

EDUCATION & LABOUR MARKET OUTCOMES

INSIGHTS FOR EDUFINANCE



OPPORTUNITY
International

Prepared by: Shlomit Broder, Madeleine Foley, Rachel Pagdin, Mackenzie Rice,
Michelle Verbeek, Sorena Zahiri

Toronto, 2020

EXECUTIVE SUMMARY

Education has the power to reduce poverty and transform people's lives. However, the benefits of education depend, in part, on the link between education and employment.

As EduFinance works to address the global education crisis, it is imperative to consider how investments in education can be used to maximize labour market outcomes. Through a detailed analysis of education systems, labour markets, and returns to education at each level, this report identifies opportunities for EduFinance to leverage investments in education to maximize labour market outcomes in terms of employability and earnings potential. This report also explores the opportunity for technical and vocational education and training (TVET) programs to address critical skills gaps and improve employment outcomes for young adults by developing skills that are high in demand. The report concludes with both general and region-specific recommendations for EduFinance programs to achieve the goal of maximizing labour market outcomes.

SUMMARY OF RECOMMENDATIONS

KEY TAKE - A W A Y S

- Facilitating access to quality education in the earliest years of a child’s school career should remain a priority for EduFinance, and holistic early childhood interventions should also be considered
- Curricular reforms towards more competency-based and learner-centred models that allow students to develop a well-rounded skillset should be encouraged and aligned with current and future market demands
- TVET programs propose a unique investment opportunity to help overcome issues of skills mismatching and should be tailored to address region specific talent shortages

REGIONAL PRIORITIES

SUB-SAHARAN AFRICA

- Building soft skills that are transferable to the labour market, such as entrepreneurial skills and workplace reliability
- Reducing barriers to participation in secondary education
- Fostering inclusivity of women and girls in TVET programs

SOUTH & SOUTHEAST ASIA

- Gender-sensitive programming, notably in secondary education and TVET
- Leveraging investments to match the shift towards knowledge-intensive economies
- Intentionally investing in skills development in rural areas to achieve greater equity

LATIN AMERICA & THE CARIBBEAN

- Increasing access to higher education, and expanding participation in TVET programs
- Tailoring investments in skills development programs, including TVET and secondary education, to address country-specific skills gaps

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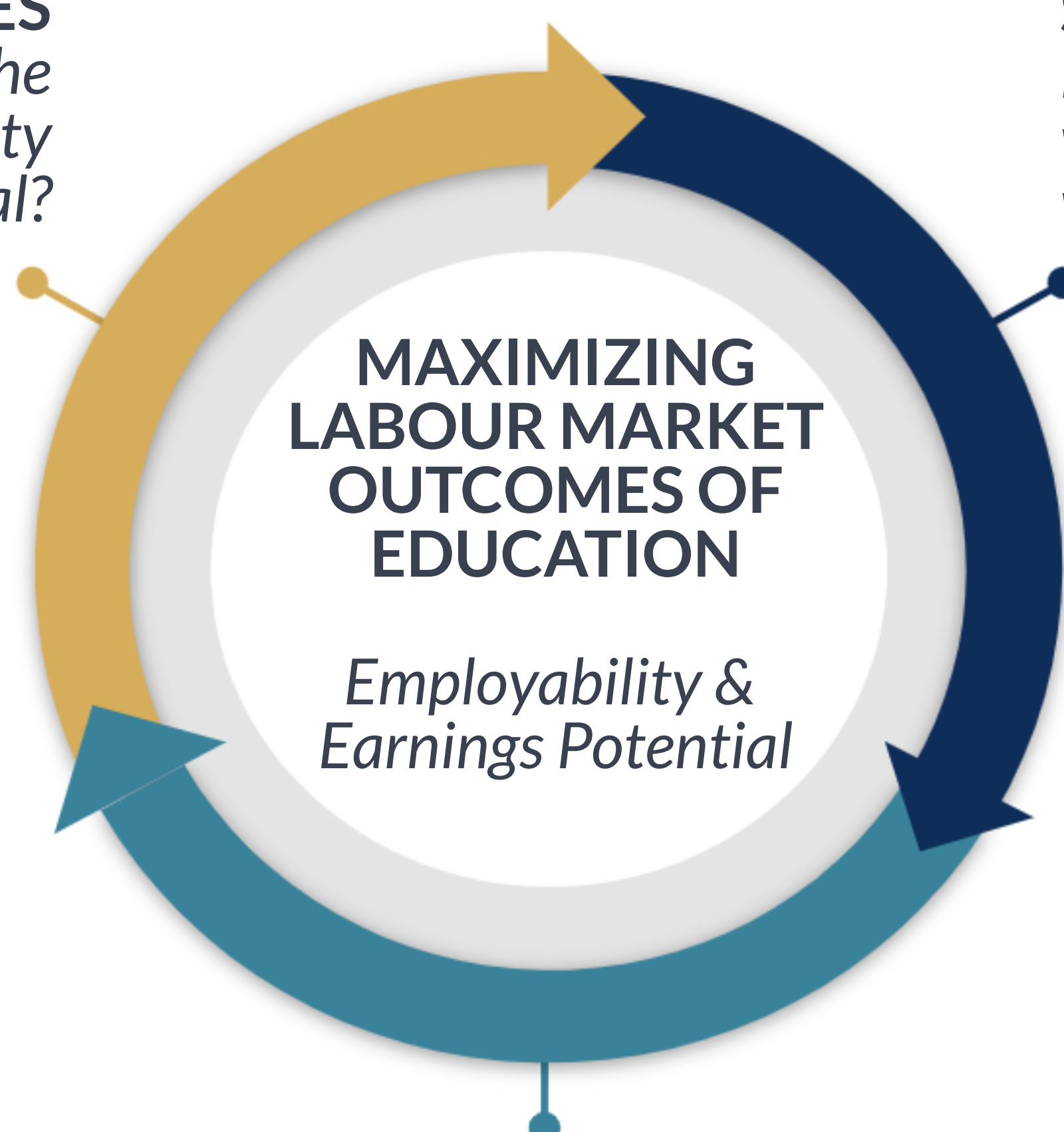
REPORT FRAMEWORK

INVESTMENT OPPORTUNITIES

Which levels of education have the greatest impact on employability and earnings potential?

SUPPLY: EDUCATION SYSTEMS

Do education systems prepare people with the skills needed to enter the workforce?

**DEMAND: INDUSTRY & JOB FORECASTS**

What types of education, training, and skills are desired in economies today from an employer perspective?

This report analyzes the link between education and employment in EduFinance markets with the goal of identifying how investments in education can be used to maximize labour market outcomes. In this context, maximizing labour market outcomes through education refers to building employable skills and increasing students' earnings potential. Our analysis relies on *three distinct components* that affect labour market outcomes: supply side factors, demand side factors, and investment opportunities at each level of education.

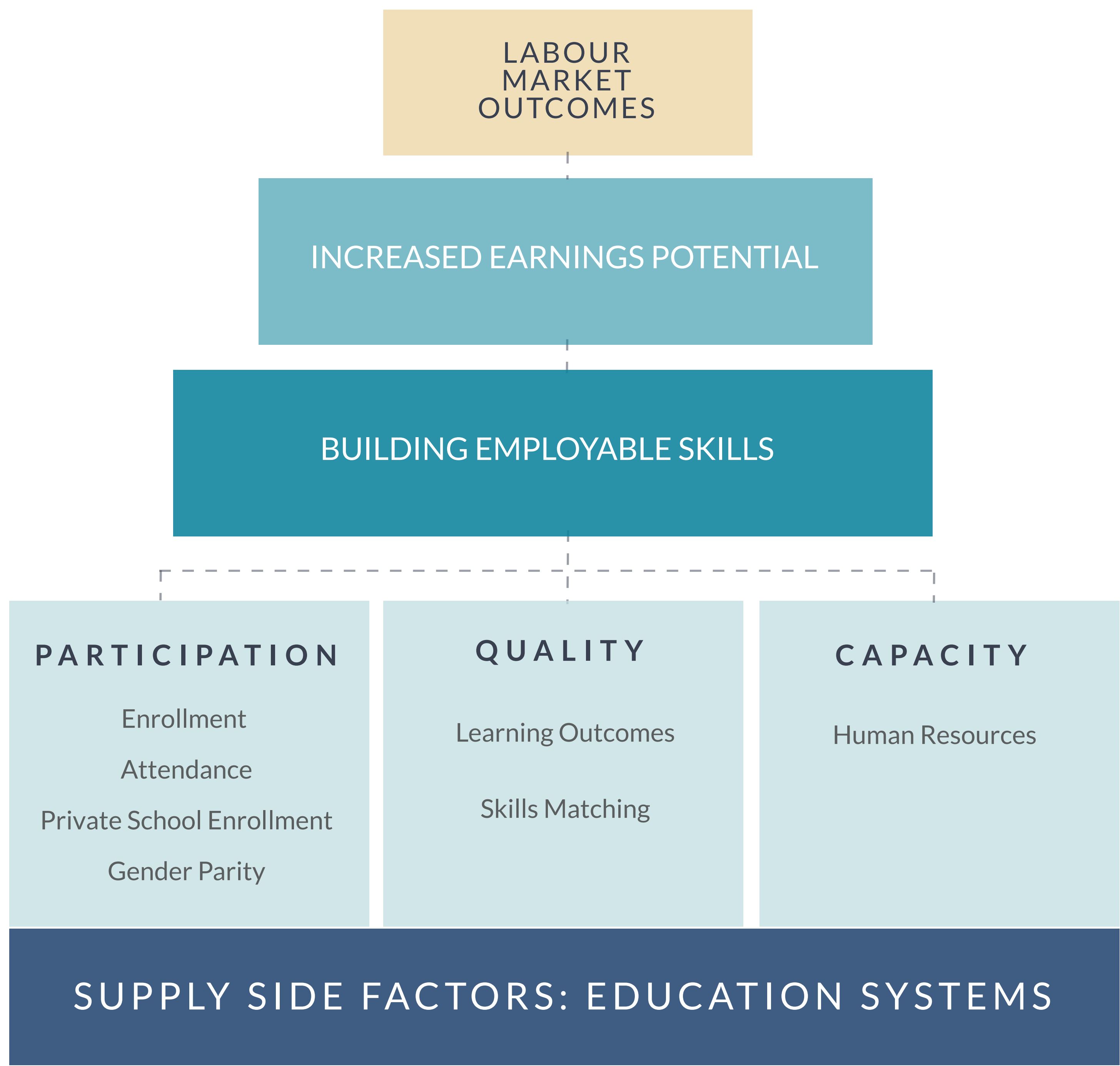
The first two sections of this report provide an overview of the supply and demand sides of labour markets across EduFinance's key regional markets to provide a contextual analysis of the link between education systems and employment outcomes. These factors ultimately determine the skills that workers obtain through education systems and the degree to which they can leverage these skills in the labour market.

The report then continues with a summary of the literature on the returns to education, as well as the opportunities for investment by level of education. By providing this detailed qualitative analysis of the returns to education at each level, the report aims to inform EduFinance programming so that investments may be tailored towards creating not only beneficial educational outcomes, but also positive employment outcomes. By combining the results of our contextual and education level analyses, the report concludes with a set of recommendations for how EduFinance can maximize labour market outcomes across three regional markets: Sub-Saharan Africa, South and Southeast Asia, and Latin America and the Caribbean.

SUPPLY SIDE ANALYSIS: EDUCATION SYSTEMS

The supply-side analysis examines the connection between education and employment as it relates to developing the skills necessary to participate in the labour market. The three supply-side factors that determine the degree to which students are able to translate their education to employment outcomes are (1) participation in education, (2) quality of education, and (3) the capacity of education systems. Each of these factors are analyzed using a number of national indicators across EduFinance markets in Sub-Saharan Africa, South and Southeast Asia, and Latin America and the Caribbean.

SUPPLY FRAMEWORK



Note: For some indicators, certain countries or levels of education were excluded from the analysis due to a lack of data. In cases where 2018 data was unavailable, the most recently available year after 2010 was used.

Participation in Education: Education Enrollment and Attainment

Education systems are only an effective means of preparing young adults for the workforce if they are accessible to all children, at all ages (Arias et al., 2019). The following analysis of participation in education across EduFinance markets considers four statistical indicators. The first is the enrollment rate by level of education, which can be used as a measure of the degree to which children have the opportunity to participate in school. The second indicator measures attendance rates. Attendance rates indicate whether children are actually present in the education system and actively building the necessary skills to maximize labour market outcomes.

Participation in education is further disaggregated by enrollment in private school by level of education. This distinction allows for the identification of markets and levels of education where EduFinance has the opportunity to make the greatest impact, given that its beneficiaries are within the private education sector.

THREE PILLARS

1

PARTICIPATION in education

Education systems are only an effective means of preparing young adults for the workforce if they are accessible to all children, at all ages. (Arias et al., 2019)

2

QUALITY of education

Dubbed "the education crisis" by the World Bank, research has indicated a disconnect between increasing enrollment and improving learning outcomes.

3

CAPACITY of education systems

Having a qualified teacher in the classroom can make an immense difference in a child's cognitive and non-cognitive skills development and learning.

Participation in Education (Continued)

The fourth and final indicator considered in our analysis of participation is the net enrollment gender parity index, which measures the enrollment ratio between boys and girls. A ratio of one indicates gender parity, meaning that equal levels of girls and boys are enrolled in a given level of education. By contrast, a ratio less than one indicates that boys are enrolled at higher rates than girls for that level of education, and vice versa. Across the literature on returns to education, one of the most consistent findings is that private returns for an additional year of schooling are higher for girls than for boys (Psacharopoulos and Patrinos, 2018). Therefore, considering a gender lens is particularly valuable, given the high rates of return that can be generated from increasing girls' participation in school.

It is important to note that participation in education is often stratified along gender, religious, ethnic, and socioeconomic lines. Inequalities in education frequently carry over to the labour market, negatively affecting employment outcomes and social welfare. An analysis of the specific barriers to participation are critical to achieving universal access to education and maximizing labour market benefits. These factors, however, are dependent on in-depth local-level analyses that are beyond the scope of this macro-level report.

Quality: Skills Development and Learning Outcomes

A second key component of education systems is quality, which is measured in this analysis through learning outcomes and skills matching. In recent years, research in the field of global development has indicated that there is a gap between increasing participation and improving learning outcomes. In 2018, the World Bank dubbed this phenomenon “the education crisis” after research revealed shockingly low mathematical and reading comprehension competencies for primary school children across many developing countries that were thought to have made significant strides towards improving access to education (World Bank, 2018).

Learning outcomes have substantial long-term effects on the labour market and productivity. The World Bank's Human Capital Index estimates that lifetime productivity for today's children will be 56 percent lower than what it could have been if they had access to quality education and universal health coverage (World Bank, 2019). To overcome the challenges of comparability in learning outcomes, this analysis uses a dataset prepared by Altinok, Angrist, and Patrinos (2018), which estimates national average harmonized learning outcomes on a 600-point scale. This dataset combines international, national, and regional level test results from the disciplines of mathematics, science, and reading for both primary and secondary school students to provide a single score that estimates annual national-level learning outcomes (Altinok et al., 2018).

The second indicator of education quality is skills matching, which provides a picture of whether workers' skills are applicable in the workforce. Some of the factors considered in this analysis include employer and employee surveys measuring levels of over-education and skills mismatch as a barrier to employment. High levels of skills mismatch point to inefficiencies in the link between education and employment and are cause for examining how investments in education can better prepare young people to enter the workforce.

Capacity: Education System Inputs and Available Resources

Finally, the analysis of supply-side factors concludes with an overview of the current capacity of education systems in EduFinance markets, captured by the availability of human resources. This section compares the pupil to qualified teacher ratio across levels of education to assess human resource constraints, which ultimately impact the quality of education. As defined by UNESCO, a qualified teacher is one who “has at least the minimum academic qualifications required for teaching their subjects at the relevant level in a given country.” Therefore, the education level necessary to be deemed “qualified” is likely to vary between countries. Nevertheless, having a qualified teacher in the classroom can make an immense difference in a child's cognitive and non-cognitive skills development and learning. High pupil to qualified teacher ratios are an indication of human resource shortages, which are likely to negatively affect education quality and learning outcomes, particularly for the youngest students.

SUB-SAHARAN AFRICA

SUMMARY

Sub-Saharan Africa faces persistent supply-side challenges that continue to constrain the labour market benefits of education. Enrollment rates decline precipitously between primary to secondary education, and participation in TVET programs is particularly low across the region. Moreover, those who do participate in TVET are disproportionately boys, signaling an opportunity for greater gender inclusivity to generate high returns.

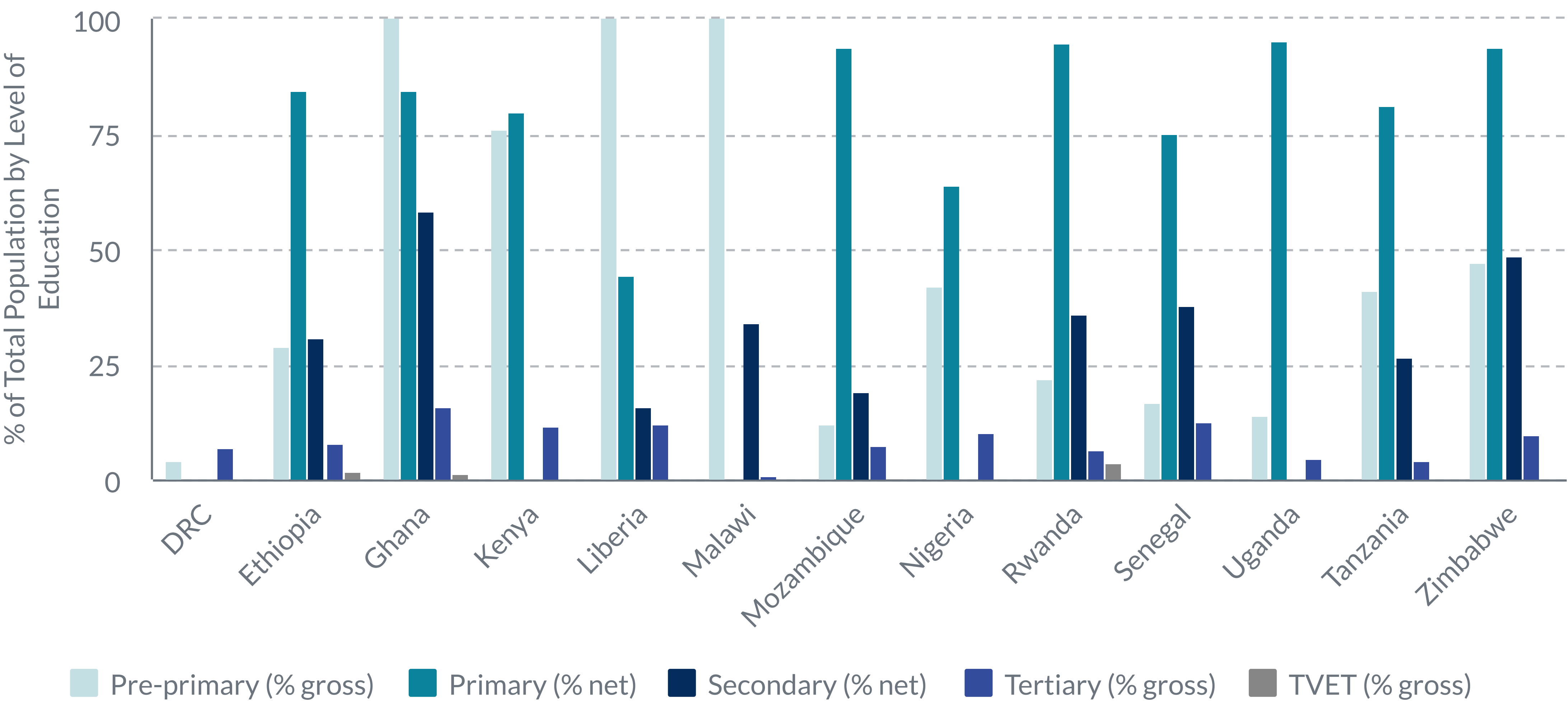
Learning outcomes in Sub-Saharan Africa are the lowest among all EduFinance regions and skills mismatches appear to be a prominent factor constraining economic growth. These findings suggest a need for targeted skills development programs in the region in order to improve employability as students transition to the labour market. However, it is important to note that education systems in this region are particularly resource-constrained and have some of the highest pupil to qualified teacher ratios in the world. Therefore, efforts to reduce barriers to participation must also consider the capacity of education systems to deliver quality education.

1 PARTICIPATION

Enrollment by Level of Education

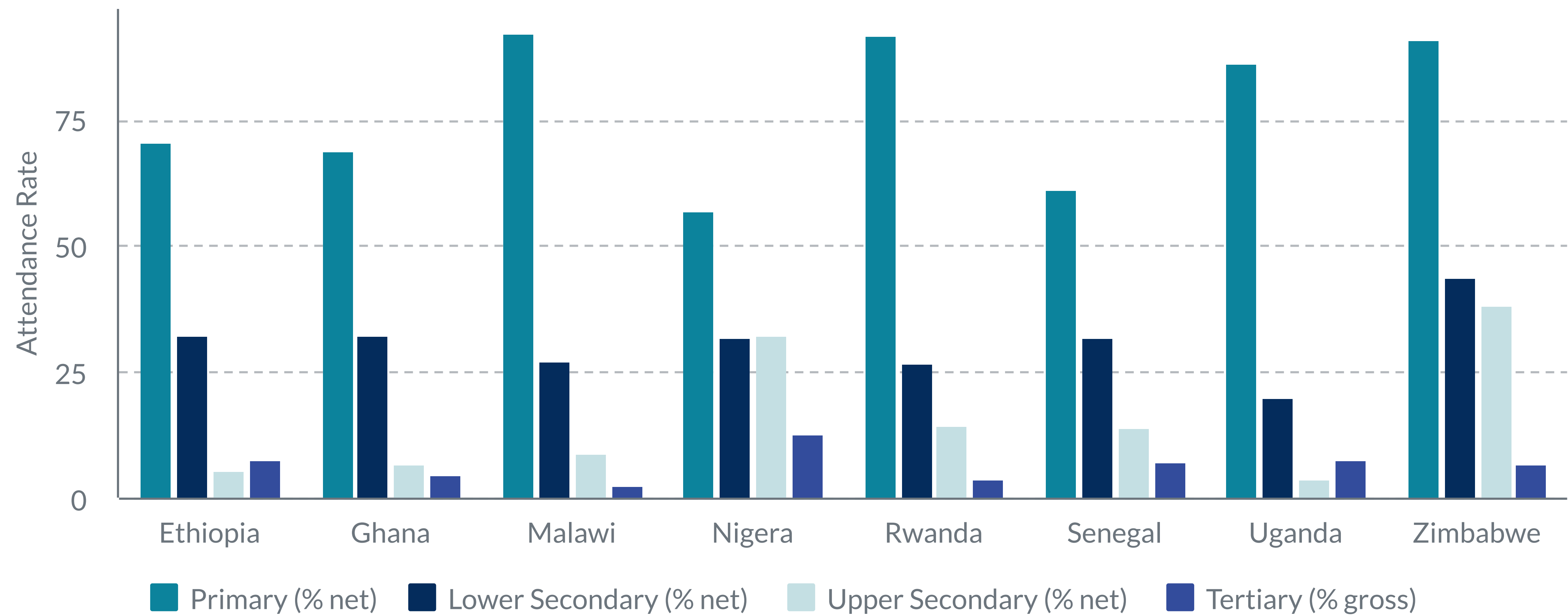
In the era of the Sustainable Development Goals (SDGs) it has been a priority for the region to work towards universal enrollment in primary education, and the enrollment rates for early years of education reflect these efforts. The figure below depicts the enrollment rates by level of education for EduFinance’s Sub-Saharan Africa markets. Evidently, enrollment levels tend to be highest at the primary level and progressively decline through the secondary and tertiary levels.

School Enrollment by Level of Education



Source: World Bank, 2019; UNESCO UIS, 2019.

Attendance Rate by Level of Education



Source: UNESCO UIS, 2019.

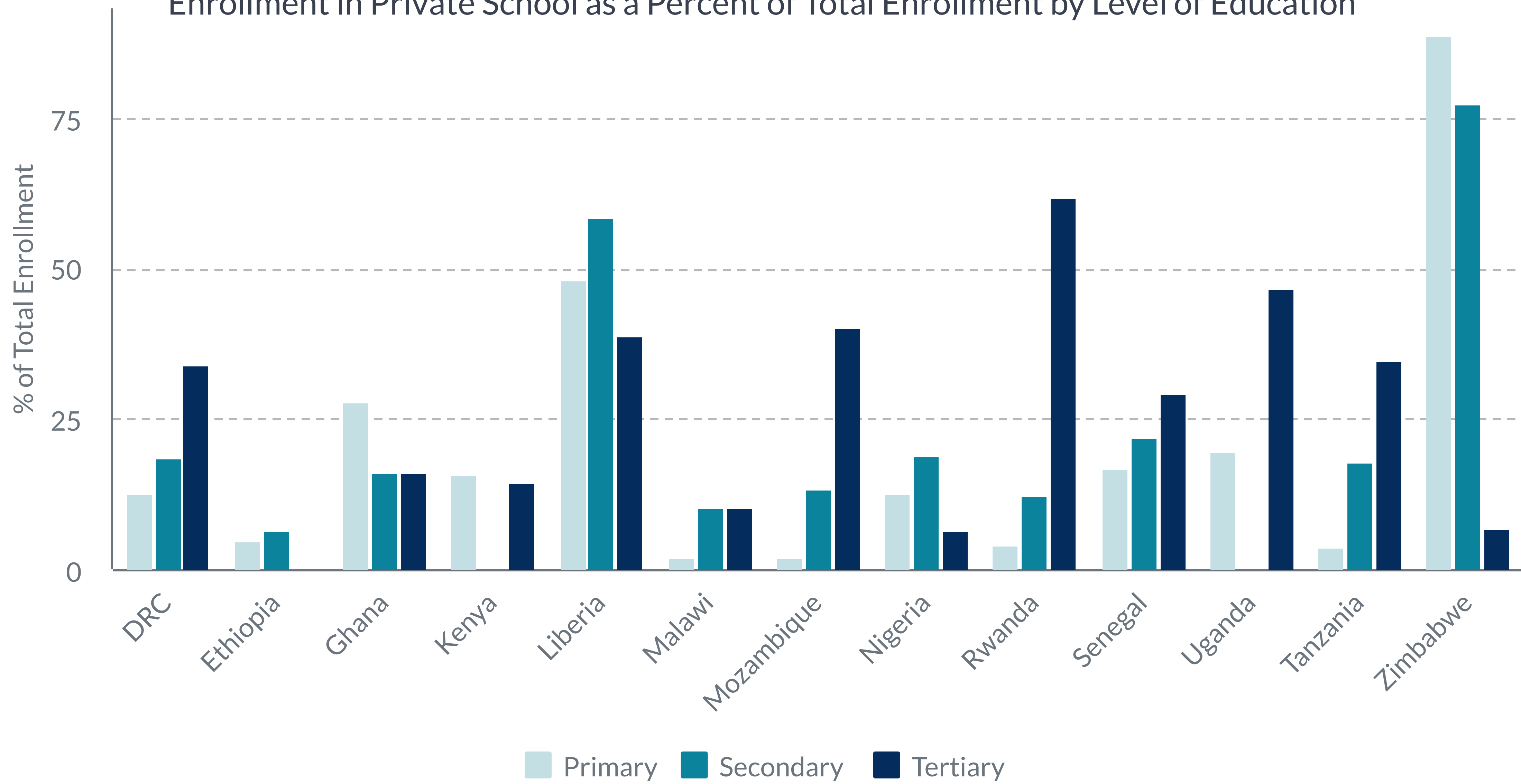
Attendance Rates by Level of Education

The available data on attendance for Sub-Saharan Africa indicates that attendance rates are much lower than enrollment rates across education levels. Furthermore, attendance rates typically decline as the level of education increases, indicating that attending school becomes more challenging as students’ progress through the education system. See figure above for country level data.

Enrollment in Private School

Enrollment in private school varies significantly across country and education levels. Of EduFinance’s Sub-Saharan African markets, Zimbabwe has the highest proportion of students enrolled in private school across primary and secondary school levels, at 88 percent and 77 percent of students enrolled, respectively. Meanwhile, Rwanda only enrolls four percent of its primary school children in private school and 12 percent in secondary school. See figure below for country level data.

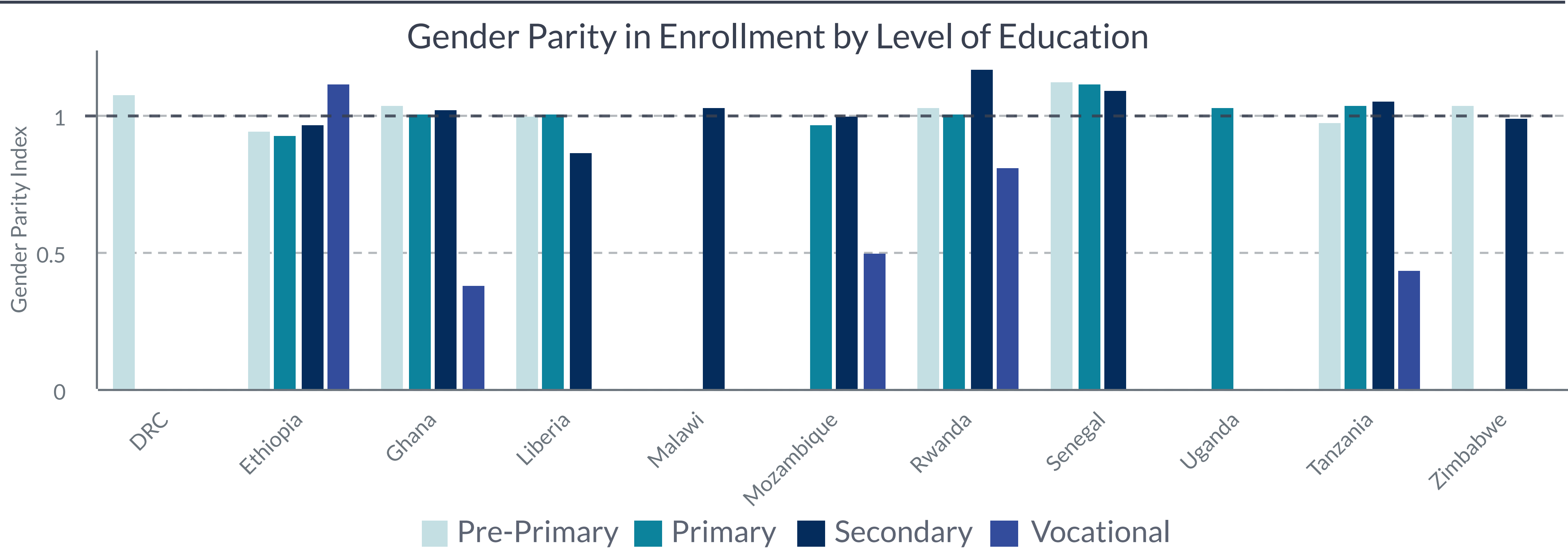
Enrollment in Private School as a Percent of Total Enrollment by Level of Education



Source: World Bank, 2019; UNESCO UIS, 2019.

Gender Disparities in Enrollment

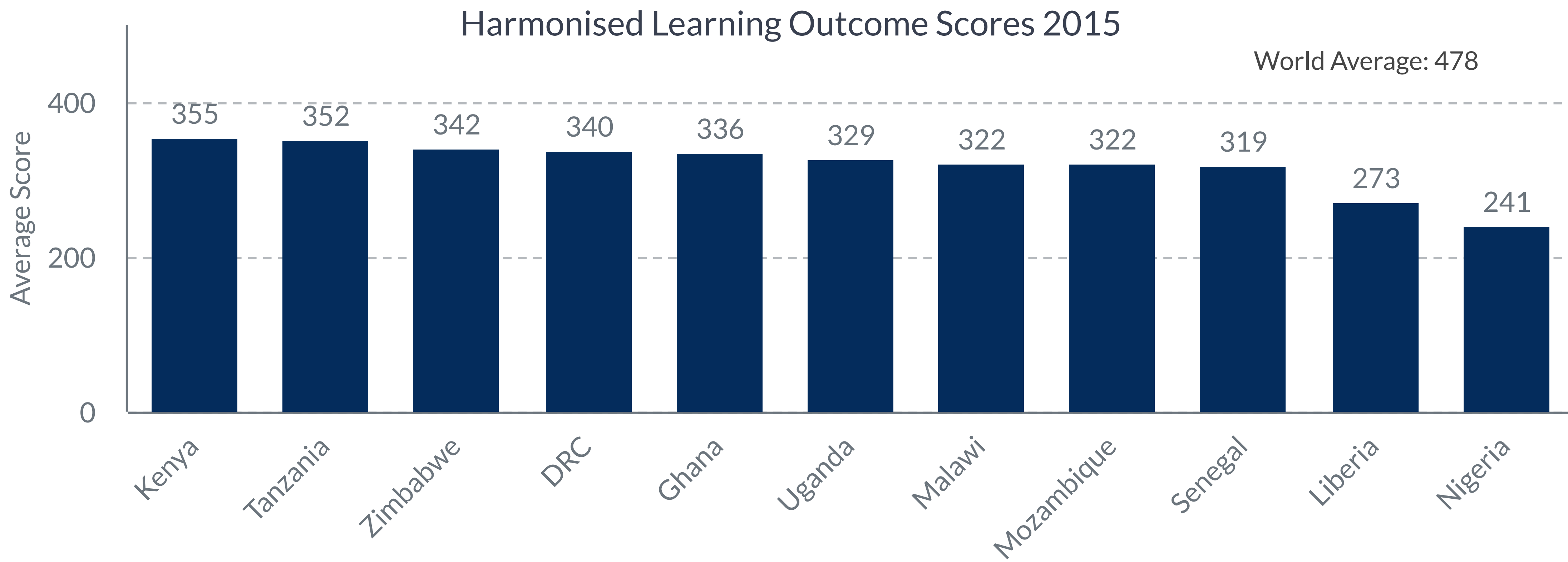
Given the high rates of return on investment in girls' education, gender equality remains a critical area of opportunity for EduFinance. The figure below depicts the net enrollment gender parity index by level of education in EduFinance's Sub-Saharan African markets. In the graph below, any level of education with a ratio less than one indicates that fewer girls are enrolled than boys. The graph shows that some of the largest gender gaps in enrollment in Sub-Saharan Africa are in TVET. The driving factor behind this gap is occupational gender-segregation and a lack of inclusivity of women in many TVET programs. Across the region, TVET programs are predominately concentrated in fields such as mechanics, electronics, construction, and information and communication technology (Santos and Rubiano-Matulevich, 2019). These are particularly male-dominated fields and prevailing gender norms mean that opportunities for skills development in these areas are typically not offered to or inclusive of women.



Source: UNESCO UIS, 2019.

Learning Outcomes

The figure below shows the average harmonized learning outcome scores for EduFinance's Sub-Saharan African markets, all of which fall well below the world average learning outcome score of 478. Kenya leads the group of countries with a score of about 350, while Nigeria has the lowest score of this set at about 250. The region has the lowest learning outcome scores across all EduFinance markets, indicating that education quality is also an important barrier to long-term educational success.



Source: Altinok, Angrist, and Patrinos, 2018; Our World in Data, 2018.

Labour Force Skills and Skills Matching

Studies examining the match between educational attainment and labour market outcomes in Sub-Saharan Africa reveal that 56.9 percent of workers in the region have more education than required for their job, suggesting widespread under-utilization of human capital (Morsy and Mukasa, 2019). Moreover, surveys conducted by the International Labour Organization (ILO) reveal that almost 50 percent of young workers in Sub-Saharan Africa feel as though their skills are inconsistent with the needs of their jobs. Approximately 17.5 percent of young workers claim to be over-skilled for their current jobs, while 28.9 percent are under-skilled and lack access to the necessary on-the-job training (ILO, 2019). These findings illustrate that skills mismatches are extremely prevalent across the region and indicate a disconnect between education and employment outcomes.

In Kenya, the results of the 2016-2017 World Bank STEP employer survey found that while almost 80 percent of workers with only primary education believed they were underqualified for their job, approximately 40 percent of workers with secondary education identified as being overqualified. This disparity particularly reveals the disconnect between secondary education and employment, suggesting that curriculum in secondary education may be misaligned with the realities of the job market.

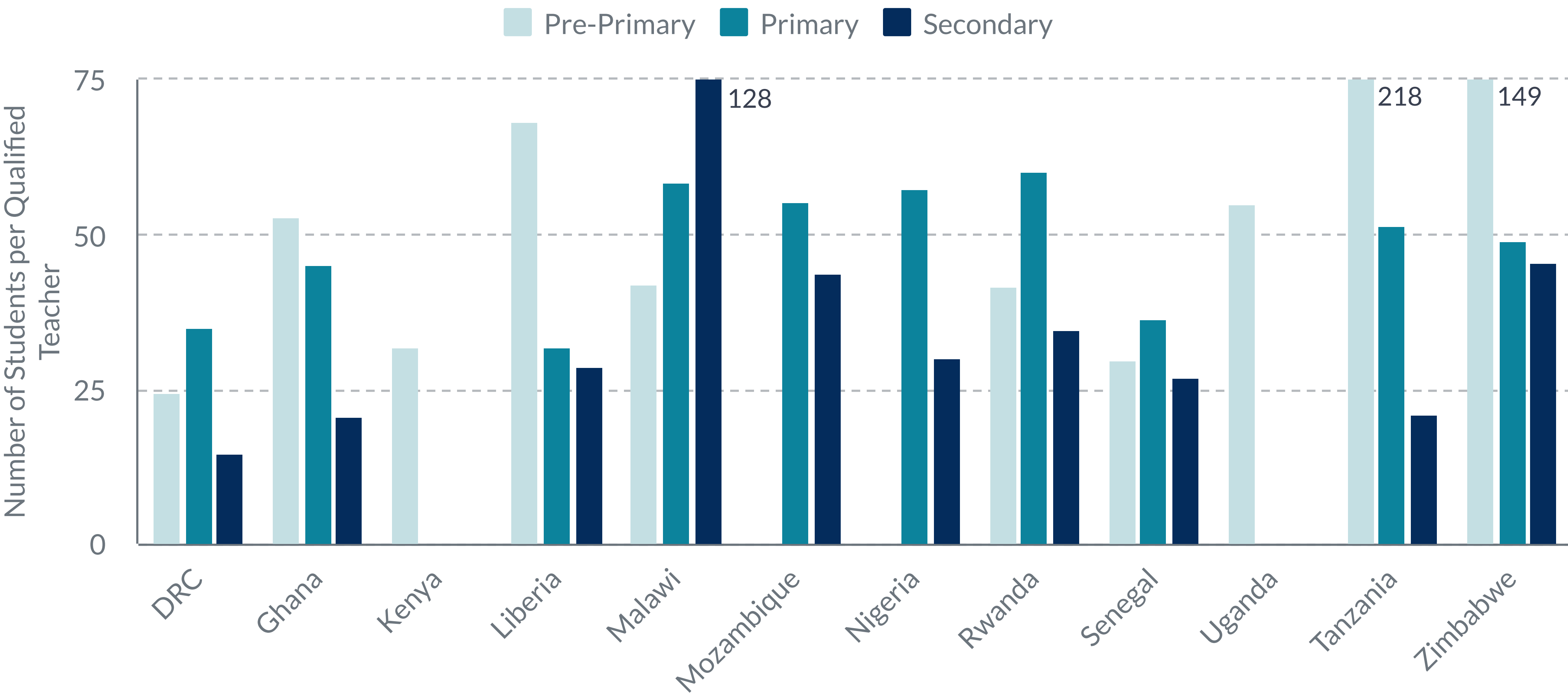


Human Resources

The figure below shows the pupil to qualified teacher ratio by level of education for EduFinance markets in Sub-Saharan Africa. Each ratio depicted in the graph can be compared to the relevant global average for each level of education, noted below. All EduFinance markets in the region perform worse than the global average at every level of education. In the most extreme case, Tanzania has a ratio of 218 pre-primary students for every one qualified teacher. Although the literature does not identify a specific recommended pupil to teacher ratio for each level of education, there is a broad consensus that these ratios should be lower in

earlier years of education, where children can derive the greatest benefits from individualized instruction. The results shown below point to significant stresses on human resources within many EduFinance Markets in the region, indicating a low capacity to accommodate any increase in demand for education without negatively impacting education quality.

Pupil to Qualified Teacher Ratio by Level of Education



Pre-Primary World Average: 25.73 | Primary World Average: 22.6 | Secondary World Average: 18.2

Source: UNESCO UIS, 2019.

SOUTH & SOUTHEAST ASIA

SUMMARY

South and Southeast Asia presents a unique opportunity for EduFinance, because of its high levels of private school enrollment. However, there are large gaps in overall enrollment in the region, particularly in secondary education. Pakistan lags significantly behind its peers in terms of enrollment at every level of education. Moreover, Pakistan is a notable outlier in the region in terms of gender parity in enrollment, which is likely to be attributable to social and cultural norms that present barriers to girls’ participation in education.

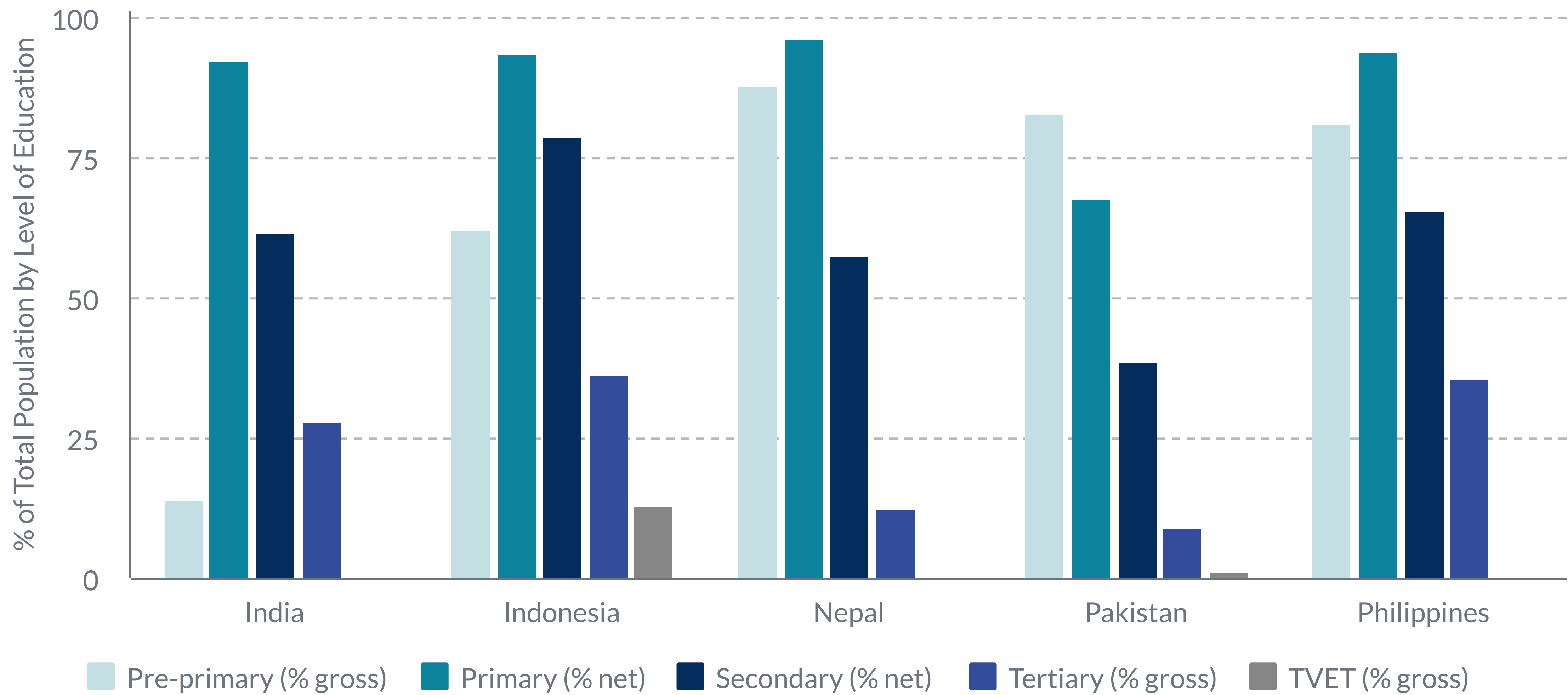
In addition, human resources in education continue to pose constraints on education system capacity across the region, particularly in secondary education. The supply-side analysis for this region suggests that focusing on retention between primary and secondary education, as well as expanding opportunities in TVET could help to fill critical skills gaps and improve employability.

1 PARTICIPATION

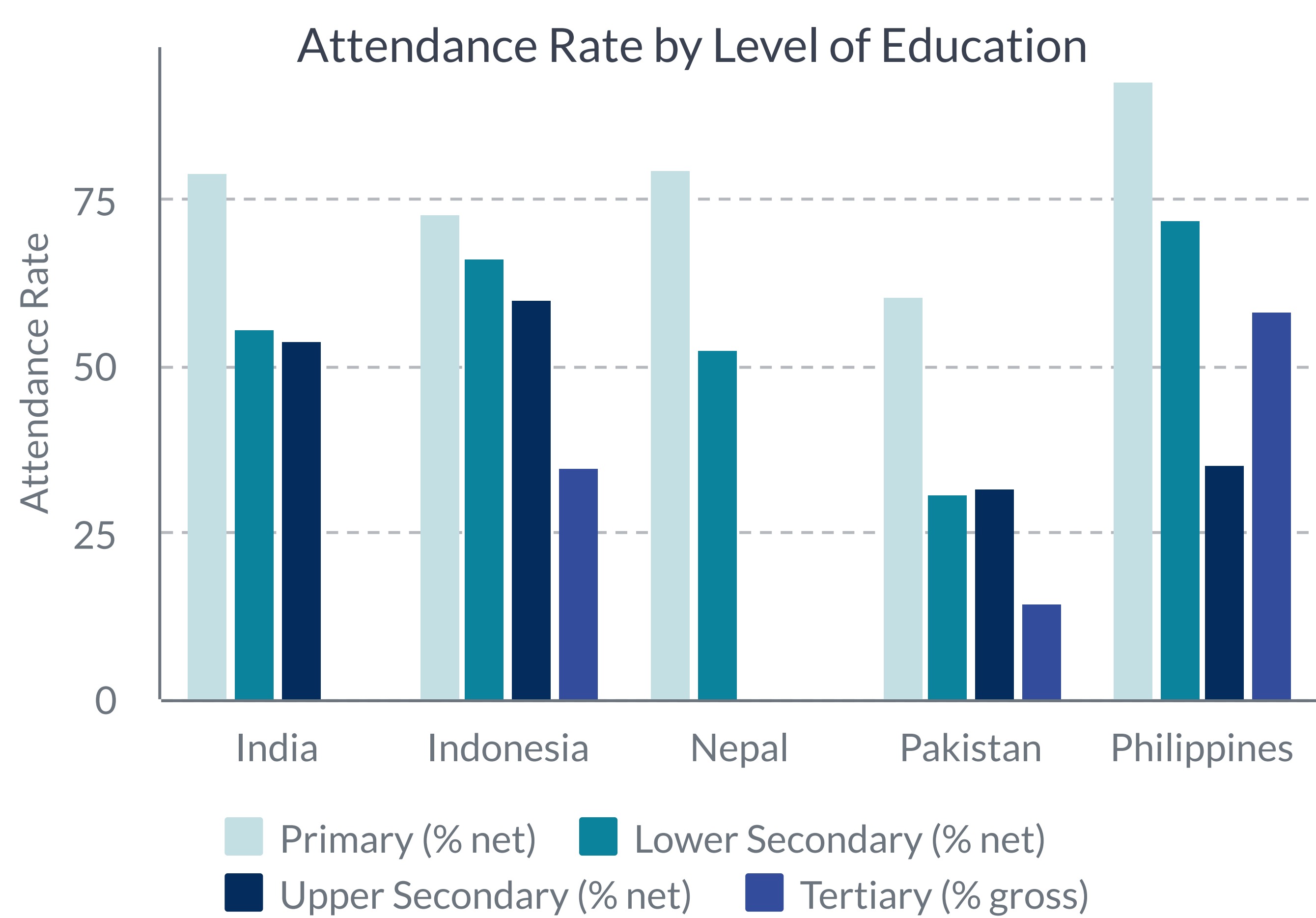
Enrollment by Level of Education

As compared to the Sub-Saharan African countries in this report, the South and Southeast Asian countries in this report have higher net enrollment rates of primary, secondary, and tertiary education. Notably, Pakistan lags behind its regional peers, enrolling only 67 percent of primary-aged children in school, and 38 percent in secondary education. Meanwhile, Indonesia has the highest gross enrollment rate in TVET among all the countries in this report, at 12.8 percent.

School Enrollment by Level of Education



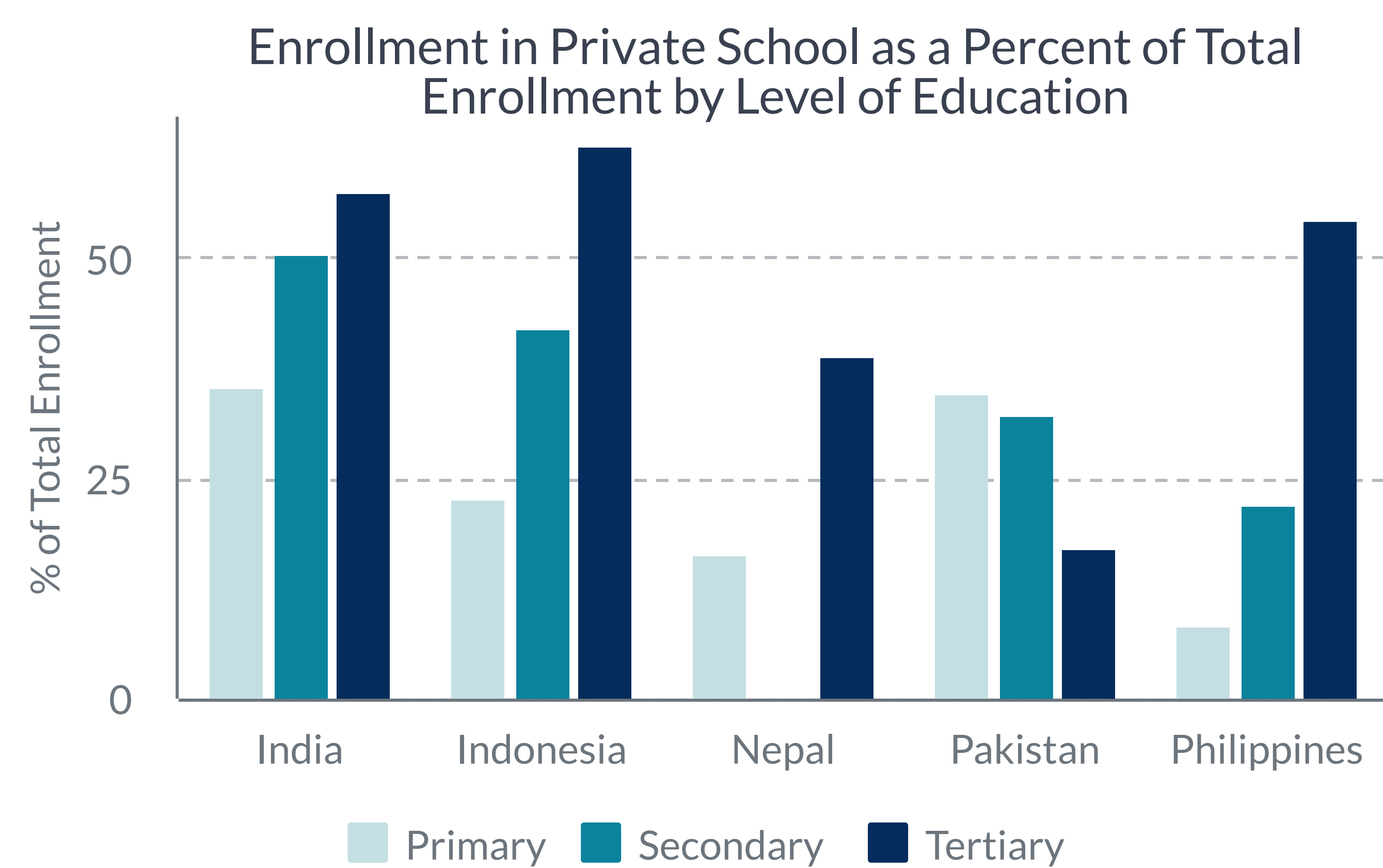
Source: World Bank, 2019; UNESCO UIS, 2019.



Source: UNESCO Institute for Statistics, 2019.

Attendance Rates by Level of Education

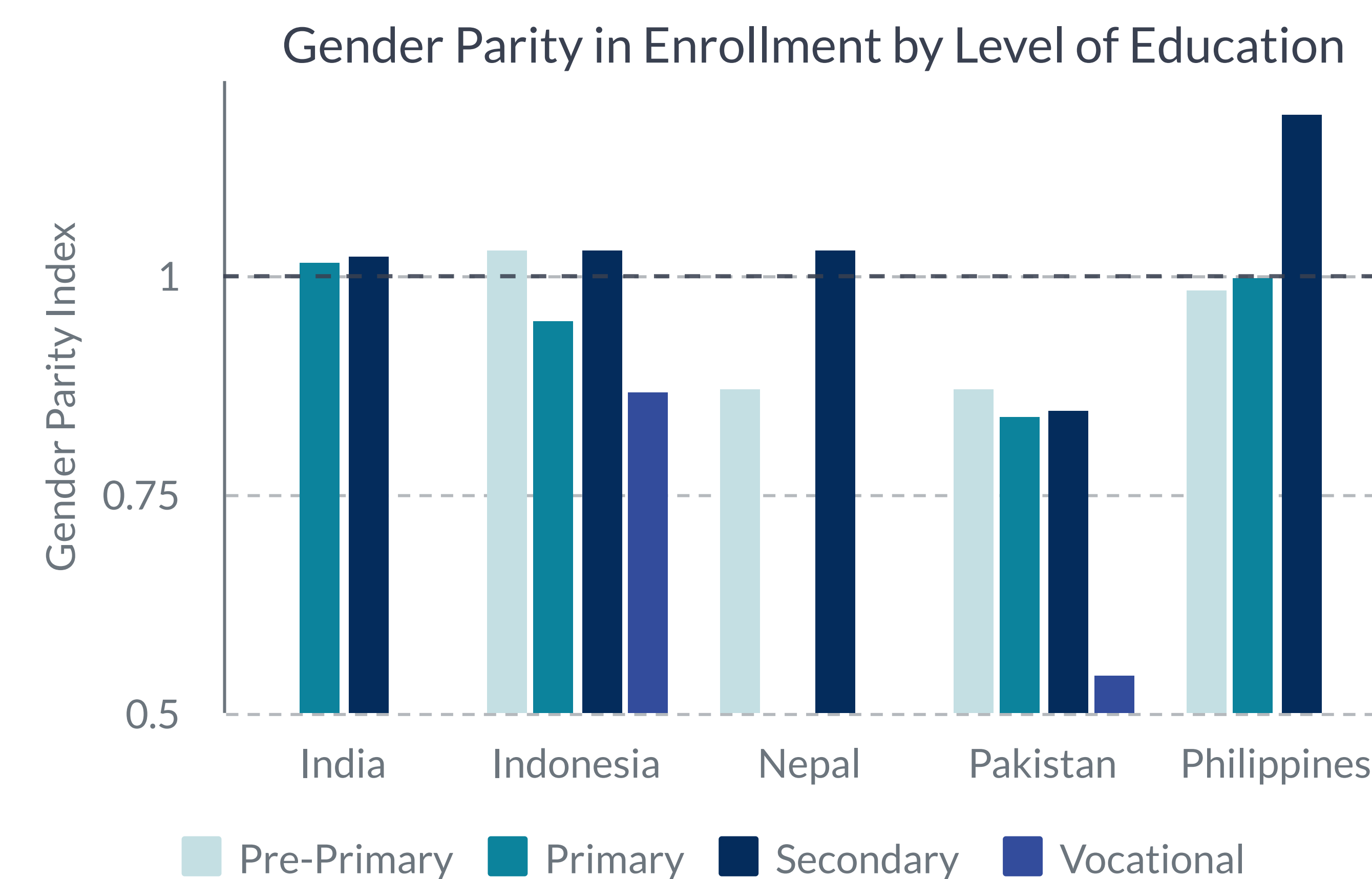
School attendance rates in South and Southeast Asia are higher than most Sub-Saharan African countries, with Pakistan, once again, as a notable exception. Still, all of the countries achieve high attendance among primary school enrollees.



Source: World Bank, 2019.

Enrollment in Private School

In this region, India has the highest proportion of students enrolled in private school, at every education level. The Philippines, in contrast, has a low proportion of students enrolled in private schools, with only eight percent of primary school students in private school and 22 percent of secondary students. Countries with a large private education sector signal an opportunity for EduFinance to have a large impact, as there are a greater number of potential beneficiaries.



Source: UNESCO UIS, 2019.

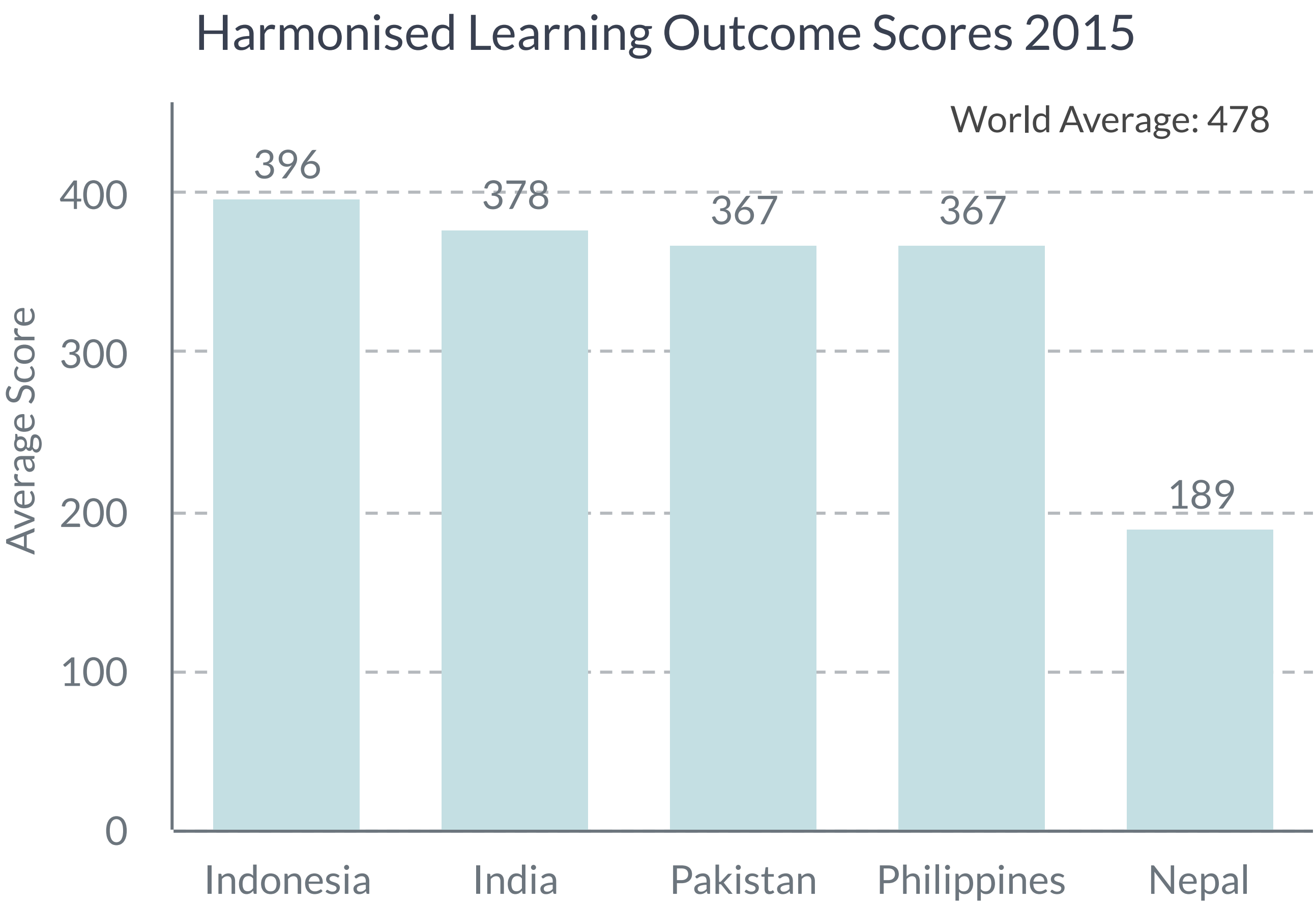
Gender Disparities in Enrollment

Gender disparities in enrollment present a persistent challenge in Pakistan. The net enrollment gender parity index for all levels of education in Pakistan falls substantially below one, with a persistent gender gap in enrollment of approximately 18 percent across pre-primary, primary, and secondary education, and increasing to 45 percent at the vocational education level. As a result, gender-sensitive programming in Pakistan, as well as specific levels of education in Indonesia and Nepal, are a focal point for EduFinance.

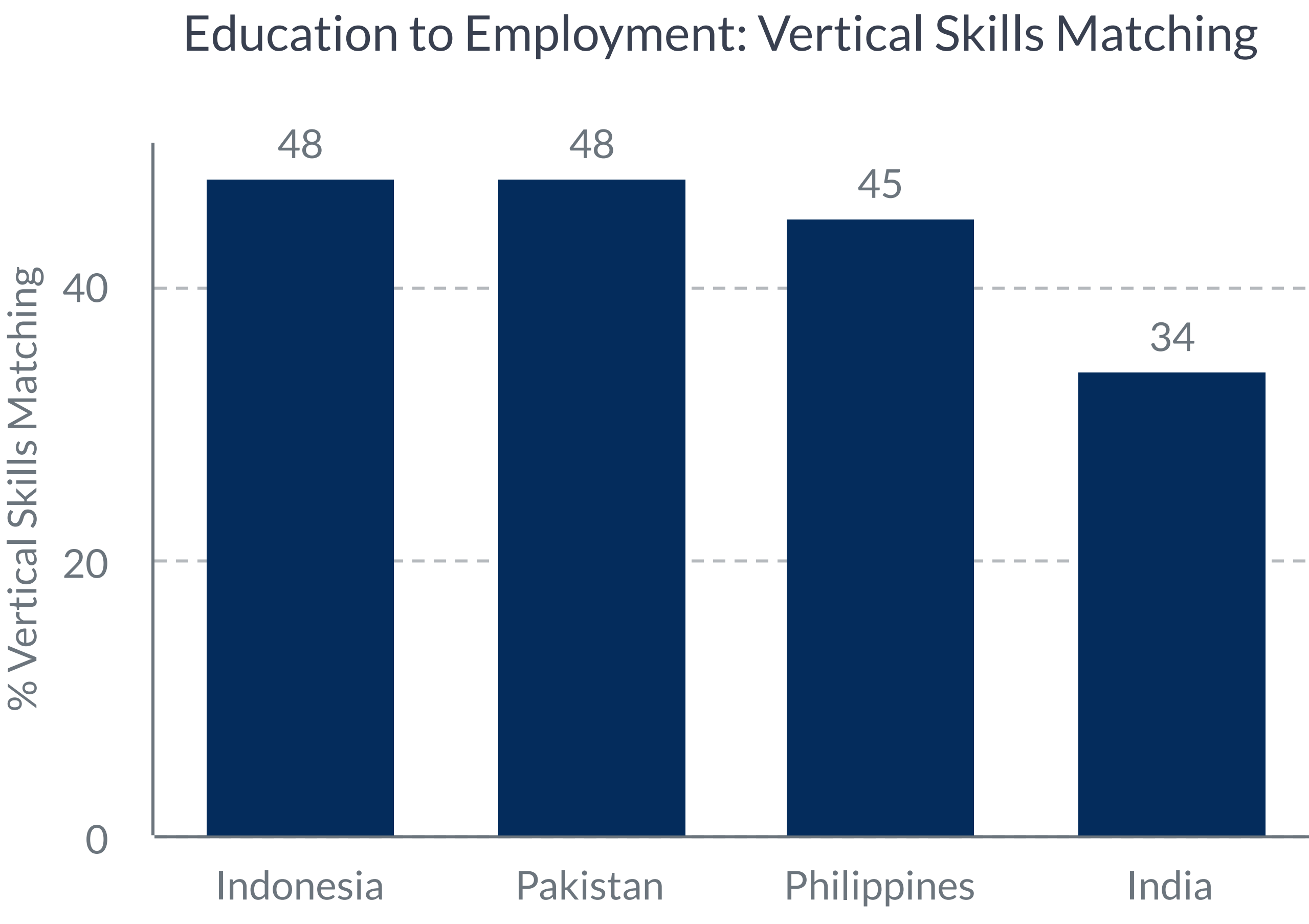
2 QUALITY

Learning Outcomes

The figure to the top right shows the average harmonized learning outcome scores for EduFinance’s markets in South and Southeast Asia. EduFinance’s South and Southeast Asian markets perform better than those in Sub-Saharan Africa with respect to learning outcome scores, but still fall below the 2015 World Average of 478. Nepal in particular has a very low average harmonized learning outcome score of approximately 190. Scores that fall substantially behind the global average may indicate weaknesses in the quality of education systems and are a likely indication of persistent poor literacy and numeracy. These basic cognitive skills are a foundational component of education and employability, and should remain a priority for EduFinance.



Source: Altinok, Angrist, and Patrinos, 2018; Our World in Data, 2018.



Source: ILO, 2016.

Labour Force Skills and Skills Matching

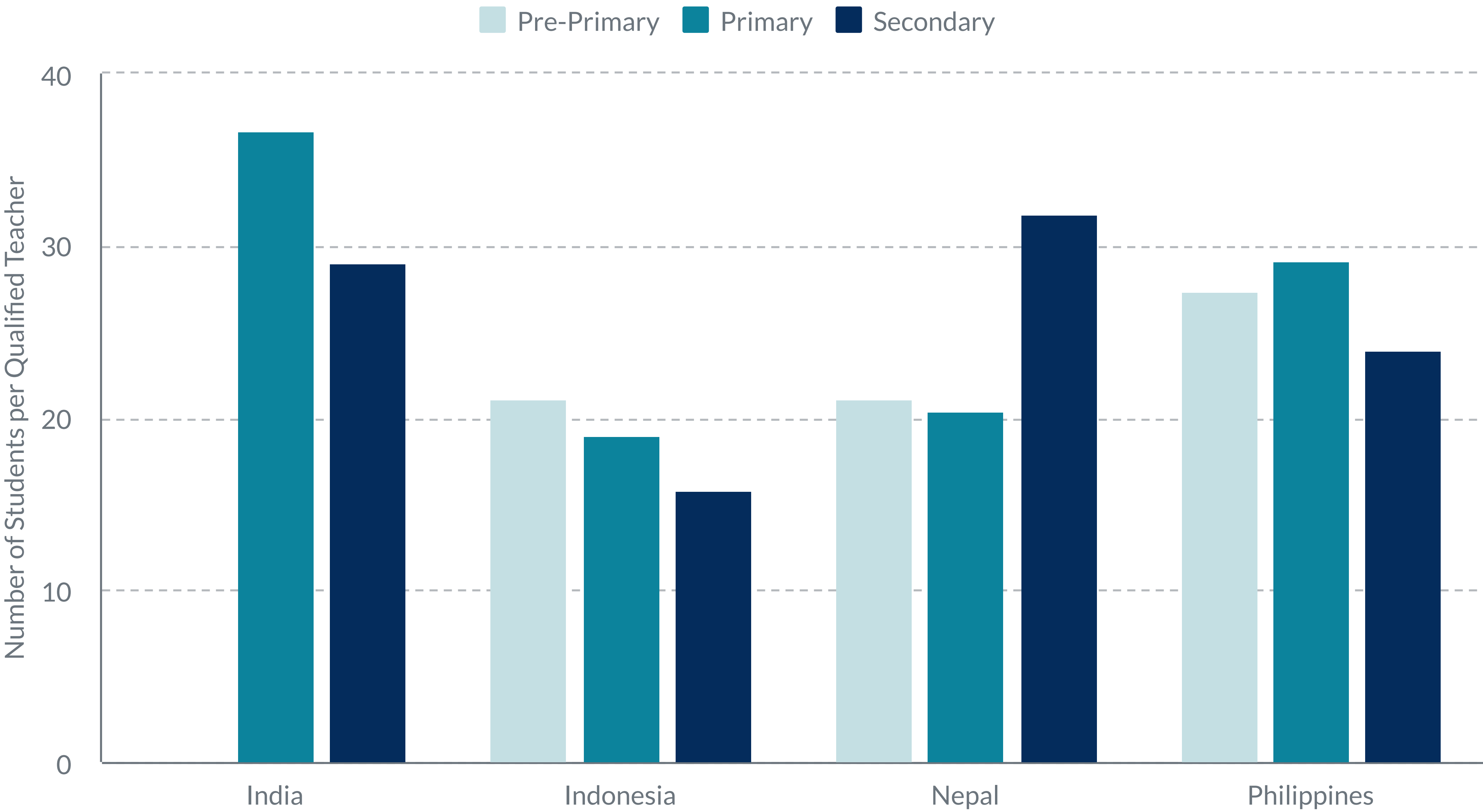
Research from the International Labour Organization (ILO) indicates that skills mismatches are particularly prominent in South and Southeast Asia, and are further exacerbated by unequal access to skills training across gender, religious, and ethnic lines (ILO, 2017). Highlighting these findings, Matsumoto and Bhula-or (2016) estimate the degree of vertical skills matching across South and Southeast Asia. Vertical skills matching refers to the degree to which workers’ educational attainment matches the requirements for their job. Higher vertical skills matching ratios are a positive indication of an efficient relationship between education systems and labour markets. The figure above presents estimates of the ratio of vertical skills matching for EduFinance markets in the South and Southeast Asian markets. As depicted above, more than 50 percent of workers in every EduFinance market in the region have a level of educational attainment that is inconsistent with the requirements of their job.

3
CAPACITY

Human Resources

EduFinance markets in South and Southeast Asia fare much better than Sub-Saharan Africa in terms of education system capacity. Indonesia outperforms the world average ratios at every level of education, and Nepal outperforms the world average ratios for pre-primary and primary education. Across EduFinance markets in the region, India has the highest pupil to qualified teacher ratio for primary education at approximately 37 students per qualified teacher. However, EduFinance markets in South and Southeast Asia appear to be particularly resource-strained in secondary education. Across the countries depicted below, only Indonesia outperforms the global average for secondary education, while India, Nepal, and the Philippines have ratios that are significantly higher than the global average for this level of education.

Pupil to Qualified Teacher Ratio by Level of Education



Pre-Primary World Average: 25.73 | Primary World Average: 22.6 | Secondary World Average: 18.2

Source: UNESCO UIS, 2019.

LATIN AMERICA & THE CARIBBEAN

SUMMARY

The Latin American and Caribbean countries featured in this report have some of the most robust education systems across EduFinance markets. Today, the region has relatively high enrollment and attendance rates, gender parity in education, and robust capacity within the education sector. Although countries in the region lag behind global benchmarks for learning outcomes, they outperform EduFinance markets in other regions. A notable exception to these regional trends, however, is Honduras, a country affected by ongoing conflict which lags behind its peers in all of these categories.

A persistent challenge in each of these five countries is labour under-utilization, reflecting a disconnect in the link between education and employment. Across the region, approximately one in four workers are in occupations which do not adequately match their skills. Notably, rates of over-qualification outweigh under-qualification, highlighting the inefficiencies in the link between education systems and employment.

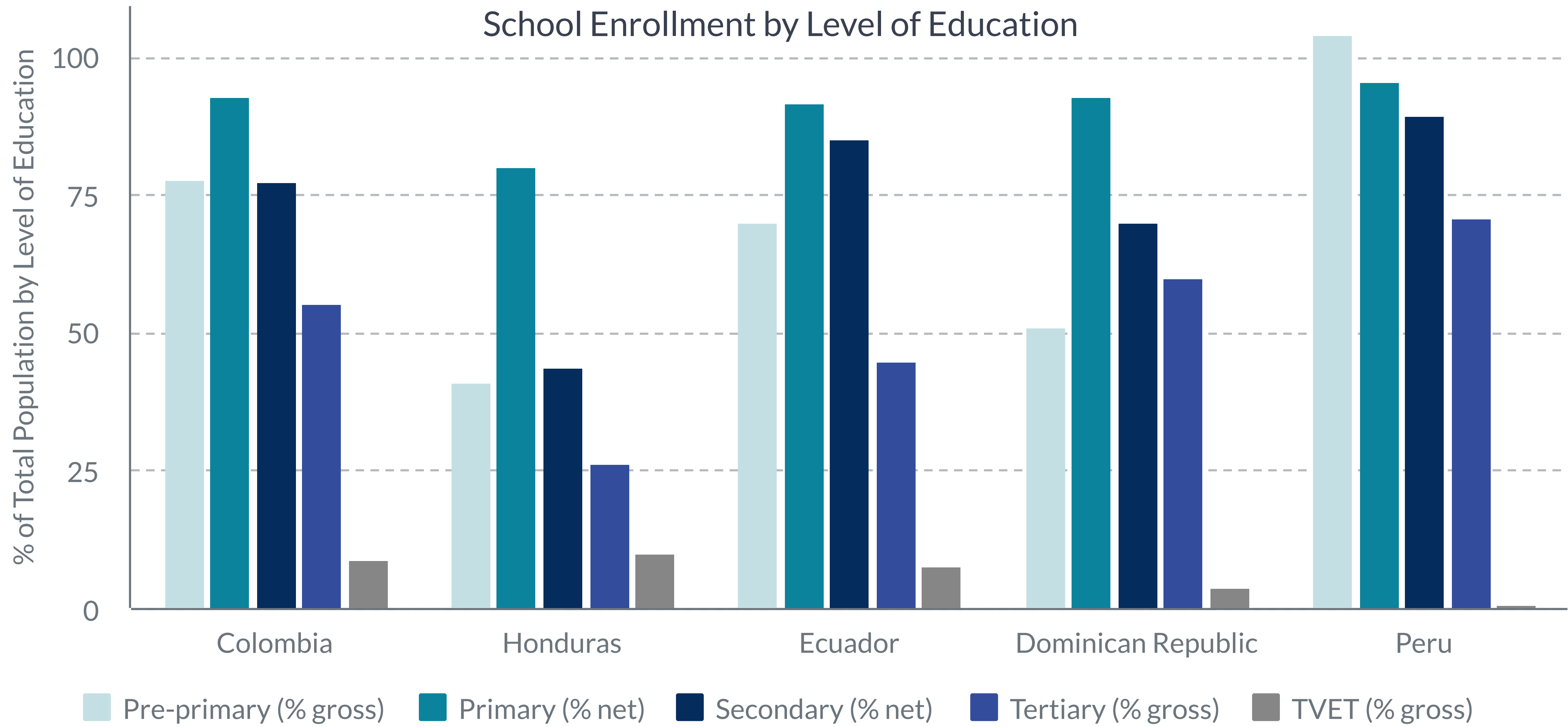
1

PARTICIPATION

Enrollment by Level of Education

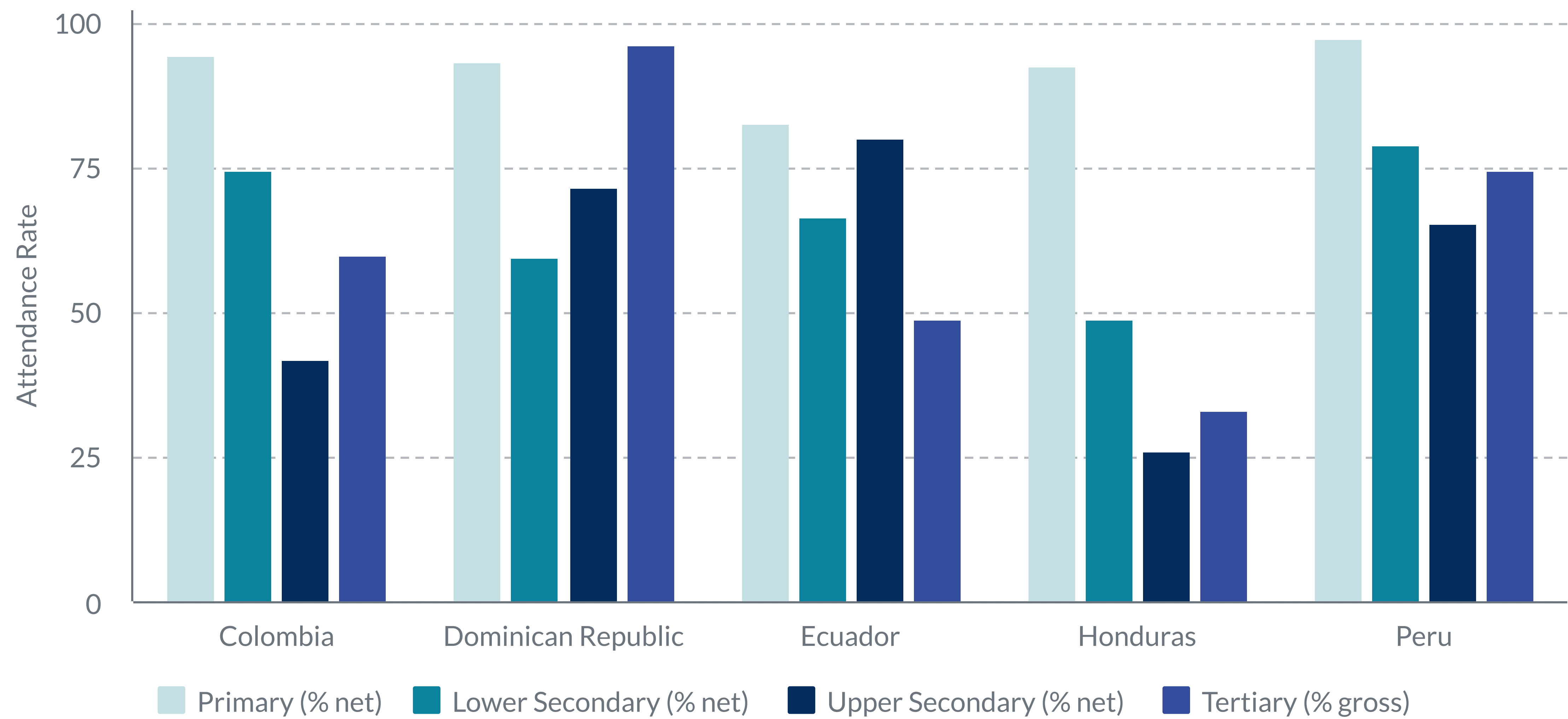
EduFinance countries in Latin America and the Caribbean have very high levels of primary, and secondary, and tertiary enrollment rates. Of the countries studied in this report, countries in this region have the highest tertiary enrollment rates with four of the five countries enrolling more than 40 percent of their population enrolled in tertiary education. This set of countries also have higher percentages of their populations reportedly enrolling in TVET schools, as compared to the other EduFinance markets.

School Enrollment by Level of Education



Source: World Bank, 2019; UNESCO UIS, 2019.

Attendance Rate by Level of Education



Source: UNESCO UIS, 2019.

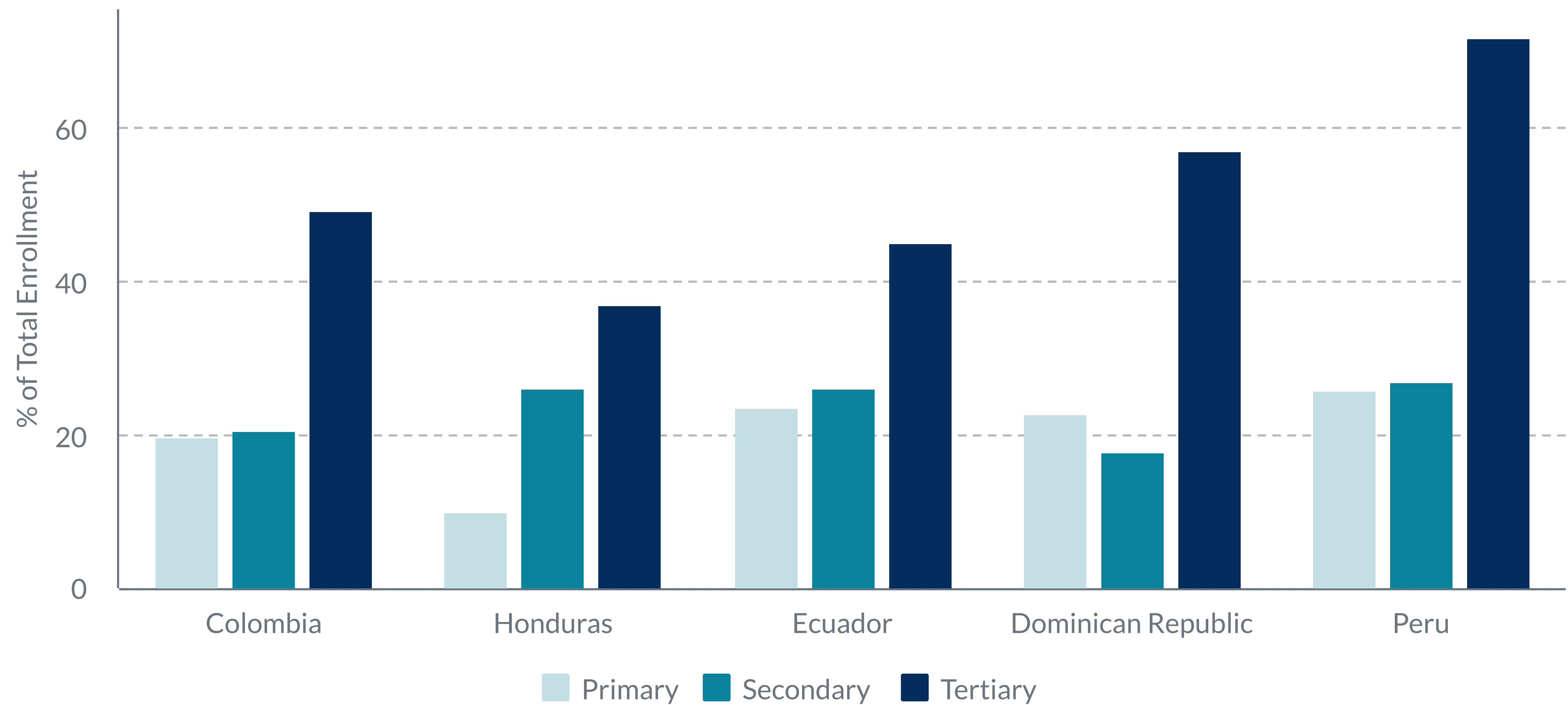
Attendance Rates by Level of Education

The Latin American countries achieve some of the highest attendance rates amongst the countries studied in this report. However, attendance rates paint a slightly less optimistic picture of education than enrollment rates, as they indicate that fewer children are actually attending school compared to the number enrolled in school. As is the case with other educational metrics, attendance rates decline at higher levels of education. See figure above for country level data.

Enrollment in Private School

Once again, the proportion of students enrolled in private schools varies between EduFinance’s Latin American and Caribbean countries: Honduras has some of the lowest rates in the group, while Peru has some of the highest. As is the case in Sub-Saharan African and Southeast Asian countries, the proportion of students enrolled in private schools is highest at the tertiary level. See figure below for country level data.

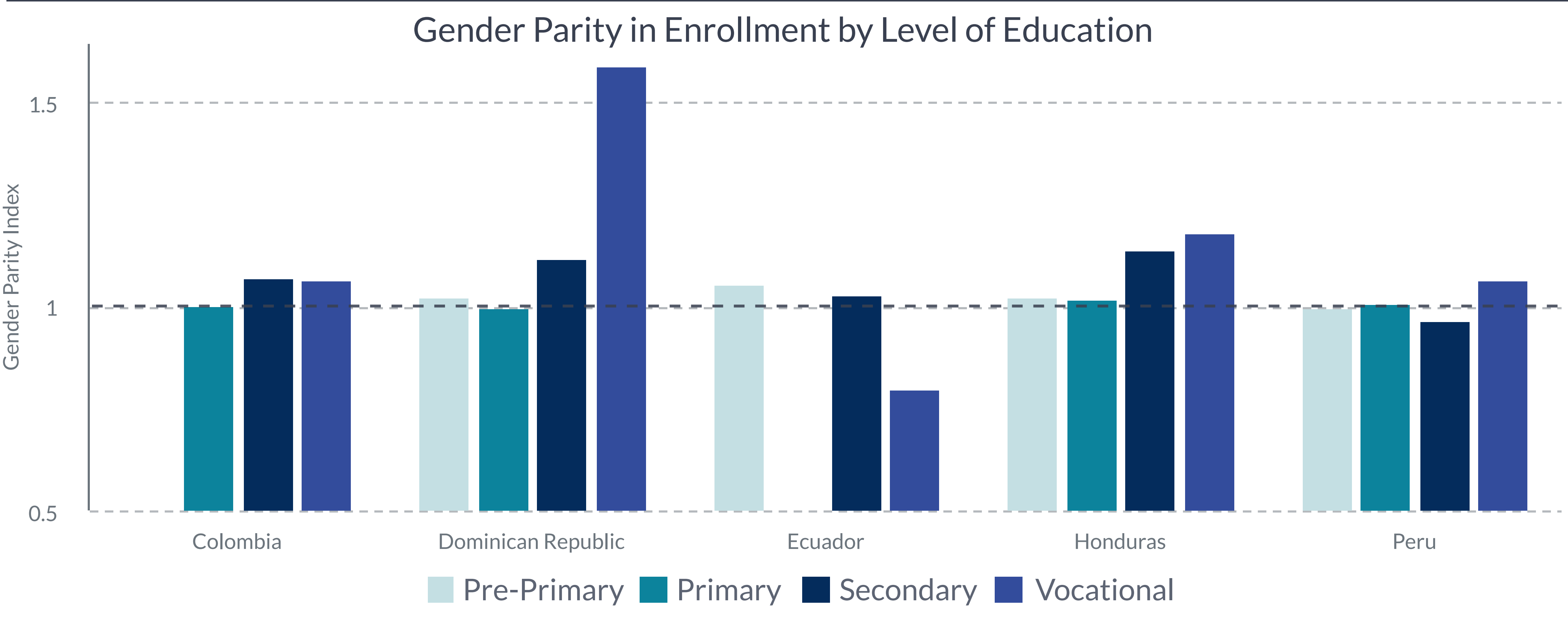
Enrollment in Private School as a Percent of Total Enrollment by Level of Education



Source: World Bank, 2019; UNESCO UIS, 2019.

Gender Disparities in Enrollment

In contrast to other regions, EduFinance markets in Latin America and the Caribbean fare much better in terms of gender equality and access to education. The figure below comparing the net enrollment gender parity index paints a relatively positive image, with almost all levels of education having a gender parity index close to one, indicating that enrollment is relatively gender balanced. The notable exception to this overarching trend is vocational education in Ecuador, which has a gender parity index of 0.8. An assessment of the vocational education programs taking place in other countries in the region may reveal some best practices that help to foster inclusive vocational education opportunities for girls in Ecuador. Another notable outlier depicted in the figure below is vocational education in the Dominican Republic, where girls vastly outnumber boys in TVET enrollment, by approximately 60 percent.

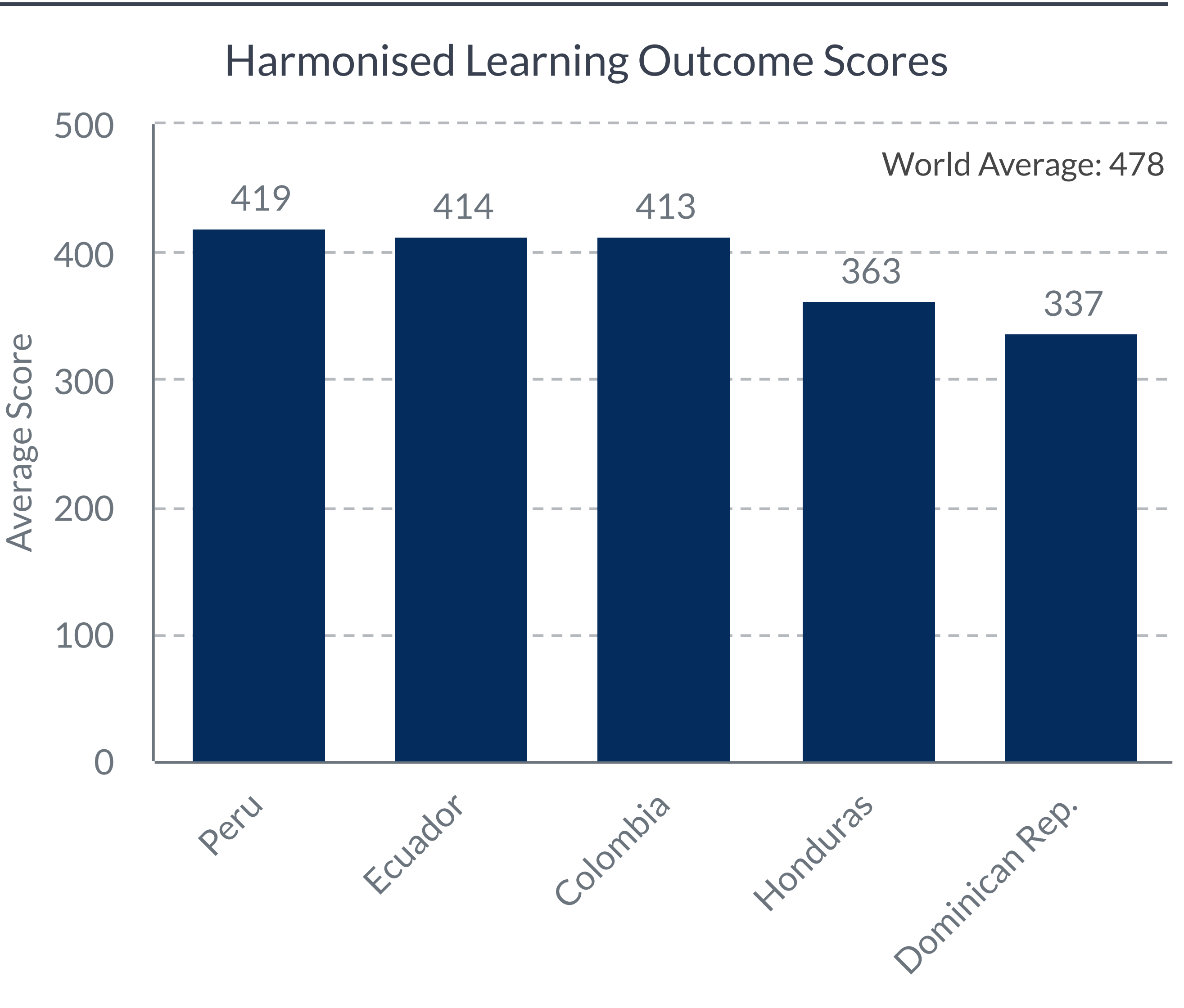


Source: UNESCO UIS, 2019.

2
QUALITY

Learning Outcomes

The figure to the right shows the average harmonized learning outcome scores for EduFinance’s markets in Latin America and the Caribbean. The Latin American and the Caribbean countries in this report perform reasonably well in learning outcomes relative to the world average. While no countries in the region meet or exceed the world average in learning outcome scores, countries in Latin America and the Caribbean perform better relative to this benchmark than other EduFinance markets. The notable exception to this trend is the Dominican Republic, which lags considerably behind its peers in the region, with an average learning outcome score of 337.



Source: Altinok, Angrist, and Patrinos, 2018; Our World in Data, 2018.

Labour Force Skills and Skills Matching

Skills mismatch and labour under-utilization are a widespread issue in EduFinance markets in Latin America and the Caribbean, particularly for young adults. Across the region, an estimated 15 percent of employees aged 15 to 29 identify as being over-qualified for their job, while a further 10 percent report that they are under-qualified (Palmer, 2017). These trends also hold for self-employed workers of the same demographic, as 16 percent and 11 percent of self-employed workers in the region identify as being over- and under-qualified, respectively (Palmer, 2017). Together, these metrics indicate that approximately 25 percent of Latin America’s young adults are facing skills mismatches in the workforce.

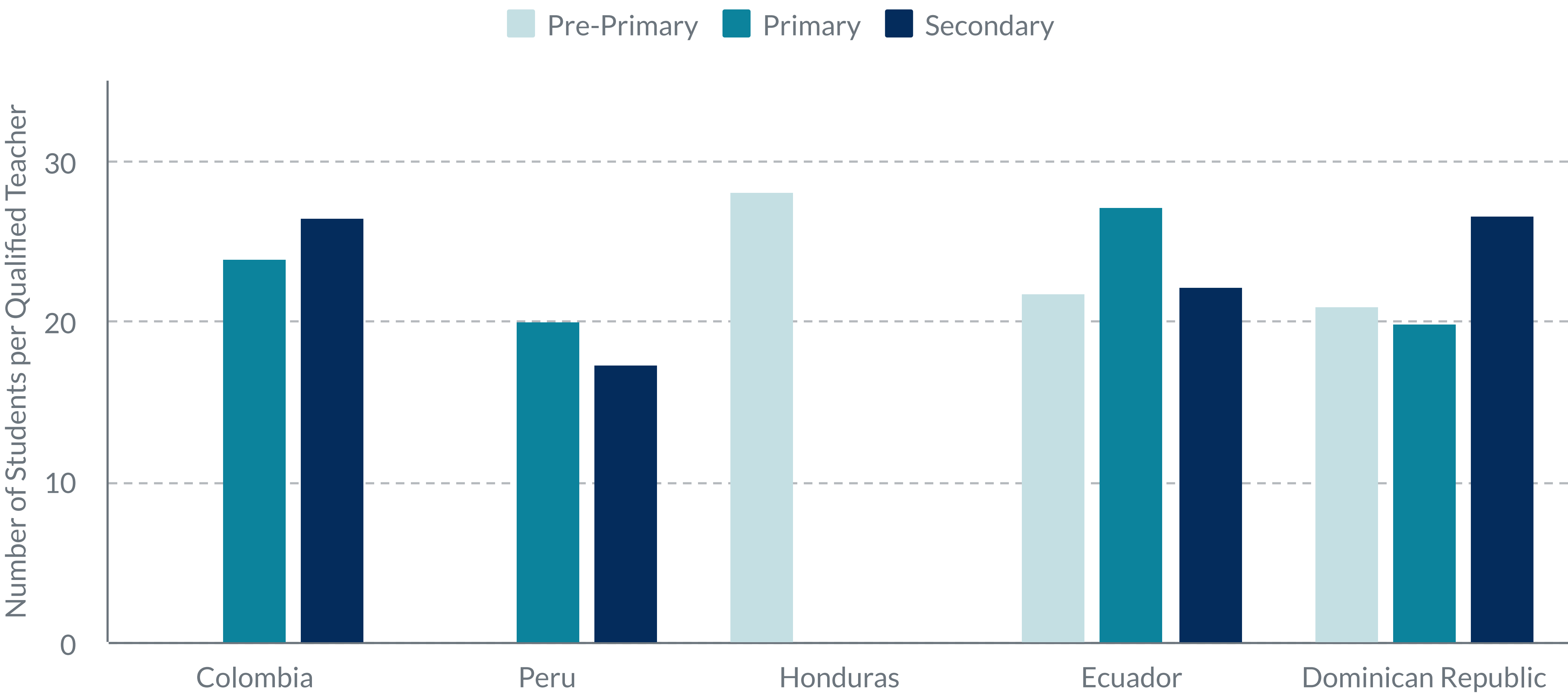
The case study of Colombia further points to the fact that skills mismatches affect even those with the highest levels of education. In Colombia, approximately 42 percent of those holding a bachelor’s degree or higher are working in jobs which do not require tertiary education; a figure that rises to 63 percent for self-employed workers (Handel et al., 2016). Data on over-and under-education is an important component of supply-side labour market analyses, indicating that the skills developed through education are not translating into employability.



Human Resources

Almost every EduFinance market in Latin America and the Caribbean performs better than the global average pupil to qualified teacher ratio in primary education, with the exception of Ecuador. However, this trend is reversed for secondary education, as almost all EduFinance markets have ratios higher than the global average, indicating a shortage of qualified teachers at this level of education. The relatively strong performance of countries in Latin America and the Caribbean indicate that education systems in the region are perhaps the best positioned to handle increases in demand for education from a human resource perspective.

Pupil to Qualified Teacher Ratio by Level of Education



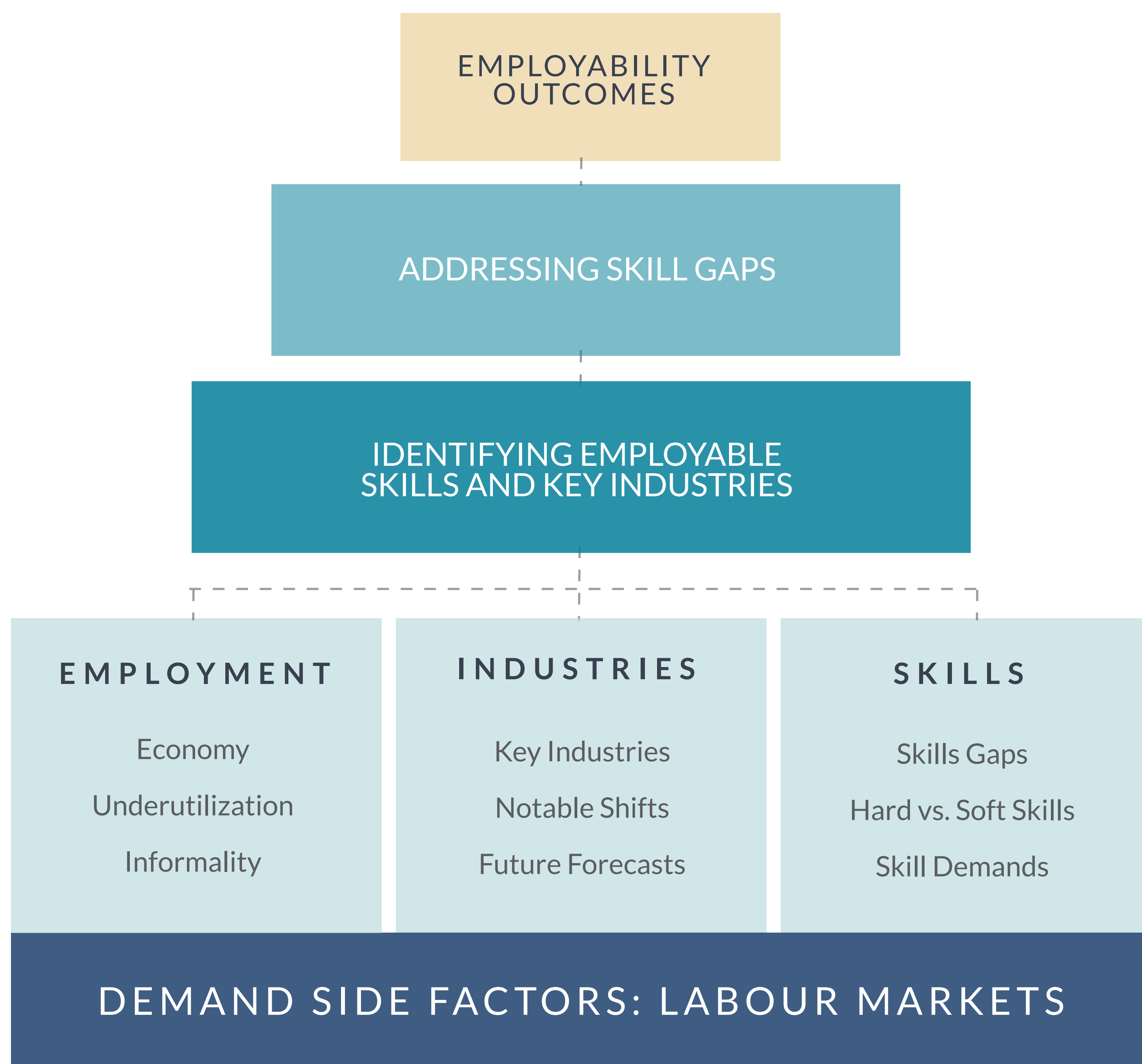
Pre-Primary World Average: 25.73 | Primary World Average: 22.6 | Secondary World Average: 18.2

Source: UNESCO UIS, 2019.

DEMAND SIDE ANALYSIS: LABOUR MARKETS

The demand-side analysis approaches the labour market from the employer perspective, to help provide insights as to what types of education, training, and skills are desired in economies today. Exploring data and information from EduFinance markets, this analysis will first provide insights into the regional economic and employment landscapes, look into industry growth and job forecasts, and finally delve into the skill gaps facing these regions, highlighting specific skills desired by the regions' prominent employers. Investing in the right skills for today's workforce will ultimately drive the future economy.

DEMAND FRAMEWORK



THREE PILLARS

1 EMPLOYMENT

2 INDUSTRIES

3 SKILLS

Our demand-side analysis of EduFinance labour markets aims to identify which employable skills and industries the education system should target in order to tackle persistent skill gaps and ultimately improve regional employability outcomes.

Employment:

In order to assess how education systems can create positive labour market outcomes, this section considers the context of regional economies and employment conditions. The following analysis of employment in EduFinance markets considers economic forecasts, labour underutilization, and informality to help contextualize opportunities for investment.

Industries:

A second key component to our demand side analysis is the regional industry landscape. This section will explore regional industries, looking at recent shifts, growth, and job forecasts. Here, it is important to consider how region specific disparities might be impacted by growth in the industry landscape. By highlighting industries, growth patterns, and job forecasts, this analysis helps set a foundation for the demanded skills in regional labour markets.

Skills:

Finally, the analysis of demand-side factors concludes with an overview of current region-specific skill gaps, highlighting the hard and soft skills most desired by employers and the skills currently lacking in labour markets. It is important to note that in some regions, employees may feel overqualified for the job market *and* employers may feel constrained by skill gaps in the labour market. When both factors are present in a region, our research indicates that education systems may be the culprit, ultimately not providing their students with the correct skill-sets for the labour market.

SUB-SAHARAN AFRICA

SUMMARY

Labour markets in Sub-Saharan Africa present significantly low unemployment rates but feature persistently high rates of labour underutilization. The discrepancy between unemployment and underutilization ultimately represents poor working conditions, largely in the informal sector. The agricultural industry continues to dominate labour markets in low and lower middle-income economies; however, the services sector is the fastest growing industry in the region and represents the most sought after jobs.

Employers in the region have identified inadequately skilled workforces as a major constraint to their businesses. Research has shown employers are increasingly seeking candidates with well-rounded skill sets, possessing hard skills, technical knowledge, and soft skills. Employers in the region have expressed that candidates should put more effort into developing their problem-solving, teamwork, and digital literacy skills. This skills gap presents an opportunity for EduFinance to offer industry-specific skills training and education, perhaps in coordination with employers in the region who lack access to qualified talent.

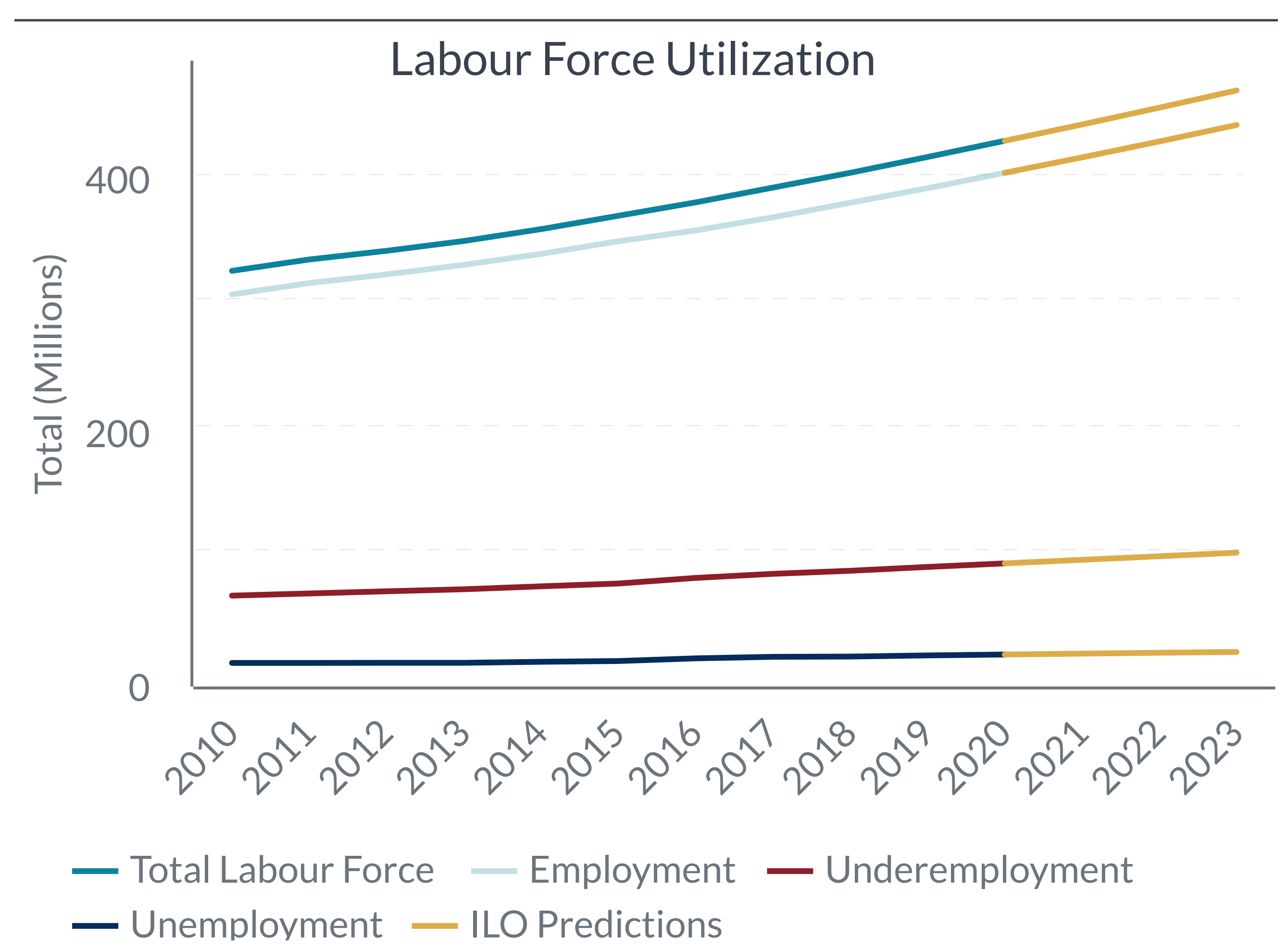
1

EMPLOYMENT

The labour market in Sub-Saharan Africa is largely characterized by widespread low-productivity employment in smallholder agriculture. Very low household incomes and a widespread lack of social protection force people to take up any kind of economic activity in order to survive. Thus, while the subregion has very low levels of

unemployment, informal employment is the norm, affecting 89.2 percent of all workers (Gomis, 2020). On aggregate, the ILO estimates that only 5.9 percent of the subregion's total labour force was unemployed in 2019 and they expect very little change in that rate in projections for 2020–23. Despite the relatively low rates of unemployment, the combined rate of labour underutilization in 2019 was 21.5 percent, as seen in the figure above.

Sub-Saharan Africa, in comparison to other subregions, presents the largest discrepancy between unemployment rate and total labour underutilization (Gomis, 2020). The divergence in indicators likely represents an unused labour supply among those in employment. This means people are willing and able to work more hours than they do, but the inaccessibility of the labour market largely prevents them from doing so. Research by the ILO suggests that half of total labour underutilization in Sub-Saharan Africa is due to this time-related underemployment, which ultimately reflects the lack of high-quality employment opportunities. (Gomis, 2020).



Source: ILO 2020

2 INDUSTRIES

Looking to 2030, the agricultural industry is expected to continue monopolize employment in low and lower middle-income economies in Sub-Saharan Africa, providing about two-thirds of total jobs, while the services sector will lead the way in upper-middle income economies. The manufacturing sector is projected to provide only 6.5 percent of total employment across all income categories (Brown and Slater, 2018).

Agriculture is the largest employment sector in Sub-Saharan Africa, employing over 200 million people (Brown and Slater, 2018). However, the services sector is the fastest growing sector in Sub-Saharan Africa in

terms of job creation and value-added to GDP. It currently employs over 110 million people across the subregion and is forecast to grow by 3.8 percent on average each year through 2030 (Brown and Slater, 2018). This transition from agriculture to the services sector appears to come at the cost of export-oriented manufacturing, which is typically associated with higher-value added to the economy and increased job quality (Asmal, *et al.*, 2020). As a result, the quality of jobs for people in the region remains low, and informal employment continues to dominate the economy. The services sector, while largely informal, does provide access to wage employment. As a result, the services sector encompasses the majority of sought after jobs in the region. In addition, demand for services increases as incomes rise and urbanization continues, thus creating potential space for entrepreneurs to meet that demand.

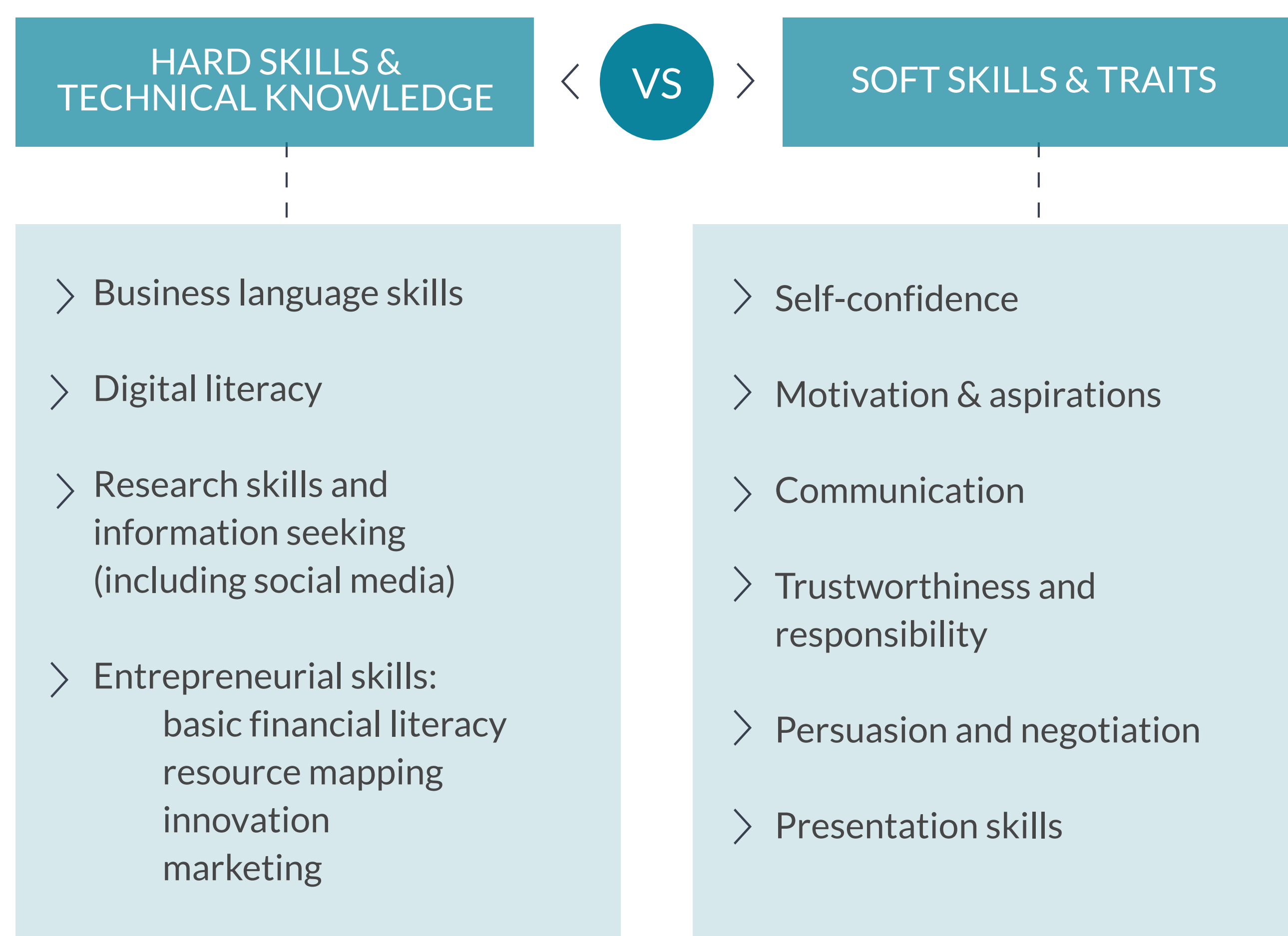
According to research by the World Economic Forum, employers across Sub-Saharan Africa have identified inadequately skilled workforces as a major constraint to their business. Skills discrepancies were highlighted as a major constraint by 41 percent of firms in Tanzania, 30 percent of firms in Kenya, 9 percent in South Africa, and 6 percent in Nigeria (World Economic Forum, 2017). While the supply-side analysis highlights that employees often feel overqualified for their jobs in terms of educational attainment, the persistent skills gaps identified by employers further sheds light on the inefficiencies in education systems. When educated graduates are not equipped with the right skill-sets, they may be pushed into the lower-skilled occupations.

The mismatch of skills likely stems from the fact that digital technologies are becoming more prevalent in various industries across the region. Looking at the employability of graduates in Ghana, Nigeria, Kenya and South Africa, McCowan (2014) found that while employers are often content with graduates' disciplinary knowledge, they identify serious inadequacies in their IT skills, as well as in problem solving and teamwork.

In an attempt to better identify the skills necessary for educated youth to successfully enter the job market, Wilson and colleagues (2019) interviewed educators and employers in Ethiopia, Kenya, Rwanda, and Senegal. The figure to the right summarizes their findings, highlighting essential skills required for successful employability.

3 SKILLS

Essential Skills for Successful Employability



Source: Wilson *et al.*, 2019

CASE STUDY: KENYA

The World Bank STEP Skills Measurement Program is the first ever initiative to measure skills in low and middle-income countries. The surveys gauge household and employer attitudes towards the labour market, skill development and demand, and working conditions. The STEP Skills Measurement Employer Survey (Wave 3) in Kenya in 2016-2017, asks employers to rank the level of importance of a variety of skills, identify any discrepancies between their employee’s current skill levels and the employer’s desired skill levels, and comment on the size of the discrepancy (if any). The figures on the following page are associated with the types of work and skills listed below.

The data reveals that for higher-skilled jobs, the most desired skills by employers are numeracy and reliability. In lower-skilled jobs, while reliability remains a priority, the ability to stay focused and complete long and difficult tasks is also highly valued by employers. In both higher and lower-skilled jobs, the largest skill gaps exist in foreign language abilities, competency with computers, and adapting to changes in the workplace. While these skills may not be as highly demanded in the workplace today, as technological advancements and globalization drive labour market transitions in Kenya and the broader Sub-Saharan Africa region, they are likely to become more commonly required over time. Addressing these gaps now will help prepare the workforce for the future of work in Sub-Saharan Africa.

The types of work captured by the STEP survey are differentiated into two categories:

A

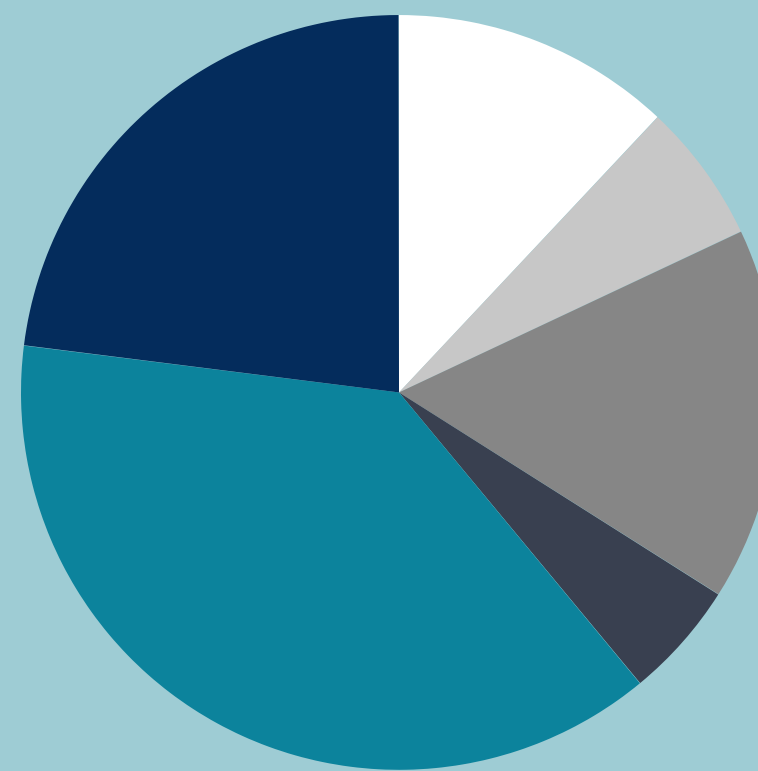
HIGHER-SKILLED JOBS



- Managers (36%)
- Professionals (43%)
- Technicians & Associate Professionals (21%)

B

LOWER-SKILLED JOBS

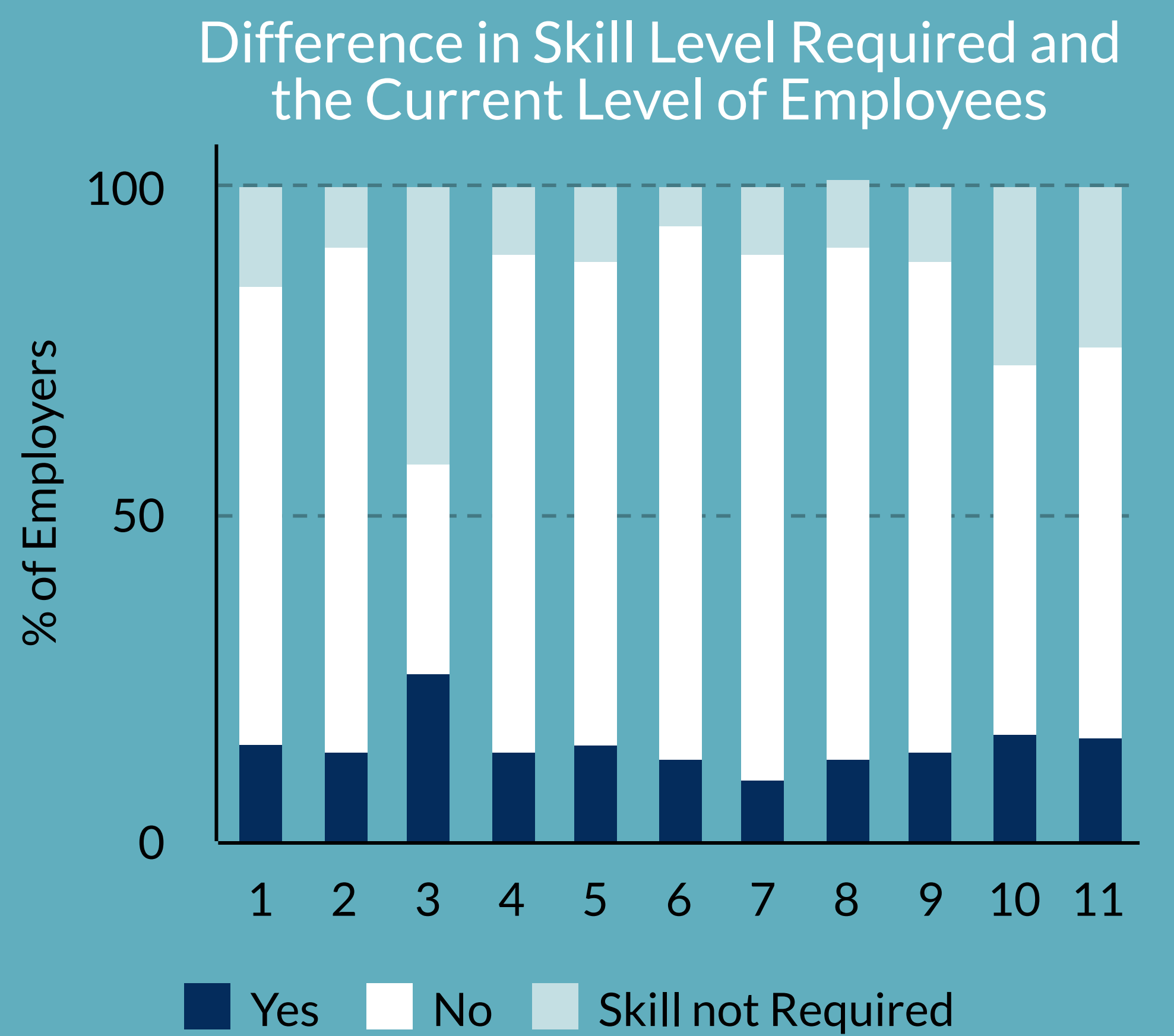
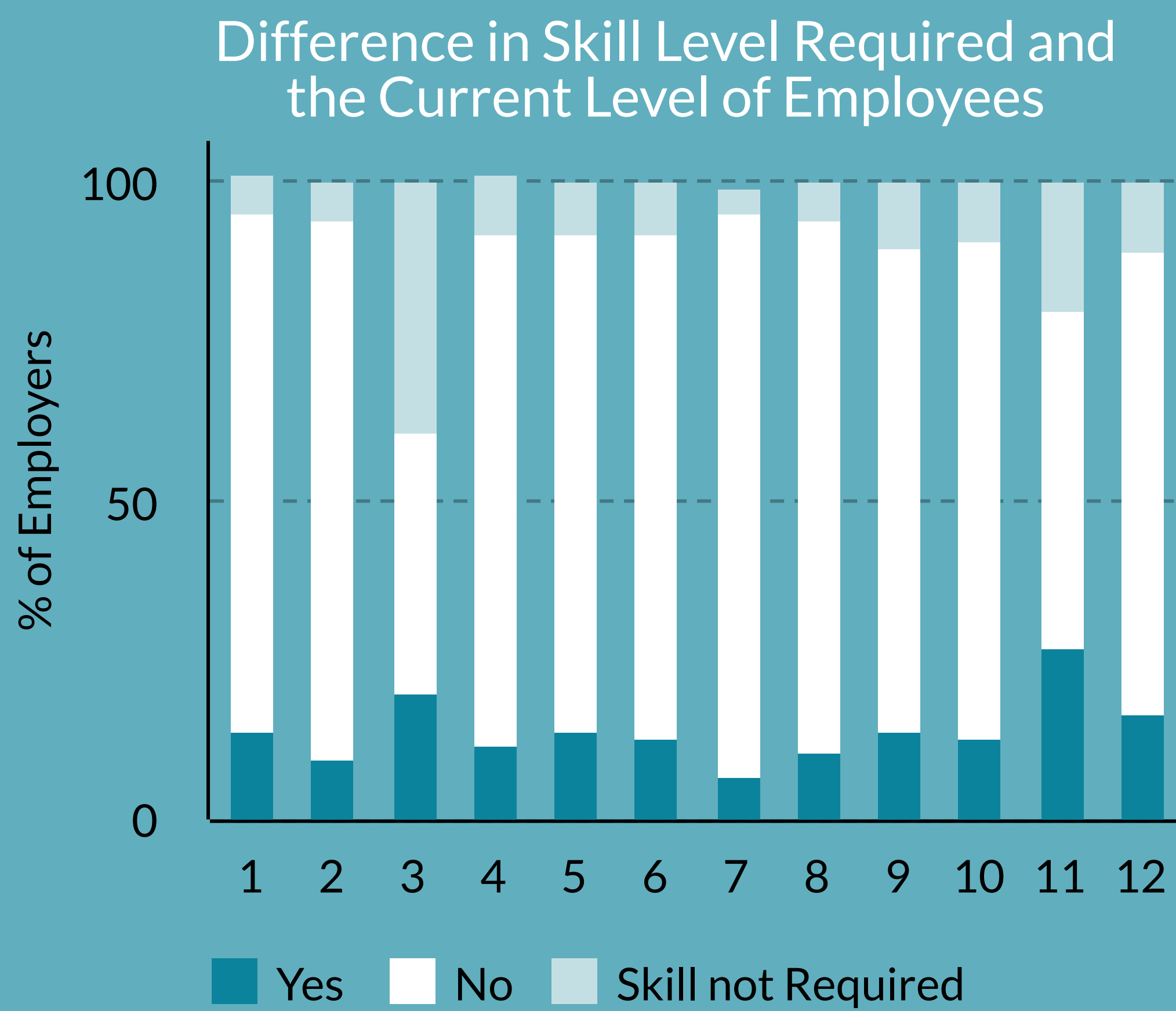
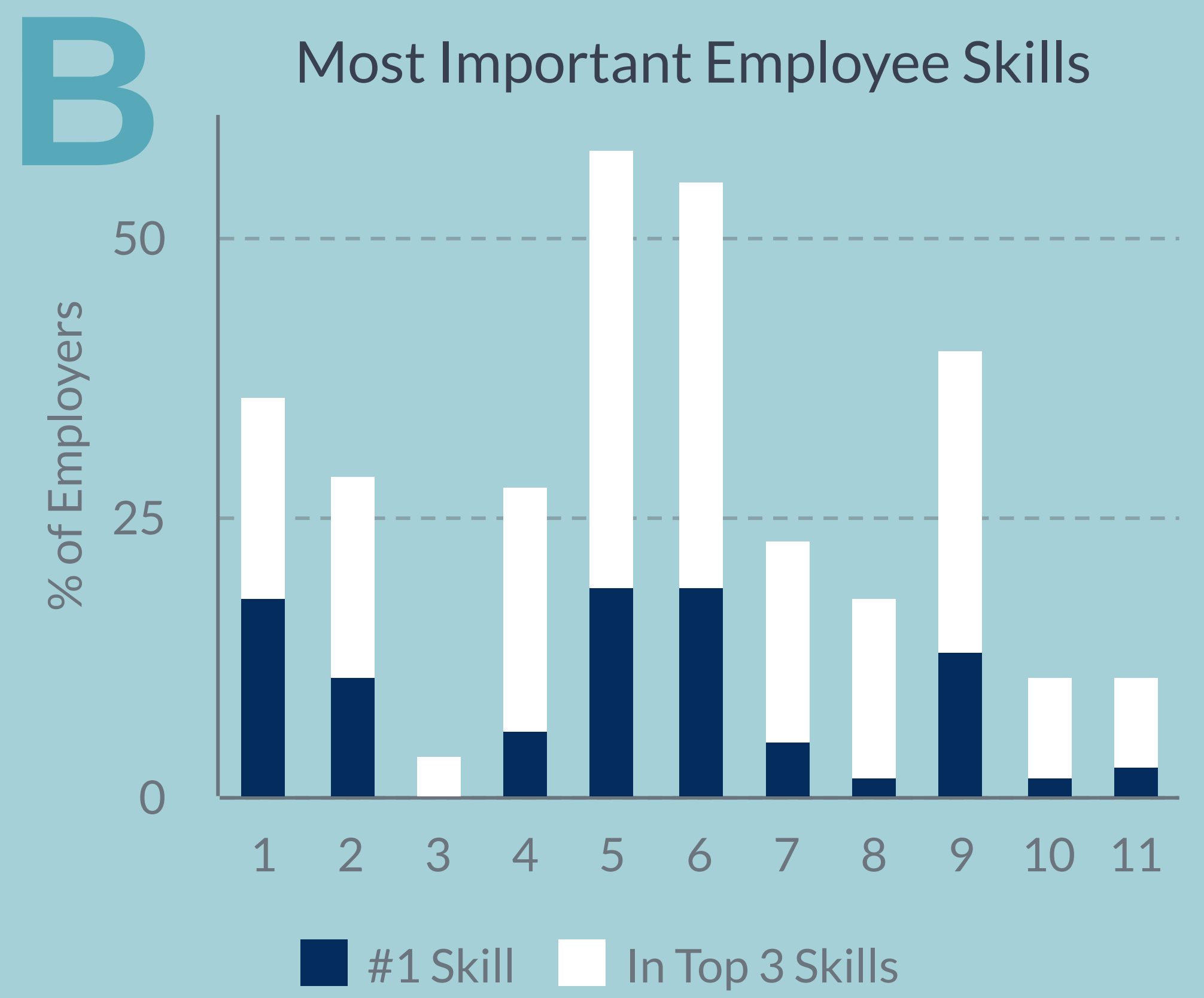
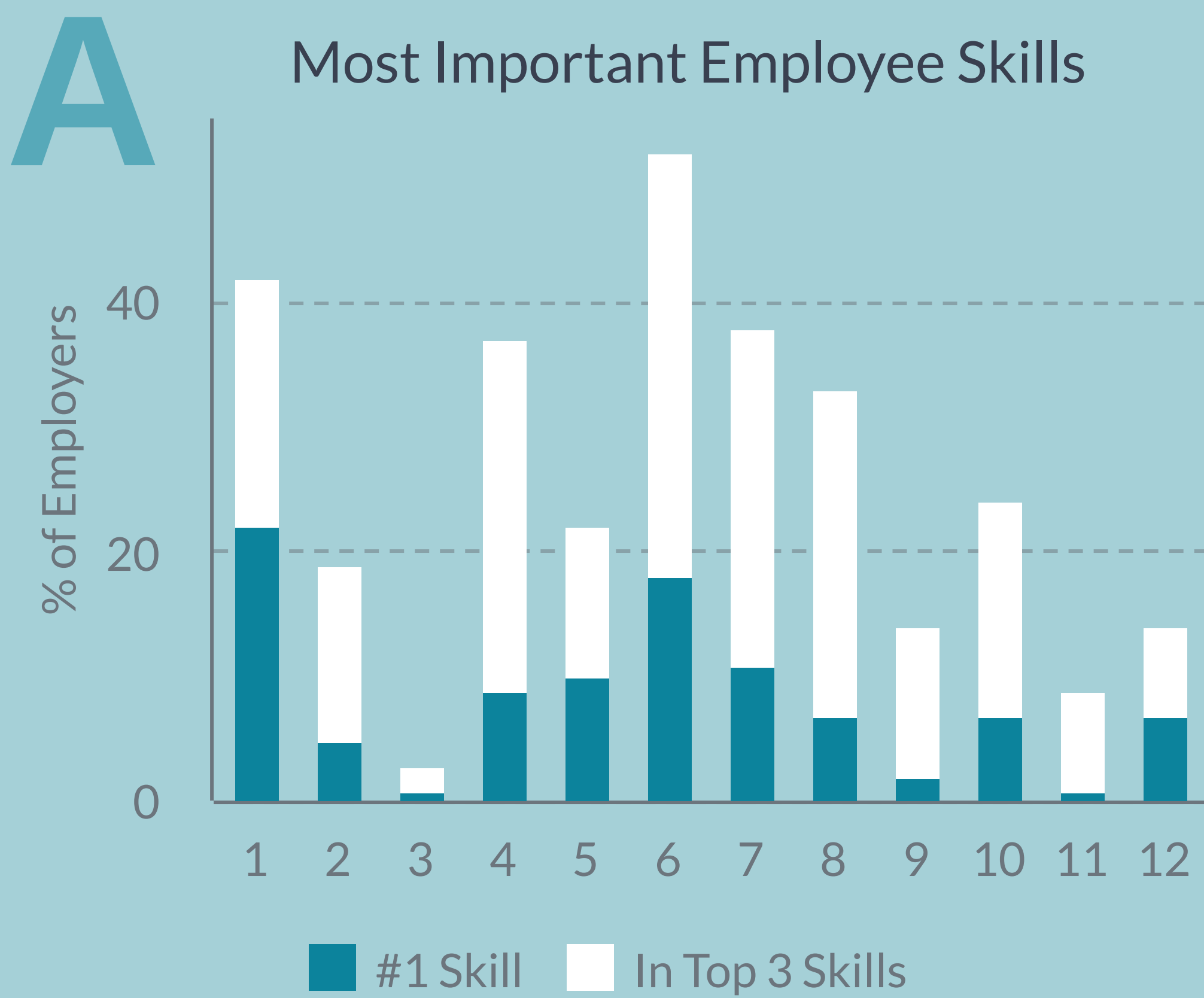


- Sales Workers (38%)
- Service Workers (23%)
- Clerical & Support Workers (12%)
- Construction, Craft, and Trade Workers (6%)
- Elementary Occupations (16%)
- Plant & Machine Operators (5%)

SKILL DESCRIPTION

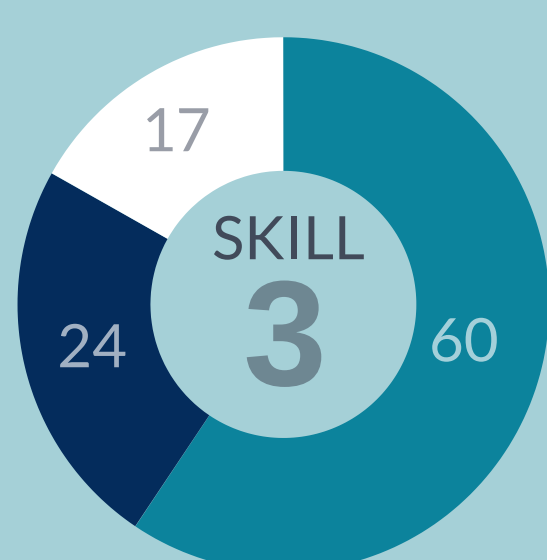
- | | |
|----|---------------------------------------------------------------------------------|
| 1 | Can do calculations and work with numbers |
| 2 | Can read and write in English |
| 3 | Can read and write in a foreign language |
| 4 | Can find new and better ways to do things |
| 5 | Can stay on a long and difficult task until it is finished |
| 6 | Can be relied on to get things done |
| 7 | Can work well with others and listens to others’ views |
| 8 | Can work well in very busy or difficult situations |
| 9 | Can continue in the face of challenging situations at work |
| 10 | Can easily adapt to new tasks or changes in the establishment |
| 11 | Can use a computer for basic work processing tasks, email and internet searches |
| 12 | Can use a computer for making presentations and/or other advanced purposes |

CASE STUDY: KENYA (CONTINUED)

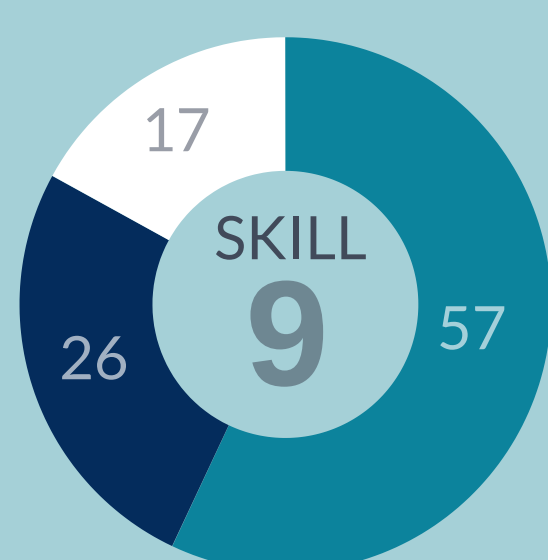


Size of Difference in Skill Level (%)

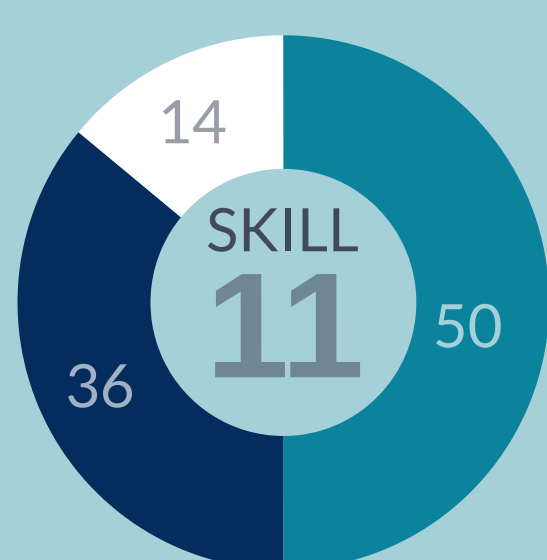
Large Medium Small



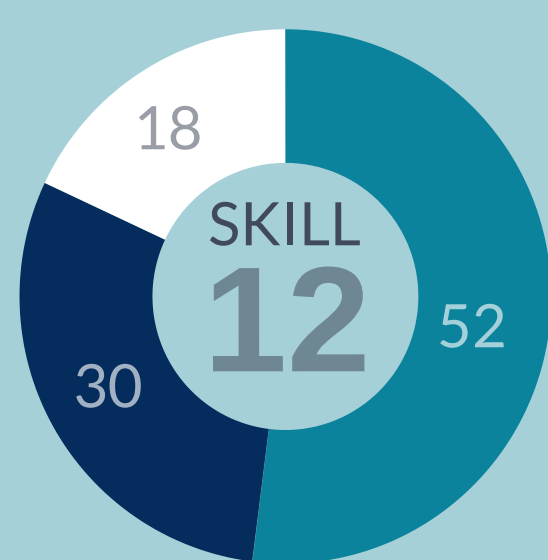
102 Respondents



69 Respondents



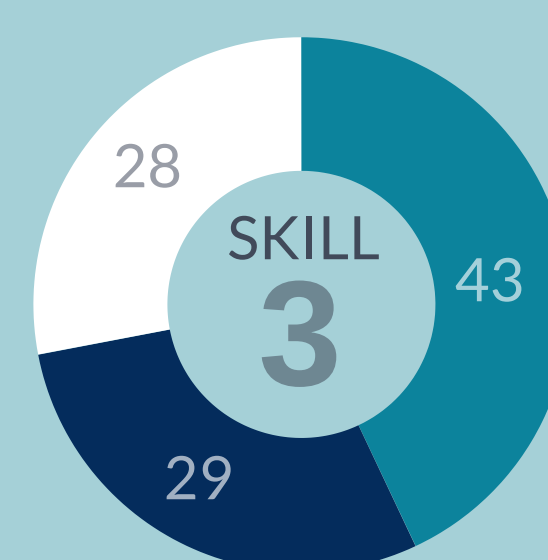
134 Respondents



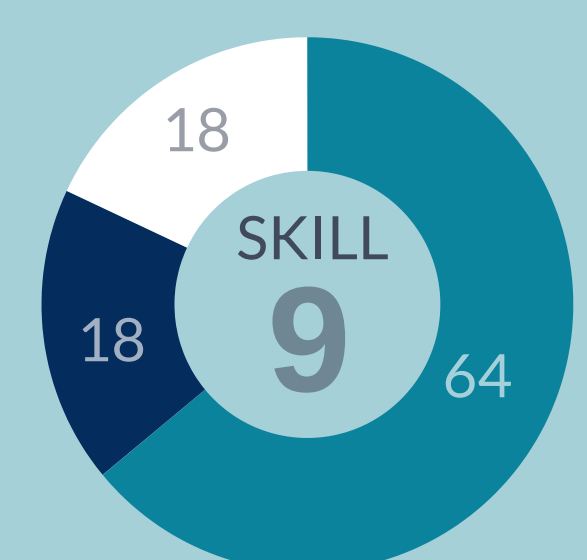
84 Respondents

Size of Difference in Skill Level (%)

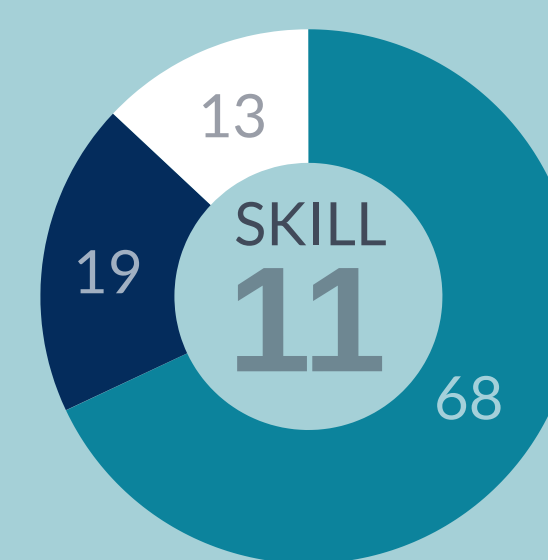
Large Medium Small



131 Respondents



67 Respondents



78 Respondents

SOUTH & SOUTHEAST ASIA

SUMMARY

Asia and the Pacific remains the fastest-growing region in the world and continues to have the highest employment-to-population ratio worldwide, but the declining growth rate of its working-age population is a concern. The share of youth who are not in employment, education or training (NEET) has significantly increased in the subregion of South Asia, making it one of the regions with the highest NEET rate in the world. Technological progress has been transforming the region's labour markets at a fast pace, however the benefits of this advancement have not been distributed evenly. This "digital divide" has exacerbated inequality, most notably between urban centres and rural areas.

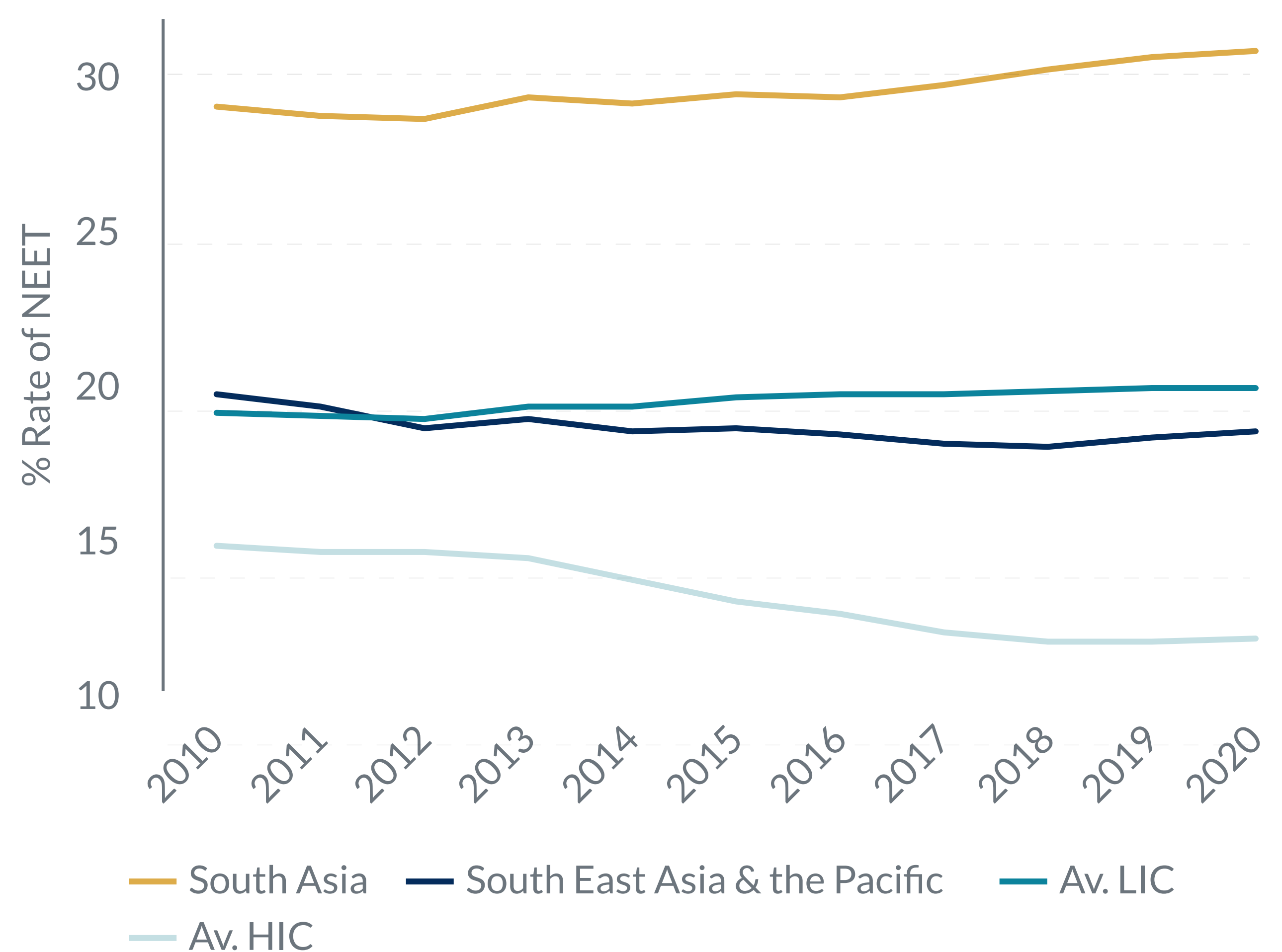
In the face of the technological industry transformation in this region, there is a need to address the diverse skills challenges that focus around adapting to future disruptive technologies. Equally important is the need to ensure the gains brought by technological progress are distributed more equitably, with a strong focus on improving infrastructure, access, investments and knowledge in rural areas.

1

EMPLOYMENT

Intensified trade tensions and political uncertainties are having a negative effect on this region's economic growth, which decreased from 5.1 percent to 4.6 percent in 2019 (Gomis, 2020). Nonetheless, Asia and the Pacific remains the fastest-growing region in the world, which creates significant potential for developments in the labour market.

Youth Not in Employment, Education or Training (NEET)



Source: ILO 2020

Unemployment rates remain broadly stable in Asia and the Pacific. The 2019 unemployment rates of 3.1 percent in Southeast Asia and 5.4 percent in South Asia are only marginally higher than the year before (ILO, 2020). Asia and the Pacific continues to have the highest employment-to-population ratio worldwide, but the declining growth rate of its working-age population may have significant labour market ramifications in the coming years.

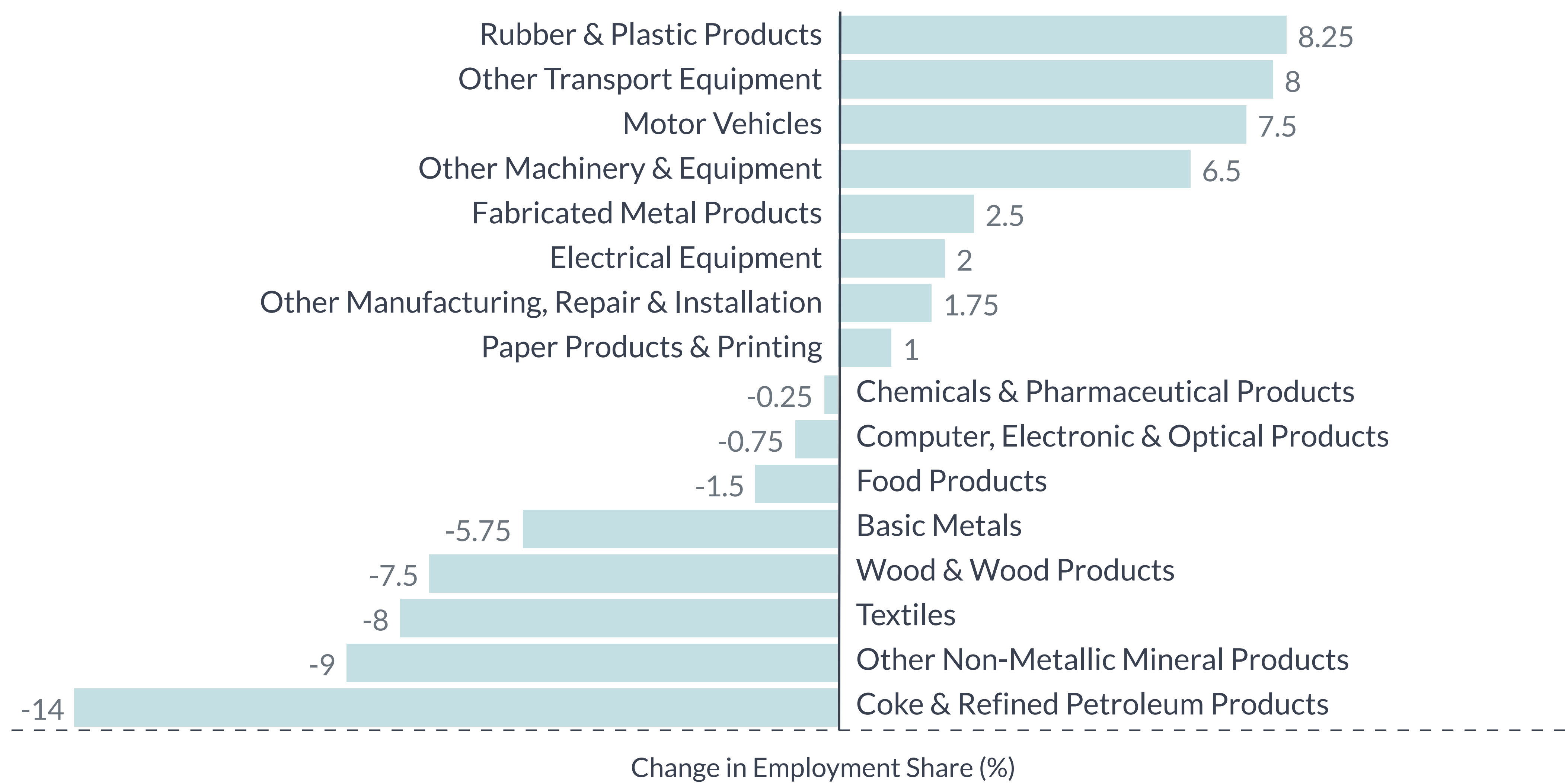
As elsewhere in the world, young people in Asia and the Pacific find it difficult to enter the labour market. While the share of youth who are not in employment, education or training (NEET) remained steady in Southeast Asia at 18.2 percent in 2019, the NEET rate jumped up to 30.5 percent in South Asia as seen in the graph above, making it one of the regions with the highest percentage of NEET worldwide (Gomis, 2020). In light of the region's aging population, engaging and empowering the youth in this subregion, through education or employment, presents significant potential to spur economic growth (UN ESCAP, 2017).

2 INDUSTRIES

Technological progress is transforming the region's labour markets at a fast pace, and while this comes with notable economic benefits, there are significant concerns that this progress may be exacerbating existing inequalities.

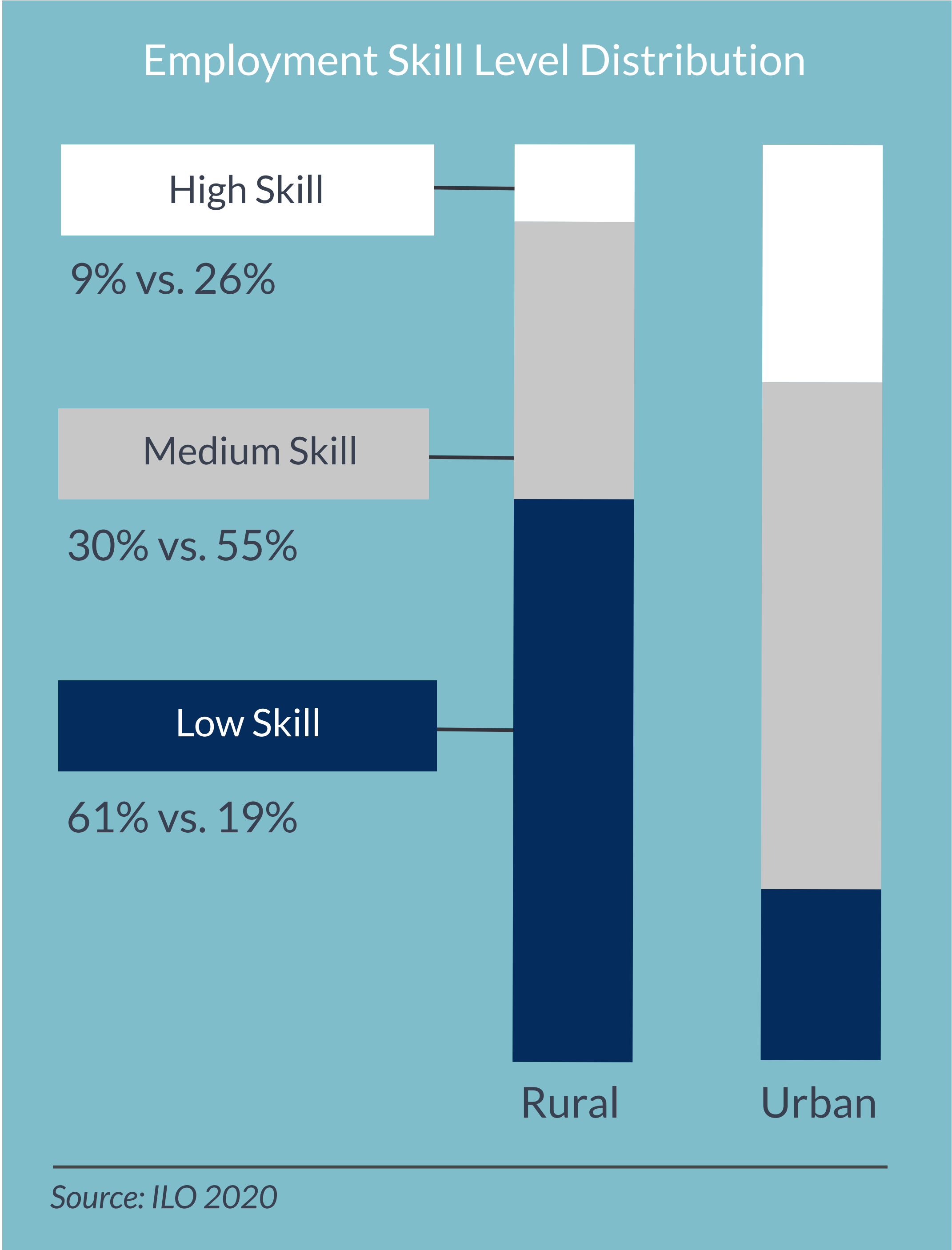
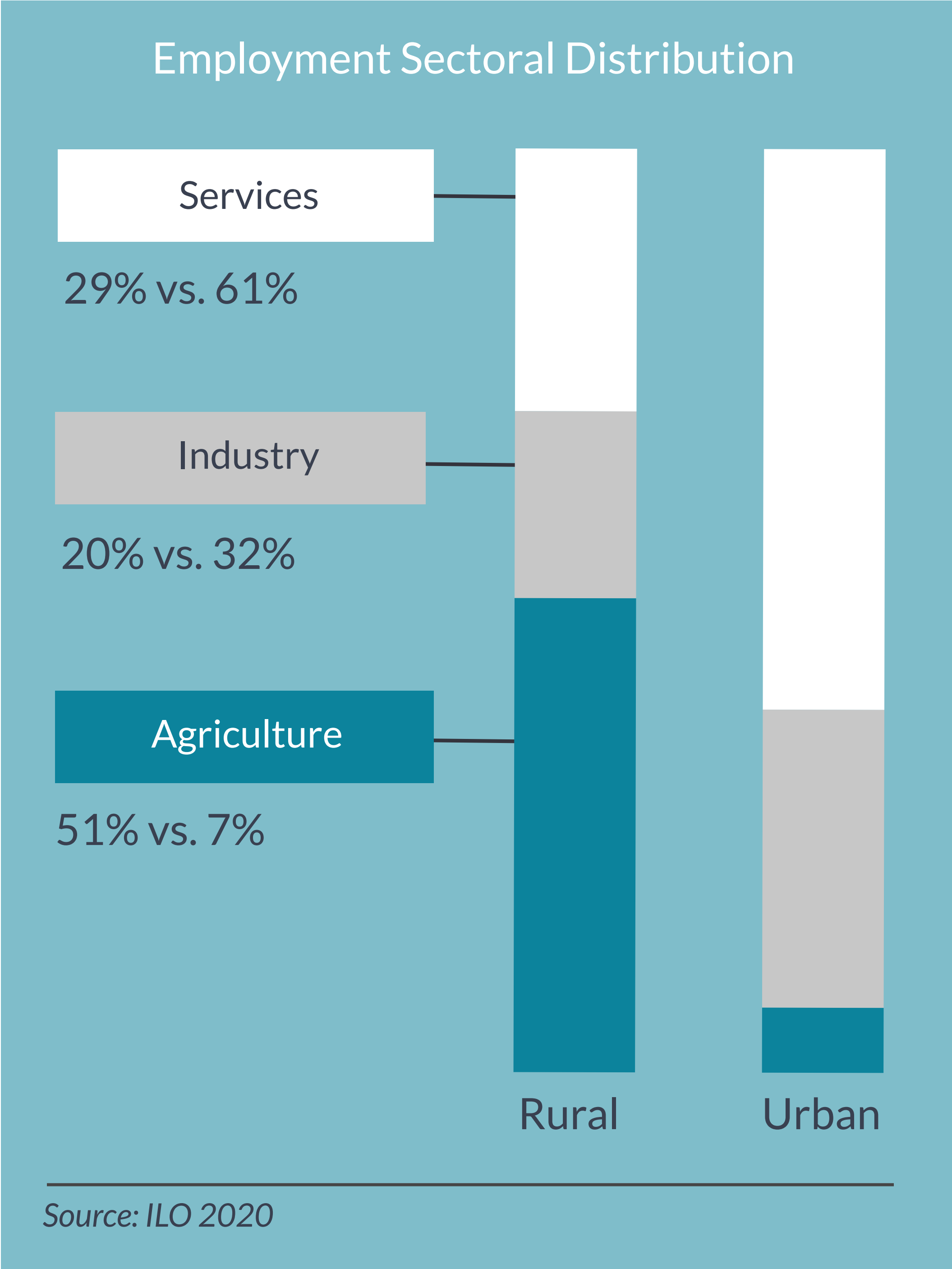
Looking at the manufacturing sector in South and Southeast Asia, over the last three years motor vehicles and other transport equipment have been among the fastest-growing sectors in terms of their respective shares of total employment (see figure below). The share of employment in the electronics sector has remained broadly stable, and because these sectors are typically associated with high levels of technological application, it appears as though innovation is helping to raise operational efficiency in these sectors without displacing labour thus far. While this innovation seems promising for the region, it is likely that this will aggravate existing “digital divides”, with only some segments of the population being able to benefit from the economic returns brought by the new technologies.

Changes in Employment Shares for the Manufacturing Sector (2015-18)



Source: ILO 2020

Inadequate information and communications technology infrastructure, especially in rural areas, often hinders the adoption of new technologies. Moreover, new technologies create jobs and incomes in some industries, but can have a negative impact on employment in others. As a result of these disparities, the adoption of new technologies has a differential effect on the rural and urban labour markets. In response, millions of workers have moved from rural to urban areas, following the labour market demand in sectors with a higher value added and in better-paid occupations.



In 2019, 47.2 percent of the labour force in the region was located in urban areas, following a steady and continuous rise from 36.4 percent in 2005 (Gomis, 2020). Further disparities between urban and rural areas of Asia and the Pacific can be seen in the figures above. Evidencing the increasing digital divide, the employment share of high-skilled occupations reached 26 percent in urban areas in 2019, compared with just 8.8 percent in rural areas. With these persistent rural-urban disparities, the workers who benefit the most from this new technological economy are predominantly those who are already better off, thereby increasing inequality. To ensure that the gains brought by technological progress are distributed more equitably, attention and priority should be placed on balancing technology and innovation strategies, with a strong focus on improving infrastructure, access, investments and knowledge in rural areas.

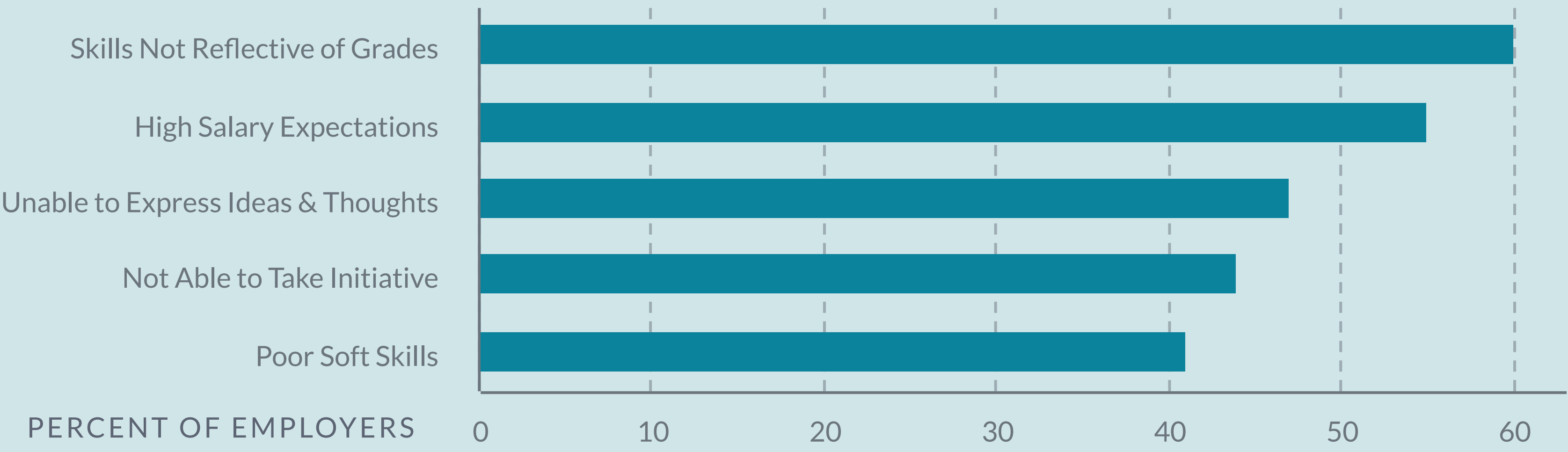
3 SKILLS

In the face of the technological industry transformation, equipping the workforce with the right skills is essential for economic growth. According to research at Gartner, finding the right talent is ranked as the second biggest challenge when it comes to disruptions in South and Southeast Asian enterprises (TechWire Asia, 2019). The skill challenges among the region’s countries are diverse; however, the common issue they all face is adapting to future disruptive technologies. While supporting STEM skills and domain expertise is integral to skill development for the future of work in South and Southeast Asia, research from Pakistan and India highlight the need for more well-rounded skills development.

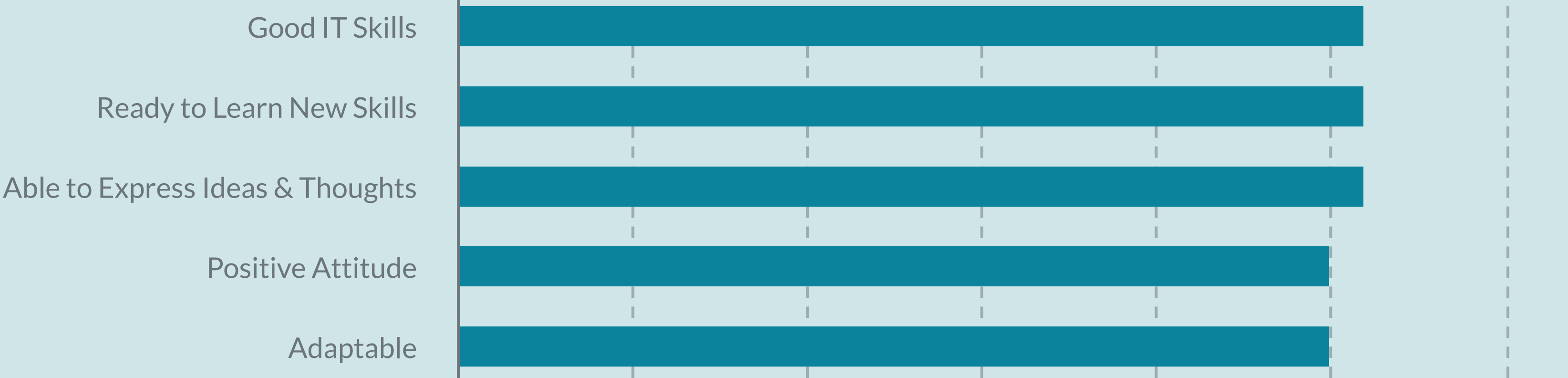
CASE STUDY: PAKISTAN

In Pakistan, a 2018 study revealed that on average, 78 percent of employers are dissatisfied with the quality of recent graduates (Shahbaz, 2019). The study, conducted by Pakistan’s Career Advisory and Assessment Services, surveyed 212 organizations in Pakistan, which together employ over 500,000 employees combined. The study set out to portray employer perspectives of the country’s skills gap, particularly between academia and the economy.

TOP 5 REASONS FOR EMPLOYER DISSATISFACTION



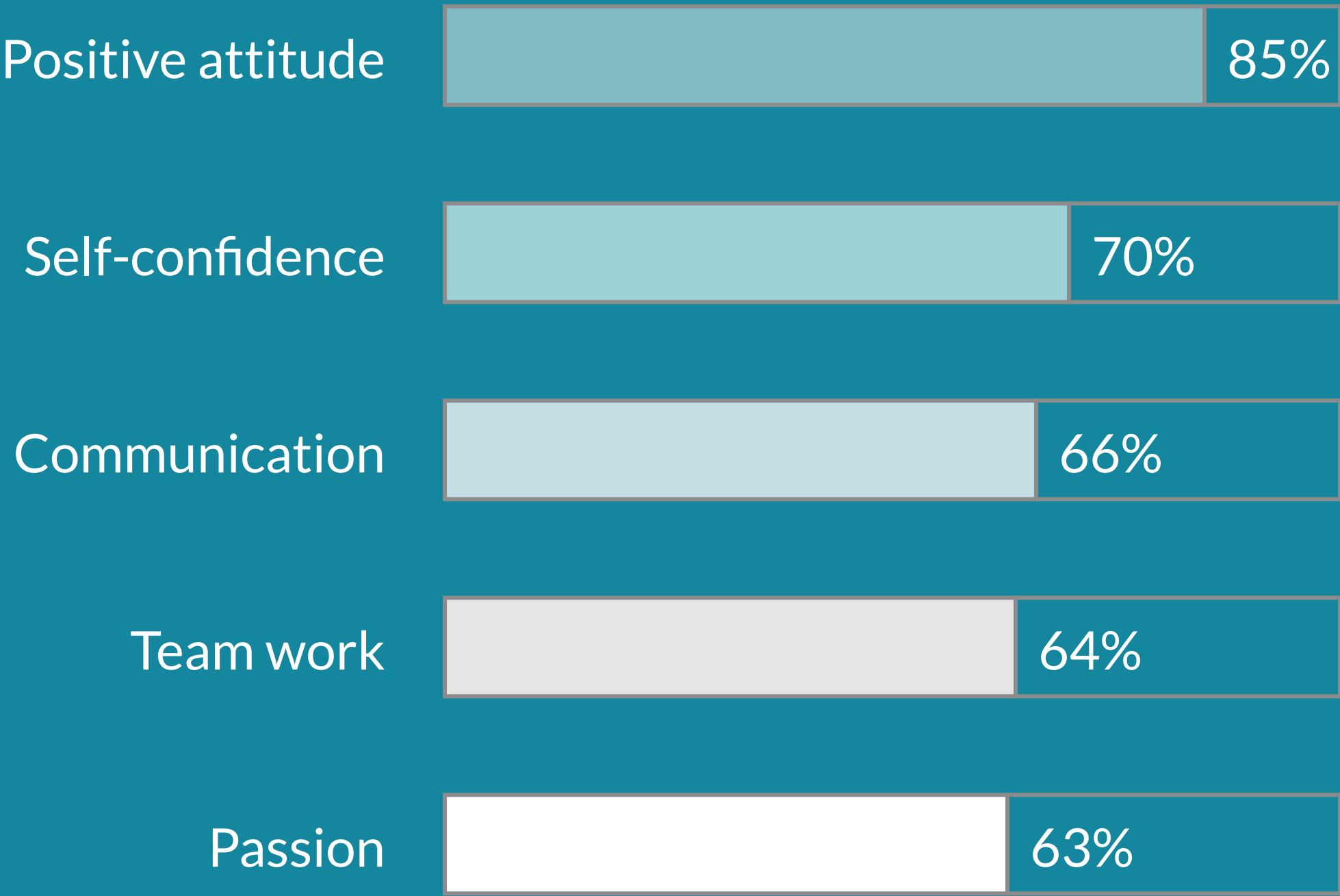
TOP 5 REASONS FOR EMPLOYER SATISFACTION



As highlighted in the figure above, employers identify the leading reason for dissatisfaction with candidates and employees is that the knowledge, skills, and abilities of individuals fail to reflect the grades they achieve in their schooling. This ultimately highlights the gap between actual learning achievements and educational attainment. On the other hand, the study also asked employers to highlight the strengths of educated candidates and employees. As noted in the graph above, IT skills is a resounding strength of educated individuals in Pakistan, followed by willingness to learn and the ability to express oneself.

One of the major take-aways from this study was that the lack of or poor soft skills in candidates remain one of the major hurdles in absorbing graduates into economic industries. Around 40-46 percent of employers indicated dissatisfaction with communication, soft-skills, and presentation skills, indicating significant room for improvement. The top five soft skills desired by employers in Pakistan are highlighted to the right.

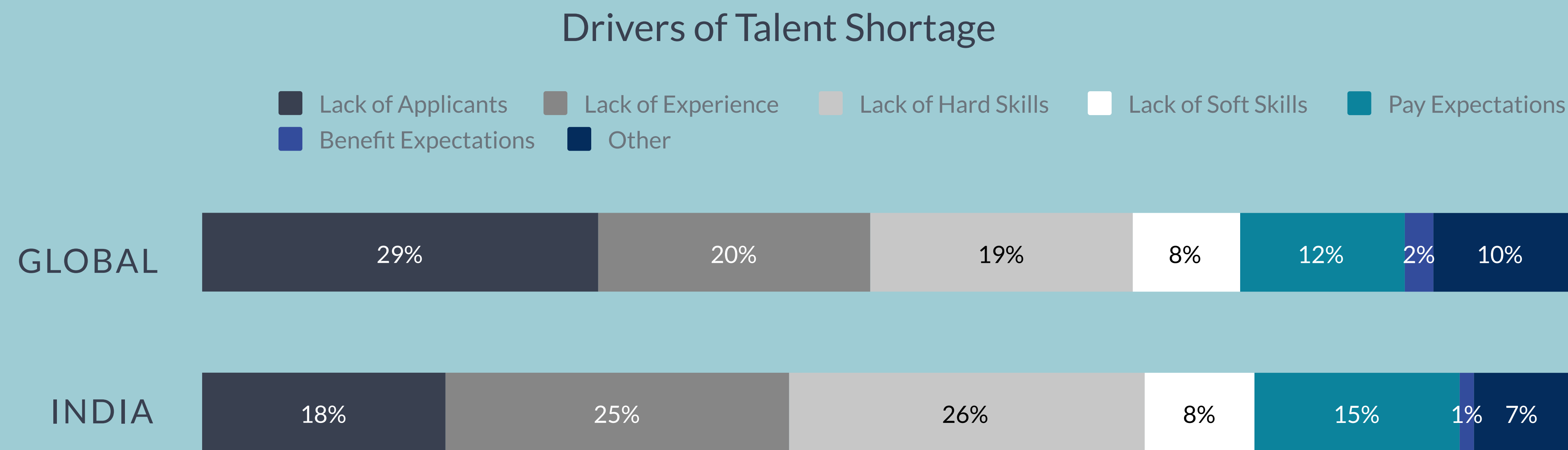
Top 5 Soft Skills Desired by Employers



Source: Naqeebz Consulting, 2018

CASE STUDY: INDIA

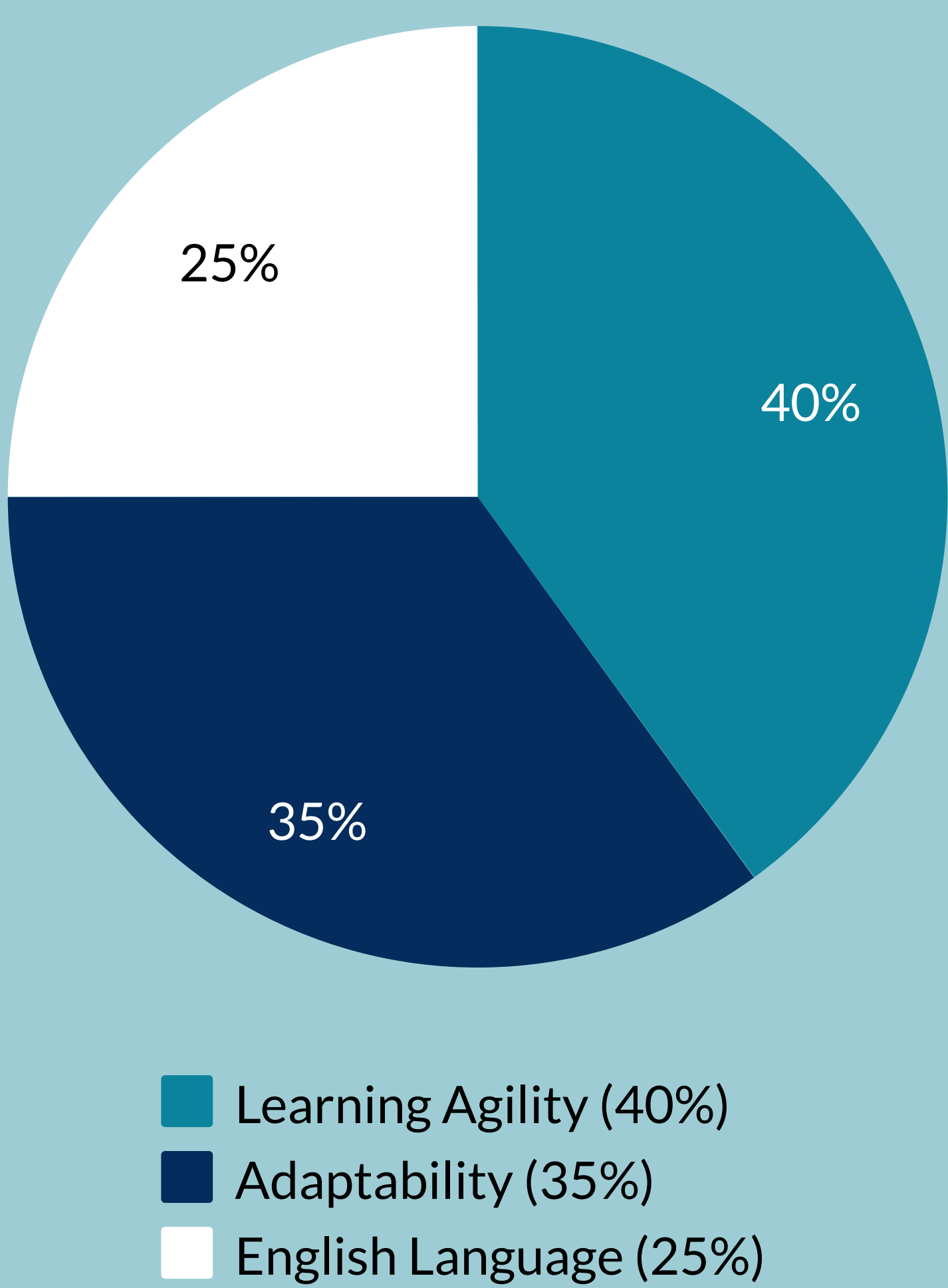
Looking at the drivers of talent shortages below, lack of experience and hard skills in India is much greater than the global average, highlighting the need for candidates to be increasingly and more specifically prepared for the jobs on the market.



Source: ManpowerGroup, 2018

The India Hiring Intent 2020 survey asks employers to reflect on the skills demanded by their company and by the Indian Economy. When asked about the skills areas that the employers foresee as up and coming in the next five years in their organizations, employers overwhelmingly cited the increasing role of data science and analysis, as well as social media marketing, largely due to the increasing role of advanced technologies, impacting functions across the value chain.

Top Skills Required by Employers in India



Source: India Skills Report, 2019

However, while hard skills and domain expertise are important, employers in India have expressed that these technical skills are not enough, and the development of soft-skills should not be overlooked. The India Hiring Intent 2020 survey asks employers to identify the most important skills they look for in prospective employees. The top five skills were positive attitude, adaptability, learning agility, interpersonal skills, and domain expertise (India Skills Report, 2020). While the 2019 survey highlighted a number of similar skills, the 2020 survey revealed the unanimous desire for positivity. All employers surveyed mentioned the requisite of a “positive attitude” in a potential employee, with the sense that a candidate with a positive outlook towards their job and towards learning is more likely to perform well in their professional career compared to their counterparts.

LATIN AMERICA & THE CARIBBEAN

SUMMARY

Despite significant economic development, Latin America and the Caribbean faces high levels of labour underutilization and informality. Low-productivity jobs that pay comparatively low wages are common, and with automation shifting the labour market, demand for low-skilled service occupations such as cleaning and maintenance has risen. While educational attainment is quite high across the region, the labour market has not been dynamic enough to absorb the highly educated professionals entering the workforce.

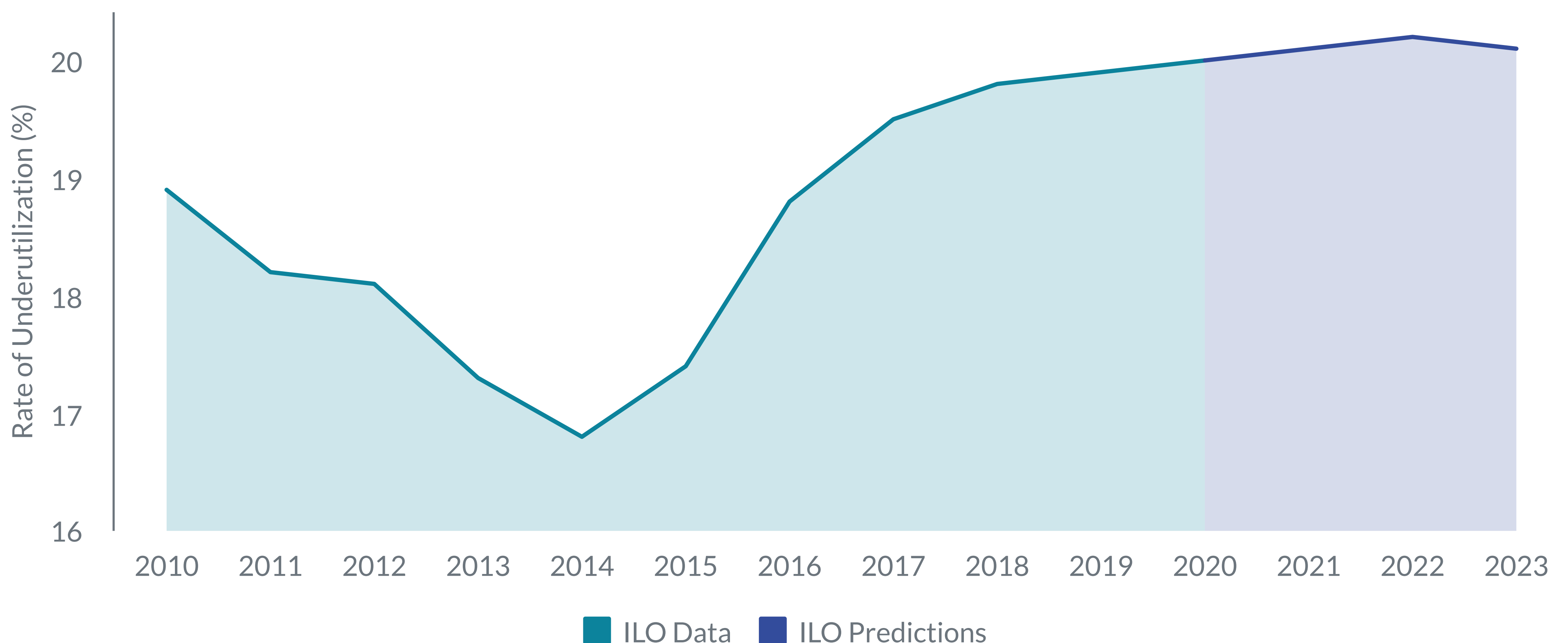
Latin America remains the region with the widest skills gap in the world. While each country is facing unique challenges, firms throughout the region struggle to hire staff with the right skills. A combination of both technical and soft skills are demanded region-wide, and tailored programs to address these gaps are essential to enable the anticipated economic growth in Latin America and the Caribbean.

1

EMPLOYMENT

While GDP growth is expected to climb to 1.8 percent according to ILO predictions, the extent of labour underutilization in the region remains significant, at 19.9 percent in 2019 and affecting 66 million people (Gomis, 2020). In addition, informal employment is more common than would be expected, given the region's level of economic development. In 2019, 53.1 percent of all workers were employed informally and disproportionately in low-productivity jobs that pay comparatively low wages (Gomis, 2020). As a result, 19.5 million workers in Latin America and the Caribbean are not earning enough to lift themselves and their families out of poverty.

Latin America & the Caribbean: Labour Underutilization

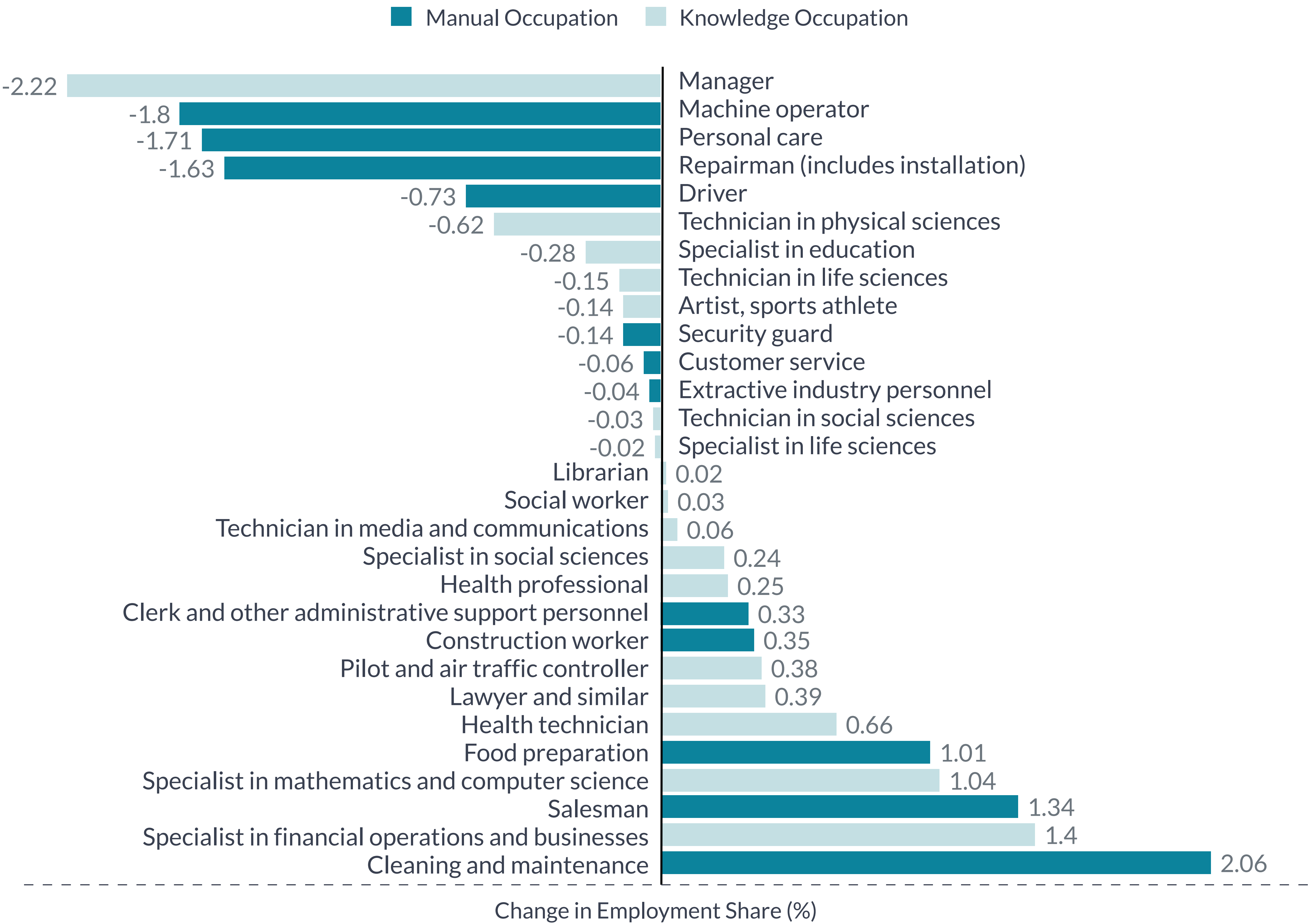


2 INDUSTRIES

Automation brings many prospective opportunities to Latin America and the Caribbean. However, this wave of technological innovation also raises difficult questions about the broader impact of automation on jobs, skills, wages, and the nature of work itself.

As demonstrated in the figure below, the Inter-American Development Bank highlights that Latin America and the Caribbean have seen a significant decrease in manual occupations that are easily automated, like machine operators and equipment repair personnel. On the other hand, demand in low-skill service sectors has risen, as demonstrated by the surge in employment in cleaning and maintenance occupations. Some of the highest-paid professionals, such as finance specialists or computer technicians, have increased their participation rate; however, the labor market in Latin America and the Caribbean for the most qualified people has not been dynamic enough to absorb the increasing number of highly educated professionals who joined the labor force in the past decade (Amaral, 2019). This contrasts with more developed countries, where the incorporation of new technologies has boosted the demand for and the wages of professionals with higher levels of education.

Changes in Employment Shares by Occupation (2000-15)

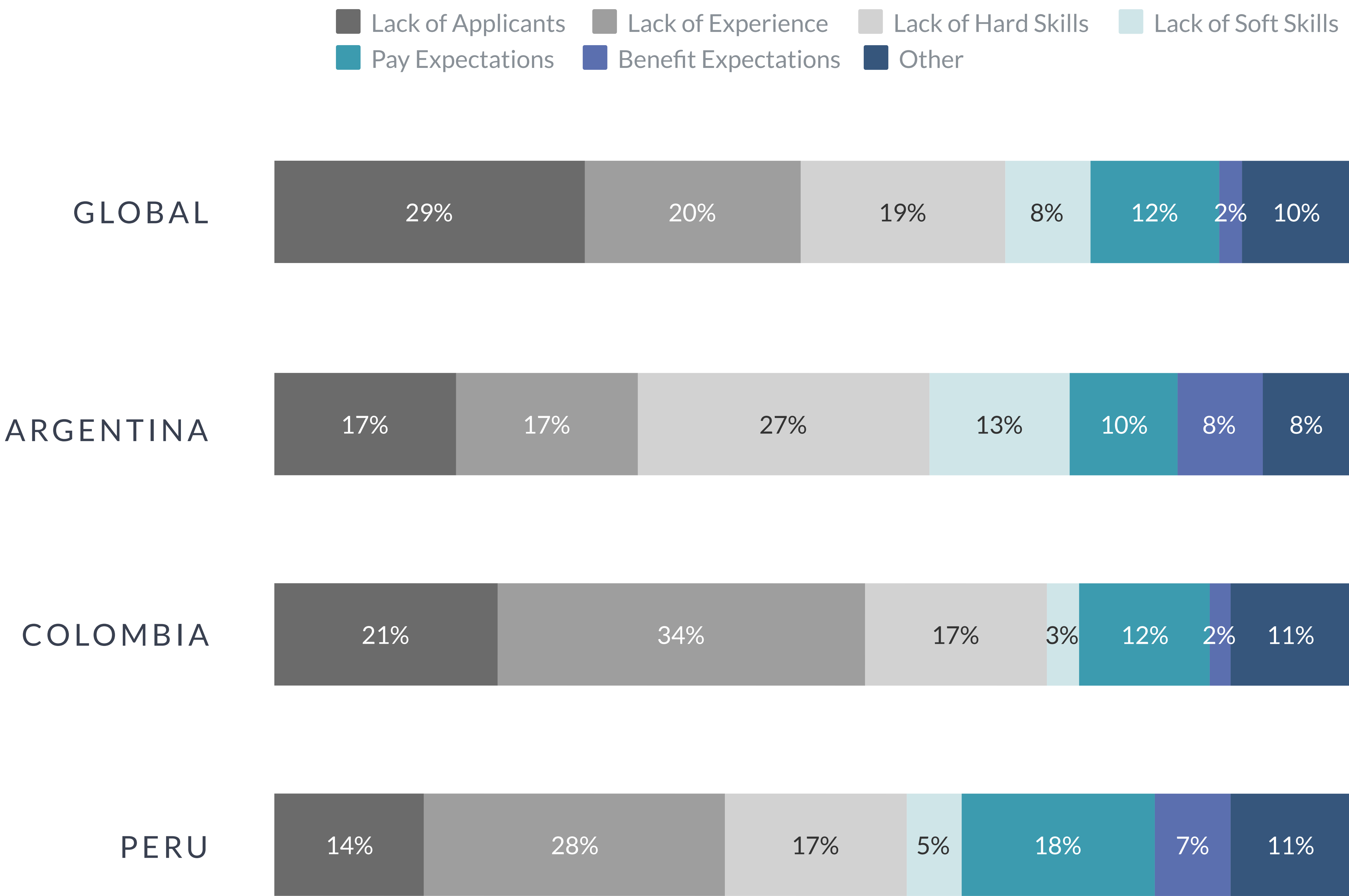


Source: Inter-American Development Bank, 2019

3 SKILLS

Even with an increasingly educated workforce, Latin America remains the region with the widest skills gap in the world, a position it has held for over a decade (World Economic Forum, 2018). Over four in ten firms in Latin America claim to have difficulty finding workers with the right skills, but the challenge is most prominent in Argentina, with 59 percent of firms struggling to hire staff with the right skills, followed by Colombia with 50 percent, and Peru with 49 percent (ManpowerGroup, 2018). Looking at the ManpowerGroup data on the drivers of talent shortage below, each country is facing unique challenges. In Argentina, the lack of soft skills is much more prominent than the global average, whereas Colombia and Peru are seeing significant gaps in experience.

Drivers of Talent Shortage



Source: ManpowerGroup, 2018

Moving forward, education must be tailored to provide technical training and foundational skills, prioritizing the development of both hard and soft skills with regional specificity. This is integral, as investing in the skills of today’s workforce will drive the future economy.

INVESTMENT OPPORTUNITIES & OUTCOMES

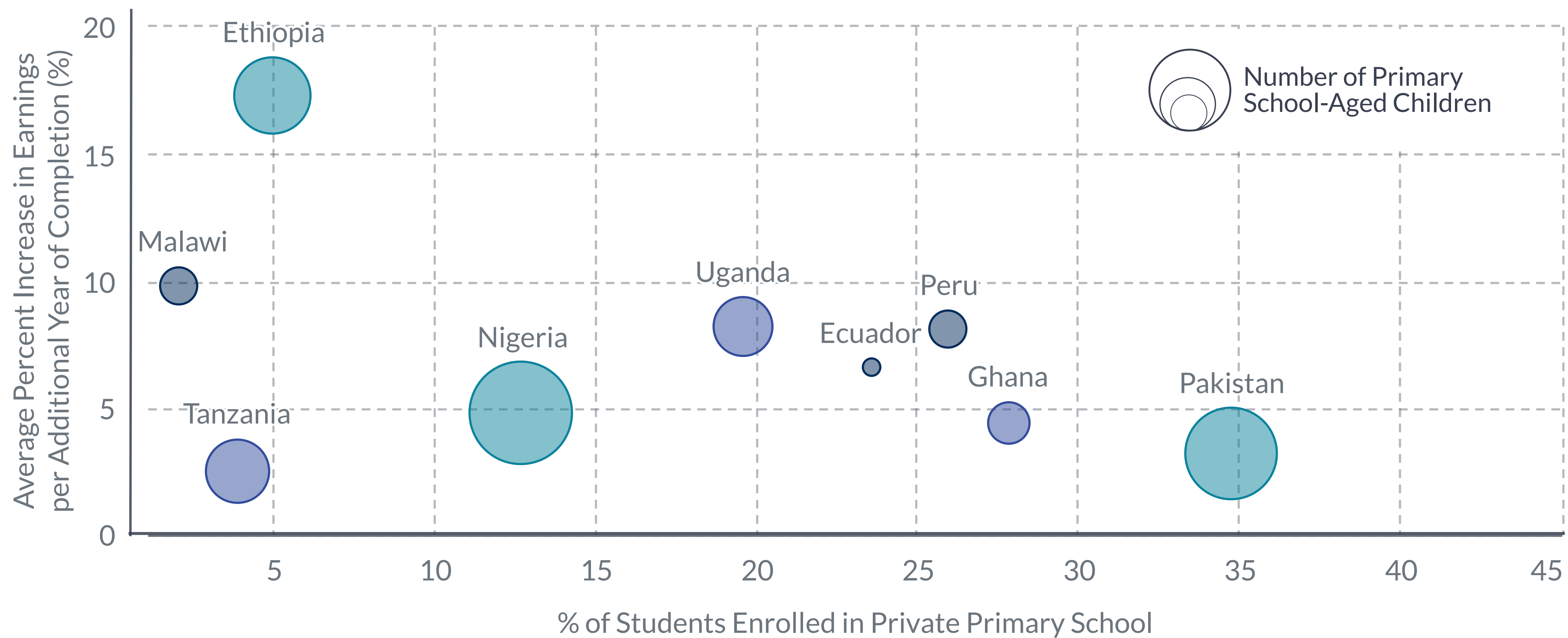
The Educational Investment Outcomes and Opportunities section provides an overview of each of the following education levels: 1) early childhood education, 2) primary education, 3) secondary education, and 4) tertiary education. Within each level, an analysis of the major trends and level-specific challenges are presented, as they apply to lower-middle income countries, and specifically to EduFinance markets. Various case studies and evidenced learning interventions are cited, in an effort to provide data that is both contextually relevant and applicable. Each chapter concludes with a forward looking section that summarizes recommendations and future considerations for EduFinance.

RETURNS ON INVESTMENT

OVERVIEW

For decades, economists have worked to estimate the private and social returns to education to illustrate the case for investment. Peet, Fink, and Fawzi (2015) present one of the most comprehensive studies of comparative returns to education at the country level. This study uses national household surveys from 25 developing countries between 1985 and 2012 to estimate the average increase in earnings for each additional year of school completed at a given level of education (Peet et al., 2015). The findings for the returns to education in EduFinance markets are depicted in the figures below, which plot the average rate of return for an additional year of completion at a given level of education against the percentage of students enrolled in private schools. In the figures below, the size of the bubble indicates the total population of primary or secondary school aged children, respectively.

Return on Investment in Primary Education



Source: Peet, Fink, and Fawzi, 2015; UNESCO UIS, 2019.

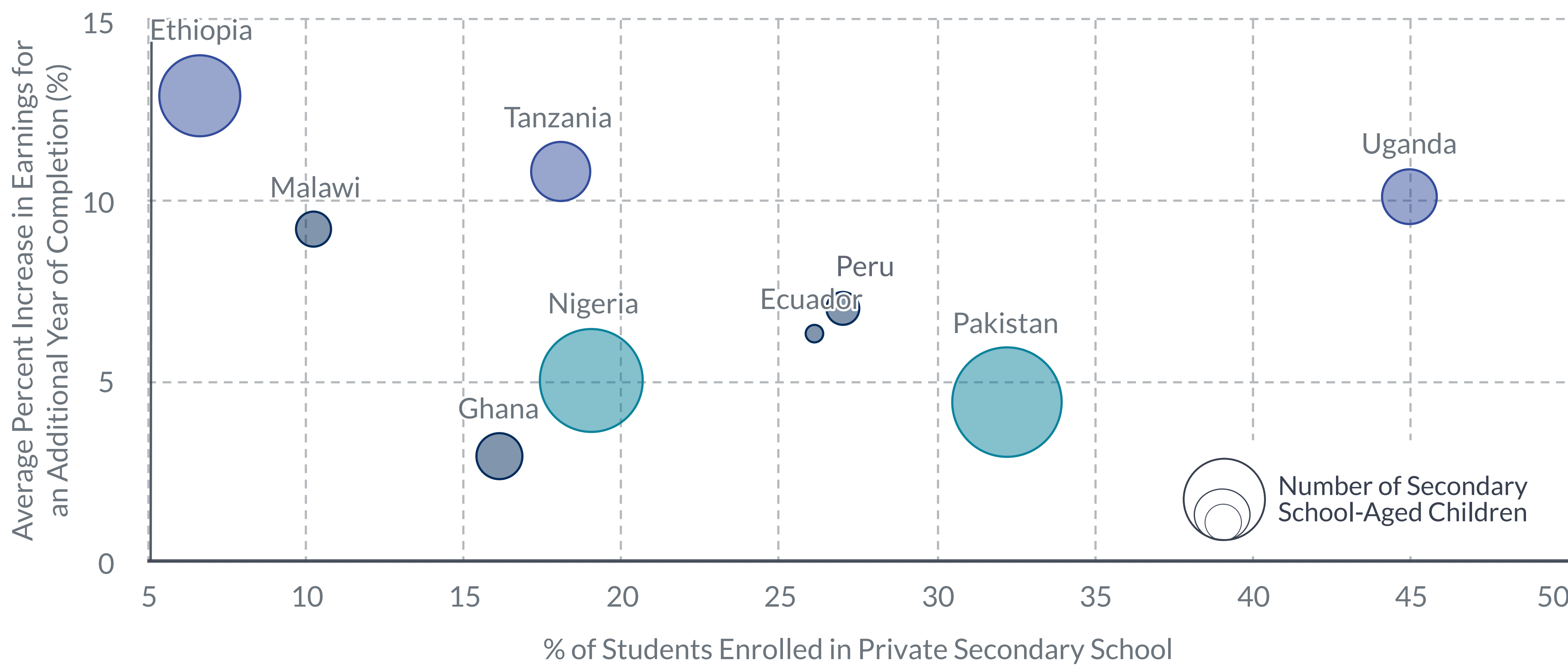
1 PRIMARY

The figure above identifies key investment opportunities for EduFinance in primary education. For example, an additional year of primary school completion in Ethiopia generates an average increase in earnings of 17.3 percent, the highest among all EduFinance markets represented. Despite having a relatively low percentage of students enrolled in private primary schools, at about five percent, Ethiopia has a large primary-school aged population of approximately 16.8 million children, meaning that roughly 840,000 children could potentially benefit from EduFinance investments. On the opposite end of the spectrum, Pakistan has one of the lowest rates of return on investment in primary education across EduFinance markets. However, Pakistan’s population of approximately 24.7 million primary-school aged children, and private school enrollment rate of 35 percent present an immense opportunity for EduFinance.

2 SECONDARY

The figure below presents a strong case for EduFinance investment in secondary school in Uganda, which has both a high proportion of students enrolled in private secondary schools, as well as one of the highest rates of return for an additional year of secondary education completion at 10 percent. Similar to the case of primary education, Ethiopia and Pakistan also present compelling opportunities for EduFinance investments in secondary education. Ethiopia once again has the highest rate of return on investment across all EduFinance countries on an additional year of secondary school completion, at approximately 13 percent. By contrast, Pakistan’s high rates of private school enrollment and large secondary-school aged population could make it an attractive market for EduFinance investments, despite having lower rates of return on investment in secondary education at just 4.4 percent.

Return on Investment in Secondary Education



Source: Peet, Fink, and Fawzi, 2015; UNESCO UIS, 2019.

Following this overview of returns of investment in education, the next four sections dive deeper into the investment opportunities and outcomes of early childhood, primary, secondary, and tertiary education, exploring the correlations between each education level and employment outcomes. In addition to illustrating some of the theoretical models that tie education to future success, the following section provides an overview of relevant case studies and experiments that examine the connection between education, learning outcomes, earnings, and labour market outcomes.

EARLY CHILDHOOD EDUCATION

SUMMARY

In recent years, there has been an increasing global focus on early child development policies and programs, as evident by the inclusion of early childhood development into the United Nations Sustainable Development Goals (SDG 4.2). It is understood today that children’s brains are most efficient at incorporating new information through exploration, play, and interactions with caring adults or peers. Because of this receptivity, preschool programs should concentrate on building foundational skills through developmentally appropriate program structures that emphasize play and interaction (Whitebread and Bingham 2011).

1 CHALLENGES

REGION	PRE-PRIMARY GROSS ENROLLMENT (%)
Sub-Saharan Africa	33
Middle East and North Africa	28
East Asia and the Pacific	78
Europe and Central Asia	74
European Union	95
Latin America and the Caribbean	73
North America	69

Source: World Bank, 2018

According to the World Bank, global pre-primary gross enrollment ratios are currently 49 percent and reach over 130 million children, though there is significant variation between regions, as seen in the figure above. However, high enrollment rates alone do not demonstrate educational success. Multiple factors influence skills development in early childhood, including health, nutrition, security and safety, responsive caregiving, and early learning. These components interact with each other and can be mutually reinforcing. It is not possible to separate learning from other integral factors of early

childhood education and thus any intervention must be designed with a holistic approach that responds to all the needs of this child developmental stage (Sameroff, 2009). Poor developmental foundations and lower preschool skills mean disadvantaged children arrive at school late and unprepared to benefit fully from learning opportunities. As these children get older, it becomes harder for them to break out of lower learning trajectories which can impact them throughout the course of their lives and future employment.

Quality matters in early childhood education; well-designed, intensive programs that focus on quality interactions and include involvement with children and families show the strongest results.

2 OUTCOMES

Early childhood interventions, development programmes and other opportunities for early learning have shown to provide both cognitive and non-cognitive benefits.

The cognitive and academic benefits from early childhood interventions include greater school progression and better performance outcomes. Studies consistently demonstrate that children from disadvantaged backgrounds have the potential to gain the largest cognitive benefits of early childhood education (Engle et al., 2011). Early childhood development programmes also improve participants' outcomes in subsequent years of schooling (Berlinski et al., 2009). Coordination across preschools and primary schools

promotes smooth transitions, enables children to build on their preschool skills, and facilitates a sequential strategy for promoting early learning, providing support for children across the life course (Berlinski et al., 2015). Perhaps as important are the significant non-cognitive benefits, especially in low and lower-middle income countries. Early childhood development can be particularly impactful in countries that suffer from high child mortality rates, stunting, childhood illness and hunger, and poor health and nutrition. The substantial long-term effects of these early childhood interventions spill over into higher levels of education and have a significant effect on lifetime earnings.

CASE STUDY: INDONESIA

The Impact of Early Childhood Education on Early Achievement Gaps

A study completed in Indonesia set out to assess whether an Early Childhood Education and Development project had an impact on early achievement gaps between children from different socio-economic backgrounds. The analysis collected data in 310 villages across Indonesia, comparing the impacts of communities with intervention, and those without. The intervention in the selected villages included a public knowledge component along with the creation of playgroups for four to six year olds. The playgroups were offered two hours a day and three times a week at a community centre with a qualified teacher.

In villages with the intervention, the achievement gap that previously existed between children of different socio-economic backgrounds decreased on many dimensions, as measured by three different measures of child development. This illustrates the idea that early childhood education is most effective when targeted to the most vulnerable groups.

Source: Jung, 2014

CASE STUDY: JAMAICA

Long Term Impact – Labour Market Returns to Early Childhood Stimulation

The Labor Market Returns to Early Childhood Stimulation study was one of the first studies of its kind to evaluate long-term impacts in a low-income country, conducting a 20-year follow-up survey of participants who initially participated in a preschool program intervention in Jamaica. The original intervention provided psychosocial stimulation and nutritional supplementation to stunted toddlers living in poverty. The 20-year follow-up study found that the intervention increased the average earnings of participants by 42 percent relative to the control group. Moreover, the stunted children who received the stimulation intervention caught up to the earnings of a non-stunted comparison group. Not only do the findings show the positive connection between early childhood interventions and labour labor market outcomes, but they also highlight that stimulation interventions very early in life can compensate for developmental delays and thereby reduce inequality later in life.

Source: Gertler et al., 2013

3

OPPORTUNITIES



There are several economic arguments to support investment in early childhood education and development. From a human capital perspective, it is an effective way of reducing disparities and increasing individual productivity. From an equity perspective, it increases individual welfare and reduces the probability of poverty in adulthood by providing a pathway towards higher levels of education. Investments in early childhood education also have the potential to increase efficiencies in the education system, reduce social costs, and increase social welfare (Nores, 2020).

According to Berlinski and Schady (2015), while preschools are incorporated into the educational sector in many low- and middle-income countries, almost one-third of children who attend preschool are enrolled in private institutions. In many countries, early childhood development services are delivered through a disjointed set of primarily non-governmental organisations, often with few regulatory guidelines, limited attention to quality, and little coordination with other services or sectors (Berlinski et al., 2015). The emphasis on early childhood education has increased over the past decade and governments are focussed on increasing access to early childhood development programmes. Finding effective ways to leverage private sector resources to increase access and ensure quality is critically important and could provide a significant opportunity for investors interested in impacting lifelong outcomes for young children.

PRIMARY EDUCATION

SUMMARY

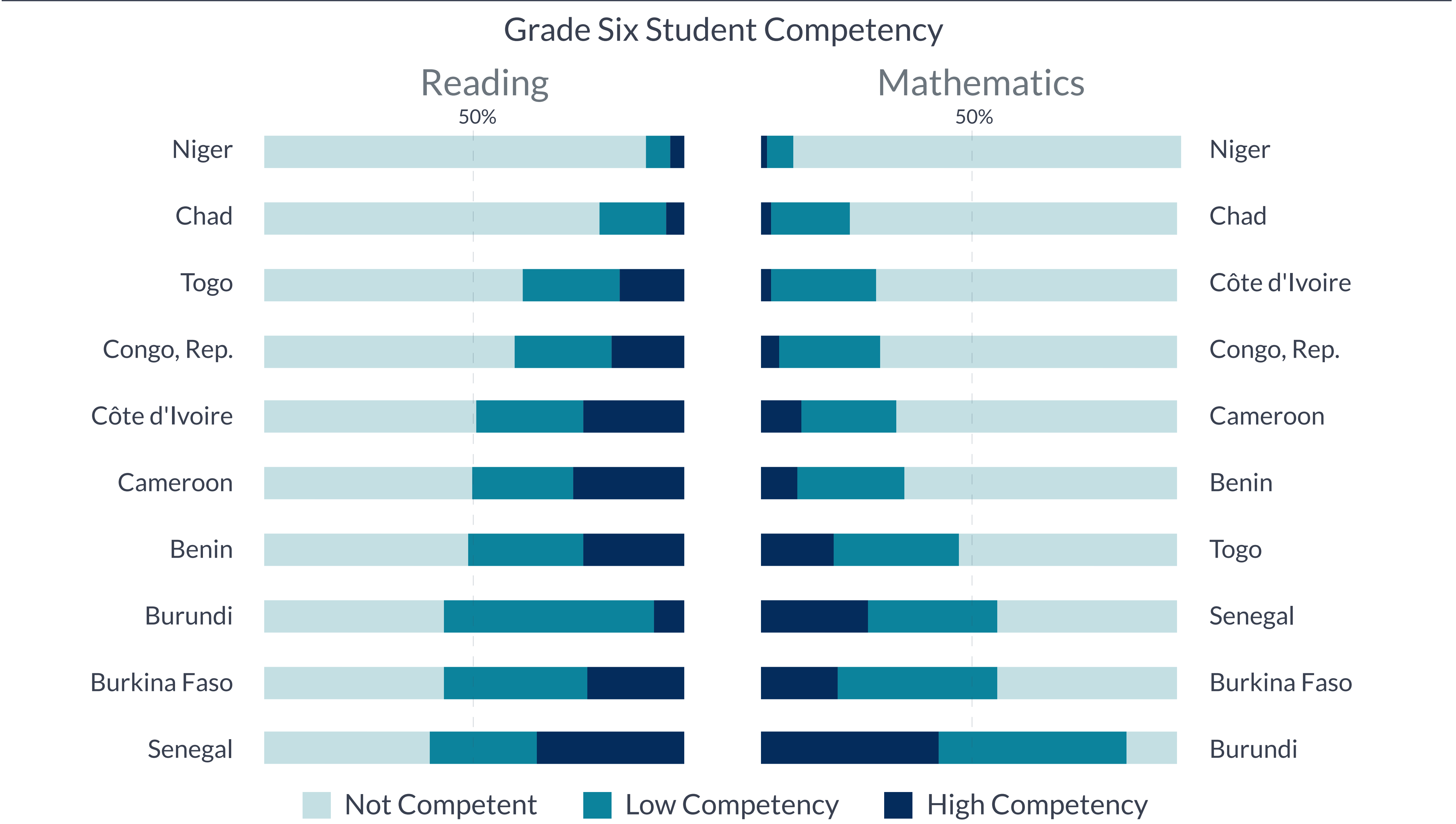
According to the World Bank, investing in primary education should be the highest priority in public expenditure programs, particularly in low-income countries (World Bank, 1995). It is widely accepted in academic research that social returns are the highest for investments in primary education. The purpose of this section is to outline the specific benefits of early childhood education as they apply to EduFinance markets.

1 CHALLENGES

Worldwide, hundreds of millions of children reach young adulthood without even the most basic skillset (World Bank, 2018). The World Bank defines this as a “learning crisis,” calling upon education and development professionals to better understand how, and why, countries around the world have not achieved "learning for all."

An estimated 125 million children are not acquiring functional literacy or numeracy, even after spending at least four years in school (UNESCO, 2015). In Malawi and Zambia in 2012, more than 89 percent of students could not read a single word by the end of grade two (RTI International, 2015). In rural India in 2016, less than 28 percent of students in grade three could master double-digit subtraction (ASER Centre, 2017).

As seen in the figure below, among grade 6 students in West and Central Africa, nearly 58 percent are not sufficiently competent in reading or mathematics to progress in their schooling.



2 OUTCOMES

1 9 7 0	Gross Primary Enrollment Rate = 68% in Sub-Saharan Africa = 47% in South Asia
2 0 1 0	Gross Primary Enrollment Rate = 100% in Sub-Saharan Africa = 100% in South Asia

Source: World Bank Report 2018

A broad international consensus on the high social returns to primary education facilitated the global expansion of primary education in recent decades. In all regions of the world, countries have made tremendous progress in increasing the access of children to primary education, through both government, private and NGO led education.

While there are children who still require access to primary education (particularly in rural and remote areas of the world), access no longer remains the issue in focus. Rather, the quality of education has become increasingly important. Evidence has demonstrated that while children around the world are starting primary school, many leave school in a few years having acquired a very limited skillset.

Various experiments have demonstrated the capacity of specific investments to generate significant improvements in education quality and learner outcomes. Interventions and experiments across a wide range of areas such as school infrastructure, pupil to teacher ratio, teacher skills improvement, reduced teacher absenteeism, health interventions and the introduction of new teaching technologies are just some of the latest evidence of the potential to increase primary education outcomes in the developing world. Below are a few examples of primary education level interventions that produced positive learning outcomes across EduFinance regions.

CASE STUDY: INDIA

Monitoring Works: Getting Teachers to Come to School in Rural India

INTERVENTION:	A financial incentive program to reduce absenteeism was initiated in 60 of 120 informal, single-teacher NGO-run schools in rural India. Photographs, taken by cameras with tamper-proof date and time functions, were used to track teachers' attendance. The remaining 60 schools served as comparison schools.
RESULTS:	Resulted in an immediate decline in teacher absence. The teacher absence rate changed from an average of 42 percent in the comparison schools to 22 percent in the treatment schools.
RELEVANCE	Program positively affected child achievement levels: a year after the start of the program, test scores in program schools were 0.17 standard deviations higher than in the comparison schools and children were 40 percent more likely to be admitted into regular schools for more advanced learning.

Source: Duflo and Hanna, 2005

CASE STUDY: INDIA

School Feeding and Learning Achievement: Evidence from India's Midday Meal Program

INTERVENTION:	Staggered implementation of a 2001 Indian Supreme Court Directive that mandated the introduction of free school lunches in public primary schools, enabled researchers to study the effect of the directive on different cohorts. The researchers used this to estimate the effect of program exposure on math and reading test scores of primary school-aged children.
RESULTS:	The results indicated that prolonged exposure to midday meals had a robust positive effect on learning achievement. Exposure to midday meals for the nearly five-year duration of primary school increased test scores by 18% (0.17 σ) for reading and 9% (0.09 σ) for math relative to children with less than a year of exposure.
RELEVANCE	By providing school lunch, this program contributed to the student's overall well-being. This demonstrates the impact that improved nutrition can have on students' ability to learn effectively. This is especially true for low-income students.

Source: Chakraborty and Jayaraman, 2019

3 OPPORTUNITIES



Acquiring foundational skills in literacy and numeracy, is essential for launching children into higher learning trajectories. Learning is cumulative, and education systems around the world expect students to acquire foundational skills such as reading and basic numeracy by grades one or two. By grade three, students must be able to read, in order to access their learning curriculum. Poor developmental foundations and skills mean disadvantaged children arrive at school late and unprepared to benefit fully from learning opportunities. As these children get older, it becomes harder and harder for them to break out of lower learning trajectories. This contributes significantly to the low rate of transition between primary and secondary school, particularly in low income countries.

There has been a wide array of successful interventions in developing countries, some of which have relatively low costs. EduFinance can utilize these case study interventions to inform investment decisions and improve the quality of education and learning outcomes of children, whether in established EduFinance schools or in newly established private schools. In particular, interventions that focus on improving the quality of education in these early years can have a significant impact on earnings and employment potential later in life.

SECONDARY EDUCATION

SUMMARY

The conventional understanding of schooling, premised on the Western model, often frames secondary schooling as a stepping-stone to tertiary education (Wilson *et al.*, 2019). However, in many lower-middle income, including those in which EduFinance operates, most youth begin to work before, during, or after secondary school, while only a small segment pursue higher education (Wilson *et al.*, 2019; Di Gropello, 2006; Epstein and Yuthas, 2012). For those who attend and complete secondary education, securing employment in the formal sector presents a significant challenge due to the limited availability of formal sector jobs and a significant mismatch between school training, and the skills demanded by the job market, as highlighted by our labour market demand side analysis.

1 CHALLENGES

Limited Supply of Formal Sector Jobs

As previously mentioned, the vast majority of jobs in countries in which EduFinance operates are found in the informal sector. For many countries, the formal sector is not big enough to absorb increasingly educated populations. Looking to Sub-Saharan Africa, Wilson *et al.* compare the number of youth turning 18 annually, the age conventionally associated with entry into the job market, with the total number of formal sector jobs. This data seen below highlights the disparity between a growing working population and the limited market for formal employment.

	YOUTH TURNING 18	TOTAL FORMAL SECTOR JOBS
KENYA	~ 1 million (annually)	2.8 million (2017)
RWANDA	~ 250,000 (annually)	500,000 (2017)
NIGERIA	~ 9 million (2013-2016)	+ 1.6 million (2013-2016)

Source: Wilson, et al., 2019

2 SKILL GAPS

Addressing Skill Gaps at the Secondary Level

Given that entry into the job market occurs at a younger age in EduFinance markets, it is essential for youth to gain the necessary knowledge, skills, and technical training for entering and succeeding in the job market as early as possible. Despite this understanding, a skills gap persists across many lower-middle income countries.

Numerous lower-middle income countries have begun to make secondary education curricula more applicable to the job market. In Sub-Saharan Africa, for example, more than a dozen countries are either in the process of introducing competency-based curricula at the

secondary level or have already done so. Notable among these programs are Educate!, Work Ready Now! & Work-Based Learning, and, Passport to Success (Wilson et al., 2019). These case studies, highlighted below, illustrate the potential learning outcomes that can be gained from curricular reforms that promote a competency-based model that focus on teaching youth the practical skills they need to succeed in their respective local economies.

EDUCATE!	PASSPORT FOR SUCCESS	WORK READY NOW!
<p>Organization: Educate!</p> <p>Countries: Kenya, Uganda, and Rwanda</p> <p>Target Population: High-school students</p> <p>Curricular Focus: Developed in partnership with the private sector, this program prepares youth for the job market via mentorship programs on entrepreneurship (financial literacy) and community initiatives.</p> <p>Impact: Statistically significant improvements in overall income, savings behaviour, business ownership, community project ownership, and self-efficacy in practical and soft skills</p> <ul style="list-style-type: none">• 50% increase in employment• 44% increase in business ownership	<p>Organization: International Youth Foundation</p> <p>Countries: More than 50 countries worldwide, including Kenya, Tanzania, Mozambique, Senegal, Zimbabwe, and South Africa.</p> <p>Curricular Focus: Entrepreneurship training for professional growth, and continued preparation for the job market.</p> <p>Impact: A 2017 quasi-experimental impact evaluation on Mexico’s ‘Rutas and Clave’ programs, which incorporate PTS in the first year of high school, found a 3.2% increase in average GPAs, and a 32% reduction in average drop-out rates between the first and second semesters.</p>	<p>Organization: Education Development Centre</p> <p>Countries: More than 25 countries worldwide, including Senegal and Rwanda</p> <p>Target Population: Out-of-school youth, secondary school students, and TVET students</p> <p>Curricular Focus: Entrepreneurship, financial literacy skills, leadership, communication, and workplace safety. This also includes work-based learning that relies on internship opportunities and on-the-job training programs.</p> <p>Impact: An evaluation of the program in Rwanda found statistically significant positive outcomes in participants’ employability skills, such as job searching, business planning, and customer relations.</p>

Given the potential beneficial outcomes of the competency-based model illustrated in these case studies, the following considerations must be incorporated into education policy as a means of furthering their applicability and continued success in lower-middle income countries:

- 1
- Inclusion of a competency-based model at the primary education level since many students transition to the workforce at an earlier age in developing countries
- 2
- Address short-term risks associated with reforming curriculum
→ teachers will need time and support to learn and adapt curriculum (Wilson et al., 2019)

TERTIARY EDUCATION

SUMMARY

Those who complete tertiary education in EduFinance countries face similar challenges as those in secondary school. Securing employment remains an issue, particularly in the formal sector, and skill mismatches persists. Addressing these challenges requires increased fluidity between the classroom, the campus, and the community.

1 CHALLENGES

The challenge of finding formal employment is not unique to those with lower levels of education, as university and college graduates in lower-middle income countries are also experiencing difficulty in acquiring formal sector jobs.

Limited Supply of Formal Sector Jobs

In EduFinance markets, graduates of tertiary education are not seeing the outcomes they expected upon program completion. Seen in the country cases below, those that find employment usually do so after a long search, and as demonstrated in our supply-side analysis, many of them are forced to settle for jobs that are not commensurate with their level of education (African Leadership University, 2019; Obonyo, 2019).

KENYA

- Context:

High competition among educated population for a limited number of high-skill/formal sector jobs.
- Challenge:

Close to half of university graduates are unable to find employment. Securing a job after graduation takes at least five years on average.

Source: Obonyo, 2019; African Leadership University, 2019

INDIA

- Context:

High demand for low-skilled labour in the informal sector is limiting the growth of the formal sector.
- Challenge:

Unemployment amongst post-secondary students is more than twice the national average. In addition, those that do find employment, typically end up in jobs that are well below their level of education.

Source: Sanghera, 2019

2 SKILL GAPS

Addressing Skill Gaps at the Secondary Level

Across lower-middle income countries in the last 20 years, enrollment rates in tertiary education have steadily grown (Roser and Ortiz-Ospina, 2020). However, research consistently points to a severe mismatch between university training, and the skills demanded by job markets in these regions (African Leadership University, 2019; Fiszbein *et al.*, 2016; Sanghera, 2019; Talal, 2016; Salazar-Xirinachs, 2015). To address the employability challenge for university graduates in Sub-Saharan Africa, McCowan (2014) has outlined several recommendations that allow students to develop their employable skills.

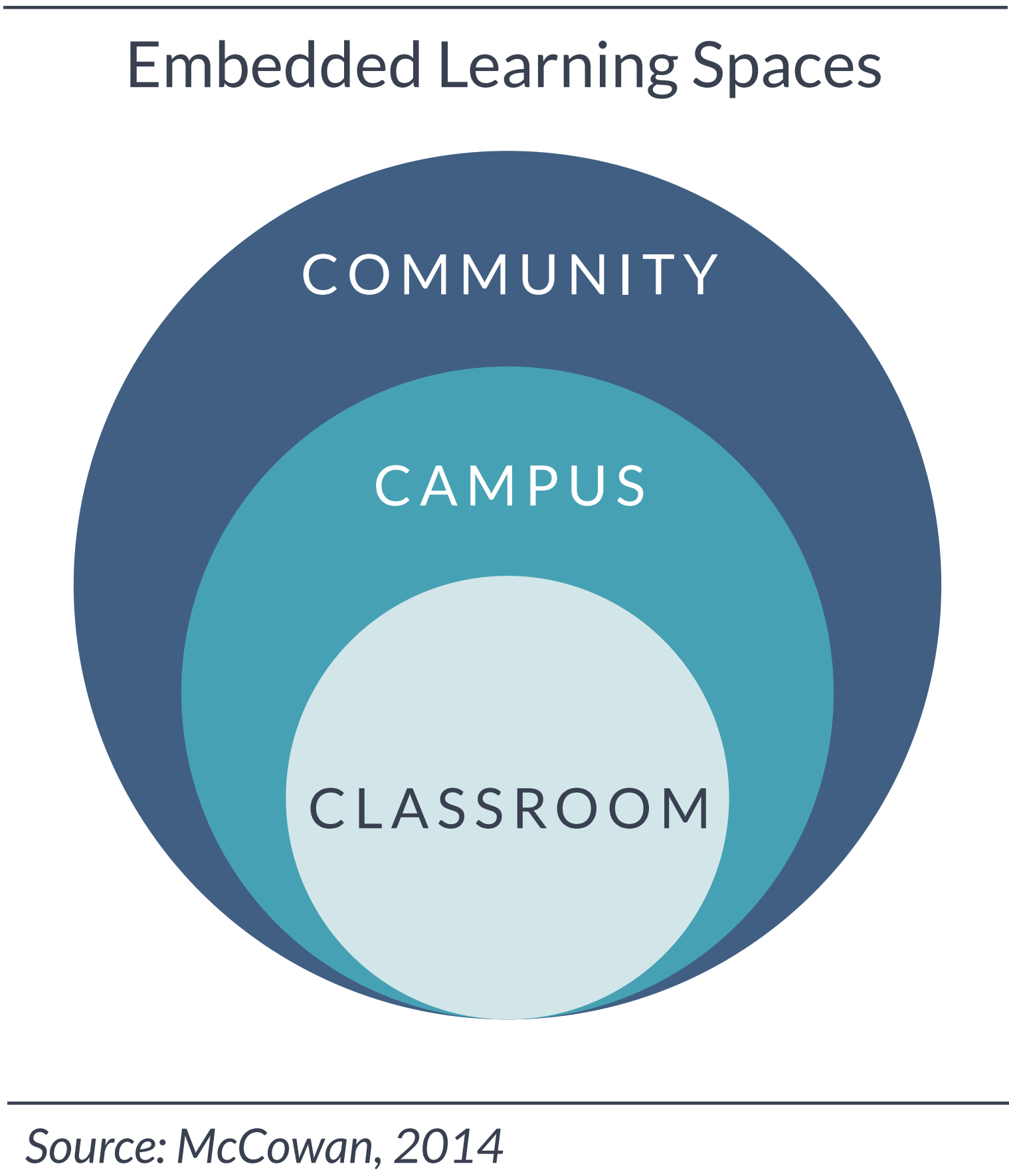
IMPROVING COURSE QUALITY	Misalignment of course content and relevance can be addressed through innovative teaching methods, retraining existing faculty and staff, and including community/student voices in curriculum reforms.
PROMOTING DIVERSE LEARNING EXPERIENCES	Outside-the-classroom extracurricular experiences are highly valued by employers as they are increasingly searching for candidates that can offer diverse and global perspectives.
CREATING SCHOOL- INDUSTRY LINKAGES	Students need to be more informed about available career options and the skills demanded in their local job markets. This can be achieved through job fairs and career advisory services deriving from school-industry linkages.
TARGETED SKILL ENHANCEMENT PROGRAMS	Providing these programs will allow students to develop their hard and technical skills (e.g. entrepreneurship, presentation skills, etc.), which are highly desired in labour markets.

These recommendations form the basis of a schooling model presented in the figure to the right. This model operates through, and is facilitated by, three interlocking learning spaces: classroom, campus, and community. The optimal tertiary education model facilitates constant interaction among all three spaces to support learning achievements relevant to labour market demands.

Classroom: conventional learning which relies on instructors and is done in pursuit of completing a course or degree.

Campus: other learning opportunities within institutions, such as student societies, professional development workshops, and targeted skills enhancement programs.

Community: outside-the-classroom learning experiences that include work placements, volunteering, internships, and community initiatives.



TECHNICAL AND VOCATIONAL EDUCATION & TRAINING (TVET)

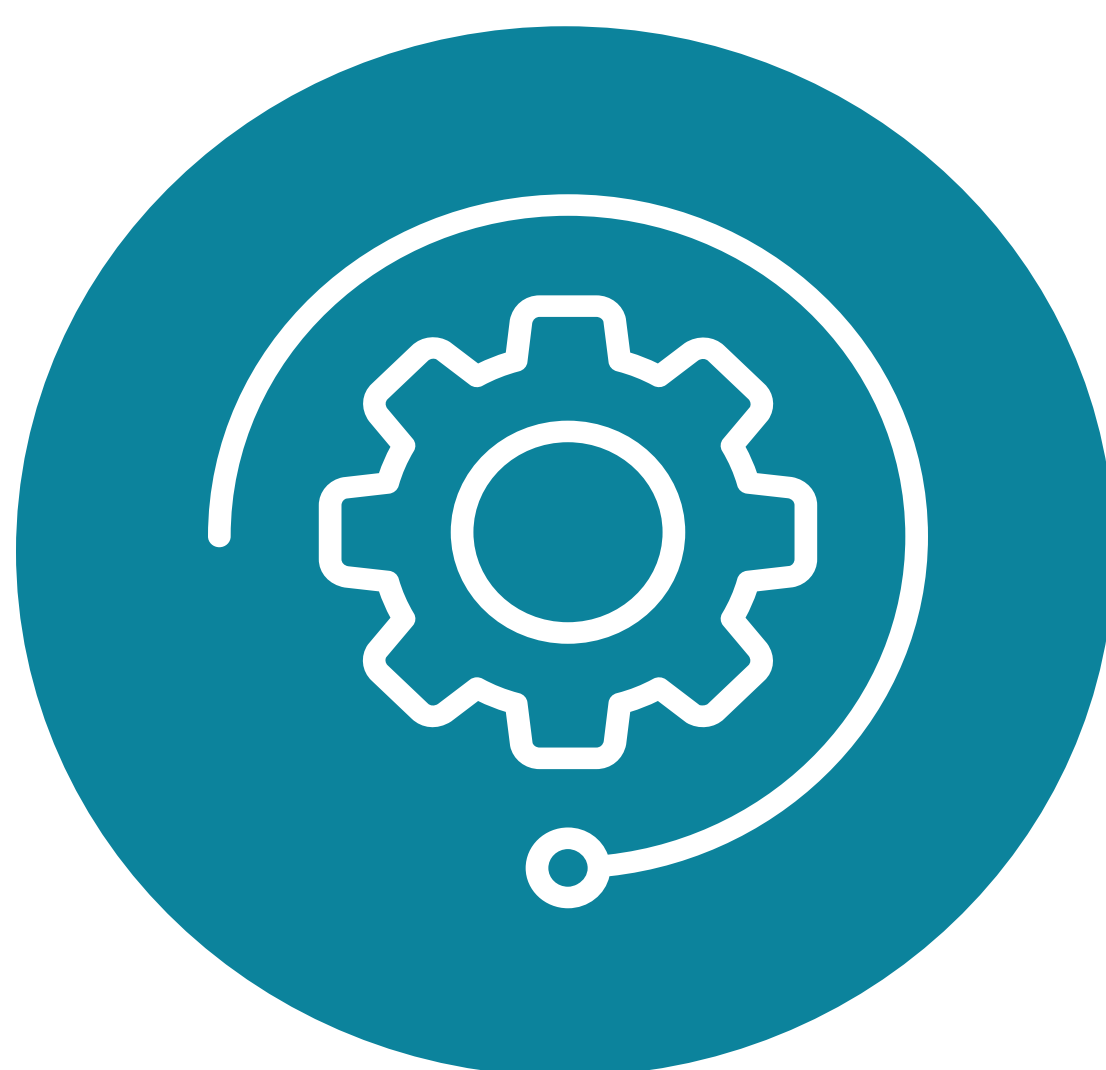
The Technical and Vocational Education & Training (TVET) section presents an overview of the role and applicability of TVET programs in lower-middle income countries. By breaking down the mixed understandings of TVET outcomes, this section illustrates the embedded challenges presented by this form of education. This section also includes a breakdown of evidence on TVET program performance in low and lower-middle income countries and an analysis of the conditions necessary for successful TVET programs.

TVET OVERVIEW

In the past decade, there has been a renewed international focus on the ability of individuals, industries, and governments to meet the competitive demands of the global economy through Technical and Vocational Education and Training (TVET). As defined by UNESCO, TVET comprises “education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods” (UNESCO, 2015).

Often seen as part of lifelong learning, TVET may take place at the secondary, post-secondary and tertiary levels of education as well as within work-based learning, continuing training and professional development during employment (Olfindo, 2018). In many countries, TVET forms an integral part of the education system by building a highly skilled and knowledgeable workforce (Liu & Clayton, 2016). By providing students with market specific skills, TVET can also facilitate the inclusion of vulnerable workers into the labour market. This trend is especially apparent in lower-middle income countries, where vulnerable workers have lower levels on average of general formal education, and/ or are without the adequate skills necessary to effectively integrate into the labour market (Olfindo, 2018).

Acknowledging the potential for TVET to improve workforce skills, governments around the world had renewed their interest in investing in these programs. The purpose of this section is to explore the opportunities and challenges associated with TVET programs within lower-middle income countries, the mixed evidence of its effects on earnings and employability, and considerations for future investment and implementation.



MIXED UNDERSTANDINGS OF TVET OUTCOMES

Across lower and middle-income countries, graduates of TVET programs have mixed labour market outcomes. Some evidence suggests that TVET programs create favourable results, suggesting that TVET programs may have a positive impact on individual wages and initial employability (Lavrijsen & Nicaise, 2017). Other studies have less optimistic findings, highlighting the fact that the value of TVET, relative to general education, seems to decrease over the career of individuals (Lavrijsen & Nicaise, 2017). This long-term depreciation of TVET skills is often associated with the changing demands of labour over time, and the inability for TVET beneficiaries to adapt to necessary new skills.

While attempting to understand the effectiveness of TVET programs it is important to note that findings within the academic literature are highly context specific, stemming from the types of programs available, demands within the labour market, quality of data collected, and institutional structures underlying the TVET system under study (Olfindo, 2018).

The variation of TVET outcomes for students is especially difficult to gauge in the developing world, in which the OECD has outlined the following challenges (OECD, 2018):

1

Lack of routine and rigorous evaluation of TVET systems
→ Leads to insufficient data

2

TVET and general education attract different type of learners
→ Creates bias in comparison studies

3

Inconsistent definition of TVET across countries
→ Results in mixed understandings of its use and application

4

Outcomes including employment and wages of TVET students do not always reflect education and training quality, but instead intrinsic factors within the labour market

EVIDENCE FROM LOWER-MIDDLE INCOME COUNTRIES

The following evidence has been derived by the OECD on lower-middle income countries that have established TVET systems (OECD, 2018). The evidence presented here may be utilized to inform best practices within developing countries attempting to make best use of existing TVET systems.

1 FORMAL TVET IS NOT A WIDESPREAD FORM OF SKILLS TRAINING

This is owing to the fact that a large portion of young TVET students in developing countries do not complete lower secondary school and are typically exposed to skills training through the informal sector.

2 TVET GRADUATES HAVE LIMITED OPPORTUNITIES FOR FORMAL EMPLOYMENT

In most lower-middle income countries, formal job growth is slow and most employment opportunities are within the informal sector (Kingombe, 2012). Typically when jobs do become available, the traditional general education graduates are preferred for positions.

3 WAGE RETURNS VARY ACROSS DIFFERENT TVET PROGRAMMES

These variations occur as a result of the following factors: qualification levels, modality of training, relevance of training, level of focus on and investment in TVET, and programme choice.

4 GENDER SEGREGATION IN TVET IS ENDEMIC

Self-selection by women into less lucrative TVET programmes, combined with gender-biased labour market practices in most developing countries, means that female TVET graduates tend to have slower school-to-work transitions and obtain poorer-quality and lower-paid jobs than male TVET graduates (Adams, 2007). However, possessing a TVET qualification can offer pathways to employment for women, thereby improving their living conditions and reducing financial dependence on male partners.

FUTURE CONSIDERATIONS

There are two conclusions that may influence increased investment in TVET programs in low and lower-middle income countries:

- 1** TVET programmes may be more effective for certain portions of the population, namely integrating marginalized groups (such as youth or women) into the labour market and improving wages outcomes (OECD, 2018).
- 2** Informal and formal TVET programs play a role in reducing poverty, inequality and social exclusion by providing direct and relevant labour skills that may be quickly applied to the workforce (OECD, 2018). With these benefits in mind, there is still room for improvement.

Taking into consideration the uniqueness of each country's labour market and existing educational structures it is important to identify the key conditions necessary for successful implementation of TVET programmes. These preexisting conditions for success are applicable to a variety of regions across the world.

CONDITION

RELEVANCE

Sufficient political will
and financial commitment



Sufficient political will and financial commitment will continuously raise the quality and status of TVET programs.

Increased private sector
involvement



Private sector involvement in the planning, design, and implementation of TVET programs will increase the relevancy of curriculum by create linkages between student skills and labour market needs.

Program alignment with
market demands



A top-down approach to designing TVET curriculum will address the current skills mismatch challenges.

Increased TVET labour
market outcomes data
collection



Increased data collection on the labour market impacts of TVET programmes will add value and credibility to institutions, and increase confidence in program selection for prospective students.

FUTURE CONSIDERATIONS (CONTINUED)

CONDITION

RELEVANCE

Increased measures to reduce gender bias



Promoting and supporting the inclusion of women in TVET programs will increase participation in the labour force, increase qualification levels, and diminish entrenched inequalities.

Increased community involvement



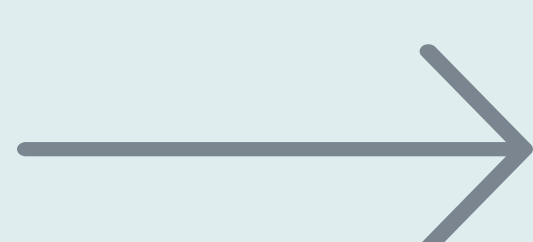
Community involvement in the design of TVET programs will increase awareness of its benefits, and will better align the curriculum with the needs of the community and the local market.

Engage industry members as key stakeholders



Including local industries as stakeholders in program design will create out-of-classroom opportunities for students to receive practical experience before graduation, alongside avenues for employment.

Continuous professional development for TVET instructors



Continuous professional development for TVET instructors will ensure that students are receiving up-to-date information on current technologies that are most applicable to the job market.

Increased quality assurance



Increased quality assurance oversight of TVET programs will provide confidence in TVET institution services, lead to the recognition of credentials, and enable progression of future learning.

RECOMMENDATIONS

This report has provided an analysis of *three distinct areas* that affect labour market outcomes: supply side factors, demand side factors, and investment opportunities by level of education. The following section presents our recommendations, based on an analysis of the research presented in this report. This section is intended to help guide EduFinance investments with the goal of maximizing labour market outcomes of education with respect to employability and earnings potential.

GENERAL RECOMMENDATIONS

1

ACCESS TO PRIMARY EDUCATION

Private and social returns to investment in education are highest for pre-primary and primary education. Therefore, facilitating access to quality education in the earliest years of a child's school career remains a priority for EduFinance. Moreover, holistic early childhood interventions that integrate health and nutrition with education have the power to generate the greatest long-term benefits in terms of learning and skills development.

2

TAILORING LEARNING OUTCOMES

Across all EduFinance markets, learning outcomes fall significantly below global averages, suggesting that education systems are not providing students with the necessary skills to be successful in the labour market. Therefore, EduFinance investments tailored towards improving learning outcomes by focussing on education *quality* may help to improve students' employability as they transition from education to employment.

3

ENSURING QUALITY EDUCATION

Data suggests that inadequate skills matching and over-qualification constrain both workers' earnings potential and business productivity across all EduFinance markets. TVET programs propose a unique investment opportunity to help bridge this gap and create better labour market outcomes by building sector-specific technical skills. Nevertheless, it is important to note that many of the skills identified as most important by employers are foundational soft skills, such as conscientiousness and problem solving, which are developed in the early stages of education, including at the pre-primary and primary levels. Therefore, while there is a growing opportunity to invest in TVET, the importance of ensuring quality education at the earliest years cannot be overlooked.

4

STRENGTHENING INDUSTRY LINKAGES

In addition to skills training, addressing skills mismatches will require strong alignment with industry and employers in order to ensure that programming reflects the realities of local job markets. Therefore, strengthening linkages with employers and tailoring investments in TVET and secondary education to reflect market trends will play a critical role in maximizing the labour market outcomes of education.

REGIONAL RECOMMENDATIONS:

» SUB-SAHARAN AFRICA

1

IMPROVING SCHOOL QUALITY

EduFinance markets in Sub-Saharan Africa have some of the lowest rates of enrollment in tertiary education across the world, signalling the importance of quality secondary education as this is likely the last time that students will be in school. Investments tailored towards improving school quality in secondary education and building both hard and soft skills that are transferable to the labour market are therefore priorities in this region. In particular, entrepreneurial skills and workplace reliability are identified as some of the most important skills by employers in this region.

2

REDUCING EDUCATION BARRIERS

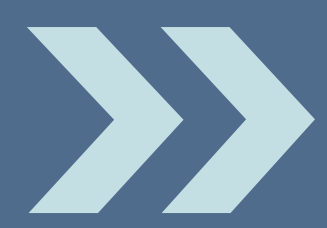
Enrollment and attendance declines substantially between primary and secondary education in the region, suggesting that investments to reduce barriers to participation in secondary education could be a regional focal point for EduFinance.

3

FOSTERING GENDER EQUALITY

Finally, gender parity in TVET enrollment across the region is poor, indicating an opportunity to generate large returns on investment by fostering greater inclusivity of women and girls in these skills training programs.

REGIONAL RECOMMENDATIONS:



SOUTH & SOUTHEAST ASIA

1

GENDER SENSITIVE TRAINING

Countries in South and Southeast Asia have some of the highest rates of NEET youth in the world. Moreover, this group is disproportionately women, who face social and cultural barriers to higher education and labour market participation. Due to the high returns on investment in girls' education, gender-sensitive programming in this region, particularly at the level of secondary education and TVET, presents a unique opportunity for EduFinance to maximize labour market outcomes.

2

KNOWLEDGE-INTENSIVE ECONOMIES

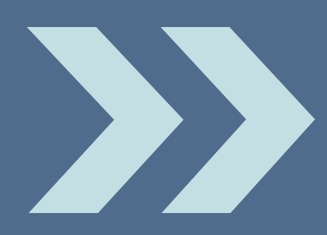
Investment trends and government policy in the region are signalling a shift towards building knowledge-intensive economies that can keep pace with rapid technological advancement and innovation. These trends signal an opportunity for EduFinance to similarly invest in building the skills that will carry high premiums as countries make this transition over the next several years. In order to do so, retention in secondary education and participation in TVET programs are focal points for EduFinance in this region.

3

EQUITABLE INVESTMENT

Recognizing the unique needs of rural and urban areas, EduFinance investments designed to increase access to knowledge and skills development in rural areas will help to ensure gains from progress are distributed equitably. The need for equitable investment strategies in South and Southeast Asian markets is increasingly important given that a widening "digital divide" is significantly driving inequality in employment outcomes across the region.

REGIONAL RECOMMENDATIONS:



LATIN AMERICA & THE CARIBBEAN

1

INVESTING IN HIGHER EDUCATION

EduFinance markets in Latin America and the Caribbean have relatively strong education systems, with high levels of participation and gender parity. Therefore, the greatest opportunity to improve labour market outcomes is by investing in higher levels of education, including expanding access to tertiary education and enrollment in TVET programs.

2

ALIGNING WITH INDUSTRY NEEDS

Economies across the region are currently undergoing a transition away from manufacturing and becoming increasingly services-oriented. As new opportunities are created in this sector, skills development programs, including TVET and secondary education, must adapt to ensure employability of young adults.

3

SKILLS-RESPONSIVE PROGRAMMING

Latin America and the Caribbean remains the region with the highest level of skills mismatch in the world. In order to overcome these barriers to productivity and unlock the benefits of education on earnings and employability, EduFinance should look to actively engage industry leaders and employers as key stakeholders. Improved feedback loops between industry and education are particularly important at the level of tertiary education and in TVET programming, given the region's increasing levels of educational attainment.

CONCLUDING REMARKS

Our team wishes to thank the EduFinance team, Opportunity International, and the Munk School of Global Affairs and Public Policy for facilitating our Master's Capstone project. Our work with EduFinance has been extremely rewarding. We sincerely appreciate the EduFinance team's support throughout this project.

Under the guidance of EduFinance, our team set out to explore how to direct education investments to drive positive labour market outcomes. We conducted a broad analysis of the education landscape in EduFinance's markets, while also investigating regional labour markets. Finally, we analyzed the distinct 'returns to investment' by levels of education. These three sections informed our final recommendations and conclusions.

Throughout this project, we also received a great amount of support from Dr. Rajshri Jayarman, Associate Professor at the Munk School of Global Affairs & Public Policy and the Department of Economics, and our Capstone instructor this semester. Thank you Professor Jayarman for your mentorship and unwavering support.

We look forward to following Opportunity International and EduFinance's continued efforts to improve education outcomes around the world.

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