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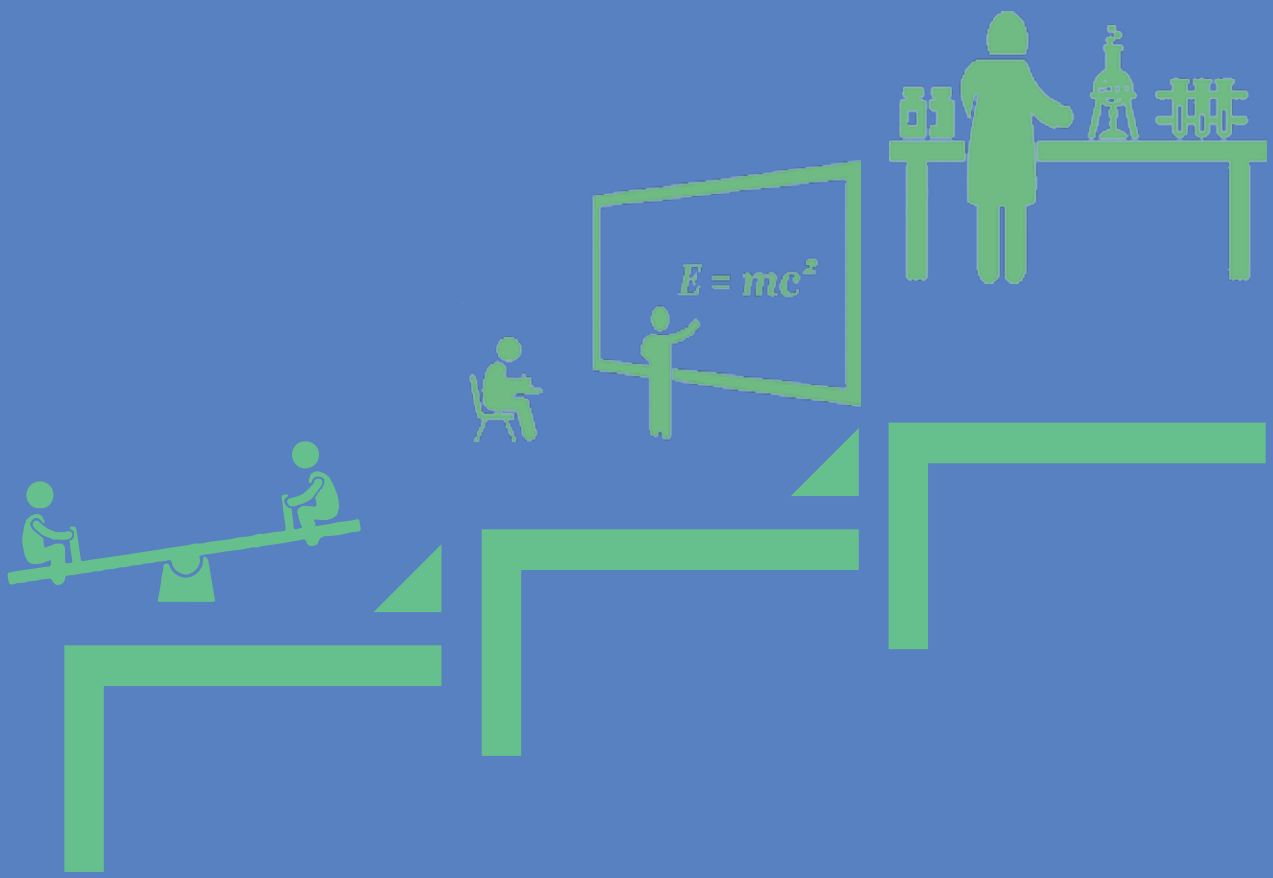
Vietnam Development Report 2014

Skilling up Vietnam: Preparing the workforce for a modern market economy

Overview Report



THE WORLD BANK

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This report would not have been possible without data from the World Bank's Skills Toward Employment and Productivity (STEP) skills measurement project which collects information on workforce skills in multiple countries across the world, including in a first round in Vietnam, Yunnan Province of China, Lao PDR, Sri Lanka and Bolivia in 2011/2012. The Vietnam surveys were managed by Maria Laura Sanchez Puerta and Alexandria Valerio from the World Bank's Human Development Network under the overall guidance of Ariel Fiszbein, the Network's Chief Economist.

Executive Summary

Education has played an important role in making Vietnam a development success story over the last twenty tears. Vietnam's rapid economic growth in the 1990s was driven predominantly by productivity increases that came in the wake of a rapid shift of employment out of low productivity agriculture into higher productivity non-farm jobs. Vietnam's economy began to industrialize and modernize. Poverty fell dramatically. And education played an enabling role. Vietnam's committed effort to promote access to primary education for all and to ensure its quality through centrally setting minimum quality standards has contributed to its reputation for having a well-educated, young work force. New evidence presented in this report shows that literacy and numeracy among Vietnam's adult workforce is widespread and more so than in other countries, including wealthier ones.

But Vietnam is facing new challenges. The pace of economic growth and the reallocation of jobs away from agriculture have slowed in the wake of structural problems in the enterprise and banking sectors and macroeconomic turmoil in recent years. Capital investments, and not productivity, have become the main source of economic growth. This is not a sustainable model for ensuring continued rapid economic growth. While the size of its workforce is still expanding, its youth population is shrinking. This means that Vietnam cannot continue to rely on the size of its workforce for continued success; it needs to focus on making its workforce more productive.

A skilled workforce is central to Vietnam's economic modernization

Equipping its workforce with the right skills will, therefore, be an important part of Vietnam's effort to accelerate economic growth and further its economic modernization in the coming decade and more. Judging by the experience of its more advanced neighbors, economic modernization will involve a shift in labor demand from today's predominantly manual and elementary jobs towards more skill-intensive non-manual jobs, from jobs that largely involve routine tasks to those with non-routine tasks, from old jobs to "new" jobs. And "new" jobs will require new skills.

These new jobs can already be found in today's labor market, but Vietnam's employers struggle to find the right workers for them. Despite impressive literacy and numeracy achievements among Vietnamese workers, many Vietnamese firms report a shortage of workers with adequate skills as a significant obstacle to their activity. A majority of employers surveyed for this report said that hiring new workers is difficult either because of the inadequate skills of job applicants (a "skills gap"), or because of a scarcity of workers in some occupations (a "skills shortage"). Unlike many countries around the world today, Vietnam does not suffer from low labor demand; its employers are seeking workers, but they cannot find the workers that match their skill needs.

Wanted: Cognitive, behavioral and technical skills

What skills are in demand in Vietnam's non-agricultural labor market today? Employers identify job-specific *technical skills* as the most important skill they are looking for when hiring both white and blue collar workers. Such technical skills include, for example, the practical ability of an electrician to do the job. But employers are equally looking for *cognitive skills* and *behavioral skills*. For example, next to job-specific technical skills, working well in teams and being able to solve problems are considered important behavioral and cognitive skills for blue collar workers. When employers hire white collar workers, they are expecting that they can think critically, solve problems, and present their work in a convincing manner to clients and colleagues.

In short, Vietnam's new jobs require that workers have good foundational skills, such as good reading ability. But in order to be successful in the future, workers also need more advanced skills that help them to be responsive to changes in workplace demands. Vietnam's education system has a strong

track record in producing strong foundational skills, but faces greater challenges in producing the advanced skills demanded that will be increasingly demanded in coming years.

Three steps for a holistic skills strategy for Vietnam

This report summarizes emerging evidence on the formation of cognitive, behavioral and technical skills. Cognitive skills formation is the most intensive in the very early years in life and continues through adolescence. Behavioral skills are also first formed in childhood, and continue to evolve throughout adult life. Moreover, stronger cognitive and behavioral skills will help workers to continuously update their technical skills during their working lives. This will rise in importance as Vietnam's population ages, as production in Vietnam becomes more technically sophisticated and as workers need to catch up with technological changes occurring during their longer working lives. What does this mean for Vietnam's education and training system? This report proposes a holistic skills strategy for Vietnam which looks at today's workforce as much as the future workforce. It entails three steps:

Step 1: Promoting school readiness through early childhood development

Vietnam can do more to promote school readiness through early childhood development interventions. Efforts at expanding access to preschool education for 3-5 year-olds are showing success but more attention is needed for children aged 0-3, in particular on tackling malnutrition. Almost a quarter of the children below the age of 5 are stunted. In Vietnam and around the world, stunting has been found to strongly negatively affect cognitive skills development. Some stunted children remain behind for the rest of their lives. Vietnam cannot afford that.

Step 2: Building the cognitive and behavioral foundation in general education

Vietnam can further strengthen the cognitive and behavioral foundation skills by promoting more schooling and better schooling in primary and secondary education. This entails expanding enrolments in full-day schooling and preventing early school leaving after primary and lower secondary education as well as renovating the curriculum and teaching methods to help Vietnamese students to become more effective problem-solvers, critical thinkers, better communicators and team workers. Work on a new curriculum is already under way, and Vietnam has adapted a promising model from Colombia called Escuela Nueva which features more group learning and problem-solving than the memorization and copying often seen in Vietnamese primary school classrooms today. A pilot under way in 1,500 schools across Vietnam is already showing successes and holds lessons for broader reforms.

Step 3: Building job-relevant technical skills through a more connected system

Vietnam can build better and more relevant technical skills among its graduates and labor market entrants. Technical skill shortages and gaps are not the concern – they are indicators of a dynamic economy which creates new, more skill-intensive jobs. The concern is whether the education and training system is equally dynamic in adjusting quickly to ensure the supply of technical skills keeps up with the constant and accelerating evolution of the demand for technical skills.

Ensuring that Vietnamese graduates come with the right job-relevant technical skills requires that firms, universities and vocational schools, and current and prospective students become better connected. Better coordination and partnerships can help improve the *information* about what skills employers need and are likely to need in the future. Better information on graduates' job placements can help future students to choose the best schools, universities and programs. Occupational competency standards and certification systems can improve the information about the skills that workers possess. More autonomy in decision-making coupled with accountability for the employability of their graduates (*the right incentives*) and better skilled staff and equipment (*enhanced capacity*) will

help universities and vocational schools to effectively respond to the information on employer needs. Scholarship programs can provide more, including disadvantaged, students with opportunities.

The government plays an important role in a more dynamic and better connected skills development system. Rather than planning and managing the education and training system centrally and top-down, the government should help to overcome the disconnects through empowering students, universities and schools and firms to make good decisions – by facilitating the flow of information, by providing the right incentives to schools and universities to be responsive to information and through carefully investing in raising their capacity.

The time to act is now

Vietnam's continued transformation towards a successful industrial, middle-income economy is not automatic or guaranteed. Structural reforms in the enterprise and banking sectors and sound macroeconomic policies will matter in ensuring continued fast change, but so will the quality of Vietnam's workforce. Changes in education and training can take a generation to result in a workforce equipped with the right skills. The time to modernize skills development is now to ensure that worker skills do not become a bottleneck.

Preparing the workforce for an industrial economy is not just the government's job. It requires a change in behavior by all actors in skills development – employers, schools and universities and students and their parents alike. Firms and universities need to build close partnerships. Parents need to become more involved in their children's schooling. Students need to expose themselves to the world of work even prior to their graduation. In rural areas, all parties need to ensure that children from disadvantaged backgrounds have the opportunity to meet their full potential. The role of government is to facilitate this change in behavior by helping to ensure a better information flow between all the actors, to address capacity constraints including financing capacity, and to set the right incentives by freeing up universities to partner more effectively with businesses.

Skilling up Vietnam: Preparing the workforce for a modern market economy

Vietnam is a country undergoing multiple transitions. The transition from central planning to a market economy, started in 1986 with the đổi mới (renovation) reforms, is much advanced but not yet complete. The same is true for the transition from an agricultural to a modern, industrialized economy. In advancing along these parallel transitions, Vietnam has been counting on one of its biggest assets – its abundant young workforce. But Vietnam is also going through a demographic transition towards an aging society. While the size of its workforce is still expanding, Vietnam's youth population is shrinking. This means that Vietnam cannot continue to rely on the size of its workforce to advance these transitions; it also needs to focus on making its workforce more productive.

A skilled workforce is central to the success of Vietnam's economic and social transitions. There is a long-standing consensus across Vietnamese society on the importance of education. The focus on education is evident in considerable public and private investments and growing levels of educational attainment. There is also, however, an equal consensus that Vietnam still needs to do more to develop the "skills", or "quality" of its workforce – one of the three breakthrough goals of the country's ten-year socio economic development strategy for 2011 to 2020. Today, a growing public debate among students, parents, employers, educators and policymakers is underway on what skills are required in the modern market economy, how to ensure that these skills are developed in future graduates and how each of the stakeholders can play a role in improving workforce skills.

The 2014 Vietnam Development Report seeks to contribute to the public debate on the topic of "skills" and to inform Vietnam's strategic skills development. Using new survey instruments developed by the World Bank, the report analyzes the demand for skills by Vietnamese employers in the greater Hanoi and Ho Chi Minh City region, Vietnam's economic growth poles, and assesses the skills profile of the working age population in urban Vietnam (see Box 1). Based on this analysis, it examines how and when different types of skills are formed and what this means for reforming the education and training systems. It will propose a set of policy recommendations along three steps of a holistic skills strategy: first, promoting school readiness through early childhood development; second, building the cognitive and behavioral foundation in general education; and, third, building job-relevant technical skills through a more connected system.

Box 1. Analysis of demand and supply of skills using the World Bank's STEP Household and Employer Surveys

The Vietnam Development Report presents analysis based on two new and innovative data sources. Vietnam participated in the World Bank's Skills Toward Employment and Productivity (STEP) skills measurement project which collects information on workforce skills in multiple countries across the world, including in a first round in Vietnam (urban), Yunnan Province of China (urban), Lao PDR (urban and rural), Sri Lanka (urban and rural) and Bolivia (urban). The Vietnam STEP data were collected in late 2011 and 2012. The STEP data consist of two surveys, a household and employer survey, aimed at collecting information on the supply and demand for skills in the population of Ho Chi Minh City and Hanoi. The employer and household survey uses the same skills concepts and definitions, which enables the analysis of skills constraints from the demand and supply side perspectives.

The STEP household survey managed by the General Statistics Office (GSO) collected detailed information on education, skills, work history, family background and labor market outcomes for 3405 individuals of working age (between 15-64). The survey includes three modules to capture different types of skills, notably: (i) a test of reading literacy to assess the level of competence of the individual to access, identify, integrate, interpret and evaluate information; (b) self-reported information on personality and behavior; (c) questions on task specific skills that the respondent possesses or uses in his or her work. The STEP Employer Survey was conducted by the Central Institute of Economic Management (CIEM) in Ho Chi Minh City and Hanoi and immediately surrounding provinces; it can therefore be considered to be representative of these two major urban conglomerations. The Employer Survey gathers information on hiring, compensation, termination and training practices as well as enterprise productivity. The survey includes questions to identify: (a) employers' skills needs and utilization; (b) the types of skills that are considered of most value; and (c) the tools used to screen prospective job applicants.

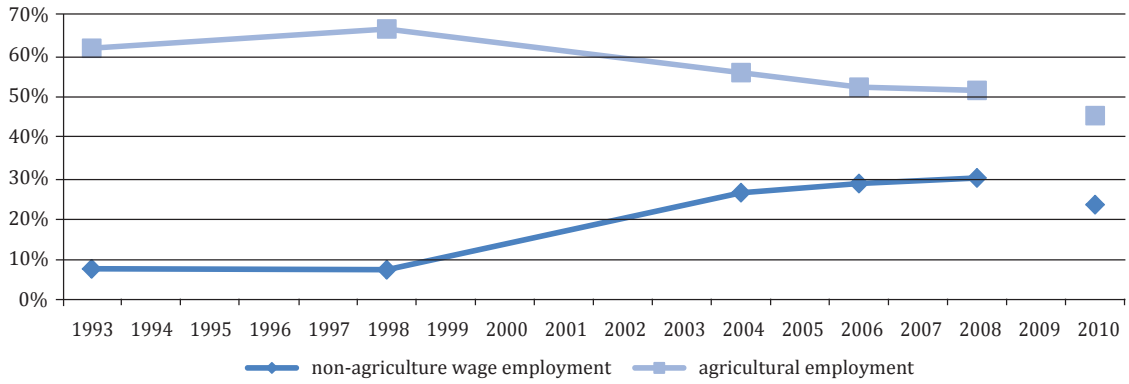
The report also draws on a benchmarking of Vietnam's workforce development system conducted by CIEM with support by the World Bank under the "Systems Approach for Better Education Results" (SABER) which involved a survey of 49 vocational schools and training institutes.

Skills and development in Vietnam

Looking back: Vietnam's shift away from agriculture and the role of education

Vietnam's economy has undergone fundamental structural changes over the last 25 years with a shift of employment from the agricultural sector to wage employment in manufacturing, construction and services. Since the launch of the đổi mới reforms in the late 1980s Vietnam has experienced rapid economic growth, which has catapulted it to middle income status in 2010 and has contributed to a fast decline in poverty (World Bank, 2012b). This economic miracle was initially associated with substantial labor productivity increases – GDP per employed person more than doubled between 1990 and 2010 – that came in the wake of improved agricultural efficiency and a rapid shift of employment out of low productivity agriculture into higher productivity non-farm jobs (Figure 1).

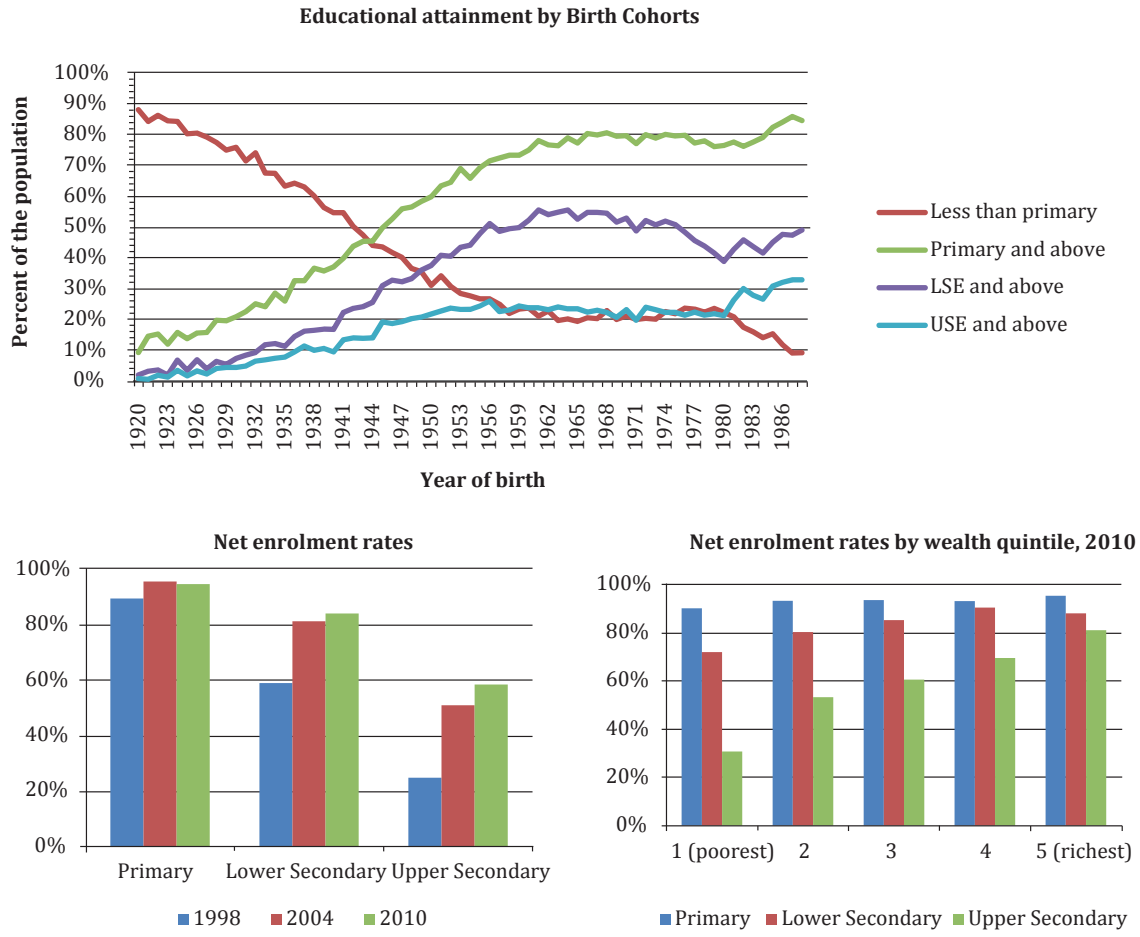
Figure 1: Vietnam's structural transformation from employment in agriculture to the non-agricultural sector



Source: World Bank staff estimates using Vietnam Household Living Standards Survey (VHLSS). Note: The 2010 VHLSS used a new sample frame based on the 2009 census. This captures migration between 1999 and 2009 from rural to peri-urban areas, where fewer workers work in agriculture.

Education has played an important role in supporting and promoting structural change. Vietnam's population has become increasingly well educated. Figure 2 shows the rise in educational attainment across successive birth cohorts. The fraction of the population with less than primary school has plummeted over time, and those born in the period following the đổi mới reforms have attained higher levels of education than any other generation in the history of Vietnam. Vietnam's committed efforts to promoting access to primary education for all has allowed increasing shares of the population to take advantage of greater economic opportunities. The rise in educational attainment has however been uneven across Vietnam. While more and more young people complete primary education, important inequalities in access and attainment remain at secondary levels, affecting in particular children from ethnic minority families or those residing in remote parts of Vietnam. A needed expansion in secondary education will come through greater enrolment of the less well-off.

Figure 2: A large expansion in educational attainment and enrolments, but inequities remain in secondary education

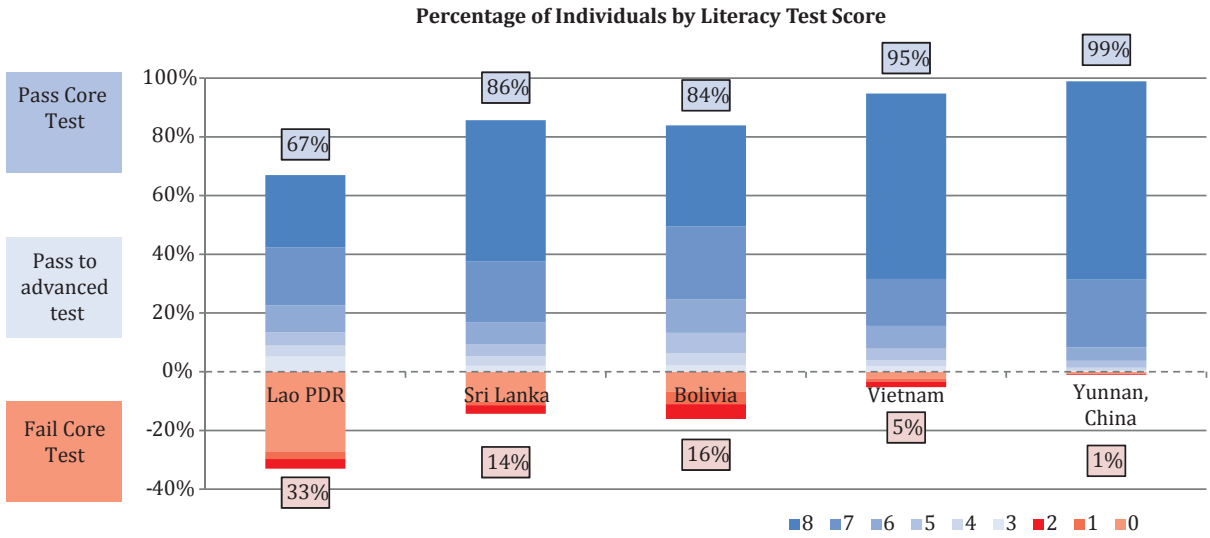


Source: World Bank staff estimations using the VLSS 1998, VHLSS 2004, 2006, 2008 and 2010. For panel A, year of birth was estimated based on age and year of survey. Only individuals older than 22 were included in order to capture those who have completed their education. The sample consists of 103320 individuals from repeated VHLSS rounds.

Education has provided most Vietnamese workers with the key basic skills needed to succeed in the workforce: the ability to read and write at an adequate level. In addition to expanding access, Government efforts to centrally set minimum quality standards have contributed to achieving good basic education outcomes. New evidence from STEP shows that literacy and numeracy among

Vietnam's students and adult workforce is widespread and more so than in other countries, including wealthier ones. In the STEP reading assessment Vietnamese workers outperformed their peers not just in poorer Laos but also in richer Bolivia and Sri Lanka (Figure 3). This new evidence compounds findings from comparable student assessments as part of the Young Lives research project which show that Vietnamese students at various age levels do better in mathematics than students of the same age in India, Ethiopia and Peru (Rolleston, James and Aurino, forthcoming). The message is thus: while inequalities remain, Vietnam's basic education system appears to be doing a fine job at imparting key basic skills for the majority of its students.

Figure 3: The Vietnamese urban labor force has relatively strong basic literacy skills



Source: World Bank staff estimates using the STEP household survey, n=3328. All country samples are restricted to urban only for comparison reasons. The scores reflect performance of individuals on a reading literacy test; individuals who score 3 or more on the test are considered sufficiently skilled to be able to continue on to the next level of the test while those who score below 3 are considered to have failed the test of basic literacy skills. In all countries, the data covers only the urban labor force.

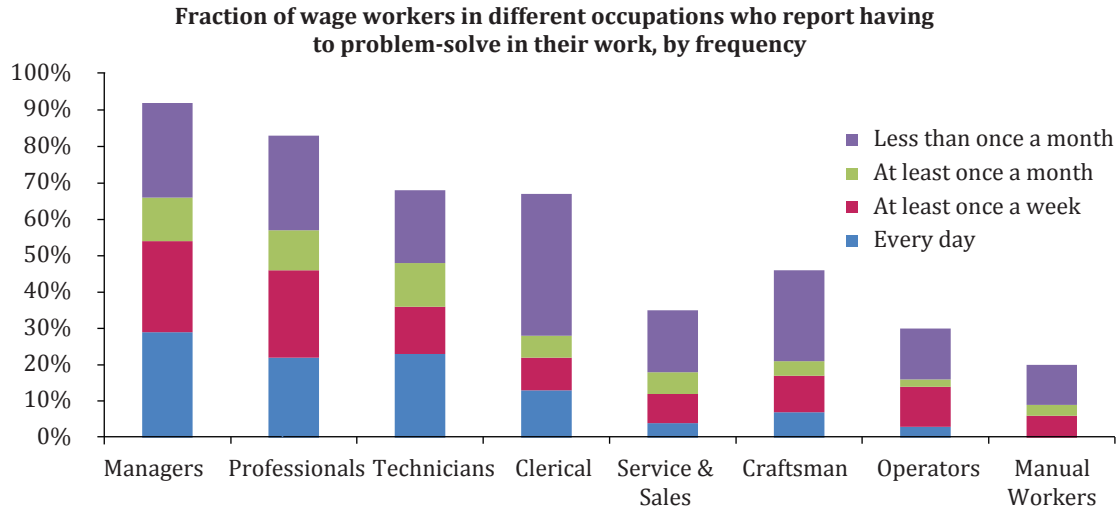
Looking ahead: Modern jobs and changing skill needs

The pace of economic growth and the reallocation of jobs away from agriculture have slowed in recent years. This slowdown has come in the wake of macroeconomic instability, structural problems in the enterprise sector and weaknesses in the banking sector. This has had an effect on the labor market, with evidence of a bifurcation that is associated with educational attainment. While well educated workers are taking advantage of expanding opportunities in the private sector, especially in urban areas, less educated workers, and particularly those in rural areas, are having more difficulty. Less educated workers and youth from rural areas have more difficulty transitioning into the expanding private sector, and are often left in the agricultural sector or in informal employment.

Economic growth has not just decelerated; its composition has also changed compared to the early years of đổi **mới.** While productivity growth was the main driver of GDP growth in the early years of Vietnam's transition, capital investments have become the main source of economic growth in recent years (World Bank, 2012a). This is not a sustainable model for ensuring continued strong economic growth. Vietnam has every potential to continue its success story and achieve fast growth and convergence in living standards with richer nations in the coming decade and more. But in order to do so, it will need to promote labor productivity growth across the board and a continued shift of employment into the non-agricultural sector.

Equipping its workers with the right skills will be an important part of Vietnam's effort to accelerate economic growth and further advance its economic transition. Judging by the experience of its more advanced neighbors such as Korea, Vietnam can expect a shift in labor demand from today's predominantly manual and elementary jobs towards more skill-intensive non-manual jobs, from jobs that largely involve routine tasks to those with non-routine tasks, from traditional jobs to modern jobs. And these modern jobs will require new skills.

Figure 4: Workers in more advanced occupations need to solve problems more frequently



Source: World Bank staff estimates using the STEP Employer Survey. The figure shows responses to the following question: "Some tasks are pretty easy and can be done right away or after getting a little help from others. Other tasks require more thinking to figure out how they should be done. As part of this work as [occupation], how often do you have to undertake tasks that require at least 30 minutes of thinking (examples: mechanic figuring out a car problem, budgeting for a business, teacher making a lesson plan, restaurant owner creating a new menu/dish for restaurant, dress maker designing a new dress)". Respondents were asked to indicate how often they conducted a task of this form. The sample includes only wage employees (n=1313).

Modern skill-intensive jobs are becoming more prominent in Vietnam's labor market and carry high returns. Most non-farm jobs in Vietnam today are in blue collar occupations (craftsmen, machine operators and manual workers) and in the service and sales sector. Better educated professionals and technicians make up less than a quarter of the non-agricultural workforce. However, young graduates are increasingly entering professional and technical occupations. Workers in these occupations report that they need a number of attributes for their jobs: they have to solve problems, learn new things frequently, present ideas or persuade clients at work or interact with non-colleagues (Figure 4). Evidence presented in this report suggests that the nature of tasks performed by Vietnamese workers has been changing from predominantly manual and routine tasks, where workers are asked to perform the same function on a regular basis, towards more analytical, interactive and non-manual tasks where the type of tasks changes regularly. Workers performing these tasks are also better remunerated than their peers in traditional jobs.

However, Vietnam's employers struggle to find the right workers for these modern jobs. Despite impressive literacy and numeracy achievements among Vietnamese workers, many Vietnamese firms report difficulties in finding workers with adequate skills as a significant obstacle to their activity. STEP evidence suggests that worker skills and availability are more binding concerns for employers than labor market regulations and taxes. A majority of employers said that hiring new workers is a challenge either because of inadequate skills of job applicants (a "skills gap"), or because of a scarcity of workers in some occupations (an occupational "skills shortage"). The skills gap is particularly

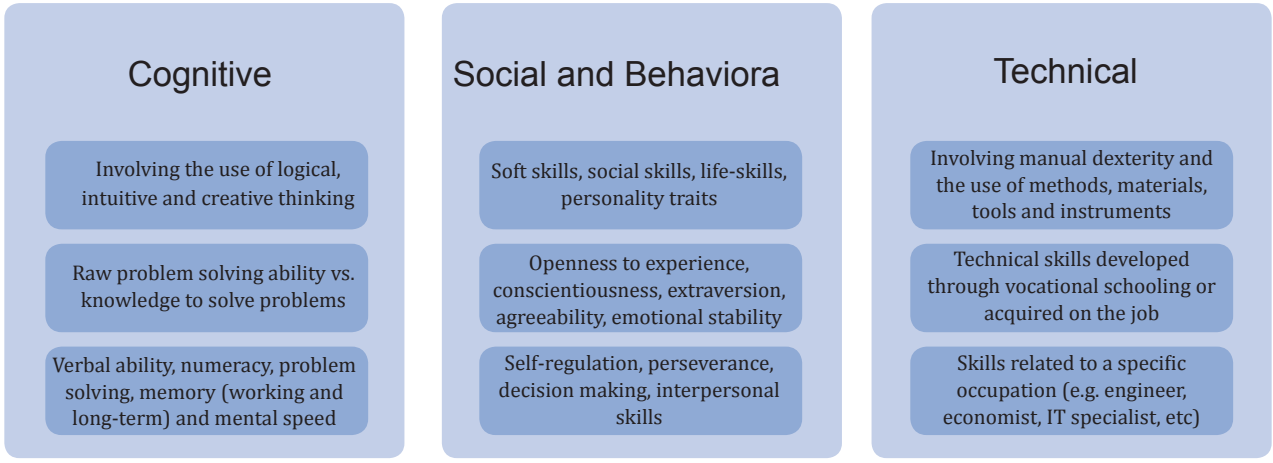
acute among applicants for jobs in technical, professional and managerial occupations – jobs that more likely ask workers to conduct analytical, non-manual and non-routine tasks. In contrast, a skills shortage, or a shortage in applicants in particular types of jobs, is common among more elementary occupations.

What skills are in demand today (and will be in 2020)?

Defining "skills"

A worker's skill set comprises different domains of skills: cognitive skills, social and behavioral skills, and technical skills. These domains cover job-specific skills that are relevant to specific occupations as well as cognitive abilities and the various personality traits that are crucial for success in the labor market. Cognitive skills include the use of logical, intuitive and critical thinking as well as problem solving using acquired knowledge. They include literacy and numerical ability, and extend to the ability to understand complex ideas, learn from experience, and analyze problems using logical processes. Social and behavioral skills capture personality traits that are linked to labor market success: openness to new experiences, conscientiousness, extraversion, agreeability, and emotional stability. Technical skills range from manual dexterity for using complex tools and instruments to occupation-specific knowledge and skills in areas such as in engineering or medicine (Figure 5).

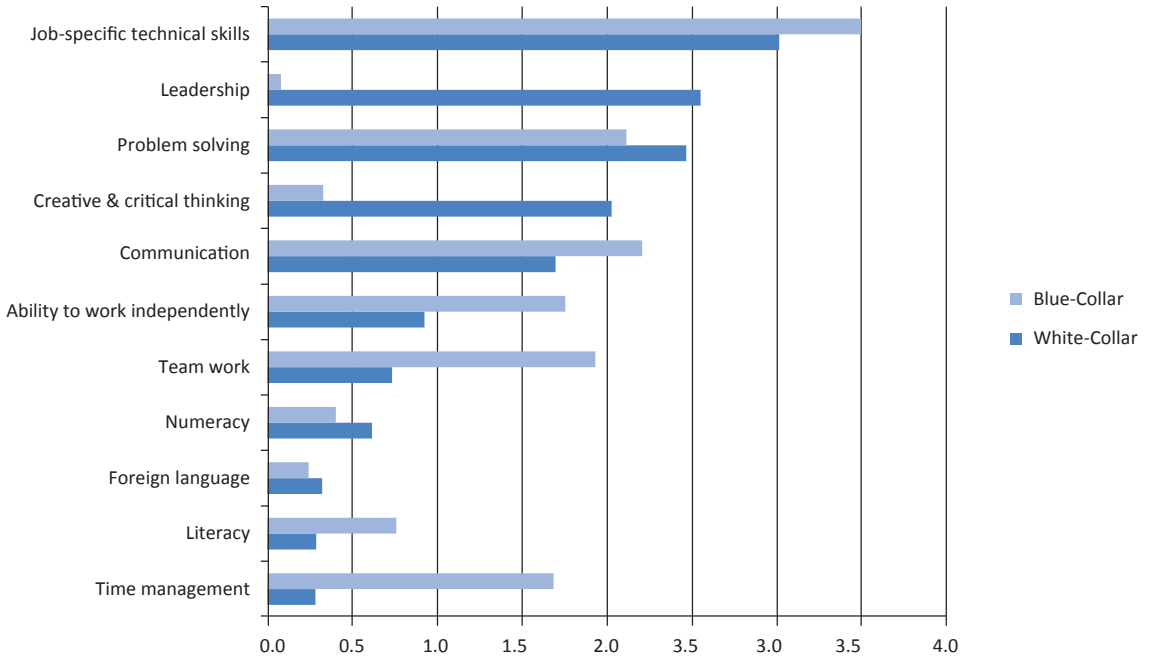
Figure 5: The three dimensions of skills measured in the STEP survey



Source: Pierre, Sanchez Puerta, and Valerio (forthcoming), STEP Skills Measurement Surveys. Innovative Tools for Assessing Skills

Vietnamese employers are looking for a mix of high quality cognitive, behavioral and technical skills. Employers in greater Hanoi and Ho Chi Minh City surveyed for this report identified job-specific technical skills as the most important skill they are looking for when hiring both white and blue collar workers (Figure 6). Such technical skills include, for example, the practical ability of an electrician to do his or her job. However, like employers in more advanced middle and high income economies, employers report that they are equally looking for employees with strong cognitive skills and behavioral skills. For example, next to job-specific technical skills, team work and problem-solving skills are considered important behavioral and cognitive skills for blue collar workers. When they hire white collar workers, employers are expecting that they are critical thinkers, can solve problems, and communicate well. Basic cognitive skills such as literacy and numeracy feature less prominently. That does not mean that they are not important – but it may mean they are simply taken for granted. In short, Vietnam's employers require that workers are good readers, but also good problem-solvers.

Figure 6: Job-related technical skills are viewed as the most important among blue- and white-collar workers



Source: World Bank staff estimates using the STEP Employer Survey. White-collar workers include the following worker types: managers; professionals, technicians and associated professionals. Blue-collar workers are classified as the following workers: clerical support; service; sales; skilled agriculture, craft and related trades, plant and machine operators; elementary occupations. This figure is based on the 328 and 329 firms who reported having at least one worker in the white- and blue-collar category and were willing to respond about the skills used and needed by that worker in his or her work. The differences between blue and white collar occupations are all statistically significant with the exception of job-specific technical skills and communication skills.

How are cognitive, behavioral and technical skills formed?

The skill profile of the Vietnamese workforce reflects investments made throughout their lifetimes. The foundations of cognitive and behavioral skills are formed early and are the platform upon which later skills are built. A skills strategy must take into account all of the points at which skills are formed, and be built up from the early investments made during early childhood to on-the-job training in the labor market. Figure 7 provides a simplified summary of emerging evidence on the different points in childhood and early adulthood during which cognitive, behavioral and technical skills may be formed. This is a fast-moving area of research, with many questions not yet settled. But four features of skill formation are worth noting for the development of a skills strategy.

1. *The most sensitive periods for building a skill vary across technical, cognitive and behavioral skills*. These periods are indicated in bright green in Figure 7; periods during which the skills are less sensitive to investment are indicated in light green and periods where sensitivity is most limited are indicated in blue. Research shows the critical importance of good early stimulation and early childhood development to be able to make the most of one's abilities. Children who fall behind early have a very hard time catching up to their peers. Behavioral skills begin to be formed in the early years and continue to evolve throughout adult life.

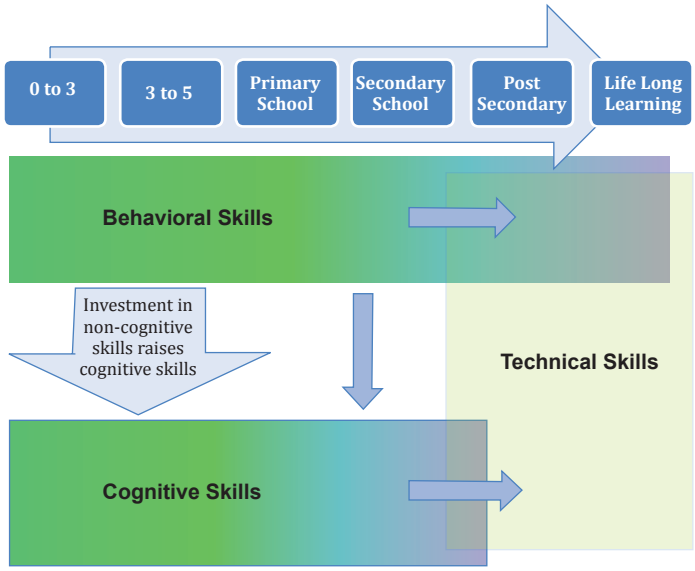
2. *Skill formation benefits from previous investments and is cumulative*. For example, a child who has learned to read fluently by second grade will be able to absorb more in third grade than a child who cannot yet read fluently. This implies that earlier investments are likely to have a greater

longer term impact on skills, since it is easier and less costly to build these skills at the moments when children are most receptive to learning.

3. *Social and behavioral skills are valuable early in a child's life since they support, and benefit from, cognitive skills development.* For example a child who displays more openness to new experiences is more likely to be imaginative, creative and apply themselves at school.

4. *Technical and job specific skills – often acquired last, through technical and vocational education and training (TVET), higher education and on-the-job learning – will benefit from the stronger cognitive and behavioral skills acquired earlier in the education system*. The skills learnt in formal education will help workers to continuously updating their technical skills during their working lives. This will rise in importance as Vietnam's population ages, as production in Vietnam becomes more technically sophisticated and as workers need to catch up with technological progress during their longer working lives.

Figure 7: The process of skill formation – a simplified mode



Source: Authors' illustration based on international evidence from a range of disciplines studying the development of abilities, including psychology, economics, and neuroscience. An excellent overview of this literature can be found in Shonkoff and Philipps (2000), Almlund et al (2011), Cunha, Heckman, Schennach (2010) and Cunha and Heckman (2007).

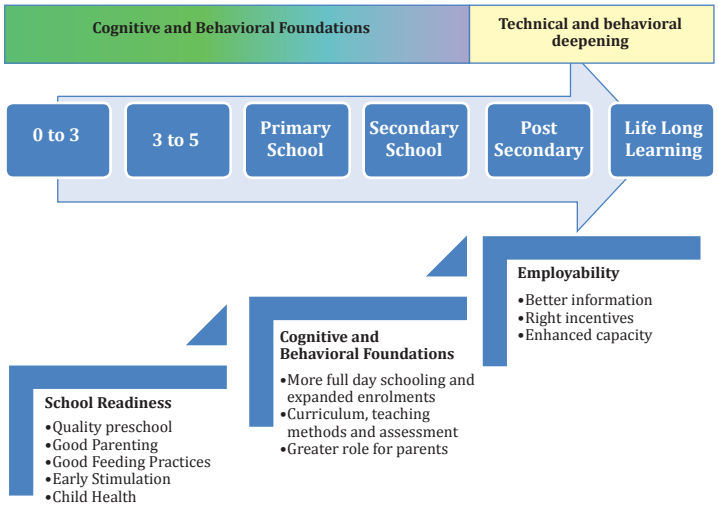
Skills development starts with birth and continues through early childhood education and general primary and secondary education all the way to vocational and tertiary education and on-the-job training. Vietnam's skills development strategy should, therefore, take a holistic approach and look at how to better equip individuals with relevant skills and knowledge along an individual's life cycle. It should look at both existing workers and the pipeline of future workers. This report examines cognitive and behavioral skills acquisition in early childhood and general education and technical skill acquisition in vocational and tertiary education and on the job training.

Preparing the workforce for a modern market economy

Vietnam's general education system has undergone a remarkable transformation since the đổi **mới reforms and is now entering a new phase.** Enrolments have expanded dramatically at every level and Vietnam's population has become increasingly well-educated over the last decades. An initial, successful focus on expanding primary education access and completion, as called for under the Millennium Development Goals, has made way to an increased emphasis on expanding pre-primary, secondary education and tertiary enrolments and raising the quality of provision. This

is expected to help address three key challenges. First, pre-primary education to promote school readiness provides the best chance to overcome remaining inequalities in education. Second, enhanced enrolments at the secondary level and improvements in teaching methods and quality should help enhance the cognitive and behavioral foundation skills of graduates. Third, overcoming disconnects between employers, universities and vocational training providers and (prospective) students can help to ensure that graduates are equipped with better technical skills. A holistic skills development strategy for Vietnam, therefore, should entail three steps (Figure 8).

Figure 8: Three steps in skills development



Source: Authors' illustration

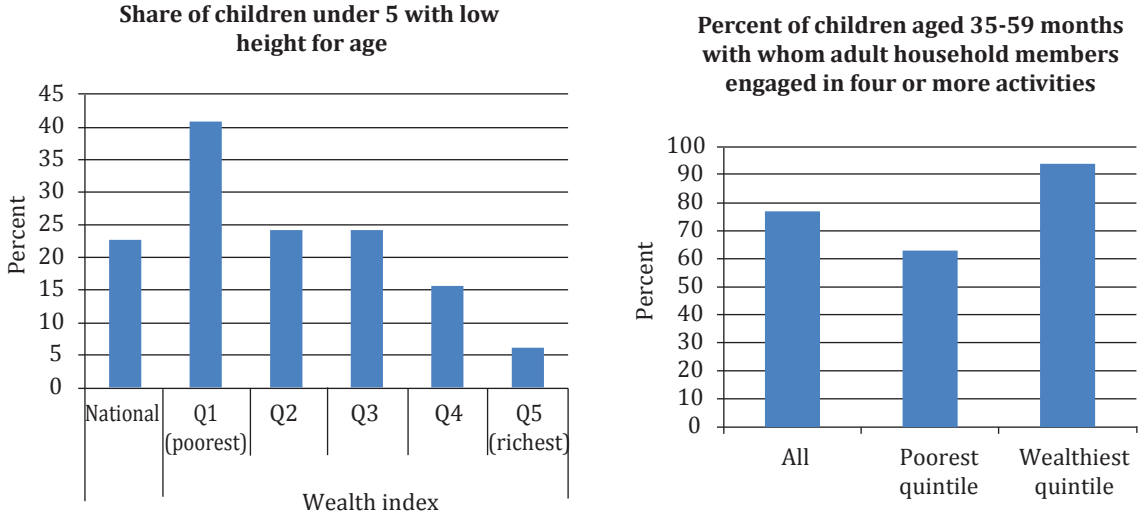
Step 1: Promoting school readiness through early childhood development

Early childhood development and education for children below the age of 6 is the most important entry point for building their cognitive and behavioral skills and making them "ready for school". The right nutrition and stimulation before the age of 3 through effective parenting and quality preschool between 3 and 6 contribute to children's school readiness. The concept of "school readiness" or "readiness to learn at school" represents whether a child entering primary school is able to succeed at school. School readiness is generally considered to be the product of a young child's cognitive, physical and socio-emotional development from an early age onward (Nadeau et al., 2011).

Vietnamese children from poor background are at a disadvantage in their readiness for school. In 2012, the Ministry of Education and Training (MOET) assessed school readiness among 5 year-old children in public preschools, using a survey that adapted the Early Development Instrument (EDI) to measure the development of children across five domains: physical health and well-being; social knowledge and competence; emotional health/maturity; language and cognitive development; and general knowledge and communication skills. The survey showed that children from poor households were significantly behind non-poor children across these domains of school readiness (MOET, 2013).

Malnutrition is a key driver of school "un-readiness". Almost a quarter of Vietnamese children below the age of 5 are stunted (GSO and Unicef, 2011, see Figure 9). Apart from poverty, child malnutrition can be explained by inadequate infant and young child feeding practices, including low rates of breastfeeding. In Vietnam and around the world, stunting has been found to strongly negatively affect cognitive skills development (Le Thuc Duc, 2009). Some stunted children remain behind their peers for the rest of their lives.

Figure 9: Young children from poor household are more likely to suffer from stunting and receive less parental stimulation



Source: GSO/UNICEF 2011

Deficits in school readiness will persist throughout life. Much of the inequality in learning outcomes between young Vietnamese from different backgrounds observed in primary education and beyond is already established before the age of formal schooling. The Government of Vietnam has placed increased focus on enhancing school readiness for 3 to 6 year olds, a policy that is well-motivated and addresses a key area of deficit. Vietnam's efforts at expanding access to preschool education for 3-5 year-olds are showing success but more attention is needed for children aged 0-3, in particular on tackling malnutrition.

Children from poorer households often lack stimulation, which limits their development potential from an early age. The brain development of young children is highly sensitive to stimulation and interaction. The more parents and care-givers interact with a young child, for example through talking, singing or reading, the better are the conditions for brain development. However, evidence shows that in Vietnam young children from the poorest households receive less stimulation from their parents than children from the wealthiest ones. This implies that during these early years in which children's brains are the most sensitive to interactions and learning, children from poor households are not receiving the investments that they need and are already falling behind children from wealthier households.

The support for the development of children aged 0-3 remains weak in Vietnam. Considerable international and Vietnamese evidence presented in this report shows that targeted interventions can reduce stunting and mitigate its effect on a child's cognitive development. Despite high rates of stunting among children under the age of 5 and strong evidence of low and declining use of breastfeeding, the key policy interventions needed to curb the effects of malnutrition are not yet adequately prioritized in government policy. These interventions include a focus on child nutrition, infant and young child feeding. There is significant scope for more systematic promotion of breastfeeding and child stimulation through a variation of parallel family-based interventions in hospitals after birth, in local health stations, in communities, and through communication campaigns and complemented by social assistance that provides financial assistance to enable poor parents to make better choices for their children.

In contrast, the promotion of preschool for children aged 3-6 is currently the main policy lever of the Government to enhance school readiness. As a result of recent reforms, Vietnam's early childhood education system has many strengths–including a sound policy framework, child-focused

curriculum and rapidly expanding provision in the wake of the program to universalize full-day preschool for 5 year-old children (Program 239). However, policies to promote access and quality at the national level have not yet been fully translated into actual provision in the provinces. This is still resulting in wide variations in quality and access, in particular affecting disadvantaged children. While promoting access remains a priority, particularly in underserved regions, the Government's focus is now increasingly shifting towards translating its modern and child-centered curriculum into quality provision across all classrooms through upgrading the competence of the current teaching workforce.

Step 2: Building the cognitive and behavioral foundation in general education

The next step for Vietnam's general education system: balancing good basic literacy and numeracy skills with higher order cognitive skills such as problem-solving and critical thinking. Vietnam's general education system is successful in providing graduates with good basic cognitive skills. Reforms should carefully build on the system's strengths. Shifting the emphasis in general education towards making sure that more children also learn and acquire the higher order cognitive and behavioral skills demanded in Vietnam's labor market does not mean that the system needs wholesale reform. Instead it needs careful adjustments, building on its strong features. Building stronger cognitive and behavioral skills will require (i) *more schooling for all*, with full-day instruction and expansion of access to secondary education, (ii) *better schooling for all*, with a curriculum and teaching and assessment methods that foster the development of cognitive and behavioral skills in students and (iii) *greater involvement of parents and communities in schooling*.

More schooling for all

Enhancing cognitive skills among Vietnam's next generation will require that they spend more time in school. First, enrolments in secondary education in Vietnam remain below potential. Enrolments are particular low among children from less wealthy background. Education careers need to be extended through increasing progression rates from primary to lower secondary, from lower secondary to upper secondary and then to post-secondary education. This will inevitably mean easing the financial barriers to education affecting less well-off students through fee waivers and direct cash support. Second, tuition time in primary education with between 23 and 25 instruction periods over a school year of 36 weeks remains low compared to other countries. Better-off parents tend to make up for this by paying for their children to attend "extra classes" – regular, core academic lessons typically by their own teachers after school hours. Extra classes are not only a Vietnamese phenomenon; they are encountered across several countries in East Asia. But they are prominent in Vietnam: In 2010 parents of 33 percent of primary students and 49 percent of lower secondary students reported some expenditure on coaching sessions for academic subjects.

Extra classes are problematic in multiple ways. First, if they focus on the same academic knowledge on a narrow part of the formal half-day curriculum (coaching sessions for compulsory subjects) as opposed to a wider curriculum and activities that help build behavioral skills, such as arts or sports, they risk consuming precious time that could be allocated for alternative activities. Second, extra classes are often informal and not regulated. They place teachers in an undue position of power vis-à-vis parents. Parents are under pressure to pay for their children's participation in the extra classes if they want to avoid the risk that the teacher might otherwise not let the child pass the exam. There is evidence that many parents are asked to make unofficial payments to schools and teachers (World Bank, 2012e; CECODES, VFF-CRT & UNDP, 2013). It may also undermine teachers' motivation to perform well during the formal hours of instruction. Third, richer households are able to spend much larger amounts on extra classes and extra classes are mainly an urban phenomenon. There is, therefore, a risk that extra classes may deepen inequalities in learning.

Expanding formal full-day schooling can provide the space for a more varied curriculum and mix of instruction and may well be the best strategy to limit extra classes. MOET has attempted to regulate the provision of informal extra classes, but not with much apparent effect. An alternative to regulating extra classes is to expand formal full-day schooling to reduce the time available for teachers to offer private tuition and help make up for their revenue loss related to foregone extra classes.

More schooling carries additional costs which need to be covered by the government or parents or both. Vietnam has adopted the policy of "socialization" which involves levying user charges from those who can pay, while using budget resources to subsidize access for those who cannot (usually the registered poor). This is an appropriate choice so long as it is not creating new access barriers due to user charges, getting the balance right between those who can pay and those who cannot is tricky. Well-off parents who currently finance extra classes for their children could be asked to provide formal co-financing to schools for full-day schooling as opposed to informal payments to teachers who provide extra classes.

But there is also considerable potential to get more out of existing public expenditure – due to Vietnam's demographic transition: According to Vietnamese census data, the size of the population cohort below the age of 15 declined by 17 percent between 1999 and 2009. A decline in student numbers in general education may open fiscal space to accommodate expanding full-day schooling and enrolments at secondary level. Falling student numbers due to declining age cohorts means that budget resources (fewer schools, fewer teachers) could be freed up to cover additional costs associated with expanding enrolments in secondary education and full-day schooling, including progressively abolishing tuition fees at secondary level.

Better schooling for all

What matters is not just more schooling but more quality schooling with a curriculum, teaching and assessment methods that foster the formation of higher order cognitive and behavioral skills. More schooling should mean better schooling through a general education *curriculum* which balances competency-based and content-based learning, coupled with the right *teaching methods* to stimulate creative and critical thinking in primary and secondary school students and the right approach to *student assessment*. Vietnam can benefit from the experience of Singapore and Korea – two countries with leading education systems. These countries adopted curricula and student assessment systems that promote both knowledge acquisition and active learning and creative and critical thinking in schools. In Vietnam, steps towards modernizing the curriculum are getting under way: In response to a call from the XI Congress of the Communist Party in 2011, the Ministry of Education and Training has launched an ambitious process of developing a new general education curriculum and new textbooks by 2015 with a definition of students' essential competencies, which will then form the basis of educational objectives, standards, learning content, teaching methods and assessment.

While curriculum change and textbook reform is an important step, what matters is the resulting change in the teaching methods and instruction in the classroom with well skilled teachers and school principals and parental involvement. Translating a new general education curriculum into concrete change in the classroom will require modernization of teacher professional development, both in-service and pre-service, and sustained investment in its roll-out to all teachers. In order to inform its curriculum modernization, Vietnam has adapted a promising model from Colombia called Escuela Nueva which features more group learning and problem-solving than the predominant focus on memorization and copying often seen in Vietnamese primary school classrooms today (Box 2).

Box 2: Vietnam Escuela Nueva (VNEN)

Escuela Nueva is a model of organizing schools and classrooms in a way that enhances the development of core cognitive and behavioral skills, such as problem solving and team work. It was launched in Colombia in 1975 by the Fundación Escuela Nueva, a Colombian non-governmental organization to help improve schooling outcomes among children in disadvantaged circumstances, and is now serving more than five million children across more than 16 countries worldwide. The Ministry of Education and Training has adapted the model to the Vietnamese circumstances and, calling it Vietnam Escuela Nueva (VNEN), is piloting it in close to 1,500 primary schools across the country with the financial support from the Global Partnership for Education (GPE). VNEN puts forward five key elements of innovative teaching:

- *Students at the center of the learning process*, with encouragement and support to develop their own learning goals and with the necessary tools and resources to realize those goals;
- *Cooperation and collaboration between small groups of learners* that lead to not only higher academic achievement, but also promotes independence, self-esteem, and inter-personal skills and relationships;
- *Active and reflective learning methods* that take place in a supporting classroom environment, encourage student inquiry and discovery, provide problem-solving opportunities, and generate maximal cognitive engagement to students interspersed with adequate resting periods;
- *Linkages in students' knowledge building as the basis of the pedagogical content* – new information is integrated with existing knowledge structures, including the use of innate human inductive skills, to derive patterns and apply them to solve problems;
- *Empowerment of the local community* to ensure that school life is integrated with the child's social and family life and that local cultural practices are valued in the school just as they are at home.

These innovations mean that teaching and learning in VNEN are quite different from the traditional model currently in use in schools in Vietnam. The main visible difference is the seating arrangement – children are seated in clusters of 4 or 5 students as compared to the row and bench seating in traditional classrooms (see picture). VNEN classrooms also contain more material to provide intellectual stimuli to the children – math and reading corners, a 'tree of words' to depict different groups of words, and community maps. VNEN encourages parents and the community to take part in the life of the school – especially in ethnic minority areas, where parents and others come to school to pass on their traditions. VNEN follows the same general education curriculum as the traditional classrooms, but presents the curriculum in a way that will better engage the students. Teachers engage in less reading and writing on the board, and students spend more time on tasks. VNEN provides tools (i.e., materials, protocols, and methods) that enable even teachers of an ordinary level of ability to provide an enriching learning experience.

Source: Epstein and Yuthas (2012); World Bank (2012)

Teacher quality matters most for better schooling and Vietnam already has a strong teaching workforce. The primary education teacher workforce has become significantly better qualified in recent years. Nearly 60 percent of all primary school teachers now hold a college or university degree – almost double compared to 2006. Increased teacher qualification matters: Evidence from the 2012 Young Lives school survey suggests that high performing schools have higher shares of teachers with a college or university degree. High teacher capacity is also evident in their ability to correctly assess their students' ability, which is critical to help them provide the support that their students need (Rolleston, James, Pasquier-Doumer and Tran, 2013).

Better in-service teacher professional development can help to better equip teachers with the skills to teach a modernized curriculum. Teacher training needs to not only focus on how to teach curriculum content but also on how to impart behavioral skills. There is a lot to improve: In-service professional development among primary teachers is limited and the content and methods require modernization – away from the traditional cascading model where the Ministry of Education and Training trains trainers who train other trainers to deliver training in the summer months toward one where capacities in provincial teacher training colleges are enhanced to provide more tailored programs all year round and with new teaching methods.

Beyond curriculum and teaching methods, student assessment needs to be aligned with the objective of fostering higher order cognitive and behavioral skills. Vietnam makes much use of educational assessment: Classroom assessments with written and oral tests and marked assignments and homework are used to provide real-time feedback on students' performance to inform teaching, while national examinations are used after grade 12 for making high-stakes decisions about students' progression to the next level in the education system. Once the curriculum and standards in general education are adjusted to better reflect higher order cognitive and behavioral skills, the student assessment system needs to be equipped with the tools to help assess these skills (as opposed to just content knowledge than can be memorized) in students, to see how schools perform in imparting these skills and to hold schools and local education authorities accountable for results. For example, the introduction of more open-ended questions would allow for greater emphasis on higher-order thinking and problem solving.

Schooling that involves parents and communities more

A prominent role for parents in school is important for several reasons. Parents have a strong interest in ensuring their children get a quality education. Providing them with information and a forum to voice views and advise the school can make the school more explicitly accountable to them for the learning progress of their children. Much learning takes place at home, and the home environment is an important contributor to learning success. Parents need to be aware of the learning process and content in the school and how they can complement this by providing effective support to their children's learning at home – after school and during the long summer vacations. A greater involvement of parents and communities can also help make instruction more reflective of local needs, traditions and contexts and can help build bridges where there are cultural and other gaps between school and home, for example in the case of ethnic minority children which are taught by Kinh teachers.

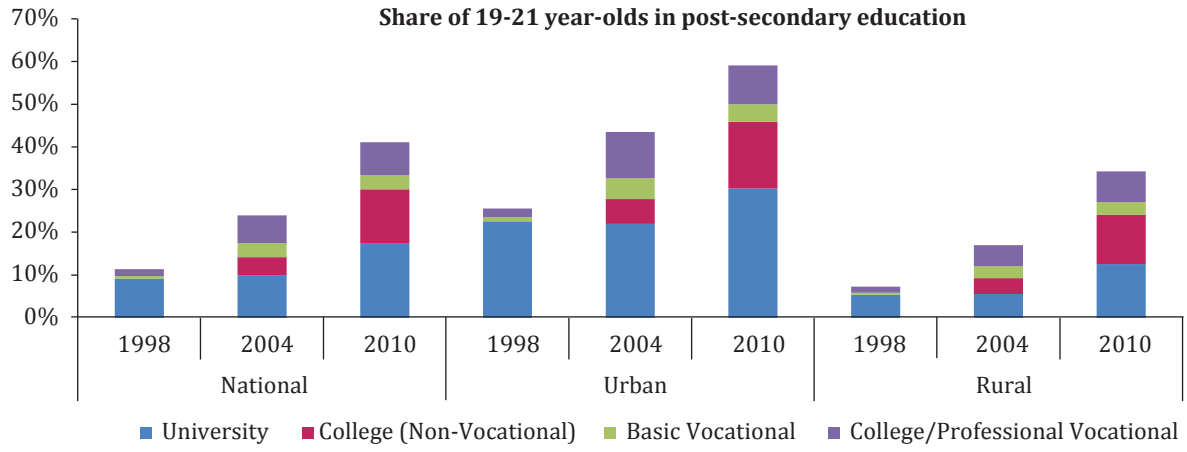
The opportunities for formal parental involvement in schools beyond making financial contributions are limited in Vietnam. Schools can establish a parents' council for a class or the school as a whole but, where they exist, they have little formal powers. Such councils can channels parents' feedbacks to teachers on educational issues and bring their voice to the principal regarding educational activities and management of the school. However, legally the parents' council has very limited weight on influencing the operation and monitoring the performance of a public school, and in practice the role of the parents' council is often reduced to collecting parents' voluntary contributions to the school.

A greater role of parents in the school is possible even within the current system of central standards and predominant decision-making at the province level. Provinces and districts could cede certain decisions to schools and with the involvement of parents. For example, schools could be entrusted with deciding on the arrangements for full-day schooling and parents could contribute to this decision-making. Parents could advise on how to incorporate extra classes into the formal program and how to arrange afternoon activities under formal full-day schooling. There are already examples of greater parental involvement in Vietnam: Schools participating in the Vietnam Escuela Nueva Pilot have the freedom to involve parents in the learning process and to contribute to learning content.

Step 3: Building job-relevant technical skills through a more connected system

Higher education, vocational training and on-the-job training are the key avenues for acquiring technical skills that workers need to work in their chosen profession. Higher education is booming in Vietnam and is viewed as the key avenue towards raising the quality of human resources by the population, firms and the government alike. Returns to higher education in Vietnam are large, suggesting strong demand for university graduates. Employment prospects of graduates from a prestigious university in urban areas are good, but less so for those in rural and remote areas (World Bank, 2013). In response to high returns to education, enrolments have expanded dramatically over the recent decade (Figure 10), though they remain low in comparison to comparable countries in East Asia (World Bank, 2012c). Moreover, there are concerns about quality, particularly given the fast pace of expansion, and the relevance of what students and trainees learn. Vocational training is less popular than higher education and the share of 19-21 year-olds in vocational training has remained stagnant.

Figure 10: Enrolment in post-secondary vocational training institutions is lower than in university and colleges



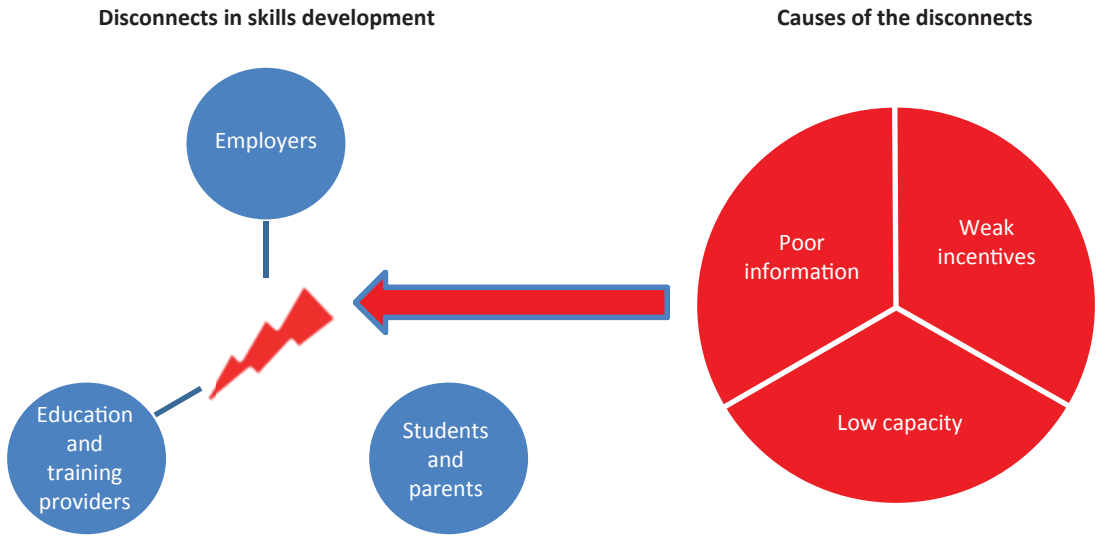
Source: World Bank staff estimates using the 1998, 2004 and 2010 VHLSS surveys. The figure shows the fraction of 19-21 year olds enrolled in vocational training, college or university. In 1998, it is not possible to separate out university and college therefore all college and university admissions are included in the university figure.

Many firms provide on-the-job training to their workers. As they encounter skill gaps and shortages in the context of expanding enrolments in universities and in vocational schools, some employers choose to provide on-the-job training to their workers. The role of on-the-job training is to deepen the technical skills acquired in formal education and training and to adapt employees to the individual work place. Many Vietnamese firms report that they provide on-the-job training; however, most of this appears to be internal training, while external training is limited to few firms and workers, often those that are already relatively well educated and trained.

Vietnam should not be concerned about the existence of skills gaps and occupational skill shortages, but about the ability of the skills development system to overcome them. Skills shortages and gaps are indicators of a dynamic economy which creates new, more skill-intensive jobs. The real concern is whether the education and training system is equally dynamic in adjusting quickly to supply graduates with the technical skills to keep up with a constant and accelerating evolution in the demand for technical skills. One indicator of responsiveness to expanding demand is the strong expansion in enrolments and in the supply of universities, colleges and vocational training institutes. But gross enrolments in tertiary education remain lower than those in neighboring countries, suggesting that supply can and will need to expand further. Moreover, another indicator is whether the rising numbers of graduates and job applicants bring the skills that employers demand. And the evidence provided in this report suggests that they often do not.

Vietnam's skill development system today is not as responsive as it needs to be and is suffering from "disconnects" between employers, students and universities and vocational schools. An unresponsive, under-performing skills development system is a disconnected system in which actors make choices, act in isolation and do not sufficiently interact with each other (Figure 11). Schools and universities may offer programs and produce graduates with skills that do not fully reflect the needs of the labor market. Students and parents may not be demanding the types of programs or teaching methods and content that would give them the skills they or their children need to succeed in the labor market. Like many countries around the world, Vietnam suffers from such system disconnects.

Figure 11: Skills development is not working as a system of connected actors



Source: Authors' illustration, adapted from World Bank (2012c)

Disconnects result from imperfect and asymmetric information among actors and their inadequate capacity and weak incentives to make good use of information. Information, incentive and capacity deficits make the system less dynamic in responding to the evolving technical skill needs in the economy. They reflect what economists call "market failures" (Almeida, Behrman and Robalino, 2012). The government plays an important role in helping to overcome these market failures. But rather than planning and managing the education and training system centrally and top-down as in the past, the government should help overcome the disconnects through empowering students, universities and schools and firms to make good decisions – by facilitating the flow of information, providing the right incentives to schools and universities to be responsive to information and through carefully investing in raising their capacity. Interventions on these three drivers of system responsiveness are mutually reinforcing and should be conducted in parallel.

Better information

Information is the oxygen of responsive skills development systems. First, without good information about employers' skill needs, conditions in the labor market and returns to certain fields of study, education and training providers cannot make good choices on the programs to develop and offer. Second, without such information, students and parents cannot make good decisions on which school or university and which study program to choose. Third, without information on the quality of education programs and employment success of graduates, prospective students may not be able to make good choices.

Strengthened coordination and partnerships between firms and universities and vocational schools can help to bridge many information gaps. Government at central and local levels can improve the flow and availability of information through using its convening power and using incentives to help initiate the establishment of formal and informal coordination mechanisms and partnerships between employers and training providers. While institutional models and set-ups vary across countries, all successful skills development systems around the world have created such coordination mechanisms. They range from the highly formal and institutionalized "dual system" in Germany which was built more than one hundred years ago to less formal and localized systems elsewhere. In Vietnam, partnerships already exist between leading firms and universities, and the challenge is to learn from this experience and help spread them further. However, today central or local government rarely plays the role as facilitator of such initiatives. International experience suggests it could and should.

Prospective students in urban Vietnam tend to have much better access to information to make education and career choices than their peers in rural areas. In urban areas, the market appears to provide adequate information to influence good decision-making: There is evidence that prospective students in urban areas choose those fields of study whose graduates earn the highest wages, business, IT and sciences. Qualitative evidence collected for this report suggests that prospective students in rural areas, by contrast, have fewer and less reliable information sources available than their urban peers. This suggests the need for increased and more career advice in schools in rural areas as well as enhancing the connectedness to the internet in schools in these areas.

Better information on graduates' job placements through tracer studies can help future students choose the best schools, universities and programs and provide an incentive to universities to focus on quality. They can also provide useful information to hiring firms on the quality and relevance of education programs and providers. Such studies collect information on employment patterns of graduates after a certain period, usually six months. While some universities in Vietnam conduct such studies to demonstrate their graduates' labor market success, the use of tracer studies is not systematic.

Improving the frequency and accessibility of labor market and vacancy information can also help. Vietnam is collecting quarterly labor force data but its record in publishing and disseminating this information is poor. It is usually limited to headline unemployment statistics. More disaggregated analysis and publication of returns to education, returns to occupations and employment trends, for example by levels of education and by occupations, can provide useful information to prospective students as well as to training providers. Likewise, vacancy information for job search through public and private labor agencies can help improve the matching of skills and inform career choice.

Removing the scope for rent seeking and corruption in education also helps with improving information. Anticorruption surveys show that making unofficial payments in education is widespread (World Bank, 2012e, CECODES, VFF-CRT & UNDP, 2013). Corruption and unofficial payments deepen the disconnects by undermining the quality of information. Paying for grades, for example, compromises the information value of grades. With such payments, grades do not fully

reflect a student's real performance and thus make diplomas less useful for students in their job search and for firms in recruitment.

Right incentives

Even in a world of perfect and symmetrical information, students and parents as well as education and training providers may still not be able to make the right choices if they face weak incentives. For example, universities that are not sufficiently autonomous in their decision-making and who have to seek permission from central Government on whether to develop a new program or change any curriculum content will find it hard to respond to good information. A rigid curriculum that does not give space for vocational schools and universities to adjust their teaching methods and content to the changing and local needs expressed by employers may undermine their responsiveness.

Greater autonomy of decision-making in education and training institutions, coupled with clear accountability for quality, is a critical precondition for enhanced linkages and partnership with industry. This is why the international trend in higher education and vocational training has been towards ensuring greater autonomy and accountability of institutions at the expense of central government control. In line with this, Vietnam launched a comprehensive reform of the tertiary education sector which includes steps towards greater autonomy of higher education institutions. The recently adopted Higher Education Law creates legal conditions for greater institutional autonomy for higher education institutions on many important aspects like planning, opening and closing units, new programs, financial management and staffing. Vocational education and training institutions can choose up to 35 percent of curriculum content locally and can also introduce new study program at their own initiative, though subject to approval by the Ministry of Labor, Invalids and Social Affairs (MOLISA). Vocational schools also have autonomy to decide on matters such as staffing and financing.

Vietnam's principal challenge in higher education and vocational training now is to translate a legal framework for greater institutional autonomy into de facto autonomy. Despite expanded de jure autonomy of decision-making on curriculum content and study programs in vocational training, many vocational institutions decide to follow directions from the government and their main source of revenue remains government transfers, more so than proceeds from tuition fees and partnerships with enterprises (CIEM and World Bank, 2013). Likewise, de facto autonomy of many higher education institutions for decision-making in response to labor market needs is still limited, and university councils not fully empowered to hold universities accountable. While the two national universities in Hanoi and HCMC as well as regional universities are largely autonomous in decision-making, both public and private universities and colleges have to follow operational and academic policies set by MOET. The steps towards greater autonomy of national and regional institutions have demonstrated the benefits of a system in which MOET cedes greater decision-making to institutions, for example resulting in the establishment of partnerships with universities abroad and with local firms.

Greater institutional autonomy for universities also means that the role of government needs to change from direct management towards stewardship of the system. Despite the recent moves towards promoting greater institutional autonomy, the Vietnamese Government still retains a strong say in managing the vocational and higher education systems, for example by centrally setting enrolment quotas in higher education and regulating and approving curriculum content. In contrast, a more connected, responsive skills development system suggests a different role for Government, with a shifting focus from controlling inputs (enrolment quotas, curriculum, teaching methods) to ensuring minimum quality levels (through accreditation) and incentivizing better outputs (qualifications and competencies of graduates).

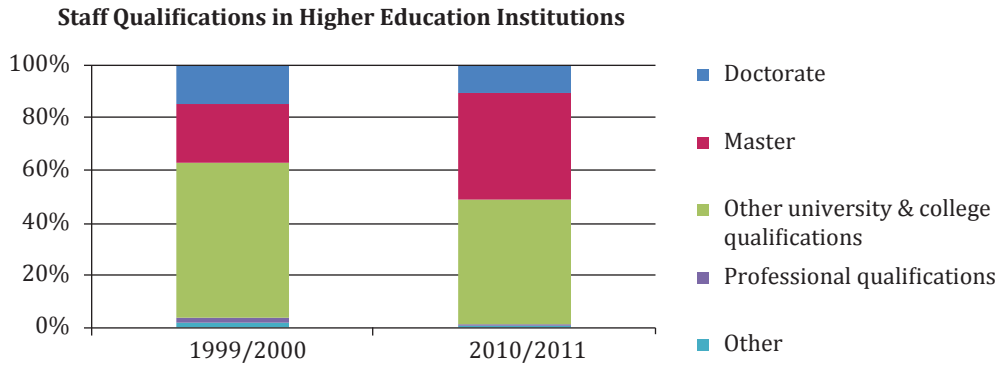
Government can use regulative and financing tools to steer the system and promote accountability for results. For example, rather than approving the content of a training program

to become an electrician, the Government could invite employers and training providers to agree on occupational competency standards which an electrician should possess. Government could then focus on certifying electricians based on their competencies – whether they acquired them on the job, with a private or public training provider or elsewhere. There are increasingly examples of partnership between the Government, employers and providers in Vietnam in determining occupational competencies, for example in the tourism sector. The Government can use financing tools to incentivize excellence in universities (e.g. by allocating part of its financing based on results) or stimulate firms to partner with training providers and expand on-the-job training (e.g. through tax breaks).

Enhanced capacity

Even in a world of perfect and symmetrical information and appropriate incentives, students and parents as well as providers may still not be able to make the right choices if they face capacity constraints. Students from less wealthy background often drop out because they are unable to finance the tuition and non-tuition as well as opportunity costs associated with education and training. Scholarship and tuition fee waivers are important tools to help students to overcome this barrier. Among schools and universities, capacity constraints may come in form of insufficiently trained teaching staff or managers, inadequate curricula or a simple lack of knowledge and experience on how to act on information. Financing capacity constraints can also prevent firms from investing in their workers' training.

Figure 12: Few staff in higher education institutions have advanced academic degrees



Source: MOET

Investments in the qualifications of staff in higher education institutions and equipment will help universities and vocational schools to more effectively respond to the information on employer needs. At present, few staff in higher education have advanced academic degrees. Strengthening the graduate education and advanced training system as well as scholarships and programs to retain students in universities and incentivize them to choose academic careers can help raise the overall qualification profile. Creating attractive conditions for research can help attract Vietnamese overseas PhDs back to Vietnam. Likewise, a strategic strengthening of the science, technology and innovation system can create a better environment for attracting and retaining researchers and for promoting a growing, capable critical mass of international-level professors at higher education institutions. But capacity is not limited to teaching and research, investments in managerial capacity will enable university and vocational school leaders to take advantage of greater autonomy.

Better information, incentives and capacity are mutually reinforcing. Government can use regulatory or financing incentives to promote partnerships between providers and industry and the generation and dissemination of better information on graduates' employment successes. In turn, better information makes providers more accountable. Ambitious and successful universities and

vocational schools want to demonstrate that they have strong linkages with industry and that their graduates find good jobs and do so quickly. Investments in their managerial and teaching capacity can enable them to do so.

Summary

Vietnam's continued transition towards a modern, industrial market economy is not automatic. Structural reforms in the enterprise and banking sectors and sound macroeconomic policies will matter in ensuring continued fast change, but so will the quality of Vietnam's workforce. Vietnam's return to strong economic growth will come through increased labor productivity. Changes in education and training can take a generation to result in a workforce that is equipped with the right skills. The time to modernize skills development is now to ensure that worker skills do not become a bottleneck over the coming decade and more.

The nature of work in a modern market economy will change and become more sophisticated. Vietnamese employers already are looking for a mix of higher quality cognitive, behavioral and technical skills. These skills are accumulated at various points along the life cycle from birth into adulthood. This suggests that a smart skill development strategy for Vietnam should encompass reforms and investments from early childhood development to on-the-job training. Views by Vietnamese employers are very similar to those of employers in much more advanced middle and high income economies where, as in Vietnam, employers report that critical thinking and communication skills among workers are also in high demand but lacking. This means that by reorienting its education system to focus more on teaching these types of skills, Vietnam can prepare itself to deliver skills that will never go out of fashion and are important in almost any industry. Vietnam's challenge is thus: Turn graduates from good readers into critical thinkers and problem-solvers who are well equipped to acquire technical skills in university, vocational training and throughout their working lives.

Building a highly skilled workforce is a shared responsibility between the Government, education and training providers, employers and students and parents. Preparing the workforce for an industrial economy is not just the government's job. It requires a change in behavior by all actors in skills development - employers, schools and universities and students and their parents alike. Firms and universities need to build close partnerships. Parents need to become involved in their children's schooling. Students need to expose themselves to the world of work even prior to their graduation. But the Government plays an important role as a steward, not the manager, of the system. The role of government is to facilitate the change in behavior by helping to ensure a better information flow between all the actors, to address capacity constraints including financing capacity, and to set the right incentives by freeing up universities to partner more effectively with businesses. There are pockets of excellence in the system of cognitive, behavioral and technical skills development already; as the system's steward, the challenge is for the Government is to translate these pockets into system-wide change.

Annex Table 1: A framework for skills development in Vietnam

Objective	Policies
Promoting school readiness through early childhood development	
Early childhood development for children aged 0-3 More systematic promotion of breastfeeding and child stimulation through parallel family-based interventions in hospitals after birth, in local health stations, in communities, and through communication campaigns; Social assistance to enable poor parents financially to make better choices for their children	
Preschool for children aged 3-5	Universalize access to full-day preschool; Translate modern and child-centered curriculum into quality provision across all classrooms through upgrading of the competence of the current teaching workforce
Building the cognitive and behavioral foundation in general education	
More schooling for all	Increase transition rates into secondary education through fee waivers and direct cash support for less well-off students; Expand formal full-day schooling to reduce extra classes and ensure more varied formal curriculum
Better schooling for all	Modernize curriculum, teaching methods and student assessment with stronger focus on critical thinking, problem-solving and behavioral skills; Equip teachers with tools to teach modernize curriculum through reformed in-service teacher professional development
Schooling that involves parents and communities more	Empower parents' councils in schools and involve them in decision-making; Strengthen school-community linkages in disadvantaged contexts, e.g. through ethnic minority teaching assistants and greater involvement of parents
Building and updating technical skills in post-secondary education and training	
Better information	Initiate and incentivize formal or informal skills coordination and partnership forums at national, provincial and local levels between firms and education and training providers; More use of graduate tracer surveys; Address information barriers in rural and remote areas; Better dissemination of available labor market information; Tackling corruption in education
Right incentives	Increase de facto autonomy of providers; State to shift from management to Stewardship of the system; Focus on outcomes, not inputs: Stop setting enrolment quotas, define quality and occupational skills standards and assess and certify graduates;
Adequate capacity	Invest in faculty/teacher training; Leadership and Management capacity to exercise autonomy at institutional level retaining graduates in academia; Scholarships

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