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INVESTMENT IN GLOBAL EDUCATION

A STRATEGIC IMPERATIVE FOR BUSINESS

Rebecca Winthrop
Gib Bulloch
Pooja Bhatt
Arthur Wood

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Rebecca Winthrop is Senior Fellow and Director of the Center for Universal Education at Brookings.

Gib Bulloch is the Global Managing Director of Accenture Development Partnerships.

Pooja Bhatt is the Asia Lead for Accenture Development Partnerships.

Arthur Wood is a Founding Partner of Total Impact Advisors.

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EXECUTIVE SUMMARY

The 21st century is marked by global interconnections. People, capital, information and goods all flow across borders at ever-increasing rates. By 2030, not only will emerging market economies contribute 65 percent of the global GDP but they will also be home to the majority of the world's working age population. As national and international businesses increasingly compete for the best graduates in emerging market economies, skilled young people are rapidly migrating from Asia, Africa, and Latin America to provide much needed talent in the face of aging workforces in Europe and North America.

It is clear that the skills and talents of youth in the global south will be the engines of the world's future growth and prosperity. But, critically, an education crisis in these regions threatens this very possibility. In too many locations, parents and governments are unable to provide young people with a quality education and existing international assistance programs are not coming close to addressing the magnitude of the problem. A quality education for all young people, especially those in the global south, is a good for which there is a global public interest and it is time to ensure that all that benefit from it can play a role in ensuring its provision.

Yet conventional wisdom states that national governments should fund and deliver this "public good" through state controlled public education systems. However demographic shifts will put a disproportionate burden on the countries whose systems are least able to cope. The core thesis running throughout this report is that the private sector, who have most to gain (or lose) from weak education systems compounded by demographic shifts, should engage more fully in solving this education crisis through a combination of funding and capability.

There are at least four reasons why a compelling business case can be made for private sector investment in global education. First, **new action is urgently needed to improve education** systems in emerging market economies and low-income countries. It is the children born today whom companies will be recruiting to their ranks in 2030, and the vast majority of these new employees will have been educated in weak education systems in Asia, Africa or Latin America. Currently, the United Nations estimates that there is an annual \$38 billion external financing gap for basic and lower secondary education in these regions between what governments can reasonably be expected to fund and what international aid donors are likely to support.¹ Today, this financing gap seems unlikely

to be addressed, and indeed it may even get worse. Corporate giving to global health is 16 times what it is to global education. While governments and international aid donors must be pushed to do more, new actors are clearly needed to advance the status of education around the globe. Business has a vested interest in helping education systems develop the competencies of young people and, we argue in this report, it may be time for corporations to invest accordingly.

Second, **access to a good-quality education is a strategic growth constraint for business that has a direct impact on the bottom line.** The inability to secure future talent with the right skills and to manage talent-related costs keeps firms from being able to quickly scale up their operations to meet demand in new locations and to launch new products and services. In a global survey of over 1,000 CEOs, almost 30 percent said that talent constraints kept them from pursuing market opportunities, and that number jumped to over 50 percent among business leaders in countries that belong to the Association of Southeast Asian Nations. Labor costs are increasing, and in the same survey 43 percent of CEOs said talent-related expenses, including turnover, have a negative impact on their firm's growth and profitability. Companies also bear significant costs to compensate for poor-quality education and the low skill levels of graduates, including investing in remedial training programs. In India alone, for example, in one five-year period information technology companies almost doubled the amount they spent on training employees, from \$1 billion in 2007 to close to \$2 billion in 2011.

Third, **there is in fact a significant return on investment in education, as well as the potential to close a major value gap.** Modest early-stage investments to ensure that each child attends school, remains in

school and learns in school can yield significant economic returns. Indeed, using data from a "typical" Indian company, we have found that \$1 invested in education today returns \$53 in value to the employer at the start of a person's working years. Furthermore, these investments have broad-reaching effects on the opportunity cost for "lost talent"—namely, young people who do not survive, due to preventable child mortality, let alone thrive and make it through the education system—and thus have a significant impact on a country's overall economic performance. In India alone, nearly two-thirds of children born each year do not finish secondary school for a plethora of largely preventable reasons. In pure economic terms, this represents an opportunity cost of over \$100 billion to national annual economic output, or about 5 percent of gross domestic product (GDP).

Fourth, **innovative new vehicles for business investment in social sectors are emerging,** demonstrating that the future economic value of tomorrow's talent could be positioned as an attractive investment opportunity for today. Where a business case can be made to investors, it is perfectly possible to channel significant private sector resources to help solve public problems. Lessons from innovative financing models, whether from global health or prison recidivism, can provide a useful starting point for exploring how business could invest in public education systems in emerging market economies and the developing world. Ultimately, good-quality education for all young people is a good investment not only for governments and individuals but also for business, as the analysis of this report explains. Forward-thinking corporations must now engage further upstream in the talent pipeline and begin to "backward integrate" to augment the talent pool. What is needed now is a concerted and collective effort to develop new models of private financing for the public education challenge around the

globe; not to privatize education but to ensure that every child, irrespective of background, has access to a fully funded, good-quality education. National governments should think about how fiscal incentives could be used to help attract and reward private corporations that embrace a long-term investment mindset toward talent development.

This challenging situation calls for nothing short of global collective action. We urgently need efforts to quantify the future economic value of human potential and to tie it to financing models that leverage both economic and societal returns on the investment of capital.² The future prosperity of our global economy depends on our ability to recognize our shared responsibility in providing quality education and act with new energy to invest in its provision in emerging market economies and the developing world.

IMPROVING GLOBAL EDUCATION: NEW COLLECTIVE ACTION IS URGENTLY NEEDED

The 21st century is marked by global interconnections. People, capital, information and goods all flow across borders at ever-increasing rates. By 2030, not only will emerging market economies contribute 65 percent of the global GDP but they will also be home to the majority of the world's working age population. Business will increasingly seek to recruit the talented employees it needs from these economies, located largely in Asia, Africa and Latin America. Ultimately, the youth in these regions will be the engines of the world's future growth and prosperity.

However, it is precisely in these regions where weak education systems are failing to cultivate the full talents of all young people. Globally, 132 million children have not even made it to the doors of a primary or secondary school. And many more are in school but are receiving such a poor quality of education that they are not developing the capacities they need to thrive. A total of 250 million children cannot read, write or count well, and 200 million youth leave school without the skills they need to contribute in society and find jobs.³

In this report, we argue that global education is a strategic issue for business and that companies thus can no longer afford to support it only through corporate social responsibility initiatives. From our analysis, there are four main reasons why a compelling business case can be made for private sector investment in global education:

1. New action is urgently needed to improve education systems in emerging market economies and low-income countries, where the vast majority of the world's global talent pool will reside in the future.

2. Access to a good-quality education for all young people is a strategic growth constraint for business that has a direct impact on the bottom line.

3. There is a significant return on investments in education, as well as a potential to close a tremendous value gap.

4. Innovative models for business investment in social sectors demonstrate that it is possible to channel significant private sector resources to help improve public education systems.

For this report, advancing global education means building high-quality education systems across Asia, Africa, the Arab world and Latin America that develop young people's capacities right from early childhood through postsecondary school and offer relevant skills training programs. It also means strengthening public education systems and to some extent disconnecting education delivery from the question of funding. We do not see transferring responsibility for education from governments to private providers as a sustainable, or fair, solution. This is a separate question entirely from what, in any given context, is the right mixture of government and nongovernmental methods to deliver education services. In virtually every country, education services are delivered by a range of actors, including the government, nonprofit organizations, faith-based groups, communities and for-profit agencies. Regardless of the diversity of delivery mechanisms, a system of public financing—even where part of the resources may come from sources other than the government—remains crucial for equitable, long-term and sustainable solutions that deliver desired outcomes.

In this report, we analyze a range of data from the global economic, development and education literature. We also look in-depth at selected issues arising from the global literature by examining them in the

context of one particular country, India. We selected India for its strategic importance as one of the world's leading emerging market economies and because it will provide one-quarter of the world's global talent in 2030. "Is there a business case for private sector investment in global education?" is the main question we seek to answer in this study. As such, we leave aside any questions of the relative effectiveness of different types of education systems and different models of service delivery. We do this merely as a means of focusing our research, but we nonetheless recognize that they are important issues that must be examined in any effort to galvanize business's investment in education.

Ultimately, we conclude that the combination of weak educational outcomes and demographic shifts make access to a good-quality education in emerging market economies and the developing world an essential investment for business. Advancing global education is a complex, but not impossible, task. Unfortunately, our current set of solutions has not been sufficient to address it, and what is needed now is global collective action. One important way forward will be to quantify the future economic value of human potential and to tie it to financing models that leverage both an economic and societal returns on the investment of capital.

Education Is a Major Driver of Human Development

Education has long been accepted as a foundational component of human development and a key enabler of social progress. Higher levels of educational attainment have been shown to have a direct impact on individual earnings, labor productivity and national economic output or GDP.

At an individual level, each \$1 spent on education yields \$10 to \$15 in economic growth over a person's lifetime in the form of higher earnings and wages.⁴ Improving literacy is an important way to boost labor productivity, increase GDP per capita, and lift people out of poverty. Countries able to attain literacy scores 1 percentage point above the international average will achieve 2.5 percent higher labor productivity rates and 1.5 percent higher GDP per capita than countries with average literacy scores.⁵ A total of 171 million people could be lifted out of poverty if all students in poor countries had basic reading skills.⁶

The educational achievement of a nation's youth also has a direct impact on GDP. Each additional year of schooling has been found to increase the average 40-year growth rate by 0.37 percentage point, which translates as a boost of more than 10 percent, considering that the world's economic growth has roughly averaged 2 to 3 percent of GDP since World War II.⁷

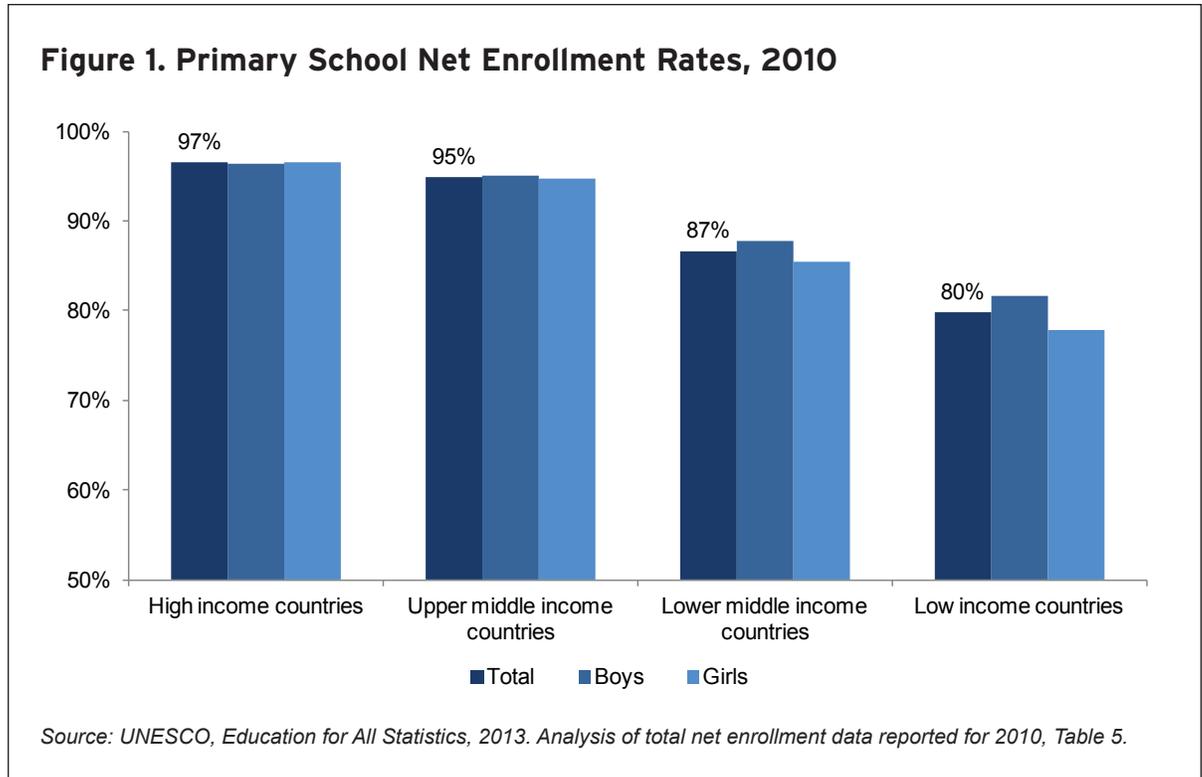
Weak Education Systems Fail Young People in Emerging Market and Developing Economies

Universal primary school attendance was established as one of the United Nations' Millennium Development Goals in 2000. Since that time, significant progress has been made; enrollment in primary education in developing regions reached 90 percent in 2010, up from 82 percent in 1999.⁸ Despite this progress, a large portion of the world's population is growing up uneducated or undereducated, a reality that no longer has an impact only on the child's country of birth.

In countries across the developed world, primary school attendance is close to universal. However, enrollment rates show a direct correlation with national income, falling for middle-income countries and

averaging just 80 percent for low-income countries (figure 1). Gender gaps between girls' and boys' educational attainment are also higher in poorer countries. Many of these countries are in Africa and Asia. In Nigeria alone, 10.5 million primary-age children are

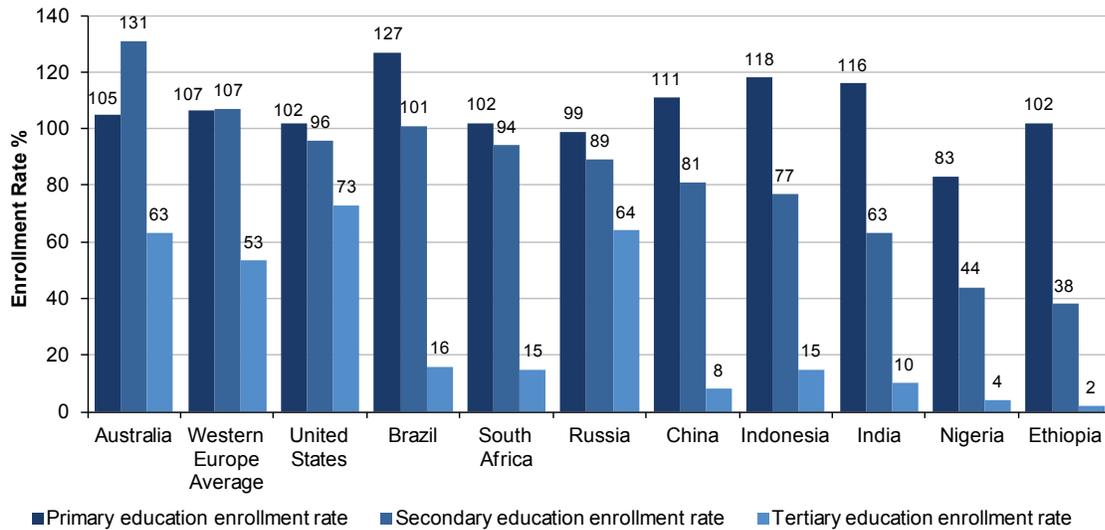
not attending school, accounting for 18 percent of the world's out-of-school youth population. Pakistan's share of out-of-school youth is the next largest, accounting for 9 percent of the world's out-of-school children.⁹



There is also a significant drop in enrollment after primary schools. Globally, enrollment in secondary school is 62 percent, with 32 percent of young people attending secondary school in low-income countries. Examining secondary school enrollment in several emerging market economies in Asia and Africa demonstrates this phenomenon. Figure 2 shows that in emerging market economies, student enrollments fall sharply as students fail to make the transition to secondary school, and then further drop off significantly, with a very small number attending a college or university.¹⁰

Ultimately, education systems are not only failing to reach all young people; they are also failing to provide a good-quality education. Many children, even if in school, are failing to master the foundational skills in literacy and numeracy that are meant to be acquired during primary school and are needed to continue with their education. Additionally, of those who do advance, many youth are failing to acquire the skills they need to find decent work. The latest global data on educational access and skill development paints a stark picture:

Figure 2. Enrollment Rates by Education Levels for Select Countries



Source: World Bank Nation Master

- Only 15 percent of young children access preprimary education in low-income countries.
- Nearly 57 million primary school age children are out of school, having either left at an early age or never attended.¹¹ Approximately 71 million teenagers are not attending secondary school.
- Worldwide, 250 million children cannot read, write, or count well, many despite having spent four years in school.¹² For example, in Nigeria 58 percent of children in grades 4 and 5 are not meeting minimum learning levels.¹³
- 200 million adolescents, including those who complete secondary school, do not have the skills they need for life and for employment.¹⁴

Business Has a Significant Stake in Education in Emerging Market Economies

In today's global economy, just as economic troubles in one country have an impact on economies around the world, the effects of weak global educational systems are felt far beyond borders. Education in emerging market economies and the developing world affects businesses operating both in and outside those regions—because of a combination of demographic shifts, changing migration patterns and increased growth in emerging market economies. As populations in most of the world's wealthy countries start to age, the large young population in the lower-

and middle-income countries will increasingly become the world's workers. The private sector will increasingly expand into these regions as emerging market economies capture the majority of global GDP. Even if businesses only operate in wealthy countries, they will likely be relying on skilled workers from other parts of the world, thanks to both a growing knowledge economy where employees will be scattered across the globe and an influx of migrants from emerging market economies and the developing world.

Demographic Shifts: Global Talent Resides in the Developing World

Over the next 50 years, the vast majority of the world's talent will come from the developing world. As the working age populations of the U.S. and Western Europe decline, those of Asia and Africa will peak. In 2010, the largest working age population was China's, followed by India's. Between 2010 and 2020, the working age populations of India and Brazil will increase by 17 percent and 11 percent, respectively. In Western Europe and in Japan, where the populations are aging by comparison, the working age populations will start to shrink. By 2030, India will have the largest working age population and will have reached the peak of its demographic dividend, with its working age population exceeding China's.

The decline in the size of the talent pool will continue in Western Europe and Japan. Bangladesh and Indonesia will experience a growth in their working age populations of 11 percent and 6 percent, respectively. By 2040, the Brazilian labor force will shrink, while the talent pools in Bangladesh and Indonesia will reach their highest levels. Between 2030 and 2040, China's working age population is projected to fall by 11 percent. Bangladesh, Pakistan and Nigeria will contribute about half the growth in the global labor force

between 2010 and 2050. In 2050, the working age populations of Pakistan, Bangladesh and Nigeria will still be growing. The U.S. and Australia are expected to see increases in their working age populations at marginal rates of 3 to 4 percent given projected positive in-migration. By 2060, Nigeria's working age population will triple, while Ethiopia's will double from 2020 levels. By 2060, the demographic dividend will have moved to the African nations, where better health conditions and growing wages are expected to increase the working age populations by substantial levels as compared with 2010.¹⁵

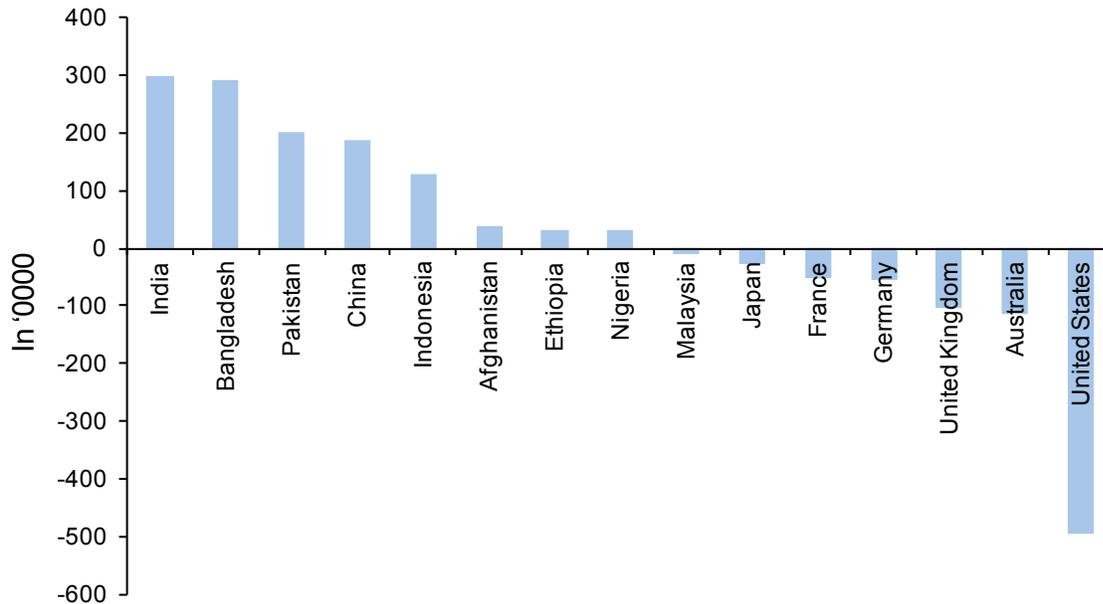
Migration Trends: Business Operating in Wealthy Countries Will Hire Migrants Educated in Emerging Market Economies

As population growth slows across the United States and Western Europe, these countries are taking in immigrants in increasing numbers to fill job openings in key industries. Young people in the developing world are leaving their home countries in search of jobs and prosperity in the West. During the five-year period from 2008 to 2012, the United States received a net inflow of nearly 5 million, while India, Bangladesh, Pakistan and China sent a combined net outflow of almost 10 million emigrants (figure 3).¹⁶ Hence, even if a business does not operate in emerging market economies or the rest of the developing world, it very likely will be seeking to hire employees who are products of their education systems.

The Share of Global GDP Will Shift from Developed to Emerging Market Economies

As more firms continue to shift operations to emerging markets to take advantage of the growing supply of labor and potential for profit, the share of world economic output from these emerging market econo-

Figure 3. Population Trends in Developing and Developed Countries, 2008-2012



Source: World Bank, net migration data for 2008-2012.

mies will rise. In 1990, just 37 percent of the world's GDP came from emerging markets (figure 4). That figure grew to nearly half in 2010 and is expected to reach 65 percent by 2030.¹⁷

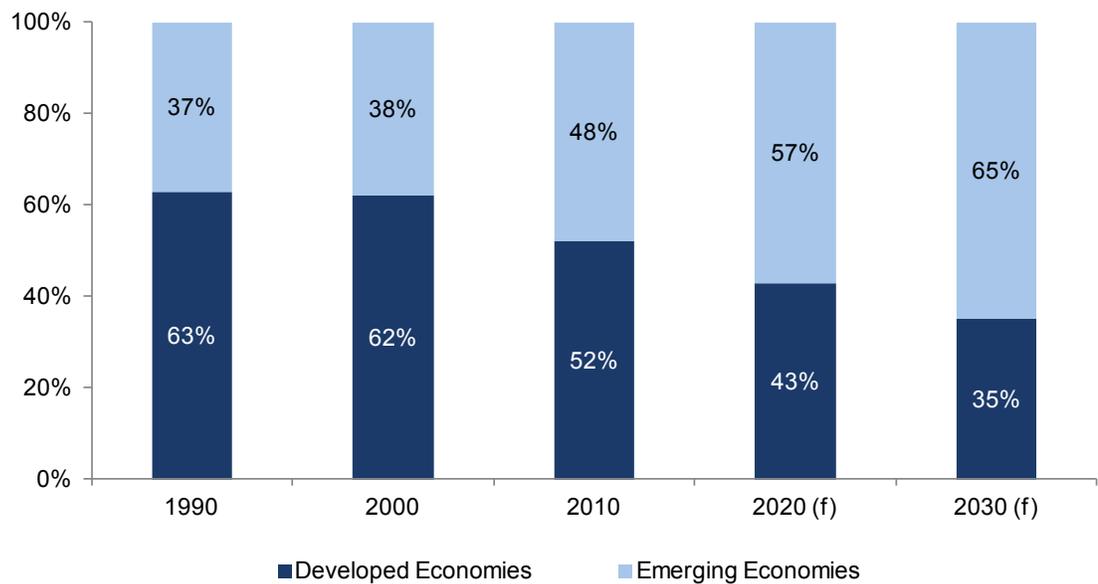
This shift is already well under way, as exemplified by the growing footprint of multinational corporations in emerging market economies. In keeping with the growth in economic output in these emerging market countries, corporations have shifted their operating strategies to take advantage of the consequent increasing opportunities. In 2002, for example, 22 percent of Unilever's revenues came from Asia and Africa. By 2012, that figure had nearly doubled, to 40 percent.¹⁸ And Unilever is not alone. As seen in figure

5, during this same period significant increases in the share of revenue from these markets were achieved by many other multinationals, including Coca-Cola, Nestle, General Electric and Vodafone.

New Actors Are Urgently Needed in Global Education

To realize the potential of these emerging market opportunities, the private sector will need an ever-increasing supply of good-quality candidates from emerging markets. Yet despite this need, business has not yet played an influential role in improving global education systems—a role it has successfully assumed in other arenas, such as global health. Today,

Figure 4. Emerging vs. Developed Economies: Share of Global GDP



Source: Accenture, *New Waves of Growth for India - Unlocking Opportunities*, 2011.

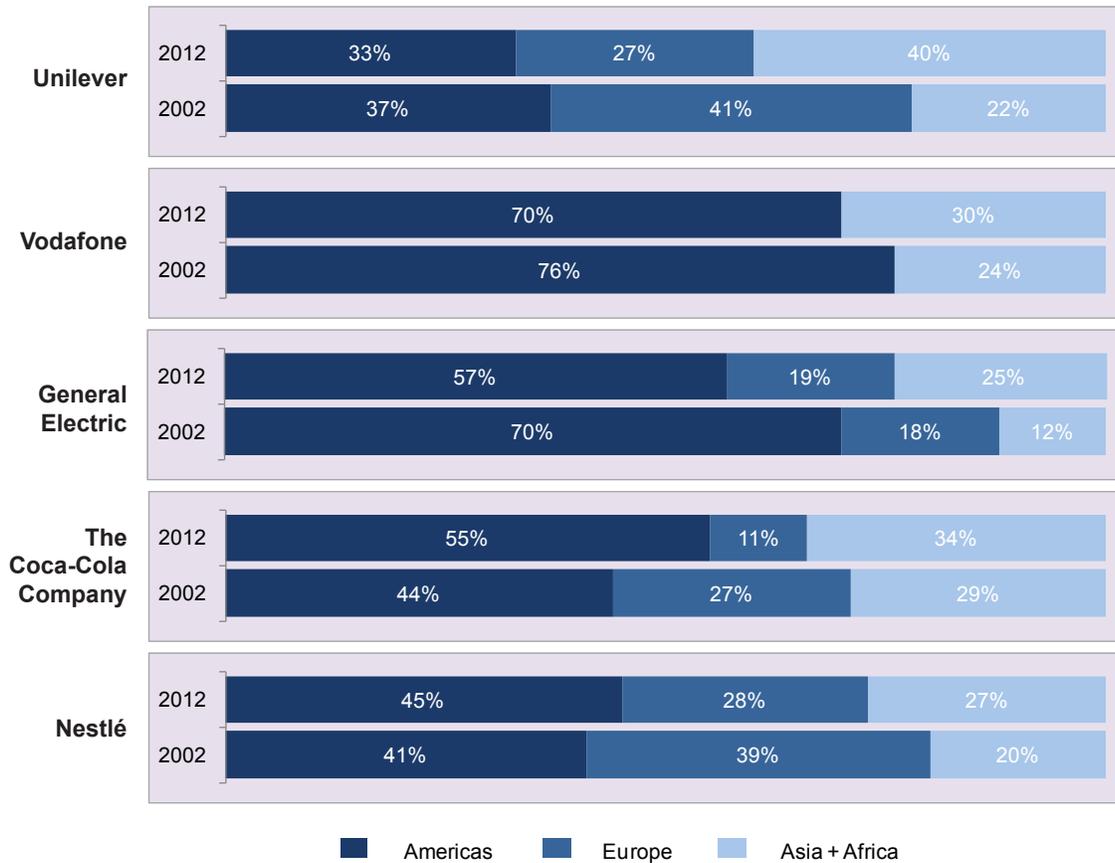
corporations invest 16 times more in global health than in global education.¹⁹ This type of private sector influence is very much needed today, given that international aid to education is declining and that many governments are simply not able to provide a good-quality education to all their young people without forming partnerships with others.

In 2011, total development aid to global education decreased by 3 percent in real terms. As 2015 approaches, the impact of this reduction will be felt as official development assistance to the education sector falls.²⁰ Today, there is a funding gap, estimated by UNESCO at \$26 billion annually, vis-à-vis the goal of achieving basic education for all children in low-income countries (figure 6). If the goal is expanded

to also include lower secondary education for all children, this gap rises to \$38 billion annually.²¹

This estimate includes what low-income country governments can reasonably be expected to finance, and many countries do devote significant percentages of their national budgets to education—but it is simply not enough. Coupled with limited international assistance for education, this financing gap means that young people continue to miss out on a good-quality education. For middle-income countries, the case may be slightly different, as they may indeed have the resources but need either political will or more effective systems to help transform education. In both cases, external private sector partners can play an important role.

Figure 5. Multinational Corporation Revenues by Geographic Region

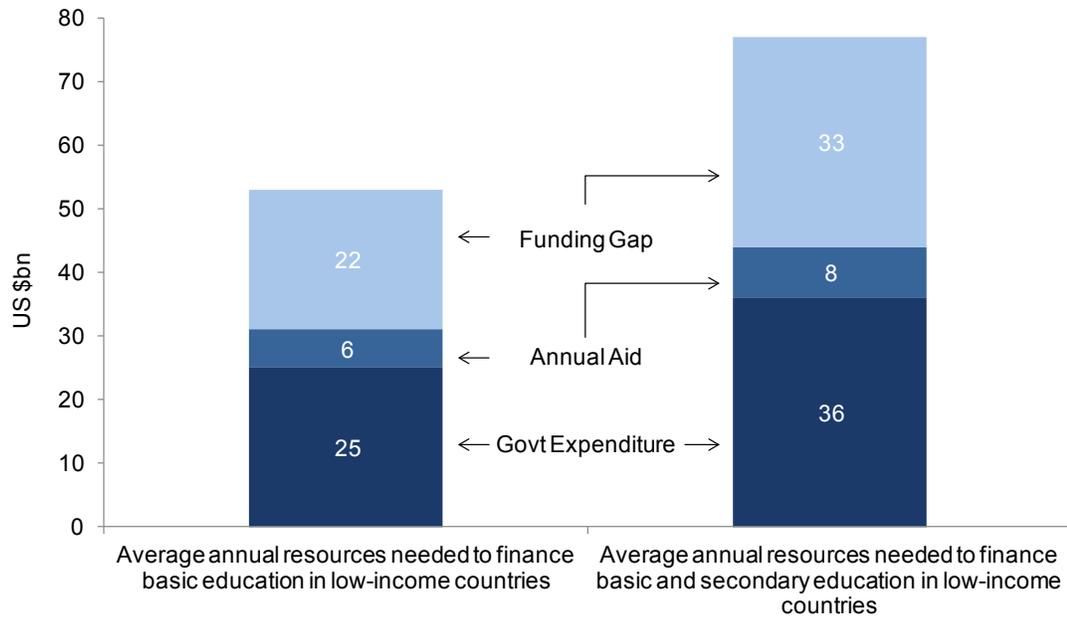


Source: Company Annual Reports, Fiscal Year 2012.

Overcoming this funding gap requires concerted action from all stakeholders. Governments in emerging market economies across the developing world must be pressured to do all that they can to improve their countries' education systems. International aid donors should also be pressured to continue to support global education, including reallocating aid money. Currently, approximately 25 percent of aid money is spent on enabling students from developing countries to study in developed countries. But in parallel, global corporations should be approached as a new source of potential funding, out of enlightened self-interest.

Ultimately, we argue that business should play a role in improving education systems in these regions because they, along with the rest of society, stand to gain a great deal from a skilled global talent pool. Tremendous possibilities also lie in developing new innovative models for investment that would enable private sector firms to invest in education while meeting their larger business goals and needs. To develop these new investment vehicles, the private sector should look to the early success of initiatives such as impact investment bonds, which link investment performance to social outcomes. We explore examples of these models in the last section of this report.

Figure 6. Global Education Financing Gap



Source: UNESCO: *Education for All Global Monitoring Report Youth and Skills: Putting Education to Work*, (Paris: UNESCO, 2012).

Summing Up

In today's interconnected world, the weak performance of one country's educational system is no longer a national policy issue contained within that country's borders. Millions of young people living in the developing world leave home each year to find employment in Europe and the U.S. For those that remain in their countries of birth, multinational corporations are moving into the region and hiring from the scarce supply of good-quality talent at ever-increasing rates.

Furthermore, traditional sources of aid that have supported educational systems in emerging markets are drying up. Investments in education naturally need to

have a long-term horizon to allow time for students to mature and pass through successive levels of schooling. We need to act now to ensure the availability of sufficient talent to sustain current levels of economic growth and prosperity worldwide.

In this report, we present our perspective on the strategic imperative for private sector investment in global education. To grow the global talent pool, business must begin reaching back into the talent pipeline to "backward integrate." The time to act is now, as public educational systems worldwide are facing challenges in both the capacity to educate current and projected youth populations and in the quality of service delivery.

GLOBAL EDUCATION IS A STRATEGIC GROWTH IMPERATIVE FOR BUSINESS TODAY

Talent is the most strategic issue of a country like India. The country is tremendously short of talent. There is a gap between industry needs and what comes out of technical institutions.

–Baba Kalyani, CEO Bharat Forge

Private sector investments in education have both direct and indirect benefits. However, for the purposes of this report, we have limited the discussion to the direct, or business-related, value of education to the private sector—supporting the proposition that global education is a strategic business issue beyond just corporate social responsibility. In simple terms, two factors that are influenced by access to good-quality education have an impact on business's ability to achieve strategic growth, especially in emerging market economies: (1) securing talent, and (2) controlling talent management costs. Today, gaps in the talent that is required for growth and expansion in emerging market economies are a constraint for business that has a direct impact on the bottom line. The inability to secure talent with the right skills and to manage talent-related costs keeps firms from being able to expand in key locations and to launch new products or services. Our proposition is that these challenges will only worsen without effective intervention with respect to the state of global education.

Analytical Model: The Relationship between Education and Private Sector Success

For the purposes of our analysis, we have categorized the benefits of education to the private sector as strategic growth factors and indirect benefits (figure 7).

Strategic growth factors include (1) maximization of revenue through access to qualified talent; and (2) a reduction of talent acquisition, training and retention costs. Investments in education can lead to higher enrollments in primary, secondary and tertiary education, in turn leading to a larger talent pool with the appropriate skills from which the private sector can recruit new employees. A larger and appropriately skilled talent pool will also help the private sector effectively harness growth opportunities at home and in overseas markets, thereby leading to higher revenue. Similarly, a more qualified talent pool can help the private sector reduce the costs of talent acquisition, training and retention, helping to enhance profitability.

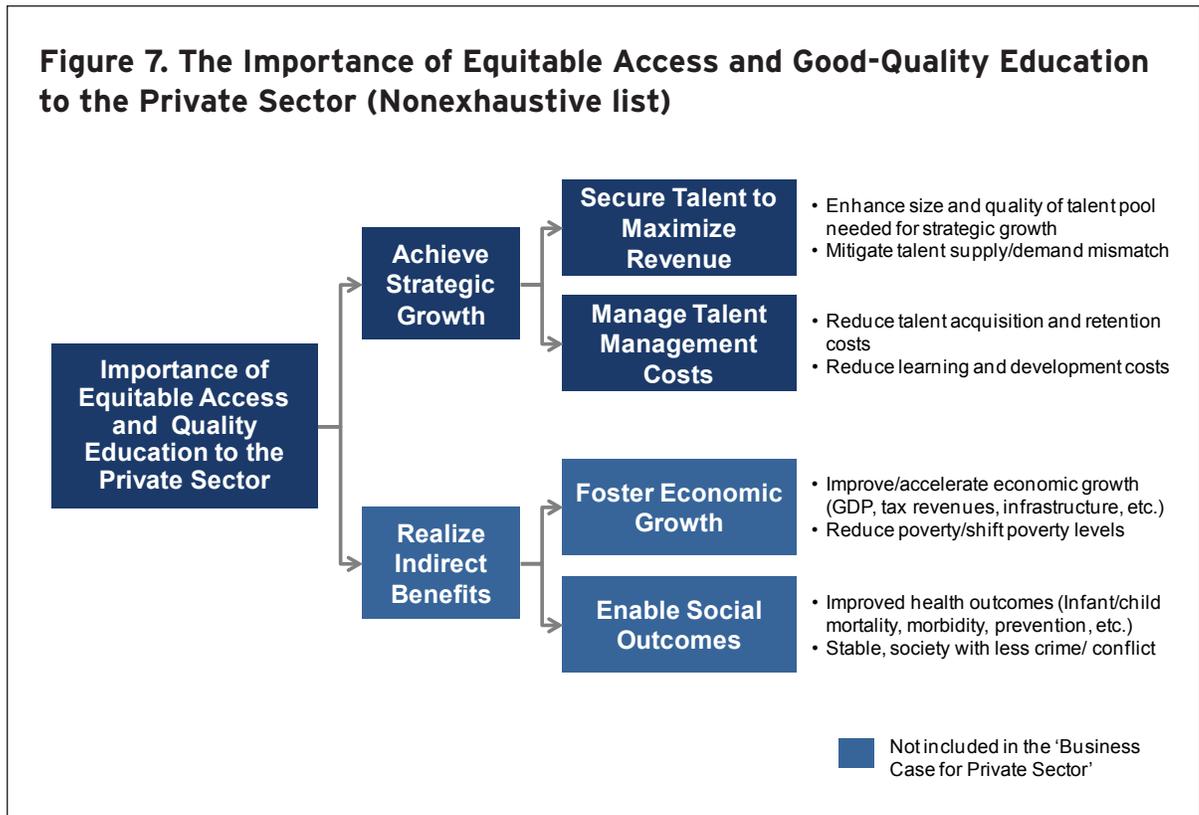
As shown in the bottom half of figure 7, a larger and more educated workforce also has other indirect benefits for private sector firms. These benefits include greater overall economic growth and a reduction or shifts in poverty levels, as well as enhanced social outcomes such as a higher quality of health, a more stable society, and reduced crime and conflict.

In this report, we focus on the strategic growth factors of education for the private sector. According to our analysis, and as noted above, two main issues are holding back the private sector's ability to achieve strategic growth: hiring employees with the right skills, and rising costs related to talent management. We review both of these issues in turn.

Strategic Growth and Expansion: Limited by the Availability of Talent with the Right Skills

The availability and employability of talent is crucial to success in this fast-changing world, permitting businesses to seek out innovative avenues to create value and capitalize on new opportunities. With the

Figure 7. The Importance of Equitable Access and Good-Quality Education to the Private Sector (Nonexhaustive list)



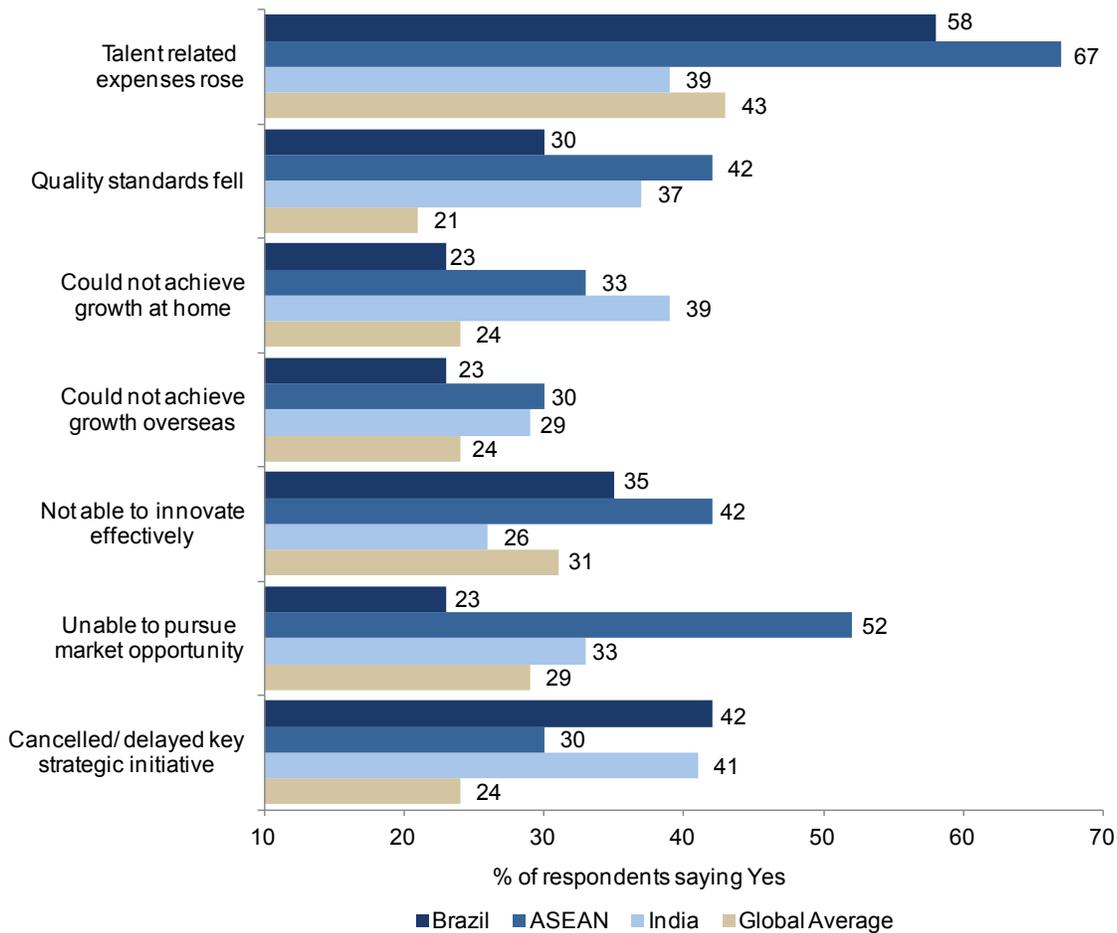
changes in the global marketplace, successful growth in emerging market economies is the key to sustained business performance. Talent is one of the biggest constraints on growth and profitability.

CEOs across the world are concerned about finding the right talent to compete effectively in the global economy. In a 2012 survey of 1,258 CEOs around the globe, approximately half of CEOs are looking to increase their organization's headcount over the next twelve months, with more than half of these anticipating staff increases of above 5 percent.²² More than half fear that talent shortages will constrain their company's growth. Many report that difficulties in hiring talent are having a direct, negative impact on their business success. This shortage of skilled talent affects businesses in emerging markets in Asia, Africa, South America and the Middle East, where the avail-

ability of experienced people is insufficient to keep up with growing demand. As these markets expand and drive business growth, the squeeze on available talent is likely to grow.

The results of the global CEO survey, shown in figure 8, indicate that, globally, one in three CEOs said they were unable to pursue a market opportunity. This number rises to one in two for CEOs working in Southeast Asia. Globally, one in four have had to cancel or postpone a strategic initiative because of talent-related constraints, and that number is significantly higher—over 40 percent—in Brazil and India. One in three CEOs globally is concerned that skills shortages will have a negative impact on their company's ability to innovate effectively. More than half of the businesses surveyed say they were affected by one or more of these three issues.

Figure 8. CEOs' Responses to a Survey on the Impact of Talent Constraints on Growth and Profitability



Source: PricewaterhouseCoopers, *Delivering Results through Talent: The HR Challenge in A Volatile World* (New York: PricewaterhouseCoopers, 2012).

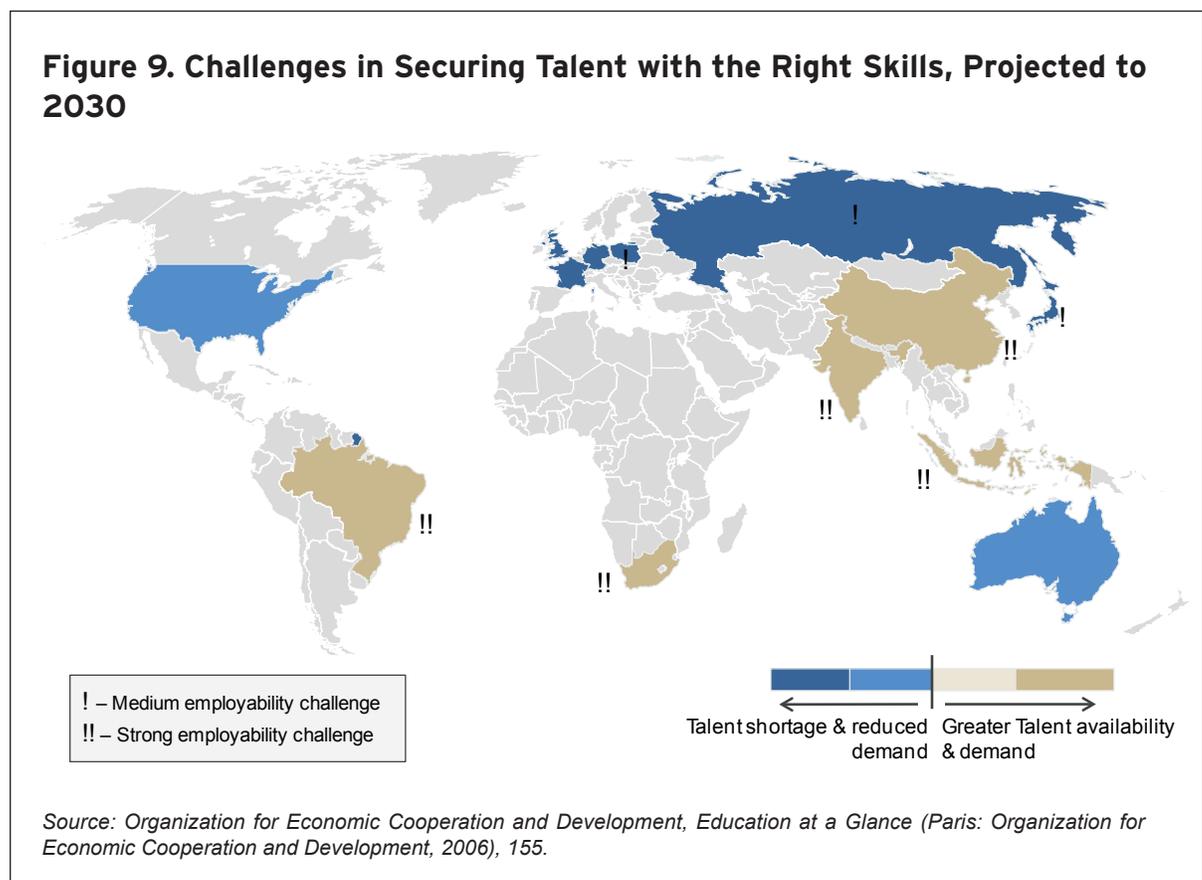
The concern that business leaders are raising is not just regarding the availability of candidates but also the relevance and quality of their skills. Business leaders during the last several years have highlighted the unavailability of skills as a strategic threat across various sectors.

Projecting forward, many regions of the world will experience talent mismatches between where talent

is most needed and where it is most available. Global employability studies indicate that between 2011 to 2030, the availability and demand for talent will increase in emerging market economies such as China, India, Indonesia, South Africa and Brazil. However, in these emerging market economies, despite a rising pool of available workers, “employability” will appear as a major concern. Employability refers to an individual’s readiness for work with basic foundational skills

(i.e., literacy and numeracy) and transferable skills, such as problem solving, communication and critical thinking. As explained by the UNESCO's 2012 Global Monitoring Report Pathways to Skills framework, foundational and transferable skills are acquired upon successful completion of primary and secondary education. In developed countries, where "employability is not a concern," almost the entire eligible student population completes primary and secondary education, and a substantial portion follows through with college education. In developing countries, however, the drop offs between primary and secondary education are substantial, and those between secondary and tertiary even more so (as highlighted in 2 above). This lack of education is reflected in the "employ-

ability" concerns projected between 2011 and 2030 in countries like India, Brazil, China, Indonesia and South Africa. The lack of completion of secondary education leads to a workforce with a lack of the "soft skills" needed for employment—leading to a loss of economic value for both businesses and the economy. Unless education enrollment and completion are strengthened in these economies, the eligible working age population may continue to experience a denial of more productive and remunerative opportunities, which will have a negative impact on their standard of living, the growth potential of businesses in these locations and the overall growth of these economies (figure 9).



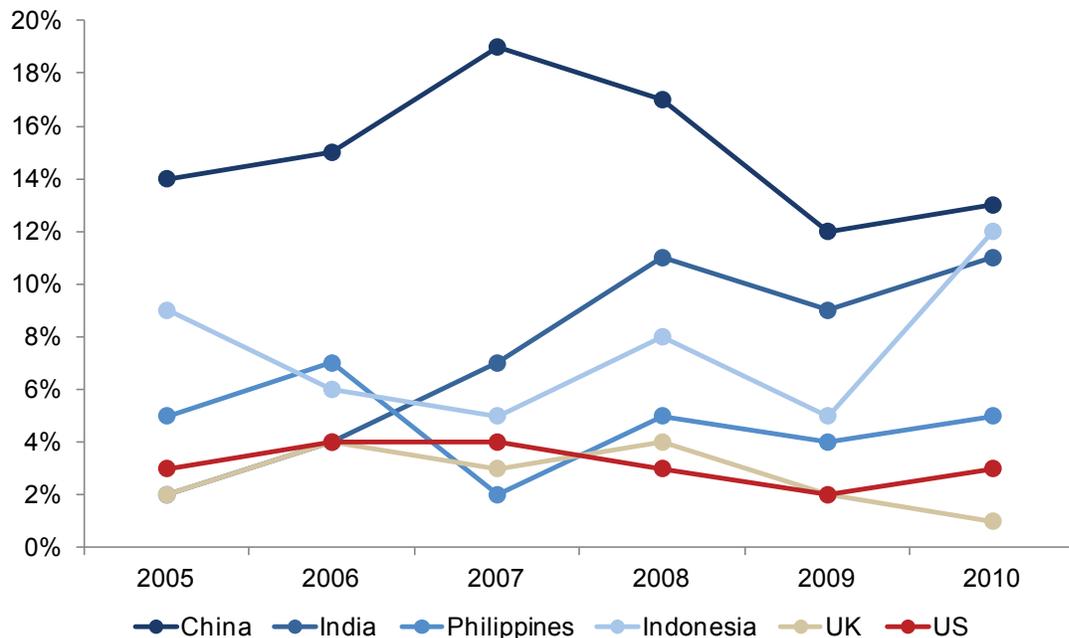
Rising Talent Management Costs Will Have an Impact on Profitability

Talent management costs represent all those costs incurred for talent acquisition and retention. As highlighted in figure 8, 43 percent of CEOs surveyed overall reported rising talent-related expenses that have an impact on growth and profitability. This issue is an even greater for CEOs in countries that belong to the Association of Southeast Asian Nations. Data on wage increases, a key component of talent management costs, confirm this issue. Many emerging market economies—including countries with large presence of multinational corporations, such as India, Philippines, China and Indonesia—have seen wage increases signif-

icantly higher than the corresponding wage increases in developed economies such as the U.K. and the U.S. (figure 10).²³

These rising wage increases are indicative of the short supply of skilled talent that is in demand in emerging market economies. Firms operating in markets with shortages of required talent must contend with wage inflation when hiring qualified candidates in key skill areas. For example, with the growth in the Indian market for products and services as well as the entry of large multinational corporations into India, skilled and experienced talent is in short supply, pushing up the wage levels over the years.

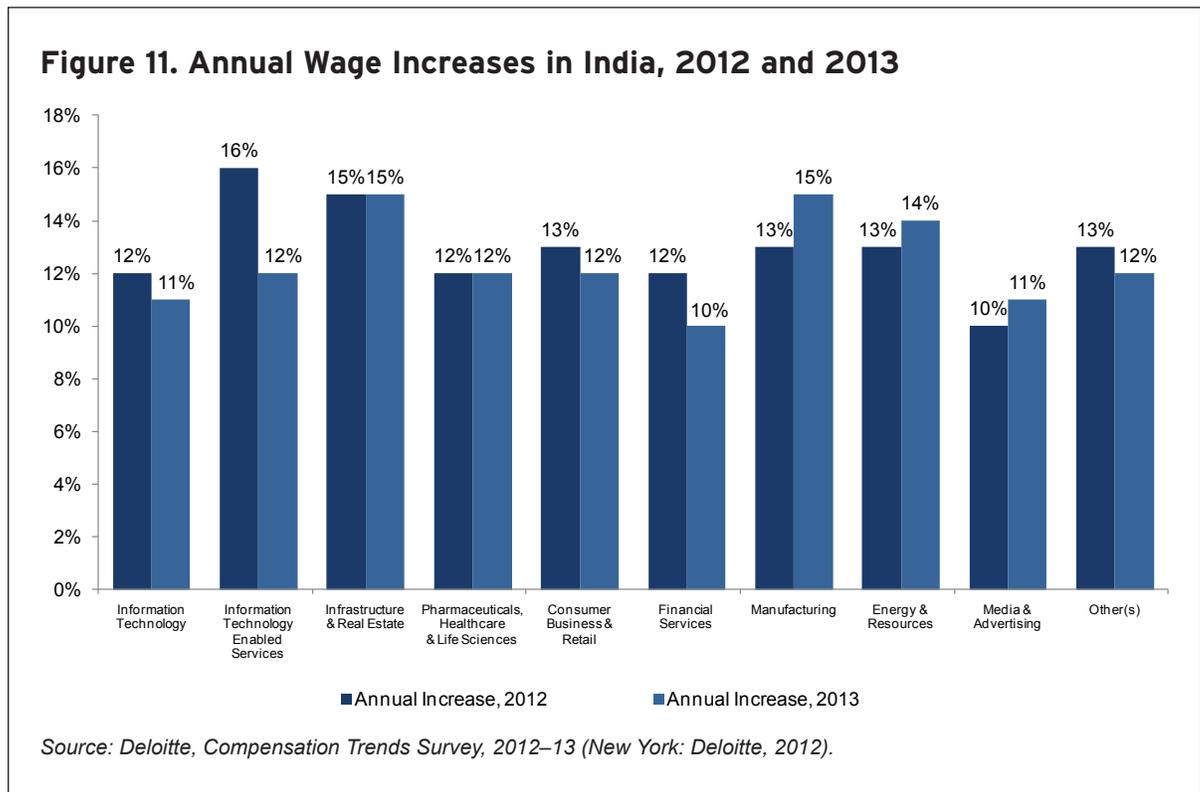
Figure 10. Annual Rate of Change in Wages, 2005-10



Source: Analysis of ILO data from Global Wage Database, 2012.

In India, salaries in most industries have seen significant increases in recent years. The results of a 2012 compensation study, as portrayed in figure 11, indicate that between 2012 and 2013, the cross-industry median salary increase in India is expected to be 12 percent.²⁴ The manufacturing and infrastructure and real

estate sectors in India reported the highest annual increases, at 15 percent during the last year. Rates of increase in the financial services sector have been more conservative, with an increase of 10 percent projected over the coming year.²⁵

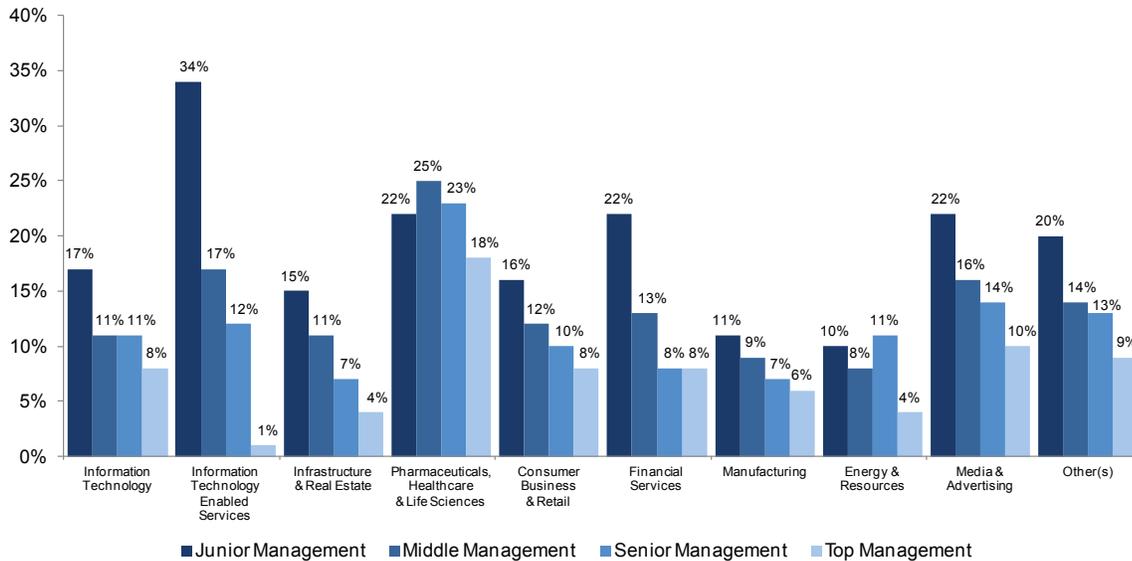


Furthermore, as the supply of desired talent is limited, young workers move from one company to another for small increments in wages. In 2012, the overall attrition rate in India across industries was 13 percent, with as high as 20 to 34 percent attrition rates in junior management roles (figure 12).²⁶

As seen in figure 12, those sectors that have registered the highest attrition in India are information technology, pharmaceuticals, health care and life sci-

ences, and media and advertising. The sectors that have registered the lowest attrition are manufacturing and energy and resources. Rising salary levels and unending recruitment cycles due to attrition have an adverse impact on the profitability of both multinational and domestic companies attempting to operate in the Indian market. To address issues with the availability of appropriately skilled talent, many firms make significant investments in employee training and development, especially training new employees.

Figure 12. Attrition Rates in India, 2012-2013



Source: Deloitte, *Compensation Trends Survey, 2012–13* (New York: Deloitte, 2012).

For example, to fulfill the demand for talent in the information technology services sector in India, companies have developed and conducted extended new employee training programs to mitigate the gap in the skills of new recruits. The Indian information technology industry is estimated to have spent about \$1.9 billion on training activities in 2011, up markedly from 2007, when it spent close to \$1 billion. Further, training spending in the industry has maintained a continuous growth trend since 2007, with an annual growth rate of about 17 percent (figure 13).²⁷

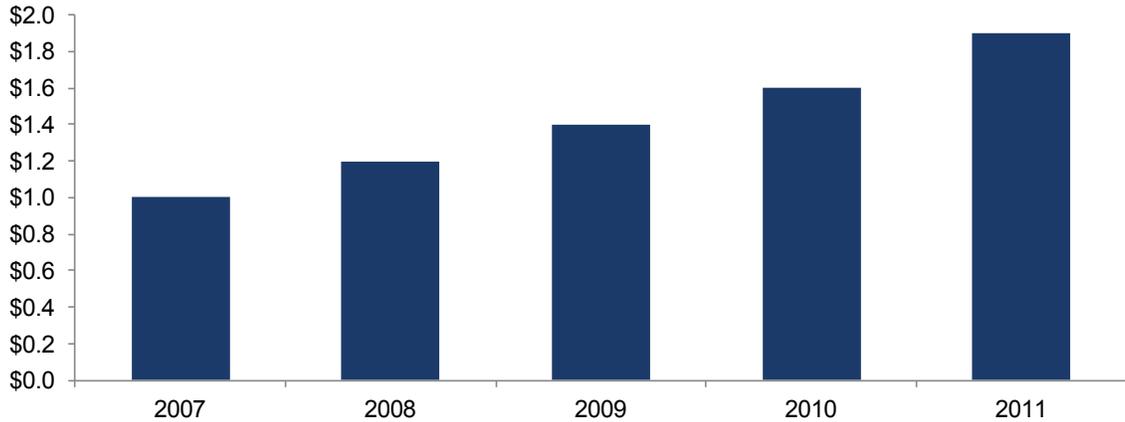
Additionally, average training spending among Indian technology firms is higher than that for global technology firms, since their Indian competitors have focused largely on classroom-based training (figure 14). The average training period for new employees is 14 to 16 weeks, while that for existing employees is about 2

weeks. However, this varies significantly for medium-sized and small firms.²⁸

The case of India provides a stark picture of how talent-related costs are a strategic threat to business with a direct impact to the bottom line. It is also clear from global data that the case of India is not unique. Around the globe, particularly in emerging market economies, rising talent management costs—including wage increases, attrition, and training and development costs—pose a significant threat to profitability.

In summary, access to a good-quality education is a strategic imperative for business to ensure that growth is not inhibited due to a lack of qualified talent and that profitability is managed by controlling talent management costs. Thus, it is in the private sector’s interest to “backward integrate” and help augment

Figure 13. The Growth in Training Spending for the Indian Information Technology Industry, 2007-11



Source: Accenture analysis based on data from industry news, NASSCOM publications, company annual reports and other secondary sources.

Figure 14. Training Spending per Full-Time Equivalent Job, Indian Information Technology Industry, 2011



Source: Accenture analysis based on data from industry news, NASSCOM publications, company annual reports and other secondary sources.

the talent pool so as to strengthen its own performance, especially in emerging market economies. Without adequate intervention to improve the quality of talent pools, companies face the prospect of high

wage increases, attrition and high learning costs due to inadequate talent availability. These factors could reduce profitability in an already-competitive marketplace with low margins.

THE BUSINESS CASE FOR PRIVATE SECTOR INVESTMENT IN EDUCATION

The positive impact of education on economic development is discussed in the previous section. This section seeks to make the business case for the private sector to engage with education in a different and more strategic way than it has done in the past. Traditionally, business has kept its distance from direct involvement in education, save offering vocational training or internships, or making small, isolated investments in a school in a developing country as part of its corporate social responsibility or local community engagement programs. By and large, business has left education to the public sector, with government ultimately accountable for developing the skills and talent that will ensure a ready supply of candidates for well-paid private sector careers.

But as we have explained in the previous section, this situation needs to change. Issues that prevent a child from obtaining a successful education—ranging from poor access to schools or high dropout rates due to a lack of sanitation facilities for girls or inadequate teaching quality—have traditionally been viewed as social issues by business. However, these issues now need to be viewed as strategic roadblocks. What is more, addressing these issues through an economic lens could in fact create significant investment opportunities for private capital.

The Opportunity Cost of “Lost Talent” for the Economy

Consider the analogy of a country rich in natural resources such as oil and gas. It invests heavily in extracting, producing and refining these resources to maximize the return to the country's economy. A leaking pipeline would be quickly fixed so that valu-

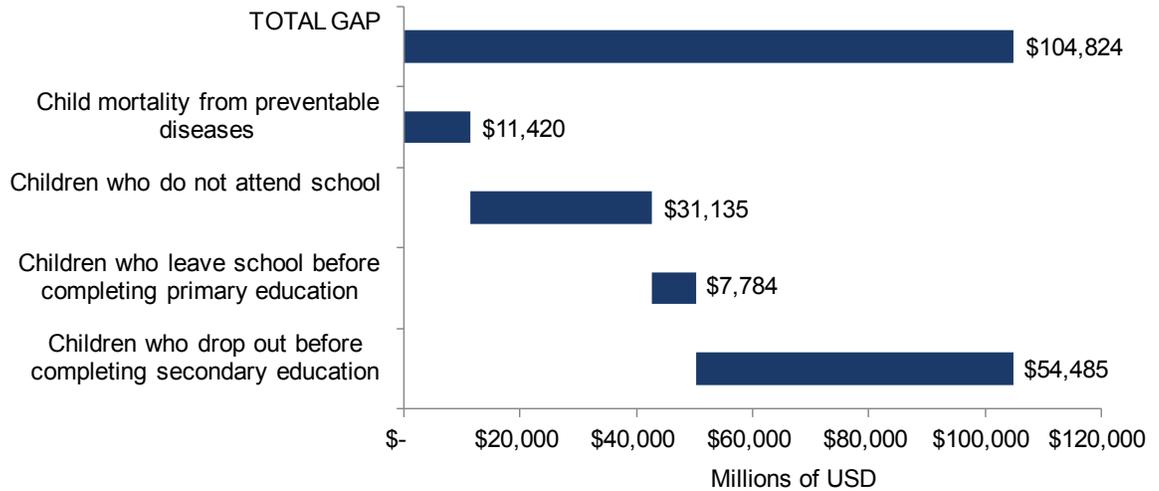
able revenues are not squandered. So why would a country rich in human resources not adopt the same approach? For many emerging market economies, growing human resource pools will be the source of economic development.

Every year, nearly 11 million children die before reaching their fifth birthday, most from preventable causes. That is approximately 30,000 children per day. Another 300 million children suffer from illnesses caused by a lack of clean water, poor nutrition and inadequate health services and care. Evaluating the impact at the individual level highlights the “value gap” from lost talent—children who do not complete secondary education. For instance, each year, of the 27 million children born in India, 1.7 million will die before the age of five; over 5 million will never attend school; over 1 million will start primary school but not finish; and nearly 9 million will begin secondary education but not finish. Considering that the GDP per employed person in India is \$8,939, the “value gap,” or cost to the Indian economy, is over \$100 billion annually from the approximately two-thirds of the Indian children who do not complete secondary education. Clearly, this “opportunity cost” for lost talent has a significant impact on the economy (figure 15).

The Value Chain of Talent

With the premise that education needs to be viewed as an investment in the future economic value of talent, we have articulated the “value chain of talent” concept to define the “return on investment” (ROI) in education for the private sector. A value chain is the popular business term for a series of processes or production steps that take raw materials and turn them into finished products. The “value chain of talent” concept, as seen in figure 16, illustrates benefits to individuals, business, governments and society

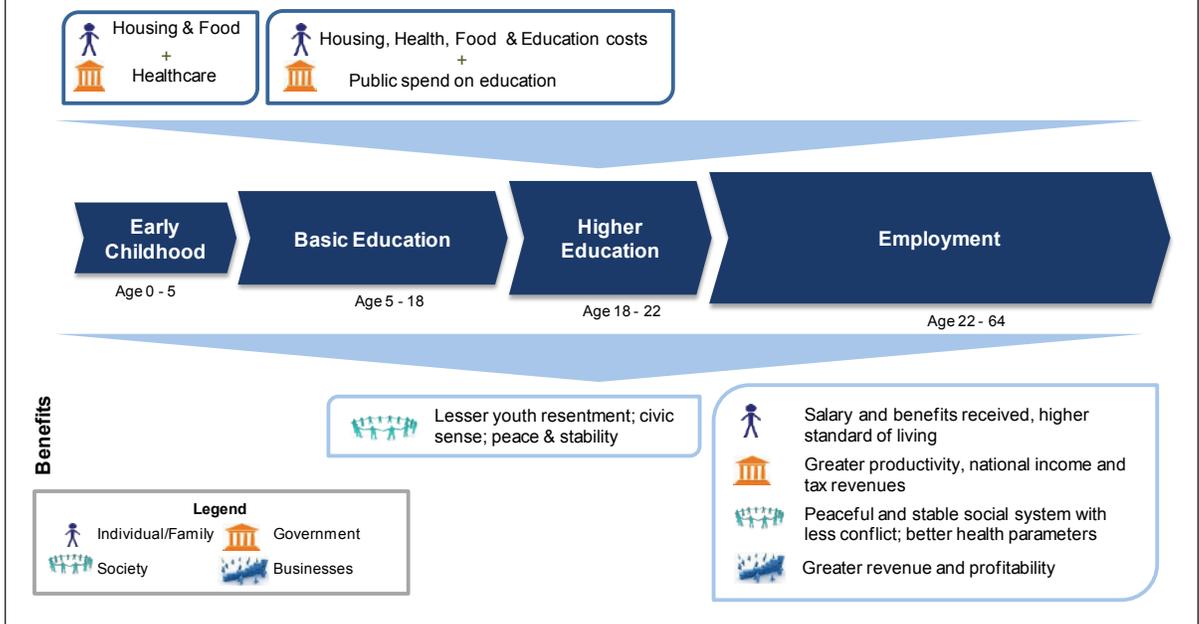
Figure 15. Opportunity Cost for “Lost Talent” in India on an Annual Basis



Note: The value gap is calculated based on the differential between India's GDP per employed person and GDP per capita. Figures are reported for 2011 at purchasing power parity in international dollars. Figures have been adjusted to account for the rate of anticipated unemployment across the population.

Sources: CIA World Factbook, 2011; IMF World Economic Outlook Database, 2012 (India GDP at purchasing power parity); World Bank Development Economics Database, 2012 (total population figures).

Figure 16. The Value Chain of Talent



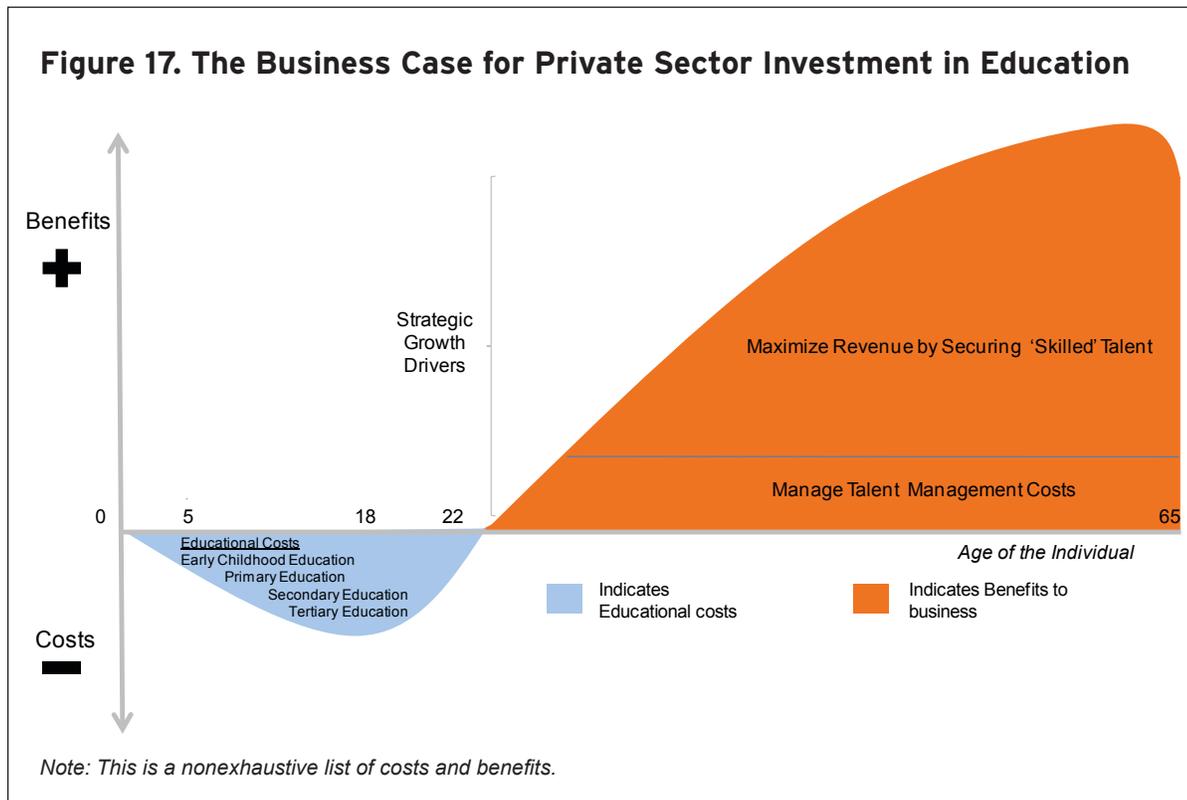
through investments in education. This concept is used to show the costs and benefits throughout an individual's life.

In any given context, relatively small investments are made during the early part of an individual's life, from birth to age 22, in education, health care, vaccinations and food and shelter, among others. Traditionally, this includes both private investments by the individual and/or family as well as public investments, which typically are made by governments. Employers have tended to get involved only in hiring an individual; however, there are valid reasons why this may have to change.

Upon entering the workforce, an individual begins reaping the rewards from investments in education in

the form of earnings, benefits and a higher standard of living. He or she also provides returns on these investments to business, government and society. The public at large reaps benefits from the individual's productivity and prosperity in the form of additional government tax revenue and contributions to overall national income. Other nonfinancial benefits to society include things such as higher levels of engagement in civil society, less crime and a higher quality of health and well-being.

Private sector employers also enjoy benefits from the contributions to the company by the individual as an employee. These contributions enhance the firm's growth and sustainability, by expansion in existing and new markets, innovations leading to new products and services, and contributions to knowledge capital—all



reflected in increasing revenues and profitability.

As seen in figure 17, the benefits to the business from a qualified and educated employee are enhanced revenue potential and a reduction in talent management costs, including wages, attrition and training and development costs. These benefits are attained by an employer during each year of an individual's employment using an approximate working age of 22 to 65 years.

Conceptually, the total cost of investment in education is significantly less than the total benefits returned over the lifetime of the individual employee. Figure 17 illustrates the costs and benefits in the form of a graph plotted against the individual's years of life. This figure shows that a relatively small amount spent on education yields a much larger benefit in future years.

The highest educational costs are incurred during tertiary education, and the greatest benefits to the company—in terms of expertise, skills and experience—are received as the individual gains a higher level of experience. This explains the steeper slope of the curve in later years of life. In figure 17, as well as in the ROI calculation, we have not included other non-educational costs incurred during schooling—such as the expenses of health care, vaccinations, and food and shelter—however, these are relatively modest and do not affect the analysis significantly. Similarly, the indirect benefits to the private sector (e.g., contributions to the overall economy, improved health and higher demand for products) have not been included. The benefit in the form of revenue per employee is much larger than the cost savings on recruitment and retention. Therefore, the “triangle” in figure 17 (for working age years) has a much larger contribution from “maximize revenue by securing skilled talent.”

In the next section, we quantify this concept of the value chain of talent by using an ROI model. We seek to understand what the potential returns to business are from investing in education by using India as a case study.

The Return on Investment in Education: India Case Study

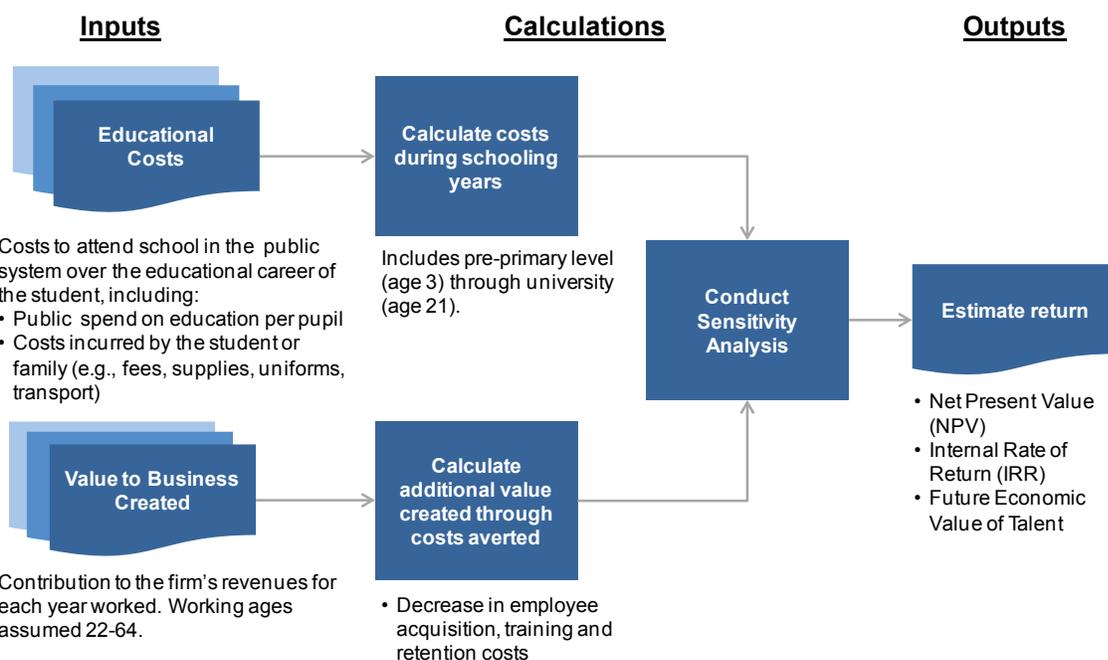
The ROI in education for the private sector would vary based on a variety of factors related to the costs for education in a particular country (public, private and individual costs) as well as the nature of private sector organization (industry sector and type of company—global, local or regional). Given these complexities, we have chosen to illustrate the ROI using data for India. We use an ROI model, as shown in figure 18, which analyzes educational costs incurred during schooling years against returns to the individual's employer during the person's working years.

An Analysis of the ROI for Education to Business in India

In calculating the ROI for education using the model explained above, we have used data from publicly available sources, including average costs in the Indian public educational system and average salaries from the Indian labor market. Each of the relevant calculations are described below with the following assumptions:

- **Working age:** We assume the individual enters the workforce upon graduation from university at age 22 and works until age 64. The Organization for Economic Cooperation and Development (OECD) defines “working age population” as ages 15-64. Although the current average retirement age in India is 60, following trends in developed countries, it is assumed that the retirement age will climb in the future.²⁹

Figure 18. Methodology: Analyzing Potential Returns to the Private Sector from Investments in Education



Note: This approach employs the "full discounting method" referred to by as opposed to the Mincerian earnings function commonly used by labor economists. "The Profitability Of Investment In Education: Concepts and Methods."

- **Inflation adjustment:** Cost data available for the various metrics used in our analysis included figures from different years (1999-2013). To account for this variation, a 7 percent annual inflation adjustment has been made for cost increases as necessary to bring all costs up to the 2013 level. This inflation rate is the 10-year historical average of annual inflation rates in India from 2002 to 2012.
- **Exchange rate:** Conversions from figures reported in Indian rupees to dollars have been made at a rate of 54.3 rupees to \$1 (the market rate as of March 2013).
- **Discount rate:** Investment calculations have been made using a discount rate of 7.5 percent, reflecting the India Central Bank interest rate as of March 2013.

Educational Costs

The model includes both public and private education costs (those costs incurred by the individual or family that are not covered by public funds, such as fees, uniforms and transportation) in order to represent the "total cost" of education in India. Table 1 highlights the cost of education by level used in the analysis.

Table 1. Education Costs in India by Education Level				
Education Level	Typical Age Group	Annual Public Expenditure per Pupil	Average Private Cost per Pupil	Total Education Cost by Level
Pre-primary (Pre-K)	3-5 years	\$93	-	\$93
Primary (Class 1-5)	6-10 years	\$354	\$39	\$393
Middle (Class 6-8)	11-13 years	\$737	\$58	\$795
Secondary (Class 9 – 12)	14-17 years	\$737	\$120	\$857
University (undergraduate)	18-21 years	\$4,144	\$1,657	\$5,801

Sources: *Education for All, Statistics Tables—Long Version, table 11 (figures at purchasing power parity in constant 2009 dollars; "IIT Fee Hiked," Times of India, January 8, 2013; Indian Ministry of Statistics and Programme Implementation, "Education in India 2007–2008, Participation and Expenditure," 2010.*

For each year of life from age 3 to 21 years, the total cost of education is calculated by aggregating public and private investments in education. The approximate total cost of education in India is \$31,262, with \$23,782 subsidized by public funds and \$ 7,479 incurred by the individual or family.

Estimating Value to the Business

Factor 1: Revenues Generated per Employee

Our analysis uses “revenue per employee” as an overall measure of employee value returned to the business, including factors such as additional sales generated, knowledge capital created and intellectual capital developed. This metric is commonly used by human resources practitioners to demonstrate the contribution of each employee to a company’s overall performance.

We selected nine Indian companies across industries listed on the Bombay Stock Exchange as a representative sample for our analysis. The annual revenue per employee per organization is provided in table 2.

We considered alternative options to capture the value generated to the business. These included “profit

per employee” and “employee salary and wages.” However, “profit per employee” was not considered an appropriate measure to represent the value to a business because human resources industry experts point out that use of this metric can be problematic since labor cost is a significant expense for most employers, and using profit per employee would involve a labor cost dimension at both the bottom and top of the fraction. In contrast, previous research on the returns on investment in education by labor economists has typically used “employee salary and wages” as a measure of value.³⁰ However, it is our perspective that this is a measure of benefit to the individual, and from the perspective of a business/organization, it would represent a net outflow or cost factor—not a reflection of the value generated to the business.

Factor 2: Talent Acquisition and Management Costs Averted

This includes the cost of recruitment, retention and attrition as well as training and development costs. This cost has been estimated at about 15 percent of an employee’s annual salary, based on human resources industry benchmarks. The model incorporates average salaries by career level to account for the rising

Table 2. Revenue per Employee: Industry Comparisons				
Company	Sector	Annual Revenue	Number of Employees	Revenue per employee
ITC Limited	Consumer Goods	\$4,806,600,000	25,165	\$191,003
ICICI Bank	Financial Services	\$7,386,700,000	56,969	\$129,662
Tata Consultancy Services	Information Technology	\$8,976,900,000	238,583	\$37,626
Larsen & Toubro Limited (L&T)	Capital Goods	\$276,900,000	48,754	\$5,680
Oil and Natural Gas Corporation Limited (ONGC)	Energy	\$26,873,600,000	32,862	\$817,771
Bharti Airtel Limited	Telecom	\$13,118,400,000	30,000	\$437,280
NTPC Limited	Power	\$12,098,000,000	25,511	\$474,227
Tata Steel	Metals & Mining	\$24,400,400,000	81,622	\$298,944
Maruti Suzuki India Limited	Automotive	\$6,462,200,000	9,100	\$710,132

Note: Selection: Companies were selected based on a listing on the Bombay Stock Exchange, primary location for operations and headcount in India. Locations: Revenues and employees may include figures from outside India, as location-specific figures are not widely reported. Year: All revenue and employee figures were reported for fiscal year 2012. Sources: Company income statements for fiscal year 2012 and Business Week. Figures are reported in dollars, and the number of employees reported is that at the end of fiscal year 2012.

cost of talent management over the employee's career. Average salaries by career level have been taken from publicly available sources.³¹

Calculation of Investment Return

For each year of life, the total cost of education was subtracted from the total value to the business to create a series of annual cash flows. From the start of schooling at age 3 through the end of university studies at age 21, the net annual return is negative since educational costs are incurred but the generation of value to the business (through revenues) has

not yet begun. From a "value chain of talent" perspective, returns are "below the x-axis" (as highlighted in figure 17 above). Beginning at age 22 and until age 64, educational costs are no longer incurred and working years begin. Annual returns become positive as value is contributed to the business in the form of revenue generated and talent costs averted. From a "value chain of talent" perspective, returns are now "above the x-axis" (as highlighted in figure above). Based on cash flows from schooling through working age (ages 3-64), the internal rate of return (IRR) was calculated. This is the "annualized effective compound rate," or the discount rate that makes the net present value

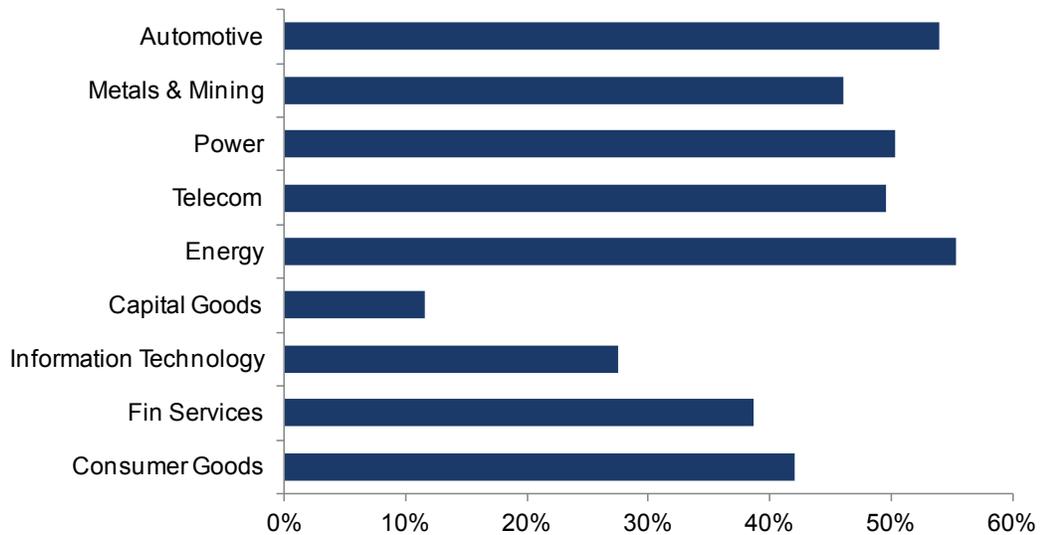
(NPV) of all cash flows (both positive and negative) from a particular investment equal to zero. In more specific terms, the IRR of an investment is the interest rate at which the NPV of costs (negative cash flows) of the investment equals the NPV of the benefits (positive cash flows) of the investment. Our analysis found that the IRR for investment in education across industries is 42 percent. The IRR per company selected/industry represented is presented in figure 19.

We further explored the ROI for investment in education in terms of the “future economic value of talent.” That is, what is the value of \$1 invested today in 20 years when an individual completes his or her educa-

tion? In business terms, although clearly not in human terms, one could draw parallels with investments in fine wine or forestry. Wines aged in a cellar for 20 years or trees allowed to grow to their full size will be far more valuable than the price paid for them today.

So, by using an NPV calculation, which compares the value of a dollar today to the value of that same dollar in the future while taking inflation and returns into account, we analyzed the value of education for a single person. The NPV of the cost of education (age 3) and at the start of employment (age 22) have been calculated using data from a “typical” Indian company with primarily Indian operations.

Figure 19. The Internal Rate of Return across Industries on Investments in Education



Note: Annual returns shown use Internal Rate of Return (IRR) calculation. Analysis using a sample of firms from the Bombay Stock Exchange; figures publicly reported for FY 2012¹. Education costs include 2010 public education expenditures² and average family-paid costs reported in 2008 adjusted for annual inflation³.

Sources:

- 1. FY12 company financial statements via Business Week*
- 2. EFA Global Monitoring Report 2012*
- 3. Indian Ministry of Statistics and Programme Implementation, 2008*

Table 3. The Future Economic Value of Talent	
Value of Investment	Total Net Present Value (NPV)
Total investment in education (at start of education)	\$10,543
Total Value returned to the business (at the completion of education)	\$530,999

As shown in table 3, every \$1 invested at the start of education returns about \$53 at the start of employment for a typical Indian company. Our analysis has indicated that the “future economic value” of a multinational company with operations in India would be far greater—to the tune of a \$132 return at the start of employment (this is due to the higher revenue per employee of multinational companies as compared with local companies).

Education Is a Good Investment for Business

Based on in-depth analysis of data on India for education costs as well as revenues across industries (taking specific companies as examples), there is a clear case to be made for private sector investment in education. On average, as noted above, across multiple industries in India, investment in an education has a rate of return at an average of 42 percent.

Modest early-stage investments to ensure that each child attends school, remains in school and learns in school can yield significant economic returns. Indeed, using data from a “typical” Indian company, we have found that \$1 invested in education today returns \$53 in value to the employer at the start of a person’s working years. Furthermore, these investments have broad-reaching effects as the opportunity cost for “lost talent”—namely, young people who do not survive due to preventable child mortality, let alone thrive and make it through the education system—has a significant impact on a country’s overall economic performance. In India alone, nearly two-thirds of children born each year do not finish secondary school, representing an opportunity cost of over \$100 billion to national annual economic output, equating to about 5 percent of GDP.

INNOVATIVE INVESTMENT MODELS TO SUPPORT EDUCATION

Given the substantial business case for private sector investment in education, private sector capabilities and resources can be utilized in two ways to address the growing challenges for equitable access to a good-quality education, especially in emerging markets and developing economies. Our call to action is for private sector support to bridge the increasing funding gaps in education highlighted in the first section above (figure 6). In this section, we explore the benefits of new innovative funding mechanisms that enable collective action to bridge the funding gap in global education. The ultimate goal would be an outcome driven marketplace with educational attainment that would attract sources of both investment and innovation.

Traditional Funding Models: Gaps and Limitations

As highlighted by various stakeholders in the development sector the development paradigm of the past 50 years—one of grants and concessionary loans to developing country governments—is now in crisis.³² The current paradigm in development aid involves primarily the building of infrastructure and service capacity, with major emphasis on getting the money out the door within the project cycle and on having a handover of infrastructure to governments. This model gives a very limited focus to factors that ensure the sustainability, efficiency and affordability of services related to governance, behavior change, operations and maintenance, and capacity building. Currently, the focus is on the amount of money that the donor gives away (input models) and on funding individual programs with their own metrics (output models). Similarly, the philanthropic world of private founda-

tions and civil society is even more fragmented, and a sectoral focus ignores the interdependence of many issues. The introduction and scaling up of development innovations and solutions are also hindered by these traditional donor mechanisms due to the need for continued financial support and highly complex bureaucratic, rule-based management systems that often stifle innovation.

The constraints under which traditional development actors operate are particularly relevant in cases related to the application of commercial and financial innovations to social issues. The narrow categorization of profit or not-for-profit funding models calls for an examination of an alternate paradigm. Our proposition is for a development approach that starts with a focus on the inherent value or worth of the services as opposed to the cost of providing services. This alternate paradigm can be supported by innovative funding models to drive new capital and private sector solutions for solving critical and often chronically underfunded social causes.

Larger-Scale Opportunities: Paradigm Shift to Outcome Models

Traditional input and output models direct development funding via grants or subsidies to governments or other implementing agencies based on an estimate of the cost of providing a set of given services to a target population. The input model system allocates capital without repayment to the financier, which often fails to leverage further funds to ensure sustainability. The outcome model, conversely, takes the value of services to the target population and society as a starting point. It recognizes that within the current set of conditions, the market alone cannot deliver the required services to the target population due to a lack of recognition of the benefits of the services by the consumer; low willingness or capability to pay

a price at which services can be delivered; or large share of benefits, which are nonexcludable (a characteristic of public goods) that are external to the consumer or payer.

The last 10 years have seen substantive growth in what could be loosely called bottom up development models. These “social entrepreneurial solutions,” called “impact investing” or “social finance,” involve the application of business skills to social issues by adapting the principles of the capital markets to social purposes. Social finance is being reinforced by new legal frameworks, new intermediaries, new distribution systems and access to new technology. Ultimately, it is in marrying and adapting these innovations that the opportunity lies to create larger-scale collaborations that will allow us to address issues such as universal access to a good-quality education. These social finance funding mechanisms would allow propagation of local or context-specific innovations but also introduce global or broad-based funding mechanisms that are focused on specific social issues (e.g., education) and incentivize the delivery of tangible, auditable social outcomes. The details would need to be worked through, but a new initiative within the global education community, the Learning Metrics Task Force, provides a framework around which this can be organized. This initiative recommended a small number of education outcomes indicators to be tracked globally. There is broad buy-in around these indicators (participants from 110 countries were involved in their development) and the framework tracks progress throughout a child’s educational career starting with early childhood development and finishing with youth competencies.³³

In short, with the innovations in development financing, hybrid social finance mechanisms incentivize innovation collaboration and the delivery of public services at economies of scale by local and global partners.

Social Yield Notes: Concept and Opportunities

In this report, our purpose is not to be exhaustive with the details of how potential impact investing or social finance funding models can be structured to support and implement education-related innovations at scale. However, there is increasing interest in these models within the education sector, as seen in experiments with early childhood development in the U.S. state of Utah as well as new interest among global education policy actors, including within the Global Partnership for Education. In this section, we introduce a particularly noteworthy model that involves the application of “structured investment products” to development, currently known as social impact bonds (SIBs) and development impact bonds (DIBs), but with some additional financial innovation married to new legal hybrid company structures that create “social yield notes” (SYNs). These products will facilitate multistakeholder outcome models, which in addition to the traditional benefits of a proposed SIB or DIB also change the incentives to facilitate innovation, collaboration and scale. They effectively move development from a model of bilateral grants and aid to an equity framework, where the equity has a value as a function of the delivery of social outcomes. This product is gaining particular focus and interest due to the potential size of the market—the monetization of the externalities measured in education (e.g., health, nutrition), and as such it cuts to the very heart of the perceived value created by each of the players; and second, in its more sophisticated form, it facilitates a paradigm shift from the dominant bilateral input (i.e., how much money) and output models (of funding individual projects) to one focused on multistakeholder, multireturn solutions with financial return defined by collaborative partnerships delivering tangible, auditable social outcomes. Ultimately, it is also worth noting that many of these structures create cash flow as a function of the delivery of a social outcome—so, in

the medium term, it can potentially be reframed as different financial products (financial product development at a basic level simply being defined as the reallocation of cash flows).

SYNs are a proposed new iteration and marriage of three existing instruments—a legal hybrid (the U.S. L3C and the proposed U.K. SELLP—a form of LLP/LLC), and an SIB/DIB, together with a long-standing capital market structure (liquid yield option note—a zero convert). As an outcome model, SYNs are designed to create an investment vehicle with the social mission hard-wired that is standardized (applicable to any social issue), and incentivizes multipartnership (for-profits/not-for-profits, governments, multilaterals, citizen sector, local government) to work in a single collaborative partnership governance structure with goals, governance and incentives aligned, and with social mission hard-wired. In addition, it allows donors and funders of development initiatives (i.e., multilaterals, social hybrids and governments) to assess budgets and frameworks holistically rather than driving this from just the individual innovation—as is incentivized by the traditional model of grants and aid. See figure 20 for a sketch of how SYNs work.

This structure allows different players in the partnership to each gain a different economic and social return from the structure:

- For investors: It allows different risk returns to be taken by each class of investor in the structure, allowing effective cross-subsidization. For the for-profit player in this partnership, it provides access to subsidized capital and the ability to access new markets.
- For social investors: The proposed structure allows social investors (government or foundations),

at their discretion, to cross-subsidize the entry of commercial investors into a partnership, with social impact hard-wired. In addition, if the collaboration provides strong social and economic returns, it allows the social investor (a foundation or social sector participant in the partnership) to receive equity returns based on the success and cash flow of the collaborative partnership.

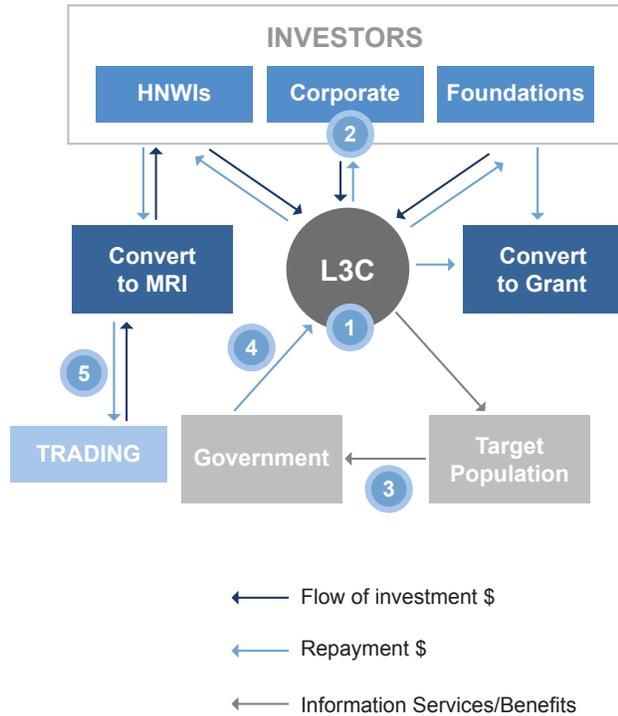
- For implementing agencies: This process allows them to become beneficiaries in the implementation of a new tangible social good, where they now “own” equity, which will have value as a function of the delivery of the social outcomes. Achievement of the mission becomes the driving definer of a structure that can be applied to any social issue.

In essence, this mechanism creates an equity framework (rather than the traditional grant / aid and debt) where social equity = financial equity; this allows actors to individually incentivize different players with differing economic/social drivers. Indeed, it even potentially allows them to incentivize the status quo players (unions, governments, vested commercial interests) in order to change their patterns of behavior. The structure also has the flexibility to be adapted from the early-stage task of stimulating and incentivizing innovation and collaboration to later stages, where the objective may be replicating innovation and partnership models.

Impact investing is simply the application of modern capital market tools where it is currently an unleveraged, unannuitized capital market with a negative 100 percent return (i.e., a grant). These structures use and adapt existing commercial regulatory, legal and capital market frameworks to create a social investment structure that incentivizes and captures the value of innovation, collaboration and economies of scale.

Figure 20. Aspects of Social Yield Notes

SYN: How it Works



1. An implementer creates a limited liability company (L3C) to issue Social Yield Notes (SYN) based on its ability to achieve future savings or benefits by meeting social goals according to an agreement with government/donors.
2. Investors fund the most qualified solution providers by purchasing SYN's from L3C's they believe can accomplish the goal, injecting competition to the goal.
3. Outcomes of the intervention are measured by an independent auditor and reported to Public Sector.
4. The Government (or donor) pays out returns based on level of contractual outcome achieved. Quicker the impact, higher the return.
5. Just like regular bonds, the instruments can be traded in a secondary market, bringing added liquidity to social services.

CONCLUSION: PRIVATE SECTOR INVESTMENT IN EDUCATION IS A STRATEGIC IMPERATIVE

In this report, we have shown the importance of education as not only fundamental to human development but also as a strategic imperative for the private sector. The world's current educational systems will not support the needs of the private sector in the years to come, due to a lack of both resources and technical capacity. Investments in education have a direct impact on the bottom lines of both multina-

tional and domestic firms. Using new impact-driven financing models, these investments may not need to be made at a "100 percent loss"; rather, they could be structured in a way that both motivates capital and incentivizes stakeholders to work together. These synergies have the potential to drive more efficient and effective service delivery—and ultimately more successful educational outcomes. More research is needed to investigate and develop potential models for application in global education challenges. But the value for profit-seeking firms is clear, and the opportunity for investors is ripe.

NOTES

1. UNESCO, *Education for All Global Monitoring Report: Youth and Skills—Putting Education to Work* (Paris: UNESCO, 2012).
2. Ibid.
3. Ibid.
4. Ibid.
5. Organization for Economic Cooperation and Development, *Education at a Glance* (Paris: Organization for Economic Cooperation and Development, 2006), 155.
6. UNESCO, *Education for All Global Monitoring Report: Youth and Skills*.
7. E. Hanushek et al., "Education and Economic Growth," *Education Next* 8, no. 2 (Spring 2008).
8. United Nations, Millennium Development Goals Report (New York: United Nations, 2012).
9. UNESCO, "Education for All Statistics," 2013, analysis of total net enrollment data reported for 2010, table 5. Country groupings by level of income are defined by the World Bank and represent a weighted average rate.
10. Ibid., analysis of total enrollment data reported for 2010, tables 5, 8 and 9A. Primary enrollment data were not available for China, Bangladesh, or Afghanistan; Tertiary enrollment data were not available for Nigeria.
11. UNESCO, *Education for All Global Monitoring Report: Youth and Skills*, 2012.
12. Ibid.
13. Center for Universal Education, *Africa Learning Barometer* (Washington: Brookings, 2012).
14. UNESCO, *Education for All Global Monitoring Report: Youth and Skills—Putting Education to Work* (Paris: UNESCO, 2012).
15. UN Department of Social and Economic Affairs, Analysis of dataset for Annual Population 2011-2100, medium growth scenario, both sexes, 2012. The Organization for Economic Cooperation and Development defines the working age as 14-65 years.
16. World Bank, net migration statistics for 2008-12.
17. Accenture, *New Waves of Growth for India: Unlocking Opportunities* (Bangalore: Accenture, 2011).
18. The sources for these data are company annual reports for fiscal year 2012.
19. Global Partnership for Education and Plan International, "Mobilizing Investment for Equitable Education," April 2013.
20. UNESCO, *Education for All Global Monitoring Report: Youth and Skills*.
21. Ibid.
22. PricewaterhouseCoopers, *Delivering Results through Talent: The HR Challenge in A Volatile World* (New York: PricewaterhouseCoopers, 2012).
23. International Labor Organization, analysis of 2012 data from the Global Wage Database.
24. Deloitte, *Compensation Trends Survey, 2012-13* (New York: Deloitte, 2012). 142 organizations in India participated in this survey.
25. Ibid.
26. Ibid.
27. The source for these data is the National Association of Software and Service Companies of India.
28. Ibid.
29. OECD Fact book 2013.
30. World Bank, Human Capital Development and Operations Policy Working Papers, *The Profitability of Investment In Education: Concepts and Methods*, George Psacharopoulos, (Washington DC: World Bank, December 1995).

31. Employee-reported salary rates, as given at www.payscale.com.
32. United Nations Secretary-General's High-level Panel on Global Sustainability, *Resilient People, Resilient Planet: A future worth choosing*. (New York: United Nations, 2012), and United Nations Economic and Social Commission for Asia and the Pacific, *Development Financing for Tangible Results: A Paradigm Shift to Impact Investing and Outcome Models, The Case of Sanitation in Asia* (Thailand: UNESCAP, August 2013).
33. Center for Universal Education at Brookings and the UNESCO Institute of Statistics. *Toward Universal Learning: Recommendations from the Learning Metrics Task Force*, (Washington, DC and Montreal: Brookings and UIS, 2013). See <http://www.brookings.edu/about/centers/universal-education/learning-metrics-task-force>.

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