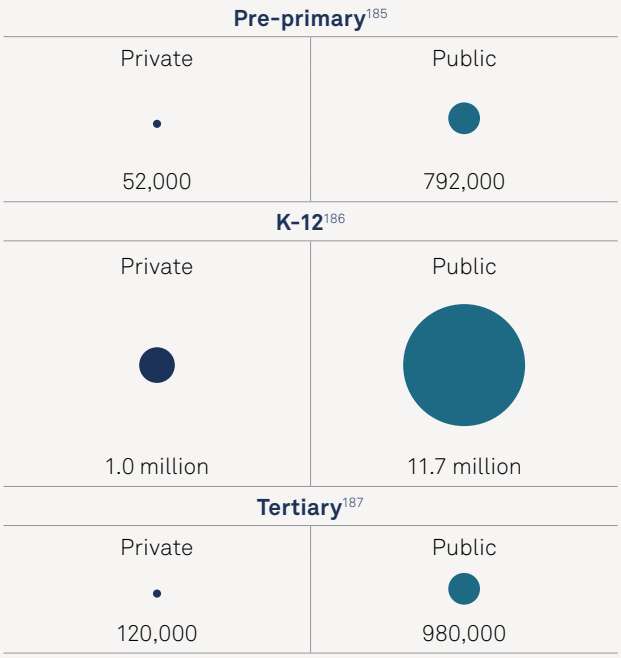


FIGURE 33: TIMMS 2011 ACHIEVMENT SCORES FOR 9TH GRADE STUDENTS, BY SCHOOL QUINTILE[188]

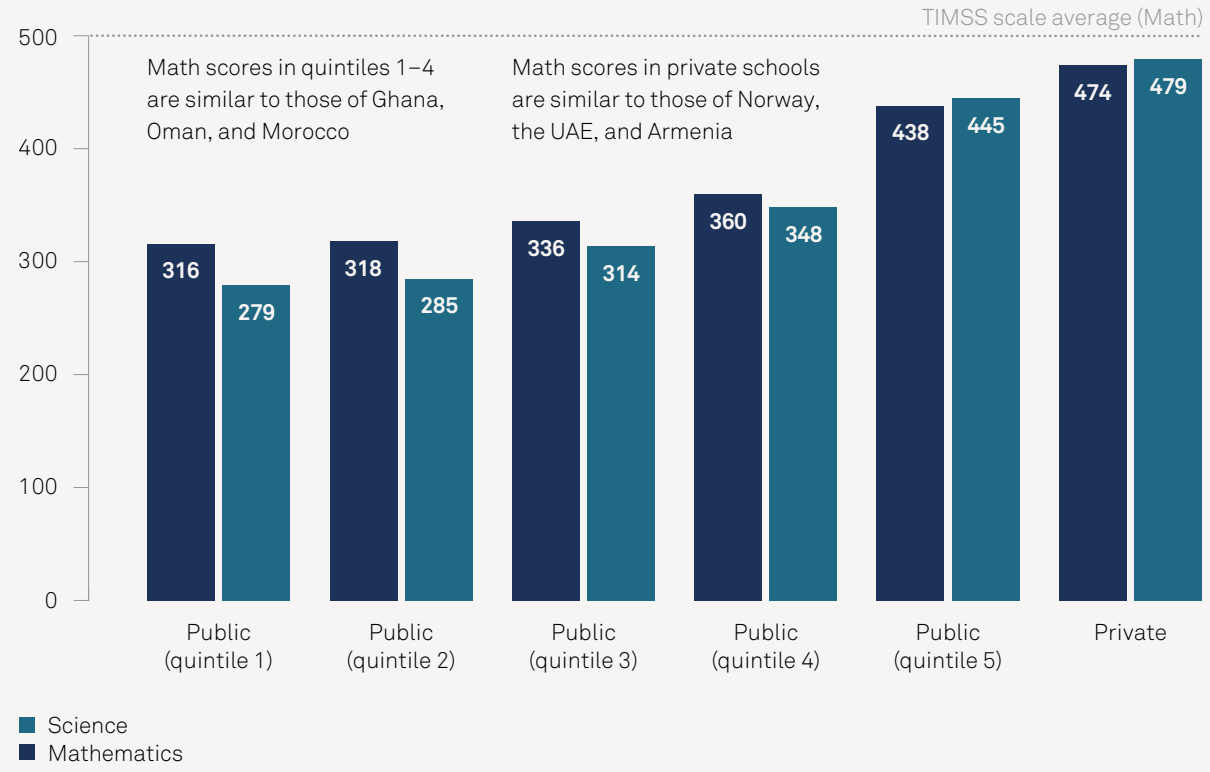
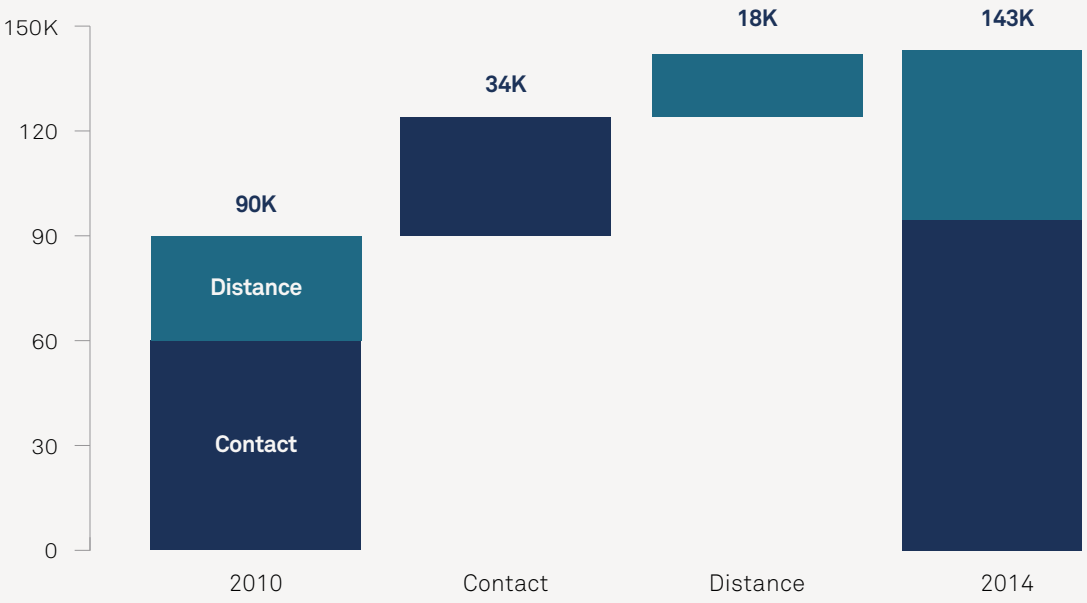


FIGURE 34: SOUTH AFRICA PRIVATE HIGHER EDUCATION ENROLLMENTS, CONTACT VS. DISTANCE, 2010–2014[189]



Share of incremental enrollments		65%	35%	
% Distance	67%			66%

POLICY AND REGULATORY LANDSCAPE

1. **Policy in South Africa is supportive of private education.** For-profit operations and foreign ownership are allowed across all education segments, though having local ownership aids in getting government contracts.

2. **Pre-primary operators cite challenges in complying with quality and safety requirements.**[190]

3. **Private schools can choose their own curriculum, can be for-profit or not-for-profit, and must meet requirements for provincial registration to be legal.** For private not-for-profit registered schools, provincial government subsidies of up to 60% of the Provincial Average Estimate (of cost) per Learner (PAEPL) in a public school are available. The subsidy is awarded on a sliding scale (15-60%) according to the fee level of the school. Schools have to meet strict quality criteria, apply for a subsidy annually, and submit audited financial statements.[191] Some 15% of all schools are for-profit.[192]

4. **All private higher education institutions must register for a license with the DHET and have courses accredited by CHE; completing these processes can take up to two years in total.**[193] Accreditation can cost as much as ~$23,000 (R 300,000) for a single course.[194] Although it is easier for an existing provider to add a new campus[195] than a new course, it still takes two years to accredit the new campus. For a new provider, these processes take even longer.

5. **Public schools are evaluated through the Whole School Evaluation (WSE) framework and private schools are accredited by Umalusi (the statutory quality assurance body) through a comprehensive, rigorous, and costly process.** Though WSE evaluations should occur every two years, in practice, government capacity constraints have limited their frequency. Failure of private schools to qualify for accreditation can result in loss of provincial registration.[196]

6. **Foreign providers cannot award degrees in South Africa without being registered and having all courses accredited locally.**

POLICY IMPERATIVES

1. Improve operational efficiency in registration, licensing, and accreditation to encourage unregistered schools to register; consider more stringent enforcement of regulations to bring non-formal schools into the fold.

2. Increase partnerships between public schools and private operators to improve management and quality at public schools. Currently, this collaborative-schools model is only being implemented in the Western Cape region, where South Africa Collaboration Schools, started by Ark (private) are operating five public schools.

3. Address land and urban infrastructure challenges for private higher education providers by encouraging partnerships between public and private universities for shared facilities. This may be particularly beneficial in increasing provision of infrastructure-heavy STEM courses.

4. Prioritize enabling an ecosystem for student finance.

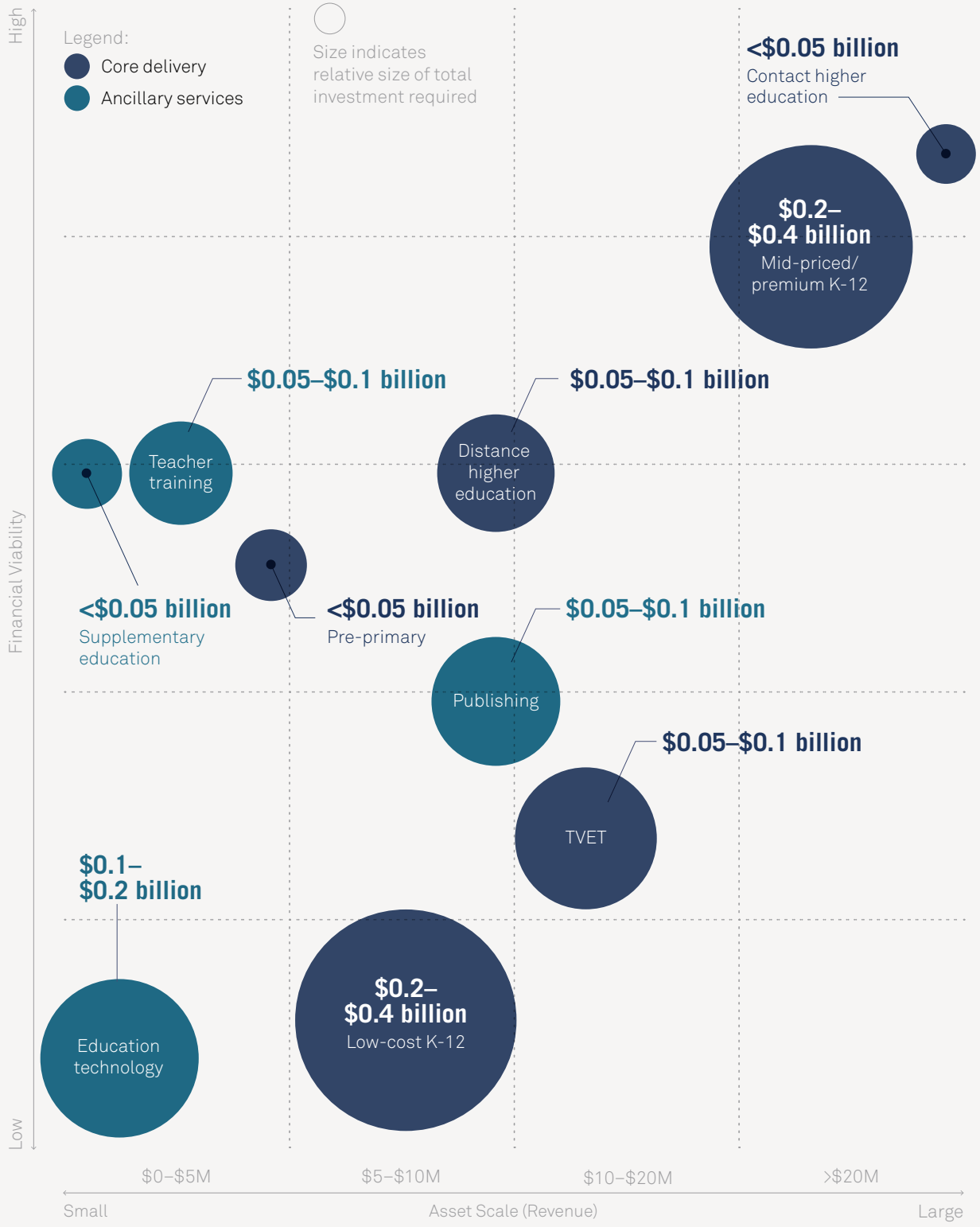
5. Publish results of WSE inspections for public all schools on an accessible platform to help inform parent preferences and to incentivize higher-quality provision.

TABLE 19: POLICY AND REGULATORY LANDSCAPE[197]

	Pre-K	K-12	Higher education	TVET
LICENSING				
Governing body	– Department of Social Development (DSD) – Department of Basic Education	– Department of Basic Education (Provincial) – Umalusi (the statutory quality assurance body)	– Department of Higher Education and Training (DHET) – Council for Higher Education (CHE) – South Africa Qualifications Authority (SAQA)	– Department of Higher Education and Training (DHET) – Umalusi (the statutory quality assurance body)
Duration	1-2 years	~2 years	~2 years	6 months for registration
OPERATIONS				
Enrollment growth	No restrictions	No restrictions	No restrictions	No restrictions
Curriculum	No restrictions	No restrictions	No restrictions	No restrictions
Teachers/faculty	Teachers must be qualified and registered with South Africa Council of Educators (SACE)	Teachers must be qualified and registered with South Africa Council of Educators (SACE)	Professors must have a PhD qualification	Teachers must be qualified and registered with South Africa Council of Educators (SACE)
INVESTMENT				
For-profit operations	– Allowed – Not-for-profits can apply to the Department of Social Development for subsidies	– Allowed – Grade 1-12 schools are eligible for subsidies from provincial education departments provided their fees are below 2.5x the PAEPL	– Allowed	– Allowed
Foreign ownership	100% allowed	100% allowed	100% allowed	100% allowed

THE OPPORTUNITY

FIGURE 35: INVESTMENT OPPORTUNITIES IN SOUTH AFRICA



Approximately $1.3–$1.5 billion of private investment is estimated in the next five years in South Africa.[198]

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Consolidation opportunity in fragmented pre-primary segment for commercial investors, impact investors, and donors:** There is an opportunity for commercial investors to consolidate pre-primary centers and provide standardization. South Africa has about 7,000 private nurseries, but just a few prominent chains, including Smiley Kids Association (35 centers). Ikageng Creche And PreSchool (130 centers), ADvTECH's Junior Colleges Pre-school Group (seven centers), and Curro Castles (15 branches). Consolidation would allow new chains to synergize and lower corporate costs, leading to improved student acquisition and pricing. Impact investors and donors can also support social enterprises, such as SmartStart, a not-for-profit serving the bottom 40% of income groups. This provider uses a micro-franchising model for pre-primary schools and plans to have ~3,000 franchisees of playgroup facilitators and child minders that would reach ~60,000 children by 2018. Donors include DG Murray Trust, Yellowwoods Investments, and The ELMA Foundation.

2. **Greenfield expansion of for-profit low-cost K-12 (annual fee less than $2,000) for commercial and impact investors:** South Africa's burgeoning middle class (see figure 36) has driven demand for schools in this segment, presenting an opportunity for commercial and impact investors. About 12 million students form this segment's addressable market.[199] At less than 5%, the current penetration presents scope for greenfield opportunities.

   For-profit models that use innovative methods to lower costs have emerged in this space. The scale of these initiatives has yet to be demonstrated, though many have aggressive expansion plans. Examples include:

   a) **SPARK Schools**, founded in 2012, has expanded to 11 sites. It lowers costs by hiring high-talent fresh graduates and blending traditional teaching with Edtech. Business functions and curriculum development are provided by its parent company, eAdvance. SPARK Schools currently operates at a fee point of $1,200 and breaks even at 70% capacity utilization, with 300–400 students per school. SPARK Schools are perceived by parents as better in quality than higher-priced public schools, making it an attractive alternative for middle-class parents.

   b) **Pioneer Academies** has three schools in Johannesburg at a fee point of $2,000. The schools are able to lower costs by avoiding expensive investments in school infrastructure, such as football fields (and instead use shared facilities for which they pay rent).

3. **Donor support for not-for-profit low-cost K-12:** A significant proportion of South African students cannot afford schools with annual fees over $2,000. The addressable market expands nearly six times as one moves down the income segment from a $2,000 to $500 price point cut-off (see figure 37).[200] There is an opportunity for donors to support not-for-profit low-cost schools e.g. through assistance in accessing land and premises, expansion to achieve economies of scale, support with access to finance, or, if unregistered, support to meet registration, quality, and subsidy requirements.

   One example is LEAP Science & Maths Schools (LEAP), a private not-for-profit offering free education to disadvantaged students, who only pay $400–$500 annually toward transport and uniforms. LEAP has expanded to six schools, enrolling about 1,500 students. The model is funded by donors such as The ELMA Foundation and the Michael & Susan Dell Foundation.

4. **Greenfield expansion of the contact higher education segment for commercial investors:** Given South Africa's significant higher education supply gap, commercial investors have opportunities to expand provision in both the premium and mid-priced higher segments. In the premium segment, private providers achieved annual revenues as

high as $30 million (see figure 38). Premium private provision can also be expanded to offer more courses oriented toward employability, such as engineering. The mid-priced market for private higher education also presents an opportunity for investors, given significant demand for affordable private higher education in central business districts. ADvTECH's Rosebank College, Educor's Damelin brand, Boston City Campus & Business College, and Richfield Graduate Institute of Technology are some examples of institutes that have achieved scale in this segment.

5. **Development of distance higher education in Africa for commercial investors:** There is a commercial investor opportunity to expand distance education in South Africa. Technology-enabled blended learning can also enable existing higher education institutions to improve scalability. Currently, IMM is the biggest private provider of distance education in the premium segment while Management College of Southern Africa (MANCOSA) and Milpark Education are the biggest mid-priced providers. Global education companies, such as Apollo Education Group, have invested in Milpark Education. IMM Graduate School of Marketing IMM is the biggest private provider of distance education in the premium segment. This private, for-profit provider was established in 1948 and offers marketing, business, and supply chain management courses. South African growth investor Lereko Metier Capital Growth Fund acquired IMM in 2013.

6. **Consolidation of technical and vocational education segment for commercial investors:** The TVET market is fragmented, with small providers operating one to three campuses and only a few courses offered per campus.[201] Boston City Campus & Business College and Educor's Damelin are the largest TVET providers and account for only 7%–8% of the market.[202] This presents a significant opportunity for commercial investors to consolidate TVET provision.

BLENDED LEARNING CAN ENABLE EXISTING HIGHER EDUCATION INSTITUTIONS TO IMPROVE SCALABILITY.

FIGURE 36: SIZE OF MIDDLE CLASS POPULATION (WITH A MONTHLY INCOME BETWEEN $1,550 AND $4,800)[203]

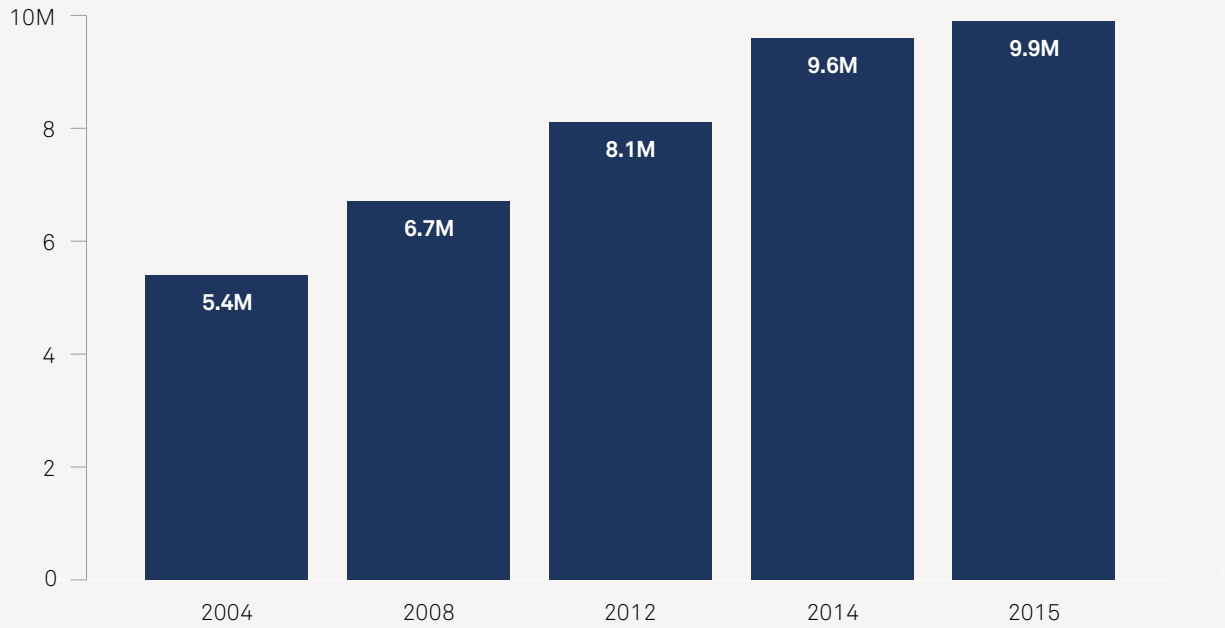
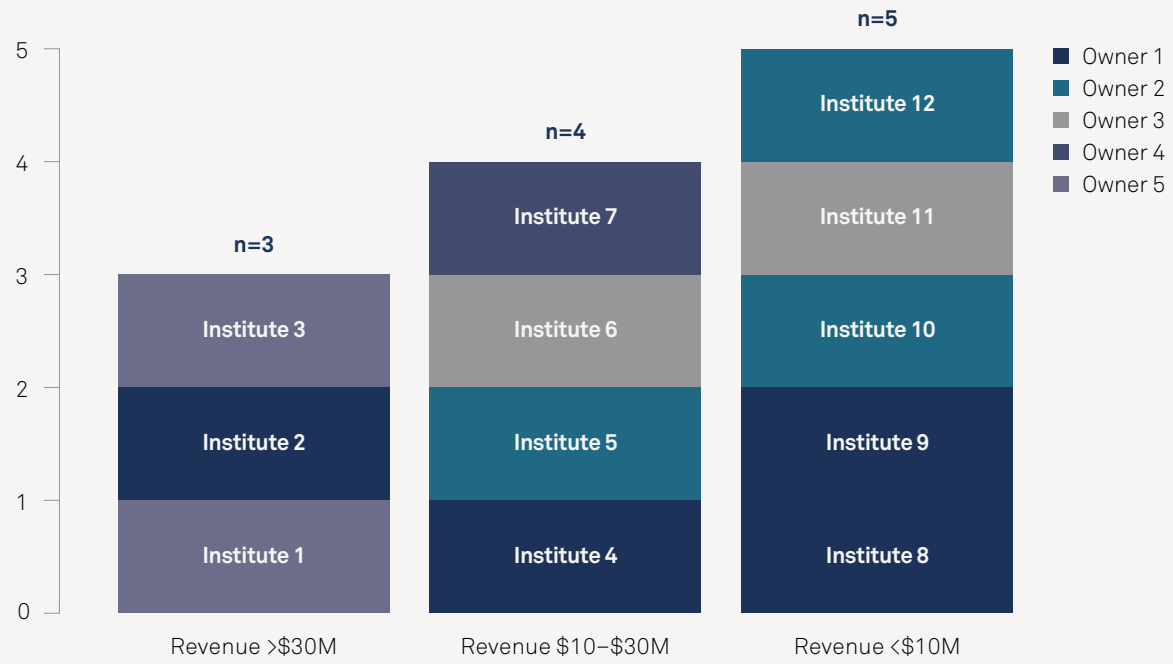


FIGURE 37: DISTRIBUTION OF SOUTH AFRICAN POPULATION BY SCHOOL FEES AFFORDABILITY[204]

FIGURE 38: KEY PRIVATE CONTACT HIGHER EDUCATION INSTITUTIONS, 2014[205]



CORE: ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Consolidation of the premium K-12 segment (annual fee greater than $2,000) for commercial investors:** 40% of the people who can afford premium schools are enrolled in them,[206] indicating organic growth opportunities. Some opportunities exist for consolidation by commercial investors, though 90% of private schools are not-for-profit.[207] Among for-profit schools, large providers such as Curro, ADvTECH, and Reddam House have consolidated 60% of the available market.[208] Moreover, school chains have seen a recent and substantial uptake across SSA, but South Africa is the only country in the region where two chains, ADvTECH and Curro, are owned by public corporations listed on the Johannesburg Stock Exchange.

2. **Consolidation of low-cost unregistered schools segment for impact investors:** There are many unregistered schools in South Africa; exact figures are unknown. It is costly and time-consuming to comply with government regulations, presenting an opportunity for impact investors to consolidate and register these schools, promoting standardization.

3. **Consolidation of higher education market for commercial investors The private higher education market in South Africa is appraised at $360 million[209]:** This market is fairly consolidated, with 12 private providers accounting for about 70% of total private enrollments.[210] Although limited, there is further opportunity for commercial investors to consolidate this segment.

4. **Opportunity for global higher education companies to launch African operations using South Africa as a base:** There is an opportunity for global higher education companies to enter the African market by acquiring large South Africa-based chains or smaller providers, and then expanding into other parts of Africa. Demonstrated examples of this approach include: Laureate International Universities (Monash South Africa), Pearson (CTI Education Group), and Apollo Education Group (Milpark Education).

5. **Greenfield expansion of traditional technical and vocational education for commercial investors** There is an opportunity for commercial investors to address the high demand for skilled labor in South Africa by establishing traditional TVET institutions.

ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Development of student finance for commercial and impact investors through greenfield expansion and expansion of existing programs:** With demand for tertiary education growing, limited government student finance coverage, and risks associated with education loans, commercial investors and impact investors have opportunities to expand access to finance through innovative models. One example of an innovative student finance model is Fundi, formerly Eduloan, one of the leading privately funded providers of student loans in South Africa, which has assisted over 850,000 students with over $340 million in funding since 1996.

2. **Greenfield expansion of teacher training for commercial and impact investors:** Demand for high-quality teaching is increasing as private K-12 provision grows. Both commercial and impact investors have the opportunity to establish pre-service and in-service training provision or invest in existing providers. Instill Education (Instill) and Embury Institute for Teacher Education (Embury) are examples of emerging teacher training providers.

a) **Instill** is a for-profit service that was established in 2015 in Johannesburg. It provides pre-service and in-service teacher training to low-cost schools (SPARK Schools, Streetlight Schools, and Nova Schools). It has two campuses in Johannesburg and plans to open campuses in Durban and Cape Town as well. Instill is currently in the process ofgetting accreditation to offer higher education degrees for teachers and has the capacity to train 300–400 teachers per campus.

b) **Embury** is a professional development education provider based in KwaZulu-Natal. Through its two campuses, it provides full-time and distance learning qualification courses across multiple teaching levels, in addition to short CPTD courses. Curro acquired a 100% stake in Embury in 2013. The company plans to open two more campuses in Midrand and Western Cape by 2019.

c) **The Programme to Improve Learning Outcomes** (PILO) works in partnership with the National Education Collaboration Trust (NECT) in 1,200 public schools in KwaZulu-Natal. It provides school management teams with supportive tools and training to improve curriculum coverage. This has already improved routine management practices of participating schools.

ANCILLARY: ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Impact investor and donor support for models that provide corporate sponsorship-based short courses:** Employers have a growing need for skilled labor. This provides opportunities for impact investors and donors to offer specifically industry-related courses and also to tie up with industry players to train existing employees. Examples of this include Omidyar Network-backed RLabs, which offer free skills development training to young people while generating revenue from a corporate training practice. Other examples include Harambee Youth Employment Accelerator and GetSmarter.

2. **Greenfield expansion and consolidation of tutoring segment for commercial investors:** South Africa's growing demand for high-quality education has increased the demand for after-school tutoring models. There are both greenfield and consolidation opportunities for commercial investors in this highly fragmented segment. Several models have evolved to address this segment, including IkamvaYouth and Brighter Futures Tuition.

NIGERIA

Nigeria is among the largest economies in Africa, though growth is forecast to slow due to dependence on international oil and commodities prices. It is expected to become the third most populous country in the world by 2050, but faces high levels of regional and gender disparity and high unemployment rates.

KEY FACTS

GDP: $302 billion (2016)[211]

GDP per capita (constant): $1,616[212]

Five-year GDP growth forecast: 1%–2% YoY[213]

Population: 187 million[214]

Population growth: 2.7%[215]

Population under 25: 118 million[216]

Main industries
Agriculture (21%)
Trade (19%),
I.T. (11%)
Manufacturing (10%)[217]

Corruption Perception Index Score: 28[218]

Ease of Doing Business Ranking: 169[219]

Key languages: English, Yoruba, Igbo, Hausa

EDUCATION LANDSCAPE

COUNTRY CONTEXT

Nigeria is among the largest economies in Africa, but in 2016 growth forecasts were downgraded from 5% to 2%[220] due to the 2014 oil price crash, concurrent contraction in the manufacturing and financial sectors, rising inflation, a rising budget deficit, and a shortage of foreign reserves. Nigeria is expected to become the third most populous country in the world by 2050,[221] with a strong demographic dividend opportunity. However, high levels of regional income disparity, gender inequality (38% of women versus 21% of men lack formal education),[222] and youth unemployment (50% in 2015)[223] pose challenges.

EDUCATION CONTEXT

Nigeria's school-age population is forecast to grow at 2.5% annually to 84 million by 2021,[224] and the country is home to 11.4 million out-of-school children.[225] Although the education market presents a significant demand-side opportunity going forward, political and economic stability, combined with infrastructural development, are essential to unlocking growth potential. In a move to overhaul the education system, the President removed heads of 17 major education agencies in August 2016.[226]

CORE EDUCATION

Pre-primary education

All public schools are now mandated to offer one year of pre-primary education, which drove public enrollments from 1.8 million to 3 million from 2009–2013.[227] However, pre-primary GER remains low (30%–35%),[228] and the public sector struggles with low funding, teacher shortages, inadequate monitoring, and low parent awareness. With public capacity constraints, private provision for pre-primary has grown.

K-12

Private provision of primary education in Nigeria has been spurred by capacity constraints in the public sector, where the number of primary schools decreased from 67,000 in 2010 to 62,000 in 2014.[229] Although Nigeria has achieved high levels of primary enrollment, secondary enrollment has remained low. Between 2010 and 2014, the number of public junior secondary schools declined by 40% to 11,874,[230] driving further public capacity constraints. Share of private enrollment was nearly 60% in Lagos State in 2014,[231] where as many as 1,000 small unregistered private schools open each year,[232] with an estimated 18,000 such schools currently operating.[233] Within the private sector, the mid-priced to premium (greater than $1,000) segment accounts for only 2% of the total share of private enrollments.[234]

Higher education

Higher education in Nigeria is severely capacity constrained: ~1.6 million students appear for the Unified Tertiary Matriculation Examination (UTME), competing for ~650,000 university and TVET places (see figure 41)[235]; many sit for the exam three to four years in a row.[236] Nigeria sends 71,000 students abroad,[237] the highest figure in SSA. Many also enroll in online courses such as University of Liverpool Online Programs (in partnership with Laureate Online Education), but there are currently no private universities approved for distance programs and the

National Universities Commission (NUC) maintains that online foreign university degrees are not recognized in Nigeria. The National Open University of Nigeria (NOUN) enrolls 150,000 distance students,[238] with eight other public universities approved to offer distance programs.[239] The private higher education sector has seen growth in the last five years, with the emergence of 20 new private universities.[240] However, most remain small and average scale is 2,500 enrollments.[241] Growth has been tempered by high infrastructure and financial requirements, coupled with low affordability of private higher education for most Nigerians.

Private TVET

Provision in this segment has grown to 18% of market share,[242] largely due to public capacity constraints. The introduction of private Innovative Enterprise Institutions (IEIs) and Vocational Enterprise Institutions (VEIs) in 2008, offering specialized courses in a smaller setting, also contributed to boosting private market share; 147 are currently in operation.[243] The private TVET market is highly fragmented, comprising small providers (many unregistered) with an average enrollment of 1,000.[244]

ANCILLARY SERVICES

Teacher training

There are ~150 public and private Colleges of Excellence (CoEs) offering the Nigerian Certificate in Education (NCE) qualification (minimum primary teacher requirement), 57 of which are private. Nigeria has an acute shortage of teachers and will require 400,000 more primary school teachers between 2012 and 2030.[245] However, high regulatory barriers limit the growth of new CoEs, and the market remains highly fragmented. Quality is also a challenge; only ~65% of current primary school teachers have the minimum qualifications.[246]

Supplementary education

The tutoring and test prep markets are largely offline and highly fragmented with no providers operating at scale. A few small-scale, tech-based test prep providers have emerged, but widespread adoption faces challenges in poor infrastructure and low broadband penetration (13%).[247]

Student finance

In this nascent sector in Nigeria, most lending occurs through banks that offer short-term loans (one to two years) and high interest rates (~25%).[248] Despite the huge demand for financing, limited private participation exists.

> **NIGERIA HAS AN ACUTE SHORTAGE OF TEACHERS AND WILL REQUIRE 400,000 MORE PRIMARY SCHOOL TEACHERS BETWEEN 2012 AND 2030.**

FIGURE 39: KEY EDUCATION FIGURES

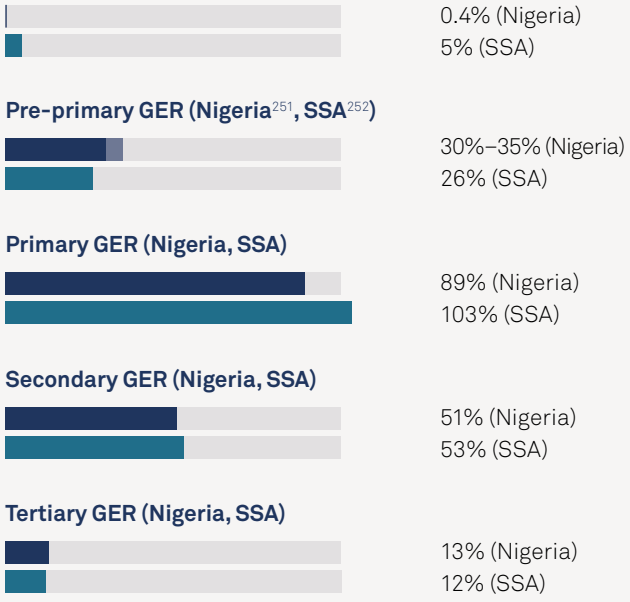


FIGURE 40: CURRENT ROLE OF THE PRIVATE SECTOR

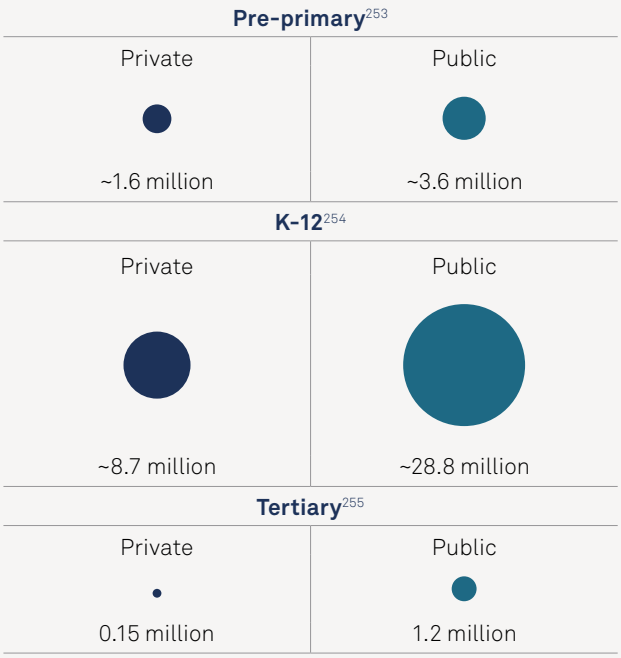
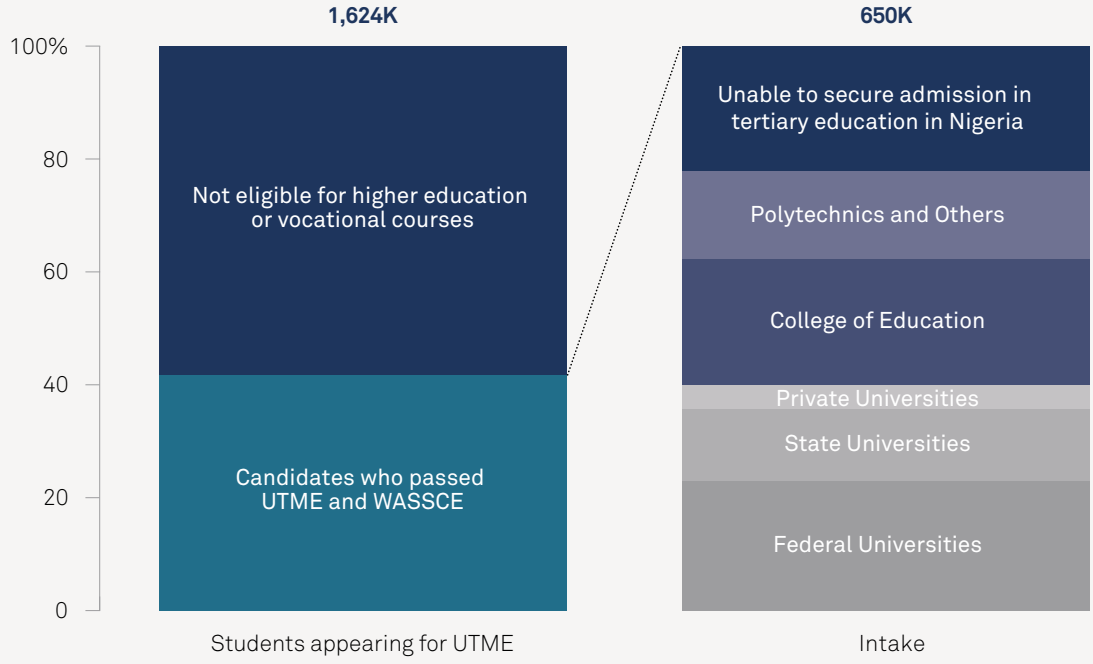


FIGURE 41: ESTIMATED ADMISSION INTAKES FOR HIGHER EDUCATION AND TVET IN NIGERIA, 2014–2015[256]



POLICY AND REGULATORY LANDSCAPE

1. **Education falls under the legal purview of both federal, state, and local governments.** State and local governments manage basic, secondary, adult, and non-formal education, in consultation with the federal government. Higher education is exclusively managed by the federal government.

2. **The Nigerian Government has shown a commitment to harnessing the private sector.** This has primarily been through the Systems Approach for Better Education Results – Engaging the Private Sector (SABER–EPS)[257] and Developing Effective Private Education Nigeria (DEEPEN)[258] collaborations, whose recommendations were taken into consideration in the formulation of policies regarding the private sector.

3. **Overall, private sector regulations for investment and operations are transparent and relatively favorable.** However, the initial licensing requirements and processes relating to land and infrastructure are time consuming and expensive, with multiple permissions required. Schools must obtain approvals from the Ministries of Land, Planning, and Education; the registration process can take up to three years.[259] This prevents many low-cost K-12 and pre-primary schools from registering (same requirements for both).[260] In order to open a new site, schools must go through the entire registration and approval process again.[261]

4. **Quality assurance inspections tend to be sporadic, and focus on infrastructure requirements instead of education quality metrics.**

5. **In tertiary education, the NUC prescribes significant land and bank guarantee requirements for private tertiary operators, creating unusually high barriers to entry.**[262] As with schools, new university sites must undergo registration and approval again.[263] As a result of these requirements, most private tertiary institutions are outside of urban areas, resulting in limited opportunities for adult and part-time education.

POLICY IMPERATIVES

1. Enable much-needed growth in the private tertiary sector by easing requirements pertaining to infrastructure and bank guarantees.

2. Make the process of registration and approvals more efficient by introducing single window clearances and reducing the total number of approvals required.

3. Create mechanisms for existing unregistered schools to register and become part of the formal education system, drawing on the experience of APBET in Kenya.

4. Incentivize financial institutions to offer lending products in the education sector by potentially offering concessionary funds through the Central Bank of Nigeria (CBN). Allow International Development banks to channel low-cost debt through intermediaries.

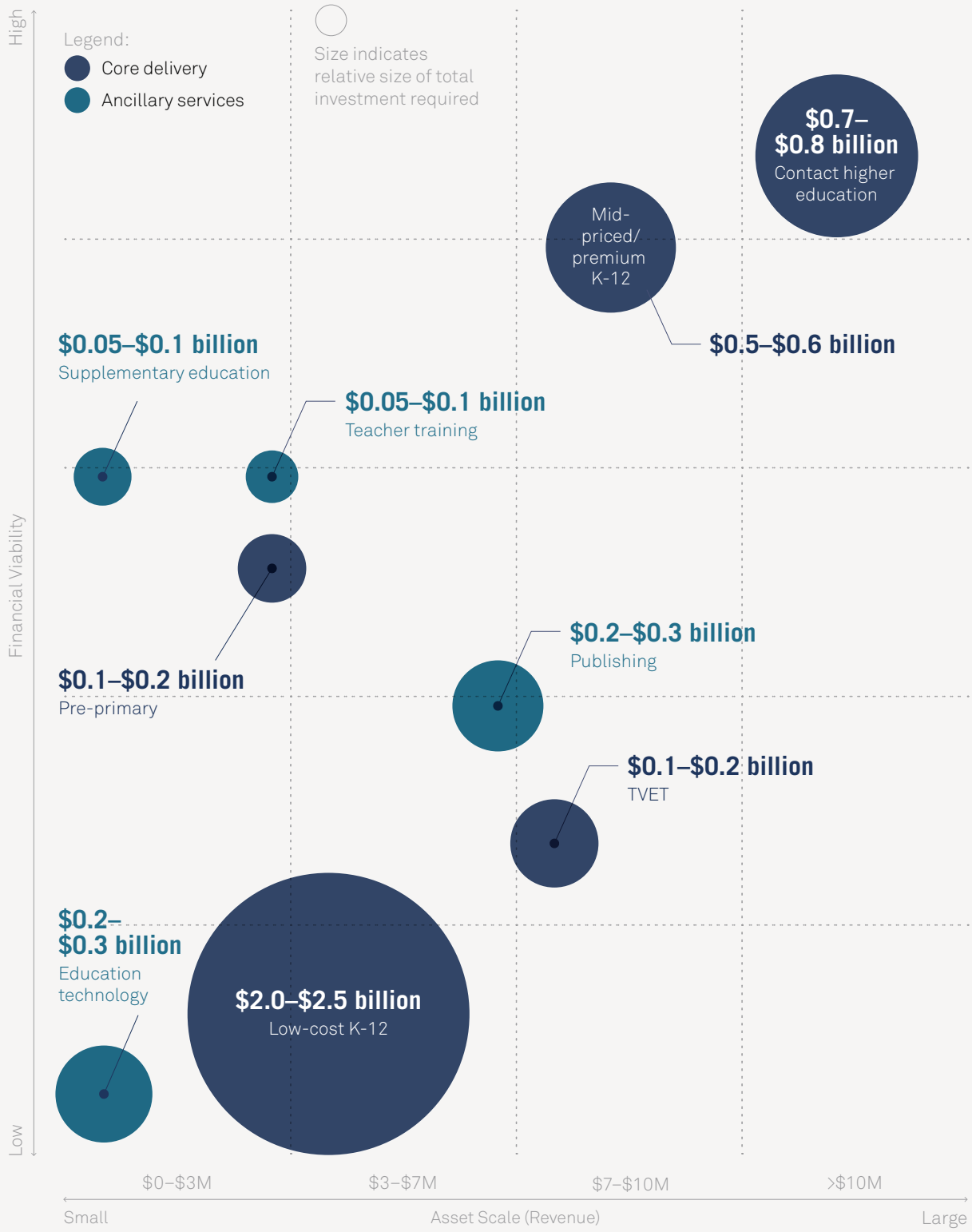
5. Permit provision of smaller private university colleges, which can be set up in urban areas as they are smaller and infrastructure-light. This will expand access to adult and part-time education. These university colleges could offer specialized programs and could more effectively partner with industry for collaborations.

TABLE 20: POLICY AND REGULATORY LANDSCAPE[264]

	Pre-K	K-12	Higher education	TVET
LICENSING				
Governing body	Ministries of Land, Planning, and Education	Ministries of Land, Planning, and Education	National Universities Commission (NUC)	National Board for Technical Education (NBTE)
Duration	Up to 1 year	1–2 years	No defined timeline for getting an operation license (14 step process)	~2 years (including construction)
OPERATIONS				
Enrollment growth	No restrictions but maximum class size restrictions apply (16 square meters for up to 25 children)	No restrictions but maximum class size restrictions apply	Regulated by NUC based on infrastructure	NBTE controls the number of admissions for every course
Curriculum	Must be approved by the Ministry of Education	No restrictions	No restrictions	Must follow NBTE approved curriculum
Teachers/faculty	Preferably NCE qualified	Must be NCE qualified for primary; graduate degree in education for secondary	Lecturers must hold doctorate degree (PhD); Assistant Lecturers must have a Master's	All teachers must have first degrees for entry level courses and masters to teach at Higher Diploma Level
INVESTMENT				
For-profit operations	Allowed	Allowed	Allowed	Allowed
Foreign ownership	100% allowed	100% allowed	100% allowed	100% allowed

THE OPPORTUNITY

FIGURE 42: INVESTMENT OPPORTUNITIES IN NIGERIA



Approximately $4.5–$5.0 billion of private investment is estimated in the next five years in Nigeria.[265] Although Nigeria's education sector is brimming with potential, with its strong demographic dividend and current supply-side gaps, issues of security, infrastructure, and affordability render the market more suitable for impact-oriented investors than for short-term commercial investors. Though various segments do present commercial opportunities, there is a more significant number of opportunities geared toward social impact.

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Greenfield low- to mid-priced K-12 for impact investors and donors:**
With low access to and quality of public schools, there is significant potential for greenfield expansion in the low-cost schools segment (lower than $600 annual price point). Given the long gestation period for low-cost school models to become profitable, low returns on a per-school basis, and high registration costs, these opportunities are suited for donors and impact investors with a long-term view on profitability. Due to the relatively low GER in secondary grades, there is additional headroom for growth through greenfield opportunities. Examples of initiatives in this space include Livingstone College, and Lekki Peninsula Affordable Schools.

a) **Livingstone College,** established in 1999, is a not-for-profit entity that strives to make quality education affordable through its 30 secondary schools under the Livingstone College brand and 27 primary schools under its sister brand, "Great Jed Kiddies." These schools comprise the largest indigenous low-fee chain in Africa. Livingstone College keeps operating costs low through measures such as building its own furniture. Teacher salaries are lower than industry standards, but teachers progress faster in their careers.

b) **Lekki Peninsula Affordable Schools** is a stand-alone low-cost school that has received funding from Village Capital and Pearson Affordable Learning Fund.

2. **Consolidation of low- to mid-cost K-12 for impact investors and donors:**
Given the relatively high primary GER and dearth of large chains, there is an opportunity for impact investors and donors to consolidate the market in the low-fee segment. Chains such as the Livingstone College/Great Jed Kiddies (57 schools) have partially grown through acquisition. Consolidation of the numerous unregistered low-cost schools also presents an opportunity, as an estimated 30% of all private enrollments are in unregistered schools,[266] concentrated in the low-cost segment; this is particularly evident in Lagos State (see figure 43).

3. **Consolidation/partnership opportunities in higher education for commercial investors:**
There is an opportunity for commercial investors to partner with existing institutions to enhance quality and scale through market consolidation. Strategic investors from other countries could leverage this as a regional expansion opportunity. The private sector market for higher education is highly fragmented, providing opportunities for partnerships and consolidation. However, this opportunity may be limited, as many private universities are owned by religious entities. A strong existing market player is Chrisland Schools, which offers primary, secondary, pathways, and university education through nine schools, one pre-degree college, and one university in Nigeria. Its university was opened in 2015.

4. **Opportunity for donors to address regional and gender inequality**
High levels of geographic and gender inequality issues present opportunities for donors to support large-scale social impact programs. Northern states have significantly lower enrollment; nearly 45% of children are out of

GIVEN THE HIGH YOUTH UNEMPLOYMENT RATE AND LACK OF EMPLOYABLE SKILLS AMONG GRADUATES, THERE ARE EMERGING INNOVATIVE MODELS FOCUSED ON PREPARING JOB-READY GRADUATES.

school in the north, compared to 9% in the south.[267] Examples of interventions in this space include the Global Partnership for Education's $100 million grant toward female education in the north, and Northern Education Initiative Plus, a USAID-funded program aiming to reach 1.6 million children.

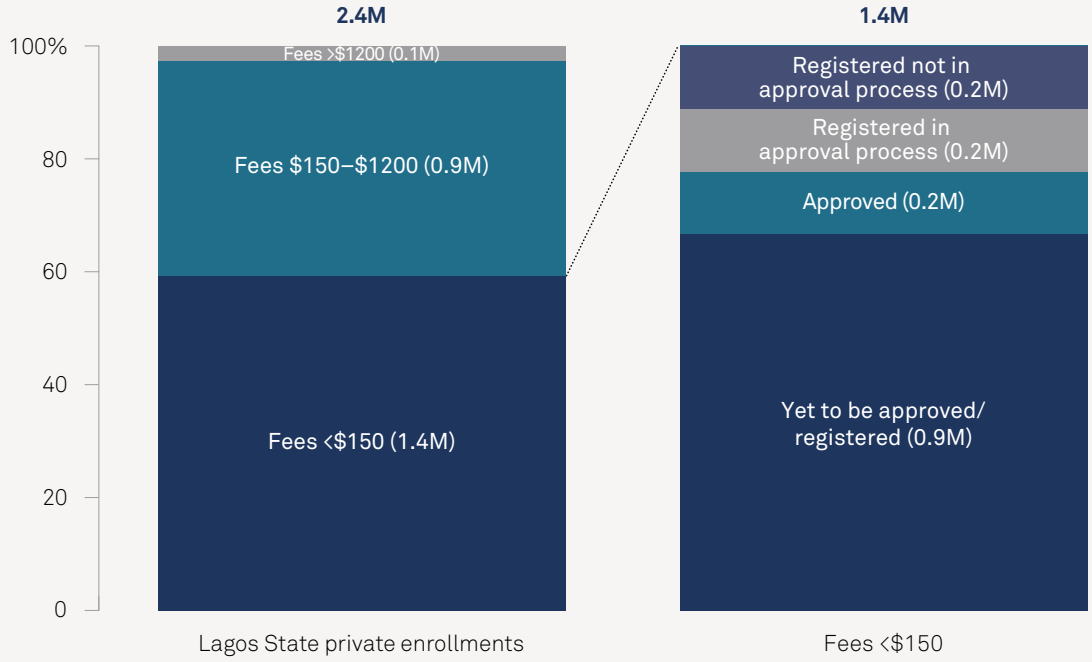
5. **Greenfield expansion higher education for commercial investors:** Public capacity constraints, coupled with growing demand for tertiary education, present a greenfield opportunity for commercial investors. Afe Babalola University is an example of a greenfield enterprise in Nigeria. Established in 2009 with a vision to lead education reform in Nigeria by providing a world-class educational center, it has grown to 7,000 students through five colleges. However, the establishment and maintenance of such standards has come at a cost: Chief Afe Babalola, founder, stated that he has spent about $250 million (N78 billion) in infrastructure and providing modern academic equipment in the first six years of its establishment.

6. **TVET expansion for impact investors and donors:** Given the high youth unemployment rate and lack of employable skills among graduates, there are emerging innovative models focused on preparing job-ready graduates. This presents an opportunity for impact investors and donors. These initiatives are small but have the potential to scale; only one company (NIIT) has achieved scale, training 16,000 students annually across 21 centers in Nigeria. Other education to employment models, such as WAVE Academy and Paradigm Initiative Nigeria (PIN), currently exist at low scale and present partnership opportunities for impact investors and donors. Innovative models such as Andela offer specialized skills training.

a) **WAVE Academy** is a skills training and job placement platform that screens, trains, and places unemployed youth in entry-level jobs within high-growth industries. Students go through a three-week training program that combines a mix of technical and employability skills. About 170 companies have hired 55% of its 1,196 graduates. WAVE now operates courses for more than 100 students a month. According to the founder, WAVE graduates typically double or triple their income and can earn $5–$6 a day.

b) **Andela** recruits talented young people in Africa through a rigorous admission process and shapes them into world-class software developers through a four-year technical leadership program. Selected candidates are tested for technical and soft skills, and subsequently are paid to undergo six months of training in IT technology. They are then paired with a company, typically in the US, for on-the-job training as a fellow. The fellow works remotely from Lagos and Nairobi for the next three and a half years with gradual role upgrades. During the fellowship program, students are paid stipends starting at $500 per month.

FIGURE 43: ENROLLMENTS IN PRIVATE SCHOOLS BY PRICE POINT AND REGISTRATION STATUS, LAGOS STATE, 2014[268]



CORE: ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Impact investment in PPPs and social enterprises for pre-primary:** Although one year of pre-primary education is mandatory, provision remains incomplete, and where it exists, unregulated and fragmented. Given the nascence of the sector and low public participation, there are opportunities to develop PPP initiatives supported by grants, on the model of Children's Investment Fund Foundation (CIFF)'s program Tayari, in Kenya and micro-franchise-based social enterprise solutions, such as Kidogo in Kenya.

2. **Consolidation and investment opportunity in mid-priced/premium K-12 for commercial investors:** In major cities such as Lagos and Abuja, the mid-priced and premium school market (greater than $600 annual fee) is fragmented and provides opportunities to commercial investors for consolidation. Some of the largest chains in this segment include Corona Schools' Trust Council (Corona) (seven schools), Chrisland Schools (nine schools), and Greensprings School (two schools). Lack of affordable financing, land requirements, and onerous registration processes have limited the growth of chains.

ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Greenfield in institutional finance for commercial investors and impact investors:** About 75% of school proprietors cited a lack of financing as their main obstacle to investment, improvement, and expansion.[269] There is a potential demand of $2.5 billion in the next three years in property and development loans from the private school sector in Lagos alone.[270] Commercial and impact investors have an opportunity to meet financing gaps.

   Accion Microfinance Bank is an example of a private enterprise that has addressed institutional finance needs in Nigeria. As of August 2016, Accion had disbursed $2.2 million in loans to 580 private schools and plans to increase the portfolio in the next five years. Accion lends at market rates of 3%–4% a month, with portfolio growth largely attributed to their specialized loan product named My School Plus, which caters specifically to low-fee schools. Loan repayments are quarterly instead of monthly and the bank helps in collection by providing collection officers. The default rate is currently less than 1%.

2. **Sector development opportunity in teacher training for commercial investors and impact investors:** There is an opportunity for commercial investors to establish private CoEs. The Lagos State Government, for example, recognizes that the public CoEs are capacity constrained, and seeks to leverage the private sector's capabilities for training teachers.[271] However, land requirements and bank guarantees can be a challenge. Schools such as Corona have leveraged their practical experience in teacher training to offer an enhanced NCE curriculum but have had to set up a separate CoE in order to do so.

   Impact investors can leverage the government's recognition of private sector capabilities by establishing PPPs and expanding pre-service teacher training programs, as demonstrated in the case of the N-Power Teach programme, a two-year paid "volunteership" that will train 500,000 unemployed graduates and deploy them as teaching assistants in primary and secondary schools across Nigeria. The initiative is supported by the Nigerian Government, as well as private stakeholders such as Learn Africa, Samsung, MTN Group, and Microsoft responsible for different aspects of the programme, such as curriculum development and ICT provision.

ANCILLARY:ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Student finance greenfield expansion opportunity for impact investors and donors:** Student finance in Nigeria needs to be developed to enhance access to higher education. There is opportunity for impact investors and donors to partner with MFIs (from Nigeria and other African countries) to offer student finance and improve access for students to be able to afford higher education.

2. **Supplementary edtech partnerships with existing models for early-stage investors:** There is an opportunity for impact and commercial investors to partner with emerging pan-African models which seek to meet the huge demand for tutoring and test prep need. These models operate within the constraints of infrastructure by possibly limiting the technology only to "non-delivery" uses, such as fees payment, feedback, and databases.

KENYA

Kenya is the largest East African economy and 9th largest economy in Africa.[273] A strong growth outlook is driven by a favorable demographic dividend, rising affordability, and growing private consumption.

KEY FACTS

GDP: ~$60B (2016)[273]

GDP per capita (constant): $885[274]

Five-year GDP growth forecast: 6–7%[275]

Population: ~45 million[276]

Population growth: 3% (2011–2015)[277]

Population under 25: ~27 million[278]

Main industries
Agriculture (30%)
Construction (12.5%)
Manufacturing (10%)
Transport (8.5%)
Trade (7.5%)[279]

Corruption Perception Index Score: 26[280]

Ease of Doing Business Ranking: 92[281]

Key Languages: English, Kiswahili

EDUCATION LANDSCAPE

COUNTRY CONTEXT

Kenya has experienced rising spending power and is now a lower middle income country, with a 2016 GNI per capita of $1,290.[282] In 2014, a staggering 67% of youth aged 15–34 were unemployed[283] and just 31% of students with tertiary degrees were employed.[284] The unemployment rate is coupled with an acute shortage of relevant skilled labor,[285] indicating a mismatch between education and labor market demands. With a growing focus on infrastructure; the country is in need of skilled technicians and craftsmen. While Kenya's FDI increased from $96 million to $1 billion from 2008–2014,[286] the outlook for continued investment may be limited by the difficulties of doing business.[287]

EDUCATION CONTEXT

Kenya's education system has been undergoing a regulatory overhaul, with a series of education reforms across segments. The entire education system will transition from the current 8–4–4 (eight years of primary, four years of secondary, and four years of tertiary), to 2–6–3–3–3 (two years of pre-primary, six years of primary, three years of junior secondary, three years of senior secondary, and three years of tertiary).[288] Other changes include phasing out the primary school teacher qualification P1 certificate, to be replaced by diplomas,[289] increased regulatory tightening of higher education,[290] and the development of an occupational qualifications framework at the tertiary level.[291]

CORE EDUCATION

Pre-primary education is not included in formal government provision. Public centers are commonly attached to public primary schools, and private centers account for roughly one third of enrollment.[292] Private enrollment is expected to grow as a result of population growth and anticipated legislation that will mandate all children attend pre-primary.[293]

K-12 has seen a surge in public enrollments, following the Ministry of Education's Free Primary Education Act (2003) and Free Day Secondary Education Act (2008). Public capacity constraints have led to overcrowding and high STRs.[294] These problems are more acute at the secondary level, where there are 9,000 schools, both public and private, across the country (versus 30,000 primary schools).[295] Quality issues include poor learning outcomes (low results in basic literacy,[296] numeracy,[297] and KCPE exams),[298] compounded by high rates of teacher absenteeism.[299] Informal, unregistered, low-cost private schools have proliferated and now account for 16% of primary and 20% of secondary GER.[300] From 2011 to 2014, the private sector's share of secondary provision fell from 15% to 12% with only 100 private secondary schools added,[301] versus more than 20,000 private primary schools added. Contributing factors include perceived higher quality of public secondary schools and comparatively higher capital outlay required to set up a secondary school.

Higher Education has seen mounting demand, in part as a result of surges in K-12 enrollments. Between 2012 and 2013, the government increased the number of public universities from eight to 22 by granting university status to institutions such as Mombasa Polytechnic (now Technical

University of Mombasa), with plans to establish 20 more.[302] Kenya has 17 private universities, though the average private university enrollment scale is only 2,500, versus 12,900 at a public institution.[303] Legacy private institutions play a prominent role in Kenya's higher education landscape, and many, such as Daystar University, are affiliated with the Church.

TVET faces challenges in funding and quality, as well as perception challenges among students who prefer university places. The MoE plans to add 130 technical training institutes in the next three to five years,[304] though these efforts have been consistently underfunded.

ANCILLARY SERVICES

Supplementary Education has seen a rising number of providers in the edtech sector, offering a range of supplementary education services like tutoring and test prep. **Eneza Education** serves 1.1 million users in Kenya, Ghana, and Tanzania and is a subscription-based SMS platform for learning tools and quizzes based on the national curriculum.

Education publishing is also expected to grow, due to impending curriculum reforms and a policy push toward attaining a Pupil-Textbook ratio of 1:1.[305]

Teacher training is of increasing focus as Kenya faces shortages of nearly 100,000 K-12 teachers and concerns about teaching quality.[306] Currently, one professor serves up to 98 students. In some academic programs, one lecturer teaches an average of up to 200 students, against the internationally recommend ratio of 30 in higher education institutes.[307]

Student finance is primarily provided by the Higher Education Loan's Board (HELB), which covers 30% of all university students.[308] Commercial banks do not provide educational finance at a large scale, citing long payback periods and risks of non-repayment,[309] though models are emerging to address this through the use of predictive analytics and credit assessment tools, such as Student Finance Africa.

FIGURE 44: KEY EDUCATION FIGURES

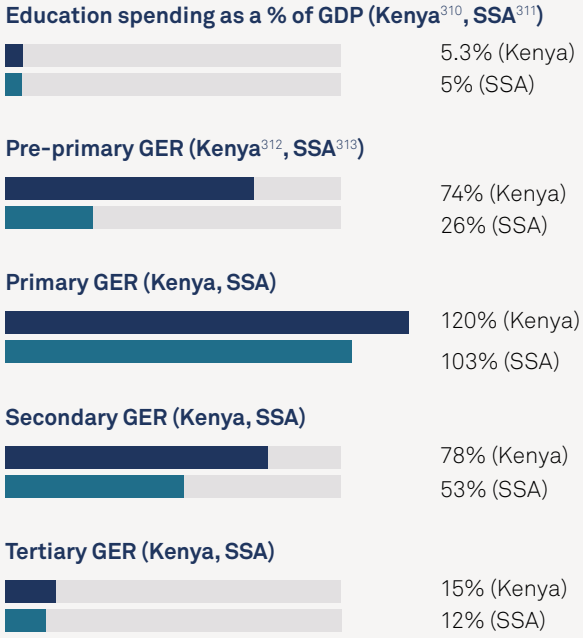
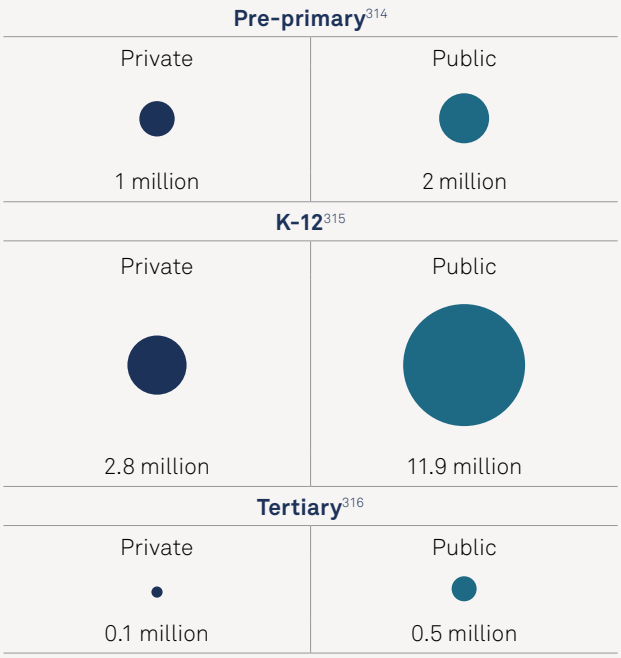


FIGURE 45: CURRENT ROLE OF THE PRIVATE SECTOR



POLICY AND REGULATORY LANDSCAPE

1. **Pre-primary education will be under more regulatory focus under the new 2–6–3–3–3 system.**

2. **Private sector regulations for licensing, investment, and operations are transparent and favorable for premium K-12 schools.**
   However, many low- cost private schools have found that meeting requirements can be expensive and cumbersome,[317] leading to the emergence of informal, unregistered schools that are not regulated by the MoE.

3. **The recently introduced Alternative Provision of Basic Education and Training (APBET) guidelines register and regulate unregistered providers, making them eligible for funding.**
   APBET guidelines lay down conditions such as teaching a KICD approved curriculum and lowered infrastructure requirements.

4. **K-12 inspections do not assess quality in delivery of education or learning outcomes.**

5. **Tertiary education is heavily regulated, with no explicit approval regarding for-profit operations in the private sector.**
   Full accreditation for universities can take up to five years.[318] In 2006, the land requirement for universities became 50 acres.[319] Short of space and keen to expand, urban providers have established satellite campuses on the outskirts of cities. Recent more stringent enforcement of regulations has been driven by the presence of institutions that have consistently cut corners in quality assurance and the CUE has shut down numerous university campuses, including 10 of the 13 campuses of Kisii University, a public university.[320] Once this issue is curbed, it is expected that higher education regulations will evolve to be more investor-friendly.

POLICY IMPERATIVES

1. Streamline and drive efficiency in licensing and approval processes, which remain expensive and cumbersome (timeframe of two to three years to set up a school).

2. Allow concessional/ instalment-based payments for land parcels to provide more affordable options when buying land (cited as challenge for private providers setting up new institutions).

3. Establish a Management Information System for key education statistics, using open data systems to encourage accountability and self-improvement with performance-based funding.

4. Increase the institutional capacity of the CUE to help deliver its extended mandate, which now includes accrediting public universities in addition to private universities.

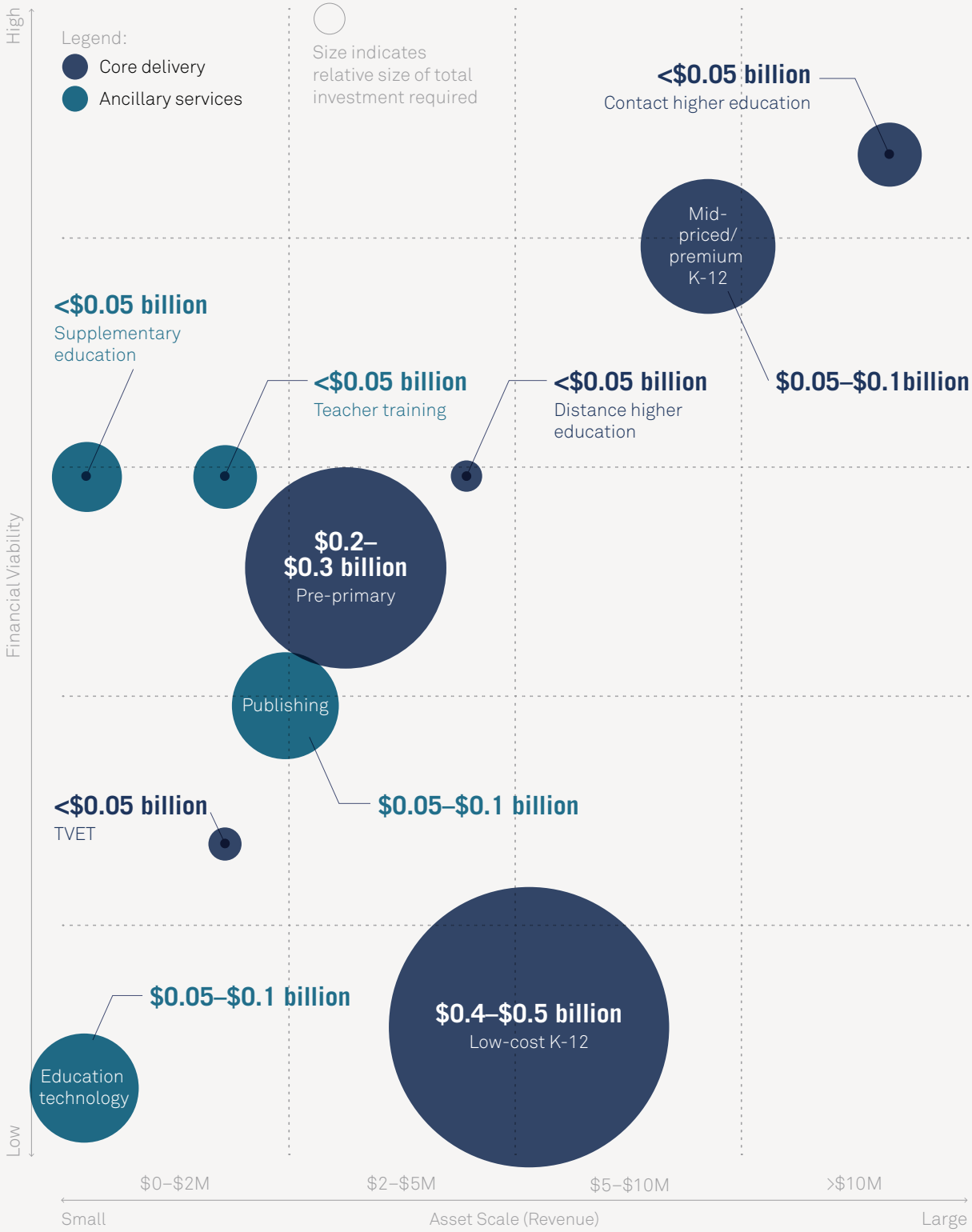
5. Further define and regulate occupational standards for professions requiring specialized skills to address the negative perceptions of TVET and drive interest among students. The MoE is developing the Kenya Qualifications Framework (KQF) to define a common system of qualifications applicable to the job market.[321]

TABLE 21: POLICY AND REGULATORY LANDSCAPE[322]

	Pre-K	K-12	Higher education	TVET
		LICENSING		
Governing body	District Centres for Early Childhood Education (County level)	Ministry of Education (National Government)	Commission for University Education (CUE – under the Ministry of Education)	TVET Authority (TVETA)
Duration	8–12 months (excluding construction)	2–3 years (including construction)	Operation begin of Letter of Interim Authority under close CUE monitoring for a period of 3–5 years	2 years (including construction)
		OPERATIONS		
Enrollment growth	No restrictions but maximum class size restrictions apply	No restrictions but maximum class size restrictions apply; must be willing to admit Kenyans	No restrictions but maximum class size restrictions apply; can apply to offer distance education programs	No restrictions
Curriculum	Must follow Kenya Institute of Curriculum Development (KICD) approved curriculum	Only internationally recognised curriculum or National curriculum approved by KICD	Must follow KICD approved curriculum	Must follow TVETA approved curriculum
Teachers/faculty	Must be registered with Teacher Service Commission; STR of 1:25	Must be registered with Teacher Service Commission; to hire expats, must prove that personnel cannot be hired locally	– Must register with Teacher Service Commission – Lecturers must hold PhDs, MAs only appointed as junior lecturers/ tutorial fellows	Require approval from the TVETA to expand campus or add sites
		INVESTMENT		
For-profit operations	Allowed	Allowed	Not explicitly disallowed	Allowed
Foreign ownership	100% allowed	100% allowed	Through joint venture with Kenyan university	100% allowed

THE OPPORTUNITY

FIGURE 46: INVESTMENT OPPORTUNITIES IN KENYA



Approximately $1.0–$1.2 billion of private investment is estimated in the next five years in Kenya.[323]

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Consolidation and greenfield expansion of mid-market K-12 segment for commercial investors:** Growing affordability and high aspirational value for quality education has resulted in an increase in demand from the Kenyan middle class for mid-market private education ($1,000–$8,000). The national and international curriculum segment operating at this fee level consists of about 60 schools, enrolling 25,000–35,000 students.[324] This segment is sized at $80–$100 million, and has shown growth rates of 4%–8% in the last four years.[325] There are 12 schools in the greater than $3 million revenue bracket, 20 schools in the $1–$3 million revenue bracket, and 27 schools in the less than $1 million revenue bracket.[326]

   This market is currently highly fragmented, with only a few small chains such as Makini (three schools). There is potential for commercial investors to explore greenfield opportunities, in addition to options to consolidate.

a) **Centum Investments,** a private equity firm in Kenya, along with SABIS Holdings and Investbridge Capital, plan to build 20 K-12 schools in the less than $10,000 price segment across Africa. The consortium will build its first school in Kenya before expanding to Uganda, Tanzania, Egypt, and other viable African markets.

b) **GEMS Education,** which operates a premium K-12 school in Nairobi, also believes there is tremendous greenfield and consolidation potential in the mid-market segment ($2,000–$5,000 range). GEMS has long-term plans to build new schools in this segment in Kenya and across SSA.

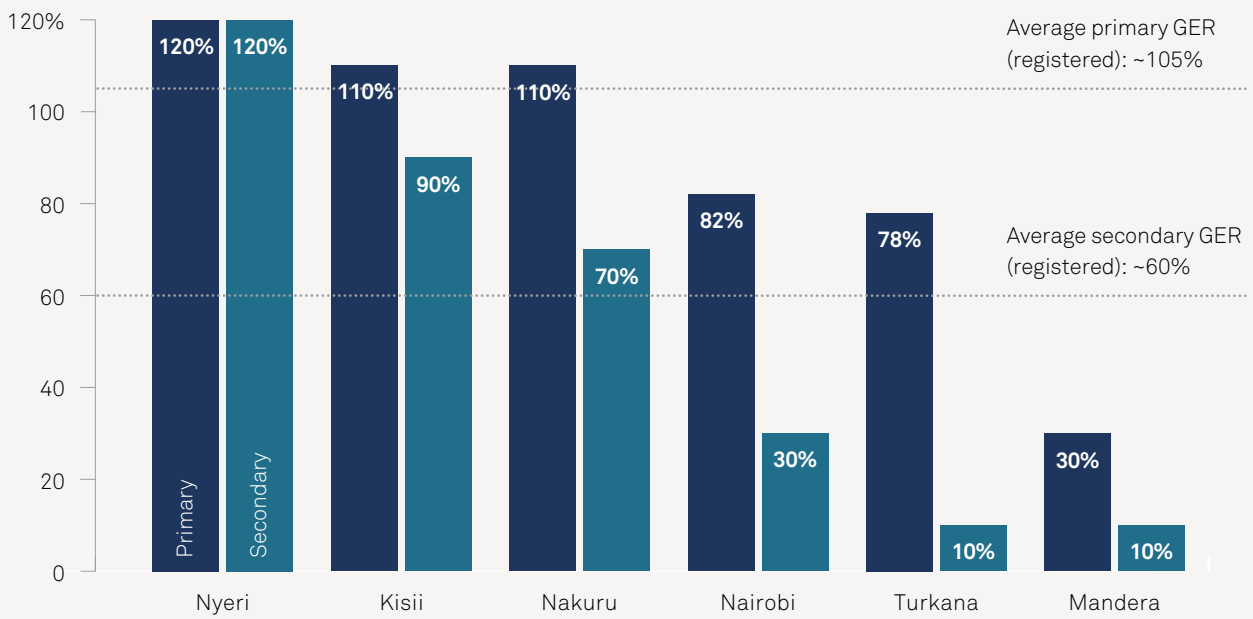
c) **Nova Academies,** established in 2016, operates at a fee point of about $2,000 with one secondary school in Nairobi, and one more planned to open in 2017. Nova aims to blend the national curriculum with 21st century skills, and operates a similar model in South Africa under the Pioneer brand name. They aim to expand to 100 schools, with 50,000 students in South Africa and Kenya by 2020.

2. **Consolidation and greenfield expansion of low-cost schools segment for commercial and impact investors:** Growing demand for quality education across income classes in Kenya is fueling the growth of low-cost schools, primarily in informal settlements in the Nairobi region. Mathare, a slum in Nairobi with a population of over 500,000, has only four public primary schools and 120 affordable private schools, many of which are not yet registered by the government.[327] Most of these are standalone schools, with no prominent school chain apart from Bridge International Academies. There are opportunities in this segment for commercial and impact investors to establish low-cost schools or consolidate the market. Large K-12 providers such as GEMS now seek to tap into this market.

a) **Bridge International Academies** started in Kenya and has scaled to over 400 schools in seven years. Bridge enrolls over 75,000 students across the country, operating at a less than $100 annual fee scale.

b) Large K-12 education providers like **GEMS Education** and **Braeburn Schools** plan to expand into the low-cost segment (annual fee $200–$400) in the next five to seven years, taking advantage of the opportunity to add new supply and consolidate the fragmented market.

FIGURE 47: PRIMARY AND SECONDARY GER, SELECT COUNTIES, 2014[328]



3. **Addressing regional disparities in K-12 access through donor support:** With large regional disparities in primary and secondary GER (see figure 47), there is ample opportunity for donors to build out private provision in the most underserved areas, particularly through PPPs.

   An example of this is Turkana Education for All (TEFA), which was started in 2005 and works together with UNICEF and the Kenyan Government to provide education through low-cost schools for children in marginalized, nomadic communities. Their Rapid School Readiness Initiative identifies children in areas lacking access to education, and runs a 40-day school readiness program to prepare them for formal education and place them in a public school. The initiative has reached 4,000 children so far.

4. **Commercial investor partnerships with existing institutions to expand higher education provision:** Total university enrollment has increased at 27% CAGR over the last three years to reach over 500,000 enrollments in 2015.[329] It is forecast to continue growing with substantial headroom due to currently low tertiary GER. There are opportunities for commercial investors to partner with existing private universities, particularly with many mid-sized private universities well positioned for expansion, such as Daystar University and Riara University. Such private universities have been proactively working on devising ways to meet the high demand, as illustrated by a recent focus on increasing reach through digital learning offerings.

   Universities have begun partnering with edtech providers, such as OneUni, which offers a mobile learning platform adapted for university curricula. In August 2016, they partnered with Daystar University to offer bachelor's degrees and diplomas in Education, operating on a revenue sharing model with the university. Their first class started in October 2016 at a fee point of about $500 per semester.

5. **Expansion of technical and vocational education training in education to employment segment through PPPs and greenfield opportunities for all investor types:** Faced with growing employability challenges for tertiary graduates, there has been increasing interest from the private sector in developing the "Education to Employment" segment. To bridge the skills gap in the market, both not-for-profit and for-profit organizations have

THERE HAS BEEN INCREASING INTEREST FROM THE PRIVATE SECTOR IN DEVELOPING THE "EDUCATION TO EMPLOYMENT" SEGMENT.

initiated various models, with opportunities for donors, impact investors, and commercial investors. Examples of such models include Generation Initiative and Spire Education.

a) **Generation Initiative** (Generation) is a donor-funded, not-for-profit initiative. Generation offers a six-week 'boot camp' training program for low-income, unemployed 20–30 year-olds. The program integrates technical training and behavioral life skills. With over 60 employer partners, including Bank of Africa, and donors including Walmart Foundation and USAID, the program has trained more than 1,000 students and has placed 97% of graduates. Generation plans to move into a cost-sharing model with the partner employers, who would pay a portion of the recruiting and training costs.

b) **Spire Education** (Spire), a for-profit initiative, builds and delivers learning programs for entry to mid-level employees, developing professional and soft skills. Spire provides open courses for small enterprises, in addition to dedicated internal programs for larger corporations. They use both in-person and online training modules. Spire recently closed a seed funding round from Blue Haven Initiative of about $500,000, with plans to raise another $250,000.

CORE: ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Greenfield expansion and consolidation of pre-primary segment for commercial and impact investors:** Going forward, pre-primary will be rendered compulsory, driving considerable opportunities for commercial investors to establish new institutions in the mid to premium market, and to consolidate this highly fragmented market. There are also opportunities for impact investors to form PPPs to increase provision of low-cost pre-primary education, as demonstrated by models such as Kidogo, Madrasa Early Childhood Programme (MECP), and Tayari.

2. **Consolidation of schools in premium (greater than $ 10,000 fee) segment for commercial investors:** The premium international curriculum segment, a $100 million market, has seen slow growth (2%–3%)[330] due to a lower inflow of expats and over-supply of school places. The segment is fragmented, with only one large chain, Braeburn Schools, with seven schools, presenting commercial investors with opportunities for consolidation. However, the opportunity is somewhat limited, as most schools in the segment are owned by trusts or religious organizations.

3. **Capacity expansion of secondary provision in mid-priced ($1,000–$10,000 fee) segment:** Though private share of formal secondary education is 7%,[331] there is an increasing demand for affordable private provision due to public capacity constraints. Commercial investors have an opportunity to expand the capacity of existing secondary schools and to establish new secondary schools in this segment.

4. **Greenfield expansion of STEM course offerings for commercial investors:** Private universities have limited STEM course offerings, and focus more on humanities and business programs, which are less expensive to deliver and more popular among students. At public universities, less than 20% of students who join university end up taking STEM subjects.[332] As the government's 2030 vision emphasizes the importance of STEM, there is an opportunity for commercial investors to build universities with the infrastructure required to offer STEM-focused programs.

5. **Development of distance education provision for commercial investors:** In 2016 the government approved a bill to establish the National Open University,[333] indicating that distance education is a priority for Kenya. Students who did not get university seats, and students who are in underserved counties comprise an addressable market for commercial investors.

6. **Greenfield and PPP expansion of skills-based technical and vocational education segment for commercial and impact investors:** There is opportunity for commercial investors and impact investors to expand the underdeveloped and outdated TVET sector. Given that there are no private institutions at scale, there is significant opportunity to establish new TVET institutions. Additionally, private sector participation through PPPs have potential to revive existing universities and improve delivery.

ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Development of teacher training through PPPs and greenfield expansion for donors and impact investors:**
The gap in teacher training access and quality presents a significant PPP opportunity for donors and impact investors. Select examples of existing initiatives include the Kenya Teacher Education and Professional Development Program and Dignitas.

a) **Kenya Teacher Education and Professional Development (TEPD)** Program, funded by USAID, enhances child-centered learning through teacher education materials. It focuses on improving the approach to teaching multi-grade large classes, and addresses gender issues. It is being implemented across Kenya's 24 primary public teacher training colleges.

b) **Dignitas,** a not-for-profit program that operates in the urban informal settlements of Nairobi, trains teachers in low-cost private schools. Dignitas offers a three-week, classroom-based training program and has trained over 485 teachers from 43 school partners, reaching more than 14,000 students since its establishment in 2008.

ANCILLARY: ADDITIONAL IDENTIFIED OPPORTUNITIES

1. **Greenfield expansion of teacher training for commercial investors:**
Commercial investors would be able to establish private teacher training institutes to offer relevant and high quality training for teachers in new schools across price segments. While private providers such as Braeburn Schools are able to conduct in-service training for their teachers, low-cost private and most public schools lack the resources for up-skilling their teachers.

2. **Development of edtech segment for commercial and impact investors:**
Kenya has witnessed innovations in technology, particularly with mobile money (M-Pesa), to which 45% of the population subscribed to in 2015.[334] Mobile phone penetration is at 87%, while wireless internet penetration is at 85%.[335] Widespread digital coverage, coupled with Kenya's increasing demand for higher quality education, present an opportunity for commercial investors and impact investors in edtech. This includes partnerships with the government, which is proactively seeking to integrate technology in schools.

3. **Development of student finance for impact investors and donors:**
With rising enrollment in private universities, and with government loans that only offer support for students enrolling at public universities, there is an opportunity for impact investors and donors to address student financing needs in Kenya. Demand for loans and concurrent funding requirements is projected to at least triple by 2022.[336]

4. **Expansion of access to finance to operators:**
There are currently limited debt products in the country that focus on the educational sector. Educational institutes resort to borrowing from commercial banks, which offer high interest rates (20%–25%),[337] and are out of reach for mid and low-cost schools. Impact investors have greenfield opportunities to provide access to affordable finance for educational institutes to aid in the process of adding more seats in Kenya's supply-constrained educational market.

5. **Development of education publishing industry for commercial investors:**
Print publishing in Kenya is an $80–$100 million industry,[338] with over 80% of the total publishing market dominated by textbook publishing for primary and secondary schools.[339] With curriculum reforms expected to be implemented in the medium-term, as well as a government push towards improving the pupil-to-textbook ratio, commercial investors have opportunities to invest in large publishing houses for expansion within Kenya, as well as in East Africa.

ETHIOPIA

With a growth rate of 10%,[341] Ethiopia is one of the fastest-growing economies globally, but it also remains one of the poorest.

KEY FACTS

GDP: $61 billion (2015)[341]

GDP per capita (constant): $486[342]

Five-year GDP growth forecast: 7%[343]

Population: 100 million[344]

Population growth: 2.5%[345]

Population under 25: 63 million[346]

Main industries
Agriculture (40%)
Trade (16%)
Construction and Real Estate (16%)[347]

Corruption Perception Index Score: 34[348]

Ease of Doing Business Ranking: 159[349]

Key languages: Amharic, English

EDUCATION LANDSCAPE

COUNTRY CONTEXT

While the services sector has dominated the Ethiopian market over the last five years, industries have been growing at 20%, with an increased focus on infrastructure.[350] The Government is providing a range of incentives to attract investors for priority sectors, which are expected to sustain double-digit growth.[351] There is limited access to finance for much of the population, while the lack of a stock exchange restricts the exit options available to commercial investors. Investment is further discouraged by slow progress in improving trade facilitation practices and easing foreign exchange restrictions. Ethiopia has had a stable federal government since the 1990s, but recently the country has faced political unrest as a result of perceived ethnic disparities in opportunities delivered by economic growth.[352]

EDUCATION CONTEXT

Ethiopia spends ~27% of its budget on education[353] and public provision accounts for a larger share of the education sector than in other study countries. Challenges in public provision include high STR of 1:46 in public (versus 1:25 in private)[354] and high drop-out rates (80% of students who begin at grade 1 drop out by the end of grade 8).[355] Ethiopia receives support from a variety of global donors through education development programs, for example, the General Education Quality Improvement Program 2 (2013-2018), which focuses on improving public school education quality on a large scale.

CORE EDUCATION

Pre-primary education in Ethiopia comprises kindergarten, class 0, and the Child-to-Child Approach for School Readiness Programme. Kindergarten (4–6 year-olds) is offered mostly by community centers and private organizations like faith-based institutions. Class 0 is a government initiative for 6-year-olds who lack access to kindergarten; students are prepared for grade 1 (7-year-olds) by local primary school teachers. The Child-to-Child Approach for School Readiness Programme is a non-formal pre-school service that engages older children to conduct early learning activities with pre-school aged children in their home villages.

The **K-12** education system has progressively higher drop-out and repetition rates in higher grades, illustrated by a drop in GER from 140% to 60% between grades 1–4 and grades 5–8, and from 40% to 10% between grades 9–10 and grades 11–12.[356] All schools must teach in the regional language until grade 6, after which they switch to English; students often struggle with this transition. With average fees of $600–$800, access to private schools is restricted to just 7% of Ethiopia's households[357] and private schools are concentrated in urban areas, with 40% located in Addis Ababa.[358] Alternative Basic Education (ABE) is a national strategy launched by the Government in 2006 to help children cover missed years of primary school in a three-year course, after which they are able to directly join grade 5.[359]

Higher education comprises 33 public and four private universities, with 10 public universities added in the last five years, and 10 more anticipated in the next five years. Public share of contact university enrollments is ~85%, though private enrollments dominate in distance education with a 60% share (see figure 50). Public universities have perceived higher quality and affordability, though private market share is growing at a faster rate, concentrated in Addis Ababa. Women's participation in higher education is low, at just 30% of enrollments.

TVET enrolls 350,000 students,[360] comprising about 25% of all enrollments after grade 10.[361] Private fees are comparable to those in public, and private provision is estimated to be 40%–50% of enrollments. Private TVET colleges offer courses focused on services and agriculture, but are less focused on industry-specific disciplines, such as manufacturing or construction. TVET enrollments are not concentrated in urban regions and distributed across Ethiopia.[362]

ANCILLARY SERVICES

Teacher training Ethiopia is in need of more teachers. While STR has decreased from 51:1 to 46:1 for primary grades in the last five years,[363] it is still higher than the SSA average of 42:1.[364]

Student finance is almost nonexistent in Ethiopia, as commercial banks do not participate in student loans. The Government introduced a cost-sharing graduate tax system for student finance in 2003, but this scheme only covers students attending public universities, and stipulates that students will share at least 15% of instructional costs, repaying the loan through tax deductions once they are employed.[365]

10 PUBLIC UNIVERSITIES HAVE BEEN OPENED IN ETHIOPIA IN THE LAST FIVE YEARS

FIGURE 48: KEY EDUCATION FIGURES

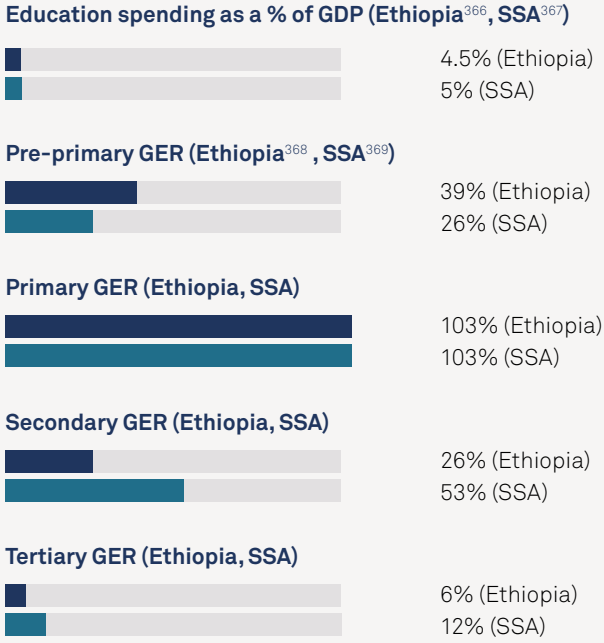


FIGURE 49: CURRENT ROLE OF THE PRIVATE SECTOR

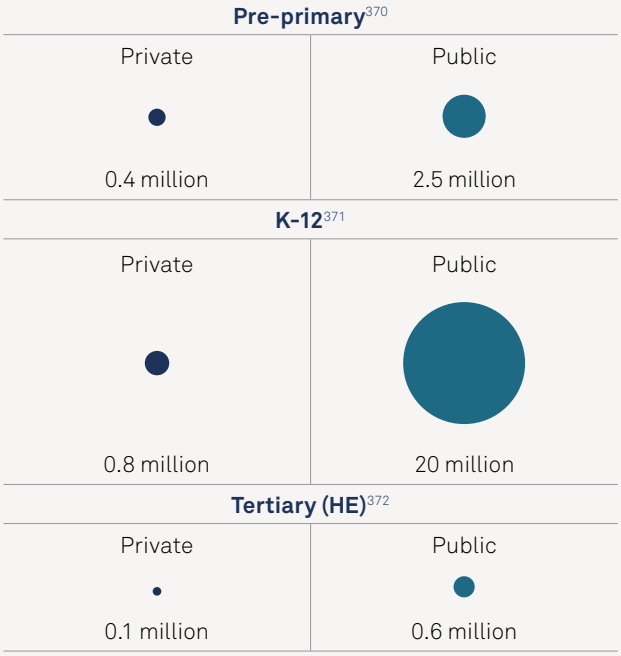
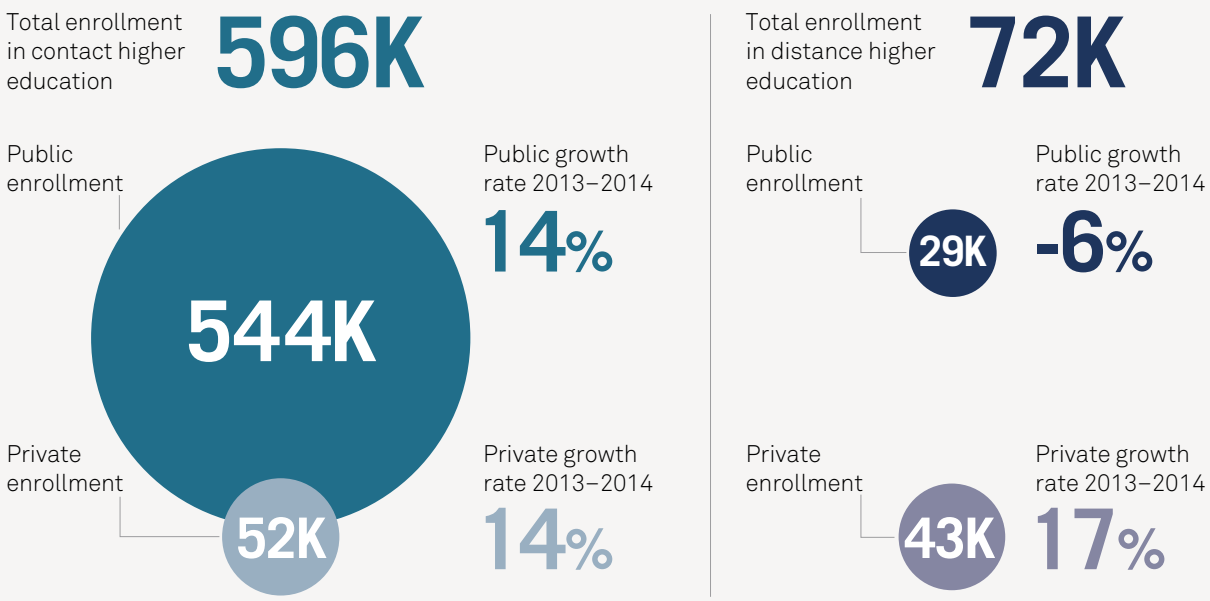


FIGURE 50: HIGHER EDUCATION ENROLLMENT BY INSTITUTION TYPE, 2013–2014[373]



POLICY AND REGULATORY LANDSCAPE

1. **For-profit operations are allowed in all segments of education, and foreign ownership is permitted in all but the primary segment.** Every site and course offered must be registered independently. Ethiopia has a quality framework for both K-12 and higher education, but limited availability of government inspectors makes this challenging to implement and enforce.

2. **The Government owns all land in the country and leases it for long-term periods (60–99 years).** Acquiring land in urban areas like Addis Ababa is challenging for private operators seeking to open new schools or tertiary institutions; land prices can be up to three times higher than in other areas. Although citizens can sublease the land to other parties, the amount of rent charged and annual rent increases are not regulated. This makes long-term financial stability difficult for education businesses.

3. **K-12 schools must be licensed by the Regional Education Bureau (REB) to operate legally.** The approval process involves district, zonal and regional education administrations and takes about one to three months. However, land acquisition and meeting regulatory requirements can take one to two years. All schools must teach the national curriculum, and "blended" curricula may lead to penalties or closure. Existing inspection metrics focus on infrastructure over quality.[374]

4. **The Higher Education Relevance and Quality Agency (HERQA) provides accreditation for each site and program separately, and it is recommended that new operators apply for accreditation six months in advance.**[375] Private higher education institutions can be granted status levels ranging from university to institute. Institutions may apply for status upgrades, with a similar process to that of re-accreditation. Private institutions are banned from enrolling new students in teacher training and law programs due to reported quality concerns.[376]

5. **TVET is regulated at a regional level, where boards ensure that courses relevant to regional needs are available.** TVET is, in general, perceived as a sector with more favorable regulation.[377]

6. **Ethiopia requires all after-school and ELT tutors (as well as other education service providers) to register with the Government and acquire licenses.** Although this is designed to control quality, the process delays and bureaucracy make it difficult for tutors to obtain licenses and run centers legally.[378]

POLICY IMPERATIVES

1. Focus on regulations that incentivize quality and outcomes, including consistently and publicly available reports on school quality to inform parent preference.

2. Increase human capital available in regulatory bodies to ensure improved oversight.

3. Improve private education provider access to land by offering subsidized land rent for educational initiatives, and implement caps on annual rent increases.

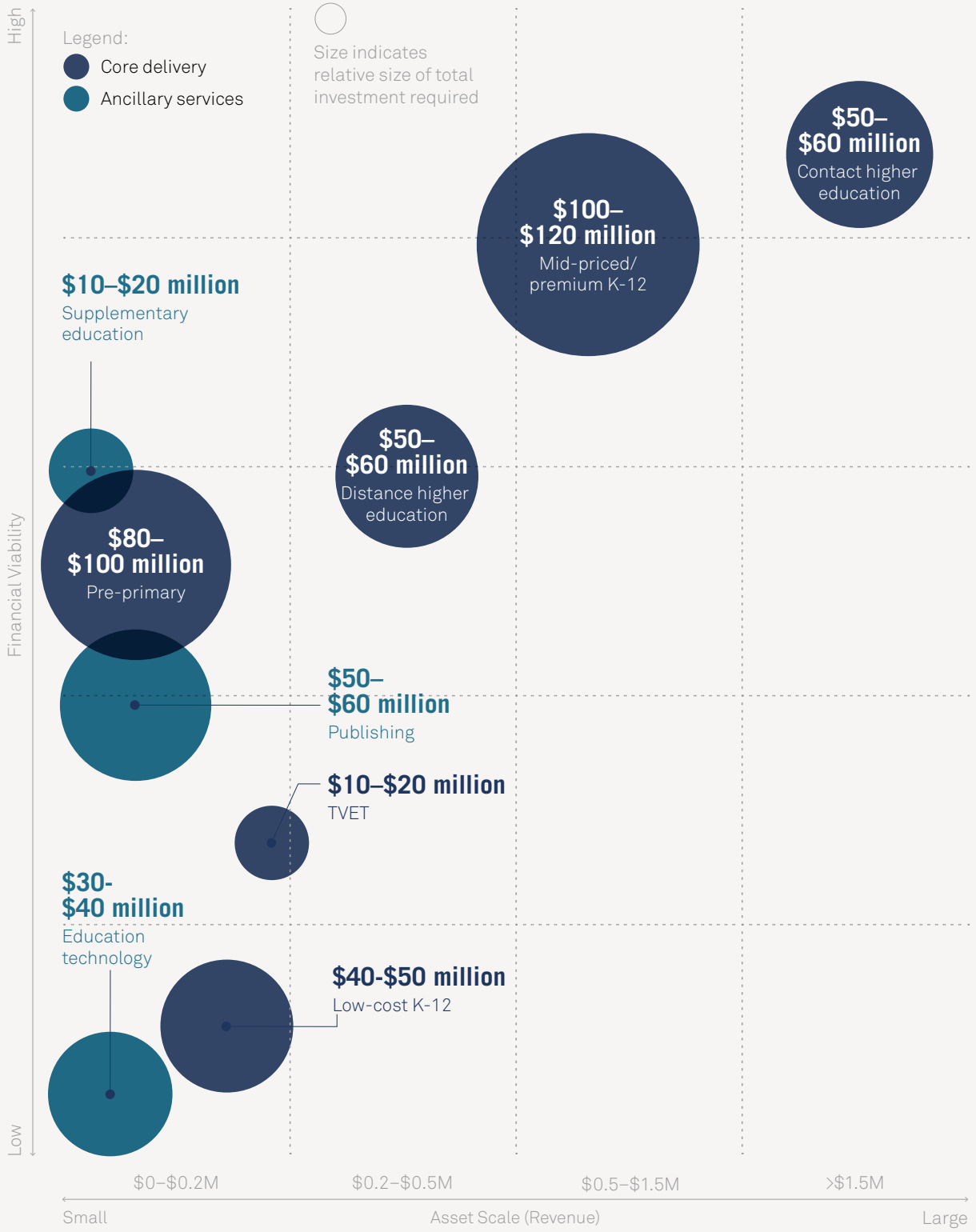
4. Promote a more robust system of student finance to promote access to private higher education.

TABLE 22: POLICY AND REGULATORY LANDSCAPE[379]

	Pre-K	K-12	Higher education	TVET
LICENSING				
Governing body	– Regional Education Bureau (REB) – District, Zonal, and Regional Education Administrations	– Regional Education Bureau (REB) – District, Zonal, and Regional Education Administrations	Higher Education Relevance and Quality Assurance Agency (HERQA)	– Federal TVET Agency – Regional TVET Agencies and – Education Bureaus
Duration	– 1–3 months (approvals) – 1–2 years (land acquisition)	– 1–3 months (approvals) – 1–2 years (land acquisition)	3–6 months	3–6 months
OPERATIONS				
Enrollment growth	No restrictions	No restrictions	No restrictions	No restrictions
Curriculum	Must follow curriculum approved by Ministry of Education	– National curriculum mandatory for all schools – Only community schools allowed to teach international curriculum	Curriculum should match national standards set by government	– Curriculum developed by TVET providers based on Ethiopian Occupational Standards (EOS) – Regional TVET agencies regulate the curriculum to meet specific demands at a country level
Teachers/faculty	Teachers should have 10 month training course certificate; Max STR 1:30	Diploma holders and training in pedagogy	At least one permanent lecturer for each year in every program	Teachers should have completed TVET Level 4 and received additional pedagogical training
INVESTMENT				
For-profit operations	Allowed	Allowed	Allowed	Allowed
Foreign ownership	100% allowed	Allowed at only secondary level	100% allowed	100% allowed

THE OPPORTUNITY

FIGURE 51: INVESTMENT OPPORTUNITIES IN ETHIOPIA



Approximately $400–$500 million in private investment is estimated in the next five years in Ethiopia.[380]

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Greenfield secondary education opportunity for commercial and impact investors:**
   The Ethiopian Government allows both foreign and domestic investment in secondary schools. With secondary GER considerably lower than primary GER, and limited public supply of secondary schools, commercial investors have a significant opportunity to develop private secondary schools. Furthermore, many regions in Ethiopia remain underserved; 65% of all secondary schools are located in urban areas,[381] demonstrating large gaps in provision across rural regions. Impact investors can help to improve access to secondary education in these harder-to-reach areas.

2. **Greenfield K-12 potential in low-cost to mid-priced segment for commercial investors:**
   Ethiopia is experiencing growing demand for high-quality low-cost and mid-priced K-12 education. Although the Government has increased primary capacity, there is a demand for what is perceived as higher-quality private education, presenting opportunities for commercial investors to set up schools, though challenges will include the high cost of land and the shortage of qualified teachers.

3. **Consolidation of K-12 segment for commercial investors:**
   Addis Ababa has about 1,500 private schools.[382] However, a majority of these are stand-alone and subscale (less than 250–300 students), providing an opportunity for commercial investors to consolidate the fragmented market. The largest school chain, School of Tomorrow, has only nine schools.

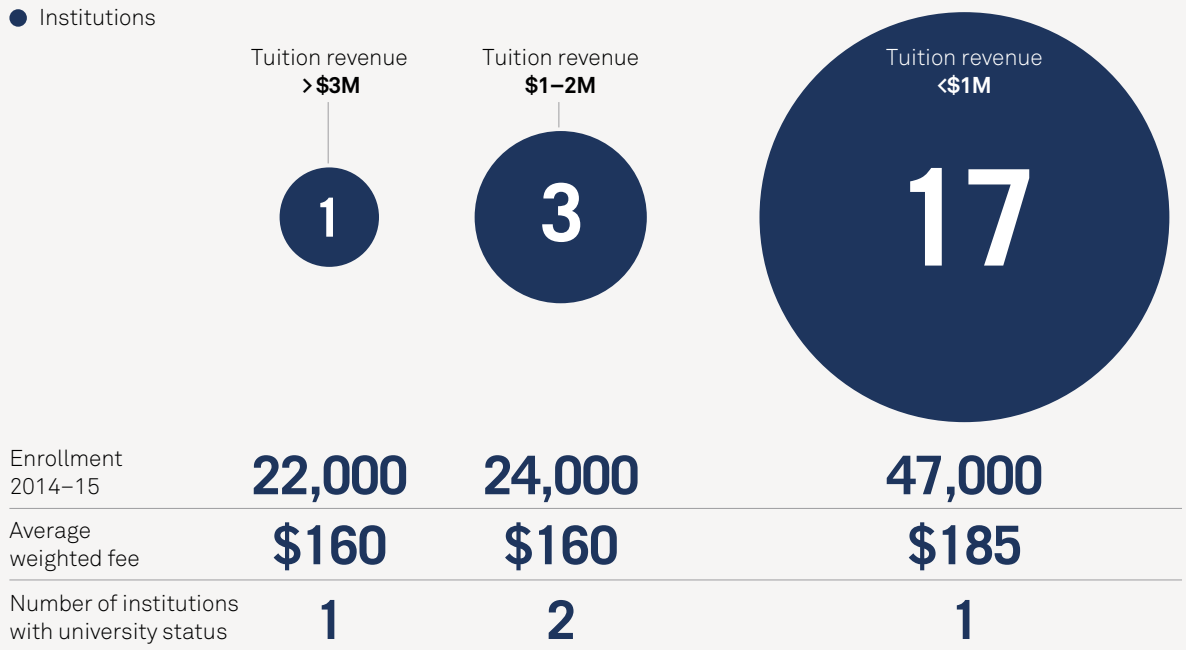
4. **Greenfield opportunity in contact/distance education for commercial investors:**
   Ethiopia's fast-paced economic growth, combined with low higher education GER, suggests that there is substantial room for growth in this segment. Commercial investors may seek to expand contact and distance higher education to meet demand. Though the market for contact higher education is currently dominated by public provision, some private universities and colleges, such as Rift Valley University, have achieved scale. There is also a commercial opportunity to establish private institutions that offer higher education courses in technology and engineering, though delivery of these disciplines requires higher capital investment. However, lack of financing for students attending private universities remains a challenge.

   In the distance higher education segment, private providers have a higher market share, as courses are more affordable. St. Mary's University (SMU) is the biggest private provider in distance education, with an estimated tuition revenue upward of $2 million.[383] Other scale private institutes include Yardstick International College of Distance Education and Alpha University College.

5. **Consolidation of contact higher education segment for commercial investors:**
   Ethiopia has four private universities: St. Mary's University, Admas University, Unity, and Rift Valley University. However, there are about 100 private colleges and institutes in Ethiopia offering higher education.[384] A majority of private colleges are stand-alone and have scale that is less than $1 million (see figure 52).[385] These conditions present commercial investors with consolidation opportunities.

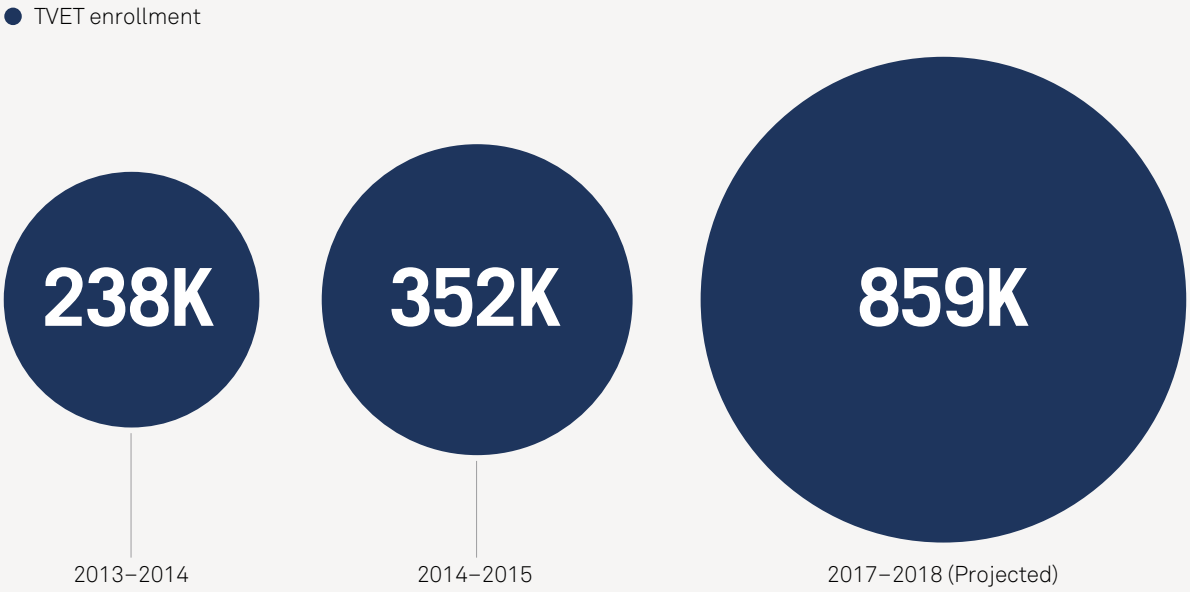
6. **Greenfield expansion of technical and vocational training segment for commercial investors:**
   The Growth and Transformation Plans (GTP I and II), which are the series of national five-year plans to improve the economy, focus on maintaining high GDP growth by prioritizing the industries and services sectors. An illustration of the Government's prioritization of TVET is its new target of an additional 500,000 TVET enrollments.[386] This signals that the segment presents an opportunity for commercial investors to establish TVET institutions to match Ethiopia's growing skilled labor needs. Enrollment is projected to continue increasing in this segment (see figure 53).

FIGURE 52: PRIVATE HIGHER EDUCATION TUITION REVENUE, ETHIOPIA, 2014–2015



Enrollment 2014–15	22,000	24,000	47,000
Average weighted fee	$160	$160	$185
Number of institutions with university status	1	2	1

FIGURE 53: ENROLLMENT IN TVET PROGRAMS IN ETHIOPIA[387]



ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Greenfield expansion of education services to K-12 schools for impact investors and donors:** Impact investors and donors can address Ethiopia's need for education services, such as teacher training, ICT, and school management services. Accelerated Ethiopia and Camara Education are examples of some initiatives providing education services in Ethiopia.

a) **Accelerated Ethiopia** was launched in 2016 as a for-profit initiative and provides school management, student performance monitoring, and teacher training in Addis Ababa. Within six months, Accelerated Ethiopia was able to contract with 10 schools. Currently they provide services to grades 1–2 but will expand to grades 7–8.

b) **Camara Education** is a not-for-profit organization based in Ireland that works across SSA to provide refurbished computers to public schools, charging about $70 per PC. Ethiopia is their biggest market; working with the MoE, they plan to distribute 31,000 PCs to schools. Camara also provides supplementary edtech materials and trains teachers to use ICT in education delivery.

2. **Greenfield expansion of supplementary learning for commercial investors and impact investors:** As English is only taught as a second language in schools until the 7th grade, there is a large demand for ELT services to help prepare for the switch to a fully English curriculum. Commercial and impact investors have an opportunity to establish ELT services, which would contribute to a more internationally competitive youth population in Ethiopia. Furthermore, there is an opportunity to develop after-school tutoring provision to lower drop-out rates. Learn English Audio Project (LEAP) and Mak-Addis Tutors are examples of supplementary education initiatives.

a) **LEAP** is a project which was run by British Council and Lifeline Energy in 2012. It provided solar-powered MP3 players with pre-loaded English-language learning modules to students, and reached 300 public schools and 2,000 teachers in Ethiopia.

b) **Mak-Addis Tutors** is an aggregator that matches teachers and students through an online platform. The initiative was able to achieve scale, teaching about 100 students each year at a price point of $1,000, operating as an online aggregator outside of any government regulations. They received seed funding of $17,000 from Total Ethiopia in 2016.

SENEGAL

Senegal is the second fastest growing economy in Francophone West Africa,[388] but relies heavily on donor assistance, remittances, and FDI.

KEY FACTS

GDP: $13.6 billion (2015)[389]

GDP per capita (constant): $1,042[390]

Five-year GDP growth forecast: 6%–7%[391]

Population: 15.1 million[392]

Population growth: 2.9%[393]

<25 Population under 25: 55%[394]

Main industries
Commerce (16%)
Agriculture and Hunting (15%)
Manufacturing (12%)
Tourism (11%)
Communication (7%)[395]

Corruption Perception Index Score: 45[396]

Ease of Doing Business Ranking: 147[397]

Key languages: English, Wolof

EDUCATION LANDSCAPE

COUNTRY CONTEXT

Senegal relies heavily on donor assistance, remittances (~12% of GDP)[398], and FDI ($345 million in 2015).[399] Foreign lending accounts for a significant part of the Government's budget.[400] The economy is forecast to continue growing at similar rates, a result of strong agricultural growth, low oil prices,[401] and the implementation of the 2012 Emerging Senegal Plan, a cross-sector strategy to facilitate private initiatives and enact structural reforms. Recently discovered offshore oil and gas deposits may stimulate growth.[402] However, reliance on low oil and food prices, in addition to potentially volatile harvests, challenges the economy's stability. Tourism, at 11% of GDP,[403] may suffer given uncertainty about regional security. With over half of the population under the age of 20,[404] Senegal shows a strong demographic dividend. However, nearly 50% of Senegal's people live in poverty,[405] with large disparities between urban and rural areas.

EDUCATION CONTEXT

Although the Government spends a significant proportion of its budget on education (20%),[406] resources are not effectively utilized. For example, nearly $65 million is paid to staff outside of classrooms.[407] With ~20% students enrolled in private school,[408] Senegal's private sector plays an important role in provision, due to increasing affordability,[409] lower student-teacher ratios (estimated at ~25:1, versus 47:1 in public schools)[410] and therefore higher-perceived quality, and better outcomes (82% of grade 6 students attained subject competency in private schools, compared to 46% in public schools[411]). Socioeconomic and gender disparity are persistent concerns in access to quality education.[412]

CORE EDUCATION

Pre-primary education in Senegal is not mandatory and comprises three years. Pre-primary enrollment increased significantly, from ~38,000 in 2003 to ~208,000 in 2015;[413] this is largely driven by growth of private provision, which now accounts for 60% of enrollments.[414] While the Government has set a target of 50% GER by 2025, it has allocated only 3% of the education budget for this purpose.[415]

K-12 education comprises secular public schools and both religious and secular private schools, including daaras, which are informal and typically poorly reputed Islamic schools focused entirely on religious education, comprising ~600,000 to one million students,[416] of which 50% attend only for supplementary education.[417] The Government seeks to bring the full-time daara students under its purview. Other private schools include: Franco-Arab schools (presents suitable alternative to daaras by offering both formal and religious education in French and Arabic, may receive government funding, and are also publicly provided); private secular schools (50%–60% of private enrollments); private Catholic schools (15%–20% of private enrollments and considered elite);[418] and private community schools (more prevalent in rural areas). To achieve a target of 90% primary GER, the Government rapidly recruited teachers through short TVET courses,[419] constructed ~3,500 classrooms from 2004–

2015,[420] and increased the number of Franco-Arab schools (both public and private). However, this rapid expansion, coupled with limited teacher training, has led to a deterioration in public education quality.[421] Moreover, secondary schools are supply constrained (~2,600 secondary schools vs. ~9,600 primary).[422] Poor quality and supply constraints are exacerbated by the Government push to adhere to the 10-year education structure; although grade 5 exam pass rates were just 38% in 2015, 87% of students progressed to secondary school.[423]

Higher education GER has risen from 5% in 2004 to 10.4% in 2015.[424] In 2013 the Government adopted a policy that guaranteed higher education placement for all grade 12 Baccalaureate (Bac) exam graduates.[425] Enrollment is expected to grow by 9% annually, to 270,000 by 2022,[426] but Senegal's five public universities are severely capacity constrained (for example, Université Cheikh Anta Diop de Dakar (UCAD) accounts for ~80% of public enrollment and runs at over 300% capacity).[427] This has led to overcrowding, low graduation rates (30%–40% in certain public social science departments),[428] and disruption because of professor strikes. To address these issues, the Government is planning to open three new universities,[429] has launched the Virtual University of Senegal, and is also harnessing the private sector: ~15% of Bac graduates who apply for public sector places are redirected to private universities, and their tuition is paid for by the Government.[430] These comprise ~25% of all private enrollments (see figure 56).[431] With 22,000 international students, Senegal has a significant inflow of students, particularly from Francophone Africa.[432]

TVET is integrated into formal education from the secondary level through technical, both high schools and dedicated centers. At the tertiary level, TVET is taught at undergraduate and postgraduate levels. Private enrollments account for ~60% of all formal TVET course enrollments.[433] The informal TVET segment comprises private apprenticeships and attracts significantly more students than the formal sector, with 500,000 students (versus 37,000 in formal TVET).[434] Formal TVET courses are more common for students seeking to enter service industries such as hospitality, while nearly 60% of informal apprenticeships are in the motor repair sector.[435]

ANCILLARY SERVICES

Teacher training (pre-service and in-service) for primary teachers is provided solely by the Ministry of Education. For secondary teachers, it is provided by public university faculties. Private provision of teacher training is not allowed. Nearly half of all teachers are hired on a contractual basis,[436] and 80% of the teachers in private establishments come from

FIGURE 54: KEY EDUCATION FIGURES

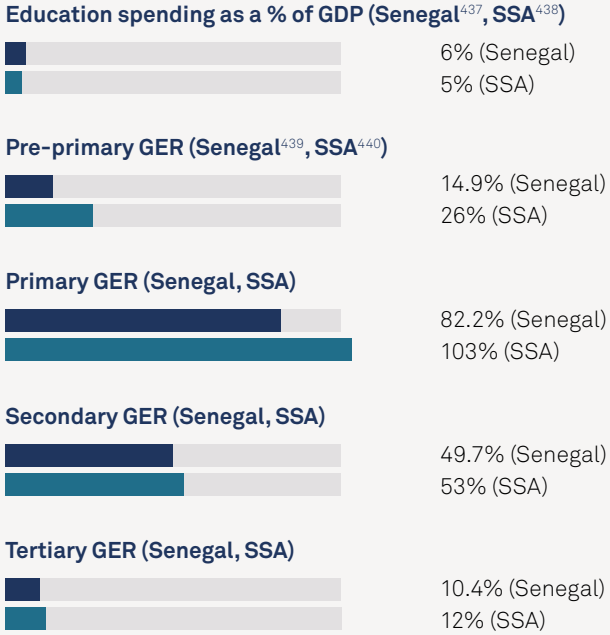


FIGURE 55: CURRENT ROLE OF THE PRIVATE SECTOR

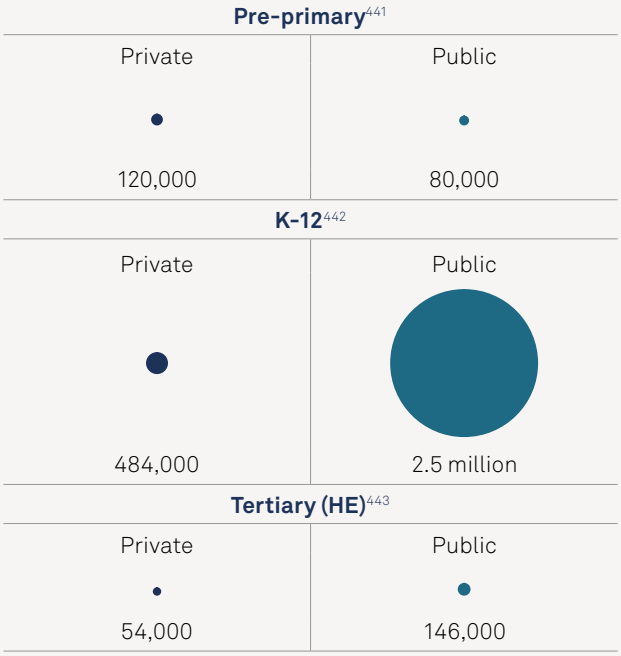
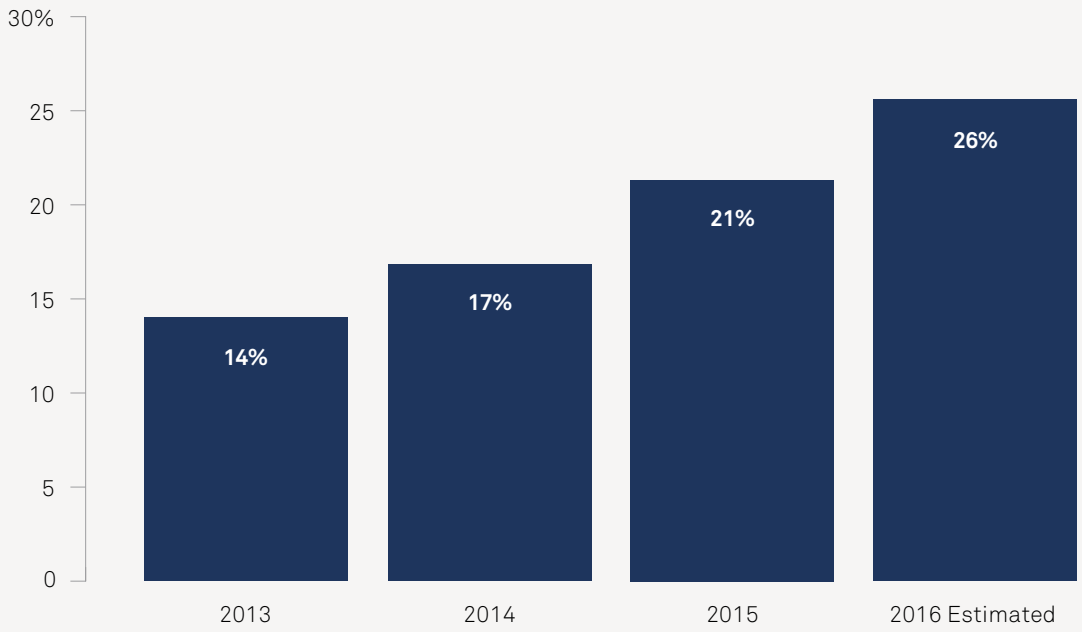


FIGURE 56: PERCENTAGE OF STUDENTS IN PRIVATE EDUCATION SUPPORTED BY THE GOVERNMENT, 2013–2016 ESTIMATED[444]



NEARLY HALF OF ALL TEACHERS ARE HIRED ON A CONTRACTUAL BASIS. 80% OF TEACHERS IN PRIVATE ESTABLISHMENTS COME FROM THE PUBLIC SECTOR.

the public sector, with many working part-time in the private sector.[445] Only 50% of primary teachers meet the qualification requirements of a Bac or equivalent, plus a one-year teaching certificate.[446] Teachers in rural areas typically teach three to four grades simultaneously due to low population density,[447] further diminishing education quality. Additionally, the current provision for teacher training does not account for Senegal's need for multilingual teachers (Arabic, French, Wolof). Teaching is often disrupted by grant- and wage-related strikes: although the law mandates 900 teaching hours, only an average of 600 hours were registered in 2015 due to strikes.[448]

Supplementary education in the form of after-school tutoring is unaffordable for most in Senegal, though a large number of students do attend religious schools after school and on weekends. There are a few English language training courses, though these have not achieved scale. Edtech comprises very few early-stage start-ups. Student finance is not prevalent in Senegal, in part due to high graduate unemployment and uncertain returns to higher education.[449]

Publishing comprises 45 small local publishing houses and school textbooks accounting for 50% of production.[450] However, most books are produced in France and are sent to Senegal via Hachette Livre. Rural areas are particularly undersupplied as bookstores are mostly located in larger cities. Agence de Distribution de Presse (ADP) in Dakar is the only professional distributor in Senegal.

POLICY AND REGULATORY LANDSCAPE

1. **In 2013, Senegal adopted a ten year sector-wide approach to education, known as the Program for Quality, Equity, and Transparency Improvements in Education (PAQUET, 2013–2025), which focuses on result-orientation, decentralization, relevant skill building, STEM education, and efficiency.**[451]

2. **Given its target of a 50/50 split between private and public higher education enrollments by 2022,**[452] **the Government has sought to ease the entry process, for example, by increasing personnel evaluating private applications.** More than 40 providers were authorized to open in the last two years.[453]

3. **Higher education institutions can seek recognition from Autorité Nationale d'Assurance Qualité (ANAQSup), a new public quality control agency, and Conseil Africain et Malgache pour l'enseignement supérieur (CAMES), an African regional body, to increase credibility among students.**

4. **Although there are no stipulated land requirements, the process of bargaining with the Government for land can take up to three years and may require a presidential decree.**[454] Land in Dakar can be very expensive,[455] limiting the growth of private provision.

5. **In 2012 Senegal reformed its TVET sector to make it possible for students in the non-formal sector to obtain qualifications in assessments defined in a National Qualifications Framework.**[456]

6. **In the last two years, the Government has been incentivizing STEM enrollments by offering scholarships.**[457]

POLICY IMPERATIVES

1. Provide easier access to land for educational purposes to help private providers meet the growing demand for quality education.

2. Allow private providers to offer teacher training and career development programs to meet the private sector need for qualified full-time teachers, including through PPPs.

3. Offer increased funding to providers of Franco-Arab schools, to enroll their children in formal education, phasing out daaras as a primary source of education.

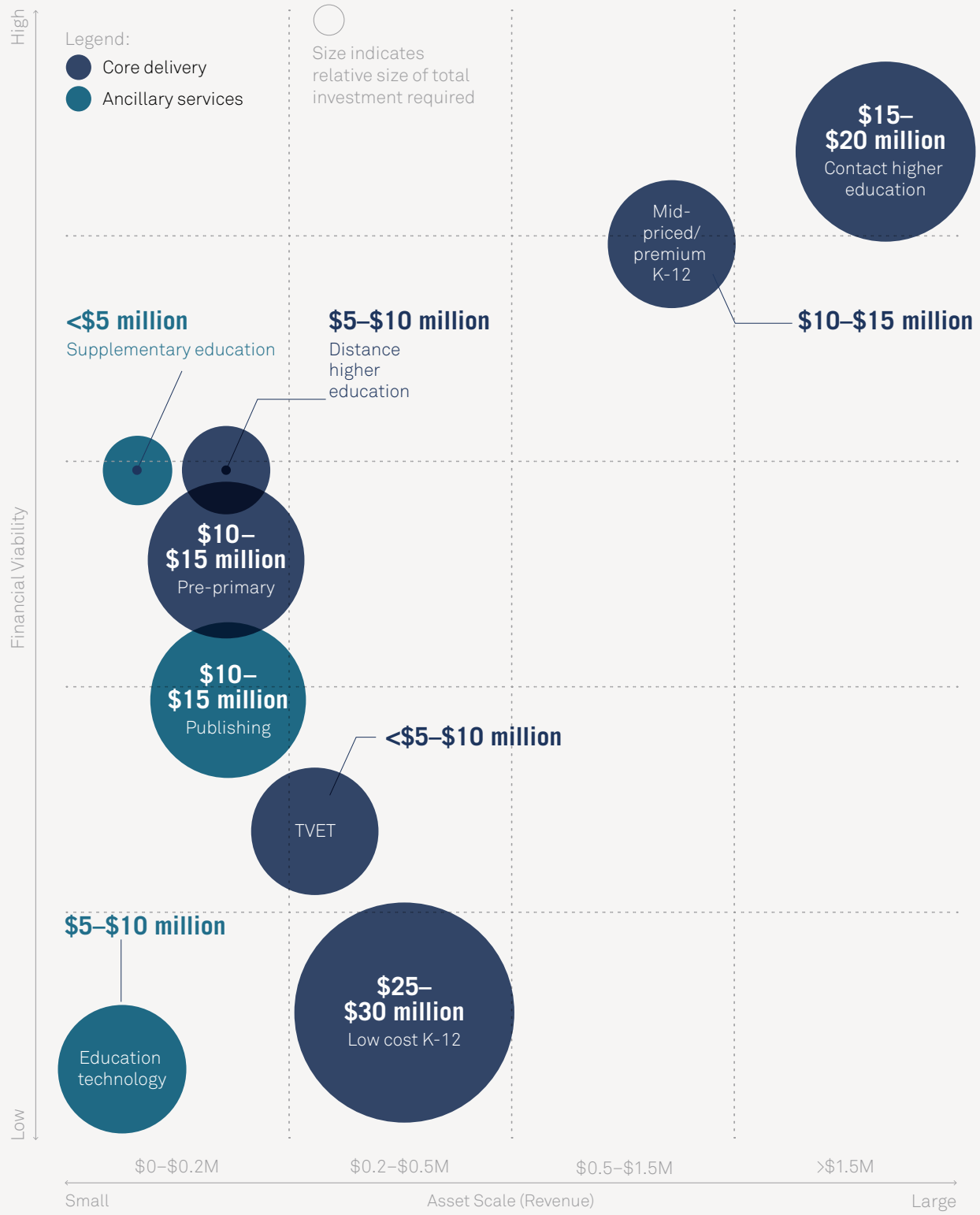
4. Boost the education sector by prioritizing student and institutional finance, offering incentives such as subsidized rates for student and institutional loans.

TABLE 23: POLICY AND REGULATORY LANDSCAPE[458]

	Pre-K	K-12	Higher education	TVET
LICENSING				
Governing body	Ministry of National Education	Ministry of National Education	Ministry of Higher Education and Research	– The Ministry of Vocational Education, Apprenticeship and Crafts – Ministry of National Education
Duration	2–3 months for approval	– ~2 months for initial provisional authorization – 2–3 months (fast track) if STEM disciplines offered	4–6 months	4–6 months
OPERATIONS				
Enrollment growth	No restrictions	No restrictions	No restrictions	No restrictions
Curriculum	No restrictions	No restrictions	No restrictions	State curriculum
Teachers/faculty	– CEAP (Basic Certificate for Pedagogical Aptitude) – CAP (Certificate for Pedagogical Aptitude)	Bac or equivalent for primary grades and a Bachelor's for secondary grades	– Undergraduate lecturers must have Master's – Graduate school lecturers must hold Doctorate (PhD)	– Certificate in Teaching Post-Primary Technical – Certificate in Teaching Secondary Technical and Vocational Education
INVESTMENT				
For-profit operations	Allowed	Allowed	Allowed	Allowed
Foreign ownership	100% allowed	100% allowed	Requirement for a Senegalese partner (no specified stake obligation)	100% allowed

THE OPPORTUNITY

FIGURE 57: INVESTMENT OPPORTUNITIES IN SENEGAL



Approximately $100–$120 million in private investment is estimated in the next five years in Senegal.[459]

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Donor support for public pre-primary provision:** Pre-primary education is significantly underfunded in the public sector, and donors have an opportunity to help bridge the existing financing gaps. ChildFund Senegal is a program that has worked toward filling this gap.

a) **ChildFund Senegal** supports 95 pre-primary centers which provide services for 5,000 children. They also set up libraries and playgroups for young children that emphasize health, nutrition, child protection, and parenting education. ChildFund has spearheaded the development of a national network of more than 50 pre-primary education stakeholders in Senegal, called Réseau National des Acteurs pour le Développement de la Petite Enfance (RENADPE). This network extends to government ministries, UN agencies, local government entities, and civil society organizations. RENADPE works to strengthen the quality of pre-primary programs through networking and advocacy activities. The network is educating government officials on pre-primary needs and proven interventions. Since its inception, RENADPE's advocacy activities have resulted in increased government resource allocation for pre-primary.

2. **Greenfield expansion of low-cost schools in Dakar for impact investors:** Private share of K-12 enrollments in Dakar has increased steadily over the last four years to reach 70% (see figure 58).[460] Between 2014 and 2015, 85 new private primary schools opened in Dakar (compared to only four new public schools).[461] Most opened in suburban areas with price points of less than $300. The variable quality of education offered by stand-alone providers, and an addressable market of ~4.8 million students (90% of all children),[462] present a greenfield opportunity to impact investors seeking to expand low-cost schools. Although the segment is fragmented with just a few existing chains such as Ecole Les Pédagogues (2,000 students, two campuses), there is limited opportunity for consolidation as these are mostly subscale assets that are family and community owned.

3. **Potential for greenfield expansion and consolidation in the mid-priced/premium K-12 segment in Dakar for commercial investors:** Commercial premium operators (fees greater than $2,000), such as Lycée Billes, are appearing at the secondary level to bridge the gap in supply. These act as "feeder schools" for the country's top private higher education institutes.[463] The value propositions for such schools are centered on STEM training, bilingual French and English offerings, and boarding facilities for international students. While premium schools have a maximum scale of 500 students,[464] schools in the mid-priced segment, such as Yalla Sur En, Sacré Coeur, and St. Pierre, have managed to attain a scale of 2,500–3,000 students. The mid-priced market is highly fragmented, presenting opportunities for consolidation.

4. **Opportunity for donors and low-cost operators to address supply shortage in rural Senegal through community schools:** Access to education remains low in rural areas, where the literacy rate was as low as ~35% in 2013.[465] As household income in these regions is very low, there is an opportunity for donors and low-cost operators to build and operate community schools suitable for rural regions with low population density. There are also opportunities to address gender disparities through community-level programs that promote education for girls.

5. **Higher education greenfield opportunity for commercial investors:** Increasing purchasing power in

Senegal has encouraged private higher education providers, such as the Morocco-based Université Privée de Marrakech (UPM), to enter the market. UPM launched in Senegal in 2015, and has attained an enrollment of ~200 students. Additionally, rising demand for quality higher education in Senegal's underserved regions provides an opportunity for Dakar-based operators to expand nationally. There are also opportunities for greenfield development of innovative low-cost models. Two select models in higher education include Groupe ISM and the Virtual University of Senegal (VUS).

a) **Virtual University of Senegal** was launched by the Government in 2013 and currently enrolls 13,000 students. VUS supplements its online education with multiple support centers.

b) **Groupe ISM (ISM)** already has a network of 14 campuses across Senegal, and plans to expand to other sites while growing its current course portfolio. The private equity group Providence Equity, and post-secondary education group Galileo Global Education, have invested in ISM to support its growth in Senegal and other parts of Africa.

6. **Greenfield and consolidation of premium higher education segment (fees $1,000–$2,500) for commercial investors:** Commercial investors have an opportunity to establish premium higher education institutions, such as ISM, Institut Africain de Management (IAM), Bordeaux Management School (BEM), and Groupe Ecole Supérieure de Commerce de Dakar (Groupe SupDeCo). In this segment, the combination of high fees and growing demand has allowed institutions to achieve an enrollment scale between 1,200 and 4,000. The segment is expecting a future growth rate of 10% per annum.[466] This market is highly fragmented and presents opportunities for consolidation. Furthermore, there is an oversupply of management courses from private higher education institutions that do not cater to the labor market need for technical profiles; and given the supply shortage, students seeking technical degrees often go to study in France or Canada.[467] The Government's higher education strategy has emphasized the need to increase STEM offerings, and in addition to offering funding to STEM students, it is prioritizing the authorization of private establishments with STEM program offerings. STEM graduates are in highest demand in the Dakar/Thiès corridor,[468] which will be driven further by the anticipated creation of a research hub ("Cité du Savoir") in the Thiès region. These conditions present a good opportunity for commercial investors to expand STEM education in Senegal.

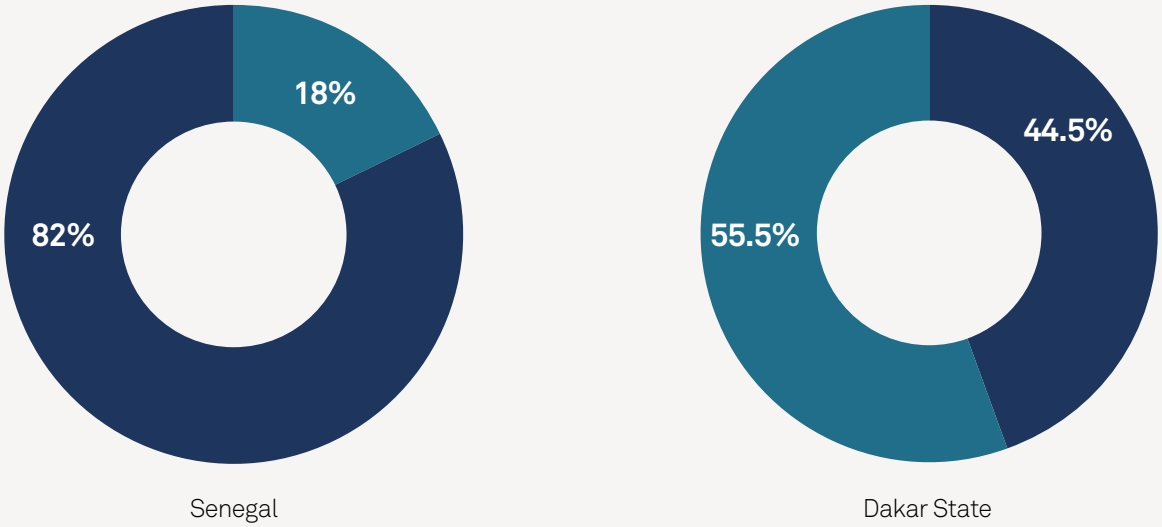
7. **Development of Senegalese higher education for students from Francophone West Africa:** Senegal is the most popular destination country for international students in Francophone West Africa.[469] This presents an opportunity for commercial investors to develop partnerships between Senegalese institutions and other establishments, establish Senegalese and international branch campuses, and cultivate distance learning opportunities. Furthermore, there is an opportunity to invest in on-site accommodation to cater to international students. A university that has captured the international student opportunity is IAM.

a) **IAM** is an institution that largely caters to international students, with 50% of its 600 students coming from Francophone West and Central African countries. It has opened three campuses in Bamako, Ouagadougou, and Libreville, and started offering delocalized programs with foreign partners in Côte d'Ivoire, Benin, and Mauritania in 2012.

8. **Education to employment expansion opportunity for impact and commercial investors:** Commercial and impact investors have the opportunity to offer executive education programs in partnership with key Senegalese employers, tailoring the curriculum to their specific needs. Impact investors also have the opportunity to develop and finance dual apprenticeship programs, which are based on partnerships between formal training institutions responsible for providing theoretical training and employers who offer on-the-job acquisition of professional skills. Although such programs are the primary route to attaining skills training in the country, they underperform due to funding shortages and issues with integrating into the formal TVET system.

SENEGAL IS THE MOST POPULAR DESTINATION COUNTRY FOR INTERNATIONAL STUDENTS IN FRANCOPHONE WEST AFRICA.

FIGURE 58: SHARE OF SCHOOL ENROLLMENTS (PRE-PRIMARY AND K-12), BY SECTOR, SENEGAL AND DAKAR STATE, 2015[470]



ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **Development of innovative education technology services for impact investors:** Edtech is a nascent sector in Senegal, but there are opportunities for impact investors to expand innovative services. An example of a PPP model in this segment is CTIC Dakar, the first incubator and accelerator devoted to IT entrepreneurs in Francophone SSA. Registered in 2011 as a not-for-profit, CTIC is an entrepreneurial PPP and is supported by the Government of Senegal, the World Bank, GIZ, Centre for the Development of Enterprise, and Orange S.A. CTIC has supported multiple ventures in education, including online learning platforms such as Azerty School, Samaskull, and Ecoles au Sénégal (EAS). EAS is an online platform with instructional videos for upper secondary STEM subjects in both French and Wolof.

2. **Greenfield expansion of publishing sector for commercial investors:** The shortage of books that is prevalent across Francophone Africa presents an opportunity for commercial investors to develop Senegal as a publishing hub for French language textbooks. There is also an opportunity to establish more distributors, as Senegal currently only has one.

3. **Commercial investment in student housing at higher education institutions:** Private premium higher education institutions are reportedly seeking to increase their boarding capacity, especially as institutes like BEM and IAM plan to increase their recruitment efforts toward students from neighboring countries. In the public sector, there is an 18,000-room deficit,[471] with reports of a double-room housing up to 10 students.[472] The Senegalese Government is open to public-private partnerships to address student housing capacity constraints.

LIBERIA

Liberia is among the poorest countries in the world, afflicted by two civil wars and the 2014 Ebola crisis. The economy heavily relies on foreign aid, and challenges include a large untrained workforce, and poor infrastructure. However, the Government has a progressive outlook on education.

KEY FACTS

GDP: $2.1 billion (2015)[473]

GDP per capita (constant): ~$367[474]

Five-year GDP growth forecast: 6%[475]

Population: 4.6 million[476]

Population growth: 3%[477]

Population under 25: ~61%[478]

Main industries
Services (50%)
Agriculture (35%)
Industry (14%)[479]

Corruption Perception Index Score: 37[480]

Ease of Doing Business Ranking: 175[481]

Key languages: English

EDUCATION LANDSCAPE

COUNTRY CONTEXT

GDP growth dropped to 0.7% in 2014 and 0% in 2015[482] as a result of the crisis and global collapse of the commodities market. Liberia's economy heavily relies on foreign aid, which accounted for up to 90% of the national budget in 2016–2017.[483] Like other countries in the region, Liberia has a large youth population, with 42% of its population between the ages 0–15,[484] but its challenges in delivering a demographic dividend are myriad: 14 years of civil wars stunted the technically able workforce,[485] youth literacy is low at 55%,[486] and 84% of people live below the poverty line.[487] Only 6% of all Liberian roads are paved,[488] and only 9.8% of the population has access to electricity.[489] However, there has been some progress, as mobile penetration is high at 81%[490] while internet penetration has risen from 5% in 2012 to 20% in 2015.[491]

EDUCATION CONTEXT

Liberia's Government spends 13% of its budget on education (~$80 million annually for the last three years),[492] and although this reflects a 5% increase since 2011,[493] it remains lower than the 15%–20% spent by other countries in the region.[494] Education receives 5%–8% of off-budget foreign aid,[495] amounting to ~$37 million in 2016/17 (as large as one third of the total education spend).[496] USAID is the major donor in Liberia's education sector, with over $20 million in donations annually to the education sector between 2011 and 2015.[497]

English is the official language of instruction, and education is free and compulsory at the primary and secondary levels (ages 6–16), though attendance enforcement is lax.[498] The education system was badly affected by civil conflict; by the end of 2003, 30% of public schools and 24% of community schools were destroyed,[499] while 16% of schools lost desks, chairs, and other basic resources. Nearly 80% of the education budget goes toward paying salaries,[500] hindering much-needed school building. Currently, 47% of the population has not participated in any form of education.[501]

CORE EDUCATION

Pre-primary education comprises three years and is not included in compulsory education. A 2011 government commitment to providing universal free pre-primary is underway. Over 35% of pre-primary enrollments are in secular and religious private schools.[502] 75% of pre-primary students are over-age,[503] reflected in the contrast between a ~85% pre-primary GER and ~35% NER.[504]

K-12 education includes formal and informal educational systems. In the formal system, only ~20% of all students enrolled in grade 1 complete grade 12,[505] with drop-out rates driven by high opportunity costs of lost income and low perceived returns to education.[506] Challenges to public education include teacher absenteeism, textbook shortages, and infrastructural deficiencies.[507] Private alternatives include three types of schools: low-cost faith-based schools (private for-profits comprising 700 Christian mission schools with fees at ~$50–$70 per annum);[508] low-cost secular schools (mostly for-profit, comprising 1,500 schools with fees at $50–$60 per annum);[509] and just

five to six Monrovia-based premium schools (charging $1,500–$2,500 to maintain basic education standards and facilities like generator electricity).[510]

The informal system accounts for a negligible proportion of K-12 enrollments[511] and consists of the Accelerated Learning Program (now being phased out), and Alternative Basic Education (ABE), a three-year informal educational program covering basic education and skills training.

In 2016 the Government launched an ambitious PPP pilot, Partnership Schools for Liberia (PSL), to advance basic primary education (see detailed case study on PSL in Annex I). PSL currently covers 93 public primary schools (~27,000 students) across the country (see figure 61). PSL schools are free of charge, with the Government covering salary and infrastructure costs, and eight local and international for-profit and not-for-profit private operators responsible for curriculum, teacher training, and education delivery.

Liberia's government and funders including UBS Optimus Foundation, Elma Philanthropies, Ark, and Big Bang Philanthropy members Mulago Foundation, Vitol Foundation, Jasmine Social Investments, Montpelier Foundation, Segal Family Foundation, and Peery Foundation, contributed to the pilot[512] with the goal that government and philanthropy each contribute $50 per student per year. However some operators' costs exceeded the $100 total due to one-time startup costs for R&D, teacher training, and curriculum development, and these additional costs were covered by private philanthropy. All operators are building their programs to meet the $100 per-child cost.[513]

The total budget of the program is estimated at ~$158 million over five years.[514] Results will be monitored based on eight KPIs in the control schools. If Year 1 is successful, the Government plans to expand the program to all 2,750 government schools in the country by year five (see figure 61). Challenges include poor school infrastructure, logistical difficulties in a variety of geographies, improving government monitoring and management capacity, and developing transitional funding from a philanthropic model to a blended international, domestic, and private funding mechanism.[515]

IN 2016 THE GOVERNMENT LAUNCHED THE PARTNERSHIP SCHOOLS FOR LIBERIA PILOT TO ADVANCE BASIC PRIMARY EDUCATION.

Higher education has seen a 40% surge in enrollments at major public universities in the last six years.[516] Liberia has a total of 33 higher education institutes, including 24 private universities. Higher education

FIGURE 59: KEY EDUCATION FIGURES

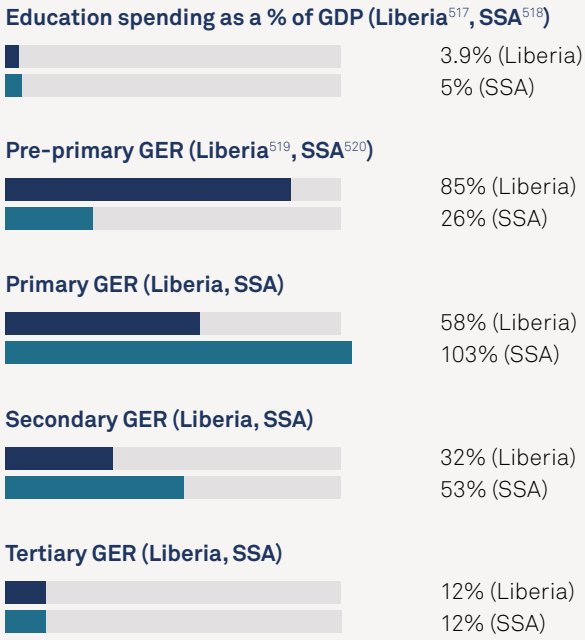
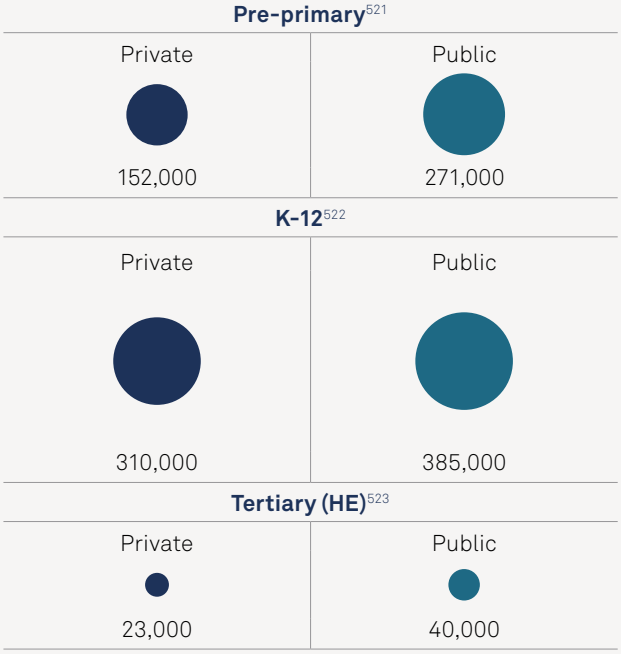


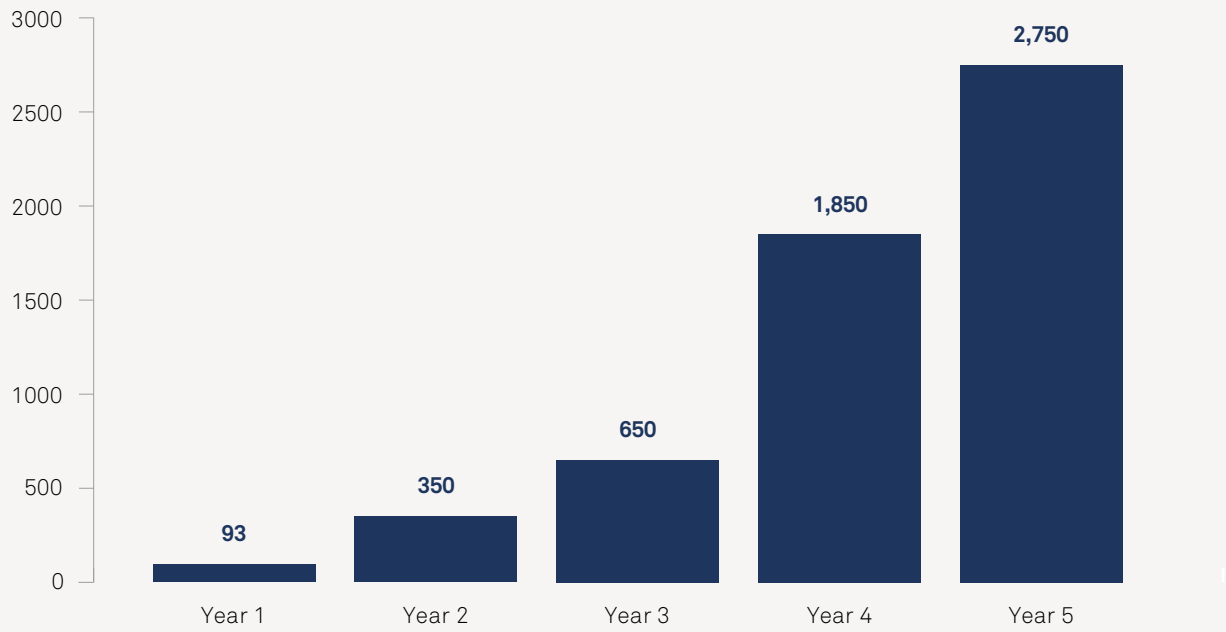
FIGURE 60: CURRENT ROLE OF THE PRIVATE SECTOR



is highly centralized, with 21 institutes located in the county where Monrovia (the country's largest city) is located. Since 2010, the Government has attempted to decentralize the system by opening six community colleges outside of Monrovia.[524] However, the public system is still capacity constrained, and these new institutions are running at more than 90% capacity.[525] Faith-based institutions account for 80% of private provision and ~35% of all higher education enrollments in 19 universities.[526] The quality of higher education is affected by inadequate supply of professors and a need for curricular reforms. Further, necessary infrastructure for STEM fields, such as engineering and medicine, was destroyed during the civil wars.[527] The country has no doctorate programs, and therefore a limited supply of homegrown academic talent. IT courses are not offered in public universities, though there has been a growing interest in the subject, with a growth rate of more than 20% in the last two years.[528] However, only 30% of these graduates acquire jobs.[529]

TVET provision in Liberia is dominated by private providers with greater than 60% enrollment share.[530] TVET is available across primary (basic skills at centers), secondary (junior high schools and centers), and tertiary levels. Non-formal tertiary TVET targets adult literacy and accelerated training programs but is not tracked. In the formal sector, quality is poor and fewer than 40% of TVET instructors possess any training themselves.[531] Furthermore, there is no national qualifications system. Due to the gaps in Liberia's trained workforce, many companies import workers or hire external consultants to come to Liberia and train employees.[532]

FIGURE 61: PLANNED NUMBER OF SCHOOLS UNDER PARTNERSHIP SCHOOLS FOR LIBERIA PROGRAM OVER FIVE YEARS[533]



ANCILLARY SERVICES

Teacher training is severely undersupplied. The majority of the teaching force remains unqualified. Less than 50% of pre-primary staff are qualified, only 63% of primary school teachers are qualified, and fewer than 34% of secondary teachers hold minimum qualifications for their positions.[534] Public provision is limited to three Rural Teacher Training Institutes (RTTIs), which offer certification only for pre-primary and primary levels and suffer from overstaffing and low quality. With no commercial providers, donors and NGOs have provided the majority of teacher training in the last decade through the Liberia Teacher Training Programs (LTTP) I (2006–2010) and II (2010–2015), funded by USAID and led by NGOs.[535] Operated by the Academy for Educational Development (AED), LTTP Phase 1 had two focus areas: teacher training and capacity building. Subsequently, Phase 2 (2010–2015) was operated by FHI 360 and focused on primary teacher training, early years reading, and MoE capacity building. Challenges to teacher training included a lack of incentives and logistical constraints for teachers.

At ~$35 million annually,[536] the teacher payroll is the largest component of the education budget but could include as many as 3,000 ghost teachers who receive a paycheck but do not attend school (15%).[537] This costs Liberia $5 million annually, and addressing this inefficiency is among the Government's top goals in the sector. However, nearly 26% of teachers at public and secular private schools are not formally compensated for their work.[538]

Supplementary education is very limited. The test preparation market is negligible, as only a small minority of students in city areas take extra classes for WAEC and National exams. Given low electricity and internet penetration, there is limited potential for delivery channels that use technology.

Student finance is not available in Liberia. There are nine commercial banks with 87 bank branches, 50 of which are located in Monrovia. The number of commercial bank loan accounts is small (less than 20 per 1,000 adults)[539] compared to the SSA average of 250 per 1,000 adults. Given the limited access to banking services, student finance is not expected to grow in the near future.

> **NEARLY 26% OF TEACHERS AT PUBLIC AND SECULAR PRIVATE SCHOOLS ARE NOT FORMALLY COMPENSATED FOR THEIR WORK.**

POLICY AND REGULATORY LANDSCAPE

1. **The 2011 Education Reform Act reconstructed Ministry of Education bureaus, reformed the student grade structure, and defined pathways to decentralization through the establishment of county and district education boards.**

2. **The Government acknowledges that investment is required in the country, and has set up the National Investment Commission (NIC) to encourage private participation and PPPs in Liberia.**

3. **Foreign investors are not required to undergo extra scrutiny but must ensure that they are following the same national guidelines that are applicable for local investors.**

4. **In 2011, the Ministry of Education established the National Inter-Sectoral Policy on Early Childhood Development to focus specifically on young children.** The Government is now committed to providing pre-primary education and plans to gradually remove fee payments. The Government is considering putting an upper cap on age in pre-primary schools.

5. **The Government previously relied heavily on the LTTP program for teacher training provision, and is now seeking to re-engage the private sector.**

POLICY IMPERATIVES

The Liberian Government is currently making a significant effort to improve the education system, and its policies recognize the essential role of the private sector, given public capacity constraints. Without private investment support, there is limited scope for enacting additional policy reform.

1. Develop a robust national assessment framework to further TVET sector development.

2. Utilize technology to streamline issues in tracking and monitoring Ministry of Education operations, such as teacher payroll.

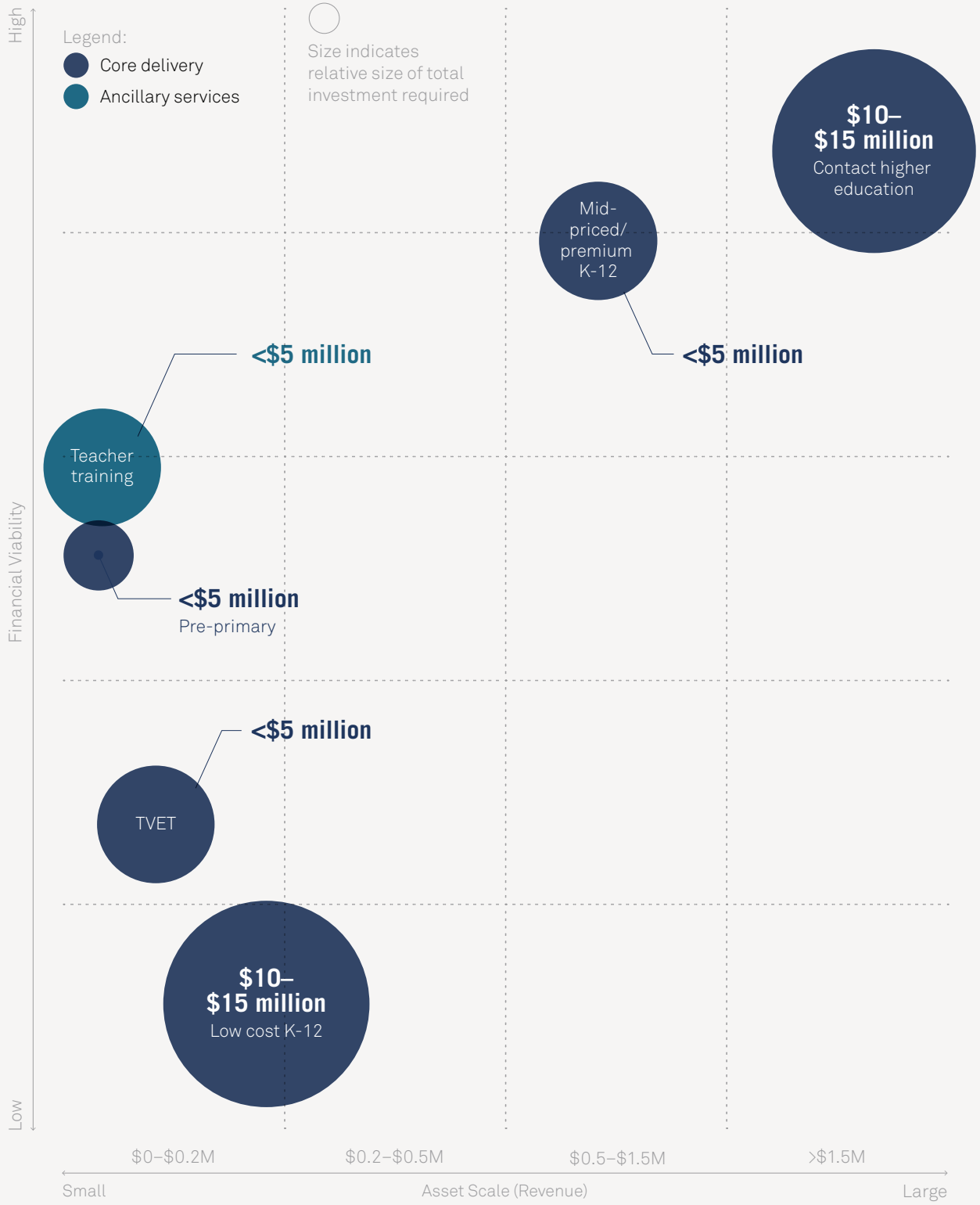
3. Ensure that programs such as USAID's Education Management Information System (EMIS) and GEMS by USAID are taken forward, as they offer practical solutions to teacher management, tracking learning outcomes, and payroll systems.

TABLE 24: POLICY AND REGULATORY LANDSCAPE[540]

	Pre-K	K-12	Higher education	TVET
LICENSING				
Governing body	Ministry of Education	Ministry of Education	National Commission on Higher Education	– Ministry of Education – Ministry of Youth and Affairs
Duration	2–4 months for approval	2–4 months for approval	2–4 months for approval	2–4 months for approval
OPERATIONS				
Enrollment growth	No restrictions	No restrictions	No restrictions	No restrictions
Curriculum	National curriculum; free to provide other curricula as supplementary education	National curriculum; free to provide other curricula as supplementary education	National curriculum	No restriction on curriculum
Teachers/faculty	Qualification requirements to be followed (C Certificate)	Qualification requirements to be followed (C Certificate for lower primary, B Certificate for upper primary, BSc. for secondary)	Qualification requirements to be followed (Master's)	Qualification requirements to be followed (above C Certificate)
INVESTMENT				
For-profit operations	Allowed	Allowed	Allowed	Allowed
Foreign ownership	100% allowed	100% allowed	100% allowed	100% allowed

THE OPPORTUNITY

FIGURE 62: INVESTMENT OPPORTUNITIES IN LIBERIA



Approximately $50–$60 million in private investment is estimated in the next five years in Liberia.[541]

CORE: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **PPP opportunities exist for donors and impact investors to support the growth of PSL:** The program has had a successful start, with most schools running at full capacity (45–55 pupils per class) and promising early results.[542] If the program is to expand it will require more capital from donors and impact investors. Furthermore, the Government may choose to involve more operators, presenting an opportunity for greenfield growth for impact investors.

2. **Greenfield development of low-cost secondary schools outside of Monrovia for commercial investors:** The PSL program is expected to reduce dropout rates in primary grades, which will lead to a larger cohort progressing into secondary.[543] Thus, there are greenfield opportunities for commercial investors to develop secondary schools.

3. **Opportunity for greenfield development of higher education institutions outside of Monrovia for impact investors and donors:** The six new government colleges opened outside of Monrovia have seen growing enrollment due to high demand from local students. These regions are currently underserved, with limited public provision and no private provision outside of Montserrado County. Given affordability constraints in these regions, there is an opportunity for impact investors and donors to establish low-cost institutions.

4. **Potential for establishment of secular private colleges for commercial investors:** Although secular private colleges form less than 5% of tertiary enrollment,[544] new providers in this market are performing well, achieving a scale of ~500 students.[545] Examples of successful market entrants include Starz College of Science and Technology (opened in 2012; has achieved scale of ~400 students), and BlueCrest University College (opened in 2016; has achieved scale of ~600 students).

5. **PPP opportunities for impact investors and donors to provide learning resources in higher education:** State universities were badly affected by the civil wars, with ~70% of library books stolen or destroyed and laboratory equipment ruined.[546] Government resources are largely allocated toward K-12, and resources for higher education are mostly allocated toward salaries. Thus there is room for impact investors and donors to provide funding to help resupply public universities with learning resources.

GOVERNMENT MAY CHOOSE TO INVOLVE MORE OPERATORS IN THE PARTNERSHIP SCHOOLS FOR LIBERIA PROGRAM, PRESENTING AN OPPORTUNITY FOR INVESTORS.

6. **Greenfield establishment of employability-oriented TVET courses that require relatively less capital:** Opportunities exist for commercial investors to establish courses that improve graduate employability. Though some STEM disciplines, such as mechanical engineering, are highly capital-intensive, computer science requires relatively less capital investment and presents a low-cost opportunity for commercial investors.

   One example of a private institution offering specialized computer science TVET is BlueCrest University College, established in 2016, a private for-profit institution that provides computer science certifications. It has achieved a scale of ~600 students. Similar programs have had greater than 20% annual enrollment growth over the last two years.

7. **PPPs for impact investors to establish capital-intensive TVET courses:** Since highly capital-intensive TVET programs are not yet commercially viable in Liberia, there is an opportunity for impact investors and donors to support the growth of this sector to help build Liberia's skilled labor force. Disciplines include mechanical and electrical engineering.

   For example, in 2015, the Chinese Government supported the construction of a new building at Monrovia Vocational Training Center, growing the institution's capacity by ~750 students. The project cost ~$10 million, and courses offered at the center include electrical engineering, heavy-duty mechanics, and computer education.

ANCILLARY: DETAILED DESCRIPTIONS OF SELECT OPPORTUNITIES

1. **PPPs potential for impact investors to provide teacher training across sectors:**
   As a result of PSL, the secondary education sector will require more teachers. The Government is piloting teacher training programs to qualify teachers with the required secondary certificate but will likely require private partners to execute training at a large scale. In the TVET sector, there is a need to develop a teaching curriculum across disciplines. Impact investors have an opportunity to partner with the Government, bringing expertise in curricular development and operation of programs.

2. **Greenfield development of low-cost education delivery for commercial investors:**
   With high mobile penetration and growing internet penetration, commercial investors may have opportunities to distribute learning content and curricula via offline mobile platforms.

3. **PPPs for impact investors to develop monitoring systems to track learning outcomes and teacher payroll:**
   Payroll and learning outcomes management is inefficient,[547] presenting opportunities for impact investors to support the development of efficient information tracking and processing systems. Two USAID examples of this are the GEMS mobile teacher salary program, and the Education Management Information System (EMIS) data collection program.

a) **Governance and Economic Management Support** (GEMS) program was launched in 2016. GEMS offers a mobile money platform to distribute teacher salaries It has been lauded by teachers and the Government alike. However, the Government will need to build upon operational capacity to ensure sustained success beyond the pilot.

b) **Education Management Information System** (EMIS) is a data collection system for the Government as a part of LTTP II. The system produces reports on education metrics such as student-teacher ratios, prevalence of qualified teachers, and resources available at specific schools.

AS A RESULT OF PARTNERSHIP SCHOOLS FOR LIBERIA, THE SECONDARY EDUCATION SECTOR WILL REQUIRE MORE TEACHERS.

ANNEX III
METHODOLOGY FOR MARKET SIZING

The size of the private education sector and capital deployment required in the private education sector in sub-Saharan Africa was calculated as follows:

- **Step 1:** Estimating revised total enrollment (public and private) based on self-reported enrollment status in censuses and surveys
- **Step 2:** Projecting the growth of the total education sector in SSA based on historic GER evolution and demographic trends
- **Step 3:** Projecting the share of private enrollment, based on the historic share evolution trends for the private sector and the GDP growth forecast
- **Step 4:** Translating the enrollment forecast into a revenue forecast and calculating the capital deployment required to generate the estimated revenue

Taking these steps in turn:

STEP 1: ESTIMATING REVISED TOTAL ENROLLMENT (PUBLIC AND PRIVATE)

In order to provide a renewed estimate of the size of the private education market versus what is available from publicly reported data, data on pupils enrolled in various levels of education has been calculated using a range of country-level surveys, such as the National Census, Demographics and Health Survey (DHS, funded by USAID), and the Multiple Indicators Cluster Survey (MICS, funded by UNICEF). While the UNESCO Institute for Statistics (UIS) reports data only for formal education systems provided by public organizations and recognized private bodies, the household surveys follow a consumer-driven approach of surveying and estimating the number of pupils receiving any form of education. Often the gap between the two types of sources can be explained by the prevalence of education provision outside of the formal education structure.

STEP 2: PROJECTING THE GROWTH OF THE TOTAL EDUCATION SECTOR IN SUB-SAHARAN AFRICA

1. Pre-primary

Most countries are in the low-to middle-GER range (20%–30%) for pre-primary education but have demonstrated strong growth over a low base. Historic GER trends are extrapolated going forward assuming SSA countries are likely to continue growing GER along historic lines.

2. Primary

All countries had a target of achieving universal primary education by 2015 (per the Millennium Development Goals). Although most countries in sub-Saharan Africa have made tremendous progress toward achieving universal education, not all countries have been able to meet 2015 MDG targets. First, the primary net enrollment ratio (NER) is forecast based on the historic NER trend. Similarly, the ratio of NER to GER is forecast based on historic trend; the NER-GER ratio is a measure of over-age and underage children in a given level of education and this ratio is expected to increase as NER reaches closer to 100% and the school system becomes efficient (i.e., as late enrollments and failure rates decrease). As countries solve the problem of access and backlog, and the over-aged population enrolled in a particular grade cohort decreases, the NER to GER ratio is expected to approach 1.00. The forecast for GER is arrived at by using the forecast trends for NER and the forecast trends for the NER to GER ratio.

Most countries are likely to reach Universal Primary Enrollment (UPE) targets by 2021. However, there are a few countries, including Nigeria, Sudan, and Niger, which may not be able to cross 80% NER based on historic trends.

3. Secondary

The SDGs state that every child should have access to secondary education — the Universal Secondary Education (USE) — by 2030. As countries reach the MDG target of UPE, focus on secondary education is expected to grow, resulting in an accelerated increase in secondary GER. While historic trends are used to forecast the GER in secondary, a greater focus on secondary is accounted for by assuming an accelerated growth of secondary GER over time. While South Africa is expected to be the only country to achieve USE by 2021, other countries are expected to reach secondary NER in the range of 40%–60% by 2021.

4. Higher Education and TVET

Tertiary GER has a high correlation with economic growth. An increase in GDP per capita is linked to an increase in GER. A regression analysis between GER and GDP per capita (PPP adjusted) for SSA is used to forecast GER for tertiary education. GDP growth forecasts for SSA countries are as per IMF projections (real GDP per capita — PPP adjusted, 2010 base).

5. Teacher training

The number of teachers required has been estimated by calculating: 1) the number of additional teachers required due to an increase in enrollment, 2) the number of teachers required to replace teachers discontinuing from service, and 3) additional teachers required assuming improvement in STR using historic trends.

STEP 3: PROJECTING THE SHARE OF PRIVATE ENROLLMENT

The share of private enrollment has been increasing across all levels of education for most countries. As governments face financial constraints, the private sector is expected to further increase its share of enrollments. However, the exact evolution will vary by country due to various factors such as current share of the private sector and economic growth and affordability outlook in the country. To forecast share of private enrollments going forward, it is assumed that the private sector will continue to either maintain current share or gain share at historic levels adjusted for GDP growth. The enrollment share of private sector and total enrollment calculated in the above steps therefore provide the total enrollment for most core education segments. The share of mid-priced/premium K-12 schools has been calculated by projecting: 1) increase in the population cohort that can afford these schools, and 2) increase in penetration of mid-priced/premium schools in the relevant population segment. Penetration is defined as the ratio of enrollment in mid-priced/premium schools to the population that can afford such schools.

STEP 4: TRANSLATING THE ENROLLMENT FORECAST INTO REVENUE FORECAST AND CALCULATING THE CAPITAL DEPLOYMENT

The enrollment calculated was then translated into revenue potential by multiplying it by average fees per student for each specific segment. The capital deployment is derived from the revenue potential using asset turnover ratios and asset life for different subsectors in education. Asset turnover ratio is the ratio of revenues generated relative to the value of assets. For example, a school charging $300 as annual fees would typically spend $400 in creating the capacity for one student, leading to an asset turnover ratio of 0.75.

Estimating annual revenue per student: Countries in SSA vary widely in terms of income per capita and purchasing power. The annual fee of a "low-cost" or "affordable" school in South Africa could be equivalent to that of a premium school in Ethiopia. The average tuition fees charged by private institutions are typically in line with the average income per capita of the country. The World Bank's classification of countries by income level has been used to group SSA countries into similar buckets based on private education affordability. The average revenue per student by World Bank income segment for various segments has been estimated based on on-ground primary and secondary research in sample countries. The revenue for supplementary education and publishing has been estimated using benchmarks of spend on these services as a percentage of spend on core education. Spend on supplementary education is estimated at ~10% of spend on K-12 education and revenue for publishing is estimated at ~5% of spend on formal education.

Estimating capital deployment required: The initial investment required to generate a given amount of revenue varies by segment due to the varying nature of businesses. The asset turnover ratios by segment have been arrived at by using case studies of existing businesses and stakeholder interviews. In addition, assets have to be replaced or refurbished every few years. The investment required to replace existing assets has been estimated by assuming asset life by sector based on case studies.

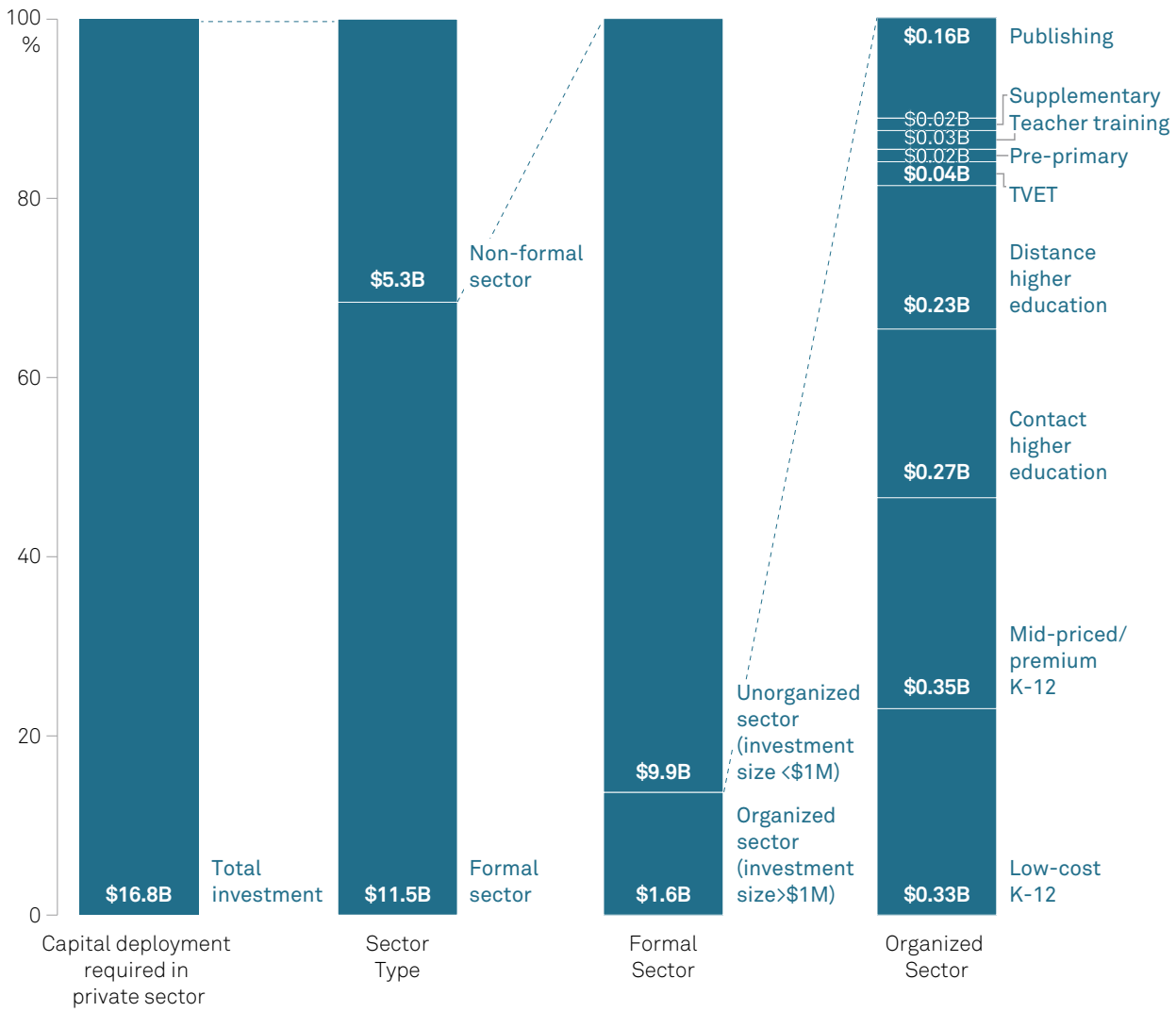
Based on this approach, the total investment in private education sector is estimated to be $16–$18 billion over the next five years. However, within core education, non-formal provision accounts for $6.0–$7.0 billion of investment based on the current size of opportunity with non-formal/unregistered schools and institutes. A significant proportion of the remaining investment is likely to be in the unorganized sector (small businesses with annual revenue scale less than $1 million). The proportion of the organized sector varies between 10%–20%, giving an estimated ~$1.5–$2.0 billion investment for the private organized sector over the next five years (see figure 62).

TABLE 25: ESTIMATING CAPITAL DEPLOYMENT REQUIRED

Education segment	Categories used for country classification	Revenue per student ($000) for respective category	Asset turnover ratio	Asset life (years)
Pre-primary	Upper middle income Lower middle income Low income	1.00 0.30 0.15	80%	20
Low-cost K-12	Upper middle income Lower middle income Low income	1.00 0.30 0.15	80%	20
Mid-priced/premium K-12	Upper middle income Lower middle income Low income	2.00 0.60 0.30	100%	20
Contact higher education	Upper middle income Lower middle income Low income	3.00 0.90 0.45	100%	30
Distance higher education	Upper middle income Lower middle income Low income	2.00 0.60 0.30	50%	15
TVET	Upper middle income Lower middle income Low income	1.50 0.45 0.23	50%	15
Pre-service teacher training	Upper middle income Lower middle income Low income	2.00 0.60 0.30	60%	30
In-service teacher training	Upper middle income Lower middle income Low income	0.20 0.06 0.03	200%	30
Supplementary education*	Upper middle income Lower middle income Low income	10% 10% 10%	300%	20
Publishing*	Upper middle income Lower middle income Low income	5% 5% 5%	100%	10

**Revenue for supplementary education calculated as a percentage of total spend in K-12 education. Revenue for publishing calculated as percentage of total spend in K-12, HE and TVET*

FIGURE 62: FIVE-YEAR INVESTMENT OPPORTUNITY IN PRIVATE EDUCATION IN SSA



ANNEX IV
NOTABLE RECENT EXAMPLES OF INVESTMENT IN SSA EDUCATION OPERATORS

TABLE 26: NOTABLE RECENT EXAMPLES OF INVESTMENT IN SSA EDUCATION OPERATORS

COMMERCIAL INVESTORS

Operator	Sector	Geography	Investor	Year
MULTIPLE SECTORS				
Curro	– Pre-primary – Mid-priced/ premium K-12	– South Africa	– PSG Group	2009
Maravest Group	– Pre-primary – Mid-priced/ premium K-12	– South Africa	– ADvTECH	2015
ADvTECH Group	– Pre-primary – Mid-priced/ premium K-12 – Contact and distance higher education	– South Africa	– IFC	2016
K-12				
Flipper International School	– Mid-priced/ premium K-12	– Ethiopia	– Schulze Global Investments	2010
Braeburn Schools	– Mid-priced/ premium K-12	– Kenya – Tanzania	– IFC (debt financing)	2010
Hillcrest International Schools	– Mid-priced/ premium K-12	– Kenya	– Fanisi Capital	2011
Reddam House	– Mid-priced/ premium K-12	– South Africa	– Educas – Oakley Capital Private Equity	2013
GEMS Education	– Mid-priced/ premium K-12	– SSA	– CDC Group	2013
Brookhouse School	– Mid-priced/ premium K-12	– Kenya	– Educas – IFC (debt financing)	2015
Africa Crest Education	– Mid-priced/ premium K-12	– Kenya	– Centum Investment Company – Investbridge Capital – SABIS	2016

COMMERCIAL INVESTORS

Operator	Sector	Geography	Investor	Year
HIGHER EDUCATION				
CTI Education Group	– Contact higher education	– South Africa	– Pearson	2011
Monash South Africa	– Contact higher education	– South Africa	– Laureate International Universities	2013
IMM Group	– Distance Higher Education	– South Africa	– Lereko Metier Capital Growth Fund – Ke Nako Capital – Dutch development bank (FMO)	2013
Milpark Education	– Contact and distance higher education	– South Africa	– Apollo Education	2014
Maarifa Education	– Contact higher education	– Uganda – Zambia	– ECP	2015
University of Africa	– Distance higher education	– Zambia	– ADvTECH Group	2017
TVET				
Spire Education	– TVET (education to employment)	– Kenya	– Blue Haven Initiative	2016
EDUCATION TECHNOLOGY				
Eneza Education	– Education technology (core delivery)	– Kenya – Tanzania – Ghana	– Savannah Fund – SparkFund	2016
BRCK Education	– Education technology (core delivery)	– Kenya	– Case Foundation – Sorenson Impact – TED – MKS Alternative Investments – Synergy Energy and others	2016
EDUCATION PUBLISHING				
Longhorn Publishers	– Publishing	– Kenya	– Centum Investments	2016

IMPACT INVESTMENT

Operator	Sector	Geography	Investor	Year
PRE-PRIMARY				
Kidogo	– Pre-primary	– Kenya	– IDEO – Saving Brains program (Government of Canada)	2015–2016
K-12				
Omega Schools	– Low-cost K-12	– Ghana	– Pearson Affordable Learning Fund	2012
Meridian Schools	– Low-cost K-12	– South Africa	– Schools and Education Investment Impact Fund of South Africa (SEIIFSA)	2013
Bridge International Academies	– Low-cost K-12	– Kenya – Liberia – Nigeria – Uganda	– Bill Gates – CDC Group – DFID – IFC – Khosla Ventures – New Enterprise Associates – Novastar Ventures – Omidyar Network – Pearson Affordable Learning Fund – Zuckerberg Education Ventures – Others	2014–2015
Lekki Peninsula Affordable schools	– Low-cost K-12	– Nigeria	– Pearson Affordable Learning Fund – Village Capital	2015
SPARK Schools	– Low-cost K-12	– South Africa	– The Good Schools Fund – Omidyar Network – Pearson Affordable Learning Fund	2016
HIGHER EDUCATION				
UNICAF	– Distance higher education	– Pan-Africa	– CDC Group	2016

IMPACT INVESTMENT

Operator	Sector	Geography	Investor	Year
TVET				
Kepler	– TVET (education to employment)	– Rwanda	– Generation Rwanda (NGO) – IKEA Foundation	2013
Andela	– TVET (education to employment)	– Nigeria	– Chan Zuckerberg Initiative – CRE Venture Capital – Founder Collective – Learn Capital – Omidyar Network – Spark Capital – SparkLabs Global Ventures and others	2014–2016
RLabs	– TVET (education to employment)	– South Africa	– Omidyar Network	2015
EDUCATION TECHNOLOGY				
Siyavula	– Education technology	– South Africa	– Omidyar Network	2015–2016
SUPPLEMENTARY EDUCATION				
IkamvaYouth	– Supplementary education	– South Africa	– Omidyar Network – The ELMA Foundation	2016
STUDENT FINANCING				
Fundi (formerly Eduloan)	– Student finance	– South Africa	– IFC (through debenture educational bonds)	2001–2015

DONORS

Operator	Sector	Geography	Investor	Year
PRE-PRIMARY				
Ilifa Labantwana	– Pre-primary	– South Africa	– DG Murray Trust – The ELMA Foundation – First National Bank – The Innovation Edge – Omidyar Network – UBS Optimus Foundation	2009–2016
Tayari	– Pre-primary	– Kenya	– Children's Investment Fund Foundation (CIFF)	2014–2018
SmartStart	– Pre-primary	– South Africa	– DG Murray Trust – The ELMA Foundation – Yellowwoods	2015–2016
K-12				
Promoting Equality in African Schools (PEAS)	– Low-cost K-12	– Uganda – Zambia	– Costa Foundation – DFID – The ELMA Foundation	2014–2015
LEAP Science & Maths Schools	– Low-cost K-12	– South Africa	– The ELMA Foundation – Michael & Susan Dell Foundation	2014–2016
Speed Schools	– Low-cost K-12 (non-formal)	– Ethiopia	– Luminos Fund (Legatum Foundation, Dubai Cares, UBS Optimus Fund, Supercell)	2015–2016
Partnership Schools for Liberia	– Pre-primary, K-12 (primary) (PPP)	– Liberia	– Ark – Elma Philanthropies – UBS Optimus Foundation – Big Bang Philanthropy members	2016
Collaborative Schools	– Low-cost K-12 (PPP)	– South Africa	– Ark Education Partnerships Group – DG Murray Trust – Michael & Susan Dell Foundation – The Millennium Trust	2016

Operator	Sector	Geography	Investor	Year
TVET				
Harambee Youth Employment Accelerator	– TVET (education to employment)	– South Africa	– The ELMA Foundation – Rockefeller Foundation – Yellowwoods	2015–2016
WAVE Academies	– TVET (education to employment)	– Nigeria	– David Weekley Family Foundation – Fossil Foundation – Sahara Group – Segal Family Foundation – Others	2016
EDUCATION TECHNOLOGY				
Learn English Audio Project (Ethiopia)	– Education technology (core delivery)	– Ethiopia	– British Council – Lifeline Energy	2012–2014
Camara Education	– Education technology (ICT)	– Ethiopia – Kenya – Tanzania – Zambia	– Costa Foundation – Google – Iris O'Brien Foundation – Salesforce.com – Stavros Niarchos Foundation	2014–2016
STUDENT FINANCING				
Wings to Fly	– Student finance	– Kenya	– DFID – Equity Foundation – KfW – The MasterCard Foundation – USAID	2010–2016
Opportunity International	– Student finance	– Kenya – Ghana – Malawi – Uganda	– Bill & Melinda Gates Foundation	2010

ANNEX V
GLOSSARY AND ABBREVIATIONS

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"Approximately"; used in front of numbers or ranges of numbers

$
US dollars

A-Levels
A qualification in a specific subject typically taken by school students aged 16–18, at a level above GCSE; typically offered in the UK outside Scotland and in schools adopting a British curriculum

ANAQSup
Autorité Nationale d'Assurance Qualité de l'enseignement Supérieur, a government quality assurance agency in Senegal

Ancillary services
Teacher training, supplementary education, education technology, student finance, institutional finance, and publishing

Anglophone countries
Countries that are predominantly English speaking

APBET
Alternate Provision of Basic Education and Training program in Kenya

Bac
Baccalaureate, or university entrance exam in Francophone education systems

B2B
Business to business

B2C
Business to consumer

Brain drain
The emigration of highly trained or qualified people

CAGR
Compound Annual Growth Rate

CAMES
Conseil Africain et Malagache pour l'enseignement supérieur; an African regional body that offers institutional quality assurance

CAP
Certificate of Pedagogical Aptitude in Senegal

Capex
Capital expenditure

CBN
Central Bank of Nigeria

CEAP
Basic Certificate for Pedagogical Aptitude in Senegal

CHE
Council for Higher Education, South Africa

CoE
Colleges of Education

Commercial investor
Investors in for-profit enterprise involved in the buying and/or selling of goods and/or services that is expected to generate profit

Concessionary funding
Funding provided in the expectation of a less than commercial return

Contact Education
Education delivered in person; typically contrasted to distance education

Core delivery
Pre-primary, K-12, higher education, and technical and vocational education and training (TVET)

COTVET
Council for Technical and Vocational Education and Training, Ghana

CPTD
Continuing Professional Teacher Development

CUE
Commission for University Education, Kenya

Demographic dividend
The accelerated economic growth that may result from a decline in a country's birth and death rates and the subsequent change in the age structure of the population

DFID
United Kingdom Department for International Development

DHET
Department of Higher Education and Training, South Africa

Distance education
Education delivered via technology (not in person); typically contrasted to contact education

Donor
An individual or organization that contributes private grants, particularly toward social causes

DRC
Democratic Republic of the Congo

Early-stage investors
Investors looking for opportunities to support early-stage companies to grow

ECE
Early childhood education

ECD
Early childhood development

ELT
English language training

Emerging markets
Economies that are progressing toward becoming more advanced

ENEM
Exame Nacional do Ensino Médio; a higher education entry exam, Brazil

FDI
Foreign direct investment

FET
Further education and training

GCSE
General Certificate of Secondary Education; an internationally recognized qualification taken by secondary students in Commonwealth countries over two years

GER
Gross enrollment ratio; total enrollment in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group for that level of education

GIZ
Deutsche Gesellschaft für Internationale Zusammenarbeit; a German development agency

Greenfield opportunities
Opportunities to establish new provision

HELB
Higher Education Loans Board, Kenya

HERQA
Ethiopian Higher Education Regulatory and Quality Authority

Hybrid/blended education
A combination of contact and distance education

ICT
Information and communication technology

IEIs
Innovative Enterprise Institutions, Nigeria

IMF
International Monetary Fund

Impact investor
Investors seeking measurable, beneficial, social or environmental impact alongside a financial return

Informal education
Education that is provided outside of the purview of the Ministry of Education or equivalent; also called non-formal education

IB
International Baccalaureate; a not-for-profit educational foundation offering internationally recognized programs that are offered in schools globally

IGCSE
International General Certificate of Secondary Education

ISASA
Independent Schools Association of Southern Africa

KCPE
Kenya Certificate of Primary Education

KCSE
Kenya Certificate of Secondary Education

KfW
A government-owned German development bank

KICD
Kenya Institute of Curriculum Development

KQF
Kenya Qualifications Framework

KSH
Kenyan Shilling

MDGs
Millennium Development Goals; global development goals for 2015

MFI
Microfinance Institution

MIS
Education Management Information System

M-learning
Mobile learning

Modified degrees
Non-traditional degrees, such as part-time or evening degrees

MOOCs
Massive open online courses

NBFI
Non-Banking Financial Institution

NCE
Nigerian Certificate of Education

NER
Net enrollment ratio; the number of children enrolled at a certain level of education who belong to the age group that officially corresponds to that level, divided by the total population of the same age group

NGN
Nigerian Naira

NQF
National Qualifications Framework; a system that records levels of learning achievement to ensure that the skills learned are recognized in the country; qualifications can be aligned to career tracks

NSFAS
National Student Financial Aid Scheme, South Africa

NUC
National Universities Commission, Nigeria

OECD
Organization for Economic Co-operation and Development

OER
Open Educational Resources

Ofsted
The UK's Office for Standards in Education, Children's Services, and Skills

PAEPL
Provincial average estimate (of cost) per learner

PG
Post-Graduate

PISA
Programme for International Student Assessment; worldwide study by OECD of school students' mathematics and science performance

Pre-primary
Comprises early childhood education and care for children aged 0–5

Primary
Traditionally the first stage of compulsory education, coming between early childhood education and secondary education

Private sector
Services and financing outside of public sector provision, including for-profit, charitable, non-governmental, faith-based, and community provision

Post-secondary
Any education that follows the completion of secondary school (higher education, TVET)

PPPs
Public-private partnerships

Quality assurance framework
A set of educational standards that educational institutions are assessed upon

REB
Regional Education Bureau, Ethiopia

RENADPE
Réseau National des Acteurs pour le Développement de la Petite Enfance

Revolving credit facilities
a line of credit where the customer pays a commitment fee and is then allowed to use the funds when they are needed

RSA
Republic of South Africa

SACE
South Africa Council of Educators

SACMEQ
Southern and Eastern Africa Consortium for Monitoring Educational Quality

SAT, GMAT, GRE, and TOEFL
Standardized tests

SDGs
Sustainable Development Goals; global development goals for 2030 and a successor set of goals to the MDGs

Secondary education
Takes place after primary education and before tertiary education

SETA
Sector Education and Training Authority, South Africa

SIBs
Social impact bonds

Sistemas
Private providers responsible for supplying public and private schools and with learning systems, Brazil

SSA
Sub-Saharan Africa

STEM
Science, technology, engineering, and mathematics

Strategic investor
An operating company, rather than a financial investor (like a venture capital firm) that invests in another company

STR
Student-teacher ratio

Supplementary education
After-school tutoring, language learning, test preparation

TESSA
Teacher Education in Sub-Saharan Africa; a private organization offering teacher training across Pan-Africa

Tertiary
Education that occurs after secondary school, including higher education and TVET

TIMSS
Trends in International Mathematics and Science Study, an international assessment of student performance

TVET
Technical and vocational education and training

TVETA
TVET Authority, Kenya

UCAD
Université Cheikh Anta Diop de Dakar

UG
Undergraduate

UIS
UNESCO Institute for Statistics

Umalusi
The Council that sets and monitors standards for general and further education and training in South Africa in accordance with the National Qualifications Framework Act and the General and Further Education and Training Quality Assurance Act.

Universal education
Offering equal access to education for the entire population, often mandated and provided by the state for free

UNESCO
The United Nations Educational, Scientific and Cultural Organization

UPE
Universal primary enrollment

USE
Universal secondary education

USAID
United States Agency for International Development

UTME
Unified Tertiary Matriculation Examination, Nigeria

VAT
Value-added tax

WAEC
West African Examinations Council, offering secondary exams, Liberia

WASH
Water, Sanitation, and Hygiene

WCED
Western Cape Education Department, South Africa

WSE
Whole school evaluation (quality assurance framework), South Africa

ZAR
South African Rand

ANNEX VI
FULL LIST OF CASE STUDIES CITED

TABLE 27: SSA AND GLOBAL CASE STUDIES CITED

Organization	Geography	Segment	URL
Accelerated Ethiopia	Ethiopia	Education technology	www.accelerated.co
Accion Microfinance Bank	Nigeria	Institutional finance	www.accionmfb.com/Home.aspx
ADvTECH	South Africa	Pre-primary, K-12, and higher education	www.advtech.co.za
Afe Babalola University	Nigeria	Contact higher education	www.abuad.edu.ng
African Leadership University	Mauritius, Rwanda	Contact higher education	www.alueducation.com
Aga Khan Development Network	Global	Pre-primary, low-cost and mid-priced/premium K-12, higher education, teacher training	www.akdn.org
Andela	Kenya, Nigeria, Uganda	TVET (education to employment)	www.andela.com
Ashesi University College	Ghana	Contact higher education	www.ashesi.edu.gh
Blackboard	Global	Education technology	www.anz.blackboard.com
BlueCrest University College	Liberia	Contact higher education	www.liberia.bluecrestcollege.com
Boston City Campus & Business College	South Africa	Contact higher education	www.boston.co.za
BRAC Education Programme	Global	Low-cost K-12	www.brac.net
Braeburn Schools	Kenya, Tanzania	Mid-priced/premium K-12	braeburn.com
Bridge International Academies	Kenya, Liberia, Nigeria, Uganda	Pre-primary, low-cost K-12	www.bridgeinternationalacademies.com
Brighter Investment	Ghana	Student finance	www.brighterinvestment.com
Camara Education	Ethiopia, Kenya, Tanzania, Zambia, Lesotho, Ireland	Education technology	www.camara.org
Cambridge International Examination	Global	Low-cost K-12	www.cie.org.uk
Cambridge University Press	Global	Publishing	www.cambridge.org
Canvas	Global	Education technology	www.canvaslms.com
ChildFund Senegal	Senegal	Pre-primary, low-cost K-12, TVET	www.childfund.org/senegal
Chrisland Schools	Nigeria	Mid-priced/premium K-12, contact higher education	www.chrislandschools.org
South Africa Collaboration Schools	South Africa	Low-cost K-12	www.msdf.org/initiatives/collaboration-schools
Corona Schools' Trust Council	Nigeria	Mid-priced/premium K-12	www.coronaschools.org

Organization	Geography	Segment	URL
CTIC Dakar	Senegal	TVET	www.cticdakar.com/fr
Curro	South Africa	Mid-priced/premium K-12	www.curro.co.za
Damelin	South Africa	TVET	www.damelin.co.za
Dignitas	Kenya	Teacher training	www.dignitasproject.org
Don Bosco TVET Center	Ethiopia	TVET	www.donboscoethiopia.org
Educate!	Uganda, Rwanda	TVET	www.experienceeducate.org
Educating Nigerian Girls in New Enterprises (ENGINE)	Nigeria	Low-cost K-12	www.swodennigeria.org/projectdetail.php?project=124
Educor	South Africa	Distance higher education, contact higher education, TVET	www.educor.co.za
Embury Institute for Teacher Education	South Africa	Teacher training	www.embury.ac.za
Emerging Capital Partners (ECP)	Pan-Africa	Contact higher education	www.ecpinvestments.com
Eneza Education	Kenya, Ghana, Tanzania	Education technology	www.enezaeducation.com
Enko Education	Cameroon, Côte d'Ivoire, Mozambique, Senegal, South Africa	Mid-priced/premium K-12	www.enkoeducation.com
First Tutors	Global	Education technology	www.firsttutors.com
Fundi	South Africa	Student finance	www.fundi.co.za
Geekie	Brazil	Education technology	www.geekie.com.br
General Education Quality Improvement Program Project (GEQIP)	Ethiopia	Low-cost K-12	www.info.moe.gov.et/ggdocs/GEQIP_Plan.pdf
Generation Initiative	Global	TVET	www.generationinitiative.org
GetSmarter	South Africa	TVET (education to employment)	www.getsmarter.com
Gigiri Montessori House	Kenya	Mid-priced/premium K-12	www.montessori-kenya.com
Green Shoots	South Africa	Education technology	www.greenshootsedu.co.za
Groupe ISM	Senegal	Contact higher education	www.groupeism.com
Harambee Youth Employment Accelerator	South Africa	TVET	www.harambee.co.za
IAM	Senegal	Contact higher education	www.groupeiam.com
IDP Rising Schools Program	Ghana	Institutional finance	www.idpfoundation.org/idp-rising-schools
IMM Graduate School of Marketing	South Africa	Distance higher education	www.immgsm.ac.za

Organization	Geography	Segment	URL
India School Leadership Institute (ISLI)	India	Teacher training	www.indiaschoolleaders.org
Instill Education	South Africa	Teacher training	www.instill.education
Juta and Company	South Africa	Publishing	www.juta.co.za
Kepler	Rwanda	TVET	www.kepler.org
Kidogo	Kenya	Pre-primary	www.kidogo.co
Kumon	Global	Supplementary education	www.kumon.com
LEAP Science & Maths Schools	South Africa	Low-cost K-12	www.leapschool.org.za
Learn Africa	Nigeria	Publishing	www.learnafricaplc.com
Learn English Audio Project (LEAP)	Ethiopia	Supplementary education	www.britishcouncil.org/partner/track-record/learn-english-audio-project
Lekki Peninsula Affordable Schools	Nigeria	Low-cost K-12	www.lekkipeninsulaaffordableschools.com
Liberia Teacher Training Programs (LTTP)	Liberia	Teacher training	www.fhi360.org/projects/liberia-teacher-training-program-ii-lttp-ii
Livingstone College	Nigeria	Low-cost K-12	www.thelivingstonecollege.com/default.aspx
Longhorn Publishers	Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Rwanda, Senegal, Tanzania, Uganda, Zambia, Zimbabwe	Publishing	www.longhornpublishers.com
Mak-Addis Tutors	Ethiopia	Supplementary education	www.makaddistutors.wordpress.com
MANCOSA	Namibia, Zambia, Botswana, Malawi, Swaziland, and Mauritius	Distance higher education	www.mancosa.co.za
Moodle	Global	Education technology	www.moodle.org
Mount Kenya University	Kenya	Contact higher education	www.mku.ac.ke
Mwabu	Zambia	Education technology	mwabu.com/international/home
NIIT	Nigeria	TVET	www.niit.com
Nova Academies	Kenya	Mid-priced/premium K-12	www.novaacademies.com
N-Power Teacher Corps	Nigeria	Teacher training	www.portal.npower.gov.ng/n-corps
Omega Schools	Ghana, Liberia	Low-cost K-12	www.omega-schools.com
OneUni	Kenya	Education technology	www.oneuni.co
Opportunity International	Global	Student finance	www.opportunity.org
Oxford University Press	Global	Publishing	www.global.oup.com/academic/?cc=in&lang=en&

Organization	Geography	Segment	URL
Partners for Possibility (PfP)	South Africa	Teacher training	www.pfp4sa.org
Partnership Schools for Liberia (PSL)	Liberia	Pre-primary, K-12 (primary)	moe.gov.lr
Pioneer Academies	South Africa	Mid-priced/premium K-12	www.pioneeracademies.co.za
PrepClass	Nigeria	Supplementary education	prepclass.com.ng
Programme to Improve Learning Outcomes (PILO)	South Africa	Teacher training	www.hollardfoundation.co.za
Promoting Equality in African Schools (PEAS)	Uganda, Zambia	Low-cost K-12	www.peas.org.uk
Reddam House	South Africa	Mid-priced/premium K-12	www.reddamschools.com
RenMoney	Nigeria	Student finance	www.renmoneyng.com
RLabs	South Africa	TVET	www.rlabs.org
School of Tomorrow	Ethiopia	Contact higher education	www.schooloftomorrow-edu.com
Silverleaf Academy	Tanzania	Low-cost K-12	www.silverleaf.co.tz/about-us.html
Siyavula	South Africa	Education technology	www.siyavula.com
SmartStart	South Africa	Pre-primary	www.smartstart.org.za
SPARK Schools	South Africa	Low-cost K-12	www.sparkschools.co.za
Spire	Kenya	TVET	www.spire.is
St. Mary's University (SMU)	Ethiopia	Contact higher education	www.smuc.edu.et
Tayari	Kenya	Pre-primary	www.ciff.org
Teach Me 2	South Africa	Education technology	www.teachme2.co.za
Teacher Education and Professional Development (TEPD)	Kenya	Teacher training	www.fhi360.org/projects/kenya-teacher-education-and-professional-development-tepd-program
Teacher Education in Sub-Saharan Africa (TESSA)	Pan-Africa	Teacher training	www.tessafrica.net
The Insurance SETA (INSETA)	South Africa	TVET	www.inseta.org.za
Trustco	Namibia	Student finance	www.tgh.na
Tutor.NG	Nigeria	Supplementary education	www.tutor.ng
UNICAF	Pan-Africa	Distance higher education	www.unicaf.org
Université Privée de Marrakech (UPM)	Morocco, Senegal	Contact higher education	www.upm.ac.ma
WAVE Academy	Nigeria	TVET	www.waveacademies.org
WeThinkCode	South Africa	TVET	www.wethinkcode.co.za
Wings to Fly	Kenya	Student finance	www.equitygroupfoundation.com/wingstofly

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