OECD Reviews of Vocational Education and Training

A Skills beyond School Review of Peru

Mary Alice McCarthy, Pauline Musset

OECD

OECD Reviews of Vocational Education and Training

A Skills beyond School Review of Peru

Mary Alice McCarthy, Pauline Musset

OECD
BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
McCarthy, M. and P. Musset (2016), *A Skills beyond School Review of Peru*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789264265400-en

ISBN 978-92-64-26539-4 (print)
ISBN 978-92-64-26540-0 (PDF)

Series: OECD Reviews of Vocational Education and Training
ISSN 2077-7728 (print)
ISSN 2077-7736 (online)

Photo credits: Cover © LituFalco - Fotolia.com.

Corrigenda to OECD publications may be found on line at:
www.oecd.org/about/publishing/corrigenda.htm.

ACKNOWLEDGEMENTS

The OECD is very grateful to the many people throughout Peru, who gave up their time to take part in meetings with the visiting OECD team and contributed their knowledge and ideas to this exercise. We owe particular thanks to our colleagues in the Ministry of Labour and the Ministry of Education who were more directly involved in facilitating the work of the OECD and the mission. This review is part of the OECD-Peru Country Programme which seeks to support the country in its reform agenda and improve its public policies in priority areas.

Table of contents

Table

Figures

Boxes

Summary: Strengths, challenges and recommendations

Peru is at a critical juncture

After years of steady and impressive economic growth, reductions in poverty, and political stability, Peru has reached a critical juncture. To sustain and expand the benefits of recent growth, Peru needs to diversify its economy and introduce more complex and technology-intensive production processes. Greater complexity, in turn, requires a more highly skilled and productive workforce.

Peru has an extensive array of vocational education and training (VET) programmes that aim to build work-related skills, some of which provide very high-quality vocational education and training. Peruvians have also demonstrated a keen interest in developing their skills, supporting a robust VET sector of over two thousand providers with steadily increasing enrolments. But there is also ample evidence that the existing array of programmes and institutions are falling short of meeting the country's skills development needs. Despite growth in the supply of programmes and the numbers of graduates, there is still significant unmet demand for skills, particularly technical skills. The continued low levels of labour productivity and the high levels of underemployment among graduates of postsecondary institutions also point to gaps between what students are learning and the needs of the labour market.

Peru has many of the essential building blocks of a high-performing VET system. This report aims to provide a set of concrete and actionable recommendations for how Peru can build and expand on these pieces for better results. It presents suggestions for how a combination of well-crafted public policies and strategic investments can better steer institutions toward high-quality offerings, facilitate student transitions along education and career pathways, empower consumers, and broaden access to groups that are currently unable to participate because of financial or other constraints.

Strengths of the Peruvian system

Peru brings considerable strengths to the goal of building its human capital for the next stage of development. Specifically:

Peru has a dynamic VET sector, with many providers and programmes

Peru has a well-developed educational infrastructure with a wide array of vocational education and training offerings, especially compared with many OECD and non-OECD countries. Over 700 *Institutos de Educación Superior Tecnológico* (IEST) provide two and three-year programmes leading to nationally recognised qualifications as "Technicians" and "Professional Technicians" and 1 800 *Centros de Educación Técnico Productivo* (CETPRO) that deliver short-cycle training (one to two years) leading to nationally recognised qualifications as "Technician" and "Assistant Technician" and are accessible to students who have not completed their secondary education. Together, these two sectors serve more than 600 000 students every year, or about 40% of all students enrolled in some form of education and training beyond secondary school, and constitute a valuable existing skills development infrastructure upon which the country can continue to build. In addition, a number of industry sectors, including construction, manufacturing, mining, banking, and tourism, have established their own institutions to ensure a steady flow of qualified graduates with the skills needed by their respective employers. These sectorial schools are highly respected and generate positive returns for students and employers alike. They also represent an important source of innovation and experimentation in the design of technical education that benefits the sector as a whole.

The VET system has strong and committed stakeholders

The OECD review team's field visits, expert interviews, and background research revealed a strong interest in VET among key stakeholders across the public and private sectors in Peru. There is evidence of cross-agency collaboration among the ministries of education and labour on many VET issues as well as a large number of other efforts to convene and consult stakeholders. The involvement of employers is strong in the various sectorial initiatives. Vocational education and training is a topic that is getting a lot of attention, as shown by the variety of legislative proposals aimed at improving the quality and accessibility of VET programmes, including an effort to expand access to apprenticeship and improve connections between postsecondary VET and university sector.

Peru is building strong data systems that can support high-quality VET

Peru has also demonstrated an impressive capacity for data collection and analysis. Administrative and survey data can support efforts by policymakers, educational institutions, and students to better align the supply and demand of skills and target public and private resources effectively. Particularly notable is the ministries of education and labour's website www.ponteencarrera.pe (Get into a career), which provides data on the cost and labour market outcomes of specific programmes of study at all of the country's technical institutes and universities.

Greater equity and inclusion are a government priority

Government has strived to leverage recent economic growth to reduce social exclusion and inequality through programmes that broaden access to education and training. The commitment to developing inclusive growth strategies is evident in Peru in programmes that open educational opportunities to youth from poor families (*BECA 18*) and school leavers (*Jóvenes Productivos y Doble Oportunidad*). The programmes, while limited in their reach, demonstrate an important commitment to expanding access to education and training to all the country's citizens and are an important component of an inclusive economic growth strategy.

Peru is embracing innovation in VET programmes and policies

Peru has undertaken significant efforts to update the national curriculum used by VET providers while also reorganising programmes of study to focus on the development of key competencies required by employers for specific occupations. Peru has also developed mechanisms for recognising prior learning, creating certification centres where workers can receive qualifications for the skills learnt informally on the job. More recently, the Ministry of Labour has been developing "occupational profiles" and has been authorised to establish "*comités de competencias"* with employer groups. The emphasis on curricular innovation, recognition of prior learning, and employer engagement are promising steps for improving the relevance and flexibility of VET programmes.

Challenges and recommendations for Peru

Despite its many strengths Peru's education and training system faces significant challenges that need to be addressed for the country to reach its economic and social development goals. Specifically:

Improving the alignment between the supply of the VET programmes and the needs of the economy

A core challenge of any VET system is ensuring that the supply of programmes is meeting the needs of both employers for the right skills and students for good jobs. In the case of Peru, internal and external reviews and labour market analyses have confirmed a lack of alignment between the supply of VET programmes and the needs of the labour market (OECD, 2015; OECD/ECLAC/CAF, 2014; MTPE/MINEDU, 2015). Specifically, the system is under-supplying graduates from science, maths, and engineering fields and oversupplying graduates in fields like accounting and administration, and many students in these fields work in jobs that are low skilled and do not require technical expertise. The poor alignment between the provision of VET programmes and the need to grow more technology-intensive industries is often cited as a major obstacle to Peru's efforts to avoid the "middle-income trap."

While there is tremendous student demand for postsecondary technical education, few mechanisms are in place to guide the provision in ways that best meet labour market needs. The heavy reliance on tuition-dependent private providers, who enrol 70% of all VET students, presents special challenges, since it aligns the supply of programmes to the demand of students, rather than the demands of the labour market. The lack of institutional accountability for outcomes further aggravates alignment challenges, since schools have little incentive to focus on what happens to students after graduation. Centralised curriculum development processes also diminish connections between school programmes and local economies. Stronger alignment of provision to labour markets requires a careful mix of regulations, investments, and incentives that build the capacity of the institutions and steer consumers toward high-quality options.

Recommendation: Through a combination of outcomes-based funding and policies that enhance local control and accountability, steer providers toward programmes with strong labour market outcomes.

- Provide targeted and performance-based funding to private institutions that successfully graduate students in programmes with demonstrated labour shortages.
- Strengthen and expand data systems that connect education and labour market outcomes and track student transitions within education and into employment.
- Allow more flexibility in the delivery of the national curriculum to permit institutions to meet the needs of local economies and employers.

Ensuring quality across all VET programmes

Peru's VET sector lacks an adequate quality assurance system to ensure consistency across programmes and providers. As a result, there is wide variability in the quality of particular programmes, which hurts both students and employers. While some programmes give students the relevant technical skills, build core academic skills, and facilitate student transitions into good jobs, many do not. While some institutions ensure students have access to high-quality work-based learning opportunities – a core component of quality for VET programmes – too many students have limited exposure to the world of work and careers during the course of their studies.

Public policy has an essential role to play in establishing general quality standards for all VET programmes, and steering institutions toward these standards through a combination of rules and incentives that are differentiated according to institutional governance and control.

Recommendation: Through a combination of targeted investments, carefully crafted regulations, and sustained consultation with key stakeholders, improve the quality and consistency of VET programmes. Specifically:

- Continue efforts to develop an effective accreditation system for VET institutions and programmes.
- Require access to work-based learning opportunities for all VET students.
- Strengthen public VET institutions through increased funding for equipment, faculty development, and professional management.

Building educational pathways for VET students

The wide availability of technical education programmes is noteworthy, but too many of them exist in silos, limiting a student's ability to advance academically and earn a university degree, or even to move from one sector to another. The lack of clear pathways from technical programmes to higher education, and between the different types of technical education, has a number of negative effects. It represents a waste of resources, as students often have to re-take (and pay) for coursework they already covered. It also may discourage students from enrolling in technical programmes, even when they may provide valuable skills.

Recommendation: Connect VET and academic pathways through a combination of policies and tools that make it easier for institutions to connect their programmes of study in ways that facilitate student progression. Specifically:

- Build the capacity of CETPRO and IEST to support student transitions through articulated programmes of study, dual enrolment policies, and outcomes-based funding formulas.
- Continue developing a national qualifications framework that clarifies and rationalises the distinct credentials awarded by academic and technical institutions, including those that operate outside the jurisdiction of the Ministry of Education.
- Build the capacity of CETPRO to issue secondary qualifications in order to facilitate transitions into postsecondary and tertiary education for their graduates.

Reducing inequities in access to high-quality VET

Too many Peruvians are still unable to access the high-quality education and training programmes, leaving them ill prepared to contribute to a more skill and technology-based economy. Students who do not enrol in postsecondary education – about two-thirds of young people – have limited opportunities to develop skills that are recognised to have labour market value in the formal economy. The open access CETPRO provide an invaluable alternative to postsecondary study for students who fail to complete their secondary studies, but the numbers served is quite small relative to the need. Education and training opportunities are particularly scarce for students who live in rural areas where few technical centres operate, while the tuition and fees at many private institutions keep them out of reach for millions of poor students. Expanding access to high-quality education and training opportunities to more of the country's low-income and rural students is essential for building social equity and ensuring the benefits of economic growth are broadly shared.

***Recommendation*:** Expand access to high-quality vocational education programmes for younger and older adults, including the development of programmes that integrate vocational education into upper secondary education. Specifically:

- Through partnerships with sectorial schools and strategies like dual enrolment and programme articulation with IEST, develop upper secondary vocational opportunities, of high quality.

- Expand targeted scholarship programmes and other forms of financial aid to low-income students pursuing postsecondary VET.
- Strengthen and expand opportunities for adults to access affordable and high-quality vocational programmes.

Strengthening and expanding career guidance services

Students lack adequate information on careers and on the cost and returns to particular programmes of study. For education markets to work well, they need smart consumers who demand high-quality programmes with strong labour market outcomes. Information gaps among students and job seekers can exacerbate the alignment and equity problems in education markets.

Students and job seekers in Peru need more assistance navigating the country's increasingly complex education and labour markets so they can make good investments. While Peru clearly has considerable capacity for collection and analysis of labour market data, students and school leaders would benefit from more structured and consumer-friendly information on the relationship between education and careers. Career guidance services can be a crucial connector between the consumers of education and training – students and job seekers – and a complex and often confusing marketplace of schools and programmes.

***Recommendation*:** Expand school-based and non-school-based career guidance services that include timely and accurate labour market data, assessments of interests and aptitudes, and exposure to the world of work. Specifically:

- Continue expanding and improving Pontencarrera and other consumer-facing tools that help build awareness about labour market trends and opportunities, as well as the cost and returns of particular programmes.
- Invest in the professional development of school-based career counsellors and train them in the use of labour market data.
- Leverage the sectorial groups and the CITES to partner with secondary schools and job centres to provide information on careers and local job opportunities.

Organisation of the report

The report has six chapters. The first chapter provides an overview of Peru's education and training system and includes an in-depth discussion of

its key strengths and challenges. Chapter two explores how Peru can improve the alignment between the supply of VET programmes and the demands of the labour market. Chapter three focuses on strategies for improving the quality in its VET programmes. The fourth chapter examines the fragmented architecture of Peru's education and training system and provides recommendations on how to facilitate student transitions from one system or level to the next. Chapter five focuses on the need to address inequities in access to high-quality VET, particularly for student from low-income, rural, and historically disadvantaged groups. The final chapter explores how Peru can help students make informed choices about their education and training through better career navigation and consumer information services.

References

MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Perú"*, background report prepared for the OECD Directorate for Education and Skills, Lima.

OECD (2015), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264243279-en.

OECD/CAF/ECLAC (2014), *Latin American Economic Outlook 2015: Education, Skills and Innovation for Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/leo-2015-en.

Chapter 1

Laying the foundation for inclusive growth: The crucial role of education and skills

Peru has many of the essential building blocks of a high-performing system of vocational education and training (VET). This report aims to provide a set of concrete and actionable recommendations for how Peru can build and expand on these pieces for better results. It presents suggestions for how a combination of well-crafted public policies and strategic investments can better steer institutions toward high-quality offerings, facilitate student transitions along education and career pathways, empower consumers, and broaden access to groups that are currently unable to participate because of financial or other constraints.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The review of Peru and its place in the OECD study

Box 1.1 OECD reviews of vocational education and training

In a sequence of more than 40 country studies, the OECD has been reviewing vocational education systems around the world since 2007. Thirty-seven country studies have been published alongside two major reports drawing together the policy lessons from this very large range of international experience – these are *Learning for Jobs,* published in 2010, and *Skills beyond School: Synthesis Report*, published in 2014.

The country studies cover: Australia, Austria, Belgium (Flanders), Canada, Chile, China, Costa Rica, the Czech Republic, Denmark, Egypt, Germany, Hungary, Iceland, Indonesia, Ireland, Israel, Kazakhstan, Korea, Mexico, the Netherlands, Norway, Peru, Romania, the Slovak Republic, Spain, Sweden, South Africa, Switzerland, the United Kingdom, the United States and Viet Nam.

For more information please see:

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264087460-en.

OECD (2014a), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

See also: www.oecd.org/education/vet.

This review is one of a series of country reports on vocational education and training (VET) (see Box 1.1) prepared by the OECD. The series includes reviews, involving an in-depth analysis of a country system leading to a set of policy recommendations backed by analysis. This review was prepared at the request of the Peruvian government and co-ordinated by the Ministry of Labour.

The review process included two country visits from OECD staff, the first in September 2015 and the second in November of the same year. The trips included meetings with a wide variety of policymakers, employers, teachers, students, and other stakeholders in the country's skills development systems well as visits to education and training institutions serving both youth and adults. In conjunction with the review, the Peruvian authorities provided a background report with summary information on the country's VET programmes and policies (MTPE/MINEDU, 2015).

This first chapter provides the broad economic and social context of Peru's skills development efforts, describes the main features of the country's existing VET infrastructure, including strengths of the current system, and outlines the overarching challenges to aligning the country's growing supply and demand for skills with efforts to develop and diversify the economy.

Why vocational education and training matter

Over the last decade, Peru's economy has experienced strong and consistent growth. From 2004-2014, the country's economy expanded at a rate of over 6%, more than twice that of OECD countries (OECD, 2015). In 2008 Peru joined the World Bank's group of "upper middle income" countries. The designation represents a remarkable turn-around. Just two decades earlier the economy was contracting – growth was negative 8% in 1988 – and the country experienced repeated rounds of hyperinflation and extreme fluctuations in the value of its currency. For most of the 1980s and 90s, Peru was mired in such severe economic crises that ascending to the global upper middle class would have seemed out of the question. And while many Latin American countries experienced slow growth in the 1980s and 90s, Peru spent much of the last two decades of the 20th century mired in a brutal internal political conflict that weakened its public institutions and delayed the country's full transition to democracy (Crabtree, 2011). Political and economic instability hindered the country's ability to deliver education and training and develop its human capital, limiting the country's growth potential throughout the period (Loman, 2015).

Sustained growth and stability has enabled reductions in poverty

The turn of the century brought with it a welcome reversal in Peru's economic and political fortunes. Structural economic reforms stabilised the economy and political violence was largely subdued. Stability, in turn, helped Peru reap the benefits of the strong global demand for commodities. Successive governments leveraged the steady stream of revenue to address a wide range of social and economic problems. From 2004 to 2013, Peru dramatically reduced the share of its population living in poverty, from around 60% in 2004 to just 24 % by 2013. According to the Ministry of Education and Finance, per capita income increased by 37% from 2004-2012, reflecting years of sustained economic growth (OECD, 2015).

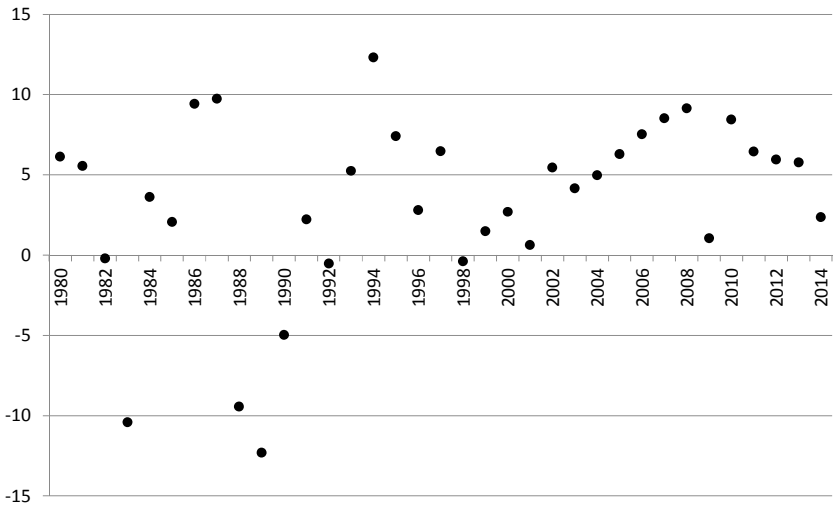
And an expanding middle class

During roughly the same period, Peru grew its middle class, from 12% of the population to more than 50%. Income inequality was reduced

somewhat, with the share of income going to the bottom quintile increasing from just 3% in 2000 to 4% by 2013 (World Bank, 2015). Other quality of life indicators – from child and maternal mortality rates to access to health care – also improved significantly.

Figure 1.1 Real historical GDP growth rates

In percentage



Source: World Bank (2016), GDP growth (annual %), http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&start=1980.

StatLink http://dx.doi.org/10.1787/888933415349

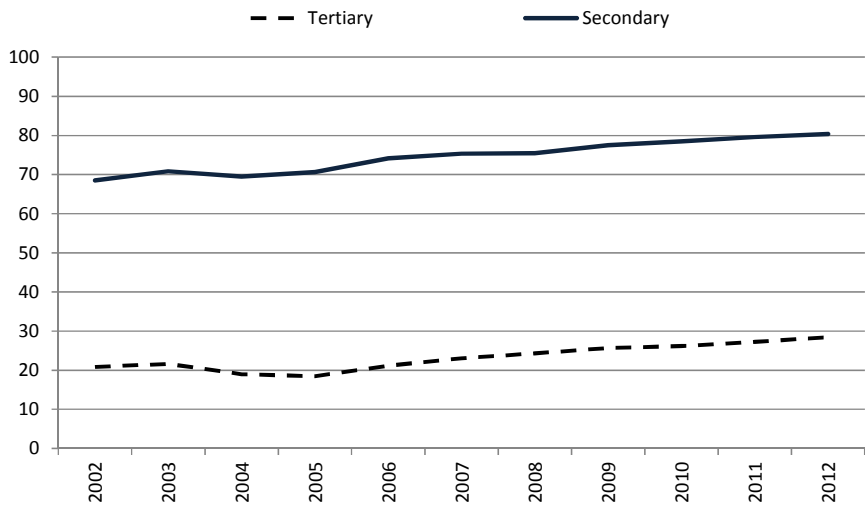
Secondary and postsecondary educational attainment rates are rising

More than a decade of solid growth and stability has also enabled Peru to significantly expand enrolments in secondary and postsecondary education, bringing them to levels much closer to that of OECD countries. Net enrolment in secondary education grew from 69% to 80 % between 2002 and 2012 (Instituto Nacional de Estadística e Informática, 2016; see Figure 1.2). The number of repeaters has also declined, which some attribute to improvements in the quality of instruction students receive at both the primary and secondary levels (UNESCO UIS, 2015). While enrolments in tertiary education still remain low compared to OECD averages, they have also grown throughout the decade, particularly in universities. In 2002, the

enrolment rate in tertiary education was 32%. By 2010 the rate had reached 40%. In Peru today, 37% of adults (aged 15 or older) have completed high school – up from just 14% in 1980 – and 27% of workers aged 25-34 have completed tertiary education (ESCALE, 2015).

Figure 1.2 Net enrolments in secondary (ages 12-16) and tertiary education (ages 17-24)

In percentage



Source: Instituto Nacional de Estadística e Informática (2016), Series Nacionales, http://webinei.inei.gob.pe:8080/sirtod-series/ (accessed on 23 June 2016).

StatLink http://dx.doi.org/10.1787/888933415356

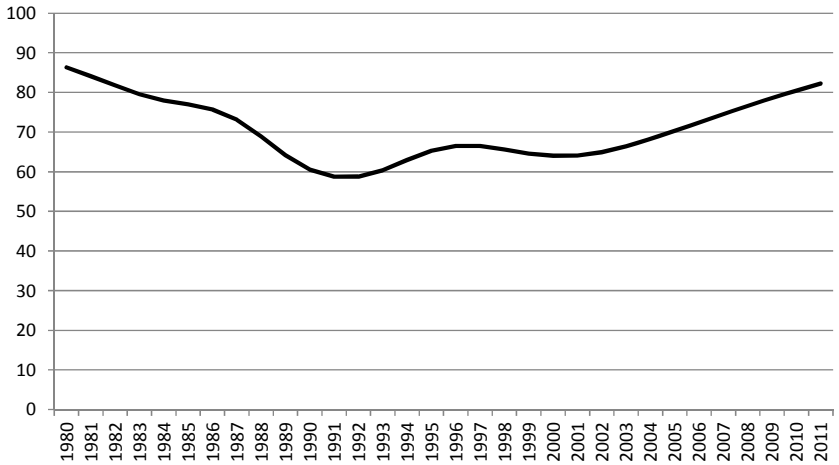
But economic growth has not removed all of the barriers to inclusive development

Despite impressive advances reducing poverty and improving access to education and healthcare, there are troubling signs of weakness in Peru's economy that threaten to hamper future growth. Most notable is the very low level of labour productivity, which remains well below that of OECD countries and also below than in the emerging East Asian economies (Chacaltana et. al, 2015). The country's low level of labour productivity largely explains the significant gap in GDP per capita between Peru and the most advanced OECD countries (Daude and Fernandez-Arias, 2010). And while there has been some improvement over the last decade, along with significant job growth, the increase in productivity has only been enough to

recover to levels achieved in the 1980s (Fernandez-Arias, 2014; see Figure 1.3 for total factor productivity). Sustained economic growth will require a more productive labour force.

Figure 1.3 Total factor productivity in Peru

1980-2011



Source: Fernández-Arias, E. (2014), "Productivity and Factor Accumulation in Latin America and the Caribbean: A Database (2014 Update)". Washington, DC, United States: Research Department, Inter-American Development Bank, www.iadb.org/en/research-and-data/publication-details,3169.html?pub_id=DBA-015.

StatLink http://dx.doi.org/10.1787/888933415368

The economy remains little diversified

Efforts to diversify the economy, particularly the export sector, also appear to have made little progress (World Bank, 2015). The export complexity of an economy indicates the extent to which a country has made the structural transformations necessary to move up product value chains and away from reliance on exports of primary goods and commodities (Anand, Mishra, and Spatfora, 2015). According to a recent report by Rabobank, economic complexity in Peru has actually declined over the last decade as growth has been fuelled by low value-added commodity exports (Loman, 2015).

And economic growth has not reduced income inequality or labour market informality

While the reduction in poverty is very impressive, it is not equally spread across the country. The differences are particularly stark between urban and rural populations. Just 15% of non-urban residents are middle class, compared to over 50% of the residents of Lima whose average earnings grew by more than 40% from 2003-2010 (Binetti and Raderstorf, 2015). Recent estimates of labour market informality also show limited progress (OECD, 2015). Despite years of steady economic growth and progress reducing poverty, the informal sector in Peru has not significantly declined. In fact, Peru continues to have among the largest informal sectors in all of Latin America, a factor that contributes to low levels of labour productivity. Jobs in the informal sector less likely to be high skilled or create opportunities for workers to obtain new skills and credentials. And movement between the two sectors is quite limited. Workers who start their careers in the informal sector have difficulty moving into the formal economy, where earnings are higher and career advancement opportunities more available (OECD, 2015).

The risk of falling into the middle-income trap

Economists have noted a common tendency among countries that move from low to middle-income status to fall into a period of prolonged slow growth. Known as the "middle-income trap" the condition is particularly common in countries that depend heavily on commodity exports, which Peru does. Commodity exports often fail to generate a lot of employment or production linkages, both of which limit any multiplier effect their growth might have on the rest of the economy (McMillan and Rodrik, 2011). Escaping the "trap" requires increasing the complexity of the economy and improving productivity. Given the dependence of many Latin American countries on commodity exports, it is not surprising that the region has proven particularly susceptible to the trap (OECD/CAF/ECLAC, 2014).

Education and skills are essential for escaping the trap

Avoiding the middle-income trap requires a country to embrace strategies that support greater economic complexity and technology-based production processes. Essential to those efforts is the development of the human capital necessary to work in skill and technology-intensive industries. Researchers have found that countries with relatively high levels of secondary and tertiary education are less likely to be caught in the middle-income trap, as are countries in which high technology products make up a large share of exports (Eichengreen, Park and Shin, 2013).

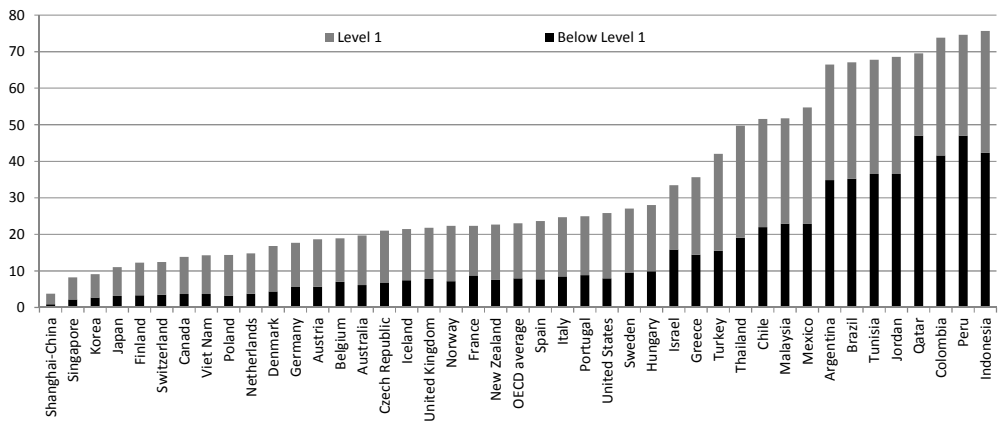
But increasing the quantity of education is not enough

But it is not just a matter of increasing the quantity of graduates, but also the quality of their education and the economic relevance of their skills (Eichengreen, Park and Shin, 2013). Countries that have been successful at avoiding prolonged slowdowns have pursued aggressive human capital development strategies that align their educational offerings with their economic growth strategy (OECD/CAF/ECLAC, 2014). If increasing educational attainment levels is not translating into productivity gains, countries can remain stuck (OECD, 2014a).

There are some issues concerning education quality

Educational quality in Peru is low compared to OECD countries. In the most recent round of the Programme of International Student Assessment (PISA), the worldwide study of maths and reading skills of children aged 15-16, Peru scored last among the 65 participating countries in maths and reading skills, and Peru has the largest percentage of students scoring below Level 1,[1] with almost 50% of students (see Figure 1.4). The mean score in science performance was also the lowest among PISA-participating countries and economies (OECD, 2014c). Without a strong foundation in maths and science, students may not be prepared for advanced studies in many technical and scientific fields that are essential for a more complex economy.

Figure 1.4 How many students score under Level 2 in mathematics



Source: Author's own work based on OECD (2014c), *PISA 2012 Results: What Students Know and Can Do – Student Performance in Mathematics, Reading and Science* (Volume I, Revised edition, February 2014), PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208780-en.

StatLink http://dx.doi.org/10.1787/888933415379

Quality at the postsecondary and tertiary levels is also very uneven, due in part to the proliferation of providers following the passage of *Decreto Ley 882* in 1996 that opened both sectors up to private proprietary schools (Castro and Yamada, 2013). The increase in the number of schools helped absorb the growing demand for postsecondary education but is also widely considered to be the source of deteriorating quality (OECD, 2015).

The economic returns to many VET programmes are low

University programmes generate, on average, positive economic returns to graduates, both in the form of earnings and employment in the formal sector. Returns from the IEST are, on average, positive, but lower (Lavado, Martinez and Yamada, 2012). Of course comparison of economic returns to vocational programmes includes a certain ability bias and is linked to a process of self-selection, and therefore should be treated with caution. Graduates of IEST (*Institutos de Educación Superior Tecnológico*) and CETPRO (*Centros de Educación Técnico Productivo*) are also more likely than university graduates to work in the informal sector, limiting their short and long-term earning potential and their access to healthcare and pension programmes (OECD, 2015). The fact that VET programmes prepare students for jobs that are more frequently located in the informal economy than more academic programmes is concerning, from both a quality and equity perspective.

Peruvian employers are struggling to find skilled workers

Reports of skills gaps and mismatches by employers across the region reinforce concerns that the expansion of the tertiary education sector has not generated the mix of skills needed to fuel economic growth and development. According to an enterprise survey by the World Bank, nearly 40% of employers in Latin America struggle to find skilled workers – the most of employers in any region in the world – and this despite decades of increasing enrolments in primary and secondary education (World Bank, 2013). A similar survey completed by Manpower Group in 2014 shows Peru at the bottom of the pack in terms of skill mismatches, with 69% of employers claiming difficulties finding the right workers.

Peru has reached a critical juncture

In short, after years of steady and impressive economic growth, declining inequality and political stability, Peru has reached a critical juncture. Continued growth will require economic diversification and higher levels of labour productivity, both of which depend upon a better-prepared workforce. With its heavy reliance on low value-added commodity exports

and its low levels of educational quality, Peru is at risk of slow growth. Continued reductions in inequality and social exclusion in Peru will similarly require strong economic growth coupled with skill development.

Skills are a key dimension of inclusive development

Skill-intensive industries grow faster in countries with a more skilled workforce, and the same countries are better able to adopt new technologies and production processes (Ciccone and Papaioannou, 2009). According to one study, an increase of one standard deviation in cognitive skills may have significant positive effects on labour productivity (Hanushek and Woessmann, 2012). Without significant improvements in the quality and quantity of skills, Peru will have difficulty developing the human capital foundation to support greater economic complexity and technological sophistication – which is a necessary for escaping the middle-income trap.

Key features of Peru's VET system

When it comes to developing a more skilled workforce, Peru is not starting from scratch. The country has a well-developed educational infrastructure with a wide array of vocational education and training offerings. In contrast to many emerging economies, Peru has an extensive technical education sector. But like many countries, the sector is highly fragmented, and poorly connected with traditional academic institutions or pathways. Distinct governance structures, regulatory policies, and funding models generate significant differences in quality among institutions and can make it difficult for students to move smoothly along educational pathways.

The VET system in Peru is highly fragmented

The formal VET sector is made up by four institutional types – secondary schools, postsecondary institutes, open access training centres, and sector-based institutions – each serving different students and with distinct funding, and governance structures. In addition to formal educational programmes, Peru's VET system includes an array of job training and employment services that are administered through the Ministry of Labour.

Each segment of the VET system addresses an essential need for vocational education and training, but the lack of a coherent and co-ordinated set of policies guiding the system limits its capacity to meet the country's broader economic development needs. Below is a description of each segment along with a brief analysis of the major challenges and opportunities each offers for building Peru's human capital.

Secondary VET: Very limited offerings

As in much of Latin America, but in strong contrast with many OECD countries, Peru offers very little vocational education and training at the secondary level (Johnstone, 2015). In fact, recent educational reforms reduced the number of hours that schools could dedicate to "education for work" and required the small group of vocationally oriented upper secondary schools (*colegios técnicos*) to increase their academic offerings, putting them on par with other traditional secondary schools. So while secondary enrolments have risen significantly over the last two decades – from just 55% of children aged 11 to 17 to 76% – they do not indicate an increase in access to vocational or work-related skills for secondary students (OECD, 2015).

Only a minority of students pursue postsecondary education, where VET is more widely available

The absence of vocational offerings at the secondary level is puzzling, particularly in light of the low levels of enrolment in tertiary education in Peru. The large majority of Peruvian students do not complete any tertiary education, which means that most young people enter the labour market with few or any job-specific skills (OECD, 2015; ESCALE, 2015). The lack of high-quality vocational training opportunities at the upper secondary level leaves many young adults with little preparation for a labour market that increasingly requires technical skills and abilities, a factor which may contribute to the low levels of labour productivity and a point to which this review will return later.

Postsecondary VET: A dynamic sector – but with weak connections to employers

The dearth of vocational offerings at the secondary level stands in sharp contrast to the large number of programmes at the postsecondary level. Students can access a wide range of two and three-year programmes at IEST and earn degrees as "Technicians" (2-years) or "Professional Technicians" (3-years). In 2014, 361 400 students were enrolled in programmes at IEST, constituting 30% of all postsecondary students. The schools represent an attractive alternative to students who do not wish, or are not able, to enrol in a university degree programme.

The postsecondary VET sector is dominated by private providers

The IEST sector has grown significantly over the last two decades, particularly following the passage of *Decreto Legislativo 882* that liberalised education and allowed for the establishment of private postsecondary

institutions. Similarly to the university sector, postsecondary VET has come to be dominated by private providers. Just over 70% of IEST students are enrolled in private institutions, with the remaining third in public institutions (MTPE/MINEDU, 2015). The private schools receive no direct funding from the Ministry of Education and depend primarily on student tuition and fees for their financing. The schools are free to set their own tuition levels, which vary widely across institutions, from as little as USD 100 per semester to as much as USD 8 000.

Table 1.1 Enrolments in public and private VET institutions

2014

	IEST		CETPRO	
	Number of students	%	Number of students	%
Public	109 367	30	123 388	50
Private	252 032	70	121 306	50
Total	361 399	100	244 694	100

Source: MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Perú"*, background report prepared for the OECD Directorate for Education and Skills, Lima.

StatLink http://dx.doi.org/10.1787/888933415414

Poor alignment between programmes and the needs of the labour market

The schools offer a broad variety of majors – from highly technical programmes like auto repair and precision manufacturing to less technical programmes like business administration and graphic design. A common concern expressed by policymakers and education experts is that the system is oversupplying graduates from less technical fields and under-supplying graduates in more rigorous science and technology fields. Employers have also complained of difficulty finding workers with technical skills and of weak connections between the content of educational programmes and the needs of the workplace (Manpower, 2014). This is seen as a problem across the postsecondary and tertiary education sectors. Chapter two will explore the drivers of the poor alignment and make recommendations for how to address it.

And poor connections to university-level programmes

Programmes at IEST are also poorly connected to university degree programmes, despite considerable overlap in content areas and the clear desire on the part of students to move into university programmes, given the stronger returns to university degrees. While some universities will grant credit for select IESTs, the arrangements are ad hoc and vary greatly across schools and programmes. As a consequence, students often end up repeating coursework and/or spending many years earning separate degrees covering similar content.

Open access VET: Technical education centres

While secondary enrolment and graduation rates have been rising in Peru, they are still well short of OECD averages. A third of Peruvians between the ages of 18 and 19 have not completed secondary school and of those who do graduate, only 33% go on to study at either a university or postsecondary technical institute (OECD, 2015). The Peruvian educational system serves these students through a national network of over two thousand *Centros de Educación Técnico-Productivo* (CETPRO) or "Technical Education Centres". The centres are open access schools that enrol students who have not completed their secondary education. They deliver one and two-year occupational training programmes and award the titles of "assistant technician" and "technician." Similar to the IEST and university sector, the large majority of CETPRO are private, and the private schools capture more than half of all enrolments. Tuition and fees also vary widely across institutions, with private schools free to set their own rates. In 2014, 244 694 students were enrolled in CETPRO around the country, 65% of them women (Chacaltana et al., 2015). While the institutions admit students without secondary credentials, they are also serve large numbers of students who have completed upper secondary who may not desire or be able to access programmes in postsecondary technical institutes or universities.

CETPRO also generate concerns about the alignment between programmes and labour market needs

The sector's financing and governance structures are similar to those for IESTs, and the Centres generate many of the same concerns among policymakers in relation to programme quality and labour market relevance. The schools are regulated by the Ministry of Education, which authorises them to deliver degrees and develops all curricula. Private CETPRO subsist on student tuition and fees and deliver programmes that cater to the needs of

workers in the country's large informal economy such as hair dressing, cooking, and basic secretarial skills.

And CETPRO are not well connected with secondary or postsecondary pathways

The sector is quite isolated from other educational offerings and pathways. CETPRO are open to students who fail to complete their secondary education, but they have no formal connection to the secondary school system. Similarly, students earn degrees – in some cases the same degree as students in two-year IEST programmes ("Technician"), but they cannot move directly from a CETPRO programme into a related postsecondary programme of study at a local IEST or university. The Ministry of Education has recently introduced legislation that would address the isolation of CETPRO students and programmes and create more opportunities for students to transfer and continue their postsecondary studies, a point to which the review will return in Chapter 3.

Sectorial schools: Employer-led VET

A number of industry sectors have established their own technical institutes that provide technical training in skills of particular relevance to the sector. The schools operate with considerable independence from the Ministry of Education, with separate governance structures and financing schemes. They provide a variety of degree programmes as well as incumbent worker training and other education and training services deemed valuable by the key stakeholders.

Well aligned with the needs of employers

The following sectors have developed a set of education and training institutions to meet their workforce development needs: housing, tourism, manufacturing, and defence (MTPE/MINEDU, 2015). While the schools represent a small slice of the overall enrolment in VET (around 10-15%), the schools are well regarded by students and employers alike. The strong involvement of the employer community – both in terms of financing and programme design – distinguish the schools from their counterparts in the traditional education sector and demonstrate how valuable those relationships are to the provision of high-quality vocational education and training. The formal ties to employers help ensure that the schools' offerings remain relevant and tied to the labour market, even as they compete for students.

Below are brief descriptions of the three largest of the sectorial initiatives:

- The Servicio Nacional de Capacitación para la Industria de la Construcción (SENCICO) provides similar education and training services to the construction sector. With schools in four of the country's largest cities, SENCICO provides training to incumbent workers as well as degree programmes tailored to the needs of the country's construction industry – from civil engineering and topography to construction management. SENCICO operates under the jurisdiction of the Ministry of Housing and develops its own curricula and degree programme. The schools are private and financed through a combination of student tuition and employer levies. The schools enrolled 2 573 students in 2014 (MTPE/MINEDU, 2015).

- The Servicio Nacional de Adiestramiento en Trabajo Industrial (SENATI): Serves Peru's industrial and manufacturing sectors with a variety of two and three-year programmes in machining, mechanical production, and repair technologies, among others. Established in 1961 by the National Society of Industries, SENATI operates independently of the Ministry of Education and has legal authority to operate its own schools and award technical and professional degrees. With over 80 schools, operating in 25 regions of the country, the system has a wide reach. In 2014, SENATI enrolled 72 443 students in 2014 and produced 13 000 graduates (SENATI, 2014). Modelled after European apprenticeship programmes, SENATI uses a dual system approach to delivering technical education. Students spend the first year of the their three-year programme in the classroom (provided by SENATI) and the second two years learning at the worksite under the supervision of a firm-based mentor. The schools are private and charge tuition, but also receive funding through the Asociación de Empresas Industriales, which is made up of employers.

- The Centro de Formación en Turismo (CENFOTUR): Authorised by the Ministry of Trade and Tourism to provide specialised education and training programmes to support the nation's tourist industry. The Centre operates four schools in major tourist cities around the country and offers two and three-year degree programmes in fields like hotel management and administration as well as shorter programmes in the culinary arts and customer service. Similar to its sectorial counterparts, it operates independently of the Ministry of Education and in close co-ordination with its employer partners who provide some financing. The schools are private and charge tuition.

Approximately 1 500 students enrol in CENFOTUR schools each year.

Non-formal VET: Job training, career guidance, and skills certification

In addition to the formal VET system, Peru offers a variety of employment and training services to citizens seeking skills, credentials, and job search assistance.

Targeted job training programmes

Peru has a number of programmes aimed at vulnerable youth and adults in need of marketable skills. *Jóvenes Productivos* is the largest of the programmes and is run out of the Ministry of Labour. *Jóvenes* has trained more than 75 000 young people since 2011 and has generated modestly positive employment and earnings outcomes (MTPE/MINEDU, 2015). The programme has an annual budget of close to USD 5 million (MTPE/MINEDU, 2015). Given the fact that only 30% of young people between the ages of 17 and 25 even enrol in postsecondary education the programme is quite small relative to the need.

Skills certification

As the demand for skills increases, job seekers increasingly need proof of their knowledge and abilities. For individuals who have not completed either secondary or postsecondary education, demonstrating their abilities to potential employers can be challenging. In 2011 the Ministry of Labour launched a service that enables workers in select fields to certify their skills through a third-party assessment process that also awards them an official qualification. The Ministry has authorised a variety of skill certifying entities – including a number of schools, industry associations, and local job centres – to administer the certification exams. Participants pay a small fee for the assessment and the qualification. Given the large numbers of Peruvian workers with no formal educational qualification, combined with the high levels of labour market informality, this alternative route represents a potentially valuable source of labour market mobility (MTPE/MINEDU, 2015).

Technological Innovation Centres (CITE)

The Ministry of Production maintains a network of public-private Technological Innovation Centres (CITE) that are designed to help firms modernise their production and distribution processes. CITEs operate across a variety of industry sectors including mining, lumber, fishing, apparel, and

coffee. The goal of the CITE's is to help Peruvian businesses move up the production value chain and meet international standards necessary to take full advantage of trade agreements and global supply chains. Improving the skills and abilities for Peruvian is a central concern of the CITEs, which work with a variety of IEST and universities on curriculum and programme design.

Career guidance and labour market information

The Ministry of Labour operates a national career guidance programme aimed at upper secondary students as well as older youth and adults. The *Servicio de Orientación Vocacional e Información Ocupacional* (Career Guidance and Occupational Information Service - SOVIO) helps in-school youth and job seekers identify their career interests through a variety of psychological assessments as well as learn about local labour market opportunities. SOVIO offers in-person services, with professional psychologists working in each of the country's regional offices, as well as a wide array of virtual services through its website. SOVIO also provides training to secondary teachers on career guidance (MTPE/MINEDU, 2015).

The ministries of education and labour have developed a consumer-friendly database of postsecondary and tertiary educational programmes called www.ponteencarrera.pe. The site matches education and labour market data, including the cost of particular programmes and, where available, the earnings of graduates.

Strengths of the Peruvian system

Peru brings considerable strengths to the goal of building its human capital for the next stage of development. In particular:

Peru has a dynamic VET sector, with many providers and programmes

As the preceding discussion demonstrates, Peru has a well-developed educational infrastructure with a wide array of vocational education and training offerings. Many countries at similar stages of development and also more developed countries have few offerings in this middle space between upper secondary and university programmes. The formal VET sector serves more than 600 000 students every year, or about 40% of all students enrolled in some form of education and training beyond secondary school, and constitutes a valuable existing skills development infrastructure upon which the country can continue to build. In addition, the sectorial initiatives

represent an important source of innovation and experimentation that benefits the VET sector as a whole (Chacaltana et al., 2015).

The VET system has strong and committed stakeholders

The OECD's review team visits, expert interviews, and background research revealed a strong interest in VET among key stakeholders across the public and private sectors in Peru. There is evidence of cross-agency collaboration among the ministries of education and labour on many VET issues and both Ministries use different mechanisms to convene and consult stakeholders. The involvement of employers is especially strong in the various sectorial initiatives and in the high-quality VET institutions. There were at the time of this review several legislative proposals that aimed at improving the quality and accessibility of VET programmes, including an effort to expand access to apprenticeship and improve connections between postsecondary VET and university sector.

Peru is building strong data systems that can support high-quality VET

Peru has also demonstrated an impressive capacity for data collection and analysis. Administrative and survey data can support efforts by policymakers, educational institutions, and students to better align the supply and demand of skills and target public and private resources effectively. Particularly notable is the ministries of education and labour's website www.ponteencarrera.pe (Get into a career) which provides data on the cost and labour market returns of specific programmes of study at all of the country's technical institutes and universities.

There is attention to the need for greater equity and inclusion

Government has strived to leverage recent economic growth to reduce social exclusion and inequality through programmes that broaden access to education and training. The commitment to developing inclusive growth strategies is evident in Peru in programmes that open educational opportunities to youth from poor families (*BECA 18*) and school leavers (*Jóvenes Productivos y Doble Oportunidad*). The programmes, while limited in their reach, demonstrate an important commitment to expanding access to education and training to all the country's citizens and are an important component of an inclusive economic growth strategy.

Peru is embracing innovation in VET programmes and policies

Peru has undertaken significant efforts to update the national curriculum used by VET providers while also reorganising programmes of study to

focus on the development of key competencies required by employers for specific occupations. Peru has also developed mechanisms for recognising prior learning mechanisms, creating certification centres where workers can receive qualifications for the skills learnt informally on the job. More recently, the Ministry of Labour has been developing "occupational profiles" and has been authorised to establish "*comités de competencias"* with employer groups. The emphasis on curricular innovation, credentialing, and employer engagement are promising steps for improving the relevance and flexibility of VET programmes.

Note

1. Tasks at level 1 require the reader to locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text with a familiar context and text type, such as a narrative or a simple list. There is minimal competing information (OECD, 2014c).

References

Anand, R., S. Mishra, and N. Spatafora (2012), "Structural transformation and the sophistication of production." *IMF Working Paper,* Research Department, International Monetary Fund, Washington D.C. United States, www.imf.org/external/pubs/ft/wp/2012/wp1259.pdf.

Binetti, B. and B. Raderstorf (2015), "Growing pains: Urbanization and governance in Peru." *World Politics Review*, www.worldpoliticsreview.com/articles/17167/growing-pains-urbanization-and-governance-in-peru.

Castro, J.F and G. Yamada (2013), "Evolución reciente de la calidad de la educación superior en Perú: No son buenas noticias", in *Calidad y Acreditación de la Educación Superior: Retos Urgentes Para el Perú*, Universidad del Pacífico and Consejo de Evaluación, Acreditación y Certificación de la Calidad de la Educación Superior Universitaria.

Chacaltana, J., J. Jose Diaz, and D. Rosas-Shady (2015), *Hacia un Sistema de Formación Continua de la Fuerza Laboral in el Perú*, BID/OIT, Lima, http://dx.doi.org/10.18235/0000126.

Ciccone, A. and E. Papaioannou, (2009), "Human capital, the structure of production, and growth", *Review of Economics and Statistics*, Vol. 91, No. 1, pp. 66-82.

Crabtree, J. Ed. (2011), *Fractured Politics: Peruvian Democracy Past and Present,* Institute for the Study of the Americas, Chapel Hill, North Carolina.

Daude, C. and E. Fernández-Arias (2010), "On the role of productivity and factor accumulation in economic development in Latin America and the Caribbean", *IDB Working Paper,* 155, Research Department, Inter-American Development Bank, Washington, DC, United States, www.iadb.org/research/pub_desc.cfm?pub_id=IDB-WP-155.

Eichengreen, B., D. Park and K. Shin (2013), "Growth slowdowns redux: New evidence on the middle-income trap", *National Bureau of Economic Research, Working Paper,* 18673, Cambridge, MA.

ESCALE (2015), *Estadística de la calidad educativa* (database), Ministerio de Educación, http://escale.minedu.gov.pe/.

Fernandez-Arias, E. (2014), "Productivity and factor accumulation in Latin America and the Caribbean: A database (2014 update)", Research Department, Inter-American Development Bank, Washington, D.C., United States, www.iadb.org/en/research-and-data/publication-details,3169.html?pub_id=DBA-015.

Hanushek, E. and L. Woessmann, (2007), "The role of education quality in economic growth", *World Bank Policy Research Working Paper*, No. 4122, World Bank, Washington D.C., https://openknowledge.worldbank.org/bitstream/handle/10986/7154/wps4122.pdf.

Instituto Nacional de Estadística e Informática (2016), Series Nacionales, http://webinei.inei.gob.pe:8080/sirtod-series/, (accessed on 23 June 2016).

Johnstone, B. (2015), *Financing Higher Education: Worldwide Perspectives and Policy Options*, http://gse.buffalo.edu/org/inthigheredfinance/files/Recent_Publications/Financing%20H%20Ed%20WW%20Perspectives%20and%20policy%20options%20revised.pdf.

Lavado, P, J. Martínez and G. Yamada (2015), "Calidad de la educación superior y desigualdad en los retornos en el Perú, 2012", *Documento de Trabajo*, No. 58, Asociación Peruana de Economía, Lima.

Loman, H. (2015), "Latin America: Locked up in the middle-income trap?" *Rabobank Economic Research*, September, https://economics.rabobank.com/publications/2015/september/latin-america-locked-up-in-the-middle-income-trap/.

Manpower (2014), *Talent Shortage Survey 2014, Research Results*, Manpower Group, Milwaukee, WI.

McMillan, M. and D. Rodrik (2011), "Globalization, structural change and productivity growth.", in Bacchetta M. and M. Jense (Eds.), *Making Globalization Socially Sustainable* (pp. 49–84), International Labour Organization and World Trade Organization, Geneva.

MTPE/MINEDU (2015), Informe base sobre "Competencias más allá de la escuela en el Perú", background report prepared for the OECD Directorate for Education and Skills, Lima.

OECD (2015), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264243279-en.

OECD (2014a), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2014b), *Perspectives on Global Development 2014: Boosting Productivity to Meet the Middle-Income Challenge*, OECD Publishing, Paris, http://dx.doi.org/10.1787/persp_glob_dev-2014-en.

OECD (2014c), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208780-en.

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264087460-en.

OECD/CAF/ECLAC (2014), *Latin American Economic Outlook 2015: Education, Skills and Innovation for Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/leo-2015-en.

SENATI (2014), SENATI en cifras, SENATI, Lima.

UNESCO/UIS (2015), UNESCO Institute for Statistics, www.uis.unesco.org/Pages/default.aspx.

World Bank (2016), GDP growth (annual %), http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&start=1980.

World Bank (2015), *Enterprise Surveys*, World Bank Group, www.enterprisesurveys.org/data.

World Bank Group (2015), World Development Indicators, Peru, http://databank.worldbank.org/data/reports.aspx?source=2&country=PER&series=&period.

World Bank Group (2013), "Measuring firm performance in Latin America and the Caribbean", *Latin America and the Caribbean Series Note,* No. 2, 1/2013, Enterprise Surveys, World Bank Group, www.enterprisesurveys.org/~/media/FPDKM/EnterpriseSurveys/Documents/Topic-Analysis/Measuring-Firm-Performance-LAC-Note-3.pdf.

Chapter 2

Improving the alignment between the supply of VET programmes and the needs of the economy

A core challenge of any vocational education and training (VET) system is ensuring that the supply of programmes is meeting the needs of employers for the right skills and students for good jobs. This chapter will provide a set of recommendations for crafting public investment and regulatory strategies that can help steer institutions toward providing programmes with good labour market returns.

The alignment challenge

Connecting the supply of VET programmes to employer demand is a challenge in many countries

Aligning the supply of VET programmes with the short and long-terms needs of the economy is a core challenge for all VET systems – and no easy task. Successful alignment requires strong feedback loops from the labour market to the education sector, along with policies and practices that ensure that information is used to shape the supply of programmes. But in many countries, the connections between schools and employers are uneven at best.

And it may be getting harder

And there are reasons to believe that alignment is getting even harder to achieve in today's globalised economy (McMillan and Rodrik, 2011). The rapid pace of technological change has complicated efforts to align the supply of education with a constantly changing workplace. The balance between technical and soft skills is hard to find as workers need to be able to operate current technologies but also adapt quickly to new ones. The unbundling of production processes across different geographies means that countries increasingly have to identify their niche within a segment of a global production process, and then be prepared for that niche to change and evolve. Skills have always been a moving target, but in today's fast-paced, mobile, and technology-fuelled economy, getting and sustaining the right mix is ever more challenging.

The Peruvian VET system does not supply the technical skills needed by the labour market

In the case of Peru, there is evidence that the existing array of programmes and institutions are falling short of meeting the country's skills development needs. The poor alignment has been noted in a variety of reviews of Peru and was a consensus view among the policymakers, educators, and employers we interviewed. Evidence of the poor alignment includes the fact of the nearly 2 million Peruvians with technician-level degrees, only 15% work as technicians, the others working in jobs that do not require specific job skills, which indicates that the system does not meet the needs of the labour market (SINEACE, 2015). At the same time despite growth in the supply of programmes and the numbers of graduates, employer surveys indicate significant unmet demand for skills, particularly technical skills (Manpower Group, 2014).

The VET system is oversupplying programmes leading to jobs in the low-skill service sector

A quick perusal of programmes on the government's public-facing education database (www.ponteencarrera.pe) demonstrates the large supply of non-technical programmes, particularly by private providers, and a relatively smaller number of institutions delivering more technical programmes. For example, 140 IEST (*Institutos de Educación Superior Tecnológico*) deliver 2 and 3-year programmes in business administration, 114 of which are private. Only 62 IEST offer programmes in civil engineering and just 19 of them are private. Only 36 private IEST deliver programmes in mechanical engineering, and only 22 in electrical engineering, but more than 90 deliver programmes in secretarial studies, making up 70% of all schools.

Underemployment is widespread

The continued low levels of labour productivity, and the high levels of graduates of postsecondary institutions working in occupations that do not require advanced studies, also point to gaps between what students are learning and the needs of the labour market. Half of all professional workers are in that case, that is, working in an occupation that does not require advanced education. This phenomenon is worse for graduates of postsecondary VET programmes, with 61% working in jobs below their educational level, compared to 44% of university graduates (MTPE/MINEDU, 2015).

Employer surveys point to difficulties finding skilled workers

The concern that the supply of programmes is out of balance with the needs of the labour market is further supported by the consistent feedback from employers on the difficulty they have locating workers with strong technical skills. A World Bank survey of employers found that Latin America is the region where firms struggle the most to find skilled workers (World Bank, 2013). A 2014 survey of employers in Latin America found that 67% of employers in Peru encountered difficulties finding workers with the right skills, well above the regional average of 56% (Manpower, 2014). The same survey found that employers had the greatest difficult hiring skilled technicians (Manpower, 2014).

Three strategies for strengthening alignment

Despite the significant demand for postsecondary technical education in Peru, few mechanisms are in place to guide the provision of programmes in

ways that best meet labour market needs. Alignment requires nimble and responsive institutions and strong feedback loops between employers, schools, and policymakers (Eichhorst et al., 2012). In systems dominated by private providers, public policies need to reward institutions for aligning their programmes with the broader needs of the economy and long-term interests of students. While the private sector can be a powerful tool for expanding access to VET, it is essential for government to build a policy infrastructure to ensure that providers respond to the right set of demand signals. In the absence of public policies that structure the market, schools face strong incentives to focus on student enrolments rather than employer demand, leading to sub-optimal outcomes for both.

Overarching recommendation 2: Through a combination of outcomes-based funding and policies that enhance local control and accountability, steer providers toward programmes with strong labour market outcomes.

- Recommendation 2.1: provide targeted and performance-based funding to private institutions that successfully graduate students in programmes with demonstrated labour shortages.
- Recommendation 2.2: Strengthen and expand data systems that connect education and labour market outcomes and track student transitions within education and into employment.
- Recomemndation 2.3: Allow more flexibility in the delivery of the national curriculum to permit institutions to meet the needs of local economies and employers.

Below are three strategies for strengthening the alignment between the supply of VET programmes and the long-terms needs of students and employers.

Recommendation 2.1: Funding for outcomes

Provide targeted and outcomes-based funding to private institutions that successfully graduate students in programmes with demonstrated labour shortages.

Supporting arguments

As outlined in Chapter 1, the technical education institutes and centres (IEST, *Institutos de Educación Superior Tecnológico* and CETPRO, *Centros de Educación Técnico Productivo*) are the heart of the VET system in Peru. Together they enrol more than 600 000 students annually. The system is a mix of public and private providers, but the large majority of students –

around 70% – are enrolled in private institutions. With the exception of the sectorial schools, the financial models for both the public and private schools depend fundamentally on student enrolments. Private schools finance themselves through student tuition and fees, which they are free to set. Funding for public institutions comes through the Ministry of Education in Peru (MINEDU, Ministerio de Educación) and is linked to the numbers of students and teachers in each institution. In both cases, institutions are rewarded for their ability to attract students and fill their classrooms. While both private and public schools need permission from MINEDU to enrol students and to offer particular programmes, they are not held accountable for student outcomes, such as graduation rates or employment prospects. The focus on recruitment and enrolment, in turn, provides incentives for institutions to offer programmes that are popular among students and/or inexpensive to deliver, but that may have only loose connections to the local labour market. Strengthening the alignment between VET programme supply and employer demand will require policies that address institutional incentives to emphasise enrolments over student labour market outcomes.

Outcomes-based funding shift institutional focus from enrolment to a broader set of goals

Outcomes-based funding is one approach that has been demonstrated to influence institutional behaviour and shift their focus on enrolments to a broader interest in labour market dynamics. Outcomes-based funding ties access to public funding to a set of outcomes that policymakers consider to be in the public interest. In some cases, the outcomes focus on success graduating particular sub-populations of students such as low-income or historically disadvantaged groups. In other cases, the outcomes are tied to strategic economic development needs or to address persistent labour market shortages. Programmes aimed at increasing graduates in science, technology, engineering and maths (STEM) fields are a common example. If the outcomes are graduation rates, the focus has to be combined with strong quality assurance mechanisms, to ensure that institutions do not artificially make programmes easier to improve graduation rates. If the outcomes chosen are labour market ones, it is important to make sure that the data is reliable and of good quality.

Outcomes-based funding makes institutions more data-driven

Outcomes-based funding that directly links access to funding to specific outcomes is an increasingly popular in market-driven systems and has demonstrated some success in changing institutional behaviour (Snyder, 2015). Where schools are rewarded for the labour market outcomes of graduates, they are more likely to invest in activities that deepen their

knowledge of local labour market needs and more likely to collect and use data on a variety of factors influencing student success (Snyder, 2015).

Peru has experimented with targeted funding linked to institutional performance

Box 2.1 Outcomes-based funding models in the United States: The Texas state technical college system (TSTC)

Performance-based funding models are increasingly popular in the United States. Over the last decade, 32 states have adopted policies that allocate some portion of funding to performance indicators such as course completion, time to degree, transfer rates, the number of degrees awarded, or the number of low-income and minority graduates. The impact of the policies vary by state and institutional type but, overall, performance-based funding formulas have been linked to a variety of improvements in institutional behaviour and student outcomes (Snyder, 2015).

Texas has taken performance-based funding to a new level for its technical college (VET) system, linking the system's annual appropriation to the degree to which it supports the regional economy through increased tax revenue from former students. This "value-added" funding formula replaced the formula based on enrolments with one that uses earnings data to calculate the economic impact of TSTC students to the state's economy. The formula takes the 5-year average annual salary of former students, subtracts the annual salary of a minimum-wage worker, and calculates the additional taxes generated by the above-minimum-wage earnings. The more TSTC students earn five-years out of school, the more funding allocated to TSTC by the state government of Texas (Selingo and Van Der Werf, 2016).

The formula, which was implemented in 2013, is already having a strong impact on policy and practice within the technical colleges, away from an institutional focus on enrolments and toward an emphasis on completion. Even more important, the funding model is pushing the colleges to strengthen their relationships with local industry partners to ensure graduates are moving into high-quality, in-demand jobs (Selingo and Van Der Werf, 2016).

Source: Selingo, J. and M. Van Der Werf (2016), *Linking Appropriations for the Texas State Technical College System to Student Employment Outcome*, Lumina Issue Papers, Lumina Foundation, Indianapolis, www.luminafoundation.org/files/resources/linking-appropriations-to-outcomes-tx-1.pdf.

Peru's, *Beca 18*, a programme, which provides low-income students with grants to pay tuition at a select group of postsecondary institutions, has some elements of an outcomes-based funding approach. Public funds (in the

form of student financial aid) go to schools that have met eligibility criteria that align with the government's goal – in this case, wider access to high-quality postsecondary education for low-income students. The schools participating in Beca were chosen based on their performance. Chapter 5 will explore *Beca 18* in more detail as a promising approach to address inequity and exclusion in Peru's VET system. But it is also a good model of how to link access to public funding to institutional performance. In a VET system so dominated by private providers as Peru's, financial incentives linked to outcomes play to the strengths of a competitive, market-based approach to provision while addressing the tendency of providers to focus only on enrolments. It represents a strategy for increasing public financing of VET that is targeted and conditional. It can also serve as a valuable compliment to existing institutional and programme approval policies that seek to shape the supply of programmes. Peru may want to consider similar financing strategies for shaping the behaviour of VET institutions, but linked more explicitly to the goal of aligning programme supply with the needs of local labour markets.

Recommendation 2.2: Building a data infrastructure to support alignment

Strengthen and expand data systems that connect education and labour market outcomes and track student transitions within education and into employment.

Supporting arguments

Market-driven VET systems – meaning countries in which the provision is for the most part private, and where providers compete for students, such as Peru's, require informed consumers to function well (Eichhorst, et al., 2012). In an environment in which the economic returns to particular educational programmes or career trajectories are not well known, students (and parents and guidance counsellors) will rely on other factors – convenience, familiarity, fear of maths or science courses – to guide their decisions and these factors may not lead to desirable long-term outcomes. Schools that excel in marketing can be particularly effective in low-information markets regardless of the quality of the programmes they deliver or whether they align with the needs of the labour market. Peru does offer some career guidance services, as well as some information on the cost and returns to particular programmes but overall, Peruvian students are largely on their own navigating a complex and confusing education marketplace. A robust data infrastructure that can reliably connect education

and employment data at the student and programme level is an essential step toward connecting educational supply and labour market demand.

Outcomes-based funding approaches require good data to be effective

While outcomes-based funding approaches can help steer institutions toward providing skills needed by employers, they rely fundamentally on accurate information about student labour market trajectories. Data on student transitions and employment outcomes is essential for assessing the degree to which programmes are aligned with needs of the labour market. In the absence information, students and institutions tend to rely on enrolments as an indicator of quality. And enrolment data is far easier for schools and policymakers to collect than data on student transitions into the labour market.

Students need accurate and easy-to-understand information to make good choices

But even without outcomes-based funding models, accurate information on the cost and returns to particular programmes of study and institutions, as well as on local labour market dynamics, is essential for aligning the VET system with the needs of the economy. Market-driven VET systems such as Peru's require well-informed consumers to function well. The government also has a compelling interest in protecting students from misleading and inaccurate information about programme returns as well as in building the capacity of students (and parents and guidance counsellors) to make good choices. Chapter 6 will explore the crucial role that effective career guidance plays in building a high-quality VET system that is inclusive, efficient, and responsive – as well as well aligned to the broader needs of the economy.

Data quality is essential

High-quality VET requires a marriage of accurate labour market information with the actual trajectories of students. On the education side, the Ministry of Education needs to ensure that institutions are collecting and reporting the right data elements, including enrolments, retention, desertions, course completion, and graduation rates. The more the Ministry can facilitate accurate data collection through field-building investments in technology and technical assistance, the more likely it is to get accurate data from schools. Building a data infrastructure to support an outcomes-driven VET system is not something that institutions can do on their own, though some are quite successful at tracking student transitions through post-graduation surveys. Institutions are one important source of data, but in

concert with employers and other sources of labour market information. In fact, moving to a data-driven VET system requires extensive collaboration across national education, labour, and statistical agencies to connect education and employment data from around the country.

The database supporting "Pontencarrera" is an excellent foundation and should be expanded

Peru's ministries of education and labour have already made significant strides toward connecting education and employment data with the creation of www.ponteencarrera.pe, a labour market observatory that captures the cost of different programmes and the average earnings of graduates. But the data are still quite incomplete, likely a reflection of Peru's large informal sector as well as the limited capacity of some institutions to collect and report student-level data. More than 80% of the IEST's listed on the site have no information on the earnings of their graduates' continued investments in data collection and analysis, combined with the additional data elements identified above, would enable the government to generate a more robust set of findings on the relationship between educational supply and labour market outcomes which, in turn, can provide a strong data-driven foundation to the country's VET system.

Destinations surveys of graduate leavers are a good, and simple, tool

As mentioned before better data are essential to link the mix of provision to labour market needs. They underpin career guidance (discussed in Chapter 6) and allow students to respond to skills shortages by making wise career choices. Well-informed career choices play an important role in determining the mix of provision, even within the frame of a system where the mix is largely driven by student preferences. A destinations survey administered to those leaving vocational programmes around one year after completion, (or after they drop out) establishes whether graduates are working and in what occupation, whether they are pursuing further study, and if they are unemployed or otherwise not in the labour market. It can be undertaken through mobile phone contacts obtained from college students, allowing a follow-up regardless of location. This allows the success or failure of different vocational programmes and institutions to be assessed. A survey can also ask graduates about what they thought of their vocational programme – whether it was well taught and provided them with relevant skills for example. In this way such surveys also become a tool to monitor quality. This approach was recommended in the OECD Skills beyond School review of South Africa (Field, Musset and Álvarez-Galván, 2014). There is much international experience of destinations surveys, typically in higher education but also increasingly at secondary school level (see Box 2.2).

Box 2.2 Destination surveys

In **Australia** the Student Outcomes Survey is conducted annually among students who completed some vocational training. Conducted by the National Centre for Vocational Education and Research since 1997, it is funded by the Australian government and provides information on employment and further study outcomes, the relevance and benefits of training, and student satisfaction. The information collected supports the administration, planning and evaluation of the VET system.

In **Ireland**, the School Leavers Survey is based on a national sample of school leavers, contacted 12 to 18 months after leaving school. Face-to-face interviews, used in this survey since its beginning in 1980, have become more difficult as a result of declining response rates and high costs. Therefore the 2007 School Leavers Survey used a mix of approaches. The selected individuals were asked to complete an online questionnaire and could also ask for a paper copy. Participants were offered an incentive to complete the questionnaire, with their names being entered in a draw for prizes. Those who were particularly difficult to reach (e.g. early school leavers) were followed up by telephone initially and then face-to-face.

Source: OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264087460-en.

Recommendation 2.3: Allowing more flexibility and opportunities for local customisation

Allow institutions more flexibility to adapt programmes to meet the needs of local economies and employers.

Supporting arguments

A distinguishing feature of high-quality VET is its alignment with the skill needs of local economies and employers. In contrast to traditional programmes focused on general academic skills, VET programmes have to change as the needs of the local economy changes. Flexibility and responsiveness are essential elements of quality. They are also key to ensuring that programmes are well aligned with the needs of employers and local labour markets.

The curriculum development process in Peru is highly centralised

The Ministry of Education is responsible for creating and updating a national catalogue of programmes that institutions can offer as well

developing the curriculum for the individual programmes. While the process is consultative and involves a broad range of stakeholders, including regional offices and employers, it is nevertheless a very centralised approach. In a country as geographically diverse as Peru, with distinct regional economies in the coastal, highland, and lowland areas of the country, the demand for skills will vary considerably. Institutions currently have quite limited latitude to modify existing programmes, and almost no ability to offer programmes that are not currently in the National Catalogue.

The government is working to create more flexibility for VET providers

Over the last decade, MINEDU has made efforts to build more flexibility into the design and delivery of VET programmes. The move from a course-based to a modular and competency-based curricular model for VET programmes has generated opportunities for institutions to vary how they deliver portions of VET programmes. Proposed reforms to the law governing IEST aim to create even more flexibility for providers and could help improve the alignment between programmes and local economies.

National curricula can leave room for a locally negotiated element

Considered from an international perspective, there are two main models for the design of curricula and related qualifications. One is through a national top-down system, where employers are involved. This framework is relatively common in continental Europe and elsewhere. Such programmes have the advantage of national consistency, so that someone trained in one part of the country has skills recognised in another part. Alternatively, where relatively autonomous institutions (such as universities and colleges) can establish their own curricula and qualifications, they can design programmes in partnership with local employers. This approach allows for local responsiveness. There are advantages in a blend of both models. Certain programmes s established more centrally – for example by the *Länder* for professional programmes in *Fachschulen* in Germany, or in the central qualifications systems for post-high school programmes in Romania – also leave scope for a locally negotiated element: around 20% of the curriculum is determined by the individual *Fachschule* in Germany, and around 15% in the post-high school in Romania (Fazekas and Field, 2013; Musset, 2014). These arrangements balance the advantages of national consistency in qualifications with responsiveness to local employer needs. Local tailoring of curricula may also serve the purposes of articulation with a locally provided higher education degree (OECD, 2014).

Allowing for local adaption can also strengthen the use of data and cross-agency collaboration at the regional level

For Peru, an additional benefit of allowing some leeway in adapting programmes to their local circumstances is to encourage institutions to engage with employers and learn about their needs. It can also provide an opportunity to strengthen the role of regional offices of the ministries of education and labour and provide opportunities for stronger co-ordination and collaboration between them. Specifically, regional offices of the Ministry of Labour can share regional labour market information with their education counterparts to inform decisions around curricular adaptation. Greater flexibility thus has the double benefit of enhancing the relevance of programmes in schools and generating an opportunity for cross-agency collaboration.

References

Eichhorst, W. et al. (2012), "A roadmap to vocational education and training systems around the world", *IZA Discussion Paper Series*, No. 7110, IZA, Bonn, http://ftp.iza.org/dp7110.pdf.

Fazekas, M. and S. Field (2013), *A Skills beyond School Review of Germany*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264202146-en.

Field, S., P. Musset and J. Álvarez-Galván (2014), *A Skills beyond School Review of South Africa*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264223776-en.

Manpower (2014), *Talent Shortage Survey 2014, Research Results*, Manpower Group, Milwaukee, WI.

McMillan, M., and Rodrik, D. (2011), "Globalization, structural change and productivity growth", in Bacchetta M. and M. Jense (Eds.), *Making Globalization Socially Sustainable* (pp. 49–84), International Labour Organization and World Trade Organization, Geneva.

MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Peru"*, background report prepared for the OECD Directorate for Education and Skills, Lima.

Musset, P (2014), *A Skills beyond School Commentary on Romania*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills beyond school/ASkillsBeyondSchoolCommentaryOnRomania.pdf.

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264087460-e.

Selingo, J. and M. Van Der Werf (2016), *Linking Appropriations for the Texas State Technical College System to Student Employment Outcome*, Lumina Issue Papers, Lumina Foundation, Indianapolis, www.luminafoundation.org/files/resources/linking-appropriations-to-outcomes-tx-1.pdf.

SINEACE (2015), "Demanda laboral de técnicos en el Perú y expectativas sobre la certificación de competencias", Lima, www.sineace.gob.pe/wp-content/uploads/2016/02/Libro-Demanda-Laboral_Cliente.pdf.

Snyder, M. (2015), *Driving Better Outcomes: Typology and Principles to Inform Outcomes-based Funding Models*, HCM Strategists, http://hcmstrategists.com/drivingoutcomes/wp-content/themes/hcm/pdf/Driving%20Outcomes.pdf.

World Bank Group (2013), "Measuring firm performance in Latin America and the Caribbean", *Latin America and the Caribbean Series Note,* No.2, 1/2013, Enterprise Surveys, World Bank Group, www.enterprisesurveys.org/~/media/FPDKM/EnterpriseSurveys/Documents/Topic-Analysis/Measuring-Firm-Performance-LAC-Note-3.pdf.

Chapter 3

Ensuring quality across all VET programmes

Peru has a robust vocational education and training system, but there is wide variability in the quality of particular programmes. While some programmes are well aligned with the needs of employers and do facilitate student transitions into good jobs, the government does too little to establish baseline quality criteria that all programmes are required to meet. The result is a general lack of consistency or predictability in vocational education and training (VET) offerings, which hurts both students and employers.

This chapter will provide a set of recommendations for designing public investment and regulatory strategies that help build and sustain quality. In particular, the policies aim to ensure VET programmes teach relevant technical skills, prepare students with core academic skills, and support successful student transitions.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The VET quality challenge

Sustaining programme quality is a challenge for all VET systems

Building and sustaining quality programmes can be particularly challenging for vocational education and training systems. VET programmes need to be continually assessed for their relevance to local economies and employers, instructors need to be kept up-to-date on changing industry practices, and students need opportunities to apply their learning in real-world settings. In contrast to many traditional academic programmes, VET requires constant care and feeding lest it become obsolete. This need for continual investment and updating is often an under-appreciated dimension of vocational education. In the absence of a robust policy and funding infrastructure, VET programmes can become disconnected from the labour market or opportunities for further education or both.

Improving the quality of educational programmes, including VET, has been a priority

Peru is no stranger to conversations about educational quality. Since the mid-1990s, the country has launched a series of reforms efforts aimed at improving both quality and consistency across the education spectrum. In the area of technical education, reform efforts introduced the focus on competency-based and modular curricular designs that continue today (MTPE/MINEDU, 2015). While educational reform efforts were geared primarily toward the traditional primary and secondary education sector, the quality discussion turned to the VET and tertiary sector in the mid-2000s, amid growing evidence of skill gaps and labour market shortages.

Defining quality in VET programmes: Three key principles

While educational quality has a many dimensions, three distinct but related elements are particularly crucial for VET programmes:

- ***Teach relevant technical skills***: No one should train for an occupation for which there is no labour market demand or learn skills that have been rendered obsolete by new technologies or changing production processes. While all educational programmes should build relevant skills, VET providers are under particular pressure to ensure their programmes teach skills that are aligned with the needs of local economies and employers. Maintaining relevance is one of the central challenges for VET systems.

- ***Programmes build both academic and technical skills***: It is imperative that vocational programmes help students develop both specific, occupationally relevant skills as well as core academic skills in reading, writing, and maths. Too often, vocational education is considered an alternative to academic learning, rather than a different vehicle for acquiring broad cognitive skills. But an overly narrow focus on occupational skills leaves students ill-prepared to navigate career transitions, to build on their skills through further education, or deal with the many other demands of modern life that require broader knowledge and skills. High-quality vocational programmes embed and contextualise core academic skills into an occupationally focused curriculum. This applied learning approach works better for some students who find it easier to master general concepts and theories when they are connected to practical problems and know-how.
- ***Facilitate successful student transitions into further learning opportunities***: The most well designed vocational programme is only as good as the success of its graduates. High-quality programmes prepare students to transition to higher levels of education and training and into good quality jobs. Programmes that large numbers of students fail to complete or that do not position students to succeed in the labour market are not high-quality programmes, no matter how good the curriculum. High-quality VET programmes are designed to meet the needs of their students, providing additional supports in the form of tutoring, career advising, job search assistance, and even child care and financial supports, as needed. When evaluating a particular VET programme, the degree to which it enables a successful transition into a job or into higher levels of education is a key indicator of quality.

VET programme quality is very uneven in Peru

There are many VET programmes in Peru that meet each of these criteria, particularly those provided through the sectorial initiatives or through institutions with strong industry linkages. There are also a large number of programmes that fail on one or more of these dimensions. For example, through our site visits and expert interviews, we learned that many programmes offered through public institutions lack the equipment necessary to teach relevant occupational skills, including modern machinery, computers, software, etc. We also saw great variability in the degree to which VET institutions helped students develop general and transferable skills along with occupational skills. Some schools had clearly integrated

academic learning and technical training while others, particularly among the CETPRO (*Centros de Educación Técnico Productivo*), appeared to focus almost exclusively on a narrow set of occupational skills. The degree to which institutions support transitions into high-quality jobs also appears to vary widely. As discussed in the previous chapter, many VET institutions offer programmes in fields with only loose connections to the formal sector or to high-quality jobs.

***Overarching recommendation 3**:* Through a combination of targeted investments, carefully crafted regulations, and sustained consultation with key stakeholders, improve the quality and consistency of VET programmes.

- Recommendation 3.1: Continue efforts to develop an effective accreditation system for VET institutions and programmes.
- Recommendation 3.2: Strengthen public VET institutions through increased funding for equipment, faculty development, and professional management.
- Recommendation 3.3: Require mandatory work-based learning (WBL) opportunities for all VET students.

Similar to the forces driving the alignment challenge, Peru lacks an adequate set of policies to build quality in VET and ensure consistency across programmes and providers. On the one hand, the strong reliance on private providers that operate with considerable operational autonomy limits the ability of the government to shape how programmes are delivered. On the other hand, the low level of investment in public VET institutions constrains their ability to keep up with industry practices. The segmentation of the VET market between those governed through MINEDU (Ministry of Education in Peru, Ministerio de Educación) and those under distinct arrangements further complicates efforts to build a common understanding around programme quality. As a result, there is wide variability in the quality of particular programmes, which hurts both students and employers. Below are three concrete strategies Peru can pursue to improve quality in its VET programmes.

Recommendation 3.1: Strengthening accreditation

Continue efforts to develop an effective and mandatory accreditation system for VET institutions and programmes.

Supporting arguments

Peru's VET sector lacks an adequate quality assurance system to ensure consistency across programmes and providers. As a result, there is wide

variability in the quality of particular programmes, which hurts both students and employers.

Accreditation processes clarify quality standards for VET programmes and providers

Many countries make accreditation a requirement for institutions to award particular qualifications, including academic and technical degrees. Accreditation systems are designed to establish clear quality standards for education and training providers and programmes. Accreditation reviews "look under the hood" of institutions to ensure that instructors are qualified, equipment is up-to-date, key stakeholders are involved, programmes are in line with industry standards, and students are receiving a quality education. Institutions (or particular programmes) are evaluated in relation to a set of established quality standards that the participating institution has agreed to sustain in exchange for becoming "accredited". The goal is to ensure that education provided by the institution meets threshold levels of quality and to assure that they improve over time (CHEA, 2010). The standards are generally set by accrediting agencies whose members include faculty from various accredited colleges and universities as well as other key stakeholders from industry or government. Teams of reviewers carry out the accreditation process, visiting an institution, determining the extent to which the standards are met, and publicly announcing their findings.

Accreditation can be a valuable complement to other policies aimed at ensuring quality and holding institutions accountable for programme outcomes (Eichhorst et al., 2012). While MINEDU's curriculum development process ensures consistency in the content of programmes delivered around the country, accreditation can help ensure minimum standards are met in relation to the quality of the pedagogy and student experience. By relying on educators and other relevant stakeholders to establish standards and conduct the reviews, accreditation can create a sense of shared ownership in the quality assurance processes. It helps institutions examine their own practices through a critical lens and identify strengths and weakness. It can also build the confidence of students, employers, and policymakers in particular schools and programmes by establishing clear and consistent standards (CHEA, 2010). See Box 3.1 for more on the key components of effective accreditation systems.

Peru is working to implement a system of institutional and programmatic accreditation to strengthen educational quality

In 2006, Peru established the National System for Evaluation and Accreditation of Education Quality SINEACE (Sistema Nacional de

Evaluación y Acreditación de la Calidad Educativa), a comprehensive accreditation system designed to improve educational quality at all levels, including in VET programmes. SINEACE is made up by three distinct accrediting agencies, including the Peruvian Institute of Evaluation, Accreditation and Certification of Basic Education Quality IPEBA (Instituto Peruano de Evaluación, Acreditación y Certificación de la Calidad de la Educación Básica), which accredits primary and secondary schools as well as the CETPRO, the Evaluation, Accreditation and Certification Council of Non-University Higher Education Quality CONEACES (Consejo de Evaluación, Acreditación y Certificación de la Calidad de la Educación Superior no Universitaria), with jurisdiction over the IEST (*Institutos de Educación Superior Tecnológico*), and the Evaluation, Accreditation and Certification Council of University Higher Education Quality CONEAU (Consejo de Evaluación, Acreditación y Certificación de la Calidad de la Educación Superior Universitaria), which focuses on universities. The agencies accredit both institutions and individual programmes, using a peer-review process. Each agency has established quality standards for their respective sectors.

But progress has been slow

While SINEACE has official authority to accredit programmes and schools, accreditation is not required for institutions operate in Peru. That is, accreditation processes are entirely voluntary and not linked to any of the approval processes necessary for institutions to offer official degree programmes. Not surprisingly, given the cost and considerable work usually entailed by accreditation reviews, very few institutions have participated. In fact, by mid-2015, SINEACE had only accredited 33 of the 1 743 university degree programmes on offer (less than 2%) and just 83 of the 2 406 technical education programmes (less than 4%) in operation (El Comercio, 2015).

And the future is unclear

The slow pace and scant coverage of accreditation led the Ministry of Education in 2015 to propose replacing SINEACE with a new organisation that would take over the accreditation of universities and technical institutes (MTPE/MINEDU, 2015). The law is still under consideration, leaving the quality assurance process in Peru in a state of uncertainty. SINEACE continues to accredit programmes and institutions, but its future and authority remain unclear as of this writing.

Peru should continue efforts to develop and strengthen accreditation

Accreditation systems are difficult to establish in the best of conditions, and even more so when there are many entrenched institutions that have little to gain from new and potentially costly procedures. Despite the difficulties, efforts to establish an effective accreditation system should continue. While accreditation is far from a panacea, it can establish an important quality baseline and support efforts to increase institutional accountability. For example, the "*Matriz de evaluación para la acreditación de la calidad de la gestión educativa de centros de educación técnico productivo"* developed by IPEBA (IPEBA, 2012) is a valuable resource to the field. It demonstrates how accreditation can provide a common language around quality and concrete methods for identifying those quality characteristics. Accreditation review processes can also build the capacity of faculty to identify educational quality and encourage institutions to engage in self-examination and continuous improvement.

Peru should make it mandatory for all institutions

For accreditation to work as a guarantor of quality it has to be mandatory, not voluntary and it needs to be part of a broader set of accountability policies that aim to guide institutional behaviour. Given the cost and time associated with review processes, the requirement would need to be implemented gradually, and in stages. Nevertheless, requiring accreditation is essential to making it an effective tool for ensuring quality. It is unrealistic to expect that institutions, on their own, will opt to undertake accreditation reviews. In fact, institutions that are struggling with either quality or resources have no incentive to engage in a quality assurance process that could surface deficiencies and threaten their ability to attract future students.

Box 3.1 Key components of effective accreditation systems

In addition to providing a common language and framework for identifying institutional and programmatic quality, other key elements of a high-quality accreditation system include:

- Legal and financial independence: Accrediting agencies require legal and financial autonomy from the institutions they are evaluating and from the relevant government agencies or ministries. The more accreditation is linked to high stakes outcomes such as eligibility to operate or to receive public monies, the greater the need for independence.
- Student-cantered: Accrediting bodies and polices should be guided by the interests of students for high-quality educational programmes.
- Protect consumers and taxpayers: Accreditation should protect the interests of consumers and taxpayers, ensuring that both public and private investments in education are directed toward sound institutions and programmes.
- Focus on continual improvement: Accreditation reviews are not just programme audits. They should identify opportunities for improvement and, when resources allow, include technical assistance opportunities. Accreditation should also build the capacity of institutions to engage in their own continual improvement processes.
- Include a mix of stakeholders: While faculty-based peer-review is a common feature of many accreditation systems, including outside stakeholders such as representatives from local business, community organisations, and governmental agencies enriches the process by broadening the base for feedback. All reviewers need to be adequately trained to engage in the review process, but not all need to come from inside academe.
- Focus on outcomes as well as inputs: Student outcomes – graduation, employment, earnings – are an important an indicator of quality as any other. While tracking employment and earnings may be difficult in Peru, given the large size of the informal sector, graduation rates are not difficult to track and all institutions should be required to do so.

Sources: Council for Higher Education Accreditation, (CHEA) (2010), *The Value of Accreditation*. Washington D.C., www.chea.org/pdf/Value%20of%20US%20Accreditation%2006.29.2010_buttons.pdf; ANSI (American National Standards Institute) (2012), *Policies and Procedures*, www.ansica.org, (accessed 3 September 2012); ISO (International Organization for Standardization) (2012), *New and Improved ISO/IEC 17024 Standard for Personnel Certification Programmes*, www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref1625 (accessed 28 March 2013).

Recommendation 3.2: Strengthen the public VET sector

Strengthen public VET institutions through increased funding for equipment, faculty development, and professional management.

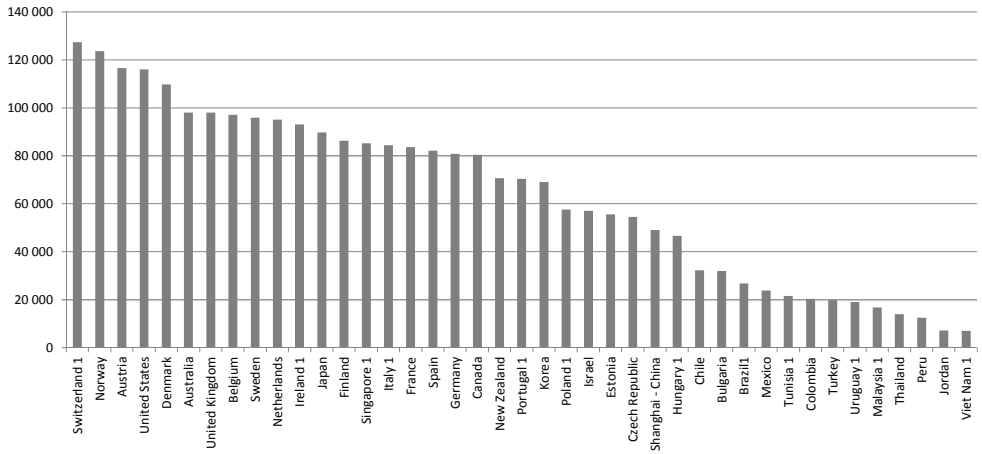
Supporting arguments

Peru's public VET sector has been neglected

Improving the quality of VET programmes available in public institutions is essential for Peru to meet its goal of inclusive development. While only a third of VET students attend public institutions, they tend to come from the poorest and least privileged segments of society. Strengthening the quality of provision at public institutions is key to building the quality of the VET system overall while also ensuring it serves as a vehicle for social inclusion and equity. But public institutions in Peru face severe resource challenges, making it difficult for them to deliver quality programmes. The meagre financing, combined with well-intentioned but ultimately counter-productive rules regarding their management, instructional workforce, and capacity for self-finance, put public institutions at a strong disadvantage relative to their counterparts in the private sector.

Figure 3.1 Government education spending comparatively

Cumulative expenditure by educational institutions per student aged 6 to 15 in equivalent USD converted using PPPs for GDP, based on full-time equivalents (2010)



Note: 1. Public institutions only.

Source: Author's own work based on OECD (2014a), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208780-en.

StatLink http://dx.doi.org/10.1787/888933415388

Public expenditures on education are low in Peru

While Peru has been steadily increasing investments in education, expenditures are still quite low by OECD standards and even compared to other Latin American countries. In 2014, Peru ranked 47 out of 49 countries on cumulative expenditure by educational institutions per student aged 6 to 15 and is one of the lowest among PISA-participating countries and economies (OECD, 2014). In 2015, education expenditures rose to 3.5% of GDP, still well below the OECD and Latin American averages of 5.3% and 4.1% respectively (OECD, 2015). Per student spending on public postsecondary non-university has grown over the decade, form USD 677 to USD 1 309, but is significantly below the OECD average of USD 4 811 (OECD, 2014a). Spending on public tertiary education also increased during the period, but both remain well below OECD averages.

Peru's public VET institutions lack resources for equipment and faculty development

Visits to Peru's public institutions revealed many committed teachers and administrators, along with many motivated and hard-working students. They also revealed out-dated equipment and concerns from administrators and faculty about the difficulty of keeping their programmes up-to-date and preparing their students with the right skills. High-quality VET requires continual investment in equipment and faculty, both of which need regular updates to remain relevant (Eichhorst et al., 2012). The more technical fields require the most investment. While increasing direct funding to institutions for equipment and faculty development is one strategy as some equipment is necessary, governments can also incentivise local institutions to partner with businesses and companies, to allow students gain hands-on experience on equipment through work placements.

Public VET institutions depend almost entirely on the government for resources

Public postsecondary technical institutes are not only at a disadvantage in Peru because of the low levels of funding they receive, but also because of the restrictions they face on raising revenue. In strong contrast to private institutions, public IEST cannot raise their own funds directly. As a result, they are almost entirely dependent upon government funding for their operations, the lion's share of which goes to pay teacher salaries. Resources for equipment, materials, or faculty development are most likely to come through donations from area employers or students and teachers themselves.

Many countries allow schools some leeway to raise and manage their own funds as a part of their mission of providing high-quality VET. While

some schools will be more effective than others at raising their own funds, preventing them from doing so does little to help students who might benefit from the additional resources. The government may want to consider allowing public institutions to raise some of their own funds for the purpose of purchasing equipment, supporting faculty development or expanding student support services.

VET institutions need professional management staff to build and sustain quality

The management structure required of public IEST – in which different faculty members rotate in and out of the school director position each year – does not lay a foundation for effective school leadership, which is essential for building and maintaining high-quality VET programmes. School leaders need to engage in both short and long-term planning, develop strong relationships with local employers, government officials, and other stakeholders, and be familiar with enrolment trends, programme developments, and a wide range of administrative details. Directors need management skills and experience with budgets, recruitment, hiring, and a host of other activities (OECD, 2014b). While some faculty members can make excellent school directors, the short-term nature of their tenure in the position makes it difficult for them to develop expertise or engage in long-term planning. Schools are complex institutions that require full-time professional staff and leadership.

Recommendation 3.3: Work-based learning: A core component of quality

Require systematic participation of all VET students in work-based learning opportunities.

Supporting arguments

Work-based learning is a core component of high-quality VET

A hallmark of high-quality VET is that students have access to work-based learning opportunities (OECD, 2014b; Eichhorst, et al., 2012; UNESCO-UNEOUC, 2013; OECD, 2010). In its reviews of VET systems in dozens of countries, the OECD consistently found work-based learning to be a key dimension of high-quality systems (OECD, 2014b; OECD, 2010). For students to graduate well prepared, they must be exposed to the actual work environment for which they are being trained. But work-based learning is not just good for students. It is an effective strategy for engaging employers

and for ensuring that VET programmes remain up-to-date (Sweet, 2013). See Box 3.2 for more information on the benefits of work-based learning.

Access to work-based learning in Peru is uneven

Access to work-based learning opportunities through Peru's VET programmes is highly variable, with some schools and programmes providing extensive exposure to the workplace, and others providing little or none. The sectorial initiatives – in manufacturing, construction, and tourism – have the most well-developed work-based learning approaches, a product of their close connection to the employer community they serve. The network of technical schools serving the industrial and manufacturing sector, SENATI, even has a robust apprenticeship programme modelled after European dual systems. Graduates of SENATI have among the highest employment rates of any students in Peru's VET system (SENATI, 2014). The construction sector is working to provide similar apprenticeship opportunities to their students.

And may exacerbate inequity and social exclusion

But for students in mainstream IEST, those governed by the MINEDU, the availability and quality of work-based learning opportunities varies considerably. While the law requires students complete an internship before graduating, it does not clarify which party is responsible for securing the internship or whether the student needs to be paid for their time. Some schools have very strong linkages with relevant employers, in areas like financial services or commercial exports, and are well positioned to help students obtain internships. But many others are not, and since schools are not held accountable for securing internships – or for any student outcomes – the task often falls to the students themselves. Public school students may face the greatest challenges, as the schools have limited resources to devote to developing partnerships with employers and students are also likely to be from low-income households. As a consequence, the internship requirement can become a barrier to graduation for some students, rather than a means to facilitate their successful entry into the labour market post-graduation. Students in CETPROs appear even less likely to participate in structured work-based learning opportunities. Internships are not a required component of these programmes.

Box 3.2 The many direct benefits of work-based learning

Work-based learning encompasses a diversity of arrangements including apprenticeships, informal learning on the job, work placements that form part of formal vocational qualifications, and internships of various types. Managed effectively, it delivers benefits for all participants and contributes to better labour market and economic outcomes. Described in *Learning for Jobs* (OECD, 2010) these include:

- *For students*, *a strong learning environment*. Work-based learning offers realistic experience and makes it easier to acquire practical skills on up-to-date equipment and through colleagues and supervisors familiar with the most recent technologies and working methods. Soft skills such as dealing with customers are also more effectively learnt in workplaces than in classrooms and simulated work environments.

- *For both students and employers*, *assured linkage with labour market demand.* The employer offer of work placements signals that a connected vocational programme is of labour market value. In systems where the offer of places in vocational programmes is tied to the availability of work placements, employers can influence the mix of training provision through their willingness to offer placements.

- *For both students and employers*, *an effective recruitment tool*. In the workplace, employers get to know and assess trainees, who in turn get to know the workplace and the employer, providing both parties with valuable information that may lead to recruitment, or alternatively may lead them to look elsewhere.

- *For employers, a productive benefit* through the work done by trainees. This is not only important for apprenticeships but also in more substantial work placements where trainees have the time to master productive skills.

- *For public authorities, value for money.* Delivering high-quality vocational programmes outside the workplace can be very expensive, particularly in fields where modern equipment is expensive and requires continuous updating, and where expert practitioners command substantial salaries.

Source: OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

A systematic approach yields many benefits including the promotion of partnerships with employers and better alignment to the needs of the economy

Realising the full benefits of work-based learning requires a number of steps. First it needs to be made an essential and integrated element of the vocational programme, rather than an optional add-on. The learning outcomes expected from the work-based learning component need to be defined, so that what the student has learnt can be assessed, and linked to credit. This framework then provides the basis of quality assurance, since the training enterprise, in combination with the student, becomes responsible for delivery of the learning outcomes. In recognition of these obligations, the framework may also involve a contract between students and training enterprises.

Partnerships between schools and employers have profound benefits for both

Alongside the direct learning benefits, the integration of work-based learning changes the relationship between a school and employers. It means that programmes will only be funded when schools develop and maintain the active partnerships with employers that support work placements. Such partnerships between training providers and employers have profound benefits. They encourage training provision that is sensitive to labour market needs, familiarise employers with vocational programmes and qualifications, and help teachers of vocational subjects to keep up-to-date. It follows that when this type of systematic approach is first implemented in a country, it should help to build a new culture of partnership with employers in the delivery of vocational education and training, a culture that is found in the world's strongest skills systems.

Implementation of the requirements should include supports for schools

Clearly implementation of this approach requires sensitivity to the challenges faced both by school and employers. While a formal commitment to work-based learning as a condition of funding sets the incentives for both training providers and employers, this top-down incentive-setting would need to be buttressed by arrangements at local level to help training providers work in partnership with employers, and help employers to both see and realise the benefits to them of offering work placements. Such arrangements would not only encourage an adequate number of work placements, but also help to ensure their quality. This support may also

foster the capacity of enterprise staff to supervise trainees and develop their skills.

Quality assurance and a legal framework are necessary supports

Work-based learning is different from simply working while enrolled in school. Institutions have a vital role to play in structuring high-quality work-based learning opportunities that help students connect classroom learning to workplace requirements. They also need to protect students from inappropriate demands from employers or hostile work environments (James and Unwin, 2016). Quality standards for work-based learning help to avoid the allocation of students to unskilled tasks and ensure they acquire useful occupational skills. Such standards may cover the content and duration of training, the assessment of training outcomes and the competences of those who supervise trainees (see Box 3.3 for an example from Denmark). Similarly quality work-based learning should be one of the criteria taken into account in the quality assurance mechanisms. A clear legal framework can be an important support for work-based learning – the lack of insurance against industrial accidents sometimes inhibits companies from taking on trainees (OECD, 2014b).

Box 3.3 Some countries have successfully implemented systematic and mandatory approaches to WBL

The proposition of work-based learning as a mandatory element of programmes (or at least government-funded programmes) often meets resistance. It is commonly argued that employers will not offer the placements and that it is only possible where it is already part of the working culture. But the international evidence overwhelmingly supports its feasibility. In Sweden, workplace training is obligatory in two-year professional programmes and represents one-quarter of the programme duration (Kuczera, 2013). In Denmark, workplace training is a minimum of three months in two-year professional programmes (professional academy) and a minimum of six months in three-year professional bachelor programmes and it can take place at one or several companies (Field et. al., 2012). In Belgium (Flanders) vocational programmes targeting the unemployed include obligatory work-based learning in a company that is alternated with periods in learning centres (OECD, 2010; Flemish Department of Education and Training, 2013). In Romania, all post-high school programmes include mandatory work placements (Musset, 2014). In Spain, all postsecondary (as well as upper secondary) VET programmes include a compulsory 10-20 week module of workplace training. During the work placement students receive guidance and support from a teacher at the VET institution they attend and from the person who supervises their work at the company. Homs (2007) argues that when this requirement was introduced in Spain, it ended the isolation of vocational institutions, improved school-company relationships, helped vocational teachers to be in contact with companies and facilitated school to work transition.

Source: OECD (2014b), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

Current efforts to strengthen access to work-based learning should continue

The government has expressed a clear desire to strengthen both the quality and availability of work-based learning opportunities for VET students. The Ministry of Labour has been working to educate employers about tax credits that can help offset the cost of internships (MTPE/MINEDU, 2015). In 2016, the government also introduced a legislative proposal to expand the use of apprenticeship in sectors beyond industrial manufacturing. All of these efforts represent steps in the right direction, as a more structured and systematic approach to work-based learning that facilitates the process of employer engagement and is good for students. In some countries there are special bodies that aim to facilitate apprenticeships by matching employers with students looking for workplace training. They also take care of the administrative duties involved in apprenticeship training (this is particularly important for SMEs). They may also employ apprentices and hire them out to host employers (see Box 3.4).

Box 3.4 External bodies involved in apprenticeship training

Australia: Group training organisations (GTOs) are not-for-profit organisations supported by public authorities, with some charges to host employers. GTOs employ apprentices and hire them out to host employers, sometimes focusing on a particular industry or region. Their tasks include selecting apprentices adapted to the needs of employers; arranging and monitoring training both on- and-off-the job; taking care of administrative duties; and ensuring that apprentices receive a broad range of training experience – sometimes by rotating them to different firms.

Norway: Training offices (TO) (opplæringskontor) are owned by companies and usually relate to specific trades. They aim to identify possible new training companies and establish new apprenticeship places, to supervise companies with apprentices, and to train staff involved in the tutoring of apprentices. Many TOs organise the theoretical part of the apprentices' training. They often sign the apprenticeship contracts on behalf of smaller training enterprises, thereby becoming accountable for completion of the training and its results.

Switzerland: Vocational training associations (Lehrbetriebsverbünde) are groups of firms that share apprentices, thus reducing the financial and administrative burden on each firm. Firms that do not have the capacity to take on an apprentice on their own can therefore provide apprenticeships. In each association one firm takes formal responsibility for the apprentices. Switzerland subsidises these associations during the first three years, contributing to the initial costs of establishing a joint training programme. An evaluation (OPET, 2008) found this model effective, as without it the majority of the participating firms would not have engaged in apprenticeship training.

Source: OECD. (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264087460-en.

References

ANSI (American National Standards Institute) (2012), *Policies and Procedures*, www.ansica.org (accessed 3 September 2012).

Council for Higher Education Accreditation, (CHEA) (2010), *The Value of Accreditation*, Washington D.C., www.chea.org/pdf/Value%20of%20US%20Accreditation%2006.29.2010_buttons.pdf.

Eichhorst, W., et. al., (2012), "A roadmap to vocational education and training systems around the world", *IZA Discussion Paper*, No. 7110. IZA, Bonn, http://ftp.iza.org/dp7110.pdf.

El Comercio (2015), "Minedu: El Sineace no cumplió los objetivos planteados", http://elcomercio.pe/economia/peru/minedu-sineace-no-cumplio-objetivos-planteados-noticia-1844300, (accessed June 2016).

Field, S., et al. (2012), *A Skills beyond School Review of Denmark*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264173668-en.

Flemish Department of Education and Training (2013), *Vocational Education and Training in Flanders, Country Background Report, OECD Review of Post-secondary Vocational Education and Training*.

Homs, O. (2007), "La Formación Profesional en España, Hacia la Sociedad del Conocimiento", *Colección Estudios Sociales*, No. 25, Obra Social, Fundación Caixa.

IPEBA (2012), *Matriz de Evaluación para la Acreditación de la Calidad de la Gestión Educativa de Centros de Educación Técnico-productiva*. Lima, Perú, www.sineace.gob.pe/wp-content/uploads/2014/08/matriz-evaluacion-acreditación-CETPROs.pdf

ISO (International Organization for Standardization) (2012), *New and Improved ISO/IEC 17024 Standard for Personnel Certification Programmes*, www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref1625, (accessed 28 March 2013).

James, D. and L. Unwin, (2016), *Fostering High Quality Vocational Further Education in Wales*, Public Policy Institute for Wales (PPIW), Cardiff, http://ppiw.org.uk/files/2016/01/PPIW-Report-Fostering-High-Quality-Further-Education-in-Wales.pdf.

Kuczera, M. (2013), *A Skills beyond School Commentary on Sweden*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnSweden.pdf.

MTPE/MINEDU(2015), *Informe base sobre "Competencias más allá de la escuela en el Peru"*, background report prepared for the OECD Directorate for Education and Skills, Lima.

Musset, P (2014), *A Skills beyond School Commentary on Romania*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnRomania.pdf.

OECD (2015), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264243279-en.

OECD (2014a), PISA 2012 *Results In Focus: What 15-year-olds know and what they can do with what they know*, OECD Publishing, Paris. www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

OECD (2014b), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, http://dx.doi.org/10.1787/9789264087460-e.

OPET (2008), *Resultate Evaluation Lehrbetriebsverbünde*, OPET, Bern.

SENATI (2014), SENATI en cifras, SENATI, Lima.

SINEACE (2015), "Demanda laboral de técnicos en el Perú y expectativas sobre la certificación de competencias", Lima, www.sineace.gob.pe/wp-content/uploads/2016/02/Libro-Demanda-Laboral_Cliente.pdf.

Sweet, R (2013), Work-based learning: Why? How? in UNESCO-UNEVOC *Revisiting Global Trends in TVET: Reflections on Theory and Practice,* International Centre for Technical and Vocational Education and Training, Bonn, www.unevoc.unesco.org/fileadmin/up/2013_epub_revisiting_global_trends_in_tvet_book.pdf.

UNESCO-UNEVOC (2013), *Revisiting Global Trends in TVET: Reflections on Theory and Practice* International Centre for Technical and Vocational Education and Training, Bonn, www.unevoc.unesco.org/fileadmin/up/2013_epub_revisiting_global_trends_in_tvet_book.pdf.

Chapter 4

Building bridges from VET to further opportunities

The wide availability of technical education programmes is noteworthy, but too many of them exist in silos, limiting a student's ability to advance academically and earn a university degree. The lack of clear pathways from technical programmes to higher education has a number of negative effects. It represents a waste of resources, as students often have to re-take (and pay) for coursework they already covered. It also may discourage students from enrolling in technical programmes, even when they may provide valuable skills.

The pathways challenge

Peru's VET system is fragmented and cut off from other education sectors

A clear strength of the Peruvian education and training system is the robust supply of vocational education and training (VET) programmes. While many emerging economies have struggled to develop their "middle-skill" education sectors, Peru has an ample supply of technical education schools delivering a wide variety of skill and competency-based programmes of one to three years in length. But the sector is fragmented, with few relationships between the CETPRO (*Centros de Educación Técnico Productivo*) and IEST (*Institutos de Educación Superior Tecnológico*) that make it up, or with traditional secondary schools or universities. VET programmes tend to be terminal, with no clear next steps for students. The fragmentation, in turn, makes it difficult for students who wish to transition from technical education programmes into further education and training.

The IEST, CETPRO, and sectorial schools are not connected to one another or to university pathways

The lack of pathways affects VET students at every level. Graduates of IEST programmes have difficulty transferring into university degree programmes without losing many credits in the process. Despite the fact that IEST and universities offer programmes in many of the same subject areas, there are no systemic linkages between programmes at the different levels. Some universities will award credits to graduates of IEST programmes, but the arrangements are *ad hoc* and students have little way of knowing in advance of enrolling in an IEST programme how many credits will transfer and where. Graduates of the sectorial schools will face similar problems, with few opportunities to move seamlessly into university studies, despite the generally high quality of the programmes. Students who earn the title of "technician" from a CETPRO but lack a secondary diploma will still be unable to enrol in an IEST or university, again despite similar programmes of study across the institutions.

VET programmes should provide access to more education and training

The separateness of VET schools and programmes is a common problem and not unique to Peru. Connecting VET programmes to more academic ones is a common challenge for many countries.

In fact, VET programmes in most countries have not been well connected to other education and training opportunities. But with the demand for, and returns to, postsecondary education and skills increasing there is growing pressure on countries to broaden access to all types of education and connect their academic and vocational systems. In many countries graduates of initial vocational programmes also often enter more academic tertiary programmes. In the Netherlands, for example, about half the graduates from the highest initial vocational track (MBO 4) continue into professional bachelor programmes in *Hogescholen* (Fazekas and Litjens, 2014). In Germany, access to university for students without the normal higher education access qualification was substantially enhanced in 2009. Switzerland has opened *Fachhochschulen* to graduates from the dual apprenticeship system through the creation of a specific vocational matriculation examination (the *Berufsmaturität*), to be completed in parallel to an apprenticeship programme, and providing access to tertiary education: around 12% of all apprentice graduates obtain the *Berufsmaturität* and they represent half of the students in the *Fachhochschulen.* Austria introduced a similar exam (the *Lehre mit Matura*) in 2008 (OECD, 2014). Mobility across vocational and academic institutions and the implicit guarantee of opportunities for upskilling is what students want and expect, and what the modern labour market demands. It has an impact on the student's choice between academic and technical programmes: prospective students would be more willing to engage in shorter VET programmes if they know that such programmes provide an effective basis for more advanced studies.

Strengthening VET educational pathways is important for Peru

The lack of clear pathways for students in Peru to move across VET programmes and/or into higher education generates a host of negative consequences for students and society. It is a source of waste and inefficiency as students repeat (and pay for) coursework they may have already completed in a previous programme. It may also discourage students from pursing technical education, even when a VET programme may be better suited to their interests and abilities coming out of upper secondary school. It represents a lost opportunity to broaden on-ramps to advanced education and professional training by leveraging VET as a first step in an educational pathway, rather than a stopping point. Given the essential role that access to skills and education play of supporting inclusive development, the excessive segmentation and fragmentation of the country's educational system is particularly counter-productive.

Overarching recommendation 4: Connect VET and academic pathways through a combination of policies and tools that make it easier for

institutions to connect their programmes of study in ways that facilitate student progression.

- Recommendation 4.1: Build the capacity of CETPRO and IEST to support student transitions through articulated programmes of study, dual enrolment policies, and outcomes-based funding formulas.
- Recommendation 4.2: Continue developing a national qualifications framework that clarifies and rationalises the distinct qualifications awarded by academic and technical institutions, including those that operate outside the jurisdiction of the Ministry of Education.
- Recommendation 4.3: Build the capacity of CETPRO to issue secondary qualifications in order to facilitate transitions into postsecondary and tertiary education for their graduates.

Three strategies for building pathways for VET students

Public policy can play an important role in enabling and encouraging institutions to co-ordinate their programmes and build pathways between them. Below are three strategies for overcoming the isolation of VET institutions and improving student mobility across programmes and systems.

Recommendation 4.1: Programmes of study that connect educational levels or sectors

Build the capacity of CETPRO and IEST to support student transitions through articulated programmes of study, dual enrolment policies, and outcomes-based funding formulas.

Supporting arguments

Articulated programmes of study

One way to ensure that students can move seamlessly from one educational level to the next without having to repeat courses is to design articulated programmes of study that span the different levels. Programmes begin with a sequence of courses at one institution that result in a qualification – such as a CETPRO or in upper secondary – and continue at a neighbouring IEST or university to earn the next qualification in the sequence. These "stackable" qualifications enable students to get on to a career pathway from a variety of starting points.

Dual enrolment is another strategy that can support more connections

Box 4.1 Many countries have co-ordination arrangements between different types of programmes and institutions

Some examples of co-ordination arrangements are given below:

- In **Canada,** articulation policies vary from a systematic, province-wide credit transfer process in British Columbia to credit transfer negotiated bilaterally by institutions in Ontario.
- In **France**, it is possible for *institut universitaire de technologie* (IUT) students after the first two years of study to be admitted by the *grandes écoles*, whose masters-level graduates may, in turn, pursue doctoral programmes in universities.
- In **Norway**, where credit recognition between institutions has been mandatory since 1981, between 10% and 20% of students change institutions during the course of their studies, mostly from universities to university colleges during the first three years, while the flows reverse afterwards.
- In the **United Kingdom**, legislation allows two-year foundation degree students to progress to an honours degree (normally three years full-time) through one additional year full-time, or two years part-time. In 2007-08, 59% of full-time and 42% of part-time students pursuing a foundation degree went on to study for an honours degree in 2008-09. Most students who continued their studies did so at the same institution.

Source: OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

A related strategy is to allow students to take classes in both at the same time. These "dual enrolment" approaches allow students who are prepared for some advanced courses but have not yet completed a pre-requisite degree to accelerate their transition. For example, a student in upper secondary might be allowed to enrol in courses at a nearby IEST and earn credit toward both their secondary qualification and their first postsecondary degree. Or an IEST course might be delivered at the secondary school, for credit. Similar approaches could help facilitate transitions from IEST to universities. Dual enrolment strategies in the United States have been shown to increase the likelihood of students enrolling and completing some form of postsecondary qualifications (Struhl and Vargas, 2012).

Outcomes-based funding models can also support student mobility

Chapter two explored the value of an outcomes-based approach to funding as a strategy for improving alignment between the supply of programmes and the demands of the labour market. Outcomes-based funding can also be a strategy for improving linkages between VET and traditional academic institutions at both the secondary and postsecondary level. Funding formulas can be designed to reward institutions that develop dual enrolment and articulation strategies and that are successful at helping VET students move into and complete academic programmes.

Recommendation 4.2: A qualifications infrastructure to support transitions and mobility

Continue developing a national qualifications framework that clarifies and rationalises the distinct qualifications awarded by academic and technical institutions, including those that operate outside the jurisdiction of the Ministry of Education.

Supporting arguments

As a country's economy becomes more knowledge and skill-intensive, qualifications become more prevalent and more important for navigating the labour market. They can also support greater social mobility for individuals, signalling how to move up a career path. But while new qualifications can offer enhanced opportunities for individuals to specialise and communicate their skills and abilities, they can also be a source of confusion, inefficiency and duplication.

The growing numbers and types of qualification can exacerbate fragmentation

A key challenge to building stronger linkages across VET and academic programmes and with the labour market is clarifying how distinct qualifications relate to one another. In many countries, qualifications issued by VET providers are distinct from those issued by more traditional academic institutions, even if they are also called degrees or diplomas. And schools are not the only institutions that issue qualifications. Increasingly, industry and professional bodies are designing their own qualifications. Many governments also issue occupationally specific qualifications such as licenses and certifications that are designed to protect consumers from incompetent or unqualified providers of a particular service. As the quantity and variety of qualifications grows, it can be increasingly difficult for consumers –students, employers, and schools – to know what they represent.

Qualifications frameworks can facilitate student mobility

Building strong linkages between VET and academic programmes and the labour market requires that stakeholders – students, employers, institutions, and policymakers – have a clear understanding of the learning associated with different programmes. Qualifications frameworks – systems for scaffolding and classifying distinct qualifications issued by different types of providers – can provide a helpful infrastructure for promoting greater coherence, transparency and student mobility.

Qualification frameworks help to provide structure

Across countries qualification systems are often regulated, and sometimes subject to an overarching framework that locates them in an ordered sequence of levels. National qualifications frameworks include all education qualifications in a country's education and training system. They organise qualifications into distinct levels, with the lower levels corresponding to basic-level skills and each additional level requiring mastery of more complex skills and knowledge. By doing so, the frameworks clarify what learners may be expected to know, understand and be able to do on the basis of a given qualification. A qualifications framework can be particularly helpful for building connections across VET and traditional academic programmes by clarifying how the distinct qualifications relate to one another. If the qualifications are just one level apart, for example, it might be possible to facilitate a student's transition from one to another with just a small amount of additional coursework. The frameworks can also help outside stakeholders – students and employers, in particular, understand the meaning of particular qualifications.

Peru has already made some progress on developing a qualifications framework

The ministries of education and labour have taken important steps toward creating a national qualifications framework (MTPE/MINEDU, 2015). The Ministry of Labour is working to clarify the competency requirements of particular occupational fields and has developed a host of competency-based occupational certifications that individuals can earn without having to complete a formal educational programme. The profiles are an important building block of a qualifications framework. The Ministry of Education is continuing to refine and rationalise the catalogue of programmes and degrees to support greater mobility for students, particularly those in CETPRO and IEST. As of this writing, it is not clear how the sectorial schools are involved, but it is important to include their qualifications in the framework.

Qualifications frameworks are only part of the solution and must be linked to other policies supporting student mobility

A qualifications framework, on its own, does not resolve issues of redundancy and inefficiency, but it can provide an essential foundation for strengthening policies by providing a common standard against which to evaluate particular qualifications (Allais, 2009). The frameworks provide a super-structure for thinking about education and training programmes in relation to one another, which is an important step on its own. They can also facilitate increasing specialisation in programmes and qualifications without sacrificing consistency and mobility. But, as with the case of accreditation and outcomes-based funding strategies, a qualifications framework must be part of a set of integrated policies that guide institutions toward meeting the needs of students and the larger economy. Without policies that also build quality, reward mobility, and ensure labour market relevance, a qualifications framework will be of little value.

Recommendation 4.3: Building pathways for adult school leavers

Build the capacity of CETPRO to issue secondary qualifications in order to facilitate transitions into postsecondary and tertiary education for their graduates.

Supporting arguments

Many Peruvians lack access to postsecondary education and training

While Peru has made significant strides in improving graduation rates, 3 out of 10 students still do not complete upper secondary education (OECD 2015). For these students, the CETPRO offer an important opportunity to build skills that can help them succeed in the labour market. The CETPRO are a notable strength of the Peruvian VET system and essential for expanding equity and inclusion. But the CETPRO could be leveraged even more as a vehicle for educational and career mobility by providing a pathway to advanced education and training. Specifically, if CETPRO could issue secondary school qualifications to students who complete necessary coursework or examinations, they could provide another vehicle for lifelong learning and skill building. The strategy can also help expand access to education and training to populations that are currently struggling to participate in Peru's formal economy – students from low-income households and historically disadvantaged populations.

The Ministry of Education appears well positioned to develop integrated curricula that would enable students to gain relevant occupational skills and

competencies, and core academic skills, sufficient for a secondary school diploma. Peru's *Doble Oportunidad* programme, which will be discussed more in Chapter 5, is an example of how this approach could work. Given the growing importance of postsecondary skills and qualifications, students without a secondary qualification are at a severe disadvantage in the labour market. While students often only seeking the skills necessary for immediate labour market entry, they are well served by programmes that also equip them with a secondary school diploma.

Remediation, tutoring, and other supports may be necessary to help students succeed

Basic skills of numeracy and literacy are not only a key part of the skillset required in any job, they are also tools for further learning, supporting the acquisition of the further skills and qualifications that are increasingly sought by students and needed by employers. Weak basic skills may inhibit completion, and, for those who graduate, hold back career development and further learning. In countries where professional programme memes are relatively open to students, regardless of prior qualifications, extensive efforts are sometimes devoted to the basic skills of those entering the postsecondary system. Box 4.2 details some experience in the United States.

Box 4.2 Tackling basic skills weaknesses in community colleges in the United States

Some estimates indicate that for at least two-thirds of community college entrants, weak academic skills threaten course completion. In 2007-2008, 45% of first and second year community college students reported having to take remedial courses. While extensive resources are devoted to remediation of basic skills, its effectiveness is limited. Colleges allocate scarce resources to remediation activities, while students commonly use federal grants and subsidised loans to cover the cost of remedial education. This leaves them fewer resources for their postsecondary studies and increases the chance of dropout, and financial distress. Some examples of initiatives designed to help those who encounter difficulties once they start college are given below.

The Accelerated Learning Project (ALP) pioneered by the Community College of Baltimore County, Maryland, tackles low performance in college by providing students in remediation with relevant college credit courses in parallel (rather than in advance) of their studies so as to speed up their progress. The strategy is based on the principle that skills taught in one course and reinforced in another are more likely to be mastered. ALP participants concurrently enrol in a credit-bearing English course and a developmental writing course taught by the same instructor. The initiative has proved successful in terms of students completing the relevant credit courses. These positive outcomes have led the ALP to be adopted by different colleges throughout the United States.

In Washington State the Student Achievement Initiative (SAI) is a new performance funding system for all community and technical colleges. Institutions are rewarded with additional funds if they record a significant improvement in the number of students moving from remedial to credit courses, completing credits, and successfully completing a degree. Colleges are evaluated relative to prior performance and institutions are encouraged to measure the impact of their efforts and adjust practices in response. Evaluation of the SAI shows that since its introduction, students have acquired stronger basic skills.

Source: OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

References

Allais, S. (2009), "Learning from the first qualifications frameworks*", ILO Employment Working Paper* No. 45, www.ilo.org/wcmsp5/groups/public/@ed_emp/@ifp_skills/documents/publication/wcm_041902.pdf.

Fazekas, M and I, Litjens (2014), *A Skills beyond School Review of the Netherlands*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264221840-en.

MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Perú"*, background report prepared for the OECD Directorate for Education and Skills, Lima.

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

Struhl B. and J. Vargas (2012) *Taking College Courses in High School: A Strategy for College Readiness*, Jobs for the Future, Boston, www.jff.org/publications/taking-college-courses-high-school-strategy-college-readiness.

Chapter 5

Reducing inequities in access to high-quality VET

Vocational education and training (VET) can be a powerful tool for social inclusion, but requires policies that ensure quality, expand access and support completion. While Peru has made impressive gains in expanding access to education and reducing income inequality and poverty, many students still lack access to high-quality educational options that will prepare them for the labour market. Public policies can have a significant impact, by improving quality and expanding access to high-quality vocational options for upper secondary students and for school leavers.

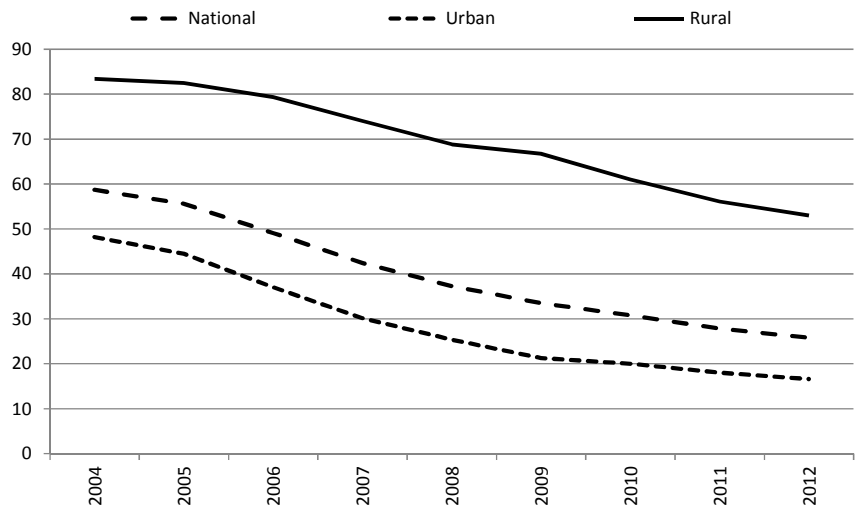
The equity challenge

Over the last decade, Peru has made dramatically reduced poverty

Over the last decade, Peru has demonstrated an impressive commitment to reducing poverty and broadening access the middle class. From 2001 to 2013, poverty rates fell by half and the percentage of Peruvians living in extreme poverty dropped from a quarter of the population to around 5%. At the same time, the country's middle class grew to include nearly one out of every two citizens (OECD, 2015). Few countries have achieved such substantial improvements in so short a time frame.

Figure 5.1 Poverty levels, urban and rural

2004-2012



Source: Instituto Nacional de Estadística e Informática (2016), Series Nacionales, http://webinei.inei.gob.pe:8080/sirtod-series/ (accessed on 23 June 2016).

StatLink http://dx.doi.org/10.1787/888933415392

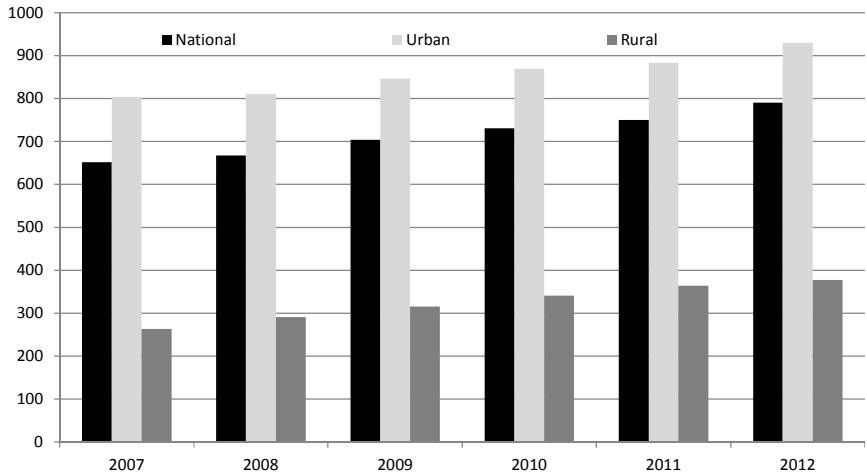
But social exclusion remains a challenge, particularly in relation to education

While the gains are impressive, Peru continues to face entrenched poverty and social exclusion, both of which threaten the country's ability to grow and diversify its economy. Income inequality, while lower than a

decade ago, remains high compared to other countries in the region and OECD averages. Rural poverty has proven more difficult to reduce, particularly among ethnic and linguistic minorities, and those differences are strong reflected in educational outcome. Labour market informality also remains among the highest in the region and has declined only slightly over the last decade, despite high levels of economic growth (OECD, 2015).

Figure 5.2 Monthly income per capita, urban and rural

2007-2012



Source: Instituto Nacional de Estadística e Informática (2016), Series Nacionales, http://webinei.inei.gob.pe:8080/sirtod-series/ (accessed on 23 June 2016).

StatLink http://dx.doi.org/10.1787/888933415400

Among the 64 countries participating in PISA, Peru not only scored last in maths and reading, the differences in scores by socio-economic status were the highest in Latin America (OECD/CAF/ECLAC, 2014). The difference in the quality of educational resources between socio-economically advantaged and disadvantaged schools is the largest among the PISA-participating countries and economies. According to one study, the urban population aged 25-34 had, on average, four more years of formal schooling than the average rural resident of the same age (ESCALE, 2015). Enrolment and completion rates at all levels of education are still lower ethnic minorities (Castro and Yamada, 2011). Peru is also second to last on the PISA index measuring social inclusion (See Table II.2.1 in OECD, 2013).

VET can be a powerful tool for building equity and inclusion

VET can be a particularly powerful ally for building equity and social inclusion as the economy grows. In Peru, VET programmes are already providing value to both students and employers, albeit unevenly and inefficiently. The sector is growing, demand is strong and, on average, graduates do earn more than those with no postsecondary education (Infante and Chacaltana, 2014). According to one recent study, graduates of postsecondary VET programmes (IEST) make 60% more than the average worker and one out of two work in the formal sector (Infante and Chacaltana, 2014).

But it has to be high-quality, affordable, and accessible

But the system's reach is still relatively small, serving just over a half million students each year, in a country where almost 50% of the population is under the age of 24, meaning almost 15 million people. There is also wide variation in the cost and quality of the programmes with the best programmes generally found among private providers and concentrated in urban areas. In the absence of policies to ensure quality, VET programmes can exacerbate existing economic and social inequalities, channelling a country's most academically and financially vulnerable students into low quality programmes that do not lead to good jobs. In fact, low quality VET can be worse than none at all if it tracks students away from postsecondary educational pathways without preparing them with the skills necessary to succeed in the labour market.

Overarching recommendation 5: Expand access to high-quality vocational education programmes for younger and older adults, including the development of programmes that integrate vocational education into upper secondary education.

- Recommendation 5.1: Through partnerships with sectorial schools and strategies like dual enrolment and programme articulation with *Institutos de Educación Superior Tecnológico* (IEST), develop upper secondary vocational opportunities, of high quality.
- Recommendation 5.2: Expand targeted scholarship programmes and other forms of financial aid to low-income students pursuing postsecondary VET.
- Recommendation 5.3: Strengthen and expand opportunities for adults to access affordable and high-quality vocational programmes.

Broadening access to high-quality VET: Three strategies

While Peru had developed an impressive and robust postsecondary VET sector, it fails to provide sufficient access to high-quality programmes to groups that could benefit substantially from it – students from low-income or historically disadvantaged backgrounds, upper secondary students at risk of dropping out, or with no plans to continue their studies, and adults who lack a high school diploma. Chapter three focused on strategies for building quality in VET programmes, all of which are necessary for ensuring VET also addresses concerns about equity and exclusion. The following three strategies are focused on affordability and access.

Recommendation 5.1: Providing VET options to upper secondary students

Through partnerships with sectorial schools and strategies like dual enrolment and programme articulation with IEST, create opportunities for upper secondary students to access high-quality VET.

Supporting arguments

Like many countries, Peru has de-emphasised secondary VET

In general, vocational education has a poor reputation among countries in the region, and Peru is no exception (IPEBA 2012). Similar to many other Latin American countries, Peru has de-emphasised vocational education at the secondary level, opting in favour of a stronger focus on core academic skills, English-language learning, and an expansion of access to higher education. Recent educational reforms reduced the number of hours that schools could dedicate to "education for work" and required the small group of vocationally oriented high schools (*colegios técnicos*) to increase their academic offerings, putting them on par with other traditional secondary schools. Given these time constraints, schools are not able to delivery fully developed VET programmes of study that prepare students for actual jobs or careers.

Secondary VET is expensive and programme quality is difficult to maintain

The decision to reduce the vocational options available to high school students was an understandable response to the low quality and reputation of the programmes and the considerable expense required to develop and sustain them. Research on secondary vocational education found it to have little (and sometimes negative) impact on students' employment prospects

(Chacaltana, 2006; IPEBA, 2012). At the same time, concerns about Peru's poor performance on international student assessment added momentum to the move away from any vocational focus at secondary level.

But one in three young Peruvians do not complete their upper secondary education and even fewer transition into postsecondary

While there are many good reasons to focus on building core academic skills in upper secondary, there are also many reasons to include high-quality VET options for students not planning to attend university. In Peru today, only 65% of 18- and 19-year-olds have completed their secondary education (OECD, 2015: 61; ESCALE, 2015). That leaves one in three young people with limited opportunities to access formal education and training programmes. Of the students who do complete upper secondary, only about a third go on to study at a university or technical institute. These young people are more likely to come from poor backgrounds and will be less likely to obtain jobs in the formal economy, limiting their access to important social benefit programmes (Chacaltana and Ruiz, 2012).

VET can be an effective strategy for increasing secondary completion rates, which is crucial for mobility

VET represents an alternative modality of learning for students who may not thrive in traditional academic courses but learn well through applied and experiential approaches (UNESCO -UNVEO, 2013). Secondary VET has been shown to be an effective strategy for increasing student graduation rates (UNESCO-UNVEO, 2013). In the United States, for example, secondary vocational programmes have been shown to reduce dropout rates among students most at risk of leaving school before graduating and to improve transitions into postsecondary education (Castellano et.al, 2007). And increasing secondary completion rates is an essential component of inclusive growth. As an economy becomes more complex and knowledge-based, school leavers face significant obstacles to participating in an economy. Getting students through upper secondary education significantly enhances their ability to contribute to the economy and creates more options for them to continue building their skills.

By leveraging sectorial schools, Peru can expand and improve VET offerings for upper secondary students

The challenge for Peru, like many countries, is to find a cost-effective way to provide high-quality VET options to secondary students. One strategy might be to allow and encourage partnerships between secondary

schools and some of the postsecondary sectorial institutes, such as SENATI, SENCICO and CENFOTUR. The sectorial schools have the key elements of quality that are so difficult for secondary schools to develop on their own – close relationships with employers, qualified instructors, and up-to-date equipment. The schools, and their employer sponsors, also have a clear interest in building relationships with secondary schools and students.

Strong partnerships between secondary schools and postsecondary technical institutes are common in countries with high-quality VET systems and can be a strategy for facilitating successful student transition, as outlined in Chapter 4. They require some flexibility on the part of local schools to build partnerships and programmes and supportive public policies to make them financially viable, but they could be a cost-effective way to strategically expand high-quality VET options for some secondary students and test new approaches. If successful, the partnerships might be expanded to include other relevant stakeholders, such as the Centres for Technological Innovation (CITE) or other local area technical institutes. In all cases, the goal is to strategically and opportunistically identify strategies to expand high-quality VET options for secondary students, particularly low-income or otherwise disadvantaged students, where possible.

Recommendation 5.2: Expanding financial aid

Expand targeted scholarship programmes and other forms of financial aid to low-income students pursuing postsecondary VET.

Supporting arguments

While Peru has been expanding public investments in education, levels are still quite low by regional standards, particularly at the postsecondary level where the country has come to rely heavily on private providers to meet growing demand (OECD, 2015). The majority of public money is spent on teacher salaries.

Financial barriers limit participation in VET

Surveys of young people in Peru indicate that the number one reason students either drop out or fail to enrol in secondary of postsecondary education is economic (Ferrer Guevara, 2014). While poverty has been declining, median income in Peru is still low by regional and OECD averages and many Peruvians struggle to afford education. In fact, socio-economic status is a strong determinant of an individual's access to education in Peru, particularly at secondary and postsecondary levels (OECD, 2015).

The highest quality VET programmes are offered by private providers

The fact that the majority of high-quality VET providers in Peru are private, tuition-charging institutions raises particular challenges for ensuring access. Low-income and rural students are the least likely to have access to high-quality private VET providers. In fact, the correlation between a student's socio-economic status and the educational resources of his or her school in Peru are also the highest in the region (OECD/CAF/ECLAC, 2014). Without mechanisms to ensure academically eligible students can access high-quality programmes, the reliance on private providers threatens to turn VET into another vehicle for widening inequality as poor students lack access to the best programmes.

Targeted financial aid can be a tool for building quality and equity

In recent years, the Peruvian government has provided targeted financial aid to students from low-income and extremely poor households. BECA 18 represents the largest of these programmes and has provided scholarships to cover the tuition of around 30 000 students in the period from 2012-2015. While the programme is generous and has produced positive outcomes in terms of completion and earnings, it still touches a relatively small percentage students – less than 5% of those who enrol in IEST every year (PRONABEC, 2015). Given the positive outcomes, and the opportunity to use the programme to reward high-quality institutions and students, we recommend continuing and expanding these types of targeted financial aid programmes.

Financial aid should be coupled with policies that reduce barriers to completion

Too many students enrol in VET, complete their coursework, but never receive their official title. Programmes that place burdens on students toward the end of their studies – just as a student is preparing to enter the labour market – work at cross-purposes with efforts to enhance completion. Requiring capstone projects can make sense from a programme quality standpoint, but need to be balanced by an awareness of the additional financial burdens these place on students, particularly low-income students. Requiring students to pay a fee to receive their title seems particularly counter-productive.

Finding ways to either provide students with financial aid for projects or waive requirements when appropriate can help improve completion rates without sacrificing quality.

Recommendation 5.3: Expand second chance opportunities for adults to gain skills and qualifications

Strengthen and expand opportunities for school leavers to earn qualifications and access affordable and high-quality vocational programmes.

Supporting arguments

More attention to the learning needs of adults is needed

If the Peru education and training system is to seriously address the challenge of many young people not in education, employment or training, it has to offer meaningful routes to careers for young adults who have left school with poor skills and few qualifications. In practice many adults may work in the informal economy and/or have family responsibilities. Re-engaging them in education may require part-time, modular or distance learning options that would be consistent with other calls on their time.

Making vocational education adult-friendly is not easy

Institutions dominated by daytime weekday classes for full-time students may find change difficult not least because it may require teachers to work less social hours in the evenings and at weekends. Breaking down programmes into discrete modules to allow for course exemptions and different paces of study can also be challenging (OECD, 2014). Countries provide for the needs of adults in different ways (See Box 5.1).

Box 5.1 Training providers can respond in different ways

Adult needs can be met in a variety of ways:

- Separate adult learning institutions may offer the same qualifications as those delivered to young people. In **Denmark**, a separate parallel adult education system allows access to postsecondary qualifications at levels corresponding to those of the ordinary education system. More than 40% of adults participate in formal and/or non-formal education in any given year.
- Spread throughout **Belgium (Flanders),** centres for adult education provide second-chance education and basic skills programmes, and vocational programmes at upper secondary and postsecondary level. To facilitate the participation of working adults efforts have been made to make programmes, (particularly associate degrees), flexible through modular provision.

Box 5.1 Training providers can respond in different ways (*continued*)

- **Iceland** has an approach designed to serve the needs of a sparsely populated country. Twelve regional lifelong-learning centres offer distance learning and distributed learning programmes at all education levels, including training in the regulated trades; recognition of prior learning takes place through both formal and informal assessment. The centres work with employers to identify training needs and offer career guidance.

Source: OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

Vocational programmes might be delivered by diverse institutions

To meet adult needs, IEST and CETPRO (*Centros de Educación Técnico Productivo*) could offer more courses part-time and in modular format, and offer secondary qualifications. This would echo the approach taken in other countries, in which separate adult learning institutions offer the same qualifications as those delivered to young people. In Denmark for example, a separate parallel adult education system allows access to postsecondary qualifications at levels corresponding to those of the ordinary education system. In Belgium (Flanders), centres for adult education provide second-chance education and basic skills programmes, and vocational programmes at upper secondary and postsecondary level (OECD, 2014).

Skills recognition: Helping workers communicate their skills

Although many Peruvians fail to complete secondary or postsecondary education, that does not keep them from participating in the labour market. Peru has very low levels of unemployment and high rates of labour market participation across the adult population (OECD, 2015). As people work, they gain new skills and knowledge. But without a formal qualification, they may have difficulty leveraging those new skills to find a new job or secure a promotion. Labour market mobility is essential for generating inclusive growth and sustaining a knowledge-based economy.

Peru is using innovative approaches to help workers obtain qualifications

The Peruvian government is on the forefront of helping incumbent workers acquire formal recognition of their skills and abilities. Since 2011, the Ministry of Labour has been authorising partner organisations that meet

specified criteria to award qualifications. The organisations administer written and/or performance-based examinations to interested individuals for a fee. Individuals who pass are awarded an officially recognised occupational qualification, such as a certification in carpentry or baking.

The innovative approach is designed to appeal to both employers and workers, enabling both to make their skills more visible. Employers can take stock of their human capital, identifying potential skills gaps or opportunities to leverage existing talent. Workers and job seekers can obtain third-party validation of their skills and abilities, easing their transition from one position to another. During a site visit we spoke with employers in the hotel industry that were using the approach to build internal career ladders among their kitchen and housekeeping staff.

Building linkages between alternative qualifications and formal VET programmes will help workers and students move along career pathways

Alternative credentialing is a strategy uniquely well suited to a country like Peru, with high levels of labour market informality and low postsecondary completion rates. It builds an infrastructure for supporting upward mobility that can be particularly difficult to achieve in informal economies. The qualifications framework recommended in Chapter 3 can be a strategy for building linkages between the new certifications and formal education and training programmes.

Recognition of prior learning can also help adults re-enter education

Recognition for prior learning (RPL) can also make it easier for adults to move back into formal education and training by allowing them to earn credit for what they have learned outside of school. Education institutions sometimes have inadequate financial incentives to recognise prior learning, particularly if course exemptions trigger reduced fee income or public funding. Compensatory mechanisms can balance this effect. In Denmark the government provides institutions issuing RPL certificates (and therefore shortening the duration of the programme) with one-off funding.

Box 5.2 Recognition of prior learning (RPL) in Iceland

In **Iceland**, recent legislation contains provisions on individual entitlement to RPL at upper secondary level. It is seen as a means of combating dropout. RPL is aimed at people with poor formal education, allowing those who wish to return to upper secondary school to shorten the length of the required programme. The 12 lifelong-learning centres around the country and the 2 centres for certified trades co-operate in pursuing RPL projects. On average a participant going through a validation process within the certified trades ends up with 28 units of credit recognised through RPL (the carpentry programme for example involves 100 units in total). Over the period 2007-2009, 492 individuals had their competences recognised in this way, the majority within the certified trades.

Source: OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

Second chance programmes that integrate remedial and technical training are particularly valuable for adult school leavers

In recognition of the need to provide more on-ramps to postsecondary education and training, many countries are investing in strategies that re-engage school leavers and put them on career pathways. The best programmes expedite a student's progress by integrating remedial education in maths and literacy with occupational skills training. When students have to complete stand-along remedial courses before moving on to occupational training, they are less likely to complete.

Box 5.3 I-BEST: Integrated instruction in the United States

The Integrated Basic Education and Skills Training (I-BEST) provides a strong example of a programme designed to improve labour market outcomes and entry rates to professional training among adults with low basic skills. Developed in Washington State, it has proved successful and is now being introduced in other parts of the United States.

The programme combines basic skills teaching with professional training that yields college credits and contributes to a qualification. Courses are provided in occupations in high demand. In Washington State combining basic skills with vocational content is facilitated by the availability of both types of programme at community and technical colleges, and I-BEST programmes are available in every college in the state. Individuals must score below a certain threshold on an adult skill test and qualify for adult basic education to participate. In practice, this translates to around 2% of basic skills students.

I-BEST students earn more credits and were more likely to complete a programme than a comparable group of students not participating in the programme. Evidence on the link between participation in I-BEST and earnings is less conclusive.

Source: Kuczera, M. and S. Field (2013), *A Skills beyond School Review of the United States*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264202153-en.

Peru has some programmes for adult school leavers, but too few relative to the need

Peru's *Doble Oportunidad* scholarship programme is a good example. It allows young adults to enrol in programmes, often at technical institutes, and complete their secondary studies while also acquiring practical skills. The programme is still relatively new and has served a little over 1 700 students since 2015. Evaluation of the programme and follow-up surveys with graduates can help guide expansion of the programme. The Ministry of Labour also offers training opportunities to young people who are neither employed or in school. The programme *Jóvenes Productivos* (or *Jóvenes a la Obra*) is one example and has shown some success at helping connect young people to the labour market. But like *Doble Oportunidad*, it is a small programme that barely scratches the surface of the need for high-quality education and training and employment services among Peru's poorest young adults.

References

Castellano, M. et al. (2007), *Career-based Comprehensive School Reform: Serving Disadvantaged Youth in Minority Communities*, National Research Center for Career and Technical Education, St. Paul, MN.

Castro, J.F. and G. Yamada, (2011), "Brechas étnicas y de sexo en el acceso a la educación básica y superior en el Perú", Working Paper 11-04, Departamento de Economía, Universidad del Pacífico.

Chacaltana, J. (2006), *Empleos para los Jóvenes*, Centro de Estudios para el Desarrollo y Participación (CEDEP), Lima.

Chacaltana, J and C. Ruiz (2012), "El Empleo Juvenil en el Perú: Diagnostico y Políticas" *Empleo y Protección Social*, Chapter 9, pp. 291-327. Lima, http://econpapers.repec.org/bookchap/pcppucchp/lde-2012-01-10.htm.

ESCALE (2015), *Estadística de la calidad educativa, Ministerio de Educación*, http://escale.minedu.gov.pe/.

Ferrer Guevara, R.A. (2014), *Transiciones en el mercado de trabajar de las mujeres y hombres jóvenes en el Perú*. International Labour Office, Geneva, www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_250410.pdf.

Infante B. and J Chalcatana (2014), *Hacia un Desarrollo Inclusivo: el Caso del Perú*, Economic Commission for Latin America and the Caribbean, Santiago, Chile.

Instituto Nacional de Estadística e Informática (2016), Series Nacionales, http://webinei.inei.gob.pe:8080/sirtod-series/ (accessed on 23 June 2016).

IPEBA (2012), *Matriz de Evaluación para la Acreditación de la Calidad de la Gestión Educativa de Centros de Educación Técnico-productiva*, Lima, Perú, www.sineace.gob.pe/wp-content/uploads/2014/08/matriz-evaluacion-acreditación-CETPROs.pdf.

Kuczera, M. and S. Field (2013), *A Skills beyond School Review of the United States*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264202153-en.

MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Perú"*, background report prepared for the OECD Directorate on Education and Skills, Lima.

OECD (2015), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264243279-en.

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2013), *PISA 2012 Results: Excellence through Equity (Volume II): Giving Every Student the Chance to Succeed*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201132-en

OECD/CAF/ECLAC (2014), *Latin American Economic Outlook 2015: Education, Skills and Innovation for Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/leo-2015-en.

PRONABEC (2015), *Artículos científicos: Resultados e impacto de Beca 18*, Lima, http://repositorio.minedu.gob.pe/handle/123456789/4081.

UNESCO-UNEVOC (2013), *Revisiting Global Trends in TVET: Reflections on Theory and Practice,* International Centre for Technical and Vocational Education and Training, Bonn, www.unevoc.unesco.org/fileadmin/up/2013_epub_revisiting_global_trends_in_tvet_book.pdf.

Chapter 6

Strengthening and expanding career guidance services

Expanding and strengthening career guidance services can help build quality and reduce inequity in Peru's vocational education and training (VET) system. Effective career guidance generates demand for high-quality programmes with solid labour market returns, which can improve alignment between the supply of programmes and the needs of the economy. It can also be an essential strategy for expanding awareness among low-income and disadvantaged populations about high-quality careers and educational opportunities.

The career navigation challenge

Peruvians needs help navigating an increasingly complex education system and labour market

Students and job seekers in Peru need more assistance navigating the country's increasingly complex education and labour markets so they can make good investments. Career guidance systems include services and activities designed to help individuals of any age make educational, training and occupational choices and to manage their careers (OECD, 2004). They can be delivered to students in schools or to the general public through employment centres and community-based organisations, either in-person or virtually. Career guidance services can be a crucial connector between the consumers of education and training – students and job seekers – and a complex and often confusing marketplace of schools and programmes.

Career guidance services help students and job seekers understand their options

Career guidance systems are a valuable asset to any country, but they can be particularly helpful in emerging economies like Peru where labour markets and occupations are changing rapidly as the economy grows and becomes more skills-based. Students and job seekers need to understand an evolving world of work that may be very different from that of their parents and that will require different skills and qualifications. Services that can help individuals move into educational programmes and jobs that look nothing like those of earlier generations are essential for countries that are moving from one stage of economic development to another.

The ministries of education and labour in Peru each deliver career guidance services, but they are under-resourced and under-developed

The Ministry of Education (MINEDU) includes career exploration as a required element for secondary students, though the activities appear limited in scope. Teachers, not career guidance professionals, deliver the services and it is not clear that the teachers receive any formal training in career guidance or in interpreting labour market information (MTPE/MINEDU, 2015). The Ministry of Labour (MTPE) delivers a more robust set of career guidance activities aimed at both in school (upper secondary) and out-of-school youth and adults. The national "Occupational and Vocational Guidance Service" (SOVIO) is administered by regional and local offices of MTPE and delivers career information, counselling, and education services.

Staff are trained in psychological assessments and knowledgeable of local labour market dynamics. Activities include services to individuals (assessments and counselling) as well as job fairs, informational talks with students or parents, and guided visits to firms. SOVIO also has a host of virtual career guidance services available on MTPE's website (MTPE/MINEDU, 2015). Regional MTPE offices also collect local labour market data and provide assistance to job seekers through their local employment offices. Together, these programmes provide an important foundation for a national career guidance system, but remain small and under-resourced.

Pontencarrera provides an important foundation for career information services

In addition to their individual career guidance services, the ministries of education and labour have also partnered to create an impressive data-driven consumer tool that details the cost and returns to specific postsecondary educational programmes. As mentioned in previous chapters, *Pontencarrera* is an important step toward creating greater transparency in the education marketplace that, in turn, will support efforts to improve programme quality and labour market alignment. The database can also play an integral role in strengthening the country's career guidance system, which still relies heavily on personality tests and interest assessments to guide student choice. Integrating labour market and programme outcome data into existing services and websites will allow for a more well-rounded approach to career guidance.

But building a high-quality VET system will require more attention to career guidance

Career guidance services provide an essential underpinning to high-quality VET systems, helping steer student demand toward education and training options well suited to their interest, aptitudes, and future economic stability. Peru has taken important steps toward developing a career navigations system for its citizens, but the services still reach a small proportion of the population. As the country's economy matures, effective career guidance will be even more important for insuring inclusive growth and strong alignment between educational programmes and the needs of the labour market.

Three strategies for strengthening career guidance in Peru

Overarching recommendation 6: Expand school-based and non-school-based career guidance services that include timely and accurate labour

market data, assessments of interests and aptitudes, and exposure to the world of work.

- Recommendation 6.1: Continue expanding and improving Pontencarrera and other consumer-facing tools that help build awareness about labour market trends and opportunities, as well as the cost and returns of particular programmes.
- Recommendation 6.2: Invest in the professional development of school-based career counsellors and train them in the use of labour market data.
- Recommendation 6.3: Leverage the sectorial groups and the CITES to partner with secondary schools and job centres to provide information on careers and local job opportunities.

Below are three strategies for building the capacity of students, parents, teachers, and counsellors in Peru to identify high-quality career opportunities and the education and training that lead to them.

Recommendation 6.1: Improve information on the costs and returns to VET programmes

Continue expanding and improving Pontencarrera and other consumer-facing tools that help build awareness about labour market trends and opportunities, as well as the cost and returns of particular programmes.

Supporting arguments

Market-driven education systems dominated by private provision such as Peru's, need well-informed consumers

While all societies benefit from strong career guidance systems, they are particularly important in countries with competitive and market-driven educational systems. One of the strengths of a market-driven system is the responsiveness of institutions to student demand, which often leads to a wide variety of programme options. But the downside of market-based approaches is their tendency to produce a lot of programmes of widely varying cost and quality, which increases the risk to students of investing in their education. Knowing which programmes are worth the investment of time and money is crucial for consumers, as a poor choice can have lasting effects on an individual's earning potential and career opportunities.

Accurate and impartial data on programme outcomes can reduce the risk to students

In the case of Peru, students can choose from many different public and private VET providers and programmes. While the content of the programmes will be similar, the quality, cost, and returns will vary significantly (Castro and Yamada, 2013). Take, for example, a student in Lima interested in studying accounting and finance. She can choose from among 45 different IEST (*Institutos de Educación Superior Tecnológico*), with tuition costs ranging from about USD 50 per semester at some of the public institutions, to more than USD 2 000 per semester at the most expensive private school. To make a good decision, the student will need information on graduation rates and labour market outcomes of students who attend different schools. Accurate and timely information on the cost and returns to their educational investments reduces the risk of educational investments, which is essential for countries like Peru that are depending on their citizens to invest in their own, and their children's, education. A good career guidance system should provide that information.

And improve alignment between programmes and the needs of the economy

Choosing a school and a programme of study can be among the most consequential decisions an individual makes in his or her lifetime. Good career guidance based on labour market outcomes can also help align the mix of provision to the needs of employers: better overall information on labour market prospects in various professions and more weight given to it in student choice also have an impact on institutions. Indirectly, informed student choice exerts pressure on institutions to improve the quality of programmes (OECD, 2012).

Effective career guidance improves the demand side of the education market

High-quality career guidance systems build a smarter demand side of the education marketplace and should be the backbone of any system that relies heavily on private providers. In Peru, where approximately 70% of students enrol in private institutions, it is crucial for making sure education is equitable and high quality. Government plays an essential role in collecting and disseminating that information in ways that are accurate, impartial and that consumers can easily understand. The more information that individuals have about the labour market, their own interests and abilities, and the returns to particularly programmes of study, the better prepared they are to

make wise educational investments that are well aligned with the needs of Peru's economic future.

Pontencarrera is a good start, but needs to include more programmes and outcomes

While *Pontencarrera* is an important step forward, it still lacks sufficient coverage of labour market outcomes to be the cornerstone of a career guidance system. Many programmes list no results on graduate earnings, limiting the tools value to prospective students. The missing data is likely related to the country's large informal sector and further evidence of how informality complicates efforts to improve alignment and equity in Peru's educational system. Earnings data for over 80% of the IEST are not available on the site. The database also does not include any information on the CETPRO (*Centros de Educación Técnico Productivo*), which plays an important role in the VET ecosystem. Moving forward, the government should consider adding the CETPRO and exploring strategies for improving the collection of student-level employment and earnings data.

And more investment in labour market information may be required

In some countries, government agencies may provide objective occupational forecast information as in the case of the US Bureau of Labour Statistics, which publishes its Occupational Outlook Handbook annually. In Northern Ireland, industry factsheets provide relevant information on job prospects and relevant skills and entry requirements (Álvarez-Galván, 2014). Other relevant data and information about the pathways from education to occupations, the extent to which training programmes lead to desired jobs, and related wage rates and unemployment risks, are critical for sound career advice. Such information may be in the form of complex data and require careful interpretation. Attention is needed to make such information accessible and comprehensible for the purposes of career guidance (OECD, 2014).

Recommendation 6.2: Build the capacity of career counsellors

Invest in the professional development of school-based career counsellors and train them in the use of labour market data.

Supporting arguments

Students and job seekers need more than data to make decisions

The complexity of decision-making around schools and careers in Peru makes it essential to include career counselling and education service along with information about the costs and returns to particular VET programmes. Even the most complete and well-presented data on costs and outcomes is not sufficient for ensuring that students will make good decisions. In fact, a wide variety of factors influence how students make decisions about where to enrol and what to study, many of them bearing only a scant relationship to cost, quality, or long-term payoffs (Grubb, 2002). Students who choose programmes for which they are ill suited either personally or academically are not likely to succeed. Career counselling and education services can help surface preferences as well as biases that can then be addressed and integrated into student decision-making.

Effective career counselling is a challenge in many countries

Learning for Jobs (OECD, 2010) set out the issues at upper secondary level. Guidance services in some countries are fragmented and under-resourced. Some guidance services are dominated by a counselling approach, with inadequate knowledge of and attention to labour market opportunities. They may also have an academic bias, especially where they are delivered by academically trained teachers. The move in a number of countries towards stronger professionalisation of career guidance (CEDEFOP, 2009) needs to be supported and extended to all countries. Growing postsecondary opportunities mean more choice, and therefore harder choices, compounded by the complexity and fragmentation of programme options, particularly in some countries. Helping young people to make these decisions is the task of career guidance (OECD, 2014).

The diversity of postsecondary options, including university options, add to the challenge

There are some added issues at postsecondary level. Pre-entry guidance may be delivered by a variety of agencies, including not only including public employment services and stand-alone careers services but also trade unions, employers, voluntary and private sector organisations, each with their own interests and priorities. This means that the careers information available may be unduly narrow (OECD, 2014). For example, evidence showed that efforts in the dual system countries to open access to higher education to vocational graduates were relatively unsuccessful because some students, in particular apprentices, are unaware of these possibilities

(Culpepper, 2007). See for example Musset et al. (2013) for an analysis of these issues in Austria.

Career guidance can help make education more equitable and inclusive

Well-trained career counsellors are particularly important in countries like Peru with high levels of social and economic inequality. Extensive literature on student decision-making confirms that parental education levels and socio-economic status are important predictors of student choices (OECD, 2012). Students from families with parents that did not complete upper secondary or postsecondary education are less likely to pursue postsecondary education themselves (Smeeding et. al., 2011). In Peru, students in rural areas and/or from ethnic and linguistic minorities are the least likely to participate in postsecondary education and training and have the least access to high-quality institutions (OECD, 2015). There are many reasons why these students are less likely to enrol in advanced education and training, including but not limited to financial constraints. Career guidance can help less-advantaged students overcome the gaps in their family's finances, education background, work experiences, and personal networks that may make it especially difficult for some groups to purse education or know which programmes to choose. It is crucially important for helping those students who are the least likely to have access to adults or peers who can help guide their career decisions.

In-school career guidance should be delivered by trained professionals

In terms of on-course guidance, evidence from different countries shows that attention to career guidance is less strong in vocational institutions than in universities. Whereas almost all universities have dedicated career services units, such services in the professional and vocational sector are more likely to be provided as part of general student services such as student counselling (Watts, 2010). While a dedicated career service unit does not automatically yield better career guidance, it does at least raise its profile. It is possible that attention to career pathways in professional courses is embedded within the courses themselves, in arrangements for work-experience, and in the flow of advice from industry practitioners involved in the vocational teaching. Three key tests of such provision are whether it: 1) introduces students to the full range of opportunities within the sector; 2) covers career pathways within the sector rather than being confined to entry level jobs; and 3) covers the needs of students who might be interested in changing career direction (including making them aware of other occupational sectors to which some of the competences they have acquired

might be transferable). It is also important to identify whether such provision is subject to systematic institutional policy and quality standards, or if this is left to individual course teams to determine (Watts, 2013; OECD, 2014) (see Box 6.1 for information about career guidance advisers in Scotland).

Good career guidance can also reduce dropout rates

Some students become disengaged from their vocational training programme because they find they have made a wrong career choice, or because they are not receiving sufficient support (OECD, 2012). Students from poor and historically disadvantaged populations especially need help overcoming obstacles to pursuing their education that students from wealthier and more educated families do not face. Students whose parents did not complete any advanced education are less likely to know how to apply for postsecondary education programmes or how to navigate educational bureaucracies. Guidance counsellors can help students explore different schools and programme options, understand application procedures, secure necessary paperwork, and meet deadlines. For students from families unfamiliar with application procedures, help can make all the difference. Career guidance, combined with other student support services, can help tackle dropout (OECD, 2014). In Denmark, for example, guidance is a key tool used to tackle high dropout rates in both upper secondary and postsecondary education. Education institutions must, by law, refer students that wish to drop out or change programmes to regional guidance centres. Municipalities are legally obliged to make contact with, and offer guidance to, young people that are not working and not enrolled in education at least twice a year up to the age of 19; some municipalities extend the system beyond this (Field et al., 2012).

Recommendation 6.3: Involve other VET stakeholders in career education activities

Leverage the sectorial groups and the CITES to partner with secondary schools and job centres to provide information on careers and local job opportunities.

Supporting arguments

Employer and industry associations can be important partners in career education

Schools and job centres are not the only potential providers of career guidance services. Peru's CITEs could be a valuable partner in strengthening career information and education for students in relation to particular industries. The sectorial initiatives can also be important sources

of career education on key industries. Community-based organisations – churches and other non-governmental organisations – can help students and their families learn about careers and educational opportunities. Policies that encourage greater collaboration and information sharing among key VET stakeholders at the national and regional level can significantly enrich and expand career guidance services.

Greater co-ordination among government and other stakeholders would help strengthen services

Overall, the reach of career guidance services appears to be quite limited and under-resourced. For example, the Ministry of Labour employs only one psychologist per region to deliver career guidance services in area schools. Increased investment and co-ordination among key stakeholders are necessary for expanding the coverage and quality of the services. While informal collaboration clearly exists is some regions, policies that promote more intentional co-ordination of services could help expand their reach. In particular, the labour market information collected by regional MTPE offices, along with their professional career advising staff, could be more intentionally integrated into school-based career guidance activities.

Box 6.1 Career guidance advisers in Scotland

Scotland has a well-developed and comprehensive system of career guidance, offered in various institutions such as schools, colleges, local authorities and job centres. Co-ordination of services can be a challenge in a system involving many providers, but Skills Development Scotland acts as the strategic leader, collaborating closely with schools, colleges, local authorities and other bodies and organisations such as employer representatives.

Multiple institutions involved in career guidance and different channels of provision allow the system to reach out to different groups, including young people seeking entry to further and higher education, and unemployed persons. Contrary to many other OECD countries where there is no specific profession of career advisers (career guidance often being provided by school teachers and psychologists), Scotland recognises that "career guidance is a distinct, defined and specialist profession which demands a unique set of core skills and expects all career guidance practitioners to be professionally qualified". This approach to career management involves helping individuals to understand their strengths, the objectives that they wish to set for themselves and the networks and resources that will help them reach these objectives. The aim is therefore to help individuals to plan their career independently by equipping them with relevant tools and knowledge. Career services also include support from Career Coaches who engage with young people through talks, group sessions and individual coaching. Young people who need support to make a successful transition into employment receive one-to-one sessions, as does any young person who needs additional advice.

Source: Kuczera. M (2013), *A Skills beyond School Commentary on Scotland*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnScotland.pdf

References

Álvarez-Galván, J.-L. (2014), *A Skills beyond School Commentary on Northern Ireland*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills beyond school/ASkillsBeyondSchool CommentaryOnNorthernIreland.pdf

Castro, J. and G. Yamada (2013), "Declining higher education quality affects postsecondary choices: A Peruvian case", *International Higher Education*, Vol. 70, The Boston College Center for Higher International Education, USA, http://ejournals.bc.edu/ojs/index.php/ihe/article/view/8715/7836

CEDEFOP (2009), *Professionalising Career Guidance: Practitioner Competences and Qualification* Routes in Europe, Office for Official Publications of the European Communities, Luxembourg.

Culpepper, P (2007), "Small states and skill specificity: Austria, Switzerland, and interemployer cleavages in coordinated capitalism", *Comparative Political Studies*, Vol. 40/6, pp. 611–637.

Field, S., et al. (2012), *A Skills beyond School Review of Denmark*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264173668-en.

Grubb, W.N. (2002), "Learning and earning in the middle, part I: National studies of pre-baccalaureate education", *Economics of Education Review*, Vol. 21, pp. 291-321.

Kuczera. M (2013), *A Skills beyond School Commentary on Scotland*, OECD Reviews of Vocational Education and Training, www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnScotland.pdf.

MTPE/MINEDU (2015), *Informe base sobre "Competencias más allá de la escuela en el Perú"*, background report prepared for the OECD Directorate on Education and Skills, Lima.

Musset P., et al. (2013), *A Skills beyond School Review of Austria*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264200418-en.

OECD (2015), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264243279-en.

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214682-en.

OECD (2012), *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264130852-en.

OECD (2010), *Learning for Jobs*, *OECD Reviews of Vocational Education and Training*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264087460-en.

OECD (2004), *Career Guidance and Public Policy: Bridging the Gap*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264105669-en.

Smeeding, T., R. Erikson and M. Jantti (2011) (eds.), *Persistence, Privilege, and Parenting: The Comparative Study of Intergenerational Mobility*, Russell Sage Foundation, New York.

Watts, A.G, (2013), "Career guidance and orientation" in UNESCO-UNEVOC, *Revisiting Global Trends in TVET: Reflections on Theory and Practice*, International Centre for Technical and Vocational Education and Training, Bonn, www.unevoc.unesco.org/fileadmin/up/2013_epub_revisiting_global_trends_in_tvet_book.pdf.

Watts, A.G., (2010), "National all-age career guidance services: evidence and issues", *British Journal of Guidance and Counselling*, Vol. 38/1, pp. 31–44.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(91 2016 11 1 P) ISBN 978-92-64-26539-4 – 2016

OECD Reviews of Vocational Education and Training

A Skills beyond School Review of Peru

Vocational education and training (VET) programmes are facing rapid change and intensifying challenges. How can employers and unions be engaged? How can work-based learning be used? How can teachers and trainers be effectively prepared? How should postsecondary programmes be structured? The country reports in this series look at these and other questions. They form part of *Skills beyond School*, OECD policy reviews of vocational education and training.

Contents

Further reading

OECD (2014), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789264214682-en.

OECD (2010), *Learning for Jobs,* OECD Reviews of Vocational Education and Training, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789264087460-en.

See also: ***www.oecd.org/education/vet***.

For more information about OECD work on skills, see: ***www.oecd.org/skills***.

OECD publishing
www.oecd.org/publishing

ISBN 978-92-64-26539-4
91 2016 11 1 P

9 789264 265394