Reviews of National Policies for Education

Education in Costa Rica

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Foreword

Costa Rica is recognised across Latin America for its leadership in education. The first country in the region to achieve full enrolment in primary school, Costa Rica's education achievements have contributed to strong economic growth and high levels of well-being. The question today is whether the system that drove this progress can evolve to respond to new pressures and changing demands for skills. Despite rising investment in education, the majority of students in Costa Rica leave school with weak foundations for work and further learning, and the attainment gap between children from poor and wealthy backgrounds remains stubbornly high. Across the country, poverty is rising and the catch-up with high-income countries has stalled amidst concerns about low productivity and skills. The education sector in Costa Rica will require stronger, more strategic reform to address these challenges and ensure education remains an engine for the country's development.

This report has been developed as an input into the process of Costa Rica's accession to the OECD. It provides an assessment of Costa Rica's policies and practices compared to best policies and practices in education and skills in OECD member countries and other reference countries in Latin America. It assesses the whole education system from early childhood education and care to tertiary education using five important principles of well-performing education systems:

- a strong focus on improving learning outcomes
- equity in educational opportunity
- the ability to collect and use data to inform policy
- the effective use of funding to steer reform
- extended multi-stakeholder engagement in policy design and implementation.

The report highlights the many strengths of Costa Rica's education system, identifies the main challenges ahead and provides recommendations for improvement.

I hope this report will support Costa Rica in its reform efforts to enhance the quality and equity of its education system and strengthen the contribution of education and skills to economic and social growth of the country. The OECD is ready to help Costa Rica in this effort.

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on Education Policy to the Secretary-General
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Acknowledgements

This report is the result of an assessment of Costa Rica's policies and practices in the field of education and skills, informed by international experience and best practices from OECD countries. The report draws on various sources, including a background report prepared by the Costa Rican Ministry of Public Education (Ministerio de Educación Pública, MEP) and two OECD visits in June and September 2016 to scope the main policy issues and interview all the relevant stakeholders.

The OECD review team is indebted to the Costa Rican government which, under the leadership of the Ministry of Public Education, has graciously supported this review. Special words of appreciation are due to the Minister of Public Education, Sonia Marta Mora Escalante, and her team. Costa Rica's involvement in this report was co-ordinated by Miguel Gutiérrez, Viceminister for Institutional Planning and Regional Co-ordination, with the support of Maria Fernanda Fallas, Alberto Calvo, and Minor Cedeño from the Ministry of Public Education, to whom we are very grateful. The team kindly supported our work by providing us with a wealth of insights and kindly responding to every request of the team.

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The OECD review team (Annex A) was led by Elizabeth Fordham (OECD Secretariat) and co-ordinated by Anna Pons (OECD Secretariat), and composed of Mary Alice McCarthy (New America Foundation, United States), Anaïs Loizillon (Independent consultant, France), and Simon Field (Independent consultant, United Kingdom) who also helped edit the final report. Manuela Fitzpatrick (OECD Secretariat) provided critical support throughout the review, Ava Guez and Juliana Zapata (OECD Secretariat) also provided assistance at the early stages of the review. The review team is grateful for the feedback and support received from Andreas Schleicher, Director of the Directorate for Education and Skills; Paulo Santiago, Head of the Policy Advice and Implementation Division; and that of Éric Charbonnier and Thomas Weko (OECD Secretariat). In addition we would like to extend our thanks to the many OECD colleagues in the Development Centre, the Directorate for Employment, Labour and Social Affairs; the Economics Department, the Governance Directorate, and the Legal Directorate. Célia Braga-Schich and Sara Gouveia contributed to the final steps of preparation for the publication.

Table of contents

Tables

Figures

Boxes

Acronyms and abbreviations

CAI	Integral Care Centres
	Centro de Atención Integral
CCSS	Costa Rican Social Security Department
	Caja Costarricense del Seguro Social
CECUDI	Childhood Care and Development Center
	Centro de Cuido y Desarrollo Infantil
CEN-CINAI	Nutrition and Education Centres – Child Integral Care Centre
	Centros de Educación y Nutrición – Centros Infantiles de Atención Integral
CGR	Comptroller General of the Republic
	Contraloría General de la República
CINDEA	Integrated Centres for Adult Education
	Centros Integrados de Educación de Adultos
CONAPE	National Commission of Loans for Education
	Comisión Nacional de Préstamos para Educación
CONARE	National Council of Deans
	Consejo Nacional de Rectores
CONESUP	National Council of Private Higher Education
	Consejo Nacional de Enseñanza Superior Universitaria Privada
CSE	Higher Council for Education
	Consejo Superior de Educación
DGEC	Department for Management and Evaluation of Quality
	Dirección de Gestión y Evaluación de Calidad
DRE	Regional Offices
	Dirección Regional de Educación
ECEC	Early Childhood Education and Care
EDIN	Integrated Scales for Development
	Escala del Desarollo Integral del Niño
FDI	Foreign Direct Investment
FEES	National Fund of Higher Education

	Fondo Especial para el Financiamiento de la Education Superior
FODESAF	Social Development and Family Allowances Fund
	Fondo de Desarrollo Social y Asignaciones Familiares
FONABE	National Scholarships Fund
	Fondo Nacional de Becas
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IDP	Institute for Professional Development Uladislao Gámez Solano
	Instituto de Desarrollo Profesional Uladislao Gámez Solano
IMAS	Joint Social Aid Institute
	Instituto Mixto de Ayuda Social
INA	National Training Institute
	Instituto Nacional del Aprendizaje
INAMU	National Institute for Women
	Instituto Nacional de las Mujeres
INCAE	Central American Institute for Business Administration
	Instituto Centroamericano de Administración de Empresas
INS	Institute for National Insurance
	Instituto Nacional de Seguros
ISCED	International Standard Classification of Education
IT	Information technology
LAC	Latin American and Caribbean
LCA	Learning Certificate Applied
LLECE	Latin American Laboratory for Assessment of the Quality of Education
	Laboratorio Latinoamericano de Evaluación de la Calidad de la Evaluación
MECEC	Evaluation Model of the Quality of Costa Rican Education
	Modelo de Evaluación de la Calidad de la Educación Costarricense
MEP	Ministry of Public Education
	Ministerio de Educación Pública
MH	Finance Ministry
	Ministerio de Hacienda
MIDEPLAN	Ministry of National Planning and Economic Policy
	Ministerio de Planificación Nacional y Política Económica
MINSA	Ministry of Health
	Ministerio de Salud
MNCESU	Marco Nacional de Cualificaciones

	Qualifications Framework for Costa Rican Higher Education
MTSS	Ministry of Labour and Social Security
	Ministerio de Trabajo y Seguridad Social
NEET	Neither in employment nor in education or training
OBS	Social Welfare Organisations
	Organización de Bienestar Social
OLaP	Labour Observatory for Professions
	Observatorio Laboral de Profesiones
OPES	Higher Education Planning Office
	Oficina de Planificación de la Educación Superior
PANI	National Child Welfare Agency
	Patronato Nacional de la Infancia
PEN	State of the Nation Programme
	Programa Estado de la Nación
PIAD	Programme of Computerisation for High Performance
	Programa de Informatización para el Alto Desempeño
PISA	Programme of International Student Assessment
PLANEA	National Plan to Evaluate Learning
	Plan Nacional de Evaluación de los Aprendizajes
PLANES	Public Tertiary National Plan
	Plan Nacional de Educación Superior Universitaria Estatal
PMES	Project to Improve Higher Education
	Proyecto de Mejoramiento de la Educación Superior
PND	National Development Plan
	Plan Nacional de Desarollo
PNOEJ	New Educational Opportunities Programme for the Youth
	Nuevas Oportunidades Educativas para Jóvenes
PPP	Purchasing power parity
PRONIE	Educational Technology programme
	Programa de Informática Educativa
R&D	Research and Development
REA	Learning Assessment Regulations
	Reglamento de Evaluación de los Aprendizajes
REDCUDI	National Network for Childcare and Development
	Red Nacional de Cuido y Desarrollo Infantil
SIESUE	Costa Rica Public University Information System

	Sistema de Información de la Educación Superior Universitaria Estatal de Costa Rica
SINAES	National Accreditation System of Higher Education
	Sistema Nacional de Acreditación de la Educación Superior
STEM	Science, technology, engineering and mathematics
TERCE	Third Regional Comparative and Explanatory Study
	Tercer Estudio Regional Comparativo y Explicativo
UCR	University of Costa Rica
	Universidad de Costa Rica
UNA	National University
	Universidad Nacional
UNESCO	United Nations Educational, Scientific and Cultural Organisation
	Organización de las Naciones Unidas para la Educación, Ciencia y la Cultura
UNICEF	United Nation Children's Fund
	Fondo de las Naciones Unidas para la Infancia
UNIRE	Union of Private Universities Deans
	Unión de Rectores de Universidades Privadas de Costa Rica
UTN	National Technical University
	Universidad Técnica Nacional
VET	Vocational education and training

Executive summary

Costa Rica's education system is at a turning point. Education has traditionally been an engine for the country's development and has been crucial in building one of the most stable democracies, most skilled-based labour markets, and highest levels of well-being in Latin America. The stagnation of education outcomes in the last decade, together with widening inequality and slow growth, risks stalling the country's further development. Improving access to quality education in Costa Rica has become more important than ever.

Access to education has increased in Costa Rica at a faster pace than in other Latin American and OECD countries, but the country has not been able to raise the quality of learning outcomes at the same time. Costa Rica's 15-year-olds performed about two years below their peers in OECD countries in PISA 2015. With weak foundations, students struggle to make progress through the education system. Inequities have also remained large. While disadvantaged students have greater access to education, the remaining gaps in the early years and poor quality of teaching and learning environments hamper their chances to escape poverty. Virtually all the wealthiest students make it to university compared to less than one in five of the poorest students.

Providing a strong start for learning and life

Costa Rica has increasingly recognised the importance of Early Childhood Education and Care (ECEC) for a range of educational, economic and social goals. While this has led to determined steps to improve access and quality of ECEC, the sector is still considerably underdeveloped. Only 63% of children attend two years of pre-school and less than 10% of under 4-year-olds benefit from care services. Moreover, limited attention is given to building critical cognitive, emotional and social skills that children can best develop in their early years. Together these put disadvantaged children, who are less likely to benefit from a positive learning environment at home, at an unequal footing when they start school. The most effective step that Costa Rica can take to improve overall educational outcomes is to expand access to quality pre-school education whilst improving care opportunities and parental support for the most disadvantaged. Such a step jump requires greater leadership and investment in the sector.

From access to basic education to learning for all

After universalising access to basic schooling, Costa Rica is confronted to the challenge of improving teaching and learning so that all students acquire the foundation skills that will enable them to move forward in the system. By the end of basic education, 33% of Costa Rican students lack core competencies and 30% have already dropped out of school. To raise student learning, the single most powerful measure that Costa Rica can take is to set high standards for teachers and support them to continuously improve their practice, whilst focusing support more strategically on the schools who need it the most. This will require building a virtuous culture for improvement and accountability at all levels.

Rethinking upper secondary education

Costa Rica extended compulsory schooling to upper secondary education in 2011, recognising that this is the desired minimum attainment level for success in work and life. About 51% of Costa Rican 25-34 year-olds have not attained upper secondary education compared to just 6% in OECD countries. They risk poor job and life prospects in the increasingly dual labour market and growing levels of inequality. The reform of upper secondary education, from preparing students to university to enabling them to pursue a greater diversity of career paths, has become an urgency to make the system more inclusive. This means improving teaching in the schools with the highest dropout levels to keep students engaged, redesigning the end-of-cycle *Bachillerato* certifying examination, and strengthening vocational education institutions and pathways.

Tertiary education and its role in a growing economy

The rapid expansion of tertiary education in the last decades reflects its vital role for Costa Rica's competitiveness in the global and knowledge-driven economy. The gross enrolment rate has doubled to reach 51%, and more than fifty new universities have been created amidst weak regulation and licensing. This has raised the need for a comprehensive reform of the sector factoring this new reality and responding to the aspirations of the country. At present, the government has no mechanisms to increase Science, technology, engineering and mathematics (STEM) graduates, collect data on student enrolment or take stringent action against poor quality universities. The reform should lead to stronger stewardship of the sector, more equitable and strategic funding, and greater transparency and quality assurance.

Steering the system to higher levels of performance

Addressing these challenges will require a more strategic and systematic approach to education governance and funding. At 8% of gross domestic product (GDP), which is more than what any OECD and Latin American country spends in education, the country can show more in terms of school completion and student learning. If education is to remain an engine for development, a significant change is needed to how policies are designed, funded and delivered.

Assessment and recommendations

Introduction

Costa Rica is one of the oldest and most stable democracies in Latin America and boasts among the highest levels of well-being. Having established near universal literacy by the end of the 19th century, its economic and social development has been and remains deeply intertwined with a commitment to education. As the economy has developed in recent decades, the education system that helped propel the country to upper middle-income status now needs to evolve to respond to rising expectations and changing demands for skills. New challenges are emerging: economic growth has recently slowed, inequality is widening and productivity growth is weak. The National Development Plan for 2015/2018 rightly sees education as a key means to turn these negative trends around and put the country back on the path of strong, inclusive growth.

Costa Rica's sustained commitment to education means that far more young people are staying on in education to gain upper secondary or tertiary education qualifications before entering the labour market. These huge steps forward in expanding access need to be matched by an equally strong push to improve education outcomes. Learning achievement, as measured by the OECD Programme for International Student Assessment (PISA), is low, with the result that too many young Costa Rican's leave school with inadequate preparation for work and further learning. Students from disadvantaged backgrounds and regions are the most likely to lack basic skills, contributing to widening income disparities and labour market duality. Costa Rica, now measuring itself against OECD countries in its education accession review (see Box 0.1), is aiming to develop a high quality education system that will support a more advanced economy. This report argues that achieving this transformation will require a step change in how policies are designed, funded and delivered, building on the historic strengths of Costa Rica's education system.

At a strategic level, this implies a changed approach to education funding and governance. Previous OECD reviews of economic development and governance in Costa Rica have underlined the importance, across the domain of public policy, of focusing attention on outcomes, and therefore closely linking budget-setting to planned, measurable results. While Costa Rica has a strong commitment to enhancing the inputs to education – spending, infrastructure and enrolment – attention now needs to shift to the outcomes where challenges are most visible. This will require more results-oriented financing; strengthened leadership at all levels of the education system; and a much-expanded capacity to monitor and evaluate outcomes and hold actors and institutions accountable. This new approach will underpin reforms recommended by this review across individual sectors, with the following, overarching objectives:

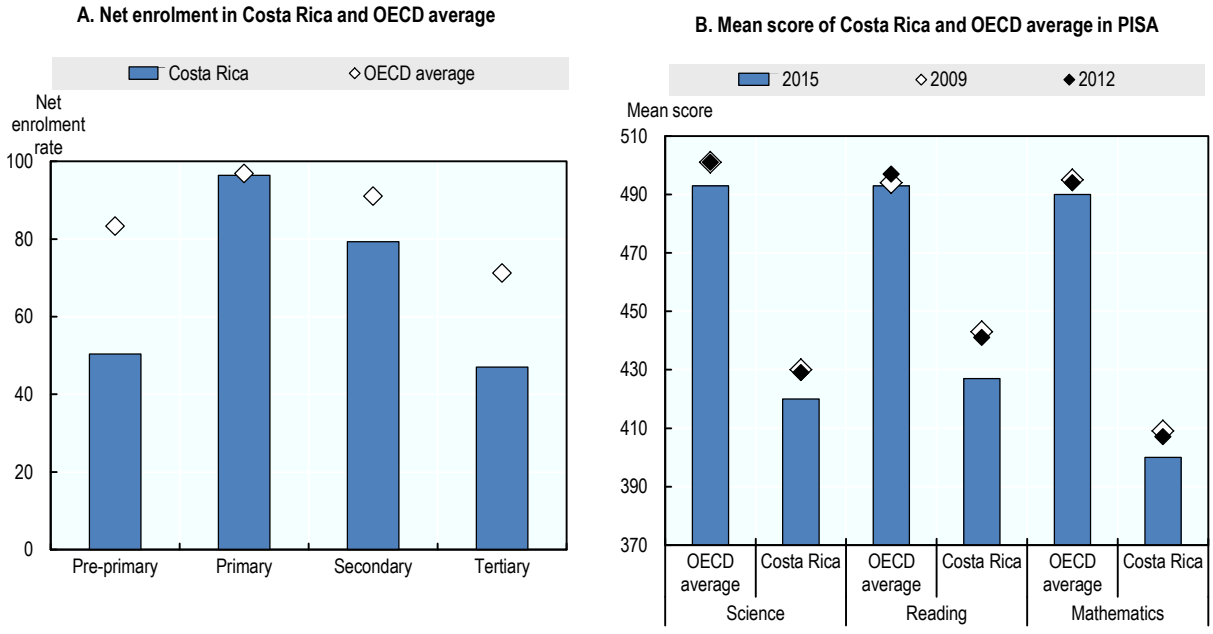
- Early childhood education and care should be given higher priority in public spending and policy, given the vital role it can play in tackling disadvantage and poverty.
- In basic education, improving the quality and equity of learning outcomes should become the centre point of policy and practice.

- Upper secondary (diversified) education should be made more inclusive to reflect its new role as the final stage of schooling and career gateway for all Costa Ricans.
- The tertiary education system needs extensive reform in quality assurance, funding and governance to ensure that it supports Costa Rica's development goals.

Main trends: progress in participation is not yet matched by learning outcomes and equity

Costa Rica's progress in expanding access to education has been impressive. Preschool education has increased sharply, primary school is effectively universal, and retention rates in secondary school have been substantially improved (see Figure 0.1, Panel A). Upper secondary education is now formally compulsory, and around half of young adults (25-34 year-olds) attained at least this level in 2014, up from one-third among their parents' generation (55-64 year-olds). Enrolment in tertiary education has also roughly doubled since 2000. Costa Rica has expanded access to education much faster than most Latin American countries in the last decade and is closing the gap with OECD countries.

Figure 0.1. Access to education and student learning in Costa Rica and OECD



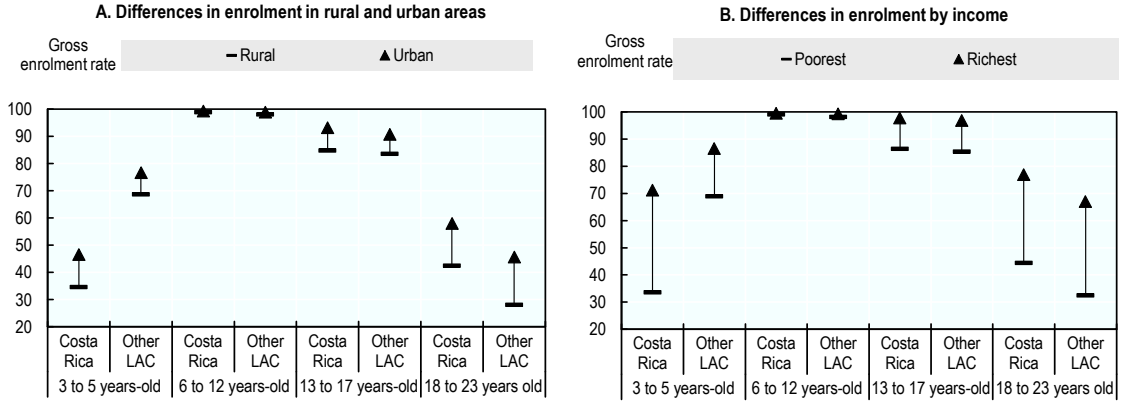
Note: Panel A: Data for tertiary enrolment refers to gross enrolment. Data for OECD average refers to 2012. Panel B:Costa Rica administered the PISA 2009 assessment in 2010. Between 2009 and 2015, the changes are only statistically significant for Costa Rica in science and reading. Additionally, changes were made to the test design, administration, and scaling of PISA 2015. These changes add statistical uncertainty to trend comparisons that should be taken into account when comparing 2015 results to those from prior years. Please see the "Readers' Guide" and Annex A5 of *PISA 2015 Results (Volume I): Excellence and Equity in Education* (OECD, 2016a) for a detailed discussion of these changes.

Sources: PEN (2016), Compendio Estadístico 2016: Compendio Indicadores Educativos (Statistical Compendium 2016: Compendium Educational Indicators), CONARE, Programa Estado de la Nación; UNESCO-UIS (2016), Browse by theme: Education, Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx; OECD (2016b), *Education at a Glance 2016*: OECD Indicators, http://dx.doi.org/10.187/eag-2016-en; Latin American Economic Outlook 2015: *Education, skills and innovation for development*; http://dx.doi.org/10.1787/leo-2015-en, OECD (2016a), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

In terms of completion and learning outcomes, performance is less encouraging. Dropout rates, both in school and in tertiary education, are high in Costa Rica. In 2015, those students who were still in school at age 15 were two years behind their OECD peers (see Figure 0.1, Panel B). Among Latin American participants in PISA, Costa Rica's performance was below Chile, while similar to Colombia and Mexico, and above Brazil and Peru. Costa Rica has seen little improvement in student achievement in recent years, despite significant increases in spending. Other rapidly developing countries in Latin America and elsewhere, have, like Costa Rica, enrolled more children in secondary school, but also managed to raise student outcomes.

Education has a major role to play in tackling inequality and poverty, growing challenges in Costa Rica, where the poverty rate is twice the OECD average. In absolute terms, children from disadvantaged backgrounds are more likely than ever to receive a full school education and to graduate at tertiary level. But, as young people from all social backgrounds have improved their prospects, the relative gaps in life-chances between different social groups have remained large, and larger than comparable countries in preschool (see Figure 0.2, Panel A and B). Inequality starts young, with very unequal access to early childhood services, and widens as students pass through the education system. A poor student in Costa Rica has less than a one in ten chance of making it to university– an opportunity gap far greater than in most OECD countries.

Figure 0.2. Geographic and socio-economic enrolment differences



Source: SEDLAC (2016), *Net enrolment rates: tertiary education*, Base de datos socioeconómicos para América Latina y el Caribe (SEDLAC), http://sedlac.econo.unlp.edu.ar/esp/estadisticas-detalle.php?idE=20.

In the face of these challenges, Costa Rica is now giving increasing attention to the quality of teaching and learning, and most recently has launched a major initiative to combat dropout in the most disadvantaged secondary schools. But key drivers of improvement in the most rapidly improving education systems – a concerted push to expand early years' education, high professional expectations for teachers, leadership for improvement by schools, and strong information and evaluation systems that can guide reform – have not yet gained the needed impetus in Costa Rica.

Early childhood education and care: providing a strong start for learning and life

The importance of early childhood education and care (ECEC) has increasingly been recognised in Costa Rica, and around the world. Its role in levelling the playing field for children from the most disadvantaged families is particularly critical. While this recognition

has led to important efforts to improve access and quality, ECEC remains the most underdeveloped sector of Costa Rica's education system compared to OECD and other emerging Latin American countries. Over one third of children (37%) still do not benefit from two years of preschool, though this has been compulsory since 1997, and very few children under the age of 4 have access to care centres or other forms of public assistance. Those services that are available focus primarily on health and nutrition, and give inadequate attention to fostering the essential cognitive, language, emotional and social skills that children need to develop in the early years. Children from poor families, who are most likely to face a weak home learning environment, are the least likely to access public services. This puts them at a disadvantage when they start school; it also prevents their mothers from working and helping their families out of poverty. The most effective measure that Costa Rica can take to halt rising inequality and give every child a fair chance to succeed in learning and life is to prioritise the expansion of quality ECEC, focusing on the most disadvantaged populations.

Policy issue 2.1: Providing the leadership and funding to drive reform

Promising steps have been taken in recent years to strengthen ECEC governance and reduce the fragmentation of care services for children under 4. In 2014, the government established the National Network for Childcare and Development (*Red Nacional de Cuido y Desarrollo Infantil,* REDCUDI) to improve co-ordination between different public and private providers. The new policy framework to guide the development of services for children aged 0 to 8 represents the first attempt to provide a truly comprehensive, rights-based approach to ECEC in Costa Rica.

These steps, although important, fall short off the needed transformation of the sector. While Costa Rica is not unique in having several ministries and agencies involved in ECEC, it is unusual in having no institution with overall responsibility for delivering national policy. It is unlikely that the ECEC sector will see real improvements in access and quality without a clear champion for reform. Without strong leadership, it will also be difficult to raise the low spending levels in the sector and ensure that resources reach those children most in need. At 0.4% of GDP, public spending on ECEC is below the OECD average (0.6%) and especially low considering that children under 6 represent 10% of Costa Rica’s population. Well over half (60%) of these children are vulnerable or live in poverty, and the majority are from families with low levels of parental education. Turning this situation around will require both better governance and a change of approach to ECEC financing.

Box 0.1. Recommendations to strengthen leadership and funding

2.1.1. **Establish clear institutional leadership for the sector.** Costa Rica should consider appointing one Ministry or agency with clear authority and responsibility for delivering national ECEC policy across the entire sector (care and preschool). As a priority, leadership for the delivery of care services for children under the age of 4 must be clarified and concentrated in one body with the capacity to drive improvement. The new early childhood policy should set clear objectives to guide the work of these agencies and other institutions involved in ECEC provision, and to support stronger monitoring and accountability.

2.1.2. **Ensure that funding is adequate and equitable.** Public funding for ECEC should be increased as a central strategy to reduce poverty and improve education outcomes. Resources need to be targeted more effectively to reach the most disadvantaged children and regions of the country and more cost-effective delivery mechanisms explored to achieve wider coverage (e.g. community and family-based programmes). Partnerships with local governments and private providers should be encouraged as a means to improve access and quality; this requires measures to reduce administrative complexity and strengthen oversight. Consideration should be given to introducing income-based fees in public centres to expand provision in ways that are more equitable.

Policy issue 2.2: Improving access and quality of care for young children (aged 0-3 years) by engaging parents and encouraging a stronger focus on learning

Costa Rica has made significant progress in improving child health and nutrition but still has a long way to go to ensure that all children receive adequate care and education in their early years. Under the impulse of REDCUDI, some promising measures have been introduced to redress gaps in public policy to guarantee basic child rights. Standards have been introduced for providers to ensure a minimum level of quality and a new curriculum will for the first time establish educational objectives for children under the age of 4 years. Important planning tools are also under development, such as a unique child identifier and a geo-referenced database for care centres, to better target services towards those most in need. However, Costa Rica is lagging far behind most OECD countries and many Latin American countries in terms of the access, quality and equity of early years' provision.

In Costa Rica, just 15% of 3-year-olds benefit from some form of centre-based care, compared to more than 40% in Mexico, Brazil and Chile and over 70% across most OECD countries. This percentage has remained relatively unchanged over the past decade. Despite new standards, operating requirements remain low and oversight very weak, and most staff lack training on how to stimulate children's cognitive and socio-emotional development. While poverty is concentrated in rural areas, Costa Rica has paid limited attention to developing alternative, community and family-based services, which have helped to expand access in other Latin American countries, and policies to support parents in providing a positive home learning environment have not received the emphasis they demand. Enabling parents to better support their child's development, combined with more effective strategies for providing public assistance to children most at risk, will be central to improving outcomes for children and society as whole.

Box 0.2. Recommendations for improving access and quality of care

2.2.1. **Support parents to build an enriching home environment**. Home visits and community-based services should be expanded and improved to provide parents of the most vulnerable children with more support. Public assistance should go beyond how to best nurture and take care of children and also guide parents on how to stimulate the development of early cognitive and socio-emotional skills. Care centres should also proactively engage and support parents. The curricular guidelines that the MEP is developing should include a parenting component, and staff of care centres should be trained in ways to promote effective parental engagement.

2.2.2. **Establish and enforce minimum quality standards for care centres.** To ensure that children benefit developmentally from attending care centres, Costa Rica should establish and enforce minimum standards across providers. These should include quality requirements (e.g. group size, staff qualifications, process and program variables) and clear goals for the development of early cognitive and socio-emotional skills. To support this, more attention needs to be given to the quality of the workforce in carecentres – including their training, level of qualification, pay and appraisal – and stronger mechanisms put in place to monitor the quality of services. All centres should be inspected on a regular basis according to established standards.

Policy issue 2.3: Ensuring all children aged 4-6 benefit from quality preschool education

One of Costa Rica's main achievements has been the expansion in access to preschool education. Between 2000 and 2015, participation in the first year of preschool (Interactive II, age 4) increased dramatically from 7% to 63%, and that of the second year from 83% to 90%. To improve the benefits of extended access, the MEP introduced a new curriculum in 2014

which aims to foster the holistic development of children and sets clear developmental goals. The new curriculum gives special emphasis to early literacy skills which are critical both to success in learning and for developing a child's self-confidence and social interaction.

However, current plans to reach 69.5% coverage by 2018 fall short of the constitutional mandate of universal access and leave behind the most vulnerable. Just 20% of 4-year-olds from the poorest households have access to preschool provision, compared to 80% of their wealthier peers. Those who attend preschool have the potential to benefit from a promising new curriculum, but little support in the form of training or learning materials has been provided to teachers to ensure that they can enable all children to reach important development objectives. The lack of support for parental engagement is again a weak link, limiting the central role home support can play in encouraging early language skills and an interest and confidence in reading. Preschool in Costa Rica is not yet the strong stepping stone it should be into primary school and lifelong learning.

Box 0.3. Recommendations for quality preschool education for all

2.3.1. **Accelerate the expansion of preschool provision.** More ambitious targets should be set to achieve universal preschool education and ensure all children start primary school on an equal footing to learn. Expansion efforts should do more to build on the existing capacity in primary schools as a means to expand access in underserved remote rural regions. The new child identifier should be used to ensure that care services provided for children over the age of four complement but do not replace participation in preschool.

2.3.2 **Support teachers and parents to develop children's early literacy skills.** More emphasis needs to be given to developing the capacity of teachers to implement the new preschool curriculum, in particular in the domain of early literacy. This will require both a review of initial teacher education programmes and more in-service training opportunities, together with measures to reduce child-teacher ratios where this is an issue and provide more reading resources. Teachers also need to be given more guidance on how to engage parents in the development of their children's literacy skills at home; programmes to provide parents with learning kits and tips on how to read aloud to their children would help.

Basic education in Costa Rica: from access to learning for all

Costa Rica was among the first countries in Latin America to achieve universal enrolment in primary education and today most students make the transition to secondary school. The challenge ahead is to ensure that all students in school benefit from good teaching and a positive learning environment, that they complete at least the nine years of basic education, and they gain strong foundation skills. Nearly one third (30%) of 15-year-olds have already dropped out of school, while one third (33%) of those who remain lack core competencies in science, reading and mathematics. By the end of basic education, students from poor families have fallen two years behind their peers from wealthier backgrounds, and few will make the transition to tertiary education or a good job. The achievement of more inclusive economic growth and better life chances for all will require a much stronger emphasis in Costa Rica on the quality of basic schooling and learning outcomes, with a particular focus on the most disadvantaged students and communities. This means setting higher standards for teachers and for schools, while also giving them the support they need to improve learning practices, backed by more strategic leadership from central government to set the direction of change. All actors in the system need to be accountable for improvement.

Policy issue 3.1: Consolidating a high-quality teaching profession

The single most important challenge for basic education in Costa Rica is the consolidation of a high-quality teaching profession. Recent years have seen important steps to raise the level of qualification required to enter teaching and bring remuneration into line

with other professions. Virtually all teachers (95%) now hold a tertiary education degree and the competition for selecting candidates for posts has been improved to reduce the risks of politicisation and unfair appointment. The delivery of in-service teaching has also been overhauled, with the creation of a dedicated Teaching Training Institute and the introduction of a series of direct assessments of teachers' knowledge which have enabled training to better meet teacher needs. Currently, a very welcome proposal is being discussed by the Legislative Assembly to make accreditation mandatory for all teaching programmes in private universities, as part of an effort to raise the quality of initial teacher preparation and bring courses into line with the requirements of a new school curriculum.

The gap between current teaching practice and Costa Rica's learning goals is significant. Teacher assessments show that 40% of English teachers and 29% of Mathematics teachers do not master the content of the curriculum they are expected to teach. While national training courses have improved, teachers receive little regular support for and feedback on their teaching practice. The existing appraisal system is not used as a genuine development opportunity; over 98% of teachers receive an "excellent" or "very good" rating, despite clear evidence of knowledge gaps. The low level of teaching knowledge in core subjects points to serious weaknesses in the initial selection and preparation of teachers. Just 19 out of 259 initial teaching programmes are quality-assured through accreditation. The high degree of university autonomy also makes it difficult to ensure that programmes are adequately preparing teachers for the competency-based approaches required by the new curriculum. The competition for teaching posts, though fair and transparent, does not assess effectively what makes for a good teacher, and the probation system is very weak. But perhaps the biggest gap is a shared understanding of what effective teaching means, in terms of expected competences. Such a shared understanding would provide orientation to every aspect of policy aimed at enhancing teacher professionalism.

Box 0.4. Recommendations for consolidating a high-quality teaching profession

3.1.1. **Develop teacher professional standards.** Standards are important to provide clear expectations of professional practice and ensure coherence across teaching policies. Engaging key stakeholders (e.g. teacher unions, universities, pedagogical advisors) in their development will be critical to build a shared understanding of "good teaching" and ensure that standards are accepted and used. Costa Rica should consider creating a professional body for teachers to support this work and provide input to teacher policy development more broadly.

3.1.2. **Strengthen teachers' initial training and recruitment.** Accreditation should be made mandatory for all initial teacher education programmes in public and private universities as a step towards ensuring new teachers are well-prepared and qualified. A national examination should be introduced to recruit candidates to the teaching profession on the basis of more direct measures of teaching aptitude. A formal induction and probation period would help to ensure that beginner teachers are supported and those with potential remain in the profession.

3.1.3. **Establish a framework for teacher appraisal.** This framework should guide the annual appraisal of teachers by school leaders and the process for creating individual teacher professional development plans. The framework should indicate the tasks and evidence to be considered for a well-rounded assessment, and provide guidance on how to give teachers meaningful feedback and support to learn and develop. This needs to be accompanied by stronger instructional leadership and teacher collaboration in schools to provide teachers with more opportunities for professional growth. Once the capacity and culture for evaluation are established, Costa Rica should consider introducing an external appraisal to inform teacher career progression and develop more differentiated teaching roles.

Policy issue 3.2: Building capacity for improvement in schools

Costa Rica's centralised system has been successful in realising universal access to basic schooling, but it has also left schools with one of the lowest levels of responsibility for key decisions on teaching and learning among PISA participating countries. Recent years have seen growing awareness of the central role that schools can play in improving education outcomes, and of the need to change balance between central and school leadership. This is reflected in the 2008 declaration of *Quality Schools as the Axis of Costa Rican Education*, in measures to improve leadership skills in schools, and in the 2010 reform to refocus the role of school supervision from external control to support for internal leadership.

Several obstacles will need to be overcome to realise this new vision of school-led improvement. School leaders continue to play a limited role as instructional leaders (e.g. setting goals for improvement, classroom observation, mentoring and motivating teachers). This is in part because of the pressure of other tasks, but also because they receive limited training in this role, lack a team within the school to support them on pedagogical matters, and receive little pressure from the school board and supervisor to raise school quality. Supervisors, in particular, remain focused on procedural compliance, and lack the tools to evaluate school quality and identify schools that are underperforming and most in need of support. The capacity for improvement in Costa Rica's large number of small primary schools – 65% have less than five staff, and half of them a single teacher – is of concern given their poor student outcomes, and will need to be addressed as part of a more systematic approach to improve the quality of basic education in rural areas.

Box 0.5. Recommendations for building capacity for improvement in schools

3.2.1. **Strengthen the skills and supports for school leaders.** Costa Rica should use the results of its school leader tests to improve the relevance of initial and in-service leadership development programmes and establish peer-learning schemes. The creation of instructional leadership positions within schools, with clear responsibility for individual and school-wide teachers' professional development (e.g. classroom observation, mentoring, appraisals), is critical to improve the pedagogical knowledge and practice of in-service teachers. Further involving school boards in academic matters would also help raise school outcomes, especially if boards are successful in engaging parents and the local community.

3.2.2. **Focus school supervision on quality improvement**. Costa Rica needs to establish standards and criteria to guide school evaluation practices so that they are consistent, draw on a wide evidence base, and support schools in developing their own internal evaluation and improvement practices. Given pronounced disparities in school quality, supervision should focus on the lowest performing schools where needs are greatest. Strengthening the school supervision profession and creating supervisory teams could enhance the quality of evaluations and build greater trust in the process.

3.2.3. **Develop a strategy to raise education quality in small primary schools**. Steps should be taken to consolidate or close small schools when others nearby can provide better quality. The MEP should ensure that the remaining small remote schools receive adequate, appropriate educational materials as well as support in establishing links with other schools to share resources, break isolation, and exchange good practices.

Policy issue 3.3: Strengthening the national evaluation system

It is only in recent years that evaluation has come to be seen as a key tool to improve student learning in Costa Rica. Steps have been taken to develop a national evaluation system by creating a sophisticated school information system, a framework for monitoring the quality of education processes (*Modelo de Evaluación de la Calidad de la Educación Costarricense*, MECEC), a dedicated unit for quality management and evaluation within the Ministry, and a large scale national assessment of student learning at the end of primary and lower secondary education.

But measures of education performance are still very limited compared to other Latin American and OECD countries. Costa Rica's national assessment of learning outcomes, now being redesigned to reflect the new curriculum, fails to provide adequate information where it is most needed (e.g. in the early years, and for those students who are at the lower end of the achievement scale), does not enable monitoring of socio-economic and geographical equity, and is implemented irregularly, every three or four years. It also provides no information about the performance of individual schools. These weaknesses make it difficult to design more effective policies to raise student achievement, and justify the sustained investment that the system needs. The capacity to use information from monitoring and evaluation for policy making in the Ministry is also inadequate. Only 5% of staff are involved directly in the management and evaluation of the education system, and few of them have a statistical or research background. This is not an adequate foundation for leading sustained improvements in educational outcomes.

Box 0.6. Recommendations to strengthen the national evaluation system

3.3.1. **Redesign the national standardised assessments.** National assessments should follow a regular timetable, be applied with greater frequency, and provide data where it is needed to address learning gaps (e.g. early grades of primary school) and evaluate the new curriculum (e.g. introduction of innovative domains). Performance categories should be redefined to provide a more detailed picture of student performance at the lower proficiency levels. To track equity, sample-based assessments should be large enough to monitor outcomes across different population groups and regions. Costa Rica should consider applying the assessment to the school census so that individual schools can benchmark their performance against national standards and similar schools, and the MEP has better data to inform school policies and resource allocation. These changes should be reflected in a framework or policy document that details the purpose, design and responsibilities for national assessment in Costa Rica.

3.3.2. **Build capacity for evaluation.** The MEP would benefit from stronger research, analytical and statistical capacity to support strategic planning. Establishing common indicators, shared data collection and a single information system will be important to improving the accessibility and use of data for improvement and accountability purposes. Costa Rica should consider creating a dedicated independent evaluation agency to promote more evidence-based and results-driven policies and support the development of a stronger culture of evaluation at all levels of the system.

Completing upper secondary school and pathways beyond: rethinking diversified education in Costa Rica

With more access to basic schooling, the numbers entering upper secondary education have increased, and in recent years many more young adults have also returned to education to seek qualifications at this level. This means that, in common with many countries, Costa Rica needs to transform an upper secondary system (known as *Educación Diversificada*) designed to prepare a small elite for university into one with a more varied role, catering also for those who enter the workplace or pursue other training options. This needs to reflect both fast-changing labour market requirements and the interests of students, preparing them as citizens, and opening up a range of career paths. Upper secondary education is fast becoming the desired minimum level of attainment, and those who do not reach this standard – half of all young people at present – may be left behind as the economy develops in a way which will inevitably reduce its reliance on low-skilled jobs. Growing inequality in Costa Rica reflects this worrying skills divide, calling for measures to create a much more inclusive upper secondary education system that engages all students and retains them in education, and provides a better springboard for success in work and life.

Policy issue 4.1: Raising participation and tackling dropout

Upper secondary education has been compulsory since 2011. Through growth in the school system and adult learning centres, Costa Rica has created the opportunities for more people to stay on at school and more young adults to return to education to gain upper secondary qualifications. While drop-out throughout secondary school narrows the pool of entrants to upper secondary education, and continues during the upper secondary years, new initiatives are seeking to tackle this problem and have already brought improvements. In 2009 Costa Rica adopted stricter rules against grade repetition, which almost halved repetition rates in primary school and has brought some reduction at secondary level. The launch of *Yo me Apunto* (I'm in) in 2015 represents a new comprehensive approach to raising completion, targeted on those schools most in need of improvement in the 75 most vulnerable areas identified by the National Development Plan.

But despite increases in participation, Costa Rica still lags behind key comparator countries in terms of completion. Although 51% of 25-34 year-olds in Costa Rica now have upper secondary qualifications, this is much less than the OECD average (84%) and below Chile, Colombia and Brazil in Latin America. While *Yo me Apunto* is a promising initiative, it is not backed by more systemic measures, across different policy areas, to tackle inequity in schools, including arrangements to ensure that the key resource – good teachers – work in the schools with the greatest needs. At present, teachers often have inadequate means of supporting students who are at risk and falling behind. Grade repetition – commonly the precursor of dropout – is still too often the default option, especially in the "transition" entry years for lower and upper secondary education, where rates of grade repetition and dropout are highest. Improving the quality of teaching in high-needs schools should be at the centre of a more sustained, co-ordinated approach to support student progression and learning in upper secondary school.

Box 0.7. Recommendations to raise participation and tackle dropout

4.1.1. **Target resources on schools most in need.** To reduce dropout, Costa Rica should target resources on the schools, and the grades where the dropout rates are highest. Following the approach of *Yo me Apunto*, this should apply across all relevant policies, including those which determine the distribution of resources for infrastructure, instructional materials and pedagogical advice. Equity targets should be established to assess how each policy contributes to reducing gaps in inputs and outcomes. As the most important educational resource, teachers should be offered financial and other career incentives to work in schools facing major dropout and performance challenges, along with context-specific professional development that would prepare them for their role and help them to advance in their career. Promising beginner teachers should be identified and supported to start their career in disadvantaged schools.

4.1.2. **Strengthen teaching for students at risk.** Costa Rica needs to sustain efforts to reduce grade repetition – as a common precursor of dropout - throughout the school system, with particular attention to the transition years (7th and 10th grades). Extended study time, through extra classes and summer schools, should be provided to those who might otherwise have to repeat a grade. Initial training and professional development need to be strengthened to provide teachers with the pedagogical tools, including differentiated teaching skills and formative assessment, to support the students most at risk of grade repetition and dropout.

Policy issue 4.2: Reforming curricula and assessments to promote better outcomes for all

Costa Rica is implementing an ambitious curricular reform that emphasises critical thinking instead of rote memorisation, as well as giving increased importance to domains such as citizenship and foreign languages. This initiative has great promise as a means of engaging students as more active learners and ensuring they gain skills that are more relevant to society and the labour market. The emphasis on problem solving and critical thinking is vital in a modern economy, and reflects the kind of higher level competences which should come to the fore in upper secondary education, at a stage in learning which goes beyond basic skills. The end-of-cycle certifying *Bachillerato* exam is being reformed to reflect these changed expectations and a national training programme has been rolled out to explain the new curriculum to teachers and provide resources to translate learning goals into classroom practice.

Research shows that the success of any curricular reform depends on extensive work with teachers over substantial periods of time. In Costa Rica there is evidence that despite training many teachers do not understand the implications of the new reform – half of teachers surveyed in the San José region could not explain the difference between the new and the old maths curriculum – and weak pedagogical skills, limited learning time and a shortage of textbooks create significant obstacles to classroom implementation. The potential of the new curriculum to enhance student engagement is also hindered by the final *Bachillerato* examination. The fact that all students must pass all subjects in the exam to be granted the secondary education diploma and be able to enter tertiary education is not an encouragement to those who are facing difficulties to stay on in school. It also obliges students to follow a heavily academic programme until the end of 12th grade, leaving little space for the development of quality technical programmes which are important to meet the needs of a more diverse student body and the labour market. Costa Rica will need to provide more support to teachers and greater diversity in programme provision and certification if secondary schools are to develop the skills and career opportunities of all students.

Box 0.8. Recommendations to raise learning outcomes

4.2.1. **Prepare teachers for the new curriculum.** Professional development and initial training of teachers need to be reinforced to this end. Alongside central guidance, teachers should be given local, on-going support provided by an instructional leader, with special responsibility for the new curriculum, in every school. All initial teacher training should aim to develop the competences necessary to deliver the new curriculum.

4.2.2. **Reform the *Bachillerato exam*.** To realise a more inclusive approach, the requirement that students must pass all subjects for a *Bachiller* certification should be abolished in favour of certification acknowledging achievements in individual subjects, so that those who have passed the *Bachillerato* examination in some subjects receive recognition. This approach would also create more space for technical specialization in the curriculum of upper secondary vocation schools. An alternative qualification to the *Bachiller* might be considered for high-risk students.

Policy issue 4.3: Strengthening vocational education and training

In planning the expansion of upper secondary education to include all young people, much attention is rightly being given to the technical school system, where it is envisaged that future growth will be concentrated. Technical schools still account for over a quarter of enrolment at this level of education, much less than many OECD countries, but perhaps not surprising given that the technical upper secondary pathway is a demanding track leading to the *Bachillerato.* Following a previous OECD review, partnerships with employers are being developed, both Institute of National Training (*Instituto Nacional del Aprendizaje*, INA) and MEP are establishing programmes which include more hands-on experience of the workplace, while ongoing work on qualifications frameworks should, it is to be hoped, make it easier for students to receive credit for their INA qualifications within the "formal" education system.

Despite these efforts, some institutional features continue to hold back the development of an effective and expanded system of vocational skills development. First, Costa Rica lacks the kind of dedicated vocational upper secondary colleges that are found in many OECD and other countries – colleges which can become a focus for technical specialism and excellence, employer engagement and workbased learning opportunities - while also postponing the choice of target career until the upper secondary level. Instead, in Costa Rica, most technical schools are, in reality, largely academic institutions since they include grades 6-9 as well as the upper secondary grades where all students pursue the *Bachillerato*. Second, Costa Rica has failed to develop and bring to scale the shorter post-secondary professional programmes – of between six months and two years – that provide a large portion of required professional training in many OECD, and indeed Latin American countries. Such programmes, by providing a natural path of further education for graduates of upper secondary vocational programmes, powerfully underpin the attractiveness of vocational training to young people.

Box 0.9. Recommendations to strengthen vocational education and training

4.3.1. **Establish technical schools as specialised institutions.** Costa Rica should strengthen technical schools by, over time, re-establishing them as specialised vocational technical colleges and dropping grades 7 to 9. To improve effectiveness, MEP schools should be encouraged to share facilities and resources, including teaching personnel, with INA programmes.

4.3.2. **Develop shorter professional programmes.** To fill a gap in provision that is notable by international standards, Costa Rica needs to promote and develop short professional programmes (six months to two years) as vocationally targeted alternatives to university level degrees. These programmes should be located in the strengthened technical colleges that would be best placed to champion them.

Tertiary education: reform to strengthen its role in a growing economy

The tertiary education sector in Costa Rica includes some strong public universities with international reputations, participation rates are high and graduates earn good salaries. In recent decades, in common with many countries, there has been a very rapid growth in participation, mostly enabled through the expansion of the private university system. Such growth is needed as Costa Rica's economy and labour market evolve to give greater emphasis to higher level skills and more knowledge-intensive industries. But the private sector institutions are subject to weak quality assurance and avoid the more demanding science, technology, engineering and mathematics (STEM) subjects where skills shortages are most evident. The public expenditure costs of tertiary education are rising unsustainably, and expenditure within the public university system is not allocated equitably. Tertiary education will play a vital role in Costa Rica's future, but the accumulation of a set of very serious challenges mean that wholesale reform of the governance, funding and quality assurance arrangements of the entire sector is essential.

Policy issue 5.1: Developing quality assurance and improving transparency

Quality assurance has made great strides in recent years, with more robust standards for the establishment of private universities and the development of the respected National Accreditation System of Higher Education (*Sistema Nacional de Acreditación de la Educación Superior*, SINAES). A further proposed, and very welcome reform will require the accreditation of private programmes in the national priority areas of teaching, architecture and civil engineering, and health. The reform also demands five-yearly programme reviews and promises a strengthened inspection role for the body which regulates private universities. There have been several positive initiatives to collect the kind of data on quality and outcomes which might support quality assurance, for example through an agreement for most universities to collect enrolment data, an employment and earnings survey of graduates, a proposal for a labour market observatory and a common information system for public universities linked to a World Bank loan project.

But, as evidenced by the high rates of failure by university graduates for bar and medical exams and the poor scores of teacher training graduates in teacher tests, standards in some university programmes are very low. Costa Rica therefore needs to take quality assurance further and faster. For Costa Rica, the most urgent priority is to secure minimum standards across the sector and particularly among private providers. The current legislative proposals do not go far enough as they provide no clear mechanism for tackling poor quality unaccredited programmes in existing private universities. Much better data is also a vital element. Reliable performance data is largely unavailable because institutions have no obligation to report data, and key indicators of system and institutional performance (i.e. time to degree, retention, success graduating low-income or part-time students) are not available. The relative absence of tertiary education data in Costa Rica is striking and sets it apart not only from OECD countries but also from other countries in the region; Chile, Peru, and Colombia, have all established increasingly robust, public-facing information systems to help guide both policy makers and potential students and their parents.

Box 0.10. Recommendations to improve quality assurance and transparency

5.1.1. **Strengthen minimum standards.** New legislation to strengthen the oversight role of the National Council of Private Higher Education (*Consejo Superior de Enseñanza Superior Universitaria Privada*, CONESUP) should go further. It should grant CONESUP the powers and resources to ensure that all private university programmes, including existing programmes, are of minimum quality. To this end, CONESUP will need to encourage accreditation, ensure that the mandated five-yearly reviews involve a full quality review, are of adequate standard and are open to public scrutiny. CONESUP should underpin these measures with a programme of risk-based inspections and be given the powers to close programmes that do not meet minimum standards.

5.1.2. **Extend the coverage and impact of accreditation.** Coverage of the SINAES accreditation system should be extended by progressively making public funding, including student finance, conditional on the accreditation of programmes in which students are enrolled. The accreditation process should be strengthened by involving a wider group of stakeholders, linking the process to performance indicators, and by publishing the accreditation reports.

5.1.3. **Develop a national information system**. An independent body should be established with a dedicated budget to collect, analyse, and disseminate information about the performance of the tertiary education sector and its component institutions. Tertiary institutions should provide data to this body in a common format. A user-friendly information site should offer detailed information on the costs and estimated returns to programmes of study at all the country's public and private tertiary institutions.

Policy issue 5.2. Reforming student finance and the funding of tertiary education

Currently, the vast majority of government support for tertiary education takes the form of a large National Fund of Higher Education (*Fondo Especial para el Financiamiento de la Educación Superior*, FEES), which is channelled to the country's five public universities, who have almost full discretion on how to share and allocate funds. Public universities use this funding to heavily subsidise tuition (so that students pay very low fees in the public universities) and to offer scholarships (received by nearly half of students at public universities). There is also a small-scale government-run loan scheme for students at public and private universities. The effect is that students who have good enough results to enter the public system face few financial barriers to education, enabling many young people from disadvantaged backgrounds to be the first in their family to enter university. However, the 51% of Costa Rican students enrolled in private institutions are excluded from this system of generous public subsidy and have extremely limited access to scholarships or loans.

These funding arrangements are both unsustainable and inequitable. Public expenditure on tertiary education has roughly doubled as a proportion of (fast-growing) GDP since 2000 and at 1.5% is now well above that of the majority of OECD countries. Public subsidy will not be able to support the future anticipated growth in tertiary participation to the same degree. On equity, the majority of students who benefit from public universities are from wealthier backgrounds. Students who can afford to pay for private secondary schooling are twice as likely to succeed in the competitive entrance to public universities as those who attend a public secondary school. Conversely, students in private universities have almost no access to scholarships, although they face larger fees and many of them come from lower-income families. These financial barriers, alongside other factors, mean that Costa Rica performs badly in terms of access to tertiary education by students from poor backgrounds –

at just 7.5%, the net enrolment rate for the lowest income quintile is far below that of students from wealthy backgrounds (54%) and well below most OECD countries. Looking to the future, those who benefit from tertiary education are going to have to bear more of the costs, and public funds will need to be allocated in ways that are more equitable. This implies not only a significant reform in how the FEES budget is used, but also in how funds are prioritised within the overall education budget, with a reduction in tertiary spending in favour of investment in preschool and primary and secondary education.

Box 0.11 Recommendations for more equitable and sustainable funding

5.2.1. **Make equitable cost-sharing the key principle of reform.** The current arrangements for tertiary funding are unsustainable, inequitable and do not respond to labour market needs. A new tertiary funding and student support system therefore needs to be developed to allow for more effective and fair cost sharing between government and the students who benefit from tertiary education. This new financing arrangement should target financial support to students, on the basis of need and their ability to benefit and offer assistance to pay fees and help with maintenance. Eligibility requirements for scholarships should be revised and the CONAPE programme should be replaced by a national government-backed loan system. Scholarships and loans should be offered to students pursuing quality programmes (typically implying accreditation) in either public or private universities, replacing the current arrangements which primarily channel subsidy to students via public universities through subsidised tuition and scholarships. There should be a regulated but substantial increase in the fees in public universities.

Policy issue 5.3. Developing and implementing a long-term strategy for sector-wide improvement

At present, planning arrangements for tertiary education are limited. The public universities have developed their own plan for 2016-2020, with 12 goals which focus on improving the quality, equity and relevance of public universities. While the plan refers to wider government policy objectives, it is prepared by the public universities without involvement of the MEP or other public agencies. Additionally, there are efforts underway as part of a World Bank loan programme to develop institutional improvement agreements to guide spending in individual public universities. However, none of these initiatives engage private institutions – which are responsible for the education of over 50% of tertiary students – nor do they connect explicitly with national development goals or the needs of the productive sector.

Indeed, Costa Rica, unlike its counterparts in OECD and other countries, lacks a lead public authority with clear responsibility for the tertiary education sector and the capacity to plan strategically. Of the agencies that do exist, the National Council of Deans (*Consejo Nacional de Rectores,* CONARE) operates solely as an instrument for the self-government of the public university sector, while CONESUP is almost exclusively concerned with private institutions. There is no body with responsibility for the sector as a whole, no platform where all stakeholders can come together to ensure coherence across programmes and institutions, and no basis – in terms of system-wide goals, information or monitoring requirements – on which to meaningfully allocate public funds. This means that there is no way of developing and implementing new policies on issues like student finance, tertiary quality, or meeting the needs of a fast-changing economy. This fails to provide a sound foundation for the development of a competitive, high quality tertiary sector.

Box 0.12. Recommendations to foster long-term improvement

5.3.1. **Establish the policy infrastructure to steer reform**. Costa Rica needs to put in place stronger mechanisms to steer the development of tertiary education and ensure the sector contributes to national socio-economic goals. A first priority is to develop a long-term strategic vision for tertiary education and establish a body within government with responsibility for implementing its objectives. To take this forward, a steering group could be set up to manage a public consultation on the strategy; it should be chaired by the Minister of Education, and include broad representation from tertiary institutions and wider society. The strategy should aim to realise a tertiary education system which is equitable, high quality and meets the needs of both students and employers. A permanent body is needed within government to guide the implementation the strategy, charged with developing medium-term action plans and budgets, monitoring implementation and advising on further required policy development.

Steering the system to higher levels of performance

The sectoral issues analysed above need to be embedded within a strategic approach to the education sector as a whole. Education is a vital investment in Costa Rica's future, both to provide the skills for a modernising economy, and to ensure social inclusion. More public expenditure will be needed to extend the reach of early childhood education and care to the most vulnerable children, to provide the resources and teaching capacity to improve outcomes in basic schooling, and to tackle dropout and expand upper secondary education so as to educate all young people in Costa Rica up to this level. But this investment, although vital, needs to bring results. Costa Rica has not enough to show for the investments it has already made, in terms of school completion and student learning. Other indicators where one might expect to see the benefits of education investment are not encouraging: productivity has barely increased, skills shortages are apparent and inequality is growing. Education expenditure requires a sharpened focus on results, rather than inputs and processes, within a much more strategic, systematic approach to education planning and policy development.

An effective strategic planning cycle, focused on using funding to deliver better education outcomes, may be seen as a cycle that links, in a transparent and structured manner, the three core elements of budgeting, planning and implementation, and evaluation:

- Given the constitutional requirement that government expenditure on education reach 8% of GDP, sectoral budgets within this total need to be established in relation to outcomes for which the different education sectors should be accountable. In the context of rising inequity overall and a taxation system with a minimally redistributive impact, there needs to be a substantial reprioritisation of expenditure in favour of compulsory schooling and early years education and care, since this will contribute to equity most effectively. This implies wholesale reform of tertiary education finance so that those who benefit from tertiary education make a much more substantial contribution to its costs. Resource allocation at the school level also needs to be reviewed and made more efficient, especially in light of demographic trends and growing pressures on the secondary school system.
- The MEP would greatly benefit from strengthening its capacity to set strategic goals, and establish longer term planning, involving all key stakeholders, including teachers, parents, employers and local actors. This means establishing clearer sectoral leads, to take ownership of budgets and accountability for delivery within the ministry.

- The capacity for monitoring and evaluation also needs to be reinforced, so that policies can be developed and implemented in the light of evidence. This means building up the human and institutional capacity to collect relevant data on education outcomes, and ensuring that there are systems in place to act on the results – for example when unexpected challenges emerge, or when policies appear to fail.

Box 0.13. Recommendations for system-wide improvement

To ensure that investment in education yields the best possible results for students and society, Costa Rica should pursue a strategic planning cycle, focused on outcomes, and linking education budgeting, planning and evaluation. To this end, the MEP, together with the Ministry of Finance, should:

1.1. Establish systematic arrangements for agreeing budgets for the different sectors of education, linking budgets to planned education outcomes, prioritised according to national development objectives and a long-term vision for the education sector.

1.2 On grounds of equity, give priority in spending to the earlier phases of education, and explore reforms of tertiary education funding in line with the recommendations put forward in Chapter 5.

1.3 Review resource allocation at the school level, with a focus on achieving greater efficiency and effectiveness in the primary school network and increasing funding for secondary education and disadvantaged schools.

1.4 Establish a clear lead for each sector within the MEP, with responsibility for developing and implementing plans to spend agreed budgets. Education reform should be opened to consultation with a wide group of stakeholders, including those who work in he education system, local actors, parents, students and employers.

1.5 Give higher priority to the monitoring and evaluation of education policies in relation to planned education outcomes and invest in building the capacity to do this. Use the results systematically to adjust policies and funding.

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Chapter 1

Education in Costa Rica: An engine for development

Education has traditionally been an engine for Costa Rica's development. It has been crucial in building one of the most stable democracies, most skills-based labour markets, and establishing the highest levels of well-being in Latin America. Education outcomes have stagnated in the last decade, and together with widening inequality and slow growth, this risks stalling the country's future inclusive growth. This chapter provides an overview of how the education system in Costa Rica is organised and analyses the major trends in access, quality and equity. The final section examines the current governance and financing arrangements, and how they can be harnessed to steer the system to higher levels of performance.

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 context

Costa Rica is recognised across Latin America for its leadership in education. The country was amongst the first in the region to achieve universal primary school enrolment and ensure all young people and adults have basic literacy skills. This early progress provided the foundations for the country's strong social and economic development over the last century. Costa Rica is one of the oldest and most stable democracies in Latin America and as an upper middle income economy it now has more skilled jobs and lower levels of informal employment than many of its neighbours, with among the lowest poverty rates, longest life expectancy and highest levels of well-being in the region (OECD, 2016a).

The system that drove this progress now needs to evolve to respond to rising expectations, emerging challenges and changing demands for skills. Economic growth has recently slowed, inequality is widening, and productivity is weak within a labour market that shows a worrying degree of duality between a high-skilled sector and a large informal economy (OECD, 2016a). The National Development Plan Alberto Cañas Escalante 2015-2018 (*Plan Nacional de Desarrollo Alberto Cañas Escalante 2015-2018*, PND) rightly sees education as a key means to turn around these negative trends and boost the quality of growth and employment (MIDEPLAN, 2015; Annex A1.1).

This review looks at how this can be done, arguing that if education is to continue to play a catalytic role in national development then there will need to be a significant change in how policies are designed, funded and delivered. Despite rising investment in education, too many young Costa Rican's leave school with inadequate preparation for work and further learning, and the attainment gap between children from poor and wealthy backgrounds remains stubbornly high. The education sector in Costa Rica needs to become more sharply focused on outcomes, and adopt a much more strategic approach to funding, planning and evaluation, if public spending is to deliver better returns for the country. Subsequent chapters of this report scrutinise each level of the education sector, focusing on how policies and practices can be improved to support better outcomes, drawing on the experience of OECD countries and fast reforming countries in Latin America (see Box 1.1). This chapter introduces the main features and trends in Costa Rican education, and examines the overarching challenges of governance and funding that will be central to the success of future reforms.

Box 1.1. Costa Rica's Accession Education Review

On 9 April 2015, the OECD Council invited Costa Rica to open formal accession discussions. On 8 July 2015, the OECD Council adopted the Roadmap for the accession of Costa Rica to the OECD Convention [C(2015)93/FINAL] setting out the terms, conditions and process. Under this Roadmap, Costa Rica is required to undergo in-depth technical reviews in all relevant areas of the Organisation's work, including education and skills. This report is provided as input to this process. It evaluates national policies and practices in Costa Rica in education and skills, compared to OECD member countries and other reference countries in the Latin American region. It does so according to five core principles that are essential to effective education systems: a strong focus on improving learning outcomes; equity in educational opportunity; the ability to collect and use data to inform policy; the effective use of funding to steer reform; and the extent of multistakeholder engagement in policy design and implementation. Based on these tough benchmarks, the review both underlines the many strengths of Costa Rica's education system and provides recommendations on how to improve policies and practices so that the country can advance towards OECD standards of education attainment and outcomes.

Main features and trends

The last decade has witnessed a rapid expansion of enrolment in Costa Rica, but much less progress in learning outcomes, with many students failing to acquire basic skills and most not completing compulsory education on time. Educational inequities remain large, with children from poor families and rural areas far less likely than children from more advantaged backgrounds to start school ready to learn and benefit from quality teaching. This contributes to a cycle of progressive disengagement and dropout which means that education, and subsequently labour market outcomes, are much weaker for those from disadvantaged backgrounds. This section will examine these developments, looking successively at issues of access, learning outcomes and equity.

Access

Costa Rica's constitution requires public education spending to represent 8% of the gross domestic product (GDP) and states that education should be compulsory and free-of-charge from preschool to the end of upper secondary school (ages 4-18) (Table 1.1).

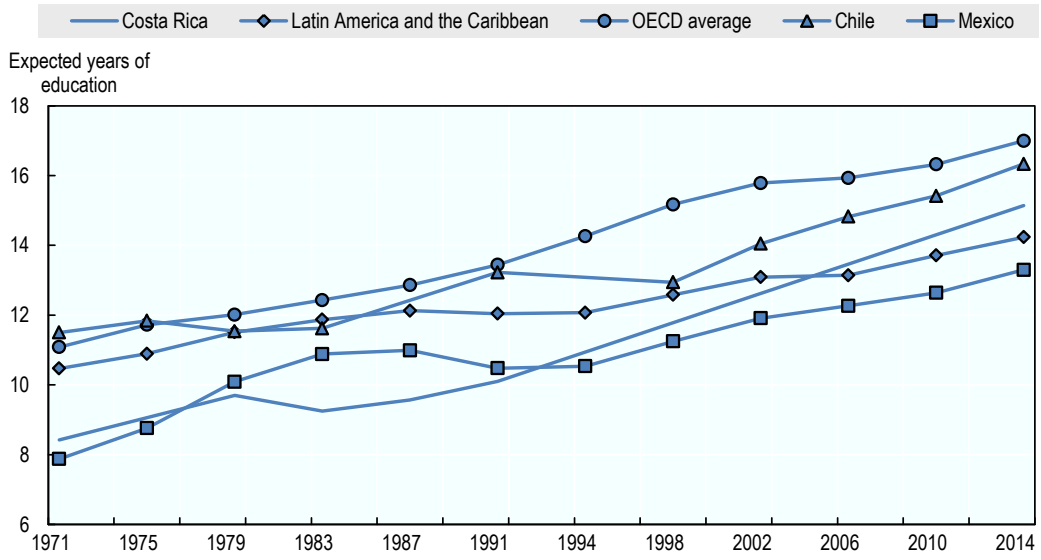
Table 1.1. Costa Rica's Education System

Educational levels and cycles	Early childhood education and care (ECEC)							General basic education									Diversified education (Upper secondary education)			Tertiary education
	Maternal Infant cycle					Preschool		Primary (cycle I)			Primary (cycle II)			Lower secondary education						
		Nursery/ Maternal II			Interactive cycle I	Interactive cycle II	Transition													
Age	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	17+
Grades								1	2	3	4	5	6	7	8	9	10	11		
Modalities and programmes																	Academic			
																	10	11	12	
																	Technical			

Source: Adapted from MEP (2016a), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

Between 2004 and 2014, average education life expectancy increased by three years in Costa Rica, compared to 1.1 and 1.2 years respectively in OECD and Latin American countries (Figure 1.1). For the young, longer study time has translated into higher levels of qualification. Almost half of young adults (47% of 25-34 year-olds) attained at least an upper secondary education in 2014, up from one-third among their parents' generation (35% of 55-64 year-olds) (OECD, 2016b). While enrolment has increased at all levels, progress has been fastest where participation was initially low, with gross enrolment rates doubling in upper secondary and increasing 9-fold in the first year of preschool (Interactive II, *Interactivo II*) since 2000 (Figure 1.2).

Figure 1.1. Trends in education life expectancy (1971–2014)



Source: UNESCO-UIS (2016), "Browse by theme: Education", Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org\\DataCentre\\Pages\\BrowseEducation.aspx.

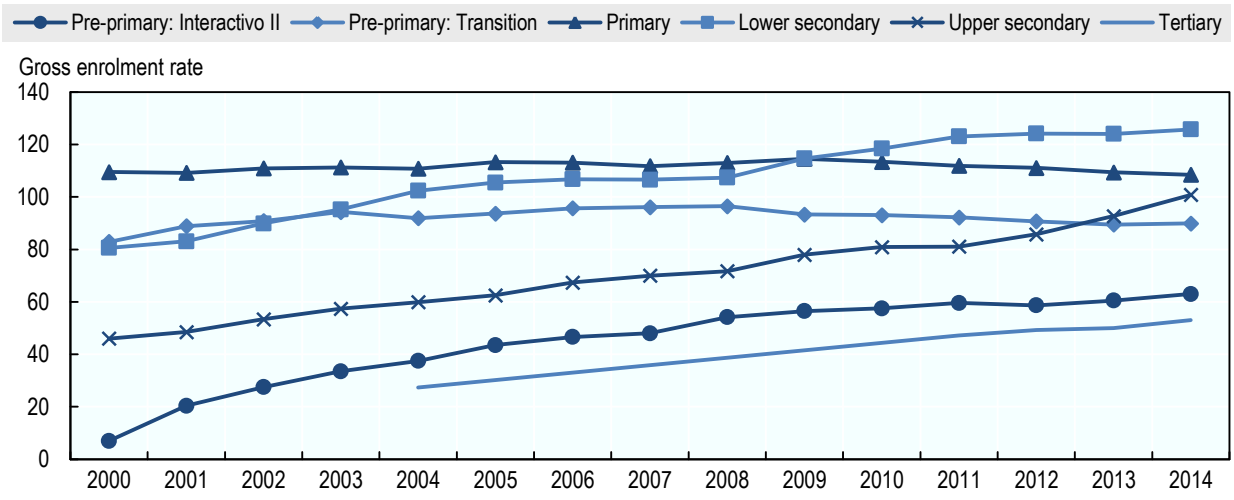
Progress in the expansion of Early Childhood Education and Care (ECEC) has been mixed

ECEC includes two cycles in Costa Rica. The maternal infant cycle (*materno infantil*) offers health and basic care for those aged 0 to 4, with services provided by multiple agencies, including the Ministry of Health (*Ministerio de Salud,* MINSA), the Joint Social Aid Institute (*Instituto Mixto de Ayuda Social,* IMAS), and the National Child Welfare Agency (*Patronato Nacional de la Infancia,* PANI). The Ministry of Public Education (*Ministerio de Educación Pública,* MEP) is responsible for the preschool cycle (*pre-escolar*), which lasts two years and starts at the age of 4 years and 3 months. In 2014 the joint National Network for Childcare and Development (*Red Nacional de Cuido y Desarrollo Infantil,* REDCUDI) was created to improve coherence and co-ordination across providers and cycles.

The preschool cycle has seen an important expansion in recent years. Gross enrolment in the first year (Interactive II) soared from 7% in 2000 to 63% in 2015 (PEN, 2015), though remains much lower than the OECD average of 95% (OECD, 2016b). Participation in the second year of preschool also increased from 83% to 90% over the same period. Policies that enabled this dramatic expansion include the creation of close to 3 000 new classes and scholarships to cover the additional costs of attendance (eg transport, learning materials, uniform) for disadvantaged families.

This remarkable growth contrasts with more muted progress in the maternal infant cycle for those under 4 years of age. In 2014, only 7.8% of 2-year-olds and 15% of 3-year-olds benefitted from some form of care or education services (OECD, 2016b), which is far below the levels observed in OECD countries where on average over 70% of children aged 3 benefit from ECEC services and in some countries universal preschool begins (OECD, 2016b). The past decade has witnessed little progress in improving participation with only 1 300 additional children aged 1-4 entering ECEC centres between 2003 and 2013 (MEP, 2016a).

Figure 1.2. Gross enrolment rates by level of education in Costa Rica (2000-2014)



Sources: PEN (2015), *Quinto Informe Estado de la Educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación; PEN (2013), *Cuarto Informe Estado de la Educación 2013 (Fourth Report State of Education 2013)*, CONARE, Programa Estado de la Nación; UNESCO-UIS (2016), "Browse by theme: Education", Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx.

Costa Rica has achieved universal primary education enrolment

Costa Rica, like most OECD countries, had already met the benchmark of "full" primary school enrolment (defined as 90%) in the early 1970s. Several factors explain this achievement, in particular Costa Rica's strong push in the 1950s to universalise attendance by bringing education services close to communities. The government also provides financial incentives for disadvantaged families to enrol their children in schools as well as free school meals (MEP, 2016a). Secondary participation has expanded steadily, but disengagement leads to low completion rates.

Between 1999 and 2014, gross enrolment rates (reflecting all students, regardless of age) increased from 79% to 133% in lower secondary and 43% to 102% in upper secondary. However, net enrolment rates (reflecting just students of the appropriate age) are markedly lower. In 2014, they stood at 71% in lower secondary and 41% in upper secondary, compared to 91% on average across OECD countries for overall secondary participation (OECD, 2014a). The large differences between gross and net enrolment indicate that many Costa Rican students repeat a year and drop in and out of the system.

Upper secondary education offers academic and vocational tracks, with a small minority of students attending artistic schools. Most students enrol in academic schools (59%), though the share of those opting for the vocational track increased from 18% to 26% between 2005 and 2014 (PEN, 2015), following efforts by the MEP to expand vocational provision to cater for a more heterogeneous population and meet labour market needs for technical skills. A range of non-formal programmes account for the remainder of the upper secondary school cohort, providing second chance and more flexible opportunities for young adults who dropped out of school to complete their education. Participation in such programmes has almost doubled in the past decade, from 7.5% in 2005 to 14% of total enrolment by 2014 (PEN, 2015).

Outside of the formal education system, the National Training Institute (*Instituto Nacional de Aprendizaje*, INA) provides short vocational education and training (VET) courses. Enrolment has increased by 44% since 2005 to 282 860 in 2014, and demand far exceeds the supply of places. INA programmes serve as an alternative path to the labour market for students who have dropped out of secondary education but a lack of co-ordination with the MEP makes it difficult for students to re-enter the formal school system (see Chapter 4).

Enrolment in tertiary education has boomed over the last 15 years.

Participation in the first cycle of university (ISCED 6, or the equivalent of bachelor's level) has doubled since the turn of the century, from 101 000 students in 2000 to 200 000 in 2014 (PEN, 2015). Gross enrolment in tertiary was 53% in 2014, above Brazil and Mexico but below the average of OECD countries (71%) (UNESCO-UIS, 2016; OECD, 2014a). The growth in enrolment in private universities explains much of this expansion. The number of students in the private sector has increased by 167% since 2000 and today accounts for 51% of total enrolment. Private universities accounted for more than two thirds (69%) of all tertiary diplomas granted in 2013, reflecting both the size of the sector and lower dropout rates than in the public universities. It is therefore a major concern that this sector has weaker standards of quality assurance (PEN, 2015). Most students are enrolled in social science programmes (education, economics, social sciences) and the minority that study basic science and engineering attend, overwhelmingly, public universities (PEN, 2015). Costa Rica stands out for having very few short cycle post-secondary programmes of one to two years in length (ISCED 4 and 5) that are more occupationally-specific and prepare students for labour market entry.

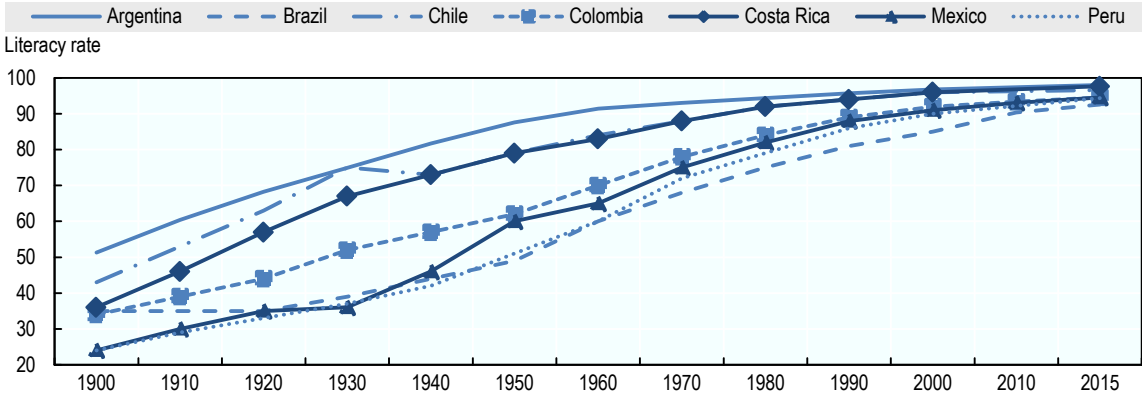
Learning outcomes

Basic literacy is almost universal

Costa Rica's early success in expanding access to primary education has contributed to high rates of basic literacy. Some 98% of young people and adults in Costa Rica are reported to have basic literacy skills, defined nationally as the self-declared ability to read and write. This is on a par with Chile (97%), and above Mexico (95%), Colombia (95%) and Brazil (93%) (UNESCO-UIS, 2016). The progress of the country in ending illiteracy since 1869, when primary education became compulsory and tuition free, has been extraordinary and at a faster pace than other Latin American countries (see Figure 1.3).

Costa Rica does not participate in international assessments such as the OECD Adults Skills Survey that provide a direct, more in-depth assessment of the level of adult proficiency in literacy and other essential skills. Data on the learning outcomes of children in school indicate that a large percentage of the population begin adult life with weak cognitive skills and are likely to struggle with tasks that go beyond simple reading and numeracy (see below). This has implications not only for their own future learning and capacity to engage in society and the labour market, but also their ability to support their child's education. In Costa Rica, the low level of parental education is one of the factors most closely associated with low student outcomes in terms of participation and learning. The probability that a student whose parents did not finish primary school will complete upper secondary is 16%, compared to 87% for students whose parents attained a tertiary level of education (PEN, 2015).

Figure 1.3. Literacy rates in Costa Rica and Latin American countries (1900-2015)

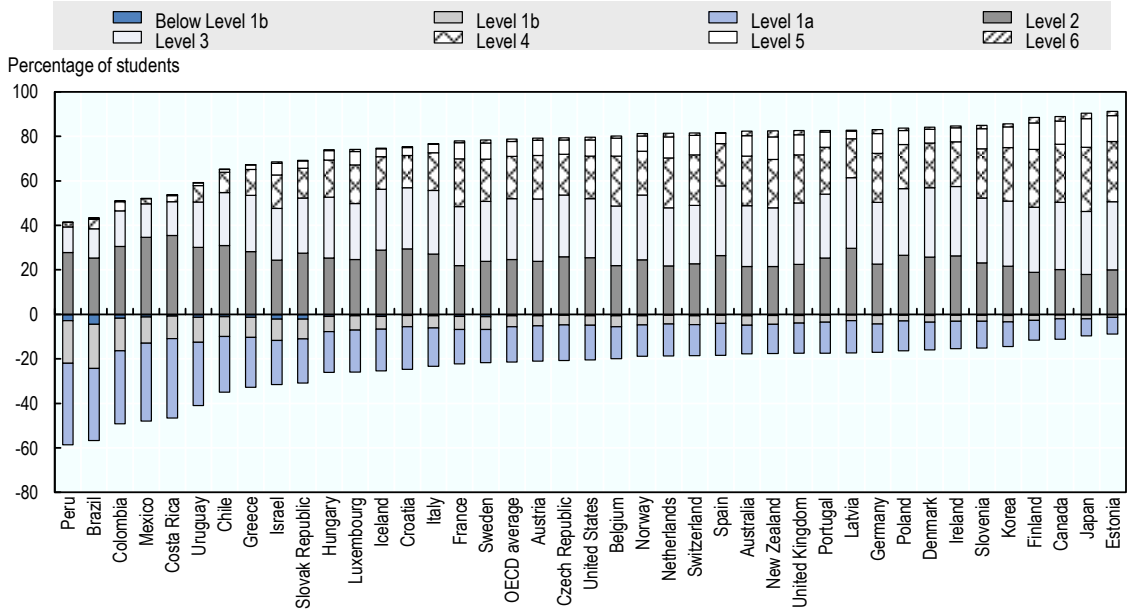


Note: Literacy rate for 1990-2000 refers to percentage of adult population and the rate for 2001-2015 to 15+ year-olds.

Sources: UNESCO-UIS (2016), "Browse by theme: Education", Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx; Roser, M. and E. Ortiz-Ospina (2016), "Literacy", *OurWorldInData.org,* https://ourworldindata.org/literacy/ (accessed 14 February 2016).

In the 2015 survey of the OECD Programme of International Student Assessment (PISA), Costa Rica's 15-year-olds performed at the equivalent of around two years below their OECD peers with an average score of 420 in science compared to 493 in OECD countries (OECD, 2016c). Among Latin American participants, Costa Rica's performance was below Chile, similar to Colombia and Mexico, and above Brazil and Peru. Costa Rica has one of the highest proportions of students failing to reach proficiency level 2 in science, mathematics and reading (33%) – the baseline level of skills required for productive participation in society - which compares to 13% in OECD countries (OECD, 2016c). Very few Costa Rican students (0.9%) perform at the top levels in comparison with OECD countries (15% on average) (Figure 1.4).

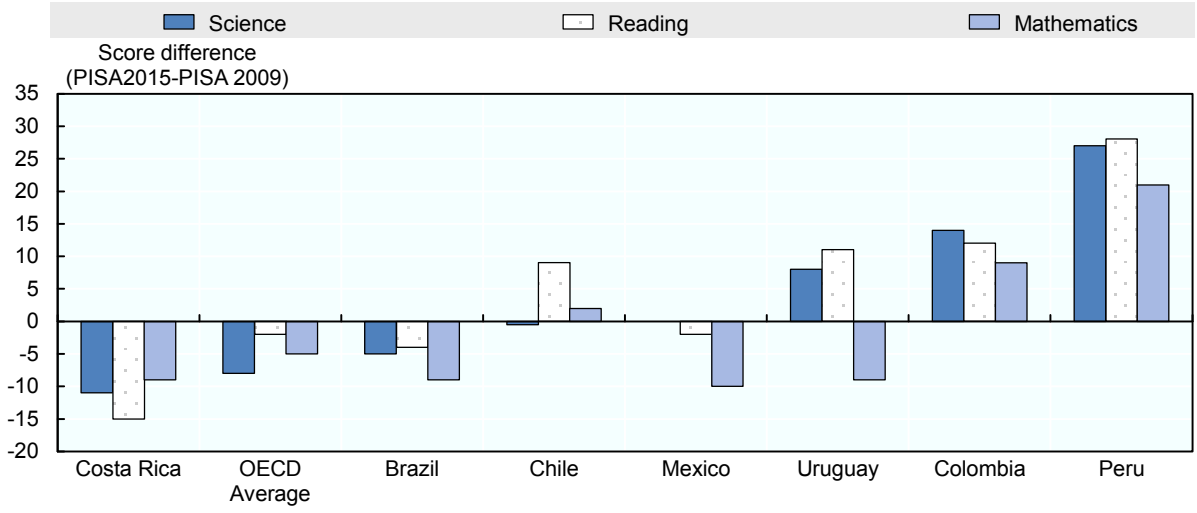
Figure 1.4. Science performance levels in PISA 2015 in OECD and Latin American countries (2015)



Source: OECD (2016c), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

PISA only measures the performance of those 15-year-olds who are still in school, and the absence of progress since 2009 masks the fact that a gradually increasing proportion of the entire cohort has been covered by the survey in Costa Rica, including more students from disadvantaged backgrounds (Figure 1.5). However, other rapidly developing countries in the Latin American region and elsewhere, such as Peru, have succeeded in simultaneously enrolling more children and improving average learning outcomes.

Figure 1.5. Trends in performance in PISA (2009-2015)



Note: Costa Rica administered the PISA 2009 assessment in 2010. The differences are only statistically significant in three areas of assessment for Peru; in science, for Costa Rica and Colombia; in reading for Costa Rica and Uruguay; and, in mathematics for Mexico. Additionally, changes were made to the test design, administration, and scaling of PISA 2015. These changes add statistical uncertainty to trend comparisons that should be taken into account when comparing 2015 results to those from prior years. Please see the "Readers' Guide" and Annex A5 of the PISA 2015 Initial Report (Volume I) (OECD, 2016b) for a detailed discussion of these changes.

Source: OECD (2016c), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266490-en.

National evaluations of student learning also show weak learning achievement, and gaps in the basic skills of some students from the early years, representing a major obstacle to subsequent progress. More than 40% of students perform at the lowest level in the national assessment at the end of primary education, meaning that they struggle to master basic knowledge and skills. UNESCO's Third Regional Comparative and Explanatory Study (*Tercer Estudio Regional Comparativo y Explicativo,* TERCE) consistently shows that many third and sixth grade students lack foundation skills. While Costa Rica students perform above the average of fifteen Latin American participating countries, as in PISA, the gap between Costa Rica's performance and that of the top performing country has been widening in the last ten years (UNESCO, 2015). Weak learning foundations hinder progress in secondary education: by the end of lower secondary education, of those students who are still in school, more than 20% still struggle to demonstrate basic knowledge and skills (MEP, 2013). Nearly one third (32%) of those who do make it to the end of upper secondary education do not pass the *Bachillerato* examination, the key requirement both for work and further education (PEN, 2015).

A new curriculum from preschool to upper secondary education has been introduced as part of efforts to improve student achievement. It aims to enhance what students learn, and

how they learn in the classroom by emphasizing the development of key 21st century skills and attitudes, and promoting a more student-centred teaching approach.

High returns to qualifications are a mixed message

The returns to education are high. Some 84% of 25-34 year-olds with a tertiary degree are employed, slightly above the OECD average (82%) (OECD, 2016b), and Costa Rica has one of the largest salary premiums in Latin America, with highly-skilled workers earning three times more than those with low-skills (OECD, 2016a). Yet recent employer surveys reveal not only a growing demand for highly-qualified workers in specialised areas (e.g. advanced electronics and software development) but also an un-met need for mid-level technical graduates (MEP, 2016a; UCCAEP, 2016). More than half (53%) of Costa Rica's 24-35 year-olds have no secondary education qualification, compared to the OECD average of 17% (OECD, 2015b). They face much greater difficulties in the job market, with those who have not completed secondary education accounting for seven out of ten of the unemployed in Costa Rica (OECD, 2016a). High returns from education are an indicator of the value of education, but they can also point to bottlenecks and high dropout rates limiting the size of the available talent pool that pursue higher level qualifications and skills.

Poor preparation and limited support for teachers hinders learning outcomes

Teachers represent 8% of the formal labour force, with around 72 000 teachers employed in the compulsory school sector (MEP, 2016a). Teaching salaries have almost doubled in recent years, and are now similar to other professions. Costa Rica has taken steps to raise teachers' qualifications and virtually all MEP teachers now hold a university-level degree (95%). However, there are concerns regarding the quality of initial teacher education, particularly in private universities which account for almost two-thirds of graduates (72% in 2013). Just 7% of private teaching programmes have been accredited, although new draft legislation intends to make this mandatory. Entry to the profession is determined by a public contest which ensures transparent selection, but is not well-designed to assess candidates' potential to become good teachers. Teachers have few opportunities to develop their knowledge and skills once appointed and most in-service training is weakly linked to classroom needs and practice. Many teachers need more support: a test of mathematics teachers' knowledge revealed that 29% did not master the content of the curriculum that they were expected to teach (PEN, 2015). Costa Rica lacks nationwide professional standards for teachers which could provide a common understanding of what constitutes good teaching.

Equity

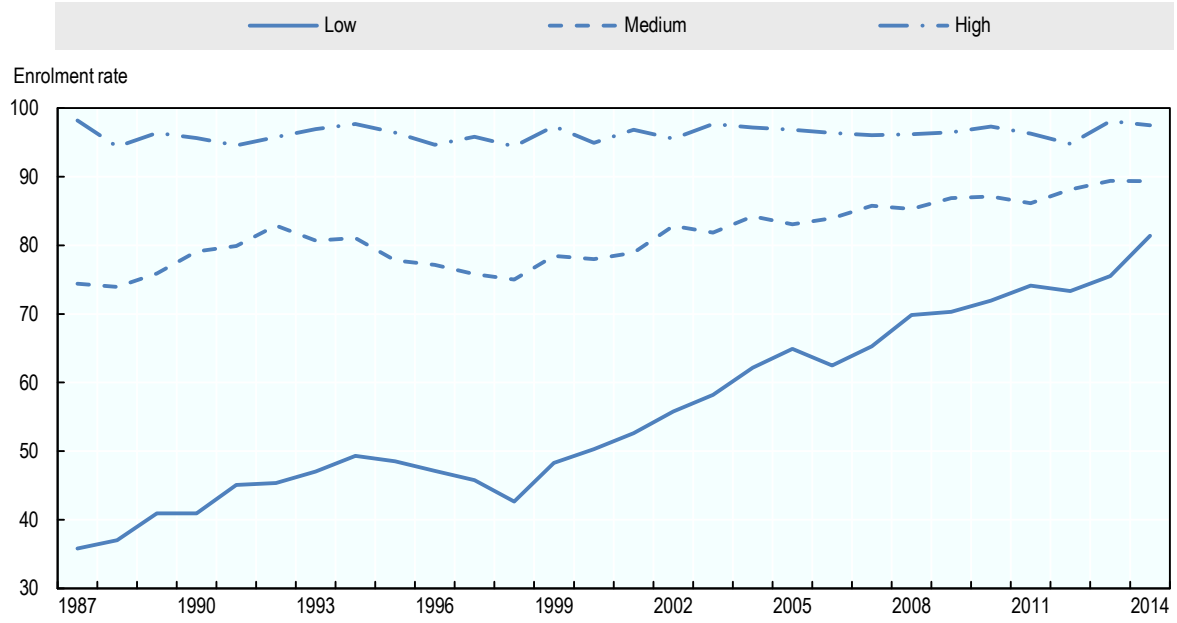
Inequality and poverty are growing challenges for Costa Rica. The poverty rate (22%) is twice the OECD average (11%), and extreme poverty has increased from 5.8% in 2010 to 7.2% in 2015 (OECD, 2016a). National research has shown that greater equity in education could help to reverse this trend: an additional year of schooling reduces the prevalence of poverty by, on average, 5% for households with an average of 12 years of schooling (PEN, 2015).

Inequities remain large

In *absolute* terms, children from disadvantaged backgrounds are more likely than ever to receive a full school education. The proportion of children aged 12-17 from low-educated

households that go to school has doubled over the past 30 years to reach 80% in 2014 (PEN, 2015) (Figure 1.6). At tertiary level, two out of every three (66%) graduates in 2010 were from families in which the parents did not themselves have a tertiary diploma (PEN, 2015). While young people from all social backgrounds have improved their prospects, the *relative* gaps in life-chances between different social groups remain large: children from poor, uneducated families, those living outside the capital, or belonging to an indigenous or migrant group are still less likely to be enrolled in education at all levels.

Figure 1.6. Access to regular education among 12-17 year-olds by average years of schooling in their household (2014)



Note: Low education level households have less than six years of formal education. Middle education household have between six and eight years of formal education. High education level households have twelve or more years of formal education.

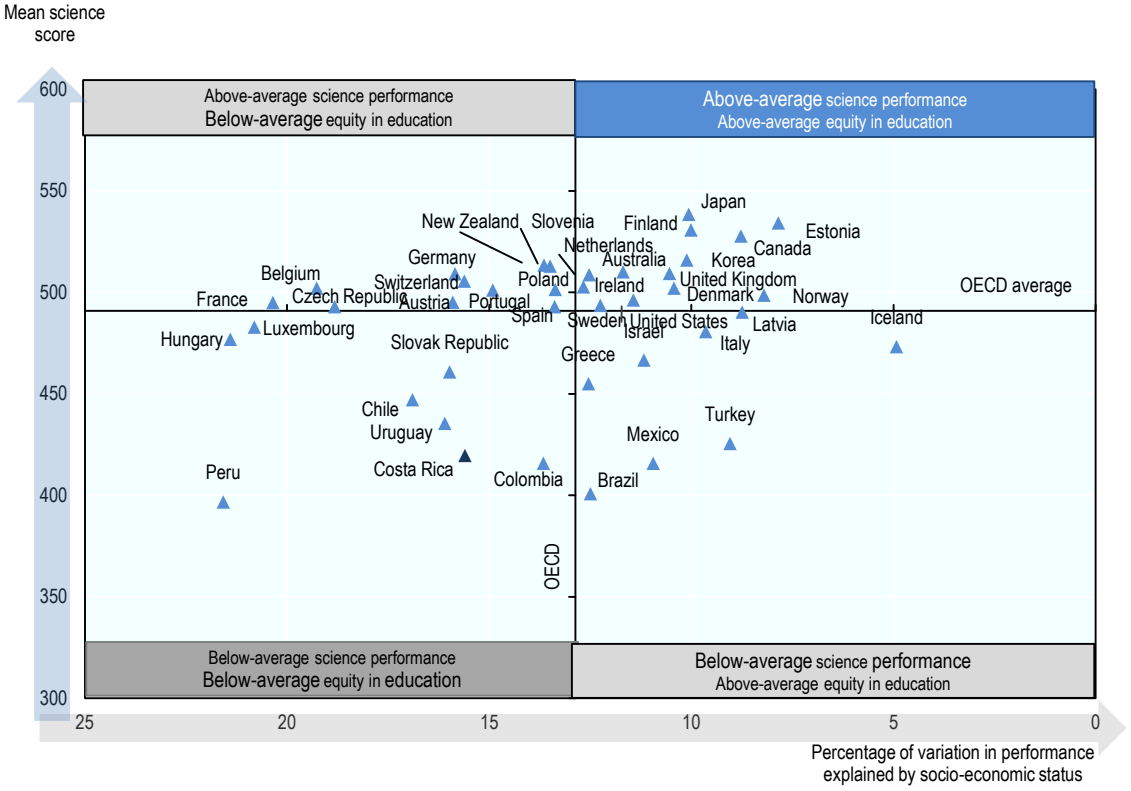
Source: PEN (2015), *Quinto Informe Estado de la educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación.

The gap between poor and rich becomes more pronounced as students advance in the system and the opportunity costs of education increase. The proportion of disadvantaged students who beat their odds and perform at the top levels is one of the lowest across PISA-participating countries (9%) and significantly lower than the OECD average (29%) (OECD, 2016c). In Costa Rica, socio-economic background accounts for 16% of the variance in PISA performance, above the OECD average (13%) (Figure 1.7) (OECD, 2016c). Other countries in Latin America which have succeeded in raising both access and student learning, such as Colombia and Peru, have made more progress in reducing the number of disadvantaged students failing to acquire basic skills. At the tertiary level, inequities are large, as only 7.5% of students from the lowest income quintile transition from school to university on time, compared with 54% of students from an advantaged background (see Figure 5.5).

Classrooms in Costa Rica often lack basic resources such as textbooks and other learning materials. Data from PISA indicate that 38% of students are in schools where principals consider that the inadequacy of the learning environment hinders learning in their schools;

this is particularly a problem for schools in disadvantaged areas (OECD, 2016d). Site visits by the review team and interviews with national and local officials revealed the shortage of teaching and learning resources to be a pervasive concern, along with the poor quality of basic infrastructure. Recent years have seen great efforts to improve school infrastructure following a long period of under-investment, with infrastructure spending increasing by 22% per annum between 2010 and 2017. The MEP has also given great emphasis to equipping schools with digital technologies. However, improving the quality and availability of textbooks and other learning materials appears to have received less policy attention, despite the roll-out of a new curriculum. Limited discretionary funding within the education budget also reduces the scope to invest in the school learning environment.

Figure 1.7. Relationship between performance and socio-economic status in science in PISA 2015



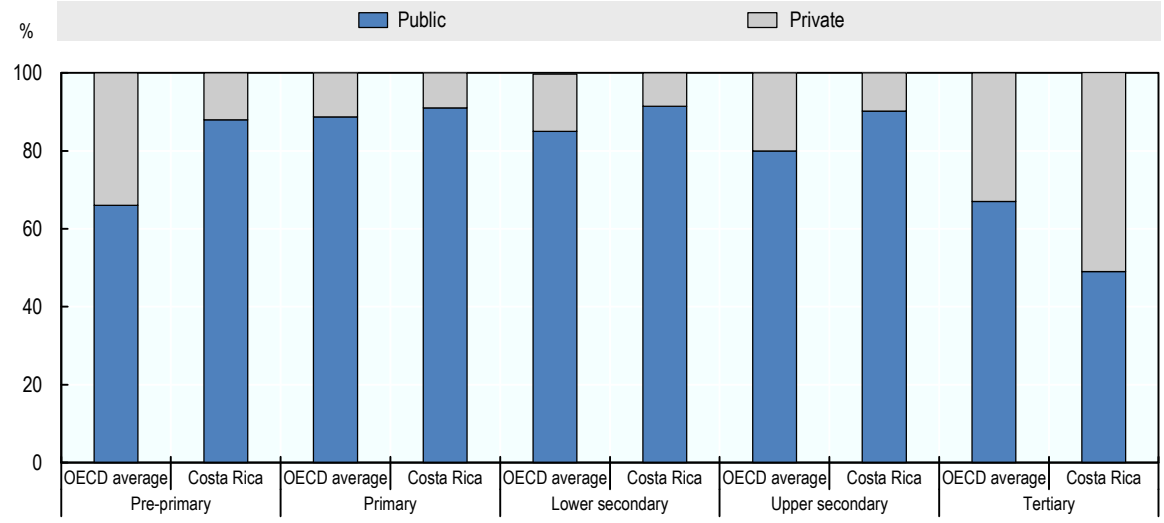
Source: OECD (2016c), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

More affluent families can help their children get ahead by paying for private education provision

The private sector has been important in enabling increased participation in early childhood care and tertiary education in Costa Rica, where public provision has not been able to keep up with demand. Of those children aged 3 to 4 who benefit from centre-based care, over 50% are in private centres and of these the majority belong to the richest income quintiles who can afford the relatively high fees. This puts children from poor families at a disadvantage when they start school, and makes it harder for their mothers to work (see Chapter 2). At the preschool and school levels, the private sector (which includes independent schools and government-subsidised schools) plays a less important role in terms

of enrolment (see Figure 1.8). At around 11% in compulsory education (PEN, 2015), this is well below Chile (57% in lower secondary and 37% in upper secondary) similar to Brazil (13% in lower secondary and 14% in upper secondary) and close to the average across OECD countries (17%) (OECD, 2016g). In terms of outcomes the influence of the private school sector is more significant. While success rates in the *Bachillerato* – the exit examination in upper secondary school and entry requirement for university – are 55% on average across public schools, they are 85% in private schools and 91% in government-subsidised schools (Giménez et al, 2014). This results in students who attend private schools being more than twice as likely as those from public schools to be admitted to the most selective public universities (see Chapter 5). In Costa Rica, students who enter public universities benefit from low fees and generous scholarships which are not available to those students enrolled in private institutions.

Figure 1.8. Enrolment rates in the public and private sectors



Note: OECD data refers to 2014 and Costa Rica data refers to 2015. Private sector data includes independent and government dependent institution.

Sources: OECD (2016g), *OECD.STAT website*, http://stats.oecd.org/, (accessed 12 November 2016); UNESCO-UIS (2016), "Browse by theme: Education", Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx (accessed 10 October 2016).

Regional disparities are being reduced but only gradually

The most disadvantaged regions in Costa Rica are rural, located close to border areas, or home to significant indigenous populations. They include Brunca, Chorotega, Huetar Atlántica and Huetar Norte (PEN, 2015). Differences in enrolment rates between these areas and the metropolitan area of the capital city where 57% of the population live have narrowed, with rural zones witnessing a 38% increase in upper secondary enrolment between 2006 and 2014, compared to 8% in urban areas (MEP, 2016a). But gaps in the quality of education remain large (Table 1.2). In 2013, most schools that had rates of success in the secondary-leaving exam of 90% or more were concentrated in the metropolitan area of the capital city, whereas rural areas showed much weaker performance and a greater proportion of schools that obtained pass rates of below 50% (PEN, 2015).

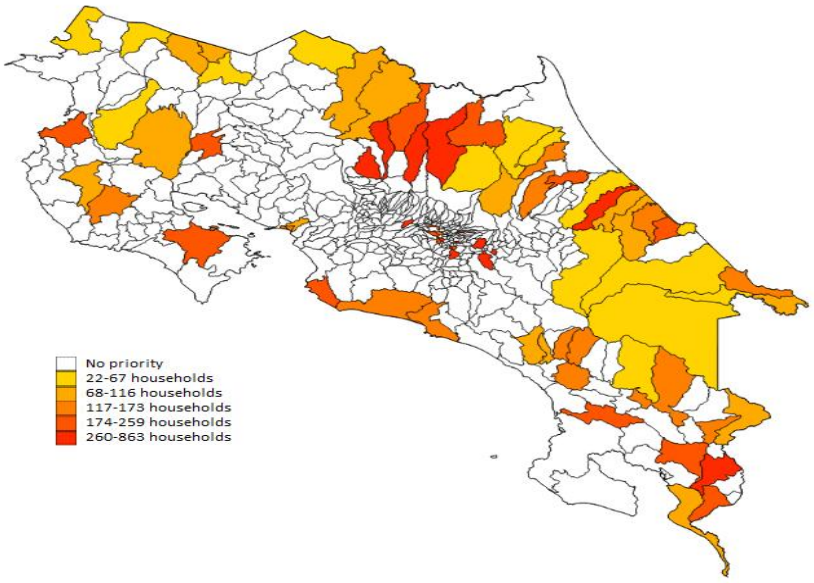
Table 1.2. Enrolment and outcomes by region

	Population	Poverty rate	Enrolment rate (5-6 years-old)	Enrolment rate (7-12 years-old)	Enrolment rate (13-17 years-old)	Enrolment rate (18-24 years-old)	Bachillerato average success rate (%) (range between districts in brackets)
Central	2 942 714	17.2	92.5	99.6	88.9	45.3	77.38 (68.71 – 82.26)
Chorotega	354 154	33.2	89.8	99.5	84.3	40.6	54.83 (39.04 – 64.95)
Pacífico Central	270 754	29.5	84.5	99.9	89.0	33.9	64.40 (56.64 – 69.08)
Brunca	353 276	36.2	82.8	99.7	89.1	39.2	74.19 (66.42 – 82.51)
Huetar Atlántica	422 529	28.2	80.1	99.2	83.7	30.2	50.42 (40 – 65.78)
Huetar Norte	369 737	26.8	84.6	99.5	86.4	33.0	63.01 (57.82 – 65.70)
National average	4 713 164	22.4	88.9	99.6	87.7	41.7	67.9

Source: INEC (2013), *Indicadores demográficos regionales 2013 (Regional demographic indicators 2013)*, Instituto Nacional de Estadística y Censos, www.inec.go.cr/wwwisis/documentos/INEC/Indicadores_Demograficos_Regionales/Indicadores_Demograficos_Regionales_2013.pdf; MEP (2016a), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública; PEN (2015) *Quinto Informe Estado de la educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación; MEP (2016b), Informe Nacional Bachillerato de la Educación Formal 2015 (National Report Formal Education Bachillerato 2015), Dirección de Gestión y Evaluación de la Calidad, Ministerio de Educación Pública.

Measures to support school participation and outcomes for disadvantaged students include free school meals, transportation and a cash transfer conditional on attendance. A scholarship and loan system have also helped underprivileged students to finance their university studies. A national strategy for reducing poverty and extreme poverty in the most disadvantaged areas, Bridge to Development (*Puente al Desarollo*), launched under the National Development Plan, has identified 75 priority districts for co-ordinated policy action which jointly account to 65% of the extreme poverty in the country (Figure 1.9). These districts should receive priority support under the government's major flagship initiatives such as, for example, the national programme to tackle dropout in the education sector and the provision of scholarships for tertiary education. This approach is positive, as previous efforts lacked adequate targeting and the co-ordinated approach needed to address the overlapping dimensions of poverty.

Figure 1.9. Map of Costa Rica's districts by poverty level (2011)

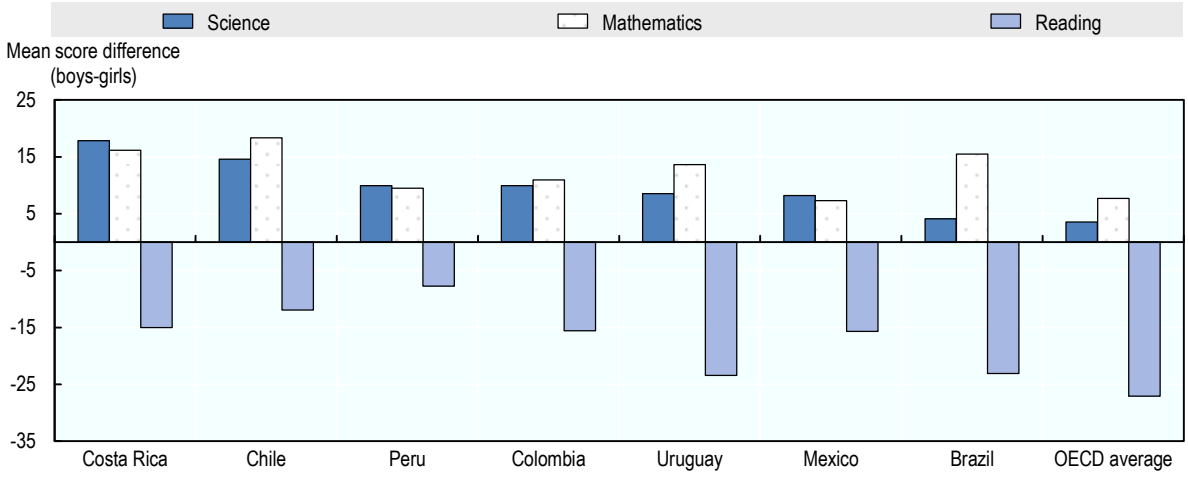


Note: Districts in darker shades of red have a larger number of households living under extreme poverty.
Source: Gobierno de Costa Rica (2015), "La nueva forma de combatir la pobreza: verla en el mapa" (The new way to fight poverty: see it in a map), http://gobierno.cr/la-nueva-forma-de-combatir-la-pobreza-verla-en-el-mapa/ (accessed 12 January 2016).

Girls do better in school but still have poorer career prospects

As in most other Latin American countries, boys do worse than girls in Costa Rica on all indicators related to enrolment, progression and graduation. A range of factors, from pressure to work to the lure of criminal gangs, contribute to higher levels of disengagement and drop out among boys, though recent years have seen male retention rates improve (PEN, 2015). Learning assessments, however, show significant gender differences in favour of boys. In PISA 2015, girls performed significantly behind boys in science and mathematics, whereas their advantage in reading, where girls typically do well, was much lower than the OECD average (Figure 1.10). The fact that more boys who struggle with learning will have dropped out by age 15 is likely to account for part of this performance gap.

Figure 1.10. Gender differences (boys-girls) in mathematics, science and reading performance in PISA 2015



Source: OECD (2016c), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

Lower average performance as well as parental expectations and cultural norms might explain why girls are not finding increases in educational attainment a springboard to employment. While the incorporation of women into the labour market has increased significantly in recent decades, from 33% in the 1990s to 47% in 2014 (World Bank, 2016), it remains well below the OECD average of 63% (OECD, 2016a). Progress in raising learning achievement, in particular in STEM (science, technology, engineering and mathematics) subjects that are associated with higher wages, combined with policies to address the distinct barriers women face to employment, including affordable childcare, will be important to provide more equal opportunities for women and girls in Costa Rica.

Indigenous, migrant and special needs students are at greater disadvantage

Students from indigenous and migrant communities, and children with special needs tend to have poorer educational outcomes in Costa Rica, as in many countries. Even though schooling is compulsory, the 2011 Census revealed that a significant proportion of 5-17 year-olds are not in education: this was true of 24% of those from an immigrant background, 20% of those belonging to an indigenous community and 14% of those with special needs (UNICEF, 2015). The MEP has taken steps to improve education services for indigenous peoples, who account for 2% of the population, by giving indigenous

communities more autonomy in shaping the curriculum in their schools, recruiting more teaching staff from indigenous backgrounds, and providing financial support to indigenous students. Similarly, there have been major efforts to cater to students with special needs in mainstream schools, including the development of an adapted vocational programme to facilitate transition into the labour market. Less policy attention has been given to improving the opportunities of children and young people from migrant communities, many of whom face significant barriers to accessing education and other public services. Costa Rica's migrant population has increased steadily in recent years, from 7.7% in 2000 to 9% in 2011 (OECD, 2017, forthcoming). People of Nicaraguan origin are by far the largest migrant group (75%) and experience among the highest rates of education exclusion, unemployment and poverty in the country. This report recognises equity and inclusion to be a key issue for the education sector in Costa Rica, but does not examine in depth the specific challenges facing different population groups.

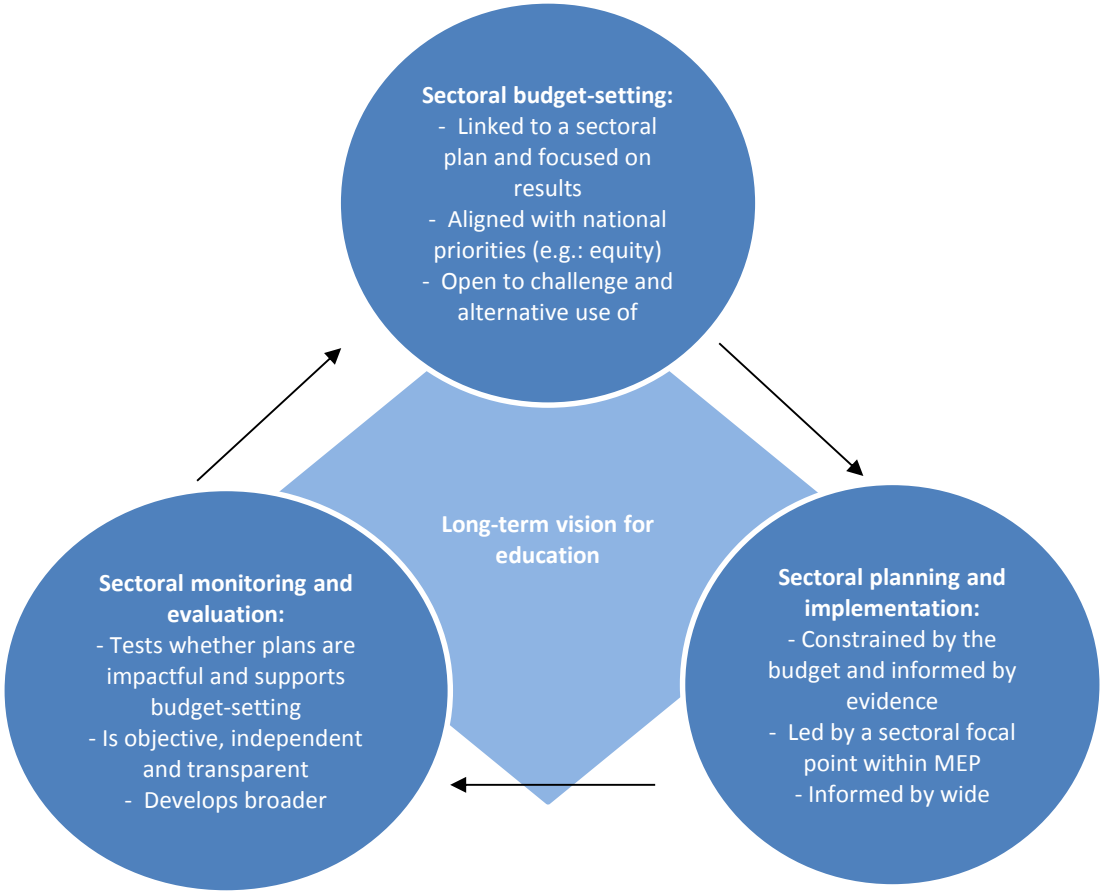
Education governance and financing in Costa Rica: using funding to get results

Recent OECD reviews of economic development and public governance in Costa Rica have identified several challenges in the way in which Costa Rica governs and funds its main public services, including education and training. Public spending has risen very rapidly, particularly through increases in the public-sector wage bill, and large parts of public expenditure are not closely scrutinised by the Finance Ministry (*Ministerio de Hacienda,* MH) or the Ministry of Planning (*Ministerio de Planificación Nacional y Política Económica*, MIDEPLAN).About 88% of expenditure, including education, is ringfenced by legal and constitutional requirements (MH, 2017). In response, the OECD has argued that Costa Rica needs to bring public expenditure under tighter control, and strengthen the capacity of government to link budgets with accountability for results. The recent slowdown in growth has underlined the urgency of measures to prevent the widening of an already large public deficit. Public debt increased from 27% to 42% of GDP between 2007 and 2015 (OECD, 2016f). This implies increasing the proportion of public expenditure which is open to challenge and control. It also means giving more emphasis to the evaluation and monitoring of public services in terms of their outcomes, and developing the capacity within government to exercise strategic oversight over main programmes and ensure that they are accountable and deliver value for money. All of this needs to be linked to a more open and consultative approach to the development of policy, and to public services and their delivery (OECD, 2015a, 2016a).

Education is also affected by these challenges, but with its own specificities. Rising education investment is vital to meet the needs of a fast-modernising economy, but, as described in the earlier part of this chapter, despite large spending increases, Costa Rica has not seen significant improvements in school completion and student learning. Other indicators where one might expect to see the benefits of education investment are not encouraging: productivity has barely increased, the labour market is fragmented by duality and a large informal subsector, skills shortages are apparent and inequality is growing (OECD, 2016a). While public spending on education is mandated by the constitution to reach 8% of GDP, this high level of investment needs to be matched by more robust means of ensuring that spending realises the desired outcomes. This means a sharpened focus on results, rather than inputs and processes, across education planning and policy-making. It also implies evaluation and monitoring arrangements that will measure performance and outcomes, linked to accountability systems that can effectively correct weaknesses in delivery, and sustain quality improvements.

An effective strategic planning cycle, focused on using funding to deliver better education outcomes, may be seen as a cycle that links, in a transparent and structured manner, the three core elements of budgeting, planning and implementation, and evaluation. The value of this and similar approaches to public expenditure planning has been recognised by the OECD (OECD, 2014b) and by the World Bank in its work on Medium Term Expenditure Frameworks (World Bank, 2013). Under this scenario, budget-setting is linked to expected outcomes; planning takes place to use the budget; while evaluation and monitoring tests what is being achieved with the budget, feeding back into the budget-setting and planning. All of this is set in the context of medium and long-term national policy objectives (see Figure 1.11). Here, taking into account Costa Rica's existing efforts in this domain (see MH, 2017) we look at how Costa Rica might develop a more strategic approach to education funding under each of these three areas.

Figure 1.11. Using funding to get results

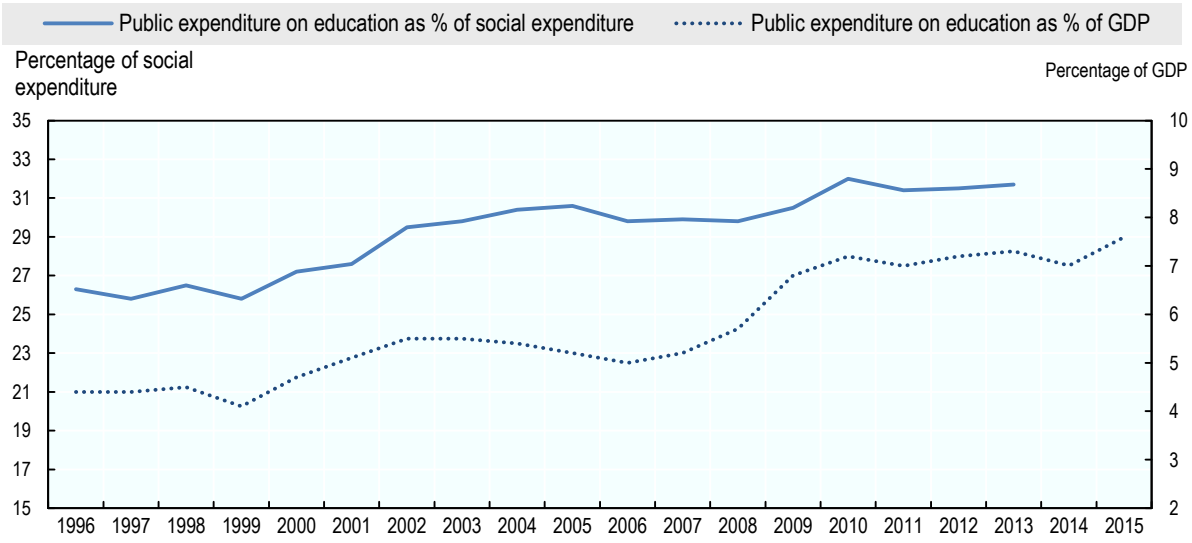


Setting education budgets to realise national objectives

High overall spending needs to translate into better outcomes for students and society

The first strategic challenge is to secure better results with the budget allocated. Public spending on education has increased significantly over the past decade, from 5% of GDP in 2006 to 7.6% in 2017 (Figure 1.12). In the current annual public budget, education accounts 29% of total expenditure and 59% of social spending (MH, 2017). This means that education is by far the single largest public investment in social and economic development.

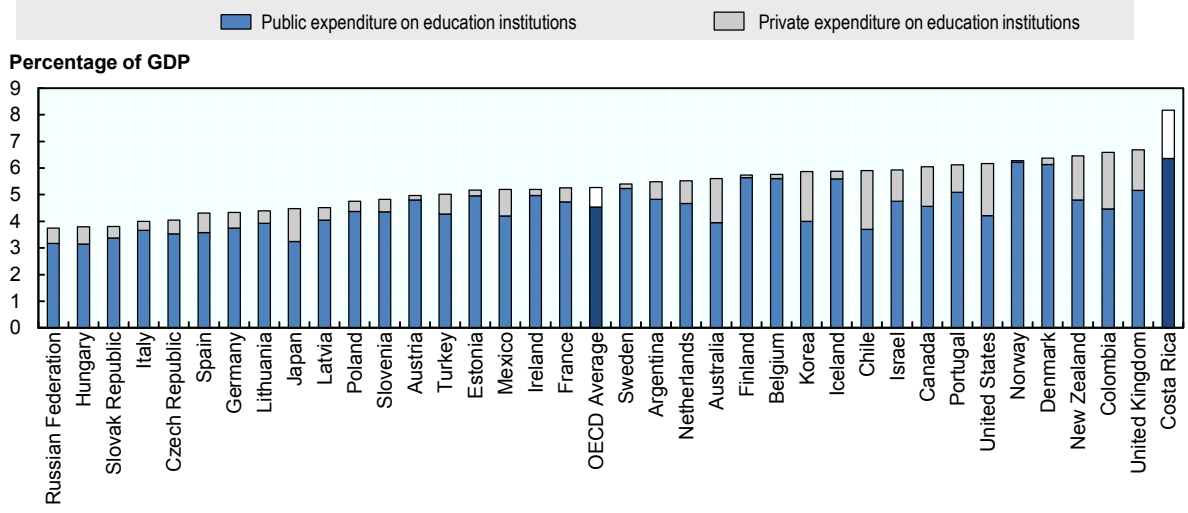
Figure 1.12. Public investment in education as percentage of GDP and public social investment (1996-2015)



Sources: UNESCO-UIS (2016), "Browse by theme: Education", Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx (accessed 10 October 2016); PEN (2015), *Quinto Informe Estado de la educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación; PEN (2005), *Primer Informe Estado de la educación 2005 (First Report State of Education 2005)*, CONARE, Programa Estado de la Nación.

Total spending from primary to tertiary, which includes both public and private expenditure, was 8.3% of GDP in 2013, much higher than in any OECD country and well above the OECD average of 5.2% and other high-spending Latin American countries (Figure 1.13).

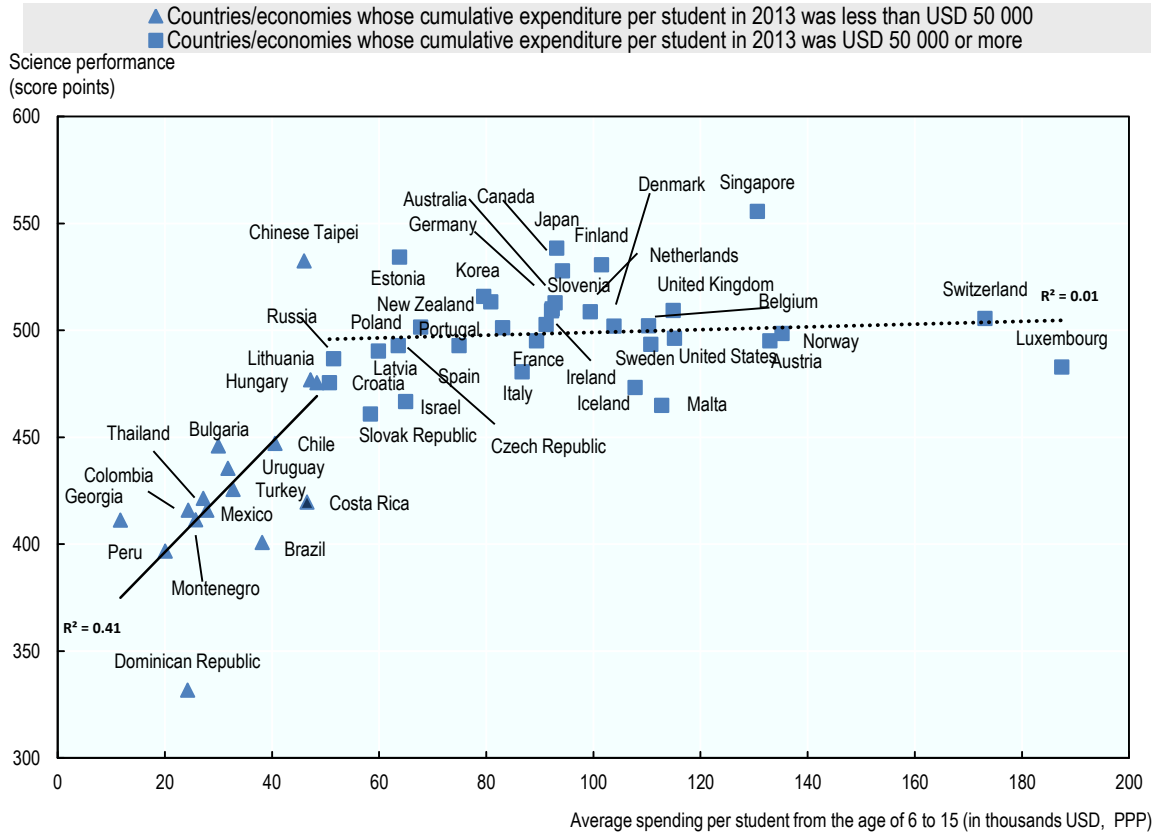
Figure 1.13. Public and private expenditure on primary to tertiary education institutions as a percentage of GDP (2013)



Source: OECD (2016b), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-eng.

A high level of education investment is needed in Costa Rica. Current funding needs to address cumulative deficits – including in basic infrastructure – created by low spending (below 4% of GDP) in the 1980s and 1990s. Sustained investment is also vital to support further expansion of access, in particular in preschool and upper secondary education, and improve the quality of education, including through the provision of a longer school day, higher quality learning resources, and more professional support for teachers. In per student terms, public expenditure still remains relatively low, with cumulative expenditure by the age of 15 around half the average across OECD countries. Data from PISA show that low spending per student is associated with poor learning outcomes (Figure 1.14), signalling the importance of funding basic education adequately to raise student achievement. Yet, PISA also reveals that Costa Rica could achieve better results with the resources it invests. Croatia, for example with a similar level of GDP per capita, spends a similar amount per student, but by age 15 students are the equivalent of one and a half school years ahead of those in Costa Rica.

Figure 1.14. Relation between performance in science in PISA 2015 and spending per student (2015)

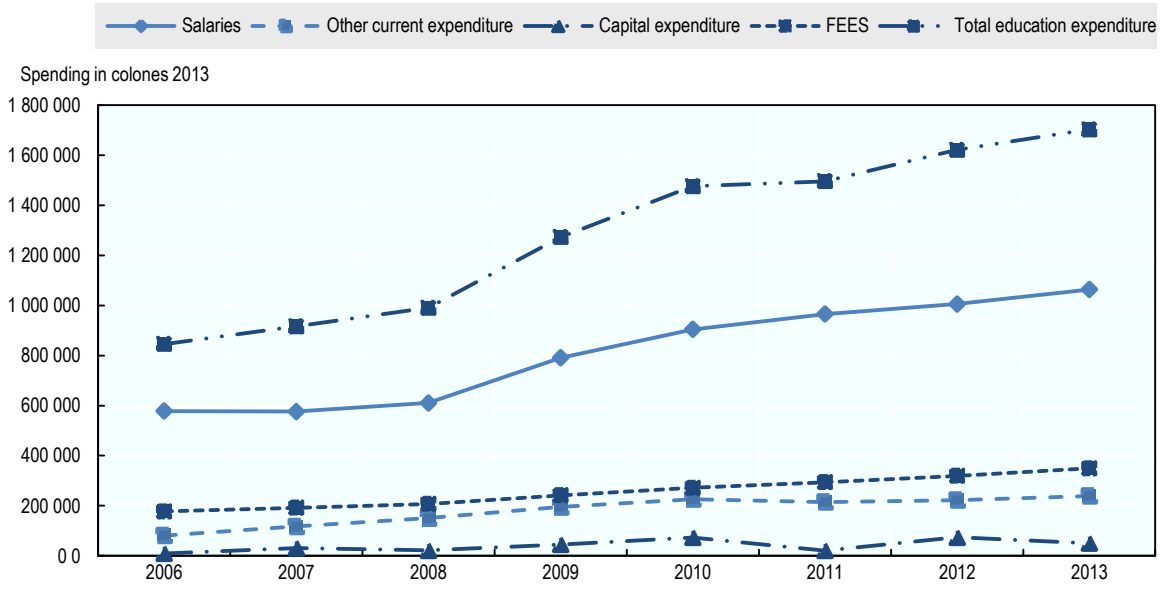


Source: OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

Costa Rica therefore needs to be asking itself how to achieve better student outcomes with the resources it invests. This means having mechanisms in place to pose and answer that question, opening up the different sub-categories of expenditure to scrutiny and challenge, within the frame of a mandated *overall* level of education expenditure. For example, there has been limited debate, and certainly limited public debate, about the key drivers of expenditure. About 60% of the recent rapid increase in public education expenditure has been absorbed in

the teaching wage bill (see Figure 1.15) as a result of growth in both salaries and staff numbers. Similarly a significant proportion of the increase in public spending (20%) has been allocated to tertiary education, as the transfer to universities (National Fund of Higher Education, *Fondo Especial para el Financiamiento de la Education Superior*, FEES) has almost doubled in real terms. These key budgetary commitments have been agreed with inadequate discussion on how this was expected to improve education outcomes in respect of both quality and equity, and little evidence on whether it has in fact done so (Jiménez, 2014).

Figure 1.15. Evolution of public expenditure per resource type (2006-2013)

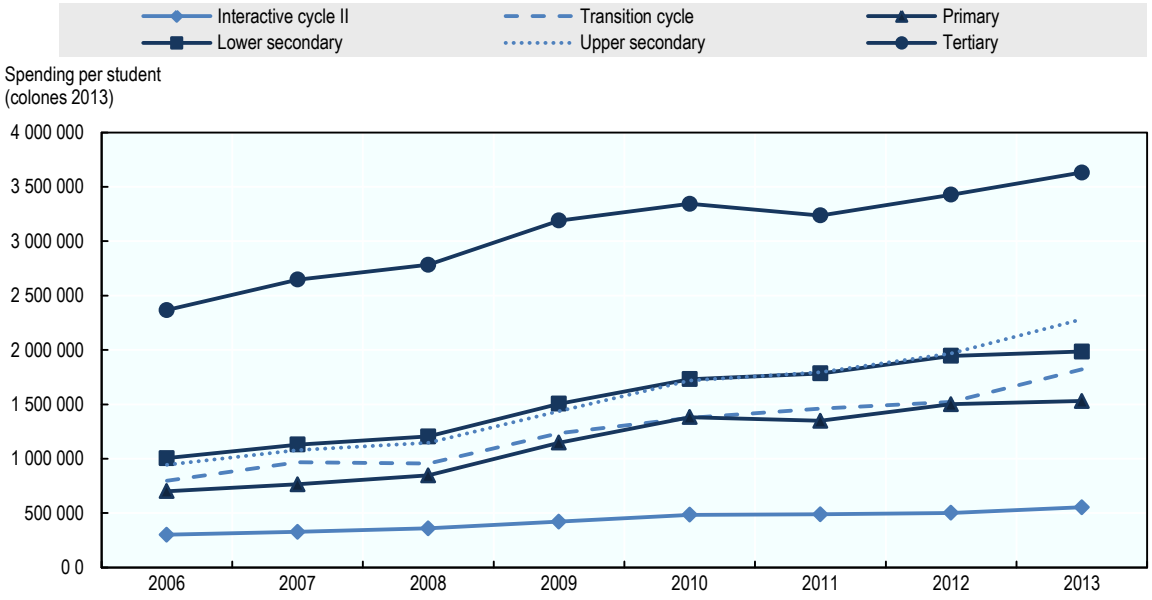


Source: Authors' calculations from MEP (2016a), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública (MEP).

The allocation of resources between sectors raises equity concerns

A second key strategic question is whether the allocation of expenditure between the different sectors – early childhood, basic schooling, upper secondary and tertiary education – is optimal in terms of education and development outcomes. Again, this is a question which Costa Rica should be asking as part of the annual budget allocation, supported by the data and analysis that enable an evidence-based answer. Without such scrutiny, there is the risk that investment will follow historic spending patterns and vested interests, rather than education needs. This would appear to be the case in Costa Rica. Between 2006 and 2013, overall spending per student almost doubled in real terms (see Figure 1.16). Over this period, for every additional 1 000 colones invested, 354 were allocated to primary schooling, 230 to lower secondary education, 203 to tertiary education, 126 to upper secondary education and 77 to pre-school. This allocation raises several concerns, especially when looked at in the context of social and demographic trends: first in terms of equity – with respect to the low investment in pre-school and sustained high level of spending on tertiary education; and in terms of efficiency – with the continued rise in funding for primary school at a time of declining enrolment and growing pressures at the secondary level.

Figure 1.16. Public expenditure per student by level of education (2006-2013)



Note: Tertiary expenditure also includes investment in R&D.

Source: Authors' calculations from MEP (2016a), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

There are strong grounds for Costa Rica to re-adjust the sectoral balance of expenditure between sectors, especially on the basis of equity. International research shows that within education expenditure, equity is served by giving priority to the earlier phases of education, namely compulsory schooling and early childhood education and care (Cunha et al., 2006). This is for two reasons. The first is that expenditure on the post-compulsory phases of education serves only a relatively advantaged portion of the youth cohort who are pursuing more advanced qualifications. This is manifestly the case in Costa Rica, where participation among poor students is very low. By contrast expenditure on compulsory schooling benefits the entire cohort, while that on early childhood education and care very often benefits the most disadvantaged. The second reason is that interventions to address educational and other forms of disadvantage are most effective in the earliest years, and less expensive than remedial responses later on (OECD, 2007).

Realising equity goals through education expenditure is important for all countries, but it is even more important in Costa Rica than in most OECD countries. This is because taxation in Costa Rica, including income taxation, has a minimally redistributive effect – much less than in most OECD countries (OECD, 2017, forthcoming). This means that as young people in Costa Rica enter the labour market, any differences in education and skills outcomes that emerge from education inequities will be reflected very starkly in wage and employment differences, without the compression effects which might be realised through redistributive taxation, as would be the case in other countries.

To best address the increase in inequality in Costa Rica, the strategic priority lies in increasing investment in compulsory education, in particular in pre-school education, which will require limiting expenditure on tertiary education. Costa Rica spends a larger percentage of GDP per capita per tertiary student than most OECD countries, though at just 53%, its enrolment rate is considerably lower. Expenditure on tertiary education has increased more

rapidly than in other sectors, while at the same time, for reasons examined in Chapter 5, within the budget for tertiary education resources are allocated in ways which do not contribute to equity. Costa Rica's growing economy clearly needs a thriving and high quality tertiary sector, but it needs to mobilise non-government sources of funding through cost-sharing arrangements to support it. Chapter 5 looks at how this might be achieved.

Several factors point to a need to rethink how resources are allocated within the school budget

Resource allocation at the school level also needs to be revised with a view to improving both equity and efficiency. Costa Rica has a very large network of primary schools, including many very small schools. While falling fertility reduced the number of children under the age of 12 by 11% between 2005 and 2014, spending per primary school student more than doubled. This trend, alongside continued urbanisation, means that many smaller rural schools have become barely viable and almost certainly inefficient, given general evidence on the sometimes questionable quality of small schools (see Chapter 3). At the same time, secondary education appears under-resourced, with low per-pupil spending, and class sizes which are too large in urban areas, a particular problem for disadvantaged students with weak independent learning skills. Turning around secondary schools that face particular challenges, as through the I'm In (*Yo me Apunto)* initiative and more broadly, will require additional resources. At all levels, Costa Rica will also need to think about how to expand the school day so that all students can benefit from adequate effective learning time. At present, just 3.1% of primary schools provide a full-day of schooling (PEN, 2013). Collectively, these compelling demands imply a new approach to how resources are allocated across primary and secondary schools and between schools with different needs.

In designing a new approach, Costa Rica will need better data on the costs and needs of each individual school (e.g. student composition, staff, state of infrastructure) as well as their outcomes (e.g. student completion, transition, learning outcomes). At present, information systems are weak and fragmented and important data are lacking, notably on school quality and student learning achievement (see Chapter 3). This makes it difficult for the MEP to evaluate the efficiency of different school types (e.g. small vs large primary schools) or assess which schools are most in need of additional resources for improvement. There is also limited capacity to understand demographic and enrolment trends across the country. The MEP has only been using a geo-referenced database of schools since 2011, and a similar database for ECEC is only now under development. These will be important tools to reduce geographic inequities in access to preschool and secondary school, whilst rationalising the network of primary schools.

Redistributive policies suffer from a lack of co-ordination, targeting and data

A final strategic challenge relates to the effectiveness of redistributive mechanisms in improving social and economic equality. Overall income inequality as measured by the Gini coefficient has increased in Costa Rica over the past decade, in contrast to the majority of Latin American countries where it has declined, and the level of inequality remains considerably higher than in most OECD countries (OECD, forthcoming). Alongside fiscal reform, the OECD has recommended a new approach to social policy in Costa Rica, with an emphasis on stronger co-ordination and management and better targeting of resources so that they reach populations most in need (OECD, 2017, forthcoming).

These challenges are highly visible in the education sector. Policies intended to offset inequality are not always focused on their designated beneficiaries; for example, over 20% of students receiving a cash transfer on condition of participation in secondary school belong to

the three richest quintiles of the population, who receive as much as the poorest students (Trejos, 2014). There are a range of programmes to promote access to school (e.g. by providing meals, transport, scholarships, conditional cash transfers), but schools themselves receive few additional resources to enable them to address the teaching and learning needs of disadvantaged students. There have been positive efforts in secondary education to co-ordinate social welfare policies to support schools with high levels of student drop-out through the I'm In (*Yo me Apunto)* programme (see Chapter 4). But in contrast to many OECD countries, there are no systemic mechanisms to redistribute resources to disadvantaged schools so that at-risk students receive proper support with their learning. The ways in which resource allocation policies are being used to address disadvantage will need to be re-evaluated, as part of government-wide efforts to improve the effectiveness of social policy.

Developing planning capacity

Effective planning needs to meet several conditions. It should be rooted in longer term strategic objectives that guide shorter term planning and policy-making; it should have mechanisms to engage different stakeholders to gain support for key reforms and ensure their effective implementation; and it needs to involve regional and local stakeholders both in the development and implementation of national policies. In all of these areas Costa Rica faces challenges.

A long-term vision would support better medium-term planning

In Costa Rica the four-year political cycle and calendar of development planning frames education policy-making. The PND sets out the overarching goals of the government, and each ministry, including MEP, is then expected to develop their own sector plan. Box 1.2 summarises the current goals for the sector, and Annex A1.1 and A1.2 provide a full list of the objectives established in the PND and MEP's plan. For the current planning cycle, each plan has 10 and 15 goals for education respectively, which touch upon almost every dimension of education with no clear prioritisation and little direct alignment between them. Fewer clear goals, linked to national development objectives, would indicate priorities more effectively.

These plans might also be usefully underpinned by longer term (10-15 years) strategies, given evidence that such planning has provided critical support for high performing countries, such as Korea and Finland (OECD, 2011). A long-term vision can ensure policy consistency across electoral cycles, recognising that education reforms often take many years to show results. There are some long-term policy documents in Costa Rica, such as the Towards a Policy for the 21st Century (*Hacia una Política para el siglo XXI)* vision paper released in 1992, and there has been policy continuity in some important areas such as the new curriculum, the development of a framework for system-level evaluation, and initiatives to strengthen the capacity of school principals and supervisors to foster school improvement. The long-term education policy under development since October 2016 is an opportunity to establish clear, ambitious goals for the country. It is important that there be inclusive public consultation, beyond the usual stakeholder groups that tend to monopolise the education debate in Costa Rica (see below), to generate broad societal support for the direction of reform. The final document should also provide concrete milestones against which policy priorities can be set and progress monitored.

Box 1.2. Goals of the education sector

Education is seen as a key for individual and national development in Costa Rica. The current policies for the sector aim to "build an education for life, which fosters creativity and innovation and promotes human development with equity and sustainability, in a context of schools of quality". The four main objectives of education policies are to (MEP, 2016a): (i) foster economic competitiveness; (ii) close inequalities across the country; (iii) develop students' holistically; and, (iv) develop active citizens who are committed with sustainable development. Some of the most prominent recent initiatives include:

- Improving the quality and consistency of ECEC provision: by developing a new ECEC policy, strengthening the role of REDCUDI as a co-ordinating body, and adopting a new national curriculum for pre-primary education.
- Implementing a new school curriculum: which emphasises the development of key 21st Century skills and attitudes, and promotes a more student-centred teaching approach.
- Tackling student disengagement: with the I'm In (*Yo me Apunto)* co-ordination strategy to tackle dropout in the most disadvantaged schools, and the introduction of a dual apprenticeship system to strengthen vocational education and training.
- Improving the quality of private tertiary institutions: strengthening the National Council for Private Higher Education (*Consejo Nacional de Enseñanza Superior Universitaria Privada*, CONESUP) to heighten oversight and quality assurance for the large number of private institutions and promote accreditation in national priority areas.

Fragmented responsibilities hampers strategic leadership of the sector

As across the public sector, the education system in Costa Rica is highly fragmented, with responsibilities spread among several ministries, subordinated agencies and autonomous institutions. The fragmentation in the ECEC and tertiary sectors is particularly pronounced (see Chapter 2 and 5). In ECEC, three different ministries and several decentralised agencies have overlapping responsibilities, while the tertiary sector is both sharply divided between public and private sectors and atomised by much weaker institutional accountability than is common in OECD countries. The MEP has a clear lead role for schooling, from preschool to upper secondary education, although weak co-ordination with the main training body, INA, creates obstacles for students wishing to move on from INA programmes into formal education.

Structural arrangements within the MEP and associated bodies also present barriers to strategic planning. The ministry is organised under three vice-ministers (academic, administrative, and planning) making it much harder to address compelling sectoral issues, such as the expansion of secondary schooling for example, or tertiary education. For this reason, OECD countries normally subdivide their education ministries between the different education sectors, with a clear strategic lead in each. In Costa Rica, strategic planning, budgeting and co-ordination would be substantially improved by establishing sectoral focal points within the ministry. This could be realised by adopting a structure in which each vice-ministry holds responsibility for a specific education sector or sectors.

When responsibilities are fragmented, robust co-ordination mechanisms play a critical role (Burns and Köster, 2016). In principle, the Higher Council for Education (*Consejo Superior de Educación*, CSE) might play that role in Costa Rica. It was established in 1951 to provide direction to education policies, foster the expansion of public education, and approve

new programmes and institutions. Its board has seven members: the current education minister, two former education ministers and one representative from primary schools, secondary schools, teacher unions and public universities. In practice, however, the CSE has played a limited strategic role and has not developed an identity or value distinct from the Ministry of Education (PEN, 2013). Improving its financial and technical capacity to ensure its independence, and integrating other key stakeholders in the board such as employers and parents to improve its representativeness, could enable the CSE to play a more effective role in shaping policy and encouraging co-operation in support of national goals.

Unions and universities have a strong voice on education policy

To the extent that stakeholders are involved in education policy, policy development is dominated by insiders within the education system, as opposed to wider society. Teacher unions and universities have a strong influence, through their inclusion in the CSE and other channels. Most teachers are affiliated to one of the three major teacher unions and the Costa Rican government has sought to enable social dialogue by placing high-ranking members in government and the Legislative Assembly (Bruns and Luque, 2014). As a result, labour relations tend to be more constructive than in other Latin American countries, though policy-dialogue has focused on working conditions and pay, with less attention to teaching and learning practices. The lack of teacher engagement in the development of the new curriculum has been an important gap (see Chapter 4).

By contrast, parents, students, employers, or wider civil society representatives have a very limited voice in national education policy. They are not represented in the CSE, and consultation processes to gather their views on education reform are rare. This contrasts with many OECD countries that have national consultation bodies to, for example, ensure that education policies respond to the type of education that parents want for their children or the skills that are demanded in the labour market. In Costa Rica, such stakeholder engagement would be important not only in helping to guide policy development, but also in strengthening support for the deep education reforms and increasing resources that the sector needs if it is to remain an engine for development.

Decision-making remains centralised

Education governance in Costa Rica is highly centralised. The MEP not only determines education policy but also directly manages the delivery of services across the country through a network of 27 regional offices (*Dirección Regional de Educación,* DRE). The latter have delegated administrative functions (e.g. authorising teachers' sick leave) and oversee a pool of school supervisors and pedagogical advisors who work closely with schools to support the implementation of national policies (see Table 1.3). Unlike OECD countries with a similar structure, such as Ireland, these regional offices play a limited role in improving the operation of education services or serving as a feedback channel to improve national policies. In recent years, the MEP has taken determined steps in this direction by requiring regional offices to establish an annual improvement plan with a limited number of goals in areas of national priority (e.g. increase enrolment in preschool, decrease dropout). These plans are supposed to be supported by detailed activities, responsibilities and resources, and their achievement monitored. The MEP is also encouraging regional offices to co-operate more and share good practices. However regional capacity for strategic planning and leadership remains weak and accountability is upwards, to the MEP, rather than downwards to the communities they serve.

Table 1.3. Distribution of responsibilities and staff in schooling

	Total staff	Main responsibilities
Central offices of the MEP	1 864	Establishes strategic orientation for the education system, determines education policy, directly manages service provision across the country; co-ordinates and assesses private education service provision.
Regional offices of the MEP	1 307 supervisors, technical advisors, and administrators across 27 offices	Delegated administrative functions, such as authorising teachers' sick leave, and oversees and monitors the implementation of education policy adapting it to each region's socio-economic characteristics.
Municipalities	n/a	Provision of childcare services. Upon the recommendation of school supervisors, municipalities appoint Boards of Education (*Juntas de Educación*) which are responsible for managing school funds.
Schools	73 616 teachers and school leaders in 4 523 schools	Provision of primary and secondary services.

Sources: La Asamblea Legislativa de la Republica de Costa Rica (1957), *Ley Fundamental de Educación Nº. 2160* (Fundamental Education Law No. 2160); La Asamblea Legislativa de la Republica de Costa Rica (1965), *Ley Organica del Ministerio de Educación Pública Nº. 3481 (*Organic Law of the Ministry of Public Education Nº. 3481); La Gaceta (2005), *Decreto Nº. 35513-MEP* (Decree No. 35513-MEP), La Gaceta Nº. 187.

Costa Rica needs to develop a more local and regional dimension to its policy making, both in terms of cascading down to local level decisions taken centrally, and in terms of feeding local experience back to the centre to inform policy-making. These channels of communication should involve school leaders, the regional offices and municipalities. There are 81 locally elected municipalities in Costa Rica, but they play very little role in education policy-making or delivery. There are no established channels for municipalities to engage with the regional offices on education issues in the communities they represent, and many lack basic administrative capacity (OECD, 2016e). Strengthening local engagement in education will clearly take time in Costa Rica and need to be part of wider efforts to build local government capacity. However, there is scope for stronger municipalities to start to play a more proactive role. Some initial steps have been taken to engage municipalities in expanding access to early childhood education and care, with promising results (see Box 2.1). More should be done to build on this experience, especially in upper secondary and tertiary education where Costa Rica needs stronger mechanisms to link the supply and demand for skills.

Building a culture of evaluation and monitoring

Once education plans and policies are developed and implemented, the outcomes need to be carefully monitored and evaluated, to ensure that policies are realising desired objectives and that any undesired side-effects are minimised. The evaluation culture in Costa Rica is weak compared to other Latin American and OECD countries (Galiani and Corrales, 2006). For example, unlike Brazil, Colombia, Mexico and Uruguay, Costa Rica lacks an independent body to evaluate education policy and performance (see Chapter 3). There is inadequate focus on outcomes in policy-making, weak data and information systems in many areas, and little in the way of institutional capacity for either the quantitative or qualitative analysis of system performance. The evaluation of policies, education institutions or education personnel is quite often seen as a threat rather than a tool of improvement.

Current evaluations of the education sector carried out by public authorities within the government (e.g. Ministry of Planning, Ministry of Finance) and external bodies (e.g. Comptroller General, Ombudsman) are largely focused on compliance with regulations rather than education outcomes. The few external evaluations which have looked at the impact of education policies – such as recent reports of the Comptroller General (*Contraloría General de la República,* CGR) on the limited relevance of in-service training, and the poor quality of night schools - have prompted promising reforms, demonstrating the potential of

evaluation to inform policy. The NDP 2015-2018, which includes for the first time a national agenda for evaluation, is a step forward in strengthening accountability across government in general, and in education, the largest public sector, in particular.

For this agenda to have real impact, evaluation and monitoring needs to be built into every dimension of the education system, so that the performance of the entire system, its different sectors, policies and institutions can be evaluated. Information and data systems need to be developed to support this process, with priority given to those areas where policy needs are greatest, such as better data on student learning and school resourcing, for example, and the performance of tertiary institutions. The human and institutional capacity to undertake the evaluation and monitoring task, and to interpret and use the evidence that emerges, needs to be built up over time. In the planning cycle described here one of the biggest challenges is establishing the policy planning mechanisms that can take full account of the emerging evidence. Sometimes this involves difficult decisions, for example when an initially strongly favoured course of action is yielding very poor results. However, such adjustments are essential to achieve better outcomes, especially in an emerging economy like Costa Rica, where the education system must respond to changing demands and achieve greater effectiveness if it is to expand access with quality.

Conclusion and recommendations

In Costa Rica, there has been a rapid expansion in educational participation in school and at tertiary level. While this is a significant achievement, it has not been matched by equivalent progress in improving the quality and equity of learning outcomes and labour market performance. In many of these areas Costa Rica remains behind OECD countries and, although Costa Rica has historically been a regional leader, it is now falling behind other Latin American countries. This chapter has sought to identify the main strategic steps, in terms of governance and funding, which Costa Rica now needs to take to address these challenges.

Box 1.3. Recommendations

To ensure that investment in education yields the best possible results for students and society, Costa Rica should pursue a strategic planning cycle, focused on outcomes, and linking education budgeting, planning and evaluation. To this end, the MEP, together with the Ministry of Finance, should:

- Establish systematic arrangements for agreeing budgets for the different sectors of education, linking budgets to planned education outcomes, prioritised according to national development objectives and a long-term vision for the education sector.
- On grounds of equity, give priority in spending to the earlier phases of education, and explore reforms of tertiary education funding in line with the recommendations put forward in Chapter 5.
- Establish a clear lead for each sector within the MEP, with responsibility for developing and implementing plans to spend agreed budgets. Education reform should be opened to consultation with a wide group of stakeholders, including those who work in the education system, local actors, parents, students and employers.
- Give higher priority to the monitoring and evaluation of education policies in relation to planned education outcomes and invest in building the capacity to do this. Use the results systematically to adjust policies and funding.

Annex A1.1. National Development Plan (2015-2018) (*Plan Nacional de Desarollo*, PND)

Box 1.4. National Development Plan (2015-2018) (*Plan Nacional de Desarollo*, PND)

1. Increase the coverage in preschool education, in the year Interactive II in the framework of early childhood care (from 63% to 69.5% coverage of 4-year-and-3-month-olds between 2014 and 2018).
2. Guarantee the universalization of second language (increase the coverage of English teaching in primary school from 87% to 90% between 2014 and 2018).
3. Attention to lower secondary and upper secondary (vocational and academic) education (increase the enrolment of 12-16 year-olds from 70% in 2014 to 73% in 2018; decrease the drop-out rate from 9.9% in 2014 to 9.7% in 2018; increase the number of students graduating from technical schools from 33 746 in 2014 to 121 463 in 2018).
4. Nutrition (increase the coverage of educational centres with nutritional services, to reach 695 088 students in 2018).
5. Quality infrastructures in education centres (create 16 061 new educational spaces by 2018).
6. Develop the capacity of students to use ICTs in order to renew the teaching and learning processes (317 equipped and connected centres, and 25% of students able to use ICTs in centres that implement the National Programme for Mobile Technologies by 2018).
7. Learning resource centres (harmonise the equipment of the centres across the country).
8. Teach non-violence in education centres (develop a national programme against violence and bullying).
9. Promote environmental education and an active citizenship in the curriculum and teaching methodologies.
10. Improve indigenous education in non-indigenous territories (increase graduation rate from high school from 31% in 2013 to 44% in 2018, increase the coverage of indigenous language and culture services respectively from 64% and 51% to 75% and 61% between 2014 and 2018, strengthen study programmes, increase the coverage of services and teacher training).
11. Increase the number of upper secondary schools offering the International Baccalaureate Programme from 12 to 20, at least one in each province, by 2018).
12. Continue to participate and disseminate the results of international assessments (PISA, LLECE-TERCE).

Source: MIDEPLAN (2014), *Plan Nacional de Desarrollo 2015-2018 "Alberto Cañas Escalante" (National Development Plan 2015-2018 "Alberto Cañas Escalante")*, Ministerio de Planificación Nacional y Política Económica.

Annex A1.2. MEP Institutional Strategic Orientations (2015-2018), (*Plan estratégico 2015-2018 del MEP*)

Box 1.5. MEP Institutional Strategic Orientations (2015-2018) (Plan estratégico 2015-2018 del MEP)

1. Management focused on quality, equity, service, efficiency, transparency, planning as commitments to the national educational community.
2. Focus on early childhood.
3. Combat exclusion and school drop out.
4. Expand coverage and teaching of a second language.
5. Promote schools as spaces of opportunity in terms of equity, relevance and quality for students.
6. Restructure management system and develop educational infrastructure to attend demands timely, in particular in disadvantaged areas.
7. Innovate teaching and learning by incorporating mobile technologies.
8. Promote safe environments where teachers and students are prepared to prevent violence and discrimination within a framework of human rights respect.
9. Keep updating curricula and incorporate education for sustainable development.
10. Strengthen holistic indigenous education, without hurting their values and beliefs.
11. Assess quality to support decision-making and improve teaching and learning.
12. Continuous and relevant professional development and improving the teaching profession.
13. Establish co-ordinated actions between the MEP, the CONARE and other tertiary institutions to strengthen the education system.
14. Improve the quality of tertiary education.
15. Implement an institutional and comprehensive policy to tackle socio-economic and gender inequality.

Source: MEP (2015), *Plan estratégico 2015-2018 del MEP: Educar para una nueva ciudadanía (Strategic Plan 2015-2018 of the MEP: Education for a new citizenship)*, Ministerio de Educación Pública.

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Chapter 2

Early Childhood and Care: Giving all children a strong start in earning and life

Costa Rica has taken important steps to improve access and quality in ECEC in the last decade. Participation in pre-school has increased rapidly, the curricula has been revised to put stronger emphasis on early literacy skills and a dedicated body has been created to co-ordinate services for children under four. However, when compared with OECD countries and many emerging economies in Latin America, the early childhood sector in Costa Rica stands out as underdeveloped in terms of access and quality, in particular for vulnerable and disadvantaged children. This chapter looks at how Costa Rica can build on promising new initiatives to ensure all young children benefit from adequate care and education in these critical early years, which can have a significant impact on education performance later on and enhance social equity.

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.

Early childhood education and care (ECEC) is increasingly recognised in Costa Rica, and around the world, as an essential means of realising a wide range of educational, social, and economic goals. There is strong evidence that favourable circumstances very early on in childhood support the development of the critical cognitive, emotional and social skills that provide the foundations for success in school and life. Disadvantaged children, who are more likely to face poor learning environments at home, therefore stand to gain the most from access to quality ECEC services, enabling them to start school on an equal footing to their wealthier peers. The availability of early childhood services can also help more women enter the workplace, bringing gains for them and their families, and for the broader social and economic development of the country. Expanding the provision of high-quality ECEC is one of the most important steps that Costa Rica could take to improve overall education performance and enhance social equity.

Costa Rica has made a significant effort to improve ECEC in the past decade. Participation in preschool typically starts at age 4, and has increased rapidly since 2000. The curriculum has also been revised to put stronger emphasis on child learning and early literacy skills. A dedicated body has been created to co-ordinate services for children under the age of 4. The new rights-based early childhood policy intends to orient all public services to support the holistic development of children aged 0-8. This chapter looks at how Costa Rica can build on this promising start, to ensure all young children benefit from adequate care and education in these critical early years.

When compared with OECD countries and many emerging economies in Latin America, ECEC stands out as the most underdeveloped sector in Costa Rica in terms of access and quality. This gap is particularly marked for children under the age of 4. Just 16% of 3-year-olds benefit from some form of care or education services compared to over 70% on average across OECD countries (OECD, 2016a), and the limited services that are available give very little attention to child learning and socio-emotional development. Ensuring equal access to quality services will require a step change in political leadership and greater prioritisation in the use of public funds. The new ECEC policy has the potential to steer reform in the sector, but only if it has a strong champion in government holding agencies accountable for progress towards clear goals. Parents need to be engaged as a central partner in this reform. More needs to be done to support families in creating a positive home learning environment and across all programmes there must be much stronger focus on quality. This means higher standards and more robust oversight, but above all a greater emphasis on supporting children develop the foundation cognitive and non-cognitive skills they need to thrive in school and society.

Table 2.1. Overview of the ECEC System

<table>
<tr><th colspan="6">Early childhood education and care (ECEC)</th></tr>
<tr><td>Cycle</td><td colspan="3">Maternal infant cycle</td><td colspan="2">Preschool</td></tr>
<tr><td>Level</td><td>Babies I</td><td>Nursery/Maternal II</td><td>Interactive Cycle I</td><td>Interactive Cycle II</td><td>Transition</td></tr>
<tr><td>Starting age</td><td>2 months old</td><td>1 year old</td><td>3 years and 6 months old</td><td>4 years and 3 months old</td><td>5 years and 3 months old</td></tr>
<tr><td rowspan="2">Early care and education providers</td><td colspan="3" rowspan="2">CEN-CINAI (IMAS), private day care centres, CECUDI (Municipalities), CAI (PANI), community-based childcare and social welfare organisations (PANI)
CAI (PANI)</td><td colspan="2">MEP</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Goals</td><td colspan="3">Childcare, healthcare, nutrition services and educational development</td><td colspan="2">Preschool: physical, emotional, cognitive development</td></tr>
</table>

The state of ECEC

Main features

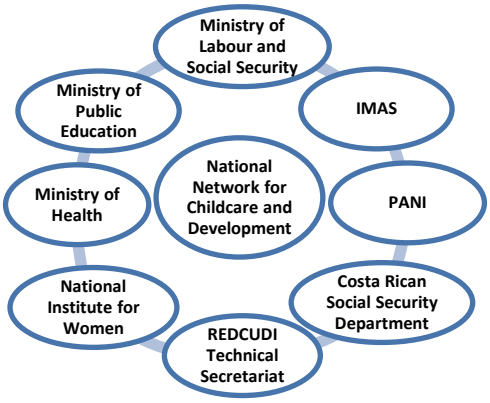
Governance

Costa Rica has a split Early Childhood Education and Care (ECEC) system. As in many OECD countries, this division is primarily functional: between "care only" or "care and education" services, focused on basic childcare, health and nutrition (ISCED 01 or below); and "preschool" services (ISCED 02), focused on early education and preparation for primary school (Table 2.1). This functional division shapes the governance of ECEC, with different types of providers, policies, funding and workforce requirements for services according to their child development objectives. However, unlike most OECD countries with split ECEC systems, the division between care and preschool is not clearly associated with a child's age, and responsibilities for ECEC remain divided even during the years of compulsory preschool.

The **governance of ECEC is highly fragmented in Costa Rica**, especially for care services. The multidimensional nature of early years' care means that it is common in most countries for a range of entities to be involved. What is notable in Costa Rica is the absence of a lead agency for the provision of childcare services and the fragmentation of direction across three major government ministries/agencies: the Ministry of Health (*Ministerio de Salud*, MINSA) the National Child Welfare Agency (*Patronato Nacional de la Infancia*, PANI) and the Joint Social Aid Institute (*Instituto Mixto de Ayuda Social*, IMAS). Each agency manages its own provision, sets its own standards and objectives, and determines its own expansion plans. In contrast, leadership for the provision of preschool education is concentrated in one agency, the Ministry of Public Education (*Ministerio de Educación Pública,* MEP), though the latter has limited means to influence services offered by other providers during the preschool years, be these public or private.

In 2014, **the government established the National Network for Childcare and Development** (*Red Nacional de Cuido y Desarrollo Infantil*, REDCUDI) **to bring greater coherence to ECEC provision**. Housed within IMAS, REDCUDI is charged with developing a universal public childcare system with a specific focus on disadvantaged children. It has responsibility for co-ordinating different public and private providers and guaranteeing the quality of services for vulnerable children aged 0 to 6. While the MEP participates in the Consultative Commission of REDCUDI (see Figure 2.1) the Network does not encompass the preschool programmes provided by the MEP and there is no clear platform for co-ordinating provision across the care and preschool sectors.

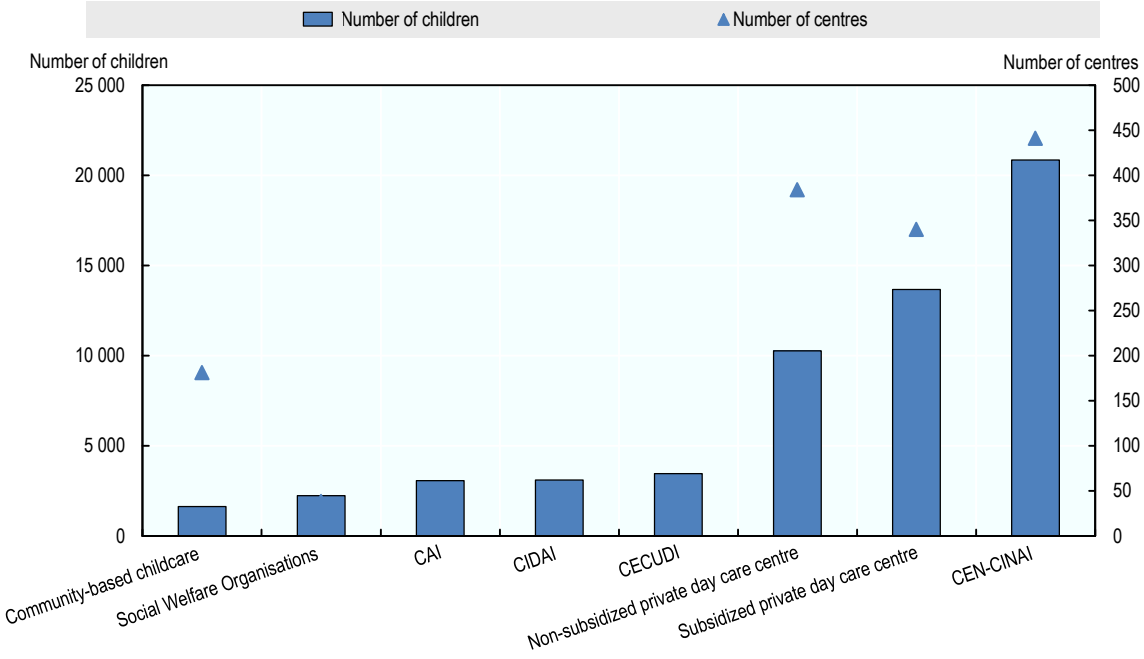
Figure 2.1. Composition of the Consultative Commission of REDCUDI



Organisation of ECEC services

Childcare provision comprises two main modalities in Costa Rica: centre-based care and community and family-based services. Recent efforts to expand ECEC have focused primarily on developing centre-based services. In 2016, more than 1 000 centres were operated by REDCUDI partners catering for some 42 000 children (Figure 2.2). The Nutrition and Education Centres – Child Integral Care Centres (*Centros de Educación y Nutrición – Centros Infantiles de Atención Integral,* CEN-CINAI) have the largest coverage, reaching over 20 000 children. An important recent development has been to give municipalities more leadership in the establishment and co-ordination of care centres, though weak capacity and heavy administrative requirements has slowed expansion. Although children begin compulsory preschool at the age of 4 years and 3 months, care centres can continue to accommodate children up to the age of 6 and, in some cases, even up to the age of 12.

Figure 2.2. Main centre-based providers under REDCUDI (2014)



Note: The number of non-subsidised private centres refers to the number of centres in REDCUDI.

Source: IMAS (2014), *Informe de Gestión: Mayo – Septiembre 2014 (Management Report: May - September 2014)*, Instituto Mixto de Ayuda Social, San José.

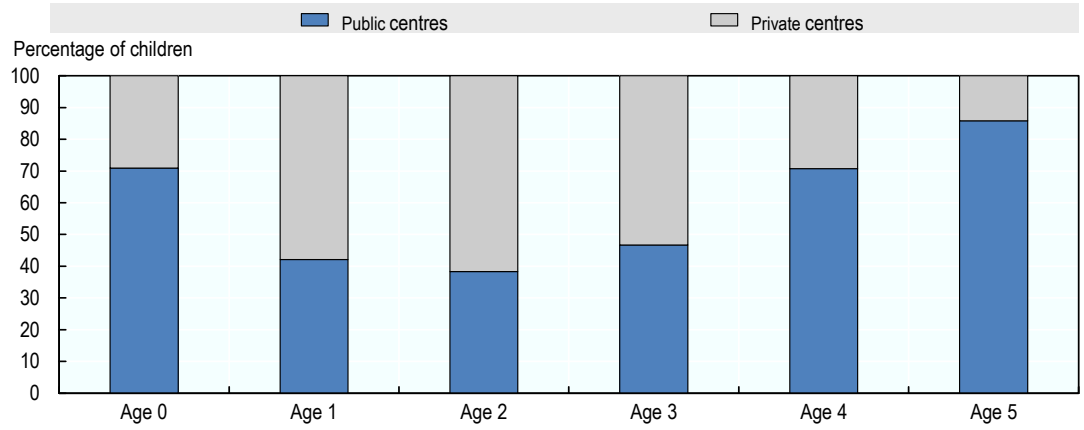
Community and family day-care services are less developed, in particular for a country with high levels of rurality and a dispersed population. In 2014, around 1 500 children attended community-based care (*hogares comunitarios)* provided by female members of the community, called community mothers (*madres comunitarias*), in their homes. CEN-CINAI also carries out home visit programmes, which in 2014 reached around 104 000 children, mainly the very young (under the age of 4). These are primarily organised around food distribution and basic health care, though some programmes include parental education sessions.

Limited information and oversight make it difficult to assess the scale of private care provision, though REDCUDI figures indicate that it is quite significant. Available data suggests that in 2014 there were over 600 private care centres, which reached approximately 23 000 children. Private providers play a particularly important role in offering centre-based care for children aged 1 to 4. While more than 80% of children attend public preschool at ages 4 and 5, about 60% are in private care centres between ages 1 and 3 (PEN, 2013) (Figure 2.3).

The **MEP is the primary provider of early childhood education programmes**, which are free and compulsory for all children from age 4 and 3 months until entry into primary education. Public preschool is officially limited to 4 hours and 10 minutes per day but, in practice, lasts 3 hours and 30 minutes as many preschools run separate morning and afternoon shifts (PEN, 2015). The number of hours is relatively low compared to many OECD countries, where most children attend preschool for 6 hours per day (OECD, 2016b). Only 10% of pre-primary programmes are offered in specific pre-primary schools, with the vast majority of young children (90%) attending the transition cycle in primary schools (PEN, 2015).

Around 35% of primary schools offer pre-primary education services (PEN, 2015). In 2013, private preschools, including those subsidised by the government, accounted for 16% of total enrolment in preschool (PEN, 2015).

Figure 2.3. Enrolment in public and private ECEC (2011)



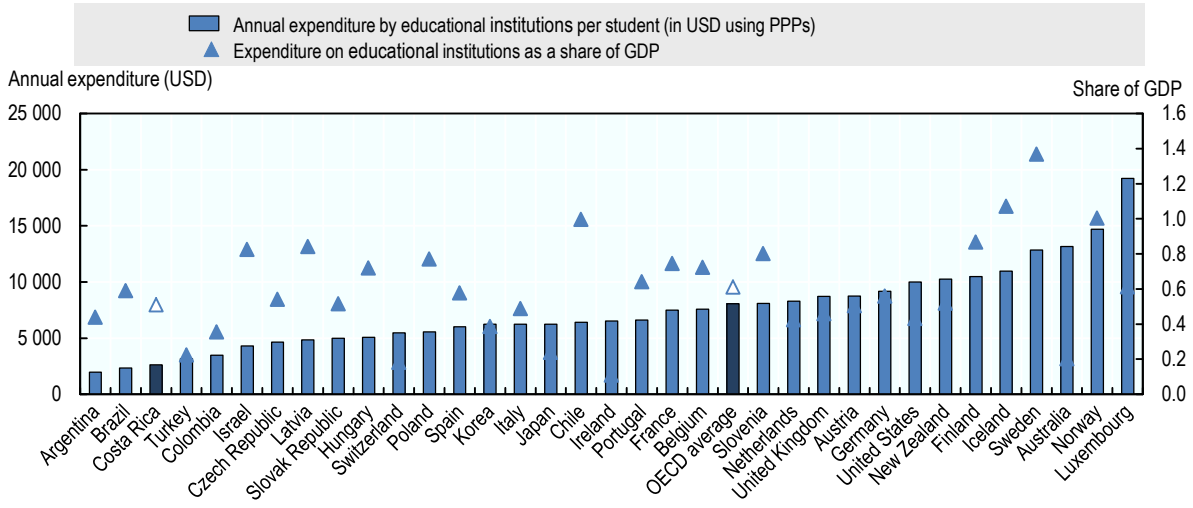
Source: PEN (2013), *Cuarto Informe Estado de la Educación 2013 (Fourth Report State of Education 2013)*, CONARE, Programa Estado de la Nación (PEN) en Desarrollo Sostenible.

Funding

It is **difficult to accurately estimate public funding for ECEC** and, particularly, for care services in Costa Rica. The public care sector is supported primarily through the Social Development and Family Allowances Fund (*Fondo de Desarrollo Social y Asignaciones Familiares*, FODESAF), which is financed by a tax applied to public and private employers. FODESAF allocates a set percentage of revenues each year to PANI, REDCUDI and CEN-CINAI among other agencies for care services; it also provides funding to the MEP for meals and scholarships to cover additional costs of attendance (eg. uniform, materials for school, transport) for preschool children (MEP, 2016). PANI, REDCUDI and CEN-CINAI received altogether USD 100 million in 2016 from FODESAF (FODESAF, 2016), which is equivalent to roughly 0.2% of GDP. Public institutions also receive complementary funding from other sources, such as municipalities; and private and civil society organisations.

In 2014, **pre-primary education was assigned 9.3% of the total budget of the Ministry of Public Education** (MEP, 2016). While average expenditure per student in public pre-primary education has increased from USD 801 to USD 2 631 between 2006 and 2013, it remains below that of other major emerging economies in Latin America and is just one third of the average OECD expenditure (USD 8 070) (Figure 2.4) (MEP, 2016). This low level of spending is inadequate to guarantee access to quality preschool education and address the overlapping features of disadvantage (poverty, marginalisation, low level of parental education) that characterise the lives of many young children in Costa Rica.

Figure 2.4. Public expenditure on pre-primary education as a share of GDP and per student, latest year available



Note: Annual expenditure for Argentina, Brazil and Costa Rica only includes public expenditure. Pre-primary education refers to ISCED 02.

Sources: MEP (2016), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública; OECD (2016a), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.187/eag-2016-en; UNESCO-UIS (2016), *Education dataset*, UNESCO Institute for Statistics data centre, http://data.uis.unesco.org/ (accessed 4 November 2016).

ECEC staff

The required qualifications for staff in care centres are lower than for preschool teachers and vary considerably across providers. Unlike other OECD countries, Costa Rica has not defined a common profile for ECEC staff to serve as a quality benchmark (PEN, 2015). Each provider establishes its own staff requirements and some positions only demand completion of upper secondary education. The *madres comunitarias* have the lowest qualification requirements: a certificate from IMAS on general child safety and health. Unlike preschool teachers, care centre staff are not recruited through a civil service competition and their remuneration is significantly lower. Teaching staff in MEP preschools are paid 6% more than educators and 50% more than technical staff in CEN-CINAI centres. This significant difference in staff remuneration is the main reason why the cost of provision of MEP preschools is 44% higher than in CEN-CINAI centres (Esquivel, 2006).

Preschool teachers are required to hold at least a university-level degree, with a specialty in early childhood education (ISCED 6). This is in line with the majority of OECD countries, where a Bachelor's degree is the minimum level of education required for preschool teaching in 24 of the 35 countries with available data (OECD, 2016a). In practice,

most preschool teachers in Costa Rica have higher levels of education attainment. Across the existing preschool workforce, 13% have a Bachelor's degree with a specialisation in preschool education whereas more than two thirds (69%) have a Master's or Doctorate degree (MEP, 2016). However, while preschool teachers are highly qualified in Costa Rica concerns over the quality of initial teacher training raises questions as to their actual preparedness for the job (see Chapter 3). Quality assurance for teaching training is relatively weak in Costa Rica, in particular in private institutions. Universities also have a very high degree of autonomy, and most teacher training institutions have yet to adapt their courses to address the demands of the new preschool curriculum, which provides more clarity on the types of pedagogical approaches and assessment techniques that preschool teachers should master.

Quality assurance and monitoring

Quality assurance and monitoring in Costa Rica are in their very early stages. The Integral Care Council (Consejo de Atención Integral, CoAI) is in charge of accrediting all childcare centres. Located within the Ministry of Health, CoAI is formed, among others, by representative agents of the MINSA, the MEP, the PANI, the IMAS and the Technical Secretariat (*Secretaria Técnica)* of REDCUDI. The CoAI also inspects centres' workforce and infrastructure conditions and resource allocation. Each organisation can and often does carry out its own additional inspections though there is no standardisation or harmonisation of the criteria or processes they use. Capacity and resources are also very limited. In 2014, there were only 13 employees available to supervise the Childhood Care and Development Center (*Centro de Cuido y Desarrollo Infantil,* CECUDI) and community-based care centres (*hogares comunitarios*) that represent over 50% of centres under the REDCUDI network (IMAS, 2014). This shortage means that even though CoAI should inspect centres every 6 months, in practice visits occur only around every two years.

Operating requirements for care providers are low and provide limited guidance to institutions. CoAI licensing establishes minimum structural standards for care centres – such as providing care for at least 10 hours per day, meeting basic hygiene, physical environment and security norms and guaranteeing a specific ratio of teachers and assistants per child depending on their age – but provides little orientation with respect to the actual care programmes and processes centres should provide. In a positive move, REDCUDI has established minimum standards for public and private care providers which previously operated without any quality assurance. REDCUDI is also encouraging CEN-CINAI centres to use the Integrated Scales for Development (*Escala del Desarollo Integral del Niño*, EDIN) to identify and track development child outcomes, though only if they have the staff capacity to do so. In the absence of adequate monitoring it is unclear whether the majority of institutions comply with these requirements.

The MEP is responsible for regulating public and private preschool providers and ensures direct oversight of public schools through a well-established body of school supervisors (see Chapter 3). Importantly, a new curriculum provides for the first time clear orientation on the design and expected outcomes of preschool programmes. However, supervisors do not have specific guidelines or preparation for monitoring the quality of preschool education as distinct from primary schooling and the capacity of schools and teachers to implement the curriculum remains limited (Policy Issue 2.3). The MEP recognises the need to strengthen oversight of private education providers, which remains very weak in Costa Rica.

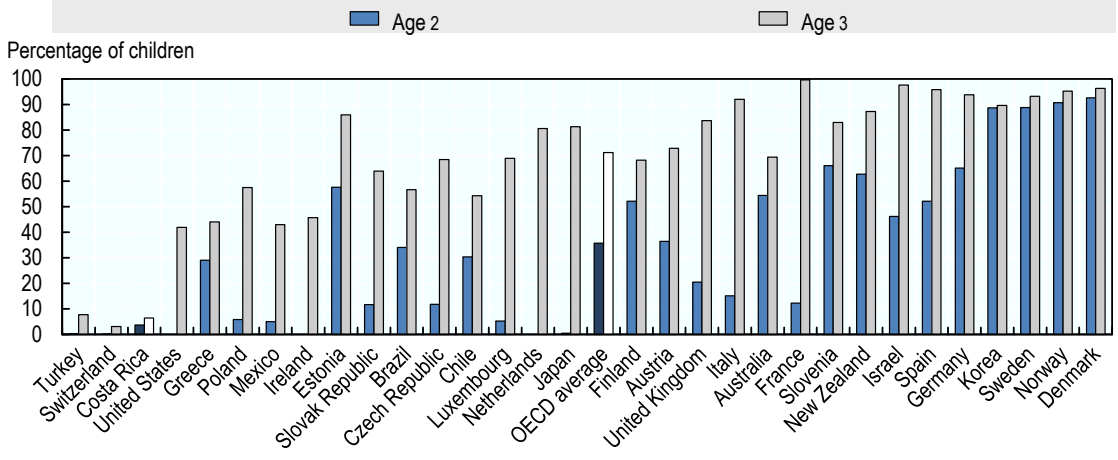
Main trends in participation and outcomes

Enrolment in preschool years has increased, but remains very low among children under the age of 4

There has been an **extraordinary expansion of participation in preschool** in the last decade. According to national data, the gross enrolment rate in Interactive II (age 4) jumped from 7% in 2000 to 63% in 2015 – an 800% increase – and from 83% to 90% in the transition year (age 5) over the same period. This surge reflects concerted efforts by the MEP to expand access, notably through the creation of 2 223 new classes in Interactive II and subsidised access to additional classes in private centres (MEP, 2016). The expansion of preschool coverage has also been helped by demographic trends, which saw a 7% decline in the population aged 0-6 from 393 000 children in 2000 to 366 000 in 2015 (MEP, 2016).

At younger ages, the picture is very different. **Participation for children aged 3 and under remains very low indeed**. Just 7.8% of 2-year-olds and 15% of 3-year-olds benefit from care services (PEN, 2013). These figures go down to 3.7% and 6.5% when only enrolment in ISCED 01 programmes is considered, meaning those that have adequate intentional educational properties, are delivered by qualified staff members, take place in an institutionalised setting, and meet a minimum intensity and duration (Figure 2.5). This is much lower than the OECD average and many other Latin American countries. The enrolment rate of children aged 3 in ISCED 01 programmes exceeds 40% in Brazil, Chile and Mexico, and is over 70% across the majority of OECD countries.

Figure 2.5. Enrolment rates in early childhood and primary education, by age (2014)



Note: The chart only includes ISCED 01 programmes.

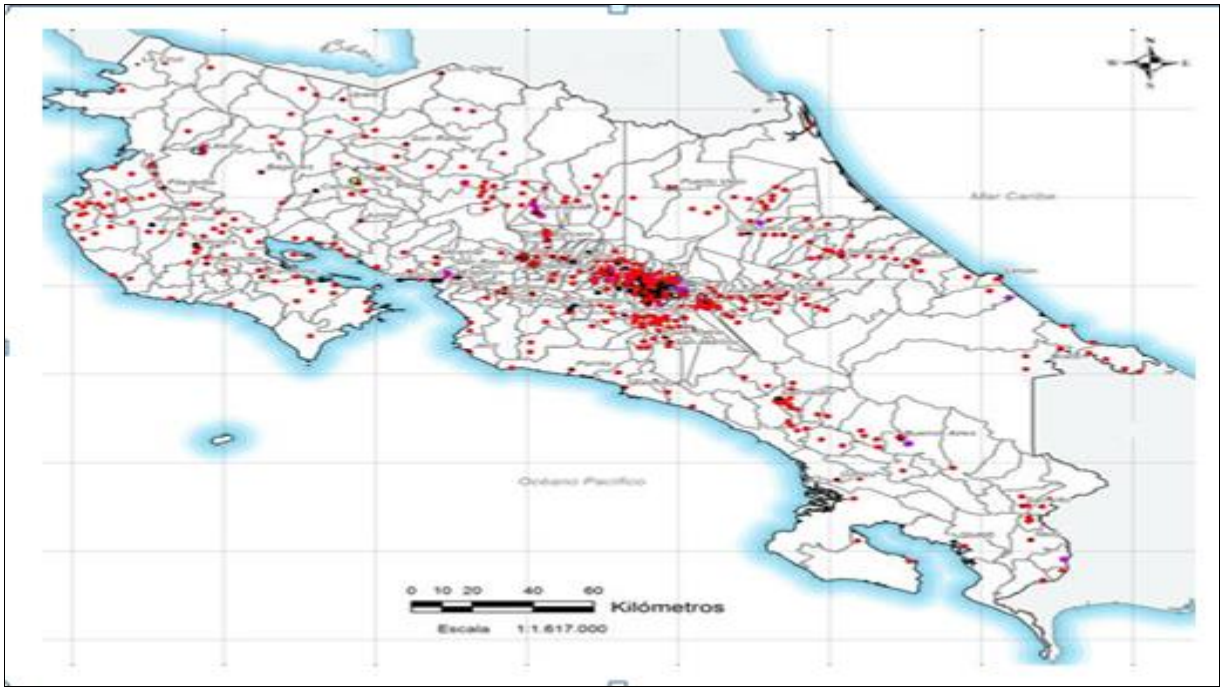
Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.187/eag-2016-en.

Enrolment is particularly low in rural and peripheral areas

ECEC coverage is particularly inadequate in remote, rural areas, where there is a significant lack of care and preschool centres. This is an important factor in the large disparities in enrolment (Figure 2.6). Young children in these regions are much less likely to access services compared to those in the capital region, while high rates of poverty and parental illiteracy suggest that these are the areas where children and families would benefit most from quality early childhood programmes. In 2011, only 9.5% of children

aged 0-6 year-olds were enrolled in ECEC centres in Zapotal de San Ramón, while districts such as Sánchez de Curridabat, San Rafael de Escazú or Sabanilla de Montes de Oca had enrolment rates of around 80% (PEN, 2015). Under the national strategy Bridge to Development (*Puente al Desarollo*), the MEP is planning to prioritise the further expansion of pre-school in the 75 target districts according to poverty levels and low enrolment.

Figure 2.6. Distribution of care centres in Costa Rica (2012)



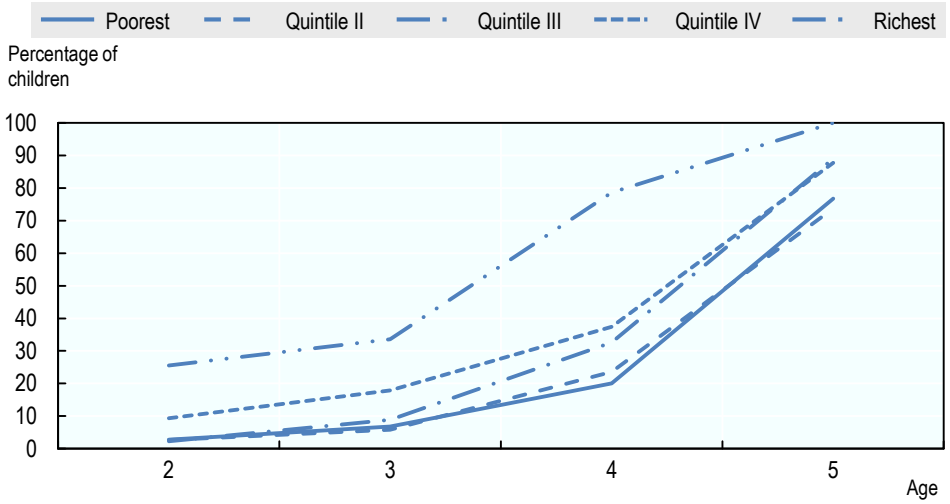
Note: Dark red shows where care centres are located in the country. The inset shows the Greater Metropolitan Area of San José.

Source: García Serrano, E.A. (2016), *Diseño de evaluación de impacto al "Programa provisión de servicios de salud, nutrición y desarrollo infantil (CEN-CINAI) (Design of impact assessment to the "Program for the provision of health, nutrition and child development services (CEN-CINAI))*, Universidad Internacional de Andalucía, Sevilla.

Children from poor families are less likely to participate

There is a **large and growing disparity in enrolment between children from low and high income families** (Figure 2.7). The gap is the highest among 3-4 year-olds (i.e. the year before free public preschool starts), when nearly 80% of children from the wealthiest households are in preschool whereas barely 20% of children from the poorest households have access. Moreover, inequality levels seem to be rising – the gap in enrolment rates between 4-year-olds from high and low educated households almost doubled between 2006 and 2013 (PEN, 2015). High enrolment rates among educated families may reflect the fact that well educated parents are not only able to afford private childcare, but are also more aware of the benefits of ECEC. The fact that there is very little difference in participation rates between children from middle-class and disadvantaged backgrounds suggests that the cost of childcare is prohibitive for most families. Monthly fees for full-time care in 2010 was approximately 120 000 colones (USD 220), which is just under half of the minimum wage for unskilled workers (Trejos Solórzano, 2014).

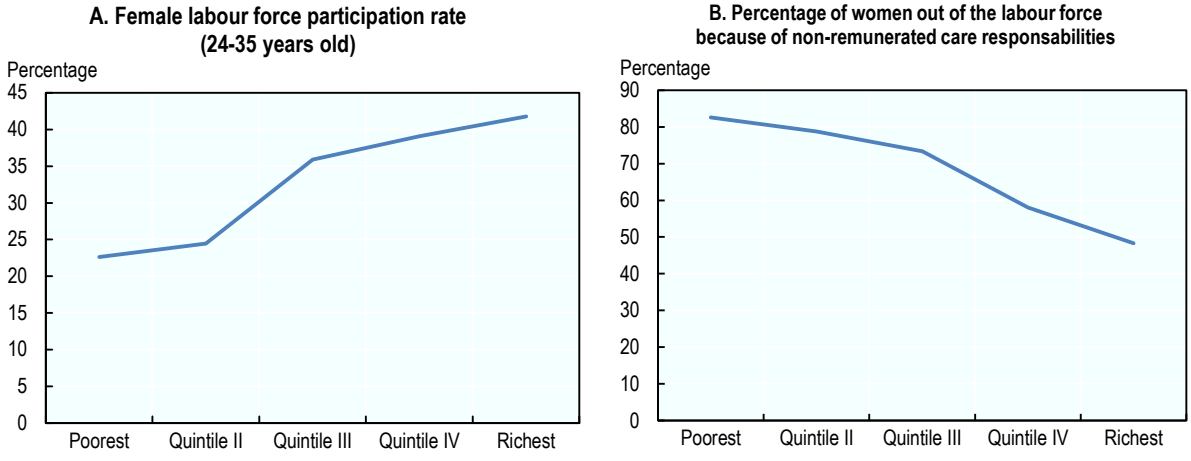
Figure 2.7. Participation in early childhood education and care by age and income level (2014)



Source: OECD (2016b), *OECD Economic Surveys Costa Rica Economic Assessment*, http://dx.doi.org/10.1787/eco_surveys-cri-2016-en.

Low levels of affordable ECEC hinder women's ability to enter and remain in the labour market, especially for those from disadvantaged backgrounds. While 80% of women with a secondary school or university degree have a paid job, this is only true for around 35% of women with no degree. A recent national survey showed that over half of women are not in the labour force, and the majority indicated that this is because of household and care responsibilities (Figure 2.8) (see also OECD 2016b). Low levels of female labour participation prevent families from moving out of poverty and reinforce the traditional role of women as carers and housewives. Currently, women in Costa Rica spend about 15.5 hours a week on childcare, compared to 9.5 hours for men (INAMU, 2012).

Figure 2.8. Care responsibilities hinder the labour market participation of women (2014)



Source: OECD (2016b), *OECD Economic Surveys Costa Rica Economic Assessment*, http://dx.doi.org/10.1787/eco_surveys-cri-2016-en.

Low-quality ECEC limits child development gains

Weak monitoring means that **there is very limited information on the quality of ECEC services** and the educational and development outcomes of children. What little evidence there is suggests that quality is low. One of the few assessments of early childhood outcomes available in Costa Rica found that participation in early learning programmes did not have a significant effect on development. Only one-quarter of children were assessed to be developmentally on track in early literacy and numeracy (Ministerio de Salud Pública and UNICEF, 2013). This is confirmed by the CEN-CINAE's annual evaluation of children's progress, which has shown that children's cognitive and language skills are their least developed areas (PEN, 2015). Among 15-year-olds surveyed by PISA, the performance gain associated with participation in ECEC was also the lowest among all the PISA-participating countries – the equivalent to almost one year of schooling compared to over two years on average across OECD countries (OECD, 2016d).

There are indications that **the home environment provides weak support for early learning and development**, in particular in underprivileged households**.** There is strong international evidence that children in socio-economically disadvantaged households have less exposure to reading and games at home than their advantaged peers, a trend that is reflected in the available evidence for Costa Rica. A 2011 survey suggests that in the metropolitan San José area fathers with a university degree allocated 2.5 hours a week to reading to their children compared to 1.4 hours by fathers who had completed primary education (PEN, 2015).

Main policies

A new curriculum for preschool to help transition

In 2014, the Consejo Superior de Educación approved a new preschool curriculum – the Preschool Education Study Programme (*Programa de Estudio de la Educación Preescolar*) – which was developed to align programmes across the two preschool years and better prepare children for the transition to primary school. The new curriculum takes a holistic approach to child development, including areas of socioemotional, physical and cognitive development, which are promoted across four competency domains: self-knowledge; interaction with the environment; socio-cultural interaction; expression, communication and representation. Children are expected to gain literacy and writing skills before entering the first grade of primary education and the new curriculum establishes expected socio-emotional and cognitive outcomes for each level. The successful implementation of this ambitious programme will require the co-ordination of different agencies as well as extensive teacher training (Policy Issue 2.3).

A new body to co-ordinate ECEC provision

The REDCUDI's creation in 2014 was a landmark in terms of attempts to co-ordinate the multitude of public and private institutions involved in early childhood care and development in Costa Rica**.** Since its establishment, REDCUDI has created standards for those providers which were not held to any before, and is developing a common information system for the sector, including the establishment of a unique child identifier and a geo-referenced database of all functioning care centres. These will be important tools to ensure that support reaches the most disadvantaged children. REDCUDI has also promoted alternative children care centres, such as the CECUDI which are run by municipalities, and invested over 6 million colones in CEN-CINAI centres' infrastructure (IMAS, 2014).

An ambitious new policy for children is underway

Costa Rica has developed a new policy for ECEC which intends to provide a framework for all agencies and providers operating in the sector. The Early Childhood Policy (*Política de Primera Infancia*) seeks to fill an important gap by providing for the first time in Costa Rica a comprehensive early childhood policy. The stated aim of the policy is to promote the integral development of young children and infants across three distinct areas – health, education, and psychosocial development – for five stages of development: pre-conception, prenatal, 0-2 year-olds, 3-5 year-olds, and 6-8 year-olds. The policy also intends to improve the co-ordination of public and private actors in ECEC by making the current institutional and operational architecture more coherent and integrated. Spanning the period until 2021, the policy's main planned actions for children aged 0-8 years old include:

- improving parental education to enhance childcare at home and to engage families in children's education and development;
- increasing the provision of CEN-CINAI, CECUDI, community-based care centres and NGOs to expand access to care services;
- creating an overarching information management system to collect and integrate complete and updated data on children under the age of 8 to improve policy making and targeting;
- developing child-friendly libraries and leisure environments as an alternative care option to expand care service coverage;
- reviewing the higher-education programmes specializing in early childhood to ensure the quality of the ECEC workforce.

Further expansion of preschool

The current National Development Plan includes the goal to further expand coverage of the first grade of preschool (Interactive II) from 63% to 69.5% between 2015 and 2018 (NDP 2015-2018). Costa Rica will prioritise in this expansion the 75 priority districts which jointly account for 65% of households in extreme poverty. Furthermore, the MEP has reached an agreement with the Ministry of Health to provide a trained preschool teacher in CEN-CINAI classrooms to work with 4 and 5-year-olds in an attempt to expand access to preschool programmes using the existing infrastructure. This project was in its initial phase of implementation in September 2016 in 15 schools. It is worth noting that these expansion goals are much less ambitious than those included in the previous National Development Plan (2011-2014) which aimed to expand coverage to 72% in Interactive II and reach full universal coverage (99%) in the transition cycle by 2015 (MIDEPLAN, 2010).

Policy Issues

The constitutional commitment in 1997 to provide free, compulsory preschool education was followed by remarkable efforts to expand access. Today, virtually all 4 and 5-year-old children attend one year of preschool education and two out of three a second year. More limited progress has been made in reaching children under four. This matters in Costa Rica, where a high proportion of very young children are exposed to poverty and come from families with low levels of education. Public assistance for these families focuses primarily on basic health care and nutrition, and parents receive limited support on how to enhance their child's cognitive, language, social and emotional development. The importance of enabling the acquisition of such foundation skills has now been recognised in the new

preschool curriculum, but children are unlikely to benefit without further support to teachers and families. The weak governance and funding of the sector, particularly for services for those under the age of 4, is a major obstacle to the determined expansion and integration that the sector needs.

Policy Issue 2.1. Providing the leadership and funding to drive reform

Costa Rica has a long way to go to reach the levels of quality and access in ECEC that most OECD countries and many Latin American economies provide for their children. Notwithstanding important steps to improve co-ordination and develop a national policy for early childhood, the sector lacks both the political and financial commitment required to ensure all young children have a strong start in life and in learning. Public services for children in the earliest years are particularly underdeveloped and the past decade has seen little progress in expanding participation, especially in rural areas where child poverty is most acute. There will need to be a fundamental step change – in leadership and in resourcing – if Costa Rica is to give its children a more equal chance to succeed.

Establishing clear leadership for ECEC

The current governance structure for ECEC in Costa Rica is not well designed to drive improvement, in particular as the country seeks to move forward with the implementation of a new policy for early childhood. The latter is an important milestone for the country. It brings Costa Rica into line with a growing number of governments that have established an integrated ECEC policy framework as a means to create greater coherence within a sector that has tended to suffer from fragmentation and implementation gaps (OECD 2006). However, as the experience of OECD countries shows, translating a collective vision into co-ordinated service delivery across different government agencies requires clear leadership and accountability, which in Costa Rica still need to be developed.

Ensuring accountability for the new early childhood policy

There are currently three different ministries and four decentralised agencies significantly involved in ECEC in Costa Rica. Harmonising their different standards, approaches and strategies for early childhood development will be a complex task. It is unlikely that the new policy will change how institutions operate without much stronger co-ordination and greater clarity of roles and responsibility for overall performance. This is particularly the case with respect to the provision of care services for children under the age of 4 years of age, which is where Costa Rica faces the widest participation gaps compared with both OECD and other major emerging economies. At present, the new ECEC policy lacks precise goals, targets and indicators to steer the expansion of education and care in the very early years. It also leaves unanswered how progress will be monitored. Strong leadership in government will be needed to develop clear objectives and translate these into specific programmatic requirements for which existing organisations can be held accountable.

Identifying a champion for reform

Costa Rica is not unique in having several ministries engaged in ECEC, but it is distinct in having no government institution with overall responsibility for ensuring that national policy is implemented. The majority of OECD countries (e.g. the Netherlands, Portugal) with split care and education systems appoint a leading ministry with responsibility for policy delivery in each area and according to the age of the child, usually determined by the age at which preschool begins (see Table 2.2). Many other countries establish one lead ministry for

the entire age group, as in Chile and Sweden for example. This can increase policy cohesion through common objectives and regulatory frameworks (e.g. operational procedures, staff requirements), enhance the effectiveness of resource use, and make it easier for children to make the transition between different services (OECD, 2012).

The immediate challenge in Costa Rica is to identify clear leadership for services provided to children under the age of 4; with just 16% of 3 year-old children accessing ECEC (PEN, 2013) this age group is clearly not being served adequately by the current institutional set-up. The establishment of REDCUDI has created a platform for inter-institutional collaboration and propelled important developments in common standard-setting and data collection. However, there was agreement among stakeholders interviewed for this Review that while the Secretariat of REDCUDI can help advance co-ordination on the technical front, it lacks the political influence and institutional capacity to transform the sector.

Experience shows that a decision on institutional leadership needs to be built on consensus to give the authority in charge a strong mandate and legitimacy (OECD, 2006). Consultation will therefore be important; but there should be urgency to these negotiations so that children do not lose out to institutional interests. Given the absence of attention to child social-emotional and cognitive development in current care provision in Costa Rica, the MEP's central involvement in any new governance structure will be essential. This is a notable gap in the current REDCUDI network. The new early years' curriculum guidelines the MEP is developing will set for the first time clear objectives for learning for children under the age of 4. It will need a strong champion if increased access to services is to lead to better child outcomes.

Table 2.2. Highest level of authority in charge of ECEC

Country	Age group	Authority in charge at central level
Belgium-Flemish Community*	0-2	Ministry of Welfare, Public Health and Family (Agency Child and Family)
	2.5-5	Ministry of Education
Belgium-French Community	0-2	Minister of Education, Culture and Childhood (Office of Birth and Childhood)
	3-5	Minister of Education, Culture and Childhood (General Administration of Education and Scientific Research)
Chile	0-5	Ministry of Public Education
Czech Republic	0-2	Ministry of Health Care
	3-6	Ministry of Education, Youth and Sports
Finland	0-6	Ministry of Culture and Education
France	0-2	Ministry of Social Affairs and Health
	3-5	Ministry of National Education
Germany	0-5	Federal Ministry of Family Affairs, Senior Citizens, Women and Youth
Ireland	0-3	Department of Health and Children
	4-6	Department of Education and Science

Table 2.2. Highest level of authority in charge of ECEC *(continued)*

Country	Age group	Authority in charge at central level
Italy	0-3	Ministry of Labour and Social Policy; Department of Family Policies within the Presidency of the Council of Ministers
	3-5	Ministry of Education, University and Research
Japan	0-5	Ministry of Health, Labour, and Welfare
	3-5	Ministry of Education, Culture, Sports, Science, and Technology
Korea	0-5	Ministry of Health and Welfare
	3-5	Ministry of Education
Luxembourg*	0-5	Ministry of National Education, Children and Youth
Mexico	0-2	Ministry of Education; Ministry of Social Development; Ministry of Health
	3-5	Ministry of Education
Netherlands	0-4	Ministry of Social Affairs and Employment; (for targeted programmes also Ministry of Education, Culture and Science)
	4-5	Ministry of Education, Culture and Science
New Zealand	0-5	Ministry of Education
Norway	0-5	Ministry of Education and Research
Portugal	0-2	Ministry of Solidarity, Employment and Social Security
	3-5	Ministry of Education and Science
Slovak Republic	3-6	Ministry of Education, Science, Research and Sport
Slovenia	0-5	Ministry of Education, Science
Sweden	1-6	Ministry of Education and Research
United Kingdom-England	0-5	Department for Education
United Kingdom-Scotland*	0-5	Cabinet Secretary for Education and Lifelong Learning

Source: OECD (2015), *Starting Strong IV: Monitoring Quality in Early Childhood Education and Care*, http://dx.doi.org/10.1787/9789264233515-en.

Ensuring funding for ECEC is adequate and equitable

Investment in ECEC in Costa Rica falls short of its potential returns to child development. The shortage of services in disadvantaged regions and for children under the age of 4 suggests that a different approach to financing ECEC will be required to provide quality education and care to all children in need. This means, as argued in Chapter 1, that resources within the national public education budget should be reallocated towards the early years, in conjunction with greater efforts to tap alternative funding sources and identify more equitable and cost-effective delivery options. These steps are among the most important measures Costa Rica could take to enhance the effectiveness of government spending and raise student achievement.

Raising national spending levels

Costa Rica's public spending on ECEC appears low by international standards, especially when taking into account the number of households living in poverty. Costa Rica has a much larger young population than most OECD countries – 10% of its total population is aged 6 and under (466 200 children); much higher rates of child disadvantage – with some 60% of those 6 and under classed as vulnerable or living in poverty; and much lower levels of parental education – with 29% of the adult population having attained only a primary level of schooling (OECD, 2016a). Yet in 2013, public investment in pre-primary education accounted for just 0.4% of GDP, which is below the OECD average of 0.6% and far below the 1% Chile invests as part of a national strategy to counteract inequality and improve child outcomes (OECD, 2016a). This translates into spending of around USD 2 601 per pre-primary student, which is just one-third of that spent on average across OECD. While there are no comparable figures for per child spending in early years' care, this is likely to be even lower given the very limited outreach and lower staff pay. This level of investment is not sufficient to mitigate the disadvantage into which many young children are born in Costa Rica and guarantee the universal right to quality preschool.

Given the high level of public spending on education, any increase in government financing of preschool education will likely have to come from a reprioritisation in the way resources are allocated. As noted in Chapter 1, the current allocation of resources across the education sector is both regressive and inefficient. In 2014, pre-primary education in Costa Rica received one-fifth the amount invested in primary education, one-fourth the amount in secondary and one-third the amount invested in tertiary education. In most OECD countries the spending difference between pre-primary and subsequent basic schooling is less wide, and few OECD countries allocate such a large share of public resources to tertiary education. The OECD has argued previously that FODESAF, which finances early years care, suffers from excessive earmarking, weak targeting, and the fragmentation of resources across a wide range of programmes; this prevents funds from being concentrated on integrated interventions that would make a real difference to the poorest families (OECD, 2016b).

Reallocating resources to ECEC will face obstacles, including system inertia and entrenched interests. A government focused on results will need to demonstrate that it is much more effective to spend early than to try to address at a much higher cost later on the disengagement and drop out that stem from weak learning foundations. The international evidence on the returns to early education is compelling; an investment of USD 1 in quality early childhood programmes for disadvantaged children has been shown to yield up to USD 7 to USD 13 in savings in social costs during an individual's lifetime (Heckman et al., 2010). Costa Rica will need to develop its own national evidence base, both to make the case for the reallocation of resources, and to assess which programmes deliver the best returns on investment. For example, there will need to be a cost-benefit analysis of the most effective ways to reach more children under the age of 4, including the relative gains for child outcomes of investing in centre-base care in relation to improving the quality and outreach of community services. With respect to preschool, more information is needed on the impact on student learning of class-size and the length of the school day, and of the excess capacity in primary schools (and of primary school teachers) to accommodate preschool classes. Better data will be critical to ensure future increases in spending deliver better results for children.

Effectively targeting the most disadvantaged children

While in Costa Rica public funds are directed to poor and extremely poor families, children in poverty have the lowest participation rates in ECEC. This partly reflects the low investment in the sector, but it is also related to poor existing targeting mechanisms which undermine the effectiveness of many social welfare interventions (OECD, 2016b). Although it appears that CEN-CINAI centres, where they do exist, are doing a good job at reaching vulnerable families, they are not located in the poorest and most rural areas (PRODUS, 2008). Even within the greater metropolitan area of San José, smaller villages lack services despite having high rates of child poverty.

Some measures have been taken to improve the targeting of early childhood programmes. Recently Costa Rica has started developing a common geo-referenced database of care centres and child identifiers to ensure that care services are being provided to the areas and children that they are intended to serve. However, there is still limited information available on current and prospective demand to inform future expansion.

There is also a lack of policy attention to more flexible early childhood services. It is unlikely that a centre-based model can reach the most disadvantaged communities. However, unlike other Latin American countries, such as Colombia and Mexico, Costa Rica does not have well-developed community and family-based programmes that could target poor, remote households. This is a notable gap given that it is children in marginalised communities that stand to benefit the most from public ECEC services. Investing in improving the community-based care (*hogares comunitarios)*, which unlike their equivalents in Colombia or Bolivia remain highly unstructured, and developing programmes that work through families, could provide a cost-effective way to achieve wider coverage. This approach could also help strengthen home learning environments, which is a powerful, low-cost strategy to improve outcomes for disadvantaged children (see Policy Issue 2.2).

Tapping other funding sources

As at other levels, financing for ECEC remains highly centralised. The involvement of municipalities in funding public care services is still limited. The CECUDI were created in 2010 to incentivise local investment, with the cost of the centre shared between the national government and municipalities. In Curridabat, for example, the national government covers the construction costs, and the municipality provides the land and operates the services, with philanthropic support from other local actors (see Box 2.1). This is a promising model with the potential not only to help increase overall investment in ECEC, but also as an avenue for municipalities to become more engaged in education. However, only 50 CECUDIs have been created so far across Costa Rica, amidst complaints of long delays in approval processes and operational procedures run by IMAS and the Ministry of Health (Sancho, 2015).

Reducing this administrative complexity will be important not just for the further expansion of CECUDI, but also more widely. It is clear that enabling partnerships – whether central-local or public-private – will be essential to the expansion of provision. Private providers (e.g. NGOs, religious groups, private businesses) already account for a sizeable share of care services in Costa Rica, either publicly subsidised or privately financed, and their contribution is only likely to increase. Until the establishment of the REDCUDI standards, private providers were only subject to the regulations of any other business. Clear minimum standards and adequate oversight mechanisms are essential (see Policy Issue 2.2) to foster an enabling environment where partnerships offering quality services can develop and grow. This should be an important goal of REDCUDI.

Box 2.1. Curridabat's CECUDI targeting vulnerable populations

In 2010, the IMAS and the canton of Curridabat approved the creation of CECUDI centres. IMAS financed construction costs while Curridabat provided the land and administered the services for both IMAS-subsidised and non-subsidised children. CECUDI centres provide vulnerable children aged 2-6 years old with day care, meals, early stimulation and an integrated approach to education. For each group of 25 kids, staff requirements include a technical co-ordinator with a teaching certificate (l*icenciatura*) in preschool education, a professional teacher with a preschool bachelor's degree (b*achillerato*) and an assistant with at least nine years of education. Local doctors also visit the centres to monitor children's nutrition and health. These institutions also offer parents legal and administrative advice, tips on parenting, and a virtual library to develop skills.

Sources: Municipalidad de Curridabat (2014), CECUDI - Reglamento para la operación (CECUDI - Regulation for the operation), La gaceta digital 143, Curridabat; Sancho, M. (2015), Red de Cuido sufre por procesos burocráticos y trámites: 20 Cecudis están varados (Care network suffers from bureaucratic processes and procedures: 20 Cecudis are stranded), Costa Rica Hoy, www.crhoy.com/archivo/red-de-cuido-sufre-por-procesos-burocraticos-y-tramites-20-cecudis-estan-varados/nacionales/ (accessed 3 November 2016).

The cost-structure of public centres might also be revisited to harness more private resources. Public care services are currently free-of-charge for all beneficiaries. The introduction of income-based fees could be an option to expand provision in ways that are more equitable. More than 70% of women of the first three income quintiles report not being able to work because they have to take care of their children (Figure 2.8). They have no access to public care services, and they are unlikely to be able to afford the cost of private day care. Attending a private rather than public care centre increases household expenditure on preschool education 17 times on average (OECD, 2017, forthcoming). Introducing income-based fees – similar to the system in France, for example, or Norway – could be a win-win option enabling parents to put their children in care services at a lower cost and participate in the labour market, whilst increasing non-state revenue for the expansion of ECEC. This model also has the advantage of maintaining stronger public oversight of service quality (OECD, 2006).

Policy Issue 2.2. Raising the quality of care for young children (aged 0-3 years) by engaging parents and encouraging a stronger focus on learning

The vast majority of children in Costa Rica spend their earliest years at home or cared for by a family member. Currently, however, there is only limited public assistance for parents on how to support their child's development and build a positive and enriching home environment. The new ECEC policy framework places welcome emphasis on the need for more support to parents at home, but this will need to be matched by a clear programmatic commitment to expand community and family-based services, which are currently underdeveloped in Costa Rica. For the very young children from disadvantaged families who do benefit from centre-based care, it is critical that standards be improved and programmes expanded to go beyond basic care and nutrition to include support for the early development of foundation cognitive, social and emotional skills. By enhancing the quality of interactions young children receive at home and in care Costa Rica would enable more children from marginalised backgrounds to succeed in school and break the cycle of poverty.

Supporting parents to provide children with a positive home learning environment

There is insufficient policy attention to the role of parents in Costa Rica. Important recent policy initiatives, such as the new curriculum and the efforts by REDCUDI to strengthen

standards of care, do not adequately involve parents as major actors in a child's development. The reality is, however, that most children spend the largest part of their initial years at home. Even for the minority that attend a care service, positive parental reinforcement is central. Parents are the first educators of children and can make an important difference to a child's early development and learning. In Costa Rica, many parents, especially those living in poverty and with low levels of education, require more support to play this crucial role effectively.

Poverty has a strong influence on the care and developmental stimulation that children receive. In Costa Rica, parents from poor families tend to spend less time with their children, have fewer resources at home (e.g. books, games) to stimulate their development, and are likely to be less aware of effective parenting techniques (PEN, 2015). There is well-documented international evidence that such poor home environments have a negative effect on children's development of cognitive and socio-emotional skills, whilst positive stimulation experiences have significant influence on neurological development, which in turn affects a child's life long cognitive, language, physical and behavioural abilities (Cunha et al., 2006; Council Early Child Development, 2010).

Enabling parents to support their child's development will require a two-fold approach. First, more concerted efforts are required to reach parents in their homes and develop more flexible early childhood programmes that engage and work with communities. Second, for those children in care, centres need to be encouraged to reach out proactively to families to engage them in their work.

Strengthening programmes for family engagement

The CEN-CINAI extramural programmes (*programas extramuros*) represent the main modality in Costa Rica for educating and engaging parents in their child's development. Focused primarily on helping parents meet the nutritional and health needs of very young infants, the programmes reach about 104 000 children. Combined with other interventions, they have had an important impact on child well-being, contributing to a significant decrease in infant mortality and malnutrition (Vegas and Santibáñez, 2010). The programmes have a parental education component aimed at influencing parenting behaviour, providing support at home or through parenting workshops on issues such as positive discipline, hygiene and early stimulation. However, the support provided to parents remains very limited and does not extend to guidance on what parents can do to develop a positive home learning environment nor why this matters. Strengthening the parental component of the CEN-CINAI home visits by focusing on how parents can nurture, care and stimulate children in their early years is one way in which Costa Rica could quickly improve the quality of support provided to the families of many developmentally at-risk children.

However, as noted above, CEN-CINAI has limited reach and the centres that offer home visits do not cover many of the most disadvantaged communities in the country. Reaching families in these areas will likely require a different approach. One way to significantly increase parental outreach at a reasonable cost is to rely on community-based services. These might have some similarities to the current *Hogares Comunitarios*, which currently reach less than 5% of children, but be targeted at parents as well as children. The CONAFE-PEI centres in Mexico provide an example of a relatively low cost and large scale intervention (see Box 2.2). Such an approach is similar to the family-based community centres in Colombia, which have been shown to achieve similar child outcomes to centre-based care but at a much lower cost (OECD, 2016c). These services need to be targeted at low-income communities

where differences in socio-economic background and cultural values about childcare might inhibit child development.

Box 2.2. Mexico's community-based early education programme

In Mexico, the Early Education Programme (*Programa Educación Inicial*, PEI) provides non-formal training to promote children's cognitive development and adequate parenting practices to pregnant women, parents, and children caregivers, living in poor, rural and isolated communities. This programme is carried out by community facilitators (*promotoras*) who receive two weeks of training every year, educational materials, and are periodically coached and monitored by a regional supervisor. They organise up to 65 information sessions – once or twice a week – over nine months focused on four key competences of the national curriculum: (a) language and communication (e.g. health, hygiene, and nutrition), (b) protection and care (interactions with others), (c) personal and social skills (movement, words, etc.), and (d) exploration of one's environment (body control, fine and gross motor skills).

A recent evaluation showed that community-based programme can be effectively implemented at a low cost. Using a randomised control trial found that the programme had strong significant effects on parenting practices and children development (communication and gross motor skills), although the effects were muted in the second year and among older children. The costs of the programme are smaller than care centres.

Source: Cardenas, S., D. Evans, and P. Holland (2016), *Estimating the effects of a low-cost early stimulation and parenting education program in Mexico*, International Initiative for Impact Evaluation (3ie), New Delhi.

Involving parents in ECEC centres

Most ECEC centres do not involve parents as an important component of their programmes. The current policies and practices do not consider the role of parents, and staff are not trained on how to involve and support parents in the centre and at home. The result is that the interaction between staff and parents is often limited to children's drop-off and pickup meetings. These are not enough to discuss meaningfully a child's development, or to support parents in furthering the activities that are being carried out within the centre at home. Many OECD countries have taken steps to strengthen ties between parents and ECEC services. In Spain, for example, preschools organise meetings for parents to inform them about general preschool issues and learn about early child development and the preschool curriculum. Spain has also launched a campaign which educates parents on how they can be involved in ECEC and more actively contribute to their child's education and development (OECD, 2012).

By establishing a clear role for parents in the curricular guidelines under development, Costa Rica would give a strong signal of the need to take parental involvement into consideration. Similarly, ECEC staff also need to be trained in ways to promote effective parental engagement and techniques for communicating with different types of parents. Research shows that integrating a parenting education component in ECEC programmes can lead to better child cognitive outcomes, and help families feel more connected to their child and understand their development (OECD, 2012).

Ensuring programmes meet minimum quality standards and support learning

There is no common approach to the minimum quality of services that need to be provided in care centres in Costa Rica. The standards vary across providers, and are particularly low for important aspects related to the quality of provision such as child developmental goals and the workforce. The mechanisms to monitor the quality of provision

are also weak, and there is some evidence that many programmes are not making a difference for children. As Costa Rica advances with the much-needed expansion of the sector, raising expectations for providers will be essential to ensure that this investment brings real benefits for children and society.

Establishing a common set of minimum standards

Each government agency has set its own norms, objectives and delivery frameworks for the delivery of care services for children in Costa Rica. While the Integral Care Centres have established minimum requirements to operate, these are limited to very basic health and physical specifications. This means that the environment that children encounter varies widely in terms of the pedagogy, daily routine, programme intensity and quality of interactions with staff.

Most OECD countries have established minimum standards which go beyond health and safety issues, and also include the obligation to follow an official curriculum or developmental programme along with the requirements needed to deliver these (OECD, 2006). There is consensus within the early childhood field on the core structural and programmatic requirements to ensure quality, including group size, staff-child ratios, staff qualifications and facility conditions (see Table 2.3). Costa Rica needs to set common standards so that all care centres meet those core quality standards. Given the plethora of providers, it will be important that the body with the overall leadership of the sector ensures that all umbrella institutions take responsibility for promoting them and ensuring they are put into practice.

Table 2.3. Elements of quality of care services

Variables	Elements of quality
Structural	Adult-child ratios, group size, physical environment and availability of equipment and pedagogical materials
Caregiver	Initial education, professional development, mentoring/supervision and wages
Programme	Programme intensity (hours per week), parent involvement, language of instruction, curriculum, daily routine and health/nutrition inputs
Process	Caregiver-child and child-caregiver relationships

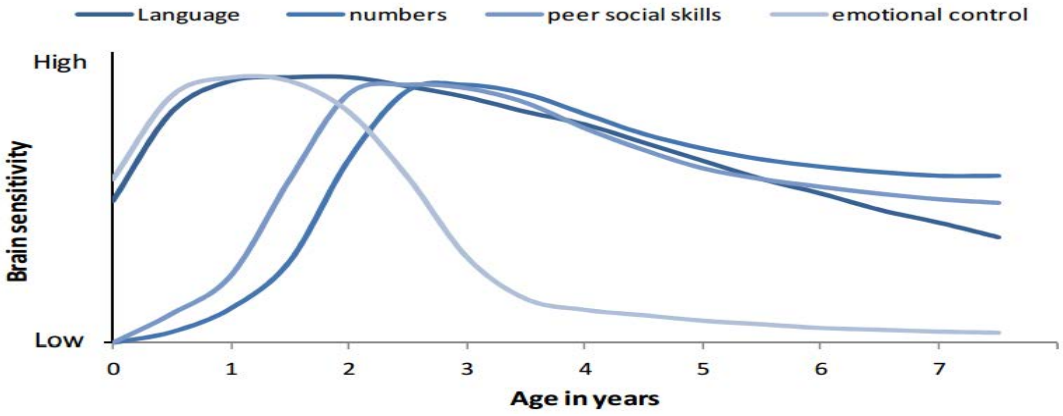
Source: Neuman, M., K. Josephson, P.G. Chua (2015), *A Review of the Literature: Early Childhood Care and Education (ECCE) Personnel in Low- and Middle-Income Countries*, UNESCO and Results for Development.

Monitoring the quality of ECEC services

The mechanisms to monitor and enforce the existing limited standards are very weak in Costa Rica. The OECD team was informed that the inspections of the CoAI occur at a lower regularity than established by the norm, and have limited impact on the provision of services. Half of CEN-CINAI centres inspected in 2014, for example, appear to have failed to meet basic requirements but weak follow-up mechanisms make it difficult to ensure that these have been remediated. Equally important as raising the minimum requirements to operate will be to introduce more stringent monitoring mechanisms to ensure that these are fully implemented.

Some providers have additional arrangements to monitor the quality of services. These include staff self-evaluation surveys, child development instruments and parental satisfaction surveys (MEP, 2016). These can provide valuable insight to improve the quality of provision which is critical to ensure that children access all the benefits of ECEC. The recent OECD Starting Strong IV report, which looks into the range of tools to monitor quality in ECEC settings, found that most countries go well beyond monitoring the quality of care centres and also look into the quality of staff, how they interact with children, the extent of curriculum implementation and child development (OECD, 2015). REDCUDI should promote the adoption of stronger mechanisms to monitor the quality of ECEC services across providers, and ensure that important quality dimensions are inspected by the CoAI. To do this, the latter will require more resources and adequate powers to intervene when standards are not met.

Figure 2.9. Sensitive periods in early brain development (2010)



Source: Council Early Child Development (2010), *Investing in Young Children, an Early Childhood Development Guide for Policy Dialogue and Project Preparation*, Washington, DC.

Building on international experience and research evidence, the OECD has developed a toolbox which might inform the process of developing and implementing curricular guidelines in Costa Rica (OECD, 2012). Box 2.3 outlines some of the key dimensions for consideration. As with any curriculum reform, and in particular in the earliest years, the extent to which staff are well prepared to adapt their pedagogical practices and interactions with children to promote the acquisition of cognitive and socio-emotional skills is key.

Raising the quality of the workforce

Many ECEC staff in Costa Rica lack adequate preparation for the job, particularly to interact with children beyond basic child-minding. Most care programmes do not require staff to hold a tertiary-level qualification, with the case of greatest concern being the *Hogares Comunitarios*, where only one in five carers have completed secondary education. Even staff who are trained in speciality areas (e.g. nutrition, health, psychology), are often not prepared on how to work with parents or on how different aspects of early childhood care and education interact to support a child's holistic development. Low qualification requirements and pay can reflect and reinforce the perception that caring for children younger than 4 years old is basic child-minding rather than an important educational and developmental opportunity for the children. Staff working with children everyday must have high standards of initial education, since it is the daily interactions between staff and child that make the most difference in children's well-being and learning (Johansson, 2003).

Box 2.3. Lessons learnt in designing and implementing ECEC curriculum frameworks

Curriculum and learning standards can have a positive impact on children's learning and development. They are of particular importance in ensuring even quality across different ECEC settings, supporting staff by giving them guidance on how to enhance children's learning and well-being, and informing parents about what the ECEC centres do and what they as parents can do at home. The OECD Review looked at different approaches in designing and implementing ECEC curriculum frameworks, and identified the following main lessons learnt across countries:

- Lesson 1: Orient the curriculum reform to focus on "child" and "holistic development" to set out clear curriculum goals and guiding principles and develop standards or attainment targets
- Lesson 2: Engage key stakeholders and relevant experts in the curriculum revision process to ensure buy-in
- Lesson 3: Ensure coherency in learning and upbringing for continuous child development to adopt a unified curriculum for care and early education which is aligned with other levels of education
- Lesson 4: Plan sufficient time to raise awareness of the curriculum change and to implement the change; plan a feasible review exercise
- Lesson 5: Train leaders of ECEC centres to effectively manage financial and human resources as well as improve pedagogical practices. In particular, revise the content of initial education and provide training opportunities for in-service staff, provide them with "practical" support materials and expert assistance
- Lesson 6: Communicate the new curriculum to staff and parents through simple and common language that can be easily understood

Source: OECD (2012), *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264123564-en.

Developing a more skilled workforce will require addressing general concerns over the quality of teaching (see Chapter 3) and the diversity of existing staff qualifications. As a first step, greater consistency in requirements across roles (e.g. manager, staff, assistants), independent of provider, will be important to ensure more constant quality for children, as would clear guidelines on the expectations at each level in terms of knowledge, skills and attributes. Setting a minimum qualification – such as at least a basic tertiary degree (ISCED 5) for all staff, including among community-based carers – might be valuable in sending the signal that caring for young children is a skilled profession, though is no guarantee of the quality of training. As noted elsewhere in this report, Costa Rica lacks adequate provision of mid-level technical programmes and quality assurance across the tertiary sector is limited. Addressing the pay gap between staff working in care services and those in preschools is another challenge that Costa Rica, like many OECD countries, faces.

The most important consideration will be to improve skills rather than set too rigid qualification requirements. The lack of monitoring and evaluation of ECEC services – including clear processes for appraising staff – means that it is difficult to assess where knowledge and skills are most in need of development. Costa Rica should bring together what evidence there is from CoAI and other inspections to design a common basic training programme that offers practical guidance to staff on how they can better support early child development and education. Priority should be given to upskilling staff in community-based centres and developing their capacity to engage meaningfully with both young children and parents.

Policy Issue 2.3. Ensuring all children aged 4-6 benefit from quality preschool education

Many children in Costa Rica start primary school on an unequal footing because they lack the foundations to learn. Over one-third of children aged 4 do not receive any public support for early learning, and most come from disadvantaged backgrounds where the home learning environment is also weak. Those who do attend preschool have the benefit of a promising new curriculum that aspires to engage young children actively in their own learning and make this a creative experience. However, implementation of the curriculum has proven challenging and more focus and time will need to be given to developing pre-literacy skills in the transition grades if children, in particular disadvantaged children, are to have a good start in primary school.

Making two years of preschool education universal

About 40% of children do not benefit from two years of preschool education in Costa Rica, even though attendance has been compulsory since 1997. The excluded come overwhelmingly from the most disadvantaged backgrounds who could benefit the most from preschool education (i.e. low income families, living in rural and peripheral zones, see Figure 2.6). Along with a growing body of international research, evidence from PISA suggests that attending more than one year of quality preschool is associated with a significant increase in performance at age 15, particularly for children coming from marginalised backgrounds (OECD, 2016d).

Expanding preschool facilities in disadvantaged areas

The expansion of preschool education in Costa Rica in the last decade has been impressive, and needs to continue with at least the same level of ambition. The current National Development Plan has set the goal of expanding enrolment for the first year of preschool (Interactive II) from 63% in 2015 to 69.5% in 2018; this is a target that should have been reached in 2015 (MIDEPLAN, 2014). If Costa Rica is to narrow the country's widening socio-economic divide, it will need a bolder expansion plan that is better targeted at population groups most in need. The prioritisation of the further expansion of preschool to the 75 vulnerable districts identified in the National Development Plan, which include 65% of all households in extreme poverty, is welcomed.

So far most of the preschool expansion has built upon the existing network of primary schools, and there seems to be still underutilised capacity for further growth through this means. Only about 30% of primary schools provide preschool services in their facilities. Yet, Costa Rica has a large network of primary schools which reach the most remote parts of the country, and many are currently facing a sharp decrease in student numbers (see Chapter 3). Introducing two years of preschool in these facilities could enable these schools to remain open and receive further resources to improve their overall quality. Enabling children to attend preschool and primary education in the same school can also smooth their transition, and ensure that they enrol in primary education on time.

Ensuring that care services do not replace preschool

Expanding participation in preschool will also require the current system of parallel, largely uncoordinated provision for this age group to be addressed. The existing care services for 4-6 year-olds today replace rather than complement preschool education. CEN-CINAI estimates that children of preschool age account for about a quarter of all those they cater to,

and that only 10% attend at the same time a preschool. The Review team was told that families opt for keeping their children in a care center rather than putting them in preschool as the former provide longer hours of service. Public preschools are only open for around a fourth of the time of CEN-CINAI (3 hours 30 minutes, compared to 8 or even 12 hours).

To improve the school readiness of children, Costa Rica has started placing teachers in some CEN-CINAI centres as of September 2016. This initiative can be a stopgap solution to provide education opportunities to children who are currently not benefiting from preschool, but the risks of not being able to guarantee the quality of learning discourage its long-term use. The introduction of a unique child identifier could be used to ensure that care services run complementary to preschools but not in their lieu. Planning the construction of new care centres close to or on the same grounds as preschools could facilitate this, and bring other benefits too, especially in terms of realising the continuity in learning intended by the new early years' curriculum.

Developing early literacy skills

Many children in Costa Rica enter primary school without the pre-literacy skills that would help them progress in learning. Before the abolition of grade repetition in 2009, about 15% of children were held back in the first year of primary because of a perceived lack of basic language and learning skills (MEP, 2016). At the age of 7, many children still struggle to recognise the letters of the alphabet, their corresponding phonological sounds, or their printed form. These 'pre-literacy' skills are essential for success in learning, but also for developing a child's self-confidence and social interaction. Children who do not develop these skills in the early years are likely to fall behind in school and are at greater risk of dropping out.

The new curriculum puts early literacy for the first time on the agenda

The reform of the pre-primary curriculum in 2014 has given welcome new emphasis to the development of pre-literacy skills in Costa Rica. It brings Costa Rica closer to the vast majority of OECD countries which now include specific literacy goals in their preschool curriculum in recognition of the critical importance of developing such competencies at a young age (OECD, 2012) (see Figure 2.9). However, weak capacity in the teaching workforce, large size of classes and limited parental engagement mean that achieving these goals are a challenge for most Costa Rican preschools.

Teachers need more preparation and support to interact meaningfully with young children

The teaching profession faces many challenges in Costa Rica – including poor training and little support (see Chapter 3) – which raise questions as to their ability to understand age-appropriate learning needs, curricula objectives and activities. Teachers have only received one week of training (40 hours) on the new curriculum, and in a recent survey most indicated that they felt unprepared to implement it in their classrooms (PEN, 2015; see also Chapter 3). More in-service professional development opportunities will need to be made available to help teachers interact meaningfully with young children and support their learning and development. School principals could lead and encourage peer learning activities in and across schools, focusing on practical ways to foster children's print and phonological awareness, emergent writing and reading, and engagement in group conversations. Additionally, strengthening quality assurance in initial teacher education is critical to ensure that teacher candidates are prepared for the job. An essential requirement for providing pre-school initial teacher education programmes should be that the study plan reflects the new demands placed on teachers by the new curriculum.

Even the most skilful teachers are likely to struggle in Costa Rica's large classrooms. While the average ratio of children to teaching staff in public preschools is 15, it is common for there to be up to 20 children for one teacher, and the latter is the norm in preschools that are publicly subsidised (PEN, 2015). This ratio is above most OECD countries, where there are on average 14 children for every teacher. The large number of children under a teacher's responsibility limits the attention they can give to the learning progress of each individual child, many of whom will have received little exposure at home to books or language activities. This is against a background of very short school days, poorly resourced classrooms and children who might also have significant health and nutritional problems. Reducing the maximum and effective child-teacher ratio should be considered; with the decline in primary school enrolment, the retraining of primary teachers could help to expand the preschool workforce without increasing the overall salary budget. Costa Rica could also consider recruiting more auxiliary staff, or engaging parents in supportive roles, so that teachers can spend more time individually with children, which is critical in the early years. As noted elsewhere in this report (Chapters 3 and 4), more attention also needs to be given to expanding the length of the school day, focusing first on schools that serve disadvantaged populations, where extending time in school is likely to bring the greatest benefits in terms of learning and other social indicators (eg. increased maternal employment, reduced exposure to social risks).

Much more should be done to engage parents

So far the new curriculum has not been supplemented with specific guidance or tools to advise parents on what they can do at home to develop their children's literacy skills. Nor are teachers well-prepared on how to give feedback to parents on their child's development or engage them in preschool activities. Without such guidance and support, parents are unlikely to reinforce positively learning and development at home. To start with, many families lack reading resources: a 2011 survey found that children from the poorest families have less than 10 books at home (Ministerio de Salud Pública and UNICEF, 2013). Reading books to young children is one of the most effective ways to develop language skills and nurture an interest and confidence in reading. Evidence from PISA suggests that students whose parents read them books when they were young gain up to one year of schooling (OECD, 2012).

To better promote early reading, the MEP could provide schools with literacy learning kits for parents and children to read together, and train teachers to provide parenting tips on how to read aloud to their children or enrich children's vocabulary in their daily routines (e.g. meals, phone calls, making grocery lists). This support also needs to build upon the parental skills developed in early infancy (see Policy Issue 2.2). For example, in the United States, the Early Authors Programme is an initiative implemented in childcare centres in disadvantaged urban areas. The programme stresses the importance of active parental engagement and collaboration in ECEC by encouraging children and parents to create self-authored texts. Results indicate language and literacy skills development among participating children, which prevents them from falling behind in school compared to their peers. Data also suggests that this initiative has helped strengthen children's identities and foster their self-esteem (Bernhard et al., 2008; OECD, 2012).

Conclusion and recommendations

There is growing awareness in Costa Rica of the potential benefits that early childhood care and education has for children, parents and society at large. Efforts have been made to increase attendance in preschool and renew the curriculum, and some initial steps have been taken to strengthen the co-ordination of services for those under 4 years of age and, more recently, to develop a holistic policy framework that would engage all institutions involved in ECEC. Though important, these steps remain insufficient to give children in Costa Rica an equal start in life. As a matter of priority, Costa Rica needs to focus on two core objectives. The first is to ensure that all children benefit from two years of preschool and that all disadvantaged children under the age of 4 can access care and education services. The second is to raise the quality of ECEC, in particular the quality of early learning opportunities, by engaging parents as educators in the home and ensuring institutions and staff receive adequate support to implement the new early years' and preschool curricula. None of these objectives can be achieved without raising the low spending levels, and establishing a clear leading authority to champion reforms.

Box 2.4. Recommendations

Providing the leadership and funding to drive reform

2.1.1. **Establish clear institutional leadership for the sector.** Costa Rica should consider appointing one Ministry or agency with clear authority and responsibility for delivering national ECEC policy across the entire sector (care and preschool). As a priority, leadership for the delivery of care services for children under 4 must be clarified and concentrated in one body with the capacity to drive improvement. The new early childhood policy should set clear objectives to guide the work of these agencies and other institutions involved in ECEC provision, and to support stronger monitoring and accountability.

2.1.2. **Ensure that funding is adequate and equitable.** Public funding for ECEC should be increased as a central strategy to reduce poverty and improve education outcomes. Resources need to be targeted more effectively to reach the most disadvantaged children and regions of the country and more cost-effective delivery mechanisms explored to achieve wider coverage (e.g. community and family-based programmes). Partnerships with local governments and private providers should be encouraged as a means to improve access and quality; this requires measures to reduce administrative complexity and strengthen oversight. Consideration should be given to introducing income-based fees in public centres to expand provision in ways that are more equitable.

Improving access and quality of care for young children (aged 0-3 years) by engaging parents and encouraging a stronger focus on learning

2.2.1. **Support parents to build an enriching home environment**. Home visits and community-based services should be expanded and improved to provide parents of the most vulnerable children with more support. Public assistance should go beyond how to best nurture and take care of children and also guide parents on how to stimulate the development of early cognitive and socio-emotional skills. Care centres should also proactively engage and support parents. The curricular guidelines that the MEP is developing should include a parenting component, and staff of care centres should be trained in ways to promote effective parental engagement.

Box 2.4. Recommendations *(continued)*

2.2.2. **Establish and enforce minimum quality standards for care centres.** To ensure that children benefit developmentally from attending care centres, Costa Rica should establish and enforce minimum standards across providers. These should include quality requirements (e.g. group size, staff qualifications, process and program variables) and clear goals for the development of early cognitive and socio-emotional skills. To support this, more attention needs to be given to the quality of the workforce in care centres – including their training, level of qualification, pay and appraisal – and stronger mechanisms put in place to monitor the quality of services. All centres should be inspected on a regular basis according to established standards.

Ensuring all children aged 4-6 benefit from quality preschool education

2.3.1. **Accelerate the expansion of preschool provision.** More ambitious targets should be set to achieve universal preschool education and ensure all children start primary school on an equal footing to learn. Expansion efforts should do more to build on the existing capacity in primary schools as a means to expand access in underserved remote rural regions. The new child identifier should be used to ensure that care services provided for children over the age of 4 complement but do not replace participation in preschool.

2.3.2 **Support teachers and parents to develop children's early literacy skills.** More emphasis needs to be given to developing the capacity of teachers to implement the new preschool curriculum, in particular in the domain of early literacy. This will require both a review of initial teacher education programmes and more in-service training opportunities, together with measures to reduce child-teacher ratios where this is an issue and provide more reading resources. Teachers also need to be given more guidance on how to engage parents in the development of their children's literacy skills at home; programmes to provide parents with learning kits and tips on how to read aloud to their children would help.

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Chapter 3

Basic education in Costa Rica: from access to learning for all

Costa Rica was among the first countries in Latin America to achieve universal enrolment in primary education and today most students make the transition to secondary school. The challenge ahead is to ensure that all students in school benefit from good teaching and a positive learning environment, that they complete at least the nine years of basic education, and that they gain strong foundation skills. Nearly one third of 15-year-olds are already out of school, while one third of those who remain lack core competencies. By the end of basic education, students from poor families have fallen two years behind their wealthier peers, compromising their future life chances. To improve learning for all, this chapter recommends renewed policy efforts to consolidate a high-quality teaching profession, build the capacity of schools to take the lead on improvement, and strengthen system-level evaluation to successfully drive and monitor reform across the system.

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.

Basic education provides all children with the skills they need for full social and economic participation. As countries develop, the expected standard of attainment must rise. Costa Rica today ensures that virtually all students attend primary school and the majority start secondary education. Policies and practices need to change to ensure that all students in school are learning and that they progress to complete nine years of basic education with strong foundation skills. Nearly one third (30%) of 15-year-olds have already dropped out of school, while one third (33%) of those who remain lack core competencies in the sciences, reading and mathematics. By the end of basic education, students from poor families have fallen two years behind their peers from wealthier backgrounds, and few will make the transition to tertiary education or a good job. Building stronger foundations in basic education for all students will be essential to the life chances of individuals and for Costa Rica's society and economy.

This chapter looks at how Costa Rica can achieve this transformation. It focuses on three central policy goals. First is the need to consolidate a high-quality teaching profession: for example, a national assessment of teachers' knowledge of mathematics has shown that nearly one third of the workforce can only perform basic mathematical operations. This is not a foundation on which to develop higher levels of student learning. Second is building the capacity of schools to take the lead on improvement. The centralised system that achieved universal coverage needs to evolve to give schools more space and capacity to shape teaching and learning practices. Finally, the capacity of the Ministry of Public Education (*Ministerio de Educación Pública,* MEP) to monitor and drive reform across the system must be strengthened. As discussed in broader terms in Chapter 1, this requires setting clear goals, measuring progress against them, holding itself, and other actors, accountable for their achievement, and continually pressing forward to improve policy and practice based on results. This strategic leadership is necessary to make sure that reforms have impact and that basic education in Costa Rica equips all students with the skills they need to succeed.

The state of basic education

Main features

Basic education comprises two levels in Costa Rica: primary education (grades 1-6; 6-12 year-olds); and lower secondary education (grades 7-9; 12-15 year-olds). Attendance is compulsory and has long been provided free of charge. Students receive a diploma upon completion of primary school (Diploma of Primary Education Completion), and a certificate upon completion of lower secondary education (Certificate of Completion of the Third Cycle of General Basic Education).

The teaching and learning environment

Most Costa Rican children attend a primary school close to their home, and travel further away to enrol in secondary school. The country has more than 4 000 primary schools, present even in the most remote rural areas, and less than 1 000 secondary schools, which are more concentrated in urban zones (see Table 3.1). Most primary schools are very small. Some two-thirds of primary schools have just 90 students or less, and of these around half are single-teacher schools (u*nidocentes*) for up to 30 students. Together, these small schools enrol around 18% of all primary school children (PEN, 2013).

Table 3.1. Number of students, staff and schools in public education (2014)

	Students	Teachers	School principals	Schools
Primary education	439 369	35 967	2 721	3 740
Secondary education	299 794	32 050	964	735

Source: MEP (2016), *Country Background Report*: Costa Rican Education, Ministerio de Educación Pública.

Class sizes often vary significantly between levels, contributing to an abrupt transition to secondary education for many students. By law, classrooms can accommodate between 20 and 35 students, although multigrade classrooms can have 15 students and single-teacher schools can operate with as little as just one student. The average primary class has 14 students, much less than the OECD average of 21 (PEN, 2013; OECD, 2016a). With 27 students on average, class sizes in secondary schools are almost double those of primary schools and above the OECD average of 23.

Students have the same teacher throughout the six years of primary school for all core subjects, whilst in secondary education they have different teachers for each subject at different levels. The core subjects in primary school are Spanish, mathematics, social sciences and sciences, with the addition of civil education and foreign languages in lower secondary school. Students can also take on a variety of complementary subjects depending on the school offer (e.g. music, physical education, religion, art, industrial arts, IT, family life).

Learning time in most schools is short, limiting the breadth and depth of study and the scope to pursue additional subjects. While the total number of formal compulsory instruction hours (933) exceeds the average of OECD countries (838), several factors reduce actual instruction time. The 40-minute lessons are truncated because of the need to include classroom management tasks and disciplinary matters within the time. About 64% of Costa Rican students who participated in the Programme of International Student Assessment (PISA) 2015 reported that they often do not start working for a long time after the lesson begins, and 81% consider that noise and disorder are common in the classroom (OECD, 2016b). This is coupled with short school days for most students as few primary schools (3.4%) provide the full day of schooling (*horario ampliado*, from 7am to 2pm). Students in multishift schools receive 60 lessons – or 40 hours of tuition – less per month than those in full-day schools, and are not required to follow the full curriculum (PEN, 2015). Additionally, Costa Rican students are more likely than their peers in OECD countries to arrive late, skip a lesson or miss a full day of school according to self-reported data in PISA. About 39% of 15-year-old students reported having missed at least one full day of school in the two weeks prior to the PISA test, compared to just 20% in OECD countries.

Many **schools lack basic learning materials**. About 38% of students in Costa Rica are in schools where principals consider that the shortage of educational materials (e.g. textbooks, IT equipment, library or laboratory material) hinders a lot student learning in their school, which is one of the largest proportions among PISA participating countries (see Figure 4.2). These shortages are particularly pronounced in schools attended by disadvantaged students. Since 2010, the MEP has invested significantly in upgrading schools' infrastructure and rolling out access to new technologies through the internationally-recognised Educational Technology programme (*Programa de Informática Educativa*, PRONIE). But this programme has only reached 55% of public primary and lower secondary schools and roughly 80% of students (MEP, 2016) and limited attention has been given to the widespread and acute shortage of textbooks and other important learning materials.

In 2009, important **modifications were made to the Learning Assessment Regulations** (*Reglamento de Evaluación de los Aprendizajes,* REA) **to facilitate student progression**. Teachers can no longer require children to repeat the first grade of primary school, while students have more opportunities to retake exams and only have to repeat the subjects failed rather than the entire year. The national examinations at 6th and 9th grade, which determined whether students could move to the following level, were also discontinued in 2007 to remove obstacles to transition (see Figure 4.4).

Costa Rica monitors national learning outcomes through a standardised assessment of 6th and 9th grade students in a sample of schools. The assessment has been applied twice in primary education (2007 and 2010) and three times in lower secondary education (2008, 2012, 2014). It tests students' knowledge of the curriculum in core subjects, and also surveys schools' socio-demographic characteristics, resources and climate. The MEP marks the assessments and analyses the national results in a report which is shared with regional offices and school principals and made publicly available. However, the small sample size precludes comparison by region, school or socio-economic group.

The profile of the teaching workforce

Teachers are civil servants in Costa Rica. To enter the profession and to be promoted to deputy principal, principal, or supervisor, candidates are required to participate in a merit-based competition organised by the National Civil Service Commission. Since 2008, improvements have been made to the way in which the competitions are managed to enhance fairness and transparency. Notably, the competition is now also used to make temporary appointments, which account for a significant proportion of staff in both primary (26%) and secondary education (56%) (Quesada, 2014). This has reduced the risks of politicisation and unfair appointments (Bolaños, 2006). However, the competition is not designed to assess core teaching competencies and the **standards and procedures for teacher licensing therefore remain low and less robust** than in most OECD countries.

All aspiring teachers are required to complete a university-level teacher education programme and today more than 95% of staff hold a tertiary education degree. The minimum required length of degrees for primary school teachers is at least two years (short-cycle post-secondary studies, *Diplomado*) and that of secondary school teachers four years (bachelor's degree, *Bachillerato*). However, **the certification requirements of potential teachers provide limited guarantee of their knowledge or skills**. Most initial teacher education courses are offered by low-quality private providers and all universities in Costa Rica have full autonomy to define the entry requirements, curriculum and graduation standards for teacher education programmes, irrespective of any national objectives – such as knowledge of the new national school curriculum. Just 19 out of 259 initial teacher education programmes hold quality accreditation (MEP, 2016)

Workshops and training courses represent the main form of professional development available to teachers. Most are offered outside school and are determined by central policy priorities, though in the past decade efforts have been made to better connect training with teacher needs. Teacher mentoring and collaborative learning within schools are still rare. Teachers have financial and career-based incentives to participate in short training courses. They can also participate in activities organised by the subject-specific pedagogical advisor in each region, but they hardly ever receive direct support in the classroom as there is only one advisor for 800 teachers.

A series of assessments of teacher knowledge in English (2009, 2014) and mathematics (2010) has revealed **significant gaps in teacher mastery of core subjects**. Many teachers

have little knowledge of the subject (29% of mathematics teachers, and 40% of English ones). Further tests of teachers' knowledge of science and mathematics are planned for 2017.

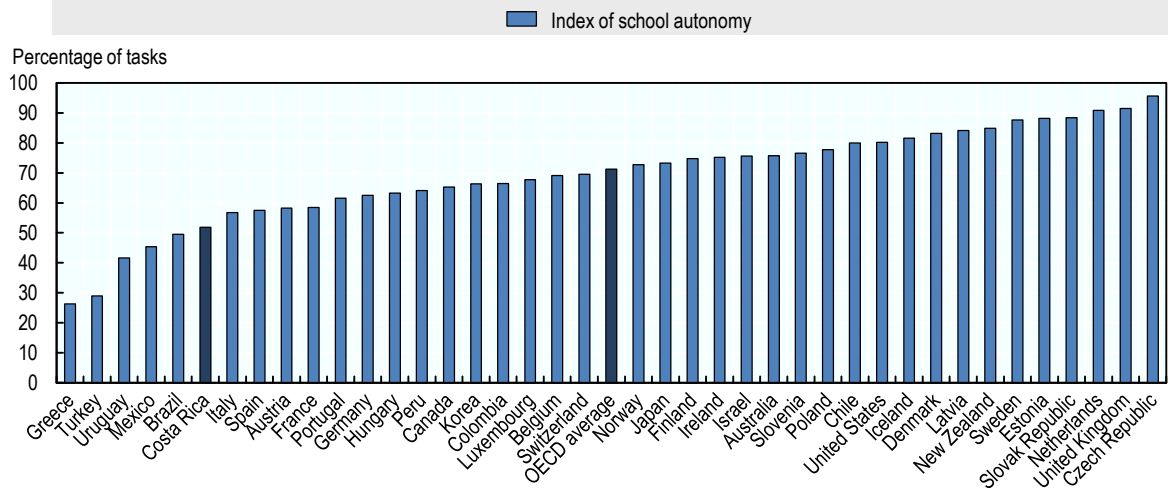
School principals appraise teachers' performance on an annual basis and teachers who receive a positive appraisal gain a financial reward. The appraisal is expected to look at teachers' professional development, attitudes, human relations, and discipline. High success rates suggest that the **appraisal is largely seen as an administrative requirement** rather than a process to improve teachers' performance (MEP, 2016). In 2015, virtually all teachers (98%) received an excellent or very good appraisal, and less than 0.1% (15 teachers in Costa Rica) received a regular or unsatisfactory performance appraisal.

Teachers are paid according to the salary scale defined for civil servants. Teachers' compensation includes their basic salary, annuities based on years of service, surcharges (overtime pay for other activities) and incentives (professional career, annual increases, location of school and others). Surcharges and incentives jointly account for 70% of the base salary (MEP, 2016). **Teacher remuneration has significantly improved in recent years**, particularly for experienced teachers with a permanent contract, and this partly explains the increase of spending in primary education at a time of falling student numbers (PEN, 2015). Recent increases have put teacher salaries in Costa Rica roughly on a par with those of comparable Costa Rican professionals (Mizala and Ñopo, 2012).

School governance and leadership

Schools have little autonomy in Costa Rica. The vast majority of decisions concerning education policy are taken at the national level, with the 27 regional offices of the MEP responsible for ensuring these are translated into practice. School principals reported in PISA 2015 one of the lowest levels of school autonomy among participating countries in student assessment, curriculum, staff and financial matters (see Figure 3.1). School infrastructure and the procurement of services (e.g. school meals, cleaning) are the areas where schools have the greatest discretion in Costa Rica. However, the levels of funds that schools manage are limited and rarely adequate to enable innovation or additional activities (MEP, 2016).

Figure 3.1. PISA index of school autonomy (2015)



Note: The index of school autonomy is calculated as the percentage of tasks for which the principal, the teachers or the school governing board have considerable responsibility.
Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, http://dx.doi.org/10.1787/9789264267510-en.

School **principals are mainly responsible for administering the school** and supervising staff (MEP, 2016). Their formal roles include planning, co-ordination, management, supervision and other administrative duties related to the school. Principals are assisted by a deputy for administrative matters in big primary and secondary schools (with over 600 and 1 000 students respectively), and they can also appoint teachers to carry out specific tasks.

Each school has a governing board, which includes the school principals, parents, and representatives of the community in primary, and additional representatives of local businesses in secondary schools. Board members are proposed by school supervisors and appointed by the municipality. The main function of the board is to manage national funds allocated to schools. They also manage the parental voluntary contributions which are often requested at the time of enrolment. Until now they have played little role in matters related to teaching and learning, though new guidelines on school planning require the principal to consult with the board in developing the school plan.

Costa Rica has a longstanding tradition of school supervision. At present, there are 192 supervisors and each of them is responsible for about 20 schools. The main function of school supervision is to ensure that schools run smoothly from an administrative standpoint. This means ensuring that schools comply with national education policies on administrative, technical and legal matters, and advising principals on compliance with school planning, management, and evaluation regulations. School supervisors are in regular contact with schools, visit them at least once or twice per year, and request from them a variety of reports (e.g., time arrivals, attendance). In 2010, the MEP clarified the roles of school supervisors to ensure greater consistency in supervision practices across schools and prevent unnecessary interference that could limit school leadership and autonomy (MEP, 2014).

There is a **high level of administrative reporting** in Costa Rica at all levels, though efforts have been made to reduce this. The 2012 initiative More Education and Less Paperwork (*Más Educación, Menos Papeleo*) sought to identify processes, controls and requirements that could be simplified or withdrawn. The Programme of Computerisation for High Performance (*Programa de Informatización para el Alto Desempeño*, PIAD), which is a new school-based information system that digitalises information, is also expected to reduce the time that teachers spend reporting by up to 50 hours per month (MEP, 2014).

Main trends in participation and outcomes

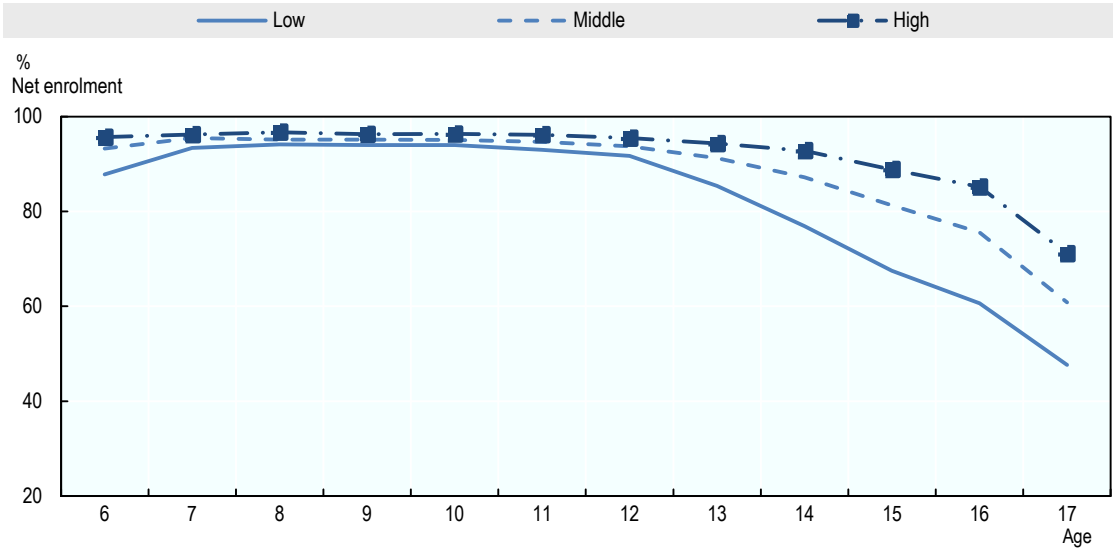
Access to primary and lower secondary education is almost universal

Access to basic schooling has expanded significantly in Costa Rica in recent years. The net enrolment rate in primary education stood at 94% in 2014 (MEP, 2016), one of the highest among Latin American countries and on a par with most OECD countries (OECD, 2016a). The past decade has seen a notable improvement in access to lower secondary education. Between 2005 and 2014, gross enrolment rates jumped from 106% to 126%, signalling the capacity of the system to absorb all students of lower secondary school age. However, the significant difference between gross and net enrolment, which rose from 67% to 71% over the same period, reveals the large number of students who are studying in a grade that is not for their age because they have repeated a year or dropped in and out of school (PEN, 2015).

The **remaining gaps in participation are strongly related to students' background** (see Figure 3.2). While about 90% of students from poor backgrounds are in education at the age of 12, less than 70% remain enrolled by the age of 15. Several policies aim to alleviate

the direct and opportunity costs of educational attendance that limit access for disadvantaged groups. These include the provision of school meals, transport and a scholarship for primary students or conditional cash transfer for lower secondary students (see Chapter 4). These programmes are intended to target specific populations based on the level of poverty, vulnerability and exclusion, though weak data and planning mean that policies are not as effective or efficient as they could be in improving equity (see Chapter 1).

Figure 3.2. Enrolment in education by age and parental education level



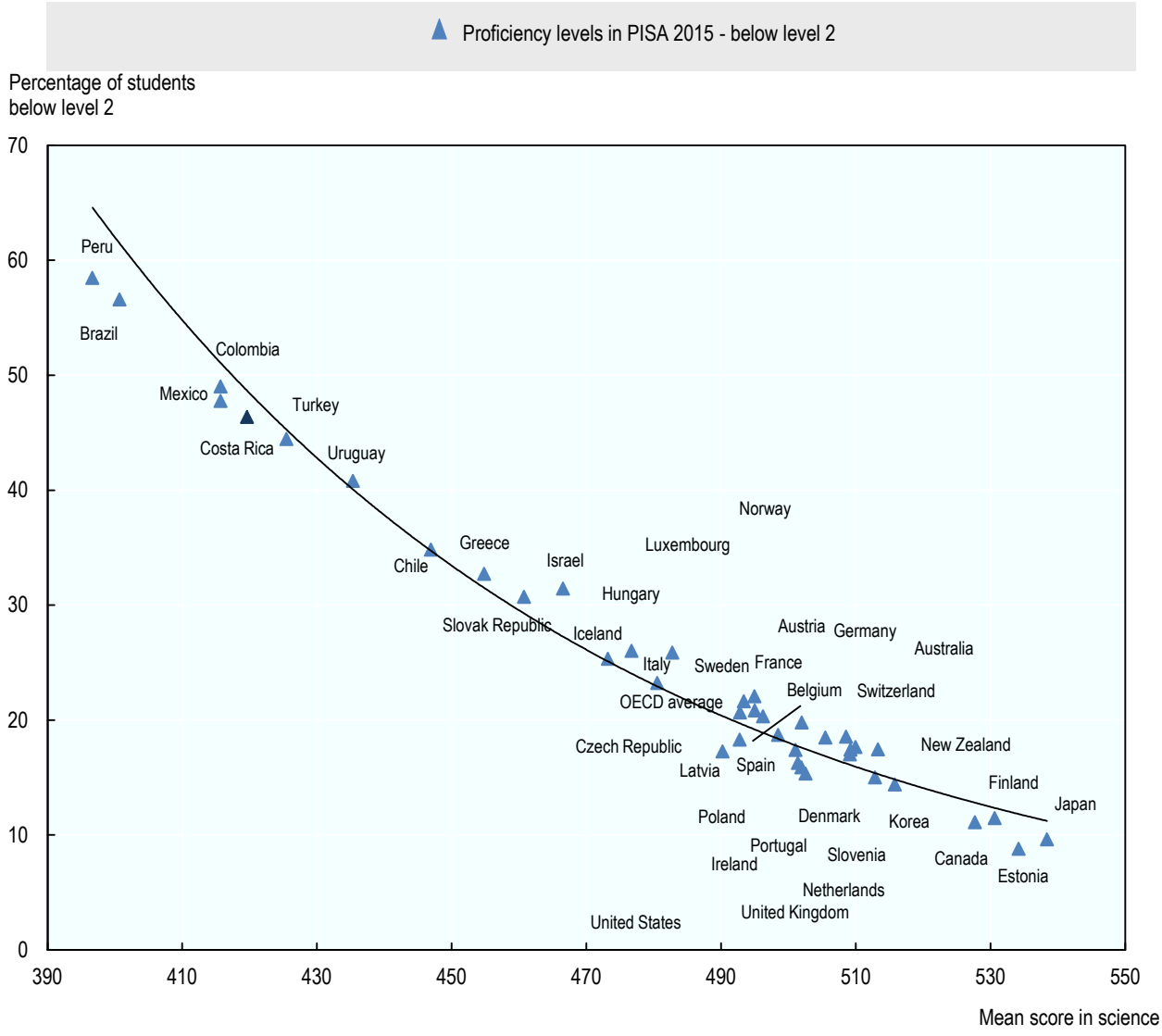
Source: PEN (2013) *Cuarto Informe Estado de la educación 2013 (Fourth Report State of Education 2013)*, CONARE, Programa Estado de la Nación (PEN) en Desarrollo Sostenible.

Learning achievement is low compared to OECD countries

National assessments show the scale of the challenge of raising learning outcomes in Costa Rica. **Most students performed at the lowest tercile in the national assessment** at grade 9 in 2010 in mathematics and sciences, though the average was slightly higher in social sciences and languages (MEP, 2013, 2014). In mathematics, 67% of students scored at level 1 or below which indicates that they struggle to undertake very basic operations and interpretations (PEN, 2015).

International assessments confirm that the education system in Costa Rica is not enabling all students to reach their full potential. The OECD Programme for International Student Assessment (PISA), which focused on the performance of 15-year-olds in science in 2015, shows that Costa Rica performs well below OECD countries and at no more than the average level for Latin America (see Chapter 1). The **high proportion of 15-year-old students who lack basic skills in science** (46%) and do not reach the level of achievement (level 2) regarded as the minimum needed for full socio-economic participation is one of the largest among PISA participating countries and more than double the average across OECD countries (21%). This brings down the average performance of the country (see Figure 3.3). Moreover, the very small proportion of students (0.9%) who achieve the highest levels in science, mathematics, or reading (levels 5 or 6), which is far below the average across OECD countries (15%), means that there is a very small pool of young school-leavers who are well prepared to pursue higher level technical and scientific education, a major challenge for a country seeking to develop its knowledge-based industries.

Figure 3.3. Average performance in science and proportion of 15-year-old students that lack basic skills, PISA 2015

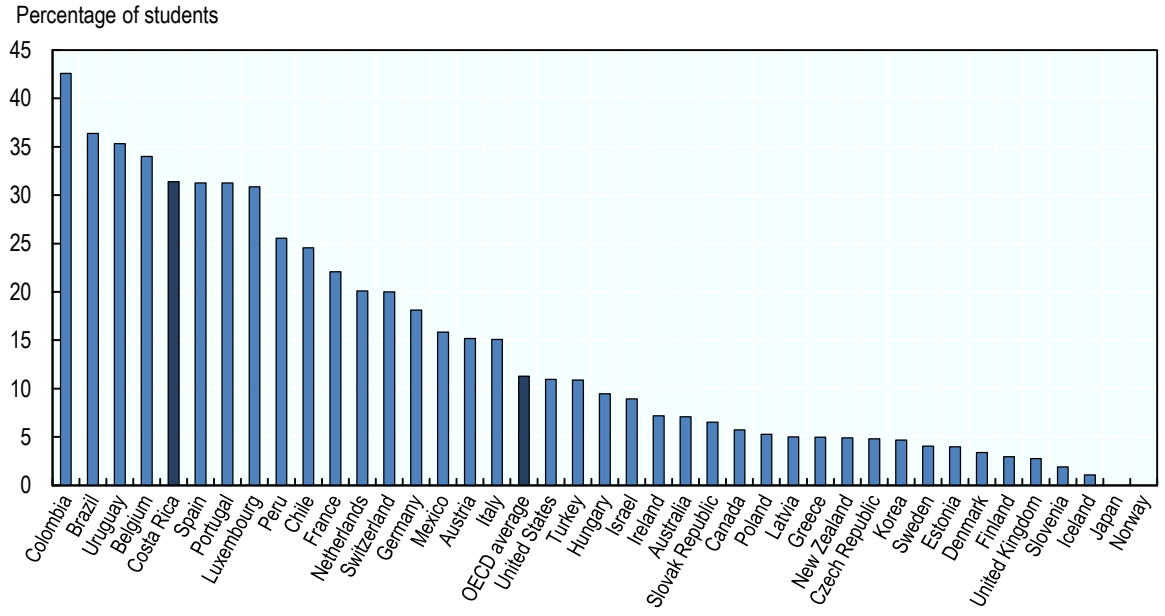


Source: OECD (2016b), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

Weak learning foundations hamper progress through basic education and beyond

Grade repetition and dropout have decreased significantly in recent years, although they remain high by OECD standards. Nearly one third (31%) of 15-year-olds have repeated a year in Costa Rica, above all OECD countries except Mexico (see Figure 3.4). However, grade repetition rates in primary school almost halved between 2005 and 2014, from 7.5% to 4.3%, as a result of new rules restricting its usage (see Chapter 4). This has helped with progress in reducing dropout. In 2014, the dropout rate stood at 1.4% in primary education and 9.4% in lower secondary education, a remarkable decrease from 3.8% and 15% respectively in 2006 (MEP, 2016).

Figure 3.4. A large proportion of students have repeated at least one grade in primary, lower secondary or upper secondary school (2015)



Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, http://dx.doi.org/10.1787/9789264267510-en.

Yet **students still struggle in the transition from primary to secondary school**. They move into bigger classrooms and schools where they receive less personalised attention and are held to higher academic standards for which their experience in primary school has often not prepared them. About 26% of students are required to repeat and 14% are estimated to drop out in 7th grade, the highest rates across all levels of compulsory schooling (MEP, 2016). Improving retention in secondary education is a top priority of the current government, which has designed a flagship initiative *Yo Me Apunto* (I'm in) to ensure that schools with the highest dropout rates receive additional support (Chapter 4).

Learning outcomes reflect socio-economic and geographical inequities

Socio-economic background has a significant impact on the educational chances of students in Costa Rica. Among those 15-year-olds who are still in education, PISA 2015 shows that while socio-economically advantaged students tend to perform as well as their peers in many OECD countries, disadvantaged students are behind by the equivalent of around two years of schooling. The variation of performance explained by students' socio-economic status is higher (16%) than the OECD average (13%). Rurality is an important aspect of disadvantage in Costa Rica. Students in rural schools are more likely to drop out and fall behind in their learning than those in urban ones, with small rural primary schools demonstrating the lowest performance rates in the country (PEN, 2013).

There are increasing pressures to review the school network. The large number of small primary schools has enabled Costa Rica to bring education services to every small village. But recent demographic trends, including falling birth rates and increasing urbanisation, coupled with concerns over the quality of small schools, raise questions about the viability of many rural schools. The high cost of maintaining an extended network of small schools – which has been a major driver of the doubling of spending per primary

student between 2006 and 2013 despite a 15% fall in student numbers – is a drain on limited funds. The urgent need to direct more resources to the most disadvantaged schools faces obstacles as a result (see Chapter 4).

Main policies

Current efforts to improve basic schooling build on promising previous initiatives such as the development of a new competence-based curricula, while sustaining the impetus of work on key challenges such as improving initial teacher education and tackling student dropout. However, these reforms have not been embedded in a system-wide strategy to raise student learning achievement. In particular, there are no clear, measurable targets to reduce gaps in performance across students and schools from different backgrounds nor are there reliable means to monitor progress. Clearer targets and more effective monitoring would be helpful in sustaining momentum across policy cycles and ensure resources are targeted towards those most in need.

Implementing an ambitious new curriculum

In 2006, Costa Rica initiated an ambitious curricula reform which will be fully rolled out by 2018. The new curriculum marks a profound break with previous approaches to teaching and learning. It requires a transformation in pedagogical strategies away from teacher-led, rote-memorisation methods of instruction towards student-focused, competence-based approaches, which encourage students to engage in their own learning, think critically, and apply what they know to solve real-world problems. Additionally, the recent strategy Educate for a New Citizenship (*Educar para una Nueva Ciudadanía*) aims to ensure that key competences (e.g. sustainable development, digitalisation, global and local citizenship) are transversally addressed across all subjects of the curriculum.

The focus given by the curriculum to active student engagement and interactive, problem-based pedagogy reflects what research shows to be among the most effective ways to promote learning and the acquisition of higher order competencies (Schleicher, 2013). However, it is also highly ambitious in the context of Costa Rica's school system. The full curriculum can only be applied in schools which are open for a full day; teachers have received little training to change their teaching style or learn how to assess competences so far; and limited teaching and learning resources have been provided to help them in these tasks (see Chapter 4).

Putting schools and quality at the centre

Strengthening schools has been another important priority of the past ten years. The 2008 declaration Quality Schools as Axis of Costa Rican Education asserted that every stakeholder, from MEP officials to teachers, should put schools at the centre of their work and focus on quality. While this might seem obvious, the declaration aims to do away with a strong legal and administrative culture which had traditionally neglected the needs of schools (MEP, 2014). The declaration was followed by a series of initiatives to strengthen schools, including guidelines for school self-evaluation and planning, and the reform of school supervision. This policy has been taken further by the current administration, with an initiative to improve the in-service training opportunities of school leaders on the basis of an assessment of their knowledge of educational management applied in November 2016 to 2 138 school principals and 199 supervisors.

Improving the quality of initial teacher education and in-service teacher training

Low learning outcomes and the demands of the new curriculum have given renewed impetus to efforts to raise teaching quality. A proposal is before the National Assembly to require all private universities to accredit their teacher education programmes. This initiative is designed to establish some degree of quality assurance in a sector where a high level of university autonomy has made the introduction of common standards for key professions a challenge (see Chapter 5).

The government has also continued efforts to enhance the quality of in-service training. This is an area that has seen notable improvements in recent years, with the creation of a dedicated Institute for Professional Development Uladislao Gámez Solano (*Instituto de Desarollo Profesional Uladislao Gámez Solano,* IDP*)*, and the introduction of a series of assessments of teacher content knowledge vis-à-vis the requirements of the new curriculum. These measures have helped to improve the relevance and targeting of in-service training, which previously had been criticised for being mostly theoretical, poorly based on teacher needs, and of limited value to novice teachers (Venegas, 2010; MEP-IDP, 2014). Resourcing remains a problem, however, as not all teachers who failed to demonstrate adequate competencies in the knowledge tests have accessed training. Moreover, while the tests are valuable in identifying and remediating serious gaps in subject knowledge, they do not provide a basis for assessing and developing pedagogical skills and other crucial aspects of good teaching. There has been relatively little attention to improving pedagogical practice in Costa Rica, with systems for meaningful classroom appraisal of teacher's instructional methods and professional development opportunities at the school level relatively underdeveloped.

Strengthening monitoring and evaluation

Important efforts have been made in recent years to strengthen system-wide monitoring and evaluation in Costa Rica, where capacity has traditionally been weak and lagging that of other Latin American countries (Galiani and Corrales, 2006). The General Comptroller noted the lack of a common understanding of education quality in 2006, and required that the MEP provide a clear framework with indicators to define and evaluate the quality of education. This resulted in the Evaluation Model of the Quality of Costa Rican Education (*Modelo de Evaluación de la Calidad de la Educación Costarricense*, MECEC) which has 28 dimensions related to quality such as professional development activities, academic achievement, institutional planning, and infrastructure. Its usage became compulsory in the self-evaluation of schools, regional offices and the MEP in 2014.

Policy Issues

Costa Rica has successfully raised participation in basic schooling, but many students still lack basic skills and too few move on to upper secondary education. The limited progress in raising overall student learning achievement points to structural weaknesses in the school system. The limited professionalisation of staff hampers the improvement of student learning in classrooms and schools. Teachers and school leaders are poorly prepared, recruited and supported, and they do not have clear expectations or are held accountable for their impact on student achievement or dropout in their schools. The weak capacity to evaluate the school system constrains the development of national policies that could raise education outcomes at the national level by, for example, targeting resources where they are most needed or reconfiguring the school network. This results in profound inequities across the school system, and limits the chances of the most disadvantaged students to achieve their potential. Costa Rica has taken promising steps to raise the quality of the school system, but a deeper transformation is needed to improve student learning and school completion.

Policy Issue 3.1. Consolidating a high-quality teaching profession

The single most important reform that Costa Rica could make to improve student learning is to develop a strong system for the recruitment, preparation and professional development of teachers. At present, the quality of initial teacher education, the rigour of assessment for entry into the profession and the approach to appraisal are inadequate to support high quality teaching and the ambitious goals of Costa Rica's new curriculum. While the MEP has introduced promising policy initiatives to raise quality in these areas, a more ambitious approach will be needed if the country is to develop a teaching force capable of significantly raising student achievement. An important first step in this direction will be to develop a common understanding across the country of what good teaching means. This would provide orientation to the other necessary reforms that this review recommends Costa Rica undertake to consolidate a high-quality teaching profession.

Establishing a common understanding of "good" teaching

Costa Rica does not have a nationally-shared definition of what constitutes effective teaching. The Law on the Teaching Career of 1972 and the Handbook of Teaching Positions set out the main features of the teaching profession. These documents describe the statutory requirements of the job such as teachers' responsibilities, required qualifications, and entitlements. However, they provide little detail on what it means to be an effective teacher in practice and on the core knowledge, values and skills that teachers need to carry out their role successfully.

An increasing number of OECD countries complement official job descriptions with standards that provide clearer expectations of professional practice (OECD, 2013). Standards offer valuable benchmarks for teachers, principals and other instructional leaders on what teachers should know and be able to do to enable student learning. They are also a useful tool for policy-makers, helping governments to achieve greater coherence across policies to improve the preparation and recruitment of new teachers, the design of opportunities for professional growth, and the evaluation and reward of a teacher's work (OECD, 2005). In Costa Rica standards could provide a powerful catalyst for reform, helping to provide a clearer vision of what the new curriculum means for teacher practice, and to create greater alignment between the different actors – teacher unions, universities, ministry departments – that will need to work together to achieve national learning goals.

Developing teaching standards through an inclusive, participatory process

The MEP has recently opened discussions with universities on how to align initial teacher education programmes with the expectations of teachers that emerge from the new school curricula. If widened to engage other key stakeholders, this dialogue could provide an opportunity for developing strong, broadly-endorsed standards for the teaching profession in Costa Rica. The experience of countries that have introduced teaching standards highlights key considerations that should be taken into account.

An inclusive participatory process is critical to build a shared understanding and ensure the legitimacy of the standards agreed (OECD, 2013). In Costa Rica, that means involving, alongside the MEP and universities, supervisors, pedagogical advisors and representatives of the country's teachers' unions and teachers' professional organisations. Involving teachers in the process is essential to increase the likelihood that standards will be accepted and used, and is a way of recognising their professionalism, the importance of their skills and experience, and the extent of their responsibilities (Schleicher, 2016).

Costa Rica should consider creating a consultative body for teachers to gather their views on the standards, which, over time, could evolve into a permanent forum where individual teachers and teachers' representatives meet regularly to discuss professional matters. In addition to ensuring the maintenance of teaching standards, this body could provide input on how teacher policies could better support teachers in their professional practice. This role can co-exist with and complement strong teachers' unions which, at present, mainly provide a voice for teachers with respect to their working conditions and salary (Montero et al., 2014). Teacher professional bodies have been created in several OECD countries to build the kind of leadership, autonomy and accountability among teachers that has long characterised other professions, such as medicine, engineering and law (Schleicher, 2016). They can also help boost the prestige and attractiveness of the teaching role.

Making sure standards are clear and aligned with the new curriculum

Regarding the content of standards, countries vary with respect to the degree of specificity these provide (see Table 3.2). Given the extent of the change in teaching practices that the new curriculum requires, Costa Rica might find value in standards that offer more specific guidance to teachers as to what is expected in terms of knowledge and pedagogical practice in different subjects and grades, and stages of a teacher's career. Teacher performance standards in Chile, for example are widely recognised as having made a major contribution to the professionalisation of teaching in the country. The standards include 20 components grouped into four domains central to the role of the teacher:

- preparing for teaching (e.g. subject knowledge, didactics, lesson plan, assessment strategies)
- creating an environment conducive to student learning (e.g. teacher-student relationships, classroom management strategies)
- teaching for student learning (e.g. clear and stimulating communication strategies, time management)
- and professional responsibilities (e.g. reflection on professional practice, peer collaboration).

These domains and related components are expressed in terms of practical actions, which allows both teachers and administrators to translate the standards into actual practices in the classroom and school.

Making standards a central reference point for all related teacher policies

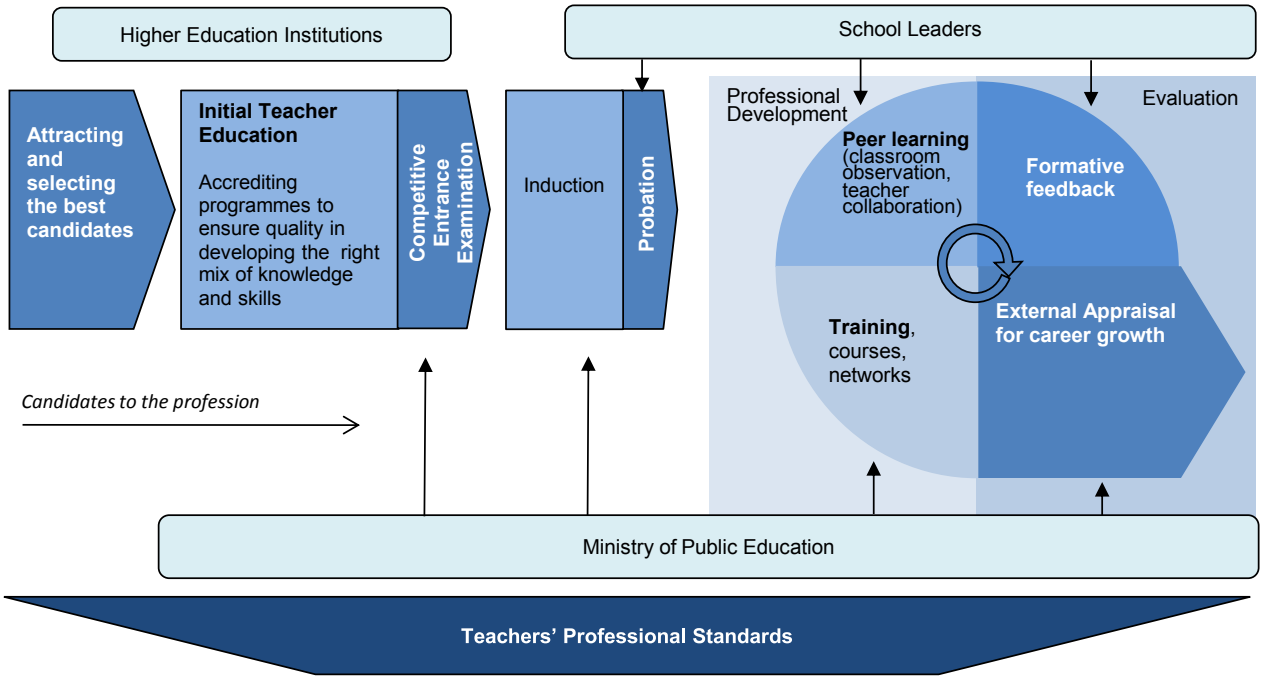
The value of standards depends on the extent to which they can be and are used to improve teaching practice. For that to happen, they need to be taken as a central reference point for all related policies (see Figure 3.5). The recommendations outlined below – to strengthen initial teacher education, licensing, evaluation and professional development – will only have a full impact if guided by the same expectations of what teachers should know and be able to do at different stages of their career. Achieving this policy coherence and alignment will take energetic leadership by the MEP, in particular given the fragmentation of responsibilities for teacher policy. In the past, efforts to improve the teaching profession have tended to be disconnected and to lack clear direction and ambition. Teaching standards could help to give impetus to reform, but only if all stakeholders in the system – universities, administrators, supervisors, principals and above all teachers – are accountable for putting them into practice.

Table 3.2. Contents considered and emphasised by teaching standards in different education systems

	Australia	Chile	United States	England (United Kingdom)	New Zealand
Disciplinary knowledge					
Knowledge and understanding of the subject (expressed in general terms)	x	x		x	x
Knowledge and understanding of the subject (specified for each particular subject and stages of scholing)		x	x		
Pedagogic practice					
Know, value and teach according to student characteristics (different cultures, past experience, educational needs etc.)	x	x	x	x	x
Understand and use knowledge about how students learn, (theories of learning and development)	x	x	x	x	x
Hold high expectations about all students	x	x	x	x	x
Know how to teach disciplinary content	x	x	x	x	x
Develop higher order critical thinking and skills	x	x	x		x
Plan, implement and assess teaching and learning	x	x	x	x	x
Create and sustain an environment that encourages learning	x	x	x	x	x
Value the families' role in student learning and development	x	x	x		x
Promote social values and ethics among students			x		
Know how to use ICT for learning	x	x	x	x	x
Incorporate democratic values in classroom teaching practice			x		
Values and professional teaching practice					
Be committed to students' learning and development		x	x		
Reflect on his or her teaching practice	x	x	x	x	x
Know the rationale for and implementation of current educational policies					x
Commitment to professional learning (continuous learning)	x	x	x		x
Contribute and be committed to the school community	x	x	x	x	x
Contribute to the development of the teaching profession	x				
Know and apply guidelines for ethical behaviour				x	x
Be capable of performing administrative tasks (e.g. registration etc.)	x				

Source: Centre of Study for Policies and Practices in Education (CEPPE) (2013), *Learning Standards, Teaching Standards and Standards for School Principals: A Comparative Study, OECD Education Working Papers*, No. 99, dx.doi.org/10.1787/5k3tsjqtp90v-en.

Figure 3.5. Consolidating the teaching profession



Ensuring that new teachers are well prepared and qualified for the job

There is a widespread consensus that many initial teacher education programmes are of very low quality and that most inadequately equip candidates for the demands of the profession (Paniagua, 2013). There is also a strong perception that the teacher recruitment process is neither fair nor well designed to identify those candidates with the requisite qualities to become a good teacher. Costa Rica has already taken steps to address these challenges in the last five years; these need to be accelerated if the country is to ensure that all students are taught by a teacher that is qualified to teach.

Using accreditation to improve the quality and relevance of initial teacher education

The large expansion of initial teacher education programmes in the last two decades has raised serious concerns about the number of entrants to the teaching profession and, above all, their preparedness. Unlike many OECD countries, most of the largely private universities providing teaching programmes in Costa Rica do not have a selective admission process, and the number of places available in initial teacher education programmes is not based on a projection of teaching needs. While public universities tend to be more selective, evidence from the University of Costa Rica suggests that initial teacher education degrees attract a considerably higher proportion of those who obtain the lowest grades in the *Bachillerato* examination than other degrees (PEN, 2008). Initial teacher education accounts for fully 30% of tertiary graduates: there are over 11 000 new graduates every year from 256 programmes. The competition for permanent posts is strong, with 15 applicants for every secondary education position and 10 for each primary education post in 2014 (Quesada, 2014), and only 55% of graduates end up working as teachers (Bruns and Luque, 2014). This oversupply of graduates reduces both the attractiveness and the prestige of the teaching profession, and indicates the need – and the potential – to make entrance into initial teacher education programmes more selective.

The quality of initial teacher education programmes is an even deeper concern. A review of initial teacher education programmes across public and private universities found a strong theory-based approach to both subject-specific knowledge and pedagogy, with limited opportunities for practice in the university classrooms or in schools, limited encouragement of self-reflection and investigation into teaching practices, and little preparation for the challenging situations that teachers will encounter on the job (e.g. classrooms of heterogeneous ability, student disciplinary issues) (PEN, 2008). Many universities have not yet aligned their programmes to the new curricula, though as noted efforts are underway to encourage more institutions to update their courses.

Quality concerns are particularly acute in private universities, which prepare nearly three-quarters (72%) of initial teacher education graduates. The operating requirements and oversight for private universities in Costa Rica are extremely low (see Chapter 5). Of the 19 initial teacher education programmes that are accredited, only two are from private universities. In contrast, more than two-thirds of OECD countries have some form of quality accreditation requirement for initial teacher education programmes (OECD, 2014). Teachers who graduated with a *Bachillerato* degree in a private university performed well below those who held the same degree from a public university in the knowledge test of mathematics teachers in 2010. The average score of graduates from private universities was 237, compared to 279 for public universities, and also showed a high level of variation within and across universities, with some graduates scoring below 220 (Level 1) and thus showing very poor knowledge of the subject (MEP, 2010).

Current efforts to improve initial teacher education are concentrated on promoting the accreditation of more programmes, with a bill before the National Assembly to require private universities to accredit their programmes. This is an important step, and one that this review strongly supports to bring Costa Rica more closely into line with standards in OECD countries. While public universities are not bound by this proposed reform, they should also be required to accredit all their teaching degrees. The impact in terms of raising quality, however, will depend on the robustness of the accreditation process. Strong teaching standards will be important to concentrate accreditation on the factors that contribute to high quality initial education, including not only strong subject-specific knowledge, but also pedagogical training with opportunities for practice and reflection (OECD, 2005).

Improving initial teacher education will also depend on broader initiatives to strengthen transparency, accountability and competition in the tertiary sector (see Chapter 5). At a minimum, one requirement of accreditation should be for institutions to publish the proportion of graduates who gain permanent posts. This could help students make more informed choices about which university to attend, and reduce the demand for – and eventually the supply of – low-quality providers. The MEP should also work with providers to raise the bar for entry to programmes in order to identify students with higher basic skills and who are motivated to teach. Unlike many OECD countries, Costa Rica does not have any programmes to incentivise talented students to enter the teaching profession. This, too, is something that the MEP might consider introducing, in particular as a means to attract highly qualified graduates to disadvantaged schools (see Chapter 4).

Three essential steps to strengthen the teacher recruitment process

Costa Rica has a centralised process for recruiting teachers for permanent civil service positions. This serves both as a licensing mechanism, as only candidates who pass the competition are eligible for permanent positions, and as an appointment system, as a candidate's ranking in the competition determines choice and allocation to an open, tenured

post. The system also determines the appointment of temporary teachers, though the MEP has more discretion for contracts of under a year.

This approach to recruitment has several flaws. The current recruitment process is ill-designed to recognise teaching potential. The competition rates candidates solely on indirect measures of aptitude. Candidates are given points according to their formal education qualifications, participation in training courses, publications, and years of professional experience. Unlike teaching recruitment in most OECD countries, the process does not include an examination of candidates through an interview, direct assessment, or observations of teaching practice that could provide more reliable evidence of a teacher's more practical abilities in the classroom, or their motivation. The lack of attention to actual teaching competence in the recruitment process raises particular concerns in Costa Rica given the poor quality of many initial teacher education programmes and the permanent nature of civil servant appointments.

Recently, the MEP has introduced measures to reform the recruitment system in Costa Rica. Graduates from an accredited teaching programme receive five additional points in the competition, which can give them a significant advantage given the number of applicants for each position. If the MEP proposal under discussion in the National Assembly is successful, only candidates from accredited programmes in the private sector would be eligible in the future to compete – and the same restriction clearly needs to be applied to graduates from public universities. Another positive development is the requirement since 2008 that all candidates to teaching posts for English and French accredit that they can be independent users of that language (B2 level) through an international certificate (e.g. TOEFL, TOEIC, DELF). These measures, while important, need to go further. The following three steps would help Costa Rica to ensure that all new teachers have the required skills for the job and are well supported in the first critical years of teaching to consolidate their potential:

- *An entrance examination for all teachers*. The introduction of an entrance examination for all teachers is an essential first step towards a truly competitive, merit-based and transparent recruitment process in Costa Rica. Examinations are a common feature of career-based teacher employment systems like France, Japan, Korea or Spain (OECD, 2013). Examinations play a vital role in countries where there are concerns about the quality of initial teacher education or an oversupply of teachers – both of which are the case in Costa Rica. While examinations cannot fully discriminate all the requirements for effective teaching, they can be a valuable tool for ensuring that all teacher candidates have a minimum level of knowledge and skills.

  To provide a reliable measure of ability and aptitude, examinations should combine a standardised written assessment of a teacher's subject and pedagogical knowledge with additional measures, such as an interview and portfolio of work, to assess the range of capabilities required to enable student learning (e.g. communicate effectively, adapt teaching strategies to different types of students). Established Teaching Standards would help to define the parameters of the exam. A minimum level should be established that all candidates should reach, independently of the availability of teaching posts. Meeting this level should be the licensing requirement for teaching, including for teachers under temporary contracts.

- *A probationary period for all teachers*. Costa Rica should consider introducing a probationary period for all teachers, accompanied by close mentoring and support. The complexity of teaching competence is difficult to assess in an examination and many countries do not confirm tenure until a teacher has successful completed a

probation period and demonstrated in practice that they are capable of enabling student learning and undertaking other aspects of the teaching role. School principals in Costa Rica are required to assess teachers annually, but the fact that almost all teachers receive a positive appraisal questions the effectiveness of a school-based approach, especially when principals are poorly prepared to assess pedagogical competence. The process could be made more effective if the performance of new teachers was assessed jointly by the school principal and a qualified external authority, such as the school supervisor or regional pedagogical advisor. Once clear terms for the probation appraisal are established, Costa Rica could introduce a requirement that all teachers must complete the probation to a satisfactory standard before being confirmed in a permanent post.

- A structured induction programme for all teachers. In most countries, probation typically takes place alongside a structured induction programme. Research has shown that a combination of quality mentoring and feedback can help new teachers develop their instructional practices, learn to address challenges for which they might have not been adequately prepared, and channel their motivation towards improvement (Ingersoll and Strong, 2011). Initial teacher education programmes in Costa Rica pay little attention to developing strong pedagogical and classroom management skills, and structured induction programmes could be an important way to consolidate these important attributes. The development of a national programme will take time to establish. In the immediate term, there is much that can be done at the school level to match experienced teachers with new entrants. This is already happening on an ad hoc basis; additional resources such as mentoring guidelines could help to ensure the practice takes place more systematically. In the medium term, Costa Rica should put in place policies to carefully select and prepare a cadre of mentor teachers.

Making teacher appraisal a meaningful development opportunity

Ensuring that all beginner teachers are qualified and able to teach is an important foundation for a high quality profession. However, fostering a culture of excellence during what is, for most teachers in Costa Rica, a long and demanding career, requires mechanisms to encourage and support teachers to learn, grow and develop. This is essential to strengthen the practice of the 68 000 teachers who are already in service and where there is evidence of a significant need for further professional development to improve student learning. The MEP has put in place useful systems nation-wide to identify and address gaps in teacher knowledge, with the introduction of teacher assessments and the creation of a dedicated Institute for Professional Development. Less attention has been given to encouraging teachers themselves to reflect on their strengths and areas for improvement, and to creating feedback processes within schools whereby teachers can learn from their peers and take on more responsibility for their own professional development. This is important in stimulating a strong professional identity among teachers and improving their pedagogical skills. If teachers are not encouraged to reflect meaningfully on their own learning and development it is difficult for them to encourage these competencies in their students.

Developing a framework for formative evaluation and professional development in schools

School-based evaluation practices that encourage teachers to reflect individually and collectively on their own practice remain relatively weak in Costa Rica, whereas they are an increasingly important area of policy focus in most OECD countries (OECD, 2013). School principals in Costa Rica are required to assess teachers on an annual basis, but they do not

receive the support to make this a meaningful development opportunity (see Policy Issue 3.2), and the fact that the outcome is associated with a salary bonus undermines the formative function of the evaluation. A survey carried out by the MEP revealed that about 85% of school principals and 61% of teachers of San José consider that the current framework for teacher appraisal is outdated, and about 74% of principals and 85% of teachers consider that it is not useful to identify professional development needs (MEP, 2013).

One practical step towards strengthening teaching appraisal practices in Costa Rica would be to establish a framework for formative evaluation and professional development, which school leaders could use as a guide for working with individual teachers to assess their strengths and needs and establish an individual development plan. The framework would provide guidance on both the domains of teaching to be assessed, based on the Teaching Standards, and the sources of information needed to form a well-rounded assessment of a teacher's performance. The latter should include classroom observation, interviews with the teacher and teacher self-appraisal, which are the essence of a strong appraisal process, as well as information on student outcomes and feedback from students and parents (OECD, 2013). Training school leaders on how to assess teachers' performance is critical, and school supervisors and regional pedagogic advisors need to ensure that these appraisals are fair and useful to improve teaching practices.

In Ontario (Canada), for example, each teacher must develop or review the professional development plan every year in consultation with the school principal (OECD, 2013). The plan specifies the teacher's professional growth objectives, proposed action plan, and timelines for achieving those objectives. The approach to appraisal was developed in close consultation with teachers, principals and teacher representatives, which in Costa Rica will be important to building a deeper understanding of effective appraisal practices and how they can support teachers in their work. International research shows that regular, constructive feedback is closely associated with higher levels of teacher motivation and sense of self-efficacy, as well as being one of the most effective means of improving teaching practice (OECD, 2014).

Ultimately, the meaningfulness of teacher appraisal and development plans will depend on the availability of effective supports for improvement. Costa Rica has taken steps recently to improve the quality and relevance of national programmes for in-service training, ensuring that they are aligned with other policies to strengthen the profession and creating a rich platform of virtual training resources that offer flexible opportunities for continuous learning. However, there is more that the country can do to strengthen teacher professional development in schools. The OECD Teaching and Learning International Survey (TALIS), which in 2013 surveyed teachers in more than 30 countries, showed that teachers consider that opportunities for professional development at the school level are more effective in improving their pedagogical knowledge and practice than traditional training courses (OECD, 2014). Other research confirms that teacher professional development is most effective when it is collaborative and embedded in classroom practice (Cole, 2012). In Costa Rica, developing such opportunities will require increased emphasis on the role of the school in leading improvement in teaching and learning, including the creation of clear roles and responsibilities for instructional leadership (see Policy Issue 3.2).

Moving towards a stronger system for teacher evaluation linked to different career pathways

Once the capacity and culture for evaluation are well established, and an understanding of what is expected of teachers embedded in the profession, Costa Rica might consider establishing a stronger system with an external evaluation component. This would bring

Costa Rica into line with a growing number of countries, which in recent years have introduced more rigorous mechanisms to assess teacher practice that bring formative and in some countries also summative consequences for teachers (OECD, 2013). Notably, a stronger teacher evaluation system could inform career progression and differentiation in Costa Rica and the allocation of teacher allowances. Given the significance of these decisions for teachers, the evaluation would need to draw on a broad range of evidence and rely on evaluators external to the school to ensure an independent and fair judgement.

At present, all Costa Rican teachers follow the same career structure and progression is mainly based on years of service. If teachers are interested in other leadership or pedagogical roles, they need to take part in a national contest, relocate to another school and, frequently, abandon their teaching tasks. An external evaluation that assesses teachers in their teaching environment and draws on input from regular school-based appraisal would not only provide a more authentic means to assess teaching competence for career development but also validate school-level feedback processes (see Box 3.1). If carried out at regular intervals (for example, every four or five years), it would also encourage teachers to reflect more systematically on their professional interests and enable them to formally assume new responsibilities within the same school. Additionally in Costa Rica, where allowances can constitute a large proportion of a teacher's salary, some form of external evaluation could help to ensure a much more effective use of financial rewards to recognise and incentivise good teaching practice.

Such a system could help Costa Rican teachers to feel more professionally challenged and rewarded throughout their career, whilst ensuring that the country is fully tapping on the talent of its staff to strengthen the entire system. International research shows that career prospects, career diversity, and giving teachers responsibility as professionals are important to keep teachers motivated, particularly in systems like Costa Rica where teaching is a job for life (Schleicher, 2013).

Box 3.1. Using appraisal to differentiate teacher careers

Australia has established a differentiated teaching career on the basis of competence appraisal, with increasing requirements over the career for knowledge, practice and professional engagement. The position and requirements to which teachers can aspire are reflected in the Australian Professional Standards for Teachers which offer a sequence of levels: i) Graduate, demonstrates knowledge and understanding of the physical, social and intellectual development and characteristics of students and how these may affect learning; ii) Proficient, uses teaching strategies based on knowledge of students' physical, social and intellectual development and characteristics to improve student learning; iii) Highly Accomplished, selects from a flexible and effective repertoire of teaching strategies to suit the physical, social and intellectual development and characteristics of students; iv) Leader, leads colleagues to select and develop teaching strategies to improve student learning using knowledge of the physical, social and intellectual development and characteristics of students.

In Singapore, teachers are assessed and steered into three professional career tracks: 1) the teaching track, which allows teachers to advance towards the level of "master teacher"; 2) the leadership track, which allows teachers to take on management roles in schools or in the Ministry; and 3) the senior specialist track, which allows teachers to support other teachers as pedagogical specialists. Each track includes several positions as depicted below.

Source: OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, http://dx.doi.org/10.1787/9789264190658-en.

Policy Issue 3.2. Building capacity for improvement in schools

Schools are increasingly at the centre of policy efforts to improve primary and secondary education in Costa Rica. In 2008, the declaration of the Quality Schools as the Axis of Costa Rican Education (*Centro Educativo de Calidad como Eje de la Educación Costarricense*) marked a turning point, affirming the importance of school engagement to raise education outcomes. This represented an attempt to reverse the high levels of centralisation and bureaucratisation that have historically limited the space for Costa Rican schools to lead improvement (MEP, 2014). The declaration was followed by important initiatives to strengthen school leadership, such as helping principals to develop their leadership skills, improving school planning, and restricting the excessive influence that some supervisors had on internal school affairs.

The focus on developing the capacity for improvement at the school level is a very positive shift, and one that should be pursued and further reinforced. School leadership roles should concentrate on improving teaching and learning processes, as leaders within schools can be more effective in triggering and sustaining improvement than regional and central authorities who are usually far from the actual classrooms. Further strengthening the leadership team in schools, including their mandate and skills, is necessary to ensure that all schools have leaders capable of steering change. Pursuing the reform of school supervision will also be important to signal clearly that what is expected from school leaders is to improve their schools, and that supervision is an ally rather than an obstacle in this regard. Single-teacher schools are likely to struggle to make these changes, and a specific policy is needed to improve schooling in rural areas.

Strengthen the skills and support for school leaders

With the increasing focus on schools, the capacity of school principals to deliver improvements has become a key issue. The responsibilities of Costa Rican principals are far-ranging. They include important tasks that are central to school improvement such as elaborating school plans, observing teaching practice, and appraising teacher performance. However, these responsibilities often compete with administrative requests for which they are held accountable, as well as the pressing urgencies of running a school such as a broken window or an absent teacher. In practice, school principals have little opportunity to reflect, plan and take action to improve student achievement, reduce grade repetition, or tackle dropout.

School leadership has become a priority on education policy agendas across OECD countries because of its demonstrable potential to improve classroom practice, school policies and alignment between individual schools and system goals. The OECD School Leadership Review identified four major domains relevant to effective school leadership: supporting and developing teacher quality, defining goals and measuring progress, strategic resource management and collaboration with external partners (OECD, 2008). Further developing the skills of the leadership team, creating formal instructional leadership positions, and broadening the mandate of school boards are essential steps that Costa Rica needs to take to help school principals effectively lead schools to success.

Developing the leadership skills of Costa Rican principals

While all Costa Rican principals are required to have completed an educational management degree to apply for the position, the courses are not focused on developing leadership skills to improve school outcomes. A review of several educational management

programmes showed that the prevailing focus is on the legal and administrative aspects of the job (PEN, 2008). The success of current initiatives to strengthen schools hinges not only on principals being aware of new regulations but also being able to effectively implement them. Principals should know how to plan and set goals for improvement, appraise and motivate teachers, make use of the new schools' information system (Programme of Computerisation for High Performance, PIAD), lead the annual self-evaluation process and engage school boards in important school decisions.

The current initiative to provide school principals with in-service training opportunities on the basis of an assessment of their knowledge and perceived skills is, as noted earlier in the case of teachers, very welcome. It will shed light on the gaps in the knowledge and skills required to effectively lead schools. Together with universities and the Institute for Professional Development, the MEP should use the results to review initial and in-service leadership development opportunities.

The assessment could also help to connect strong with weaker school principals and inform the creation of peer learning networks. While there are currently no mentoring schemes for school principals in Costa Rica, this could be an effective way to help new school leaders to build confidence and gain new skills, acquire tacit knowledge, and break down the isolation characteristic of the job, especially in rural areas. Mentoring schemes are considered in high performing education systems, such as New Zealand and Singapore to be an important lever for system-level improvement (see Box 3.2). After analysing the results, the regional supervision body could invite principals of similar schools but different performance to mentor each other, with the primary objective of improving the lowest performing schools.

Box 3.2. Examples of mentoring schemes in New Zealand and Singapore

New Zealand launched the First Time Principal programme (FTP) in 2001 as an annual induction programme open to all new principals. The FTP includes i) a 3-day residential course with talks, case studies and networking opportunities; ii) e-learning through curricular units, forums, resources, and group communities; and iii) research and evaluation. The evaluation showed that the programme encouraged greater interactions and participants from isolated areas especially valued the initiative.

In Singapore, mentoring has historically been used in the training of school leaders. A year-long mentoring scheme for recently appointed principals is complemented with opportunities to learn from each other, including access to role models, providing a support structure for best leadership practices. These efforts are also reinforced by other initiatives such as the recruitment of retired principals to hold offices within the institution and the creation of networks of schools.

Source: Adapted from Dinham, S. et al. (2011), *Breakthroughs in school leadership development in Australia*, School Leadership and Management, Vol. 31, No. 2, pp. 139-154.

Creating positions with responsibility for instructional leadership

School principals often have to work alone when seeking to improve teaching and learning practices. Even in big schools, they are assisted by a deputy to deal with administrative matters but cannot assign them instructional leadership roles. Principals can pay surcharges to some teachers to take on different tasks (e.g. reviewing teaching plans, participating in a monthly committee) but none of these entail real responsibility and authority for instructional leadership in the eyes of other teachers. In practice, teachers receive little feedback and support to improve their practice either from school leaders or other peers.

Given concerns about low teaching quality, the creation of instructional leadership positions, working under the guidance of the school principal, and with a clear responsibility

for teachers' professional development could be particularly beneficial in Costa Rica. An increasing number of OECD countries have created such leadership positions to strengthen teacher professional development at the school level, building on research that shows teacher-to-teacher feedback and support to be one of the most effective means of improving teaching standards (See Box 3.3). Such leadership positions could help in building professional awareness of good teaching and learning practices in Costa Rica and ensuring that feedback from appraisal is matched by adequate support to improve (see Policy Issue 3.3). Results from the teacher knowledge tests could be used as one input to help identify candidates, but could in the future be replaced by a stronger teacher appraisal system to assess potential.

The teacher leadership position should be embedded in professional standards which set clear expectations. These could include:

- *Promoting classroom observation* whereby teachers open their classrooms and invite colleagues to observe their teaching to provide them with feedback. The expert teacher could arrange classroom observations and organise discussions on teaching styles and pedagogical techniques.
- *Creating opportunities for the joint preparation of lessons*. The expert teacher could create spaces and explore ways to formally release time to ensure that teachers meet to share instructional resources, discuss appropriate pedagogical techniques and draw up lesson plans together.
- *Setting up a mentoring scheme*. All new teachers and those that perform at the lowest levels in the assessments should benefit from mentoring by more experienced teachers. The expert teacher could identify the best mentor for each mentee, help them set objectives and define a structured mentorship plan.
- *Organising school-based training*. It is currently rare that schools organise professional development activities, while this could be a powerful way to foster collaboration among peers in schools and associate the individual teacher's needs with the school's priorities.
- *Contributing to and following-up on individual teacher appraisals*. The expert teacher could contribute to make the annual teacher appraisal a more meaningful exercise by ensuring that they receive detailed feedback, and help them develop an individual professional development plan.
- *Collaborating with expert teachers of other schools*. The expert teacher could share best practices with expert teachers of other schools, and join school supervisors and regional pedagogical advisors in improving pedagogical practices in the schools of the district.

Box 3.3. Teacher collaboration in Japanese schools

In Japan, the well-established tradition of lesson study, in which groups of teachers review their lessons and how to improve them, in part by analysing student errors, provides one of the most effective mechanisms for teachers' self-reflection as well as being a tool for continuous improvement. Teachers do not work alone. They collaborate in a structured way to improve the quality of the lessons they teach. This gives all teachers a reference for good practice and opportunities to learn from each other to become more effective. It also puts peer pressure on those with poor teaching skills as well as giving them the means to improve their work. Good teachers also have incentives to collaborate with peers to become even better. They can become a master teacher and move up the career ladder of increasing prestige and responsibility.

Source: Schleicher, A. (2016), *Teaching Excellence through Professional Learning and Policy Reform: Lessons from around the World*, International Summit on the Teaching Profession, http://dx.doi.org/10.1787/9789264252059-en.

Engaging boards actively in the governance of schools

School principals rarely involve parents and the local community in making important decisions about school matters, and they also receive little pressure from them to improve school outcomes. About half (47%) of students are in schools whose principal reported in PISA that pressure on the school to meet high academic standards came from only a few parents, a larger proportion than on average across OECD countries (33%) (OECD, 2013). Parents and the local community are those who stand to gain the most from improving their school and there is strong evidence that parental engagement in particular can help to raise outcomes (OECD, 2012). Each Costa Rican school has a board which includes representatives from parents and the local community, but their main role is to administer the national funds for infrastructure and organise festivities.

School boards exist in most OECD countries as a way to ensure effective governance, democratic participation and build relationships between schools and the community. While arrangements vary across countries, school boards usually embrace leadership, management and strategy functions. Costa Rica has taken a welcome step in requiring principals to include school boards in the elaboration of school plans. Yet further measures are needed to effectively empower them to contribute to school governance by providing their members with clear guidelines on their roles, training opportunities and information about the performance of schools. Evidence shows that these bodies can contribute greatly to the success of their schools when their members are well prepared, have a clear mandate and support, and are seen as an integral part of school governance (OECD, 2008).

Turning school supervision into a systematic evaluation of school quality

Despite a long-established tradition of school supervision, Costa Rica has no procedures for the systematic external evaluation of school quality. The role of supervisors is largely associated with ensuring schools' compliance with regulations and controlling the administrative operation of schools. This oversight by supervisors has enabled the country to build strong respect for procedures and reduce the risk of malpractice, but has also limited the autonomy of principals to develop their own initiatives and drawn their attention away from education to focus on administrative matters. In 2010 the MEP clearly refocused the functions of supervisors on oversight and advice with a view to creating more space for school leadership. However, school supervision needs to evolve further to provide a more systematic evaluation of education quality in schools that can support both greater accountability and improvement in school outcomes. This also requires changes to the training of supervisors.

Improving the training of supervisors

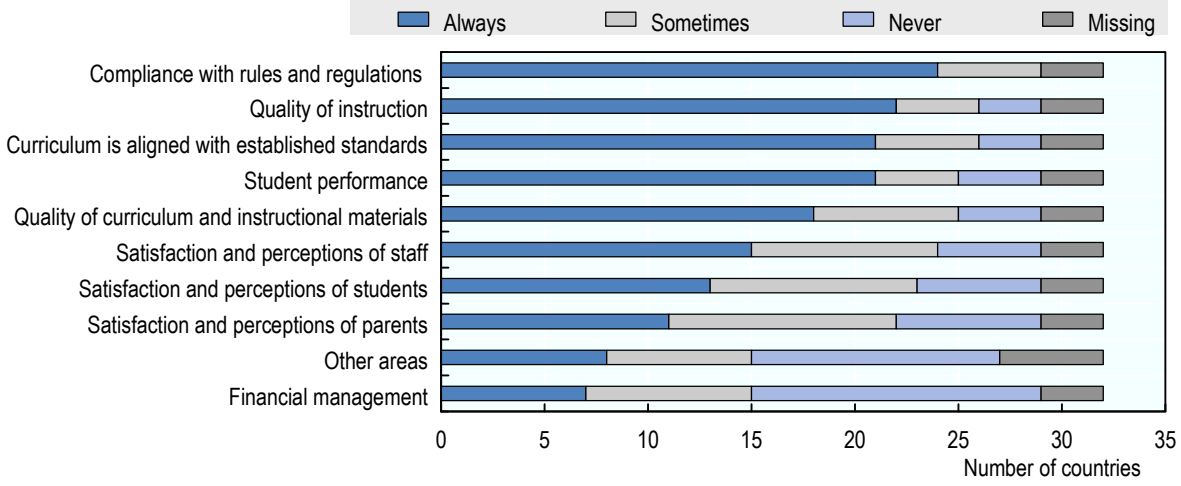
If supervisors are to perform their expected tasks and play an even greater role in school improvement as suggested below, Costa Rica will need to improve how they are prepared for the job. Supervisors are not currently required to undertake any further training before being appointed to the position. This is of particular concern with respect to providing effective support to secondary schools, as most supervisors are former principals of primary schools. They might not therefore be familiar with the distinctive features of secondary schools (e.g. bigger size, subject-specific teachers, more challenging school climate), which limits their ability to evaluate and advise them. Moreover, at present in-service training opportunities remain mostly focused on administrative and legal matters, while strengthening supervisors' knowledge and skills to evaluate school quality will be essential to support school improvement. This includes being able to master educational and school evaluation methodologies, understanding

teaching and learning processes, interpreting indicators and student learning assessment results, and effectively communicating and providing feedback to schools.

Establishing standards and criteria for evaluating school quality

Currently, supervisors do not follow a structured methodology to assess school performance. The minimum requirements for school inspection are solely related to administrative and financial matters (e.g. operational documents, procurement records, personal files of scholarship beneficiaries), giving supervisors considerable lee-way in what they choose to examine when visiting schools. In contrast, most OECD countries set conditions for highly structured external school evaluations, specifying a consistent set of evaluation activities to be completed at each school, and drawing on a specific set of data collection tools. School evaluation most commonly covers compliance with rules and regulations, and quality of instruction, and least frequently, financial management (see Figure 3.6). The evaluation is usually based on a range of evidence including student performance, teacher portfolios, and parents and students' views. Costa Rica could also benefit from such a structured approach. It would give reassurance to school principals that they would be evaluated fairly. It would ensure that school supervision looks into school quality aspects and, in this way, helps consolidate new practices in schools (e.g. teacher appraisal, self-evaluation, improvement planning). It would also provide valuable information for system-level policies (e.g. target support to schools, review the school network).

Figure 3.6. Areas addressed during school inspections in OECD countries (2015)



Source: OECD (2015), *Education at a Glance 2015: OECD Indicators*, http://dx.doi.org/10.1787/eag-2015-en.

Focusing supervision on schools most in need

Notable in a country with pronounced disparities, the work of supervisors is not based on a risk assessment to determine in which schools their contribution would be more valuable. While the new Guidelines for School Supervision require the establishment of priorities at the regional level, the Review team was informed that supervisors are in regular contact with all school principals and their calendar of school visits is not based on a set cycle or clear criteria. Several OECD countries have developed a risk-based approach to school evaluation by setting criteria for schools which should receive a more intensive oversight whilst defining a maximum period for evaluations for others (OECD, 2013). New Zealand, for example, has

a differentiated approach to review schools with strong performance and self-review capacity every 4-5 years, schools performing well every 3 years and schools experiencing difficulty an ongoing review over a 1-2 year period. Such an approach would increase the efficiency of school supervision in Costa Rica, whilst providing more support to schools that are struggling. The introduction of a national assessment that provides individual school-level data on student learning outcomes could give a key indication of which schools are most in need of improvement (see Policy Issue 3.3).

Creating supervisory teams

School supervision is usually carried out by a single supervisor, even if the new Guidelines have opened up the possibility of collegial visits with other supervisors, pedagogical advisors, or school leaders. Individual supervision can help create an effective close and sustained relationship with schools, but might also reinforce the old view of the supervisor as manager of the school. The external evaluation of schools is a team effort in most OECD countries. By promoting collegial visits, Costa Rica could provide further reassurance to those being evaluated about the competence and objectivity of evaluators, and bring different expertise and perspectives to bear during the evaluation process. Moreover, the experience of school leaders as evaluators of other schools could also strengthen their capacity to monitor, evaluate and improve their own schools.

Developing a strategy to raise the quality of small rural schools

Small primary schools face particular challenges to improve student outcomes. About 35% of schools in Costa Rica only have a single teacher (*unidocentes*) and an additional 30% have less than five staff (*Dirección 1*), with an average of 2 and 7 students per grade (PEN, 2015). The preponderance of small schools was driven by the belief that opening a school in every village would enhance access to education, and it proved an effective strategy to universalise enrolment in primary education. However, there are indications that students have poor quality educational opportunities in small schools. Teacher-principals in single-teacher schools struggle to both teach in highly demanding multigrade settings and keep up with school administration, responding to the demands of the MEP and the community. In order to improve teaching and leadership in these schools, and most importantly to guarantee quality educational opportunities to their students, Costa Rica will need to rethink how it organises and delivers education services in remote communities, including, in some cases, closing the least viable schools when other nearby schools can provide better quality.

Small rural schools raise quality concerns

Assuring high quality teaching in small schools has proven challenging. Teachers with the highest scores in the National Civil Service contest tend to opt for urban schools, and small rural schools in remote areas are usually hard to staff. Small schools are likely to offer a narrow curriculum; for example, only 31% of schools offer English lessons (Chaves and García, 2013). Teachers are also likely to be poorly prepared for the challenges of multigrade teaching and rural disadvantage. Only one university offers a dedicated initial teacher education degree for single-teacher schools, and other universities do not provide any specific preparation. Teachers in rural schools also tend to work in isolation, and have limited instructional and learning materials at their disposal. Only 18% of teachers in single-teacher schools participate in regional planning committees to prepare joint lessons. When teachers are sick or absent, students are left with no school.

Additional to their demanding full-time teaching job, teachers in small rural schools are also responsible for administration. They are expected to be up-to-date with the school legislation, respond to administrative requests, manage the school infrastructure, and keep the school books in order. However, they receive little preparation and support for these roles. Only 5% of them have an educational management degree (Chaves and García, 2013). The task of managing the infrastructure is particularly hard as the capacity of the school board as well as the ability to fundraise from the local community is often lower in rural areas, while many school buildings are in very poor condition as most of them were built between the 1950s and 1970s.

The little evidence available about the learning outcomes in small schools also raises concerns. The hundred primary schools with the lowest performance in the country, as measured by grade repetition and dropout levels, have less than 50 students and are mostly located in rural areas outside of the capital area (PEN, 2013). There are also indications that students from small primary schools are less likely to make the transition to secondary school. About 70% of staff of primary and secondary rural schools agreed in a recent survey that the transition for students is very challenging (UNICEF, 2014). This suggests that while small schools might have been an effective way to ensure access to primary education, they might also be an obstacle in the transition to secondary school.

Policy options to improve quality in rural areas

Several factors now favour a reconsideration of how education services are delivered in rural and remote areas. The necessary expansion of preschool and secondary education services in rural areas calls for a joint review of the school network to foster better quality and equity. With most school buildings in need of an upgrade and demographic trends making rural schools even smaller, it will also be increasingly hard to justify investments in these schools when alternative approaches could deliver better quality to students, while also supporting the expansion of educational opportunities at other levels. Approaches taken by OECD countries to improve education in rural areas could provide insights for Costa Rica as it seeks to develop a strategy that addresses its own context and needs:

- *Consolidating small schools*. Many small schools are located within a distance of less than one kilometre of each other (PEN, 2013). Although geography and the transportation network need to be taken into account, this suggests considerable scope to foster mergers of nearby schools to the benefit of quality, without putting students' access at risk. This should be the preferred option where feasible, unless the school could be restructured to expand access to preschool and secondary education. In Canada and Portugal (see Box 3.4), transporting students to bigger schools is preferred to ensure quality, and small schools are limited to remote areas with low enrolment.
- *Conversion of several nearby small schools into satellites of one educational institution with a single leadership team*. Some small schools might be clustered into a bigger school whose principal would be responsible for running the school and ensuring that students have access to better physical spaces, library, or IT equipment. This is the prevailing approach in Queensland, Australia, where students from small schools are transported to the larger schools on a set timetable to benefit from a wider curriculum (e.g. dance, ICT, and visual arts) and better facilities.
- *Ensuring that remote schools have good learning materials and are connected to similar schools*. The rationalisation of the school network should enable Costa Rica to support better those small remote schools which will inevitably remain open to guarantee that all children have access to education. Currently, teaching and learning materials are often

missing or outdated (Chaves and García, 2013), despite evidence of the critical importance of quality resources in multigrade settings (Mariano and Kirby, 2009). There is also scope to foster stronger co-operation between schools to share resources, break professional and social isolation, reduce administrative burdens, and exchange good practices.

More thorough quality monitoring of small schools also needs to be put in place. The introduction of a national assessment for all schools could provide valuable information on the quality of learning in small schools vis-à-vis larger primary schools (see Policy Issue 3.3). This would enable the MEP to understand whether these institutions provide good outcomes for students and value for money in a context of limited resources, and help convince students and parents that travelling further away might enhance their education and life prospects.

Box 3.4. A large-scale programme to improve rural education in Portugal

Portugal had a tradition of small primary schools often with a single teacher working in isolation and where students were frequently taught in mixed-age groups. In 2005, there were 7 400 primary schools with 416 500 students, including 1 570 schools which had fewer than 10 students and 1 300 which had between 10 and 20 students. Research showed that small schools had lower and more variable academic performance, higher teacher turnover and greater inefficiencies. In 2005, the government decided to close small schools with high grade repetition rates and create clusters of larger schools. The main features of this policy were:

- A clear central vision about what type of schools should replace the closing schools, which were larger school centres with a minimum of 150 students opening for the full day and offering enrichment activities.
- A recognition that parents needed to be convinced that the outcomes for them and their children would be better and incentives (e.g. free transport) needed to be provided to attend further schools.
- Municipalities were given incentives to invest in new provision.
- Careful consultation and decision-making processes as previous attempts to close schools had failed.

The overall effect of the implementation of the school closure policy was remarkable: about 2 500 schools closed between 2005 and 2008 compared with 1 000 during the previous ten years. The reorganisation of the school network brought about innovations and improved efficiency of the schools, reduced isolation of teachers, improved socialisation of disadvantaged or isolated students, and fostered a collaborative approach between the Ministry of Education (centrally and regionally), municipalities, schools and other stakeholders. However, there are also inherent challenges in managing the system of clusters, particularly when clusters include many schools and distances between schools are large.

Source: Matthews, P., E. Klaver, J. Lannert, G. Ó Conluain, and A. Ventura (2009), *Policy Measures Implemented in the First Cycle of Compulsory Education in Portugal (International evaluation)*, Ministry of Education of Portugal.

Policy Issue 3.3. Strengthening the national evaluation system

In recent years, Costa Rica has made important progress in developing a national evaluation system. Significant milestones include the creation of a digital platform for managing education data, PIAD; the introduction of a framework for monitoring the quality of education processes, Evaluation Model of the Quality of Costa Rican Education (*Modelo de Evaluación de la Calidad de la Educación Costarricense*, MECEC); the establishment of a dedicated unit for quality management and evaluation within the ministry; and the introduction of large scale national assessments of student learning at the end of primary and lower secondary education.

As a result of these initiatives, Costa Rica now has better information about how the education system is performing, and is starting to focus more attention on the quality of education processes and outcomes. However, evaluation policies and practices remain at an incipient stage, especially when compared to those of most OECD countries and other emerging economies in Latin America. The most significant gap is the paucity of national data on student learning outcomes, which makes it difficult to design effective policies to raise achievement and assess the impact of reforms, in particular the new curriculum. Also important is the need to reinforce national capacity to use information from monitoring and evaluation for policy-making purposes. This is critical to strengthen the effectiveness, efficiency and accountability of the MEP and drive the deep transformation needed in basic schooling to improve student learning.

Improving the relevance of national assessment

The introduction, since 2007, of a national assessment in basic education is an important step to improving understanding of the level of achievement of students in Costa Rica, and the factors associated with their performance. In Costa Rica, as in most OECD countries, the national assessment carried out in grades 6 and 9 is primarily intended to inform policy- makers whether students are meeting national learning objectives, and the assessment carries no stakes for schools, teachers or students. A national assessment is an important instrument for monitoring and accountability, but its real value lies in the extent to which it provides the necessary information to improve learning policies and practices. Several features in the design and implementation of the national assessment in Costa Rica prevent it from playing this important improvement function effectively. Notably, the assessment is not well-designed to serve system needs and goals, and support actors at the frontline of improvement – namely schools and teachers. Insights from other countries with more developed systems could help Costa Rica to strengthen its national assessment to support better learning outcomes.

Enhancing the quality of information on system performance

Costa Rica has put on hold the implementation of its national assessment to allow adjustments to reflect the new curriculum. A close alignment of the national assessment with the curriculum is critical if Costa Rica is to understand whether the latter is serving its intended purpose. There is recognition within the MEP that the reformed assessment should move from assessing content knowledge to examining students' skills in applying and using knowledge in ways that demonstrate higher-order competencies. This will be a significant improvement on the previous assessment, which captured only a limited range of learning activity. But the new assessment should include other modifications as well. Costa Rica faces challenges of low student achievement and high levels of inequity and it is important that when the national assessment is re-introduced in 2018, its design provide much more fine grained information on these issues. This includes:

- *Redefining performance categories.* Currently, the national assessment provides limited evidence on the distribution of student performance, in particular at the lower end of the achievement scale. In the last assessment of mathematics, for example, two thirds of students fell into the bottom of the three existing categories. Redefining the performance categories – by adding levels and better calibrating them to reflect the spread of achievement – will be essential to providing more useful insights on students' knowledge and skills and their progress against specific student learning objectives.

- *Assessing outcomes in the early years.* Given the evidence that many students in Costa Rica start school with weak foundation skills, especially basic reading skills, the country might also consider bringing forward the primary assessment to an earlier grade, or adding an additional assessment in the early years of primary school. Gaining a better understanding of where and how students are starting to fall behind would enable the development of more effective supports to teachers and schools. Recognising the importance of consolidating basic skills in the early grades for later learning, many OECD countries have introduced a national assessment in the second (e.g. France, Italy), third (e.g. Germany, Sweden), or fourth grade (e.g. Chile, Korea) of primary school (OECD, 2013).

- *Increasing the sample size to collect more disaggregated data.* One essential improvement at any grade in Costa Rica is better information on the equity of outcomes. This will require assessing a larger sample of students, which is representative of the country's different social, ethnic and geographic groups. The current sample is not sufficiently large to provide data on important factors that are associated with inequalities in Costa Rica, such as being from a poor family, living outside the capital area, or having a migrant background. It provides no evidence on whether indigenous students or the large minority of Nicaraguan students are reaching the national learning standards, or whether student achievement differences between Escazú and Tamarindo are widening or closing.

  Understanding and overcoming disadvantage in Costa Rica will also require the collection of better contextual data on the factors related to poor performance; for instance, the current background questionnaire does not provide information on the performance of single-teacher schools and students with an immigrant background. Improving both the contextual data collected and enlarging and further stratifying the sample to provide disaggregated results would enable Costa Rica to tackle more effectively the country's widening socio-economic divides.

- *Establishing a regular assessment calendar*. Finally, it will be important to establish an assessment calendar that clarifies the sequencing and focus of assessments. Previous assessments did not follow a regular calendar and there was a relatively long gap of between three or four years between each test. Establishing a regular, more frequent timetable for national assessments would enable more effective monitoring of the new curriculum and educational progress over time. There is also scope to rethink the subjects assessed. In the past, both primary and lower secondary assessments examined Spanish, mathematics and natural and social sciences, and the grade 9 assessment English and French as well. With a fixed timetable of regular assessments, Costa Rica might consider alternating the subjects assessed at lower secondary level to enable the evaluation of more of the curriculum, including the more innovative dimensions of education for global citizenship and sustainable development, for example.

Moving towards a national assessment of individual schools

Costa Rica's previous national assessments have not provided information to individual schools. At no point has the assessment sampled the entire census of schools in a way that would enable school leaders, teachers, students, parents and the local community to understand whether their institution is achieving national learning objectives, or whether it is more or less successful than other similar schools. Providing individual school results, with

adequate measures to avoid unfair comparisons or further segregation in the school system, can be an effective way to focus attention on student learning outcomes and ensure all schools set equally high aspirations for their students (OECD, 2013).

As well as providing an external signpost on how well schools are performing against national expectations, applying the national assessment to all schools – and eventually to all students – could also be a valuable formative pedagogical tool for teachers. The national assessment could help teachers understand how the new national competence-based curriculum can be tested in practice and ensure classroom-based assessments are setting the same standards across the country. Teachers in Costa Rica receive very limited initial preparation or training on assessment techniques; combined with other resources, such as examples of student work, applying the national assessment at school or student level could help develop a better understanding of what learning outcomes they should be working towards (see Chapter 4).

When providing school-level results it is important to contextualise performance outcomes to enable fair comparisons and foster a constructive culture for improvement. Such contextualisation is critical in Costa Rica given the large inequities in factors that are beyond the influence of principals and teachers, such as school resources or students' support at home, but have an important impact on student achievement. OECD countries have developed a variety of ways to enable fair and meaningful comparisons, from presenting performance results for schools against those of institutions from similar socio-economic background (or "statistical neighbours") to developing composite indicators of performance, such as the recently introduced Synthetic Education Quality Index (*Índice Sintético de la Calidad Educativa,* ISCE) in Colombia.

A national assessment to the school census would also be important for the MEP to better monitor and support individual schools. At present, schools that are performing very badly, even taking into account contextual factors, largely go unnoticed. The MEP has limited comparative information on school performance to direct resources and support to where it is most needed. Indicators of performance are mainly limited to grade repetition and student dropout, and school supervisors do not systematically evaluate school quality (see Policy Issue 3.2). A school census-based assessment would provide a stronger basis to identify where additional teachers should be allocated, focus incentives to attract high quality teachers, and target training to staff who face particularly challenging classrooms. These are critical measures to raise student learning and tackle dropout (see Chapter 4). It could also shed light on the quality of small primary schools, and ensure that learning considerations are at the forefront in the rationalisation of the school network (see Policy Issue 3.2). A school census assessment could also provide a more reliable indicator of student learning for supervisors to prioritise their interventions, and assess the progress of school.

To balance the need for both systems and school or student level information, the national assessment framework in Costa Rica could establish a census and a sample-based approach in alternative years and/or grades. An example is Mexico's new National Plan to Evaluate Learning (*Plan Nacional de Evaluación de los Aprendizajes*, PLANEA), which alternates full cohort with school and national sample assessments in different years and grades to provide useful, timely and reliable data for national and school needs (see Table 3.3).

Table 3.3. An example of a national evaluation framework: Mexico's Planea

	2015	2016	2017	2018	2019	
3rd year of preschool			SEN			Revision
4th year of primary	DC	DC	DC	DC	DC	
6th year of primary	SEN, CE	CE	CE	CE	SEN, CE	
3rd year of lower secondary	SEN, CE	CE	CE	CE	SEN, CE	
Last grade upper secondary	CE	CE	SEN, CE	CE	CE	

Note: SEN refers to assessment of the national education system, CE to assessment of schools and DC to census-based formative assessment.

Source: INEE (2015), ¿Qué es PLANEA? (What is PLANEA?), Instituto Nacional para la Evaluación de la Educación, Mexico City, www.inee.edu.mx/images/stories/2015/planea/fasciulosnov/Planea_1.pdf (accessed 12 October 2016).

Building capacity for evaluation inside and outside the Ministry

The capacity of the MEP to make use of evidence to inform policy is limited. There is considerable scope to improve important functions of system evaluation in Costa Rica as the foundation for stronger strategic planning and better policies as well as enhanced accountability for results. These include the capacity to set goals for improvement, monitor the performance of the system, target resources and support effectively, evaluate policies and build capacity across the system. These functions are at the heart of an effective, modern administration, and are key to steer the school system towards better outcomes. With a high level of centralisation in its school system, the MEP plays a dominant role in Costa Rican education and its capacity needs to be commensurate with this responsibility.

Strengthening the capacity of the MEP

Building the capacity of the MEP to make use of evidence in policy-making will be critical to the further improvement of schooling in Costa Rica. Designing policies that help raise student learning will require an in-depth review of how education services are provided, thus questioning many well-established policies and practices. Some examples include whether to close low performing small schools and move students to nearby higher quality schools, allocate support teachers or invest in the professionalisation of existing ones, extend the school day, use a single or different teacher for each subject, or reduce student scholarships in the early grades to favour investment in remedial support. Developing strong evidence will be important to ensure that the decisions are not driven by the status quo or a particular interest group, but favour children and the country's educational goals. The capacity of the ministry needs to evolve with the new needs of the education system, making greater use of data to both improve policies at the system level while also providing space for adaptation at the school level with stronger accountability mechanisms.

An important barrier to making better use of data in Costa Rica is the lack of a strong national information system. While the ministry collects a wealth of data, this is not aggregated to inform system evaluation and policy-making. The establishment of the MECEC, an indicator framework to frame analysis of the quality of the system, is a positive step. However, the ministry will also need to connect the multiple databases that currently exist into an integrated information system that provides a clear picture of schools, teachers and students. At present, each unit and programme has its own separate data collection and

data base and simply checking which programmes individual schools are involved in is impossible. The MEP will also need to draw on a stronger national assessment, qualitative reports from supervisors, and other sources to better understand and address the country's learning needs.

Another important obstacle is the low overall research, analytical and statistical capacity of the staff in the ministry, despite recent efforts to strengthen these. The creation of a dedicated Department for Management and Evaluation of Quality (*Dirección de Gestión y Evaluación de Calidad*, DGEC) within the ministry provides a clear political signal of the significance of evaluation. However, this unit only accounts for 5% of the staff in the central offices and few of them have a statistical background. Strengthening the technical capacity of staff is vital to effectively perform system-level evaluation functions.

Creating an independent evaluation agency

Given the scale of the challenge in building an evaluation culture in Costa Rica, the creation of a dedicated independent agency could provide strong political and technical impetus to the task ahead. Dedicated evaluation agencies are increasingly common in OECD countries, which recognise the need for specialised expertise, capacity to deliver evaluation policies and independence in relation to education authorities (OECD, 2013). Costa Rica approved the creation of such body in 1997 but fears that it would undermine the MEP led to its abandonment several months later (Chavarría, 2010).

Such an agency could be central to the development of a more strategic, evidence-based and results-driven ministry in Costa Rica. Among its functions would be to evaluate important policy programmes, strengthen the design and application of national assessments, monitor the outcomes and needs of the system (e.g. analysing the needs for professional development, thematic reports on educational policies), identify and disseminate best practices on the basis of research, and support supervisors and schools in developing an evaluation culture. The recent establishment of similar agencies in other countries in Latin America, including Brazil, Colombia Mexico and Uruguay, has played a catalytic role in education reforms (see Box 3.5).

An independent evaluation agency could also help to strengthen public accountability. Education spending, and expectations of the education system have grown rapidly in Costa Rica, yet there is limited transparency and accountability for outcomes. At a time when public expenditure needs to be brought under closer control, showing that education is delivering the expected results is critical to justify the sustained investment that the system needs (see Chapter 1).

Box 3.5. The development of national evaluation capacity in Brazil

In the space of two decades, Brazil developed a sophisticated evaluation system that allowed for reliable tracking of student enrollment and learning levels across the country. This contrasts strongly with the situation in the 1990s when the Brazilian government lacked data on the number of enrolled students. There was no legal framework, institutions, human resources or stable funding for evaluation activities. Moreover, important stakeholders were opposed to the very idea of evaluation. For many educators, politicians, and researchers, evaluation was seen as a tool of control rather than an instrument to monitor and support education. The improved collection and use of evaluation information has allowed Brazil to improve the quality and efficiency of its education system.

Box 3.5. The development of national evaluation capacity in Brazil *(continued)*

The revamping of Brazil's evaluation system was part of a larger reform to improve education quality. Reforms first focused on building the enabling context for evaluation activities. This included defining the overarching policy framework for evaluation; creating the right institution to lead evaluation programmes; ensuring stable and sufficient funding; and developing in-country capacity for carrying out evaluation tasks. Several factors allowed for these reforms to take hold. The most important were having stable political leadership; making education, and the need to monitor education quality, a national priority; international support; and partnerships with non-governmental institutions.

Revamping the old federal evaluation institute was absolutely decisive for the development of an effective evaluation system in Brazil. In 1997, the National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*, INEP) was mandated to lead evaluation activities in the country. The institute has become a leading evaluation and research institution with international recognition. Strengthening human resources was a key factor in revamping the evaluation institute. At first, between 1997 and 2006, INEP temporarily hired most of its staff through international co-operation. In 2007, a specific career path was created for INEP civil servants to secure high-level permanent staff. The staff of INEP grew from 50 people in the early 1990s to around 300 civil servants in 2012. The staff profile also changed: besides public administrators, statisticians and experts in curriculum and evaluation joined the institute. The budget for evaluation activities also increased and was secured by law. In real terms, INEP's annual budget more than quadrupled in a decade - growing from USD 104 million in 2000 to USD 460 million in 2011.

Source : Guimarães de Castro, M.H. (2012), *Developing the Enabling Context for Student Assessment in Brazil*, SABER - Systems Approach for Better Education Results, World Bank.

Conclusion and recommendations

Costa Rica has introduced promising policies to raise student learning in the last decade such as a new curriculum which promotes more effective teaching strategies and an emphasis on putting schools and quality matters at the centre of the education system. Further pursuing these reforms is essential to ensure that all students acquire basic skills and effectively move on to upper secondary education. The greatest challenge ahead is to improve teaching practices, which is also the most promising lever of student learning. Developing a common understanding of good teaching should be the first step to formulate an ambitious policy for their professionalisation, and address concerns over their poor preparation, recruitment and support. Further steps are also needed to change the focus of school leadership and supervision from administrative matters to teaching and learning practices in schools. The national evaluation system is at early stages, and its further development is essential to more effective and equitable education policies, and in sum to guide the transformation of the entire school system.

Box 3.6. Recommendations

Consolidating a high-quality teaching profession

3.1.1. **Develop teacher professional standards.** Standards are important to provide clear expectations of professional practice and ensure coherence across teaching policies. Engaging key stakeholders (e.g. teacher unions, universities, pedagogical advisors) in their development will be critical to build a shared understanding of "good teaching" and ensure that standards are accepted and used. Costa Rica should consider creating a professional body for teachers to support this work and provide input to teacher policy development more broadly.

Box 3.6. Recommendations *(continued)*

3.1.2. **Strengthen teachers' initial training and recruitment.** Accreditation should be made mandatory for all initial teacher education programmes in public and private universities as a step towards ensuring new teachers are well-prepared and qualified. A national examination should be introduced to recruit candidates to the teaching profession on the basis of more direct measures of teaching aptitude. A formal induction and probation period would help to ensure that beginner teachers are supported and those with potential remain in the profession.

3.1.3. **Establish a framework for teacher appraisal.** This framework should guide the annual appraisal of teachers by school leaders and the process for creating individual teacher professional development plans. The framework should indicate the tasks and evidence to be considered for a well-rounded assessment, and provide guidance on how to give teachers meaningful feedback and support to learn and develop. This needs to be accompanied by stronger instructional leadership and teacher collaboration in schools to provide teachers with more opportunities for professional growth. Once the capacity and culture for evaluation are established, Costa Rica should consider introducing an external appraisal to inform teacher career progression and develop more differentiated teaching roles.

Building capacity for improvement in schools

3.2.1. **Strengthen the skills and supports for school leaders.** Costa Rica should use the results of its school leader tests to improve the relevance of initial and in-service leadership development programmes and establish peer-learning schemes. The creation of instructional leadership positions within schools, with clear responsibility for individual and school-wide teachers' professional development (e.g. classroom observation, mentoring, appraisals), is critical to improve the pedagogical knowledge and practice of in-service teachers. Further involving school boards in academic matters would also help raise school outcomes, especially if boards are successful in engaging parents and the local community.

3.2.2. **Focus school supervision on quality improvement**. Costa Rica needs to establish standards and criteria to guide school evaluation practices so that they are consistent, draw on a wide evidence base, and support schools in developing their own internal evaluation and improvement practices. Given pronounced disparities in school quality, supervision should focus on the lowest performing schools where needs are greatest. Strengthening the school supervision profession and creating supervisory teams could enhance the quality of evaluations and build greater trust in the process.

3.2.3. **Develop a strategy to raise education quality in small primary schools**. Steps should be taken to consolidate or close small schools when others nearby can provide better quality. The MEP should ensure that the remaining small remote schools receive adequate, appropriate educational materials as well as support in establishing links with other schools to share resources, break isolation, and exchange good practices.

Strengthening the national evaluation system

3.3.1. **Redesign the national standardised assessments.** National assessments should follow a regular timetable, be applied with greater frequency, and provide data where it is needed to address learning gaps (e.g. early grades of primary school) and evaluate the new curriculum (eg. introduction of innovative domains). Performance categories should be redefined to provide a more detailed picture of student performance at the lower proficiency levels. To track equity, sample-based assessments should be large enough to monitor outcomes across different population groups and regions. Costa Rica should consider applying the assessment to the school census so that individual schools can benchmark their performance against national standards and similar schools, and the MEP has better data to inform school policies and resource allocation. These changes should be reflected in a framework or policy document that details the purpose, design and responsibilities for national assessment in Costa Rica.

3.3.2. **Build capacity for evaluation.** The MEP would benefit from stronger research, analytical and statistical capacity to support strategic planning. Establishing common indicators, shared data collection and a single information system will be important to improving the accessibility and use of data for improvement and accountability purposes. Costa Rica should consider creating a dedicated independent evaluation agency to promote more evidence-based and results-driven policies and support the development of a stronger culture of evaluation at all levels of the system.

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Chapter 4

Completing upper secondary school and pathways beyond: rethinking diversified education in Costa Rica

This chapter analyses key features of Costa Rican upper secondary education and proposes measures to ensure that all young Costa Ricans acquire the skills they need at this level of education for work of future learning. Costa Rica can build on its many strengths – including a reformed curriculum and a growing and well-funded vocational system - to make upper secondary education more inclusive. A more systematic approach is needed to tackle disadvantage, and particularly to improve teaching in the schools with the highest levels of disengagement and drop-out. Further support is needed for teachers to implement the new curriculum, and reform the Bachillerato examination to give a fairer chance to students to complete secondary education. Vocational education and training should be strengthened and expanded, through the creation of specialised technical schools and the development of short post-secondary vocational programmes.

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.

Like many countries, Costa Rica needs to transform an upper secondary system (known as *Educación Diversificada*) designed to prepare a small section of the youth cohort for university into one with a more diverse role, catering also for those who enter the workplace or pursue other training options. This needs to reflect both fast-changing labour market requirements and the varying needs of students, preparing them as citizens, and opening up a range of career paths. Costa Rica aspires to be a high-income country and realising this ambition will require young Costa Ricans to have higher level skills, as well as basic literacy and numeracy. Upper secondary education is becoming the desired minimum, while those who do not reach this standard – half of all young people at present - may be left behind as the economy develops in a way which will inevitably reduce its reliance on low-skilled jobs. Growing inequality in Costa Rica reflects this worrying skills divide (OECD, 2017a, forthcoming).

In the face of these demands, Costa Rica can draw on many strengths. Participation rates and second chance options have grown fast, aided by a raft of measures to tackle dropout and grade repetition; well respected public universities provide an attractive goal for those who excel academically; the technical school system offers an appealing and high-status track, alongside, in the National Training Institute (*Instituto Nacional del Aprendizaje,* INA), a well-funded system providing both initial occupational training and upskilling; a reformed curriculum now provides a major opportunity to rethink upper secondary education. This chapter looks at how Costa Rica can build on these strengths to establish a more inclusive system. It recommends additional measures to improve participation rates, encouraging strong teachers to work in the schools with highest needs, and providing teachers with the tools to help those pupils most at risk of disengagement and drop-out. It recommends measures to modernise programmes of study and qualifications, supporting teachers in implementing the new curriculum, while reforming certification arrangements for the *Bachillerato* to realise a more inclusive system. Finally, it recommends measures to strengthen and expand vocational education and training, establishing technical schools as specialised centres of vocational and professional training, and developing shorter professional programmes, to be undertaken in the specialised centres.

The state of upper secondary education

Main features

Tracks, schools and qualifications

Upper secondary education begins in 10th grade and **students have the choice between two main tracks: academic and vocational**. Up to 9th grade the system is comprehensive, with no curricular choice. In 2015, almost 72% of all secondary school students in regular day classes were in the academic track, while 28% were in the technical track. There is also an upper secondary artistic programme which caters for a very small minority of students, as well as a small number of specialist *colegios* (eg. in languages or sports) and schools offering alternative qualifications such as the *bachillerato internacional* (international baccalaureate) (MEP, 2016). The main academic track lasts two years leading to the *Bachillerato* exam and qualification and, for those who are successful, an upper secondary diploma, the *Bachiller en Educación Media*. The technical/vocational track offers the same diploma and a technical qualification, and therefore takes three years, with longer hours of study than the academic track. The academic track offers 23 study alternatives, while the technical track proposes 7 agriculture, 24 industry and 25 service specialities. Those who already have the *Bachillerato* may seek a vocational qualification through two years of night school. The *Bachillerato* is both a signal in the labour market and an important means of access to good public universities.

Costa Rica's requirement that **students in both vocational and academic tracks take the same exit exam** is shared by some OECD countries, including Ireland and Sweden. The approach followed by Costa Rica tends to enhance the status of the vocational track by granting all those in this track a path to university education. The downside is that it may not meet the needs of students who are less suited to a more academic form of education and might be more engaged in practical occupational training. In most of the European countries that provide structured practical training within initial vocational education (the dual apprenticeship system), like Germany for example, graduates of vocational schools are not also required to sit for the final university entrance academic school leaving exam, although options are nevertheless offered for them to do so if they wish.

The majority of **secondary schools offer both the lower secondary grades** (7 to 9), **and the upper secondary grades**, though a small number of technical schools offer only the upper secondary phase. These schools are classified through their upper secondary offer, since they either offer the academic or technical track, but not both. This is an unusual arrangement – most countries with separate academic and vocational tracks at upper secondary level have different lower secondary and upper secondary schools to reflect the age of curricula choice.

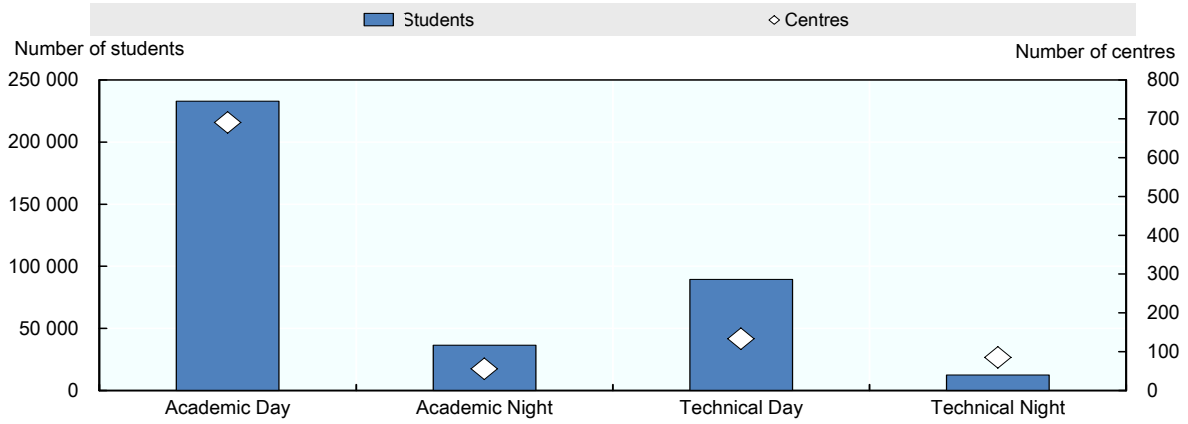
Nearly **nine out of ten secondary students are in public schools**, with the remainder in fee-paying private and subsidised schools. Private secondary schools tend to be smaller, and concentrate on daytime academic provision; 49% of children of upper secondary age from households in the top quintile of income are in private schools, where they profit from lower dropout rates and higher rates of entry into the public universities (see Chapter 5). This leaves the equity concern that well-off parents can use their resources to give their children a head start in *Bachillerato* preparation, which may then give them privileged access to the best quality university education at public expense (see Chapter 5).

Alternative learning opportunities

A growing proportion of upper secondary provision is delivered through evening classes in dedicated night schools in both the technical and the academic track. Such night schools provide both the *Bachillerato* and technical qualifications on a part-time basis to those who have left school and are already working (see Figure 4.1). Much of the growth in numbers planned for technical schools is likely to take the form of such evening classes – and in two- year full time programmes offering the opportunity to obtain a technical qualification. But night schools are now under review following a report from the Comptroller General of the Republic (*Contraloría General de la República*, CGR) documenting inadequate access to infrastructure (often shared with day-schools) and failure to follow the school calendar, among other issues. Less than half of the teachers consulted felt that the teaching environment in night schools was adequate (CGR, 2016).

Costa Rica also provides **second chance opportunities for young people or adults who have dropped out of the school system** before completion of upper secondary education. Participation in these programmes has increased markedly in recent years. The three major programmes – the Integrated Centres for Adult Education (*Centros Integrados de Educación de Adultos*, CINDEA), Secondary by Sufficiency *(Secundaria por suficiencia*) and New Educational Opportunities Programme for the Youth (*Nuevas Oportunidades Educativas para Jóvenes*, PNOEJ) – reached collectively some 90 000 young people and adults in 2014, twice as many as a decade ago. This demonstrates deliberate efforts by the Ministry of Public Education (*Ministerio de Educación Pública,* MEP) to expand second-chance opportunities for disadvantaged learners, but also the difficulties faced by the school system in seeing students through to completion.

Figure 4.1. Number of secondary students and schools by type (2015)



Source: MEP (2016), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

A quite separate training system exists in the INA, funded by a levy on employers. INA provides a wide range of non-formal technical and vocational training, mostly to young adults who have left school without the *Bachillerato.* In 2014, INA offered 246 programmes in industry, farming, trade and services. Students who graduate are qualified as "skilled workers", "technicians" or "specialised technicians". INA also plays an important part in the recognition of prior learning, certifying occupational competences that are often acquired informally. Demand for places in INA programmes exceeds supply.

While the Institute offers valuable job-related learning opportunities, **INA plays a relatively weak role in retaining or reintegrating students in formal education.** Only one third of INA students have completed secondary school, and a further 40% have started but not completed secondary school. However, a lack of correspondence between programmes and certifications provided by INA and the MEP mean that there are few options for INA students to gain a formal education qualification. The MEP does place teachers in some INA institutions to offer night and weekend classes to students who want to prepare for the *Bachillerato*, and INA has a special agreement with the Technical University and some private universities to enable students to continue their studies at university. But otherwise a vocational qualification offered by INA is a dead end from the perspective of further education. As the OECD has argued previously, differences in governance, funding, and qualification status between INA and MEP programmes will need to be addressed if INA programmes are to be harnessed as a re-integrative device or alternative pathway to upper secondary completion (Álvarez-Galván, 2015).

Resources for upper secondary education

In recent years, upper secondary education received a little over 10% of the MEP budget, with a peak of 15% in 2013 (MEP, 2016). Government expenditure per student rose from 16% of GDP per capita in 2000, to 23% in 2014, about the same as in other Latin American and OECD countries (UNESCO-UIS, 2016). The technical track provided by the MEP by law receives 5% of the surplus accumulated by INA (MEP, 2016) for equipment and teaching material; resources from this source were USD 8 million in 2015.

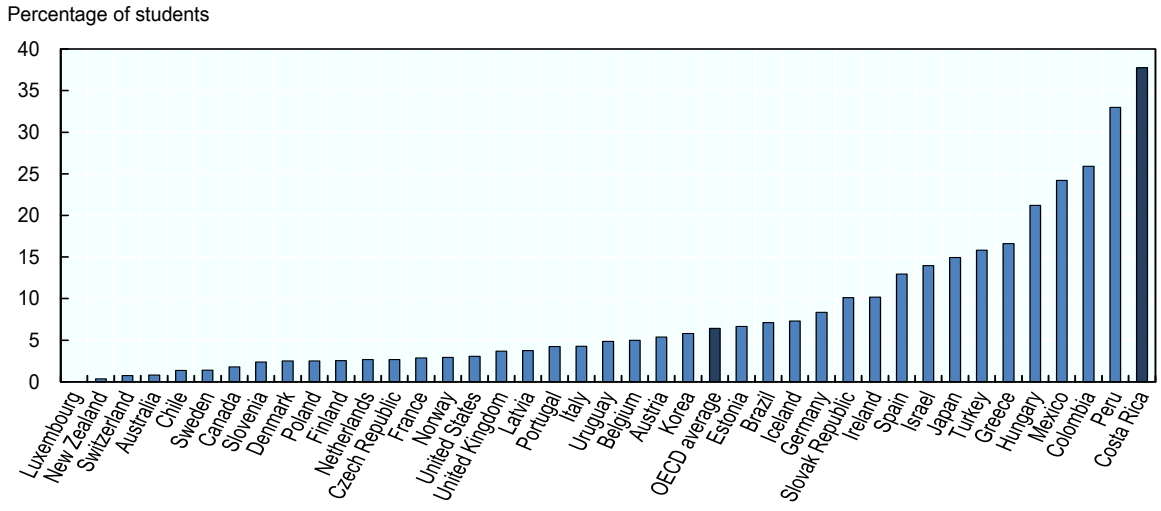
Like many other emerging economies with high rates of poverty, **Costa Rica provides financial incentives to students from poor families** to offset the opportunity costs of attendance and encourage participation in upper secondary school. In 2013, the conditional cash transfer programme Let's Move Forward (*Avancemos)* provided 22 500 colones monthly to students who continue to attend lower secondary education, and 35 000 colones

for those who attend upper secondary education. Beneficiaries can be up to 25 years old and must have experienced no more than two grade repetitions (Hernández Romero, 2016), while families are expected to participate in meetings and ensure that their children attend classes. The programme has been shown to positively reduce dropout among those most at risk (Slon and Vargas, 2012; Hernández and Mata, 2015). However, the impact of *Avancemos* on equity is lower than that of similar CCTs in the region and over 20% of the beneficiaries belong to the three richest quintiles (Trejos, 2014).

Outside technical fields, **there are no special requirements for upper secondary teachers**; they are recruited and career-managed as other secondary school teachers. Some of the special issues associated with technical teachers were explored in a previous OECD review (Álvarez-Galván, 2015) which signalled gaps in both the pedagogical training and industry knowledge and experience of MEP teachers in technical schools, while the issues of the teacher profession more generally are looked at in Chapter 3.

Many schools lack adequate resources in Costa Rica. A large proportion of Costa Rican students are in schools whose principals consider that the shortage of educational materials (38%), physical infrastructure (39%) and teaching staff (23%) hinder a lot the capacity of the school to provide instruction (OECD, 2016c). These proportions are amongst the largest across the Programme of International Student Assessment (PISA) participating countries (Figure 4.2). The weaknesses in infrastructure are currently being addressed through a major programme of infrastructure investment.

Figure 4.2. PISA index of shortage of educational materials (2015)



Note: This figure shows the percentage of students in schools whose principal reported in PISA 2015 that the school's capacity to provide instruction is hindered a lot by a lack of educational material (e.g. textbooks, IT equipment, library or laboratory material).

Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, http://dx.doi.org/10.1787/9789264267510-en.

Main trends in participation and outcomes

Despite increases, participation lags behind key comparator countries

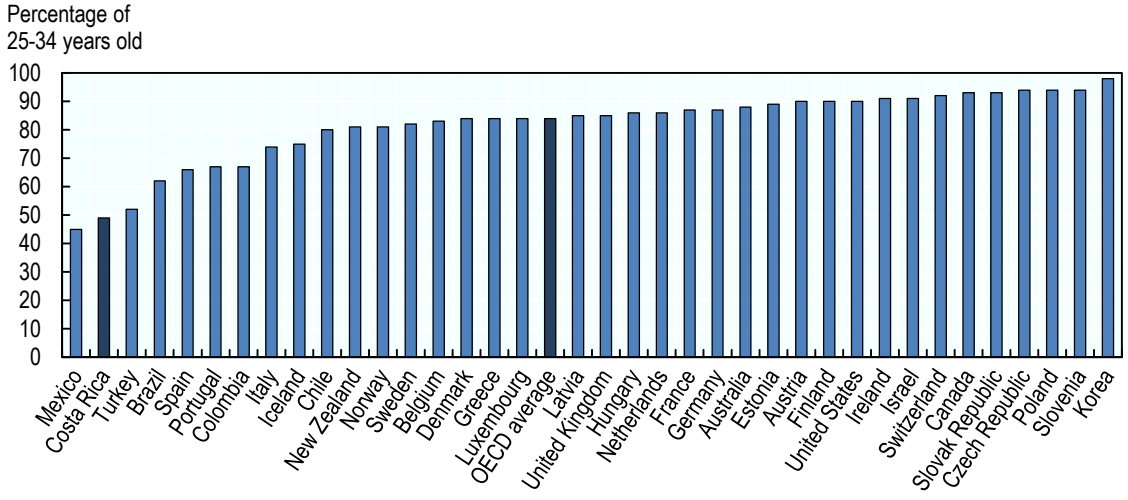
Around **half of all young people in Costa Rica now acquire upper secondary qualifications**. More young people are staying on in school, with net enrolment rates at this level of education rising from 34% in 2005 to 41% in 2014 (PEN, 2015), with much of the growth being in the technical schools. Many more young adults also return to education to gain

upper secondary qualifications through diverse second chance programmes. The number of students sitting for the *Bachillerato* exam has doubled since 1996 (Jiménez, 2014), and two thirds (68%) of candidates now pass (PEN, 2015). Progress has been faster than most of Latin America – between 2004 and 2014 the percentage of young people (25-29 year-olds) with such qualifications increased by more than 15 percentage points (OECD/ECLAC/CAF, 2015).

But **Costa Rica still lags behind key comparator countries in Latin America**. While nearly half (49%) of 25-34 year-olds in Costa Rica now have upper secondary qualifications, this is notably less than Argentina (59%) Brazil (64%), Colombia (70%) and Chile (90%) (Figure 4.3), while the OECD average is 84%. For Costa Rica, higher completion rates will be important both to support economic growth, which has recently slowed, and to ensure inclusion given rising inequality.

Inequities are high, even by regional standards. Only 16% of students from non-educated households currently complete upper secondary education, compared with 70% of those with highly educated parents (more than 17 years of education). **Costa Rica has one of the largest gaps in secondary net enrolment between the poorest and wealthiest students** among comparator countries in Latin America. While virtually all the students from the richest quintile (96%) are enrolled in secondary education on time, this is only the case of 71% of students from the poorest quintile (SEDLAC, 2016). There remain substantial rural-urban differences, with success rates in the *Bachillerato* lower in more remote areas (see Chapter 1). Some of the rural access challenges are being addressed through the Student Transportation Programme, under which the number of disadvantaged students receiving help with longer distance transport to school has more than doubled since 2000 (MEP, 2010; Oviedo, 2010). But there is a long way to go to provide equal access across the country.

Figure 4.3. Percentage of 25-34 year-olds with at least upper secondary qualifications (2015)

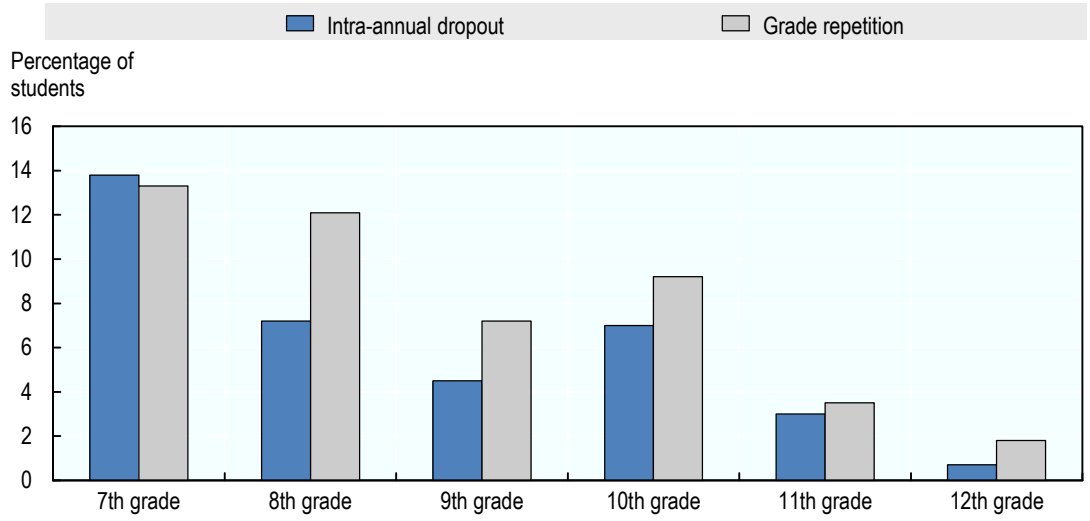


Source: OECD (2016b), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-en.

Dropout and grade repetition are falling but still high

Dropout occurs gradually throughout the school career, leading to a net enrolment rate in upper secondary education of just over 40%, while of those who take the *Bachillerato*, only around two thirds pass. Many young adults then return to education to retake the *Bachillerato*. The **intra-annual drop-out rate is highest in the transition years** when students must get used to a new type of institution and/or curriculum, on entry into secondary school (7th grade), and on entry into diversified education (10th grade) (see Figure 4.4).

Figure 4.4. Intra-annual drop-out and grade repetition in secondary education (2013 and 2014)



Note: Data for drop-out rates refers to 2013 and for grade repetition to 2014.

Source: PEN (2015) *Quinto Informe Estado de la Educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación (PEN), San José, and PEN (2016), *Compendio Estadístico 2016: Compendio Indicadores Educativos (Statistical Compendium 2016: Compendium Educational Indicators)*, CONARE, Programa Estado de la Nación.

Drop out is closely associated with other social and economic disparities. Annual dropout rates are higher among boys (9%) than girls (7%) and more prevalent in rural (10%) than in urban areas (7%). Economic circumstances and family problems may encourage teenagers from poor and unstable households to leave school (Jiménez and Gaete Astica, 2010; 2013). As in many Latin American countries school violence also has an effect, which the MEP is seeking to address through With You! (*Con Vos!*), an initiative designed to encourage teachers, students and families to work together to prevent school violence (MEP, 2017). Students attending night classes have, at 25%, annual drop-out rates four times higher than those in day-time classes, perhaps because these classes involve second attempts at qualifications, or because of the competing demands of evening study alongside work and family responsibilities. Drop-out rates for those in night classes have also been increasing, while those in day classes have been falling. Unsurprisingly, dropout is much lower in private schools (PEN, 2015).

Repeating a grade is a common precursor of dropout; for those who have repeated a grade, the chance of dropping out is more than 10 times higher than for others (Lentini, 2014). While this does not mean that grade repetition causes dropout, it suggests that grade repetition is ineffective as a means of tackling weak performance. Repetition occurs more frequently in the transition years, which closely parallels the pattern of dropout rates. In an attempt to reduce grade repetition in secondary education, from 2009, students must only repeat failed subjects without having to repeat the entire grade, and a further relaxation in requirements took place in 2013 (see Box 4.1). But progress has been slow: more than 13% repeat the 7th grade (down from 15% in 2005) and more than 9% repeat the 10th grade (down from 12% in 2005) (PEN, 2015). Across upper secondary education, the proportion of grade repetition decreased from 17% in 2006 to 15% in 2014 (MEP, 2016).

Box 4.1. Measures to improve student progression in compulsory schooling

The MEP has changed the rules determining grade repetition in an effort to reduce its prevalence. Changes include:

- Abolition of grade repetition in the first year of primary school to smooth the transition from preschool. Previously about 15% of children were held back in the first year of primary school because of a lack of basic skills.
- New way of assessing the final grade, based on the entire year rather than the final term.
- Introduction of catch-up exams for students who have repeated up to four subjects.
- Repetition of the subjects failed rather than the entire grade. Students who have only failed one subject are promoted to the next grade without having to repeat that subject.
- Withdrawal of the national examinations at the end of primary (grade 6) and lower secondary (grade 9) which were a barrier for progression.

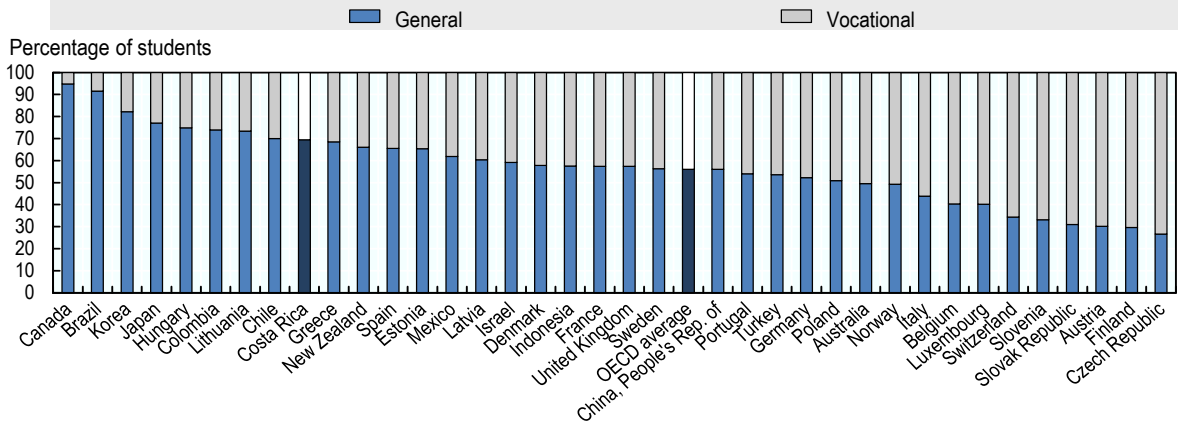
Source: MEP (2014), *Memoria institucional 2006-2014 (Institutional Memory 2006-2014)*, Ministerio de Educación Pública.

Labour market outcomes and skills needs

Nearly three quarters (72%) of prime age (25-64) upper secondary graduates are in work, comparable to Mexico (71%), Chile (72%) and the OECD average (74%). However, for those who do not complete secondary education, prospects are limited. The unemployment rate for individuals who started but did not complete upper secondary education (9.2%) is higher than for those who graduated (7.7%) (OECD, 2016a). **Costa Rica faces real problems of transitioning young people with poor skills and education into the labour market**. About 20% of youth are neither in employment nor in education or training (NEET), higher than the OECD average, and much of this is concentrated in disadvantaged families (OECD, 2017a, forthcoming).

This **labour-market duality is particularly marked for women.** In 2015, slightly over half (54%) of working-age women were active in the labour market – nearly 30 percentage points lower than for men and 11 percentage points below the OECD average (OECD, 2017a, forthcoming). Some 70% of tertiary-educated women are in work compared with just over 80% of their male counterparts. But among those with primary education only, while nearly 70% of men work, less than half of women do so (Instituto Nacional de las Mujeres, 2012). The implication is that better education could significantly increase the labour force participation of women, and bring it closer to the level for men. Better levels of education will also be important in efforts to reduce the level of informality. Estimates suggest that up to one in three Costa Rican workers are employed informally (OECD, 2017a, forthcoming), with higher proportions among women, the young and the less-educated.

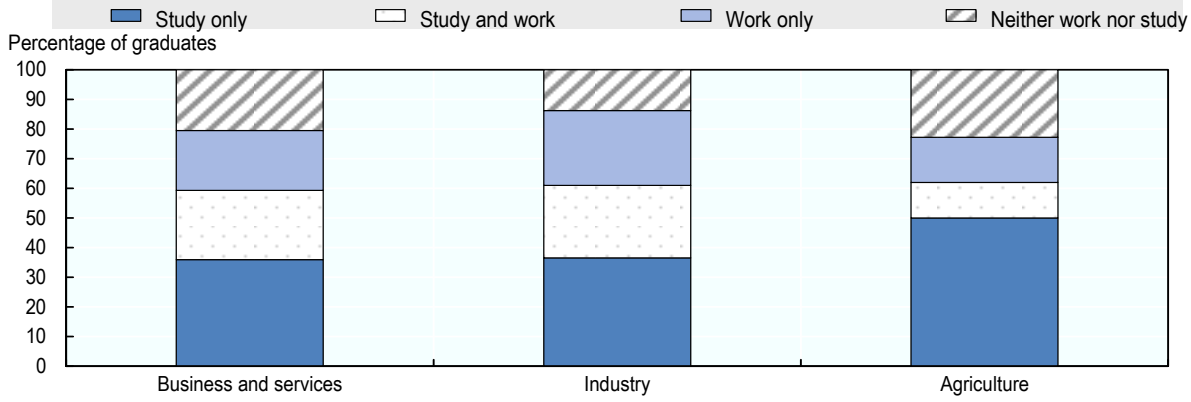
Figure 4.5. Enrolment in secondary education by field (2013)



Source: OECD (2016b), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-en.

Costa Rica trains relatively few people in occupational skills at upper secondary level and above. Just over 20% of entrants to secondary education are in technical programmes, a level similar to many other Latin American countries (Figure 4.5), but much less than the OECD average, where half or more of the youth cohort commonly graduate with upper secondary vocational qualifications. There has been some growth, and more is projected: between 2006 and 2014 the number of academic secondary schools increased by 11%, while the number of technical schools increased by 52% between 2000 and 2016 (from 90 to 135) (MEP, 2016). There is also a very ambitious plan to nearly quadruple the number of students graduating from technical schools from around 34 000 in 2014 to more than 120 000 in 2018. While in Costa Rica many people also receive training in the INA programmes that parallel the formal education system, relatively few INA students also have upper secondary qualifications. Some 60% of those who graduate from the technical schools continue in education (Figure 4.6), and indeed equipped as they are with a *Bachillerato*, they have access to the university system. The technical school system plays a very small role in directly preparing young people for the labour market.

Figure 4.6. Placement of graduates from technical school (2015)



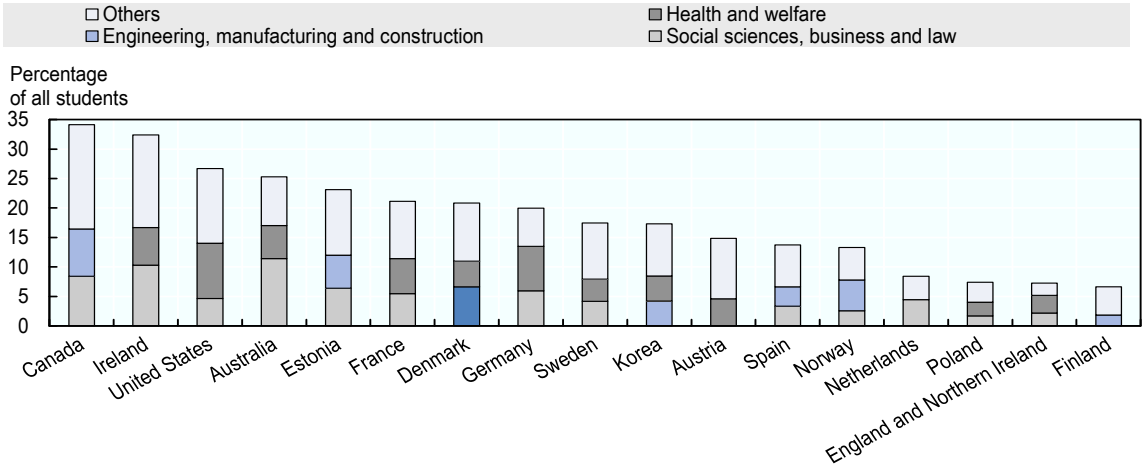
Source: MEP (2016), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

There is evidence that Costa Rica faces **shortages of higher level technical and professional skills**. Employers say that the three areas experiencing the greatest recruitment difficulties are technicians, managers and skilled trades (Manpower, 2015), while gaps in technical and scientific skills have been identified as a barrier to FDI (foreign direct investment) (Monge-González et al., 2015). As a whole, the tertiary education system produces relatively few STEM graduates (see Chapter 5). At the lower tertiary level (ISCED 4 and 5), there are 2 public and 20 private community colleges (*parauniversitarias*) in the country (see Chapter 5) (SINAES, 2011). These offer 2-3 year VET programmes (60-90 credits) which lead to a certificate (Short-cycle post-secondary studies, *Diplomado*), and some shorter courses with no formal certification. Enrolment in *parauniversitarias* is around 8 000 students, although accurate and up-to-date information on these institutions is scarce (PEN, 2015). Shortages of higher level skills combined with a large population of unqualified people results in one of the largest skills premiums in Latin America, with high-skilled workers earning on average more than three times as much as low-skilled workers (OECD, 2016a).

In contrast, many other OECD and Latin American countries qualify substantial proportions of the youth cohort with short cycle post-secondary training, meaning

professional programmes of between 6 months and two years aimed at specific careers, and classified by ISCED at levels 4 and 5. This ranges from over 30% of 18-65 year-old students in Canada and Ireland to less than 10% in England and Northern Ireland (United Kingdom) and Finland (OECD, 2014; see Figure 4.7). In Latin America, Chile, Colombia and Peru among others have substantial short cycle professional programmes; in Colombia, between 2002 and 2010 tertiary enrolments in technological and professional technical institutions trebled, while bachelor's degree enrolments grew by just 40%, so that by 2010, enrolments in the technological and professional programmes represented one-third of all undergraduate enrolments (OECD, 2016a). In Costa Rica, **only 4.2% of 18-25 year-olds were enrolled in community colleges in 2014** (see Chapter 5).

Figure 4.7. Students in short professional programmes at post-secondary level by field of study (2012)



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

Main policies

Upper secondary education became mandatory in 2011 through a constitutional amendment, a reform which commits the government to the rapid expansion of the upper secondary offer. In support of this objective, the MEP has launched several initiatives to tackle drop-out and school failure, while pressing ahead with the roll-out of an ambitious new curriculum intended to engage students more actively in their own learning. However, with net enrolment currently at just over 40%, a deeper reform of the upper secondary education system will be required to attract and retain a more heterogeneous student population, many of whom will expect and need school to prepare them for the labour market and are not well served by the current design of institutions, programmes and qualifications.

A new approach to reduce drop out through Yo me Apunto

The launch of I'm in (*Yo me Apunto*) in 2015 marks a promising departure from past initiatives to tackle drop-out and school failure, both in terms of its comprehensive approach, and through its deliberate targeting of those schools most in need of improvement. The overarching aim is to reduce the dropout rate in target schools from 9.9% in 2013 to 9.7% in 2018 and reduce the exclusion index by 1% each year. Although these goals seem rather unambitious, the programme itself has many positive features. *Yo me Apunto* aims to work on exclusion as a process, and prevent it early. It concentrates on 185 secondary schools with

high exclusion indices and their 800 feeder primary schools in the 75 most vulnerable and poor areas identified by the National Development Plan (PEN, 2015). Within these communities, the programme works to increase the value placed on education and tackle the overlapping causes of school failure, including violence, absenteeism, drug abuse and crime, by creating 40 networks that unite school directors with representatives from schools, students, the community, the Education Board, and the municipality in a collective approach. Strategic alliances have been formed with PANI, Equity Programmes (*Programas de Equidad)*, National Scholarships Fund (*Fondo Nacional de Becas,* FONABE), and *Avancemos* to ensure social welfare programmes are co-ordinated to reach target schools. There are also special strategies for evening and technical schools, and to support the often difficult transition from 6th to 7th grade. Each school assesses its own needs for material and human resources and the MEP seeks to respond. The programme is still in its infancy, but if sustained and adequately resourced, it has the potential to create the conditions for school success in Costa Rica's most disadvantaged communities.

Curricular reform

As discussed in Chapter 3, an extensive programme of curricular reform is under way, with different strands of the reform emphasizing foreign languages, citizenship skills, and learning by doing and critical thinking instead of rote learning. The new mathematics curriculum is the most advanced in implementation, aiming to integrate mathematics teaching into the context of everyday life. These very ambitious reforms are now having a major impact on upper secondary education. Curricular reform has great promise as a means of engaging students as more active learners and ensuring they gain skills that are more relevant to society and the labour market. At the same time, such reforms make great demands on teachers and teaching, underlining the importance of supporting teachers so that they can effectively deliver the new curriculum. This is a particular challenge in a context where around half of all teachers are on temporary contracts, making longer term professional development objectives much harder to realise.

Reform in vocational education and training

Given that much of the planned expansion in upper secondary education is envisaged for the technical route, Costa Rica is rightly giving much attention to this area. An OECD review in 2014 made recommendations which are now being pursued, through the establishment of partnerships with employers and the development of work-based learning (Álvarez-Galván, 2015). Costa Rica is implementing in 2017 a dual education pilot to provide students with more hands on experience of the workplace (see Box 4.7). Additionally, a proposal is being discussed in the Legislative Assembly to formally introduce a dual apprenticeship system and regulate the contractual situation of students in the workplace.

A second key OECD recommendation concerned the need to improve co-ordination between INA and MEP. Ongoing work on qualifications frameworks should, it is to be hoped, make it easier for students to receive credit for their INA qualifications within the formal education system. But continued efforts will be necessary to ensure that INA and MEP vocational programmes mutually articulate and do not compete for similar territory. This will require co-ordination efforts that go beyond the simple establishment of the qualifications framework (Álvarez-Galván, 2015), to use that framework to gain recognition for INA qualifications, to share facilities and equipment and to establish some common standards for vocational teachers allowing permeability between MEP and INA teaching careers, among other arrangements for co-operation.

Table 4.1. Compensatory and targeted programmes for disadvantaged students

	Name of the programme	Main features	Number of beneficiaries	Cost
Targeted to students	Move Forward (*Avancemos*)	Conditional cash transfer programme to disadvantaged 12-25 year-olds to encourage retention or return to schooling.	80 000 students in secondary education (2014) (80% of the beneficiaries belong to the two poorest quintiles).	22 500 colones/month (USD 42. 8% of the lowest minimum wage) to lower secondary students and 35 000 colones/month (USD 65, 12% of the lowest minimum wage) to upper secondary students.
	Student Transportation Programme	Subsidies or cash transfers to disadvantaged students who have to travel more than 3km to school.	113 500 beneficiaries (primary and secondary) (2016)	
	Costa Rica's School Child and Adolescent Food and Nutrition Programme (*Programa de Alimentación y Nutrición Escolar y del Adolescente,* PANEA)	School meals and education on nutrition for disadvantaged, malnourished and obese students.	687 588 (primary and secondary) (2016)	USD 87 058 493 (2012). The programme is allocated 5.18% of FODESAF's budget.
Targeted to schools	Teacher allowance	An allowance to attract teachers to work in schools located in rural and disadvantaged areas.	8 957 upper secondary teachers and administrative staff.	Accounts for 5.6% of teachers' average base salary (overall, 3,3% of total MEP expenditure on salaries).
	With You! (*Con Vos!)*	Specific support to primary and secondary schools in vulnerable conditions, with high levels of violence. Schools, staff, students and families are asked to establish a committee and develop a diagnosis of each school upon which they will develop an action plan to diminish violence levels in schools.	65 vulnerable and disadvantaged secondary schools.	
	I'm in (*Yo me Apunto*)	Upper secondary schools with the largest dropout rates. Holistic government strategy to reduce drop out in upper secondary. Programmes include teacher professional development, enhancing equity programmes and involving the community.	112 170 students in 166 centres in 75 priority high poverty districts.	

Sources: Angulo, J. (2015*), Incentivos al docente y su vinculación con el desempeño educativo*, CONARE, PEN, http://estadonacion.or.cr/files/biblioteca_virtual/educacion/005/Jose_Angulo_Incentivos_al_docente.pdf; FODESAF (2017), *Ficha Programa de Alimentación y Nutrición del Escolar y del Adolescente 2017*, http://fodesaf.go.cr/programas%20sociales/archivos%20programacion%20anual/fichas%20y%20cronogramas/2017/fichas/Ficha%20descriptiva%20PANEA%202017.pdf; FONABE (2012), *Plan Operativo Institucional y Presupuesto Ordinario 2013*, www.fonabe.go.cr/informacion/presupuestos/documents/presupuesto_2013_stap.pdf; IMAS (n.d), *Avancemos*, Imas website, www.imas.go.cr/ayuda_social/avancemos.html; Trejos, J.D. et al. (2015), *Informe de Resultados Globales de La Inversión del Fondo de Desarollo Social y Asignaciones Familiares: 2014,* FODESAF, http://fodesaf.go.cr/fodesaf/archivos%20de%20estudios%20iice/Informe%20Resultados%20Generales%20FODESAF%202014.pdf.

Policy Issues

The Costa Rican labour market shows a worrying degree of duality, so that while well qualified young people are typically earning good salaries, their unqualified counterparts are unemployed, or working in low-skilledjobs in the informal economy or outside education and training altogether (OECD, 2016a; OECD, 2017, forthcoming). This duality reflects a binary qualification structure, with around half of young working age adults having a *Bachillerato* qualification, and one half without. Systematic efforts are needed to engage the "missing half" of young Costa Ricans who do not currently complete their *Bachillerato* and to sustain them through to effective school completion, and transition them to the labour market.

While Costa Rica has made commendable progress in developing its second chance programmes, the fact that this route is so widely travelled suggests that there is great scope to improve 'first chances' in terms of retention rates in formal schooling. In most OECD countries, and in many non-OECD countries, dropout rates in compulsory education are, unlike Costa Rica, low or very low, and the majority of students complete upper secondary school at the appropriate age. While some of the reasons for school failure in Costa Rica lie outside the school environment, there is much that can be done to raise standards and make upper secondary education more inclusive so that more students stay in school and gain higher levels of skills.

This review focuses on three policy areas that will be central to making upper secondary education for all in Costa Rica. It highlights the importance of improving the teaching and learning environment in schools in disadvantaged areas to raise participation and reduce dropout. It looks at how reforms to the curriculum and *Bachillerato* can help to make school more relevant to students and a better springboard for future success in work and life. Finally, it examines ways in which vocational education and training can be strengthened to provide a more effective bridge to formal employment and higher levels of economic productivity and growth.

Policy issue 4.1. Raising participation and tackling dropout

Dropout is a challenge in many countries. It commonly represents the end point of a progressive disengagement, linked to low attainment that may start early on in the school career. The primary means of reducing dropout is through prevention, which means providing an inclusive school system that tackles potential disengagement and school failure early on. MacIver and MacIver (2009), for example, argue that primary prevention of dropout requires systemic measures, including high quality teaching in a school climate that encourages regular attendance, equipping teachers to provide high quality instruction, personalised learning and a relevant curriculum that keeps students engaged. The secondary means of tackling dropout is to tackle it in its acute phase, at the points in the school system when dropout occurs, which in Costa Rica includes most of secondary education, but particularly the transition (7th and 10th grades). Across countries, measures found most effective at improving retention at upper secondary level include targeted support for those entering upper secondary school to ensure adequate preparation, mentoring those identified as at risk, and mechanisms to encourage those at risk to develop a strong relationship with one or more teachers (Lyche, 2010).

Current efforts to increase participation in Costa Rica could be further strengthened by drawing on insights from international experience, in particular when seeking to improve the

quality of teaching practices in disadvantaged schools. Here two steps are recommended: the first is to institutionalise the commendable principle of *Yo me Apunto* in terms of directing resources to the schools most in need and reinforcing measures to attract highly skilled teachers to work in the schools with the highest dropout rates. Secondly, alongside sustained efforts to reduce grade repetition (often the precursor of dropout) practical alternatives to grade repetition are needed to support students who struggle in class. This objective of inclusion links closely to later sections of this chapter – effective implementation of the new curriculum, reform of the *Bachillerato*, the development of stronger technical schools and attractive short cycle technical and professional qualifications will all contribute to a more inclusive USE system.

Targeting resources to the schools most in need

Making the targeted approach of Yo me Apunto an integrated, long-term policy

Unlike many OECD countries, as well as several neighbouring countries in Latin America such as Brazil and Peru, Costa Rica has lacked until now strong policies to redistribute resources towards poor schools and communities. If Costa Rica is to narrow the country's growing educational and socio-economic divide, the targeted approach of *Yo me Apunto* should be established as a permanent government strategy. This means a prioritisation of schools with the greatest needs, not just through one programme, but across all relevant government policies that bear on equity and inclusion (see Chapter 1). This approach should be adequately funded – there are indications that *Yo me Apunto* cannot meet current school requests – and built systematically into all aspects of resource allocation at the outset, including school building and other infrastructure, pedagogical materials, support through pedagogical advisers, and the distribution of school leaders, teachers and teaching assistants. To ensure this happens, equity targets should be established for how all major interventions contribute to reducing gaps in inputs and outcomes. These should be more ambitious than the current objectives of *Yo me Apunto*.

Better data are needed to support this approach. This means better data on school circumstances, the social background of the pupils and the administrative data to closely monitor year repetition and dropout. But it also means better outcome data, as recommended in Chapter 3, which will allow Costa Rica to identify schools where learning outcomes are weak, even given the social circumstances of the school population. These data should help to decide where additional learning resources are most urgently needed, and where measures adopted (as in *Yo me Apunto*) are bearing fruit. The different population groups at risk – rural populations, indigenous groups, migrants, and those in poverty – might also be examined to develop group-specific diagnoses and policy responses. Better data would also support the design of a formula to allocate resources to schools in a more efficient and equitable way (see Box 4.2).

Teachers are the most important educational resource

Evidence shows that the quality of teaching is the most influential school-related factor in student learning (McKinsey, 2007). Research also demonstrates the central role teachers play in creating an inclusive school environment and ensuring students at risk are identified and receive the individualised attention they need to advance in their learning (OECD, 2012). This is important at every level of education, but teachers working with disadvantaged adolescents require particular skills and supports. Any strategy designed to tackle dropout, improve attainment, and help schools most in need must address teaching quality. The broader measures directed to this end, and discussed in Chapter 3, are very relevant to this task.

In Costa Rica, teacher employment and allocation policies make it difficult to attract well-qualified teachers to work in disadvantaged schools. Applicants seek a post in one location and are selected through a points system that gives weight to several factors, including years of experience, and whether they were trained in an accredited programme. The outcome is that those schools facing the greatest challenges, and therefore often with high dropout rates, often end up with the least qualified and experienced teachers. National evidence shows that rural and night schools are more likely to have teachers who are less experienced and hold an initial teaching degree from a private university. These factors are significantly associated with school dropout. The likelihood that a school has low dropout rates increases from one third to fifty percent when three of every four teachers have graduated from a public university instead of only one (Sánchez, 2014). The fact that two-thirds of teachers work under a fixed-term contract poses an additional challenge. High levels of staff turnover mean that even well-conceived professional development interventions – for example through *Yo me Apunto*, which emphasises the skills of teachers and the value given to teaching - may yield few long-term outcomes in the schools concerned.

Box 4.2. How to fund disadvantaged students effectively: insights from the OECD Reviews of School Resources

Funding strategies play an important role in achieving equity objectives within school systems. A crucial aspect of policy is to decide on the best mechanisms to channel the extra resources to student groups with additional needs. This can typically be achieved through the regular allocation mechanism (e.g. a systematic weighted allocation to particular student groups within schools using a funding formula) or through funding directly targeted at specific students, schools or areas (e.g. extra funding to compensate for socio-economic disadvantage). It is important to strike a balance between targeted and regular funding to more efficiently support greater equity within a school system.

Targeted educational programmes may be used to allocate funding to priority areas. These can ensure responsiveness to emerging priorities and/or promote innovations within the school system. Countries employ a range of approaches to, for example, help support the mainstreaming of students with special educational needs or support schools in rural locations. However, an excessive reliance on targeted programmes may generate overlap, difficulties in co-ordinating allocations, excessive bureaucracy, inefficiencies and lack of long term sustainability for schools. Targeted funding often comes along with greater transaction costs, including mechanisms to ensure it has been spent on the purposes it was intended for which may entail greater administrative and reporting burdens for schools. There are, therefore, arguments to reduce transaction costs by including adjustments for vertical equity within the major part of funding allocation via a formula. This can simplify the funding system overall.

A well designed funding formula is, under certain conditions, the most efficient, equitable, stable and transparent method of distributing funding for current expenditures to schools. A major challenge in designing funding formulas is to adequately reflect that it does not cost the same to educate all students. There will be a need to fund schools differentially for legitimate differences in unit costs which are beyond the control of the school. This demands the introduction of indicators related to Socio-economic disadvantage, non-fluency in the language of instruction, low educational attainment, and special needs and learning difficulties.

Source: OECD (2017b, forthcoming), *OECD Reviews of School Resources: The Funding of School Education*.

Policy options for encouraging skilled teachers to work in high-needs schools

The problem of how to ensure that experienced and skilled teachers work in high-needs schools is shared by many countries: responses include targeted professional development for those already working in those schools, to build on existing capacity and reduce teacher turnover; additional training tailored to develop the pedagogical skills needed in disadvantaged settings, combined with ongoing, school-based support; and financial and non-financial incentives (OECD, 2012). In most cases a mix of these types of measures is used, both to encourage good teachers to work in high-needs schools and support them while they are there (see Box 4.3).

Box 4.3. Incentives to attract teachers to disadvantaged schools

In Korea, teachers are highly respected, and enjoy job stability, good pay and working conditions, including high levels of teacher collaboration. Disadvantaged students in Korea are more likely than advantaged students to be taught by high-quality mathematics teachers, as measured by characteristics such as full certification, a mathematics or mathematic education major, and at least three years of experience. Multiple incentives are offered to candidates who work in high-needs schools, including additional pay, smaller classes, less instructional time, additional credit towards future promotion to administrative positions, and the ability to choose the next school where the teacher works.

In the United States, North Carolina enacted teaching quality improvement plans with five key features: increased initial certification requirements for teachers, higher salaries tied to meeting performance standards, new teacher mentoring, ongoing professional development for all teachers, and scholarships and loan "forgiveness" programmes targeted to recruit high-quality candidates to teach in disadvantaged schools. The state also offers incentives to attract higher-quality candidates and improve the effectiveness of new and continuing teachers, through rigorous initial training, mentoring and ongoing development. North Carolina offered a retention bonus (USD 1 800) for certified mathematics, science and special education teachers in high-poverty and low-performing schools. The bonus programme reduced teacher turnover by 17%, a saving of approximately USD 36 000 for each teacher who delays moving schools. Before the bonus was implemented, a third of teachers in these subjects were uncertified and many were concentrated in disadvantaged schools.

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

Yo me Apunto therefore needs to be reinforced by measures to ensure that strong teachers want to work in the target schools – teachers with the ability and motivation to use the support measures on offer. As an immediate step, Costa Rica could better exploit and target the bonus arrangements which are already in place, and which already reward those who work in rural schools, recognising that in some rural areas, incentive payments already make up around 60% of a teacher's pay, compared with less than 30% on average nationally. These bonuses need to systematically reflect the needs of schools. Professional development opportunities offered to teachers working in *Yo me Apunto* schools might represent both a practical input to *Yo me Apunto*, and an incentive for good teachers to work in schools covered by the programme.

Another option would be to offer scholarships for initial teacher education programmes to top secondary graduates (from the least developed areas of the country) with a minimum obligation of service in disadvantaged schools. This would enable to both attract more talented candidates to the profession and improve the quality of teaching in disadvantaged schools. Many OECD countries have programmes in place to attract the best students into teaching with a mission to help improve education in disadvantaged schools and champion equal opportunity, through such schemes as "Teach for America", "Teach First"of the United Kingdom or "Mission Impossible" of Latvia (Schleicher, 2014).

The experience across OECD countries suggests that financial incentives have to be considerable to make a difference to teacher choice; as effective and more cost-efficient approaches focus on improving the professional status, working conditions and mentoring available to teachers in disadvantaged schools. The task of working in high-needs schools should be seen as among the most demanding and highest status in the teaching profession, well-deserving of the attention of the strongest teachers, and rewarded appropriately.

Strengthening teaching for students at risk

Providing alternatives to grade repetition

Secondary classrooms in Costa Rica contain many students who struggle to keep up and have become disengaged with school. The low quality of teaching and learning in many primary schools means that many students fail to gain the foundation skills in literacy and numeracy that would enable them to progress when they encounter the large classes and wider curriculum of secondary education. Too often, in the face of such challenges, the default response is grade repetition, which is common in Costa Rica although, as discussed above, attempts are being made to reduce its prevalence. Of all school practices, grade repetition is one on which the evidence is clearest. It is expensive, costing the state an additional year of schooling, while the individual loses a year of potential earnings. Evidence shows that it is remarkably ineffective at remediating performance weaknesses (Schleicher, 2014). In Costa Rica, grade repetition is typically a precursor of dropout.

Costa Rica therefore needs to continue its efforts to bear down on grade repetition. This means providing strong encouragement to schools and teachers to reduce grade repetition, not least by measuring it carefully at school level, and carefully monitoring and celebrating improvements. It also means providing teachers with alternative ways of handling those who struggle to perform in the classroom, and are therefore at risk of both grade repetition and dropout, in particular in the difficult transition years. Promoting students who struggle to keep up makes sense, but it needs to be supported by practical measures to address their learning deficits other than through grade repetition. This does require additional resources, but set against the exceptionally high, and largely hidden costs of grade repetition, it is a cheap option.

Focusing on the transition years

In Costa Rica, both grade repetition, and the closely linked phenomenon of dropout, peak in the transition years – the 7th grade on entry to secondary school, and the 10th grade on entry to upper secondary education. This suggests that as education changes gear at these transition stages, many pupils start to fall behind, and often initially repeat and then drop out. Linked efforts to tackle both dropout and repetition should be concentrated on these weak

points in the education career path. This means identifying measures to support those students who find their first experience of the next phase of education very challenging.

A positive aspect of *Yo me Apunto* is the way in which the initiative connects secondary schools with their feeder primary schools to prepare children for a new learning environment and better understand their needs when they arrive. This is a practice that school supervisors should encourage and facilitate across all schools, to support not just retention, but also to give students a better start in learning when they reach secondary school.

Another means of helping those at risk of repeating a year or dropping out is through additional small group coaching or through extended learning time. As described in Chapter 3, learning time in Costa Rican schools is relatively short. Targeted extensions of learning time might be offered through formal or informal remedial classes before or after school, Saturday school or summer school. More time at school, particularly summer schools, has been shown to be particularly advantageous for students with unfavourable out-of-school learning environments (OECD, 2012). These practices can be linked to the "catch-up" exams already in place in Costa Rica at every grade for students who have failed one subject. However, it is not enough to give students extra time. Helping at-risk students progress also requires a shift in teaching philosophy so that teachers see very clearly their responsibility as being to retain students who are struggling and avoid year repetition, rather than seeing their role, as perhaps was the case in the past, as filtering out the students who are not on track and consigning them to a repeated year.

Developing differentiated teaching and formative assessment skills

The task of sustaining students who struggle is challenging, requiring teachers with experience, commitment, and the pedagogical tools to address the needs of the students in question. This means equipping teachers with a range of strategies, and the resources, to teach classes with significant performance variations. There is strong evidence that formative assessment linked to this type of "differentiated" teaching can be an extremely effective pedagogical strategy, especially for disadvantaged and at-risk students (OECD, 2005). Differentiated teaching is naturally supported by formative assessment – whereby the progress of individual students is monitored and their learning goals individualised – so that a student struggling in a classroom is set an objective that is realistic but challenging, and therefore motivating, rather than continuing to fail against a classroom norm. Some examples of approaches developed in OECD countries are provided in Box 4.4.

Much could be done to improve the capacity of Costa Rican teachers to undertake more personalised assessment strategies –for example by encouraging students to create their own learning portfolios, linked to their own personal goals. This would allow teachers and students to assess progress in relation to a wider range of skills than through traditional tests involving the recollection of facts, resonating with the requirements of the new curriculum. In Portugal, a programme aiming at improving social and emotional skills such as motivation, tenacity, self-esteem, and patience in attainment, has resulted in a significant reduction in grade repetition (OECD, 2012).

The development of these strategies in Costa Rica will need to overcome barriers. Initial teacher education currently gives relatively little attention to classroom management and pedagogic skills; a crowded curriculum and limited professional development opportunities, and few resources in the service of pedagogical advisers add to the challenges. These issues need to be tackled systematically, recognising that resources freed up by reducing grade

repetition need to be recycled to equip teachers with the skills required to handle more diverse classrooms – the consequence of reduced grade repetition. The supports for teachers need also to be targeted. While all Costa Rican teachers can take advantage of differentiated teaching skills supported by more teacher training and professional development (as discussed in Chapter 3), such skills have particular relevance both for those working in schools where rates of grade repetition and dropout are high, and for teachers of the transition grades. *Yo me Apunto* should therefore give particular attention to supporting schools and teachers in the development of these skills.

Box 4.4. Examples of differentiated teaching and the role of assessment

The *Gesamtschule* Schüpberg, Switzerland**,** is a small comprehensive school with a multi-grade classroom. The school lays emphasis on the heterogeneity of the student group, regarding it as a stimulating and motivating influence on the children's social and cognitive development. Activities are adjusted to the development of the individual child. The children, as well as the teachers, write feedback including self-evaluations, learning aims, etc. The entries are subsequently discussed in individual conversations between child and teacher.

In the Lisbjerg School, Denmark, there are two large mixed-age groups of three years each (6-9 or 10-13). The students are also organised into smaller groups of 12 pupils, which are also mixed in terms of age. Teaching is differentiated and alternates between work within the bigger and the smaller groups. Individual teacher-pupil feedback/assessment sessions are held every second month. During these pupil-teacher sessions, the Plan for Interpersonal, Educational Development ("the child's storyline") is discussed based on the portfolios. Goals previously set are evaluated and new goals are formulated. The pupils' primary teacher is responsible for putting these aims into writing. The portfolios are also used for self-assessment and as an assessment tool for the regular pupil-teacher feedback sessions. Finally, the portfolios are used as an important instrument for parent-teacher meetings.

The Europaschule Linz, Austria, uses a combination of student-initiated and traditional forms of learning. Open structures are used to foster self-determination and independence. The adoption of flexible roles for teachers and pupils and the use of team-based teaching support a more individual approach that embraces differences in ability and learner types. Teachers provide students with feedback to foster social skills and competencies based on seven criteria: "respects the other's personality and work", "can co-operate", "can communicate", "shows reliability and sense of responsibility", "can deal with criticism", "abides by rules agreed on", "handles his/her own and the other's property carefully".

Source: OECD (2013), *Innovative Learning Environments*, Educational Research and Innovation, http://dx.doi.org/10.1787/9789264203488-en.

Policy issue 4.2. Reforming curricula and assessments to promote better outcomes for all

Currently, most of those who obtain the *Bachillerato* continue to university. But as more young people complete their schooling, programmes of study are needed to reflect more diverse requirements. Growing proportions of the graduating cohort will enter the labour market, and other forms of post-school education or training, as well as university. The revised curriculum, and the way in which it is implemented and developed, will need to be both attractive and engaging, to help to motivate all young people through to completion, while also providing effective preparation for life and work.

Here, we argue that action is needed on two fronts. First, while the new curriculum has great promise, it is very ambitious, and much more needs to be done to ensure its full

implementation, by providing a variety of concrete supports to teachers. Second, the *Bachillerato* exam itself needs reform to allow those who succeed in only some elements of the exam to receive proper recognition of their achievements, and to move away from a damaging binary arrangement in which half of all young people lack the key qualification, often despite having remained at school until the end of upper secondary education.

Implementing the new curriculum

The new curriculum is promising but also highly ambitious

The Costa Rican school system, as in other Latin American countries, has historically given much emphasis to learning and remembering facts. The new curriculum is a major step in a new direction, with its emphasis on the problem solving and critical thinking skills that are vital in a modern economy, and which should come to the fore in upper secondary education, at a stage in learning which goes beyond basic cognitive skills. The *Bachillerato* exam now gives more emphasis to critical thinking: for example, the new exam in Civic Education removed questions involving mere memorisation in favour of the evaluation of ethical dilemmas and critical thinking. In Mathematics, the new exam paper contains one part consisting of short answers, while the other sections require developed answers allowing the assessment of critical thinking and reasoning (MEP, 2016).

Development and implementation of the new curriculum – a task now in progress – is an opportunity to make education more relevant and engaging for young people. But to contextualise a subject like mathematics - for example to bring algebra to life – requires much effort and imagination from schools and teachers (see Box 4.5). The teaching value of this approach is substantial, but it is demanding and very far from current practice. Unless Costa Rica gives more attention to the preparation and support of teachers, it is unlikely that the curriculum will have the desired impact on student learning and outcomes.

Box 4.5. The new mathematics curriculum in Costa Rica

The new maths curriculum, approved in 2012, gives emphasis to problem resolution in real life contexts, the use of technology and the history of mathematics. The areas studied (numbers, measures, geometry, algebra, statistics) are the same in all, but time devoted to each varies according to students' age.

To support implementation, a mix of classroom and online training is being provided to teachers, as well as explanatory material and examples of problems that can be given to students (Ruiz, 2013). The bimodal courses include five classroom sessions (8 hours each), and homework and documents delivered through the online platform. The trainers are themselves teachers, who have been selected and trained.

At the end of the first pilot year, the MEP evaluated implementation of the curriculum. It appears to stimulate the interest of students, help maintain discipline in the classroom, foster learning, and increase teacher job satisfaction. 87% of teachers said they had received training for the reform, either classroom plus online training (51%) or only classroom sessions (36%). While attending both classroom and online training is correlated with a greater level of curricular implementation, attending classroom sessions only is negatively correlated with implementation – suggesting that implementation training needs to be relatively intensive to have an impact. 17% of teachers said they had done little or nothing to implement the reform, while 43% said that they had implemented the curriculum to a certain extent. Among those who implement it less, 68% are teachers in big institutions, and 77% in urban areas, particularly in the San José area.

Source: MEP (2016*),* "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

Implementation requires sustained effort and the engagement of teachers

Fullan and Pomfret (1977) in a classic article, survey the complexity and challenge of effective curriculum implementation, and argue that its success depends on teachers being given sufficient time, resources and in-service training. Costa Rica has some way to go to create these essential enabling conditions. Through its Professional Development Institute and the National In-service Continuing Education Plan, the MEP is seeking to improve teacher professional development opportunities and make them more relevant to the requirements of the new curriculum. But many teachers have received quite limited professional development and training in support of the curriculum – often only a week of one-off preparation. Teachers met by the review team reported that this training focused primarily on requirements for implementation, rather than explaining the significance of the new approach. One survey found that half of the teachers in the San José region did not fully understand the difference between the new and the old maths curriculum (Lentini and Villalobos, 2014). While some pedagogical material has been provided, textbooks are often lacking. The new curriculum also requires more complex lesson planning, which is difficult in secondary education, as more than half of the teachers are only paid for their classroom teaching time.

The curricular reform requires a significant change in teaching practices, which one-off training exercises are unlikely to deliver. Much more will need to be done to help teachers understand and put into practice the new approach. This means developing clear content and performance standards, with examples of students' work to illustrate what critical thinking and problem solving mean in concrete classroom contexts. This involves a lot of work. It follows that effective implementation of the new curriculum will also need very clear prioritisation, focused on ensuring that the new approach takes effect in core areas initially, such as maths, languages and science, rather than rolling out too much change at once. Clearly, the new curriculum, and the expectations on teachers associated with that curriculum need to be built into the professional standards for teachers that need to be established (as discussed in Chapter 3). The relevant pedagogical practices then need to be built into all initial teacher training programmes as a precondition for accreditation. But professional development of existing teachers is the more immediate requirement, if the new curriculum is to be effectively implemented.

For existing teachers, centrally provided tools, training and guidance are useful, but they need to be backed up by ongoing, more school-based support. Teachers met by the review team said that the most effective supports they had received for implementing the new curriculum were platforms for discussion with their peers in other schools. The pedagogical advisors have an important role to play here, but given their workload, their reach is necessarily limited. Here, the instructional leaders, proposed in Chapter 3, could play a very important role – for example if one or more teachers in most schools could be identified as playing a lead role in learning, and disseminating to colleagues, the new skills required to deliver the new curriculum. Inevitably there will be innumerable issues and questions associated with the new curriculum, and these can best be worked through in school-based discussion, with one individual having the key responsibility. Local instructional leaders can also play a very important role in feeding back to the MEP some of the challenges of curricular implementation, identifying areas where more instructional materials will be helpful, and where clarifications or even modifications of the new curriculum are required. In this way, through knowledgeable intermediaries, teachers will become not simply passive recipients, but owners, and therefore effective local champions of the new curriculum. Where teachers have received practical examples and tools and sustained on-line support, there is evidence of a positive impact on student interest, classroom discipline and teacher job satisfaction (Lentini and Villalobos, 2014).

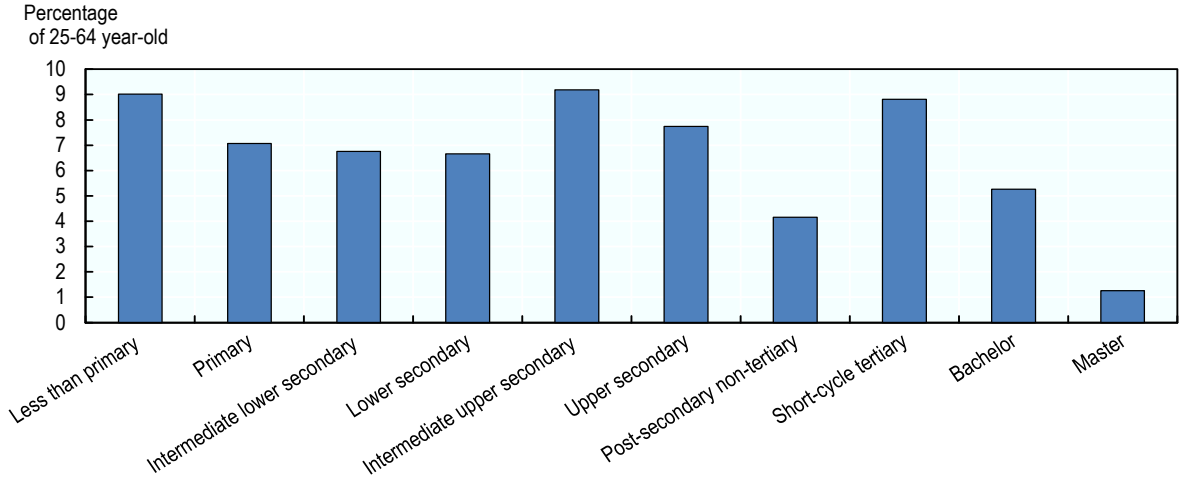
Reforming the Bachillerato

The Bachillerato offers no recognition to partial achievement

The *Bachillerato* exam marks the end of secondary education, and is normally a precondition for entering university. There are two kinds of *Bachillerato*: academic and technical. The exam is composed of six tests: Spanish, social studies, civic education, mathematics, sciences (chemistry, physics or biology), and foreign language (English or French). Technical students need in addition to pass an exam in their technical speciality. The final grade in each subject depends 60% on the grade obtained in the test itself, with the balance being determined by school subject grades obtained throughout upper secondary education. To obtain the *Bachillerato* a pass mark (70%) is necessary in all six subjects. Students who do not pass all the subjects may retake those that they failed and can only gain the title of *Bachiller* once they have succeeded. Recent reforms aim to improve the reliability and comparability of the *Bachillerato* across time: item banks of potential questions have been established, to provide 50% of the questions asked in 2013, and these item banks will be used again for future examinations, thus providing a check on the comparability of standards over time; security measures regarding printing, packaging and distribution have been reinforced.

As mentioned earlier, numbers sitting for the *Bachillerato* exam have increased rapidly and two thirds of candidates now pass. Private schools have a pass rate of 92%, but in 2014, only half (52%) of the candidates from academic evening classes succeeded, perhaps reflecting the fact that these are often second attempts, and lower in some remoter and poorer parts of the country (in Zona Norte-Norte, Sarapiquí, Sulá and Aguirre, less than 47% of students succeeded). There is little difference in pass rates between public academic and technical schools. This means that for some sub-groups of the population, half of those who stay the course and sit the exam gain nothing to show for their efforts. Those with incomplete upper secondary education also have poor labour market outcomes: in 2015 this group had an unemployment rate of over 9%, more than any other level of education (including lower levels) (Figure 4.8). They also suffer a large salary loss relative to those who complete – of 100 000 colones in the academic, and 150 000 colones in the technical track (INEC, 2016).

Figure 4.8. Unemployment rates of 25-64 year-olds by educational attainment (2015)



Source: OECD (2016b), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-en.

These poor outcomes for those who try but fail to obtain the *Bachillerato* yield few incentives for students to stay at school and study for the exam. For someone with a weak academic performance up to grade 9, staying at school and pursuing the *Bachillerato* may be an unattractive option, since it is as likely as not they will end up with no recognition of their partial achievement. Other countries, faced with similar challenges, have responded by diversifying their offer at upper secondary level, granting students more choice, and recognising what students have achieved, even when their success is partial. In Victoria, Australia, the Certificate of Education is obtained after the student chooses from around four out of 43 study areas. Many countries offer more limited choice, for example as between broad fields such as sciences, literature and languages, as in France, with some core required subjects. In New Zealand, the national qualification framework creates a structure in which there are a wide range of ways in which students with different sub-qualifications may progress (Dufaux, 2012).

A more flexible and inclusive approach to certification

It will be difficult for Costa Rica to achieve wider participation in upper secondary education without reforms to the way learning is recognised and certified. As a first step, the current binary pass criterion for the *Bachillerato* should be dropped in favour of a pass threshold for each individual subject. Results would then be reported in terms of the subjects passed, and perhaps grades, allowing those who do not pass in all subjects to receive certification and recognition for what they have learnt – for example passes in two or three subjects - and provide a transparent basis for further study to pass additional subjects of the *Bachillerato*. The title of *Bachiller,* which institutionalises the current binary pass/fail arrangement, would be abolished. The result would be that a higher proportion of students would leave school with an upper secondary qualification, while transparently identifying gaps in their attainment. In line with current efforts, the *Bachillerato* exams should also be improved to ensure consistency over time, and to ensure that the 40% of the marks obtained through continuous assessment are subject to sufficient validation. In this way, the reformed *Bachillerato* examination results would provide a clearer and more reliable signal to both public and private universities, and indeed employers, of individual knowledge and skills.

Under this subject-based approach, the different subjects in the curriculum would be taught and assessed separately. This approach is designed to increase retention, both by granting partial credit to those who fail some subjects, and by allowing subsequent completion through targeted preparation for an examination in the failed subject. Such a reform would be balanced by measures to ensure that all those studying for the *Bachillerato* pursue a set of core basic skills, including literacy and numeracy. So while students would receive credit for what they do learn even when there are gaps in their basic skills, they would all at least have to attempt the "difficult" but important subjects such as mathematics. This would be similar to the model of, for example, New Zealand, where emphasis is placed on enabling learners to progress at their own pace while setting clear standards for achievement.

Making the vocational track more attractive and accessible

These reforms also have the potential of making the vocational track more accessible. At present, the technical vocational route involves a demanding programme of study that includes both the *Bachillerato* and an additional technical qualification. While this grants status to the technical schools, it leaves few options for those young people who by 10th grade may have become disenchanted by academic study, or who may have less academic ability, but who might be engaged by, and indeed excel in, more practical forms of learning. In the dual system countries, (for example Austria, Germany and Switzerland) the

apprenticeship route meets the needs of this group effectively. Graduates of the dual apprenticeship system do not have the equivalent of a Costa Rican *Bachillerato*, but they normally have the option of studying for examinations which would allow them subsequent university entrance.

A *Bachillerato* examination reformed on the lines proposed above would address this challenge. It would allow students to pursue a vocational programme alongside a more flexible approach to academic studies – allowing them to receive credit for their studies even if they do not obtain all the requirements (i.e. pass in all subjects) of a traditional *Bachillerato*. This would help to make the vocational track more attractive to students who may at present be deterred from entry by the demanding requirements of a double qualification. It would also create more space within the curriculum of vocational schools to develop greater specialisation and enable more work-based learning opportunities (Policy Issue 4.3). Such a redesigned vocational track should preserve a route of entry into tertiary education, as this would be important for its status and attractiveness to students.

An alternative pathway and certification for high-risk students

In the longer term, Costa Rica might consider introducing an alternative pathway and form of certification for those students at high risk of drop out and who are unlikely to achieve any credit on the *Bachillerato*. Despite having a large at-risk population, Costa Rica, unlike a growing number of OECD countries, does not offer any variation in programme or certification that might help to retain such students within the full-time education system and provide them with some form of recognition. While Costa Rica has many second chance programmes for students and adults who have dropped out of school, it does not have a preventive approach that might orient students at risk towards an alternative pathway. The INA enables students who have dropped out to gain job-ready skills, but it does not offer students the opportunity to gain qualifications that would enable future study. These are notable gaps for a country with many disengaged students, and one that will become increasingly problematic as the country seeks to increase participation in upper secondary education.

Some OECD countries have developed alternative pathways for at-risk students from which Costa Rica might seek to learn (OECD, 2012). For example, in Norway, the Certificate of Practice offers less motivated students the option of an alternative shorter and less comprehensive upper secondary degree, recognised by industry, rather than the full four-year upper secondary vocational qualification. The students enrolled are offered a mix of school and work placement and the academic studies are vocationally oriented. Upon completion, they may complete their full upper secondary degree. In Ireland, students at risk of drop-out may change into the Learning Certificate Applied (LCA) programme. While this certificate is not equivalent to the Established Leaving Certificate, it allows the student to proceed into several post-graduation courses and thus to move on in education. Developing such a pathway in Costa Rica would require closer co-operation between INA and MEP, as discussed below.

Policy issue 4.3. Strengthening vocational education and training

While vocational education and training in Costa Rica has some significant strengths, there are also some real gaps in provision. The technical schools, and their quite demanding academic requirements are often no more than a stepping stone to universities, while INA provision is mostly orientated towards those without the *Bachillerato*, offering a relatively weak pathway for re-entry into formal education. The OECD review of vocational education

in Costa Rica (Álvarez-Galván, 2015) recommended steps to improve quality, notably through stronger preparation of vocational teachers and measures to adapt provision to the requirements of the labour market (see Box 4.6). This review encourages Costa Rica to pursue these reforms. It also suggests changes to the institutional and programmatic landscape that would support upskilling and, through this, improvements in labour market outcomes and productivity.

First, measures are needed to strengthen the capacity and attractiveness of the technical schools, so that they can, as planned, attract an increasing proportion of the youth cohort and prepare those young people for the labour market. Second, as shown earlier, Costa Rica trains relatively few people in higher level (post-secondary level) occupational skills, and Costa Rica needs to take steps to address this gap by developing the supply of professional programmes for upper secondary education graduates. At present the gap in such programmes not only means that labour market needs are not being met, it also narrows the opportunities for those with upper secondary level technical qualifications to pursue further and higher level vocational qualifications, undermining the attractiveness of the vocational route at upper secondary level.

Box 4.6. Recommendations of the OECD Review of Vocational Education and Training in Costa Rica

The OECD review of vocational education and training in Costa Rica noted many strengths in the current system, including VET's prominent position in the policy agenda and the technical track's relatively good status. Additionally, the review highlighted the valuable work-based learning component of some programmes and the system of recognition of prior learning used by INA. Also, the VET system benefits from an adequate funding scheme and mechanisms to address equity issues. However, the review also indicated important challenges ahead and provided the following recommendations to Costa Rica to strengthen its VET system:

- *To ensure that training provision reflects labour market needs:* Make workplace learning mandatory and quality assured for both MEP and INA provision; allow MEP technical and vocational schools and INA training units more flexibility to adapt programmes to local needs; and ensure a mix of provision that reflects the needs of the labour market and is also balanced with student preferences.
- *To develop an apprenticeship system:* Costa Rica should use new legislation to pilot and develop an apprenticeship system, developing it carefully to take into account international experience and the need to fully involve and engage social partners.
- *To strengthen the quality of vocational teaching:* Improve the professional development of VET teachers, with attention to the updating of industry knowledge and experience as well as pedagogical training; harmonise MEP and INA teacher qualification requirements to facilitate interchange and tackle supply constraints; develop partnerships for teachers to spend time in industry and for industry practitioners to teach in VET.
- *To improve co-ordination in the system:* Fully engage social partners, and improve co-ordination through a national body with overall responsibility for the vocational system; explore the creation of a National Qualifications Framework to clarify study paths and qualification levels.

Source: Álvarez-Galván, J. (2015), *A Skills beyond School Review of Costa Rica*, OECD Reviews of Vocational Education and Training, http://dx.doi.org/10.1787/9789264233256-en.

Establishing technical schools as specialist institutions

As mentioned earlier, Costa Rica has an unusual institutional structure in secondary education. Most countries (like Costa Rica) that maintain a comprehensive curriculum up to the end of lower secondary education, but then introduce a vocational track in upper secondary education, separate upper from lower secondary schools to accommodate the upper secondary tracks. This would be found, for example, in most of the Nordic countries, the People's Republic of China, France, Spain and in many other countries. This arrangement has two advantages: first it postpones the choice of the vocational speciality until the upper secondary level (i.e. at 10th grade in Costa Rica), when greater maturity facilitates better career choices; second, it postpones the time when students must travel far or live away from home to attend specialised technical upper secondary schools, particularly in rural areas.

Delaying selection until 10th grade

In Costa Rica, students choose a technical or academic secondary school at the end of primary education (a choice constrained by local availability). If they choose a technical school, they also implicitly choose the technical career route offered by that school. Once in a technical school, while the option of transferring to a different technical school with a different specialty (or indeed into an academic school) in the 10th grade is a theoretical option, factors of familiarity and friendship groups tend to have a dominant influence and students usually stay in the technical school in which they started. Similarly, students who start in a secondary academic school, even if they have a leaning towards some technical learning, will be naturally reluctant to leave the familiar surroundings and friendships of their existing school to pursue that option. But even though few students change schools to enter upper secondary education, a surge of dropouts in 10th grade (see Figure 4.4) indicates that entry to the upper secondary level can still be an awkward transition.

While this institutional arrangement is sub-optimal, it would need to be reformed progressively. But given the aim of expanding upper secondary education with an emphasis on the technical schools, an opportunity is emerging to establish an institutional separation between 9th and 10th grade, building on the experience of the small number of existing technical schools which only have grades 10 to 12. This would mean that additional technical schools might offer the upper secondary curriculum only. Some existing secondary schools – both technical and academic - might also opt to specialise, either as lower or upper secondary schools, again following the example of most other countries.

Developing the technical mission of schools

These changes would establish the technical schools as specialist technical colleges, with a different mission from existing technical schools – which in practice are devoting the clear majority of their efforts to the academic curriculum, entirely at grades 7-9, and very substantially at grades 10-12 in their teaching of the standard *Bachillerato*. The specialised technical colleges would have as a central mission the task of teaching technical skills and the requirements that go with it, including links with employers and the labour market. But they would also offer the reformed *Bachillerato*, keeping the door open to tertiary education.

Technical colleges might be further strengthened by taking on responsibility for short cycle post-secondary vocational qualifications, that would be closely articulated with the upper secondary technical programmes on offer (see the discussion which follows). These changes would establish technical colleges as regional centres of expertise. This development should be accompanied by much closer collaboration and co-ordination between INA and the technical college system. The technical colleges could use the same campus and equipment

and trainers as INA programmes and take advantages of the economies of scale and shared expertise available. This will be particularly important because shortages in human and physical teaching resources might be significant constraints in planning expansion of vocational institutions. Scaling up will require planning ahead, particularly in relation to the preparation of vocational teachers in the fields where demands are greatest.

Limitations on human and physical vocational teaching resources also underline the value of workbased learning, including apprenticeship, in developing the vocational route, since the workplace, alongside workplace supervisors and equipment all provide alternative and very valuable learning environments for young people developing occupational skills. The development of the dual apprenticeship model, and similar models employing extensive elements of workbased learning in Costa Rica, are very useful ways of addressing the need to expand upper secondary vocational pathways, without making excessive demands on existing vocational teachers and school infrastructure. Workbased learning represents an opportunity to draw on employer resources, and employer partnerships, to support skills development, thus sharing the burden of funding growth in provision (OECD, 2010).

Box 4.7. Costa Rica's new apprenticeship system

The government approved in December 2016 a new apprenticeship track in upper secondary education. The pilot started in February 2017 in four technical schools which prepare students in the automobile sector. Students who opt for the apprenticeship track must have completed lower secondary education. In the 10th grade, students will spend 80% of their time in school and 10% in the workplace. The time spent in the classroom will diminish to 70% in the 11th grade and to 40% in the 12th grade. At the end, students will receive a diploma of mid-level technical skills and the *Bachiller*. This new track has received strong support from the business community but has raised concerns among teachers who fear to lose their jobs. In parallel, the Legislative Assembly is discussing a reform to establishan apprenticeship track. The main difference between the initiative underway and the proposed reform is that the latter regulates the contractual situation of students in the workplace.

Source : MEP (2016), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública, San José.

Developing shorter professional programmes

As shown earlier, Costa Rica offers relatively few young people shorter professional training, of between 6 months to 2 years, (at ISCED level 4 and 5) despite evidence of labour market demand for skills at this level. As in other countries, attempts to develop such programmes in sub-university settings ended in the institutions being merged into the more prestigious universities, which were typically more interested in offering longer programmes. But this is an unfortunate outcome. Very often a combination of parents and students, who prefer the status of a three or four year programme *(Diplomado or Bachillerato* in Costa Rica*)*, and universities that prefer to deliver higher level programmes, tend to dominate over the common-sense observation that occupational skills requirements might be accommodated in a shorter length of time and in a setting that permits study and work. Such skills requirements are therefore sometimes shoe-horned into three- or four-year degrees, or, as in the case of Costa Rica, left unmet (OECD, 2014).

Shorter professional programmes play an important role in offering higher level skills to graduates of upper secondary vocational programmes, and may also allow for further

transitions into higher education. In German-speaking countries, higher level "meister" qualifications, offered to apprentice graduates in their chosen profession, provide skilled craftsmen with the skills required to run a small business and manage staff, as well as deepening their professional skills. These qualifications also underpin the status of the initial choice of vocational education in terms of a career route, providing an incentive to enrol in upper secondary technical education. Concerted efforts are therefore necessary to develop shorter professional programmes, and establish an institutional environment in which they can thrive in the way they do in many other countries.

Different institutional models

There are diverse institutional models available for shorter post-secondary programmes (see OECD, 2014). These include:

- Institutions that offer both upper secondary and short professional programmes – *Fachschulen* in Germany, vocational colleges in Austria (see Box 4.8), further education colleges in the United Kingdom, post-high schools in Romania and similar institutions in Spain.
- Training institutions dedicated to short-cycle programmes – such as professional academies in Denmark, much of the college system in Canada and the United States, and professional colleges in Switzerland, and in Costa Rica, the *parauniversitarias*.
- Universities, for example in the United Kingdom and *Hogescholen* in the Netherlands offering some vocational short-cycle provision (such as foundation degrees).
- The workplace – for example post-secondary apprenticeships in France.
- Non-specific locations, in the context of professional examinations with no mandatory prior learning requirements – for example in Austria, Israel and the United States.

Box 4.8. Vocational colleges in Austria

Vocational college programmes in Austria include both upper secondary and short post-secondary vocational programmes. 27% of upper secondary students enrol in a vocational college (*Berufsbildende höhere Schule)*, where after five years they can acquire a double qualification, a vocational diploma and the Matura qualification giving access to university. Vocational college graduates in Austria are classified as ISCED 4A. Almost 20% of the cohort graduate at this level, which is after the Czech Republic (26%) the highest level among OECD countries. Vocational colleges have remained attractive: the number of students has increased steadily from almost 124 000 students in 2000/2001 to almost 140 000 students in 2010/2011. Increasingly vocational colleges provide an important route into tertiary education: one in four university students, and almost one in two students in the universities of applied sciences are now vocational college graduates.

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

Following a globally established institutional model

Costa Rica needs to locate shorter professional programmes in institutions that will champion them. Experience has shown that universities are rarely willing to champion such programmes because they compete with the offer of full three- or four-year degrees, and in

Costa Rica there is little evidence that universities are keen to offer shorter vocational programmes. *Parauniversitarias* have not proven successful in in bringing qualifications to scale. With that in mind, Costa Rica might, as discussed above, locate the shorter professional programmes in the specialised technical colleges, strengthening these colleges and following the model of schools in Austria, Germany, Romania, Spain, and Sweden, where upper secondary vocational schools also deliver some short cycle post-secondary programmes (Field et. al., 2012; Kuczera, 2013; Musset, 2014). At the same time the existing *parauniversitarias* might "build down" to offer upper secondary vocational education.

The outcome of this process would be the concentration of high-level technical training in a set of specialised technical colleges, providing both upper secondary technical education, including the *bachillerato*, and short post-secondary professional qualifications. Such specialised technical institutions would straddle the divide between upper secondary and post-secondary, allowing a relatively seamless transition for technical graduates into a short post-secondary programme in the same institution. These institutions would also be well placed to consolidate the basic literacy and numeracy skills of those pursuing professional programmes, recognising that, even for those students with a full *Bachillerato*, such foundation skills still require attention.

Conclusion and recommendations

Costa Rica has made good progress in increasing participation in upper secondary education, bearing down on grade repetition, concentrating resources in high-needs schools and tackling drop out through *Yo me Apunto*, enhancing second chance opportunities for young adults to return to education, and actively seeking to expand and improve the quality of vocational education and training. But there is much still to be done to reach the missing half of young Costa Ricans without upper secondary qualifications. Strengthened teaching, and ensuring teaching resources go to the schools most in need, will continue to be important. While Chapter 3 advances recommendations to support the teaching profession, this chapter proposes some specific measures in terms of resourcing and pedagogy and curriculum implementation to pursue this further in the upper secondary context. Upper secondary programmes also need some rethinking to broaden their role away from a simple filter for university entrance towards a more inclusive and diverse role, implying some reform both of the *Bachillerato* and the vocational offer. This rethinking is reflected in the following recommendations.

Box 4.9. Recommendations

Raising participation and tackling dropout

4.1.1. **Target resources on schools most in need**. To reduce dropout, Costa Rica should target resources on the schools, and the grades where the dropout rates are highest. Following the approach of Yo me Apunto, this should apply across all relevant policies, including those which determine the distribution of resources for infrastructure, instructional materials and pedagogical advice. Equity targets should be established to assess how each policy contributes to reducing gaps in inputs and outcomes. As the most important educational resource, teachers should be offered financial and other career incentives to work in schools facing major dropout and performance challenges, along with context-specific professional development that would prepare them for their role and help them to advance in their career. Promising beginner teachers should be identified and supported to start their career in disadvantaged schools.

Box 4.9. Recommendations *(continued)*

4.1.2. **Strengthen teaching for students at risk**. Costa Rica needs to sustain efforts to reduce grade repetition – as a common precursor of dropout - throughout the school system, with particular attention to the transition years (7th and 10th grades). Extended study time, through extra classes and summer schools, should be provided to those who might otherwise have to repeat a grade. Initial training and professional development need to be strengthened to provide teachers with the pedagogical tools, including differentiated teaching skills and formative assessment, to support the students most at risk of grade repetition and dropout.

Reforming curricula and assessments

4.2.1. **Prepare teachers for the new curriculum**. Professional development and initial training of teachers need to be reinforced to this end. Alongside central guidance, teachers should be given local, on-going support provided by an instructional leader, with special responsibility for the new curriculum, in every school. All initial teacher training should aim to develop the competences necessary to deliver the new curriculum.

4.2.2. **Reform the Bachillerato exam**. To realise a more inclusive approach, the requirement that students must pass all subjects for a Bachiller certification should be abolished in favour of certification acknowledging achievements in individual subjects, so that those who have passed the Bachillerato examination in some subjects receive recognition. This approach would also create more space for technical specialization in the curriculum of upper secondary vocation schools. An alternative qualification to the Bachiller might be considered for high-risk students.

Strengthening vocational education and training

4.3.1. **Establish technical schools as specialised institutions**. Costa Rica should strengthen technical schools by, over time, re-establishing them as specialised vocational technical colleges and dropping grades 7 to 9. To improve effectiveness, MEP schools should be encouraged to share facilities and resources, including teaching personnel, with INA programmes.

4.3.2. **Develop shorter professional programmes**. To fill a gap in provision that is notable by international standards, Costa Rica needs to promote and develop short professional programmes (6 months to two years) as vocationally targeted alternatives to university level degrees. These programmes should be located in the strengthened technical colleges that would be best placed to champion them.

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Chapter 5

Tertiary education in Costa Rica and its role in a growing economy

This chapter looks at the main features and trends of Costa Rica's tertiary education system and how the country might foster the skills required for a growing and increasingly knowledge-intensive economy. It proposes measures to strengthen oversight and quality assurance following a fast and unregulated expansion of the sector. Comprehensive funding reform is urgently required, and the chapters sets out options for reform, particularly to tackle the large inequities that remain in access to university. To steer the sector towards key priorities for the future of the country, the chapter recommends the development of a long-term strategy designed to strengthen governance of the sector.

The tertiary education sector has many strengths. It includes some strong public universities with international reputations, participation rates are high and graduates earn good salaries. A well-respected accreditation system is in place, and recent reforms will strengthen oversight of private institutions. In recent decades, in common with many countries, there has been a very rapid growth in participation, mostly enabled through the expansion of the private university system. Such growth is undoubtedly needed as Costa Rica's economy and labour market evolve to give greater emphasis to higher level skills and more knowledge-intensive industries.

But the sector also faces serious challenges. Given rising individual and market demand for tertiary education and skills, the public expenditure costs of the system will become unsustainable. There are serious quality concerns in some areas, poor information on outcomes and performance, and very limited means to steer institutions across the public and fast-growing private sectors towards national social and economic goals. There are major equity challenges, with very few of those from poorer backgrounds entering the university system. Gaps are growing in both technical and higher level skills.

Reforms are therefore required in quality assurance, funding and governance, and they will need to be linked to developments in the wider economy and other parts of the education system. This will require a new approach to policy-making in the sector, in which a long-term strategy is developed through wide consultation and the government takes on a stronger role in ensuring national priorities are being met. This strategy needs to break down the divide between the public and private universities and forge an integrated tertiary sector with more equality in standards and greater diversity in institutional mission and programme offer.

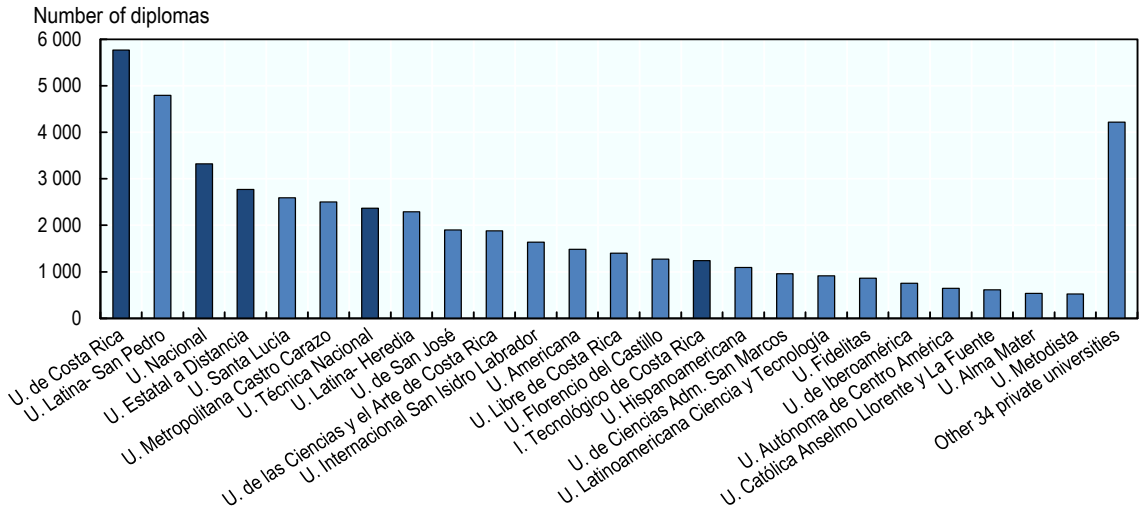
The state of tertiary education

Main features

Institutions, programmes and entry requirements

Costa Rica stands apart from OECD and other Latin American countries in terms of the **large number of tertiary institutions relative to enrolment**. The country has 64 universities including 5 public, 54 private and 5 international private institutions, catering for a student population of just over 200 000 (Figure 5.1). The five public universities are large and well established, particularly the University of Costa Rica (*Universidad de Costa Rica*, UCR), which is the largest university in Costa Rica offering a wide array of undergraduate and graduate programmes. The private sector is much more diverse, with some large comprehensive universities like the Latin University (*Universidad Latina)* and well-known international institutions, such as the Central American Institute for Business Administration (*Instituto Centroamericano de Administración de Empresas,* INCAE) and the University for Peace (*Universidad para la Paz),* alongside a plethora of very small institutions offering courses in only a few specific fields. In 2015, 16 private universities granted less than 50 diplomas (CONARE, 2016).

Figure 5.1. Diplomas granted by private and public universities (2015)

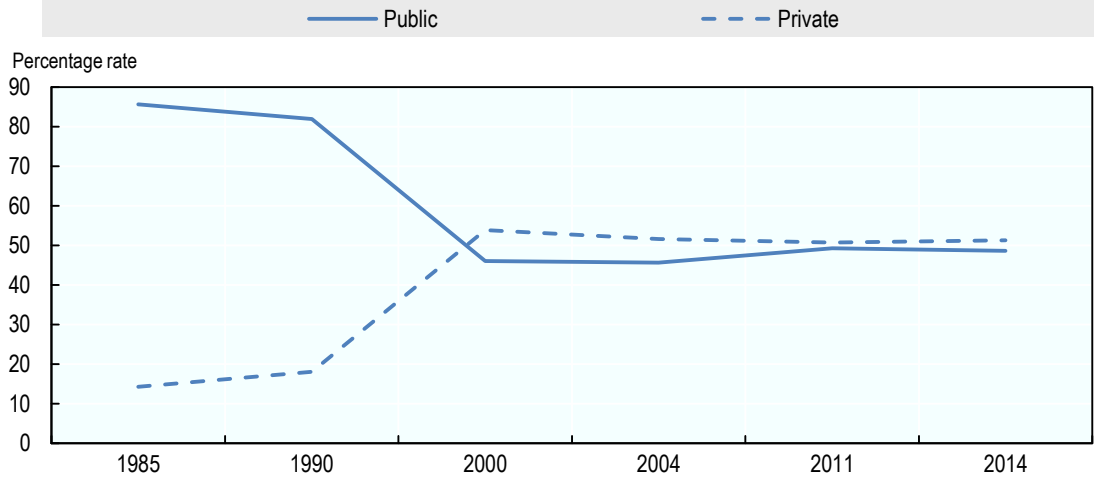


Note: Public universities are shown in dark blue.

Source: CONARE (2016), *Diplomas otorgados por las instituciones de educación superior universitaria, por sector y universidad, según año 2000-2015 (Diplomas awarded by tertiary education institutions, by sector and university, according to year 2000-2015)*, Consejo Nacional de Rectores (CONARE) and OPES (Oficina de Planificación de la Educación Superior).

The vast majority of private universities were created in the last 30 years, when Costa Rica, like other Latin American countries, experienced **a rapid and largely unregulated growth of private providers**. While prior to 1990 public universities accounted for around 80% of student enrolment, by the end of the century half of students were enrolled in private institutions (Figure 5.2). This ratio has remained relatively constant ever since. As explained below, the public and private sectors operate under very different governance, funding and licensing arrangements.

Figure 5.2. Enrolment in private and public universities (1985-2014)



Sources: PEN (2015), *Quinto Informe Estado de la Educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación; PEN (2005), *Primer Informe Estado de la Educación 2015 (First Report State of Education 2005)*, CONARE, Programa Estado de la Nación.

Most universities are in and around the country's capital. The Central region attracts over 80% of university students, but only accounts for 67% of the 18-24 year-olds in the country. While the regionalisation of tertiary education has been an important goal in the last decade, only 60 of the 160 campuses of public and private universities are located outside of the Central region (PEN, 2015).

Admission requirements vary, and are highly demanding for many programmes in public universities. The Bachelor of Upper Secondary Education Diploma (*Bachiller en Educación Media*) is the minimum prerequisite to enter university in Costa Rica. Gaining the diploma requires passing a national standardised examination (*bachillerato*), which only around 70% of students in upper secondary school pass each year (Chapter 4). In addition, each university can operate its own admission process and many programmes in public universities have extra entry exams. For example, in the University of Costa Rica supplementary tests are given to candidates for arts or scientific programmes. Only 17% of applicants to this prestigious public university gain admission.

Most tertiary students are enrolled in long undergraduate programmes. In 2015, about 90% of undergraduate degrees were registered in 4-year programmes (Table 5.1) while only 7% were for 2-3 year programmes and 2% for short specialisations (CONARE, 2016). In the 1980s, Costa Rica attempted to develop institutions modelled after American community colleges (*parauniversitarias)* to deliver shorter vocational programmes. However, many of these were subsequently consolidated in the National Technical University (*Universidad Tecnológica Nacional,* UTN); in 2014 the 23 remaining *parauniversitarias* enrolled just 8 000 students, or 4.2% of 18-24 year-old tertiary students (PEN, 2015). *Parauniversitarias* offer a *Diplomado* degree and shorter courses with no formal certification mostly in management, health and IT fields (Sánchez and Zamora, 2014). As discussed in Chapter 4, this lack of short-cycle programmes distinguishes Costa Rica from OECD countries and many emerging economies in Latin America.

Table 5.1. Tertiary degrees in Costa Rica

Level	Degree		Credits	ISCED 2011 level equivalent	Years
Short-cycle tertiary programmes	Short-cycle post-secondary studies (*Diplomado*)		60-90	ISCED level 5	Minimum of 2-3 years)
	Short-cycle teaching programme (*Profesorado*)		98-110	ISCED level 5	Minimum of 3 years
Undergraduate programmes	Bachelor's degree (*Bachillerato*)		120-144	ISCED level 6	Minimum of 4 years
	Teaching certificate (*Licenciatura*)	Teaching induction programme (*Licenciatura*)	150-180	ISCED level 6	Minimum of 5 years
		Supplementary and additional to a bachelor's degree	30-36	ISCED level 6	1 year
Post-graduate programmes	Specialisation (*Especialidad*)		n/a	ISCED level 7	1 year and a minimum of 1 620 of supervised professional training
	Master's degree (*Maestría*)	Academic	60-72	ISCED level 7	Minimum of 2 years
		Professional		ISCED level 7	
	Doctoral degree (*Doctorado*)		50-70 (after the master's degree)	ISCED level 8	Minimum of 3.5 years

Most tertiary programmes are in the social sciences, humanities, and management fields. In 2015, only 12% of tertiary degrees were awarded in the fields of engineering and basic sciences, whilst 69% on social sciences and education, compared to 23% and 44% respectively on average across OECD countries (CONARE, 2016). Public universities deliver the vast majority of degrees in science, technology, and engineering, whilst private universities notably focus on education, social sciences and economics (PEN, 2015).

Very few students progress to advanced levels of study. Postgraduate programmes – master's (2 years) and doctoral (at least 3.5 years) - only accounted for 9% of the overall tertiary diplomas awarded in 2015. This results in just 3% of 24-65 year-olds in Costa Rica having attained a master's degree, compared to 11% in OECD countries, though slightly above the average across Chile and Mexico (1%) (OECD, 2016a).

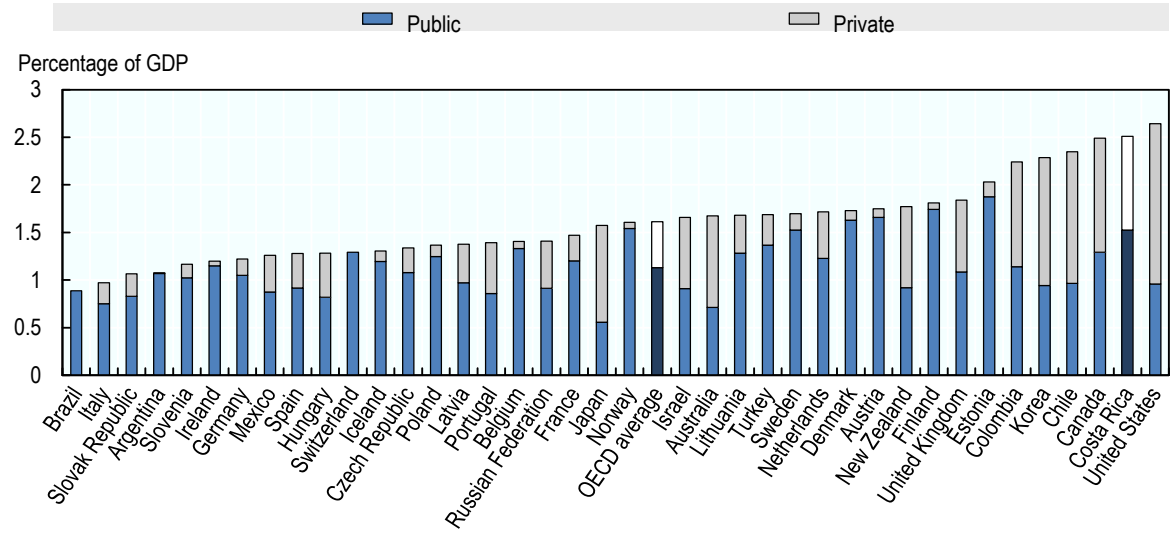
As a consequence, **the level of education of academic staff in universities is also relatively low**. Unlike most OECD countries, most academic staff do not hold a postgraduate degree. Only around 30% of university professors in private and public institutions held a master's degree and less than 6% a doctoral (PhD) degree in 2009, the most recent year for which system-wide data is available (Macaya Trejos and Román Forastelli, 2011). While similar to other Latin American countries such as Chile and Colombia, the level of educational attainment of academic staff is well below the norm in OECD countries. By way of comparison, 54% of academic staff in Latvia held doctoral degrees in 2012 (OECD, 2016c); and in Australia 74% of faculty are doctoral graduates (Department of Education and Training, 2016). There is also evidence that some academic staff in private universities lack the required qualification (a teaching certificate) to teach (Macaya Trejos and Román Forastelli, 2011). The level of research activity among academic staff is also unsurprisingly very low; in 2013 just 2 200 or approximately 12% of faculty were engaged in some form of research (CONARE, 2015). This has significant implications for the quality of undergraduate teaching, on which there is very little research or public policy discussion in Costa Rica.

Funding

Public expenditure on tertiary education is high and has risen rapidly in recent years. Public spending as a proportion of GDP almost doubled from 0.85% in 2000 to reach 1.5% in 2014 (UNESCO-UIS, 2016), a much larger proportion than in most OECD and Latin American countries (see Figure 5.3). Looking at public and private expenditure combined, Costa Rica is a on par with the highest spending OECD country (the United States) and well above the OECD average (1.6%), despite having a much lower gross enrolment rate. This translates into a high level of spending per student; at 33% of GDP per capita in 2014, Costa Rica is one of the countries with the highest levels of public expenditure per tertiary student across OECD and comparator economies in Latin America.

Most public funding for tertiary education flows to public universities through the National Fund of Higher Education (*Fondo Especial para el Financiamiento de la Educación Superior*, FEES). The overall amount of the transfer is largely based on historical allocations and is renegotiated every five years, though it can be revised annually. The Ministry of Public Education (*Ministerio de Educación Pública,* MEP) establishes broad spending goals but neither sets targets for each individual university nor decides how the FEES should be allocated across public universities or items of expenditures.

Figure 5.3. Public and private expenditure on tertiary educational institutions as a percentage of GDP (2013)



Note: Figure includes expenditure on research and development.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-en.

FEES income represents around 90% of public universities' income, allowing them to heavily subsidise tuition fees and offer generous scholarships. For example, the annual tuition for a bachelor's degree programme in the UCR is around USD 500 per student - about the minimum monthly salary of an unskilled worker (USD 520). In contrast, the annual enrolment and tuition fees for a bachelor degree in private universities ranges between USD 2 400 and USD 8 000 per year (MEP, 2016). In addition, public universities provide nearly half of their students (45%) with a scholarship to cover tuition fees as well as other charges, such as meals in the canteen (PEN, 2015). The small scale National Scholarships Fund (*Fondo Nacional de Becas*, FONABE) offers additional scholarships to low-income students attending public and private universities or community colleges, but in 2015, only 0.5% of students benefitted from this programme.

Costa Rica also has a small students loan programme delivered through the National Commission of Loans for Education *(Comisión Nacional de Préstamos para Educación*, CONAPE). CONAPE is funded by a 5% tax on banking profits (49%), a transfer from the Institute for National Insurance (Instituto Nacional de Seguros, INS) (32%) and loan reimbursement and interests (19%). In 2014, CONAPE provided over 5 000 students (3% of enrolment) with low-interest loans. Most of the beneficiaries (83%) attend private universities. By 2018, the government plans to quadruple the number of loans to benefit 16 000 additional students from the least developed areas of the country.

Governance and quality assurance

Costa Rica's Constitution grants universities and, in particular, public universities a high degree of autonomy. University autonomy is a well-respected principle across OECD countries, although differences exist in the extent of autonomy in different areas, such as institutional governance, programme offer, and management of financial and human resources (OECD, 2008). In OECD countries, high levels of autonomy are usually matched by strong accountability mechanisms to ensure that tertiary institutions meet basic standards of quality and serve societal purposes. In Costa Rica, such accountability mechanisms are very limited, and there is no permanent co-ordination body or long-term plan to steer the sector towards common goals.

Public and private universities are subject to different regulations and oversight (see Table 5.2). Public universities are self-governing through the National Council of Deans (*Consejo Nacional de Rectores,* CONARE), which includes no representation from any other public authority, students, industry or wider society. Independent oversight is limited. The Comptroller General (*Contraloría General de la República,* CGR) is responsible for approving the budget of each public university, auditing them and issuing recommendations to ensure legal and financial compliance. To a lesser extent, the Legislative Assembly is also responsible for the oversight of the transfer to public universities (FEES), and might open enquiries as part of its legislative mandate.

Private universities are governed by the National Council of Private Higher Education (Consejo Superior de Enseñanza Superior Universitaria Privada, CONESUP), which comprises representatives from private universities and community colleges, CONARE, and the Ministry of National Planning and Economic Policy (*Ministerio de Planificación Nacional y Política Económica,* MIDEPLAN) as well as the Minister of Public Education. CONESUP monitors and audits private universities, authorises new universities, closes programmes, and approves tuition increases. The Union of Private Universities Deans (*Unión de Rectores de Universidades Privadas de Costa Rica,* UNIRE) was created in 1998 to discuss issues of common interest but only two-thirds of them have joined this body so far.

Most private universities were created at a time when licensing requirements were like those of any other private business. Reforms were introduced in 2000 and 2005 to set more specific standards and require basic information to open new universities and programmes (i.e. study plan, statutes, staff, equipment, infrastructure). These reforms halted growth: only 2 private universities have been opened in the last 15 years compared to more than 50 in the preceding 30 years (PEN, 2013). However, there remain concerns about the quality of the existing programmes and institutions in the private sector. A new proposal to strengthen CONESUP has been presented to the Legislative Assembly with the aim, among others, of addressing this issue (see below).

Table 5.2. Governance differences between public and private universities

	Public universities	Private universities	
	CONARE	CONESUP	CONARE
Role	• Governing Body and Association	• Governing Body	• Association
Membership	• Rector, UCR • Rector, UNA • Rector, TEC • Rector, UTN • Rector, UNED • Executive Director of the Planning Office of Conare	• MEP (Minister) • MEP (MIDEPLAN) • CONARE • Professional Guild • University representatives	• Private universities (currently only 38 of 54 are members)
Activities	• Negotiate 5-year budget plans with MEP • Elaborate a 5-year plan with alignment to the National Development Plan • Co-ordinate among public universities • Split the money up between the universities • Approve opening and closing of programmes at public universities • Sit on CONESUP and Enlace Committee • Oversee Higher Education Planning Office (Oficina de Planificación de la Educación Superior, OPES) • Lobby	• Audit/monitor compliance • Approve new institutions • Approve new programs • Approve tuition increases	• Lobbying • Co-ordination

There are no established co-ordination bodies or mechanisms across public and private universities. However, the respective representative bodies - CONARE and UNIRE - launched in 2008 the Meetings of Costa Rican Universities Deans (*Encuentros de Rectores de las Universidades Costarricenses*) to discuss issues of shared concern. While this collaboration has led to some promising initiatives such as the collection of national statistics on tertiary education (PEN, 2015), these mechanisms do not involve government or other stakeholders outside the institutions themselves.

The National Accreditation System of Higher Education (*Sistema Nacional de Acreditación de la Educación Superior*, SINAES) evaluates programmes, teaching staff and the infrastructure of public and private universities and community colleges (Box 5.1). The accreditation consists of a self-evaluation and an external assessment, and involves 171 criteria. Unlike many OECD education systems, **accreditation is not compulsory and only 12% of programmes (140 out of 1 165) have been accredited** since SINAES's establishment in 1999 (PEN, 2015).

Box 5.1. The accreditation process

SINAES has established a rigorous framework and process for programme accreditation which includes an internal and external evaluation. The self-evaluation requires a reflection process by key stakeholders (e.g. academics, researchers, administrators, students, alumni) around 171 criteria related to the context, resources, education process, and results of the programme (e.g. admission process, study plan, infrastructure, teaching methods, student life, research activities, students' performance, graduation). Each criterion is rated: deficient, insufficient, acceptable, and satisfactory. After submission of theself-evaluation report, three experts in the field, one national and two foreign, review this internal report and verify its accuracy through an in-situ visit.

The National Accreditation Council decides on the accreditation on the basis of the internal and external evaluation reports, and establishes an improvement plan that universities must commit to implement. The accreditation is usually granted for a period of 4 years. Then, the programme has to undergo again a thorough internal and external evaluation process and might be reaccredited for a period of between 2 and 8 years. SINAES publishes the programmes that have been accredited on its website. The evaluation reports, conditions of accreditation (e.g. overall rating, period) or university improvement plans are not disclosed.

Source: SINAES (2011), *Guía para la autoevaluación de carreras con fines de acreditación oficial (Guide for self-assessment of careers for official accreditation purposes)*, Sistema Nacional de Acreditación de la Educación Superior, www.sinaes.ac.cr/images/docs/proceso_acreditacion/guia_informe_autoeval_may11.pdf.

Unlike most OECD countries, universities in Costa Rica are not required to disclose essential data on enrolment or key performance indicators. In 2011, government and university authorities agreed to collect data on new enrolment to tertiary programmes in public and private universities. Yet the disclosure of data remains voluntary (eight universities opted out from this data collection) and there has been little progress in collecting information on other key performance indicators or improving the comparability and timeliness of data. There is notably very little information on labour market outcomes. The first survey to assess the employment conditions of graduates was carried out in 2010.

Main trends in participation and outcomes

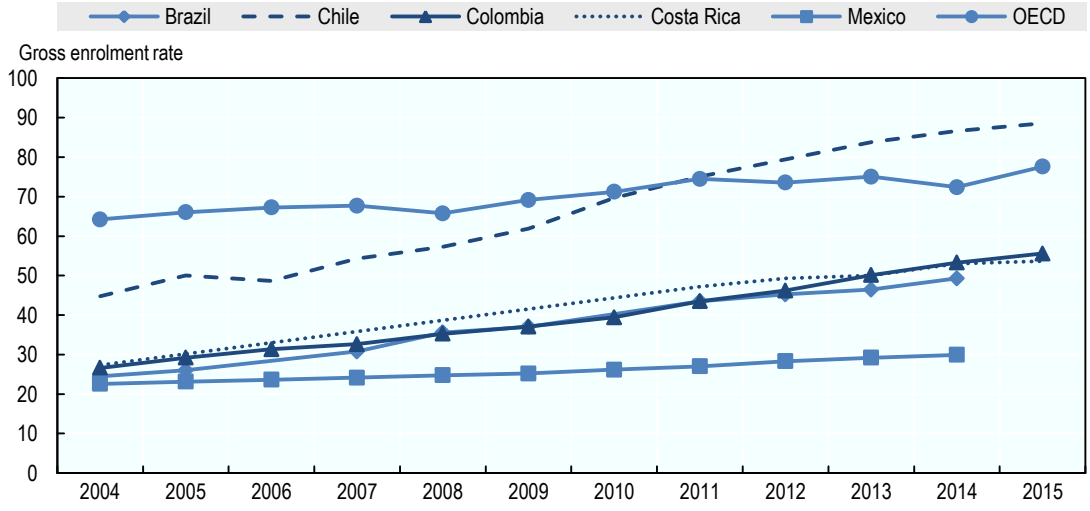
Enrolment has doubled in ten years

The number of university degree graduates increased over four times faster than the general population between 1973 and 2011 (MEP, 2016), and **the gross enrolment rate doubled between 2004 and 2013** to reach 51% (Figure 5.4) (UNESCO-UIS, 2016). Most of this growth has occurred in private universities. This growth has paralleled that of Colombia and, while slower than in Chile, has been faster than on average across OECD and Latin American countries.

Only half of students in public universities complete on time and a high proportion drop out

Accurate system-wide data on graduation is difficult to obtain given the lack of common statistical definitions across universities and strong information systems to track student completion and dropout. However, there are indications that few students graduate on time and many drop out, in particular in the public sector. One cohort survey showed that **roughly half of the entrants to public universities before 2007 had not graduated by 2013**, and of these, half had permanently dropped out of university (PEN, 2015). Dropout rates are higher among men, younger students and those attending programmes in the sciences, agriculture and engineering. Students in private universities are more likely to graduate: they accounted for over two thirds (69%) of graduates in 2013 but only half (51%) of enrolment.

Figure 5.4. Evolution of gross enrolment ratio in tertiary education (2004-2015)

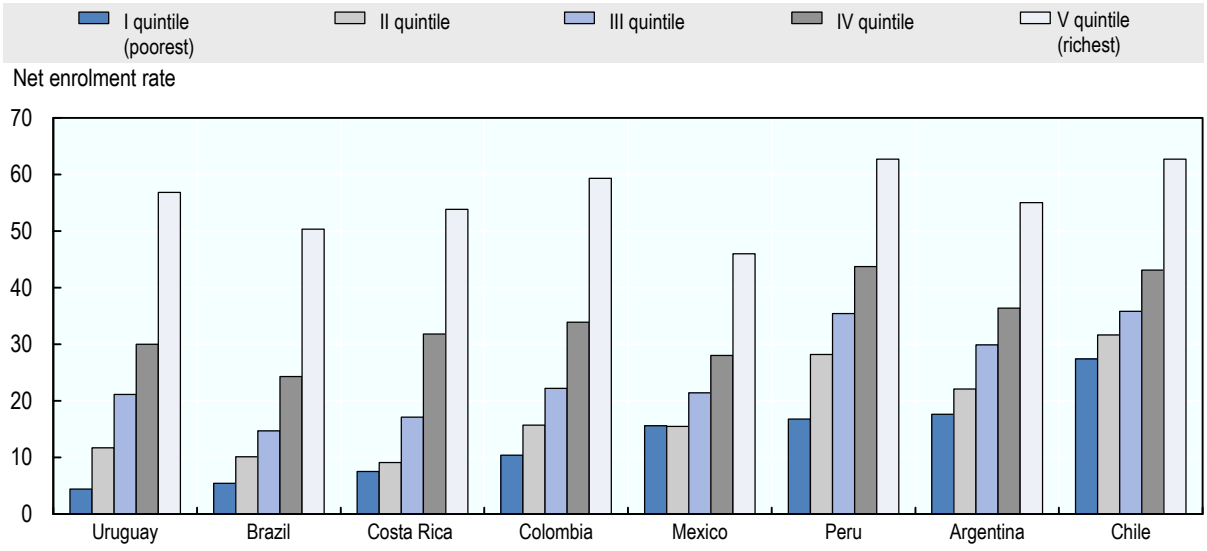


Sources: UNESCO-UIS (2016), *Browse by theme: Education*, Data Centre, UNESCO Institute for Statistics, www.uis.unesco.org/DataCentre/Pages/BrowseEducation.aspx; OECD (2016d), OECD.STAT website, http://stats.oecd.org/, (accessed 12 November 2016).

Few young persons from disadvantaged backgrounds make it to university

Students from middle and high income families account for the vast majority of new tertiary entrants. Though more students from poor backgrounds make it to university than was the case in the past, they still account for a very small share of enrolment. **Only 7.5% of young Costa Rican adults (aged 18-24) from the poorest income quintile enrol in tertiary education on time** compared to 54% of those from the wealthiest quintile. This difference is amongst the largest in the Latin American region (Figure 5.5).

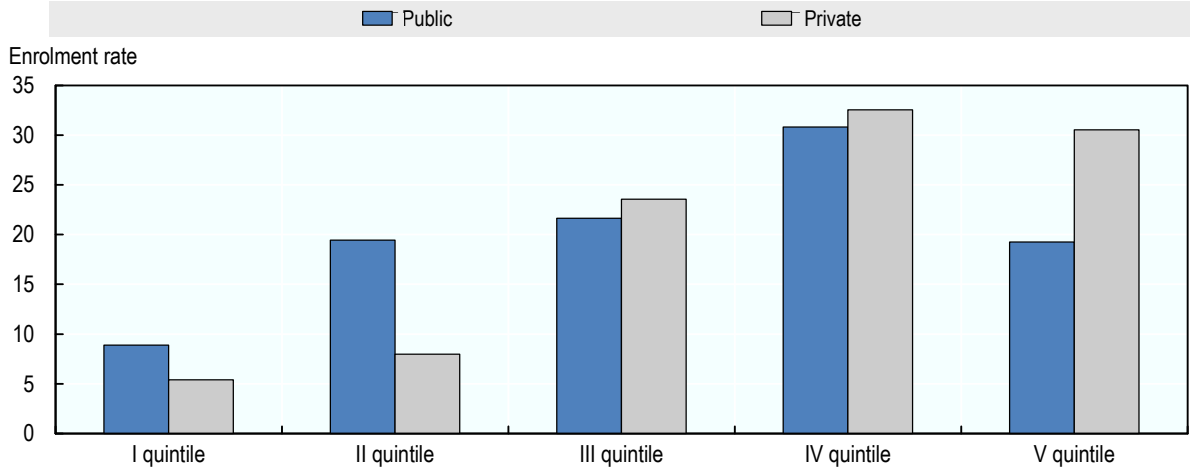
Figure 5.5. Enrolment of youth in tertiary education by income quintile (2014)



Source: SEDLAC (2016), Net enrolment rates: tertiary education, Base de datos socioeconómicos para América Latina y el Caribe (SEDLAC), http://sedlac.econo.unlp.edu.ar/esp/estadisticas-detalle.php?idE=20.

The obstacles for poor students to enter university are multiple and overlapping. The school a student attends makes a significant difference to tertiary opportunities in Costa Rica, and those who can afford to pay for a private secondary education have a much better chance of satisfying the entry requirements of the most selective public universities. For example, **students who come from a private school are more than twice as likely of being admitted to the University of Costa Rica as those who attended a public school** (47% compared to 23%) (La Nación, 2012), though only 20% of students attend private school, and disproportionately those from the top income quintile (Figure 5.6). This not only limits access to the best programmes and later to better jobs, but also to the highly subsidised tuition fees and generous scholarships that public universities offer and are particularly important for students from poor families.

Figure 5.6. Enrolment in university by sector and income quintile (2014)



Source: PEN (2015), *Quinto Informe Estado de la Educación 2015 (Fifth Report State of Education 2015)*, CONARE, Programa Estado de la Nación.

Student finance arrangements are both inequitable and inefficient

Currently, support for tuition and other costs takes three forms in Costa Rica. While these mechanisms provide valuable financial support to many students studying in the university system, especially in the public sector, their overall impact is neither equitable nor cost-efficient.

- *Large tuition subsidies*. **Thanks to the FEES subsidy tuition fees are very low at Costa Rica's public universities**. In 2009, for example, annual tuition at the UCR was less than 3% of average annual household income (Castro, 2010). For families from the lowest income quintile, tuition was still just 11% of household income (Castro, 2010). Such fees are about half of those in the unsubsidised private university sector. Heavily subsidising all public university students through low fees is inequitable for several reasons: many of the students could afford higher fees; it is unfair relative to students in private universities who receive very little subsidy; and it is a subsidy which supports an advantaged section of the youth cohort who are going to go on to earn good salaries.
- *Scholarships*. **Public university students also have access to a wide array of scholarships** – both need and merit-based – to support the costs of higher education. Nearly half of all students receive a scholarship, but only 10% come from the lowest income quintile. A recent report of the General Comptroller found that students from the highest income quintile receive over 25% of scholarships (García and Roman, 2014). While scholarships have helped to expand access to tertiary education for many students from poor families, they are not adequate to cover all costs associated with university attendance, meaning that many students have to work and study at the same time (38% of 18-24 year-olds in education), putting them at greater risk of drop out. The scholarship system also does nothing to address the needs of low-income students in the private sector. These are students who are more likely to have attended low quality public secondary schools and to have faced the selection process of public universities at a considerable disadvantage to their wealthy peers. While the latter go on to enjoy low fees and a generous subsidy in the public sector, poor students in private universities face higher fees for programmes that are also often of lower quality and more likely to be in fields with lower economic returns.
- *Loans*. Students in public and private universities can access a government-run student loan programme operated through CONAPE, but **less than 5% of students in higher education have opted for a CONAPE loan**, and only 65% of beneficiaries belong to the bottom two poorest quintiles of the income distribution (PEN, 2015). Low take up rates, particularly among poorer students may reflect the collateral requirements of the loans, which include a guarantor who receives a regular income, and perhaps wariness of debt-financing on the offered terms (Castro, 2010). Borrowers are required to start reimbursing the loan six months after graduation and for a maximum of 14 years, and faced an 8% interest rate until this was halved in 2016.

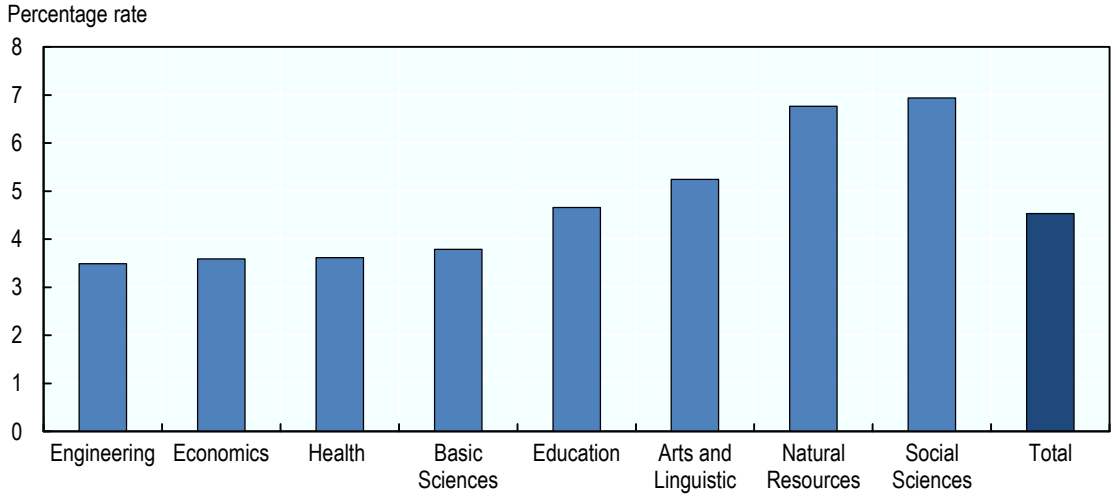
Returns to tertiary education vary widely by programme and university

Individual **returns to tertiary education largely depend on the programme and university** attended. Overall, tertiary graduates benefit from low unemployment rates - 5.5% in 2014 compared to 10% for those with a secondary level degree (PEN, 2015) – and one of the largest salary premiums among Latin American countries. Highly educated workers earn on average over three times more than for low-skilled workers. The increase in the skills premium in the last 15 years has been the primary factor driving the increase in inequality (OECD, 2017, forthcoming).

Large salary premiums can be read as an indication of the value of tertiary education, but the **high returns can also imply bottlenecks in provision and skills shortages**. Economic growth during the last 15 years has been concentrated in high value-added sectors such as information technology, medical devices and services to businesses including finance and real estate (OECD, forthcoming). These sectors have increased the demand for highly skilled workers and middle-level techncians in the country. A 2013 employers' survey showed that the jobs most difficult to fill were those requiring middle-level techniciens (48%) and university graduates (22%) (UCCAEP, 2013).

Universities are under growing pressure to be more responsive to the demands of the nation's economy. A 2011 employers' survey indicated that 59% of employers consider that the education system does not meet the needs of a competitive economy, and 51% believe that there are not enough engineers and scientists in the country (UCCAEP, 2011). Highly skilled workers are more likely to be employed and earn higher wages (Figure 5.7). The small number of graduates and postgraduates in science, technology, engineering and mathematics (STEM) is a particular concern, which risks holding back growth in productivity and presents a significant obstacle to Costa Rica's ambition of developing more high-technology, knowledge-intensive sectors of the economy.

Figure 5.7. Level of unemployment by field of graduation (2008-2010)



Source: MEP (2016), "Country Background Report: Costa Rican Education", Ministerio de Educación Pública.

While many public Costa Rican universities have a strong reputation, both within and outside the country, **there is also evidence that some universities are delivering poor quality outcomes for students**. In 2015, 63% of aspiring lawyers and 75% of aspiring doctors failed their respective examinations to enter the profession (Diario Extra, 2016; La Nación, 2015). Similarly, 40% of English teachers and 29% of Mathematics teachers showed limited knowledge of the curriculum that they were expected to teach in 2010, and teachers who had graduated from private universities scored well-below their peers who had graduated from a public university (see Chapter 3). CONESUP has reported serious infringements and concerns about the quality of some private universities. These include admitting students who do not have the *bachillerato* diploma, graduating students who do not meet the requirements, offering services in non-authorised buildings, hiring staff who do not meet the qualifications requirements, and offering programmes which are not authorised (Law 19549, 2016).

Main policies

Current policy reforms focus on strengthening oversight of private universities and improving the quality of tertiary programmes in areas of national importance. Towards this end, the government has submitted to the Legislative Assembly a proposal to reinforce the powers of CONESUP and getting this passed is one of the top political priorities for the present administration. A set of important improvement initiatives are also underway in the public sector, funded by a World Bank loan. They represent a start in addressing some of the major gaps in the public governance of tertiary education in Costa Rica and introduce for the first time the practice of performance-oriented funding agreements.

Strengthened oversight of private universities

A major reform of the CONESUP is now under discussion to strengthen oversight and promote accreditation. If approved, this measure would considerably expand CONESUP's financial, monitoring and auditing capacities. The proposal admitted for debate in the Legislative Assembly in April 2016 aims to:

- *Require the accreditation of all programmes of private universities in the national priority areas* of teaching, architecture and civil engineering, and health – over a period of three years, once the law takes effect. New private universities will have to request the accreditation of all their programmes within a year of the publication of the Law as a condition of operation, and maintain the programmes accredited during at least three graduate cohorts. The proposed Law under discussion (April 2016) is unclear on whether programmes in these fields in public universities will also need to be accredited.
- *Require periodic review of programmes*: Private universities will be required to review and update the curricula of their programmes every five years. This is a very important development given that some curricula have not been updated for 15 years.
- *Establish student rights* to a quality education and to complete programmes without significant changes to the cost or graduation requirements; students are also granted the right to fill a complaint to CONESUP in case of infringement. Student rights are recognised in the quality assurance frameworks of most OECD countries but in Costa Rica have received little attention until now (Ewell, 2015).
- *Build the capacity of CONESUP* both in terms of its ability to audit and review programmes.
- *Develop an information system of private tertiary education*. The CONESUP will request private universities to provide data, at a minimum, on the number of students, staff, curricula, diplomas, facilities, schools, and programmes, and make it publicly and electronically available.

If passed and implemented, these measures would represent a significant step forward in establishing basic quality standards in the private tertiary sector in Costa Rica

Additional funding for public universities to support quality improvements

The Ministry of Public Education has committed an additional USD 253 million for the sector between 2013 and 2017 under the Project to Improve Higher Education (*Proyecto de Mejoramiento de la Educación Superior*, PMES), funded through a World Bank loan. About USD 230 million is allocated to 4 public universities – which would be equivalent to a 29% increase of the FEES budget for 2016 – while the remainder will go to strengthen SINAES, develop an information system and create a labour market observatory. A major innovation of

the project is the introduction of institutional improvement agreements to guide spending in individual universities around four objectives: (i) increase enrolment by investing in infrastructure for teaching, learning and research (86% of the loan will be spent on physical infrastructure and equipment); (ii) increase the quality of higher education by, among other measures, upgrading faculty qualifications and doubling the number of accredited programmes; (iii) increase relevance in higher education by focusing resources on priority subjects that are key to the country's development; and (iv) strengthen public universities' management capacity and accountability (World Bank, 2012).

Plan Nacional de Educación Superior Universitaria Estatal (PLANES) 2016-2020

The main planning instrument of public universities is the four-year Public Tertiary National Plan (*Plan Nacional de Educación Superior Universitaria Estatal*, PLANES) developed by the public universities themselves. The current Plan 2016-2020 has 12 main strategic goals which focus on improving the quality, equity and relevance of public universities; increasing enrolment by 3.4%, funding for scholarships by 45%, and funding for research and development by 13%; introducing more virtual learning and flexible programmes, and promoting self-evaluation and accreditation. While the plan refers to wider government policy objectives, it does not align directly with either the goals or the timeframe of the National Development Plan and only universities themselves – through CONARE – are responsible for monitoring and accountability.

Policy Issues

Tertiary education will play an increasingly important role in Costa Rica's economic future. While public universities have a good reputation and the private universities have expanded in response to demand, the existing policy infrastructure limits the country's ability to leverage its considerable investment in relation to several pressing challenges, including growing income inequality and evidence of skill gaps. Indeed, without reforms to existing governance, financing, and quality assurance policies, tertiary education could exacerbate, rather than diminish, inequity and social exclusion. In the light of continuing budget challenges and a slowdown in growth, it is essential that Costa Rica ensure its public funding for tertiary education is invested strategically to advance national development. Developed below are a set of proposals for reforms to improve the quality and relevance of tertiary programmes, to develop a more equitable and efficient system of student finance, and to establish a governance structure that will steer the long-term development of the tertiary sector so that it is more competitive internationally and better serves the needs of Costa Rica's emerging economy.

Policy issue 5.1. Developing quality assurance and improving transparency

Following rapid expansion of the private university sector, Costa Rica has in the last 15 years adopted a much more demanding approach to the licensing of new programmes and universities in the private sector, and now, in SINAES, has a respected accreditation system. New legislation, explained above, will further strengthen the quality assurance system and application of accreditation in the private sector. These developments are to be strongly welcomed and it is important that the reforms to CONESUP pass. But, as evidenced by the high rates of failure by university graduates for bar and medical exams and their poor scores in teacher tests, standards in some university programmes are very low. Costa Rica therefore needs to take quality assurance further and faster.

Quality assurance in tertiary education, as in many other domains, typically has two main objectives – to guarantee minimum standards, and to build the capacity for continuous quality improvement throughout the system. Minimum standards are essential because in their absence employers lose faith in the skills of university graduates, while students cannot have any reasonable expectations of what they will learn at university and whether their investment in time and resources is worth the cost. For Costa Rica, rapid expansion of the private university sector combined with a history of weak regulation and licensing has led to serious quality problems, and the most urgent priority is therefore to secure minimum standards across the sector and particularly among private providers. Ensuring the extension of accreditation to private universities and programmes will be an important part of this process. Longer term policy development should emphasise a wider range of approaches to quality improvement, including stronger internal accountability and greater emphasis on the relevance of programmes to national development goals. Throughout the system, strengthened quality assurance needs a much better evidence base on performance and outcomes and greater transparency to drive improvement.

Strengthening minimum standards for universities and programmes

New legislation to reform CONSEUP addresses some important gaps

The current legislative proposal for reforms to CONESUP is an opportunity to address key weaknesses in Costa Rica's quality assurance system for private universities. While previous reforms have toughened the requirements for opening a new university or programme, they have done little to maintain and improve the quality of existing programmes and institutions (Bernasconi, 2015; CONARE, 2011). As the vast majority of private sector universities were established prior to 2001, when regulations were very weak, this is a significant gap.

The new legislation will go some way towards ensuring private university programmes meet, and continue to meet, minimum standards. These are important and valuable steps, but, given the seriousness of the challenges involved, they should go further in the ways described below.

CONESUP needs more authority and resources to guarantee quality

The key test of quality assurance is its capacity to take robust action in the face of very poor quality programmes or institutions. The current legislative proposals do not go far enough as they provide no clear mechanism for tackling poor quality unaccredited programmes in existing private universities. This implies that additional measures might be taken as follows:

- Closure of unaccredited programmes. After an initial grace period set by the law during which universities may realistically accredit their programmes, unaccredited programmes in health, education, architecture and civil engineering, in both private and public universities, should become unlawful and be closed. This will be challenging politically, and action will be necessary for programmes seen as at risk, prior to the end of the grace period to prepare for phasing out and closure. In January 2017, only 24 out of 565 (4.1%) private university programmes in these areas held accreditation, and 46 out of 233 (16%) in public universities.
- *Strong, clear review standards*. The mandatory internal, five-year review and update of the curricula of programmes should be linked to a more extensive review to become a key means by which private universities seek to improve quality, backed up by

CONESUP oversight. While the five-year reviews should be designed by each university to meet local needs, they should also be required to meet a core of common standards. These should be aligned as far as possible with those used by SINAES, with a view to setting the same expectations for all programmes and moving progressively towards a system of mandatory accreditation (see below).

Such standards would include the need to involve recognised academic peers, including peers from public universities, that the report of the review include recommendations, that the report should be published, and that the response of the university to those recommendations should also be published, indicating which recommendations if any will not be acted upon. The reviews should require consultation with all stakeholders involved in the programme, including existing and former students of the programmes. Other measures, including those set out in Box 5.1 on quality accreditation procedures, should also be considered. CONESUP should maintain oversight of this process, and retain the power to intervene, if it judges any internal review to have failed to meet the declared standards.

- *Real powers for audit and inspection*. CONESUP's audit and inspection functions should be strengthened, and linked to the internal review process. CONESUP should carry out inspections to ensure that all private universities, including those established many years ago, meet the standards required for *current* licenses. It should therefore carry out inspections where it judges that there is a significant risk that the programme or institution is failing to meet minimum standards, with a focus on those programmes which have not been accredited. It may assess risk either on the basis of evidence from internal reviews, or from published performance indicators (see below) or on other grounds. CONESUP inspections should be backed by powers to close institutions or programmes in breach of minimum standards, and which fail to pursue remedial measures following inspection or review.
- *Consolidation of small institutions*. CONESUP should also give attention to the size of some of the private universities in relation to quality, and may wish to require those which are too small to deliver quality to close or merge with other institutions.

CONESUP will need substantial additions to its resources to undertake this work. It currently only has 3 legal advisers and around 6 inspectors to carry out its monitoring of more than 50 universities and 550 programmes (PEN, 2015). It is not surprising that a common complaint about CONESUP from private university leaders is that it is slow, bureaucratic and stifles innovation (Levy 2015). According to one report, CONESUP approves, on average, only two new programmes a year, despite requests for many more (Castro, 2010). To strengthen CONESUP, measures have been taken since 2015 to increase the number of staff with knowledge of curriculum development, strengthen the information system and establish more timely procedures for the oversight of private universities. If Costa Rica is going to give further power to CONESUP to ensure that degree programmes offered in private universities are of quality, it should also commensurately strengthen its resources to ensure that it can effectively deliver on this mandate.

Extending coverage and developing the accreditation system

Accreditation in tertiary education has been defined as a process by which a " (…) body evaluates the quality of a higher education institution as a whole or of a specific educational programme in order to formally recognise it as having met certain predetermined minimal criteria or standard" (UNESCO, 2007). It is a widely-used practice in OECD countries and

globally, and over the last decade, many countries in Latin America have developed or are developing accreditation systems for tertiary programmes and institutions (CINDE, 2012). Costa Rica has established, in SINAES, an accreditation system which is well-respected by national institutions and in the region. These are strong foundations on which to further develop accreditation, both by extending its coverage, and by ensuring that accreditation is well designed to improve student outcomes.

Linking accreditation to licensing and public funding

One key challenge is to extend the coverage of the accreditation system, recognising that in most OECD countries accreditation is mandatory. In Costa Rica, just 15% of public university programmes and 9% of private university programmes were accredited in 2015 (PEN, 2015). One way to expand participation is by connecting accreditation to licensing requirements, by making it mandatory that all programmes within a given period be accredited, and continue to be evaluated at regular intervals thereafter. In practical terms, not all tertiary programmes can be accredited immediately, so it makes sense to begin with key subject fields, such as teaching and medicine. But while in the immediate future, Costa Rica is proposing to make accreditation a requirement for selected programmes of public interest; in the medium term, the government should consider making accreditation mandatory for all programmes, as is required in the majority of OECD countries (Hénard and Mitterle, 2008).

To the extent that accreditation remains voluntary, strong incentives are needed to encourage participation. Costa Rica has taken some limited steps to encourage accreditation – including giving extra points to civil service applicants who have graduated from accredited programmes. In countries where accreditation is not mandatory, the linkage of government funding to accreditation creates powerful incentives to extend accreditation, as well as providing stronger assurance that public funds are properly spent. Argentina, Chile, and Colombia have been pursuing this route (CINDE 2012; Bernasconi, 2015). In Colombia, for example, a new scholarship initiative, Hard Work Pays Off (*Ser Pilo Paga)*, enables talented students from disadvantaged backgrounds to enrol in accredited public and private universities (OECD, 2016b). In several OECD countries, such as Denmark and the United States, students may only receive public grants and loans when attending accredited private universities. In Costa Rica, making participation in accredited programmes a condition of receipt of funds, and enabling students in private universities to access public grants as recommended below (Policy Issue 5.2), would be a powerful incentive for institutions to accredit their programmes, as well as ensuring public money is well invested and that students are protected from low-quality programmes.

Improving the accreditation process

The goal of accreditation systems is to ensure that education provided by the institution meets threshold levels of quality and to support quality improvement over time (CHEA, 2010). Internationally, 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.

In Costa Rica, the accreditation process shares many of the hallmarks of accreditation systems found in other countries (see Box 5.1). Among its recognised strengths is the strong engagement of academics in standard-setting and review, and the consequent ownership and trust academic institutions have in the process. Notable, too, is the commitment to engage

international academics in a drive to ensure national standards are competitive internationally. There is likewise a positive emphasis on self-evaluation, and the potential through the accreditation renewal process to strengthen institutional capacity for self-improvement by requiring internal monitoring of performance progress. By 2018, SINAES aims to consolidate Costa Rica's quality assurance system by extending the coverage of accreditation, training staff on evaluation processes, and assessing the status of accreditation and quality in the sector.

However, internationally, accreditation practice is developing, particularly in respect of making the process more open to outside stakeholders, as opposed just to academic peers, ensuring transparency, and placing a stronger focus on outcomes (see Box 5.2). There is much that Costa Rica might learn from this experience as it seeks to improve the role of accreditation as a lever for quality improvement. The following in particular should be considered:

- Stakeholders beyond the academic world should be fully included in the accreditation process; this includes representatives of employers, students and wider society. Internationally, this is increasingly recognised as important so that accreditation goes beyond the peer review offered by those inside university systems to give accreditation, and therefore quality assurance, an outward facing dimension, so that university programmes become more responsive to the needs of Costa Rican society as a whole (see Box 5.2).

- There should be an emphasis on outcomes for students, alongside examination of inputs such as quality of teaching staff. Outcome data, covering dropout rates and employment outcomes for students are a key indicator of the value of tertiary programmes (Ewell, 2015). As discussed below, outcome data are currently weak. This needs to be rectified, and as data become available, accreditation should make increasing and full use of such information in support of the accreditation process.

- To ensure transparency and to provide information for prospective students, not just the results of accreditation exercises (as at present), but the detailed reports should be published, and subsequently the university responses to the recommendations for improvement. These reports should indicate, using a common scale, the assessed quality of the programme e.g. excellent/adequate/needs improvement/inadequate.

- One aim of accreditation should be to build up institutional capacity for continuous improvement. This means that the accreditation process should encourage self-evaluation as an initial part of the process. It also means that one of the tests of quality in a programme is the capacity of the institution to evaluate and monitor the success of the programmes, and feedback this experience into the programme characteristics. This should be given more attention in the accreditation process in Costa Rica.

Costa Rica might also consider reviewing the frequency of accreditation renewal, in particular if the country moves towards making accreditation mandatory, as this review recommends. One of the constraints on accreditation is a limitation on the resources required for the task, both on the part of the accreditation body and in the universities. If accreditation is extended, it will be vital to ensure that this does not take place at the cost of lowering the quality bar. One way of tackling this, building on a common quality assurance and inspection practice, would be to allow programmes that score well on their accreditation to have a relatively long gap before their next re-accreditation, and/or perhaps experience a lighter re-accreditation process, while programmes with identified weaknesses should face rapid and

possibly more intrusive re-accreditation. This approach would rest on the published rating of each programme (i.e. excellent/adequate/needs improvement) and adequate attention being given to institutional capacity for self-evaluation and improvement as mentioned above, and will concentrate resources on bringing the weakest programmes up to a minimum standard.

Box 5.2. 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 from the universities they are evaluating and from the relevant government agencies or ministries.
- Student-centred, guided by the interests of students for high quality educational programmes.
- Protect consumers and taxpayers ensuring that public and private investments in education are directed towards sound institutions and programmes.
- Focus on continual improvement: identifying opportunities for improvement and building the capacity of institutions to engage in their own continual improvement processes.
- Include a mix of stakeholders: academic peers, representatives from local business, community organisations, and governmental agencies enriches the process by broadening the base for feedback.
- Focus on outcomes as well as inputs, including student outcomes such as graduation, employment, and earnings.

Sources: CHEA (2010), *The Value of Accreditation*, Council for Higher Education Accreditation; Ewell, P. (2015), *Transforming Institutional Accreditation in the US Higher Education*, National Center for Higher Education Management; UNESCO-UIS (2012), *International Standard Classification of Education ISCED 2011*, International Organization for Standardization, www.uis.unesco.org/Education/Documents/isced-2011-en.pdf.

Developing a national information system for tertiary education

Key information on tertiary education performance is lacking

Quality assurance depends on the capacity to measure quality. Published quality measures provide essential information for students to choose in which university to study, and for the government and society to understand whether the sector is meeting national economic and social goals. While such measurement is demanding, especially in systems where tertiary institutions have a high degree of autonomy, most OECD countries provide, at a minimum, sector-wide data on core indicators, such as student enrolment, completion and labour market outcomes (IHEP, 2014). Full census data on all students, that allow outcomes from individual programmes in individual universities are vital if these data are to support accreditation. At present, data on tertiary education students and programmes in Costa Rica are very limited and of questionable reliability.

Reliable performance data is largely unavailable because institutions have no obligation to report data, and therefore depends very much on voluntary and somewhat *ad hoc* initiatives. In 2011, for example, the government and universities agreed to collect basic data

on enrolment, but eight private universities did not provide any data. Additionally, CONARE carried out for the first time an employment and earnings survey of graduates of public and private universities in 2013 but information is not disaggregated by individual institutions. Moreover, little information is available on key indicators of system and institutional performance (i.e. time to degree, retention, success graduating low-income or part-time students), and a lack of shared definitions and data quality checks means that existing data collected by individual institutions might not be reliably compared across institutions.

A coherent, system-wide approach is needed to improve data quality and availability

The relative absence of tertiary education data in Costa Rica is striking and sets it apart not only from OECD countries but also from other countries in the region; Chile, Peru, and Colombia, have all established increasingly robust, public-facing information systems to help guide both policy makers and potential students and their parents. The OECD welcomes the current initiatives to create a Labour Market Observatory (OLaP, *Observatorio Laboral de Profesiones*) and a common information system for public universities (*Sistema de Información de la Educación Superior Universitaria Estatal de Costa Rica*, SIESUE) as part of the World Bank loan project. Some considerations for their further development based on international good practice include:

- *Responsibility and governance.* Responsibility for establishing the information system needs to be vested in a government-funded body that has independence of both government and tertiary education institutions. While CONARE has taken the lead in the development of the SIESUE and OLaP, it has vested interests in the sector - as the representative body of public universities - and is not subject to any external accountability. The relationship of this body to the evaluation agency proposed in Chapter 3 should be considered – one option would be to bring these data-gathering responsibilities under the proposed evaluation agency. Alternatively, such responsibilities could be assumed by the permanent body within the government that this review recommends be established to steer the development of the tertiary education sector (see Policy Issue 5.3).
- *Common indicators.* That body, in consultation with stakeholders, needs to define a broad set of indicators to be collected based on common definitions. These will typically include indicators of inputs, such as staff numbers and qualifications of teaching staff, contact hours. They should also include student enrolment, broken down by different demographic measures, fields of study and types of programme, indicators of dropout, and, indicators of what happens to students after they graduate or leave the institution in terms of employment and income. The body will also need to monitor the quality of the data reported to ensure that universities are effectively applying the same methodology and standards.
- *Funding linked to compliance.* The information system, which only covers public universities so far, should include all tertiary institutions. The provision of a common core of essential data should become mandatory for all institutions, and no public funds should be given directly or indirectly to institutions who fail to provide such data.
- *Comparability of institutions.* The body should regularly publish the data in a form that allows the performance of different institutions to be readily compared. This data should also be presented in a user-friendly way, that will allow potential students and their parents to choose from among the various institutions on offer.

Government plays an essential role in collecting and disseminating information in ways that are accurate, impartial and that consumers can easily understand. Several countries in Latin America are developing web-based tools to help students and their families make wise educational choices. These tools pull together a wide array of education and labour market data in one easy-to-use website that allows prospective students to compare different programmes, institutions, and career trajectories (see Box 5.3).

Box 5.3. Data to guide programme choice in Chile: the "My Future" website

Chile's public-facing website is designed to help students choose what to study and in which university. It brings together administrative data on tuition, enrolment, and graduation at post-secondary and tertiary institutions and also includes detailed labour market information, such as employment rates, wage progressions and projected vacancies gathered by the Ministry of Labour. The site allows users to see the cost and average labour market returns of particular programmes of study in all Chilean public and private universities and technical colleges. The information is broken down by region, field of study, and occupation. It is very easy to navigate, using plain language to describe career and labour market information and represents an invaluable resource for students, parents, and guidance counsellors. It can also help employers and other social and governmental partners explore the supply and demand for occupations and skills in their region.

Source: Mifuturo (2016), *MiFuturo Website*, Ministerio de Educación de Chile, Gobierno de Chile, www.mifuturo.cl (accessed 12 October 2016).

Policy issue 5.2. Reforming student finance and the funding of tertiary education

The current system of student finance and tertiary funding in Costa Rica needs wholesale reform. Growing demands mean that the current arrangements are unsustainable in public expenditure terms, student finance is very unequitable, and the system is failing to meet labour market needs. There is a notable absence of attention to these issues in discussions on the future development of tertiary education in Costa Rica. What limited proposals for funding reform have been put forward – for example, the expansion of public university scholarships – reinforce the status quo. The first step therefore is to recognise the need for fundamental change. Costa Rica will then need to move ahead to develop a new funding approach, which reflects national priorities, and constraints, while drawing on lessons from tertiary financing reform internationally. Some key considerations informed by research and the experience of OECD countries are outlined below.

Recognising the need for wholesale reform

There are three compelling reasons for a fundamental reform of student finance and the funding of tertiary education in Costa Rica.

Current funding arrangements are unsustainable. Increasing tertiary participation has been associated with a rapid growth in public expenditure on tertiary education, roughly doubling as a proportion of GDP since 2000. Looking to the future, Costa Rica needs a growing tertiary sector to support and respond both to a developing economy and increasing demand from the growing number of young people who will have full upper secondary qualifications. But Chapter 1 has already argued that the mix of public expenditure on education needs to give more priority to equity, therefore favouring basic education for all

rather than tertiary education, which benefits only a minority of young people. As has been separately argued by the OECD, public expenditure as a whole also needs to be brought under control. The implication is that growing demand for the funding of tertiary education cannot be met through public expenditure, as it has in the past.

Tertiary funding is very inequitable. As explained earlier in this chapter, the public sector receives extensive government funding through the FEES transfer, allowing it to charge relatively low fees and provide about half of the students with scholarships. This means that those who have the school grades allowing them to enter the public universities – sometimes simply because of having the money to pay for better quality private schooling – will benefit from large government subsidies. Conversely, students in private universities have extremely limited access to scholarships, although they face higher fees and many of them come from lower-income families. The only financial support available to these students comes from a small government loan programme, which is ill-designed to meet their needs because those from poor families or those whose parents work in the informal sector cannot meet the collateral requirements. These financial barriers, alongside other factors, mean that Costa Rica performs badly in terms of access to tertiary education by students from poor backgrounds – at just 7.5%, the net enrolment rate for the lowest income quintile is one of the lowest in the region, and well below most OECD countries.

Funding arrangements prevent the system from meeting labour market needs. As shown above, most of the growth in tertiary participation has been through private university provision, and these private universities concentrate on provision in social sciences, education and economics. Costa Rica graduates relatively few students in science, technology and engineering, mostly through the public universities, where student numbers have not increased nearly as fast as in the private sector. It is much cheaper to teach "classroom" subjects like social sciences, education and economics, while science, technology and engineering programmes are expensive to teach because of the infrastructure requirements. The open market in private sector provision has failed to deliver the more expensive programmes, despite strong demand for the skills provided. The tertiary system has also failed to deliver the kind of shorter 1-2 year technical and professional programmes that have flourished in other countries. One possible reason is that technical programmes have mainly been in the domain of the public university system, where high levels of subsidy offer few incentives to seek out shorter programmes (which inevitably have lower status than longer programmes), and the public universities have few incentives to provide them. In effect, therefore, most of the growing demand for tertiary education has been artificially shoe-horned into social science, education and economics programmes in the private universities, programmes which are not the most in demand in Costa Rica and where there are many quality problems.

These three profound challenges make comprehensive reform essential. Implementation of such reform will inevitably take time, but work on reforms needs to begin immediately to plan the way forward for tertiary education, and to establish reforms in time to negotiate the next multi-year funding settlement for tertiary education from 2020. Such planning needs to be pursued through the reformed governance arrangements discussed in the following section. In that sense the three reforms – of quality assurance, finance and governance – are interconnected, and their implementation would require co-ordination across the different reform efforts. Here we set out the principles on which a reformed system of tertiary funding and student finance needs to be based.

Developing a new model for tertiary financing

International approaches vary significantly, but offer insights for reform in Costa Rica

Many OECD countries, faced with rapid expansion in tertiary participation, have needed to make major reforms in their tertiary funding and student finance arrangements. Different groups of countries have followed different routes. A model found in the Nordic countries has been to expand good quality public university systems with low or zero fees through large increases in public expenditure supported by highly progressive income tax systems. Some countries, many in Southern Europe, also expanded public universities but failed to match the expansion with public funding, raising serious quality problems in overcrowded and underfunded university systems. Many English-speaking countries adapted to expansion through managed cost-sharing arangements, by introducing or increasing tuition fees, while also establishing systems of loan and grant support for students. This move has been justified on a range of grounds, notably the significant private benefits of tertiary education, the inadequacy of public funding to guarantee quality and access, and the positive impact cost-sharing can have in terms of making institutions more responsive to student and market needs (OECD, 2008). Some other countries, for example in Latin America and parts of Eastern Europe, in effect accepted expansion by allowing a two-tier system to emerge, with some students facing high fees (often in a private university sector) while others continued to enjoy large subsidies. This uncoordinated approach to cost-sharing has created, as in Costa Rica, profound equity challenges as well as other distortions resulting from two-tier provision.

Costa Rica needs to develop its own funding model, according to its own public priorities, while drawing from the best and most relevant of this experience. The country stands apart in Latin America, and internationally, in terms of its commitment to provide universal access to basic public services, including education, free of charge. However, the factors that have enabled some countries to extend this principle of universal free access to financing higher education are not present in Costa Rica. In Nordic countries, for example, the potentially regressive impact of low or zero tuition fees is substantially neutralised by strongly progressive tax systems, particularly income tax, with well-paid graduates, in effect, paying a graduate tax. Equity, if not optimised, is therefore certainly not badly affected by the Nordic tuition fee regimes. But Costa Rica has a totally different tax structure, with low levels of income tax and other taxes playing a very weak redistributional role (see OECD, 2017, forthcoming). This means that inequities generated by tertiary funding arrangements which grant the benefits of tertiary education to the few will not be balanced by subsequent progressive taxation. Moreover, as the expansion of private provision demonstrates, public resources are inadequate to keep up with rising demand, and this gap will only increase as pressure grows to build public provision at the postgraduate and research levels.

This implies that Costa Rica needs to move towards a more effective and equitable cost-sharing approach, learning from the experience of English-speaking countries, but adapted to its own context. This same point has been made in economic analyses of higher education funding in developing countries. For example, Johnstone (2015) sets out five national conditions under which a move towards more cost sharing through higher university fees might be justified. These include higher education participation being disproportionately a preserve of the middle class, a relatively unprogressive income tax system, a demonstrated willingness to pay tuition fees, a developed private tertiary sector and compelling alternative uses of higher education funding, including basic education. All these conditions are met by Costa Rica.

Key considerations for the reform of tertiary funding in Costa Rica

For these reasons, this review recommends that Costa Rica pursue the following objectives when undertaking funding reform:

- *Cost-sharing as a core principle, with public funding being directed mainly through student support rather than through institutions.* Given that further increases in public expenditure on tertiary education cannot be justified relative to other compelling demands in the education system (see Chapter 1), future growth in tertiary education will need to involve greater contributions from students, on a cost-sharing model, particularly in the public universities, where currently students receive large subsidies.

  Cost-sharing is justified because it makes the main beneficiaries from tertiary education, the students, bear some of the resource burden, with multiple efficiency and equity benefits. Efficiency benefits emerge because the cost burden on students encourages them to reflect on cost-effective choices of programmes of study. Equity benefits arise because the very large economic returns from tertiary education are moderated, in terms of equity impact, by the contribution of those graduates to the cost of their education. Funnelling support for tertiary education primarily through student, rather than institutional support, reinforces these gains, while bringing additional advantages. In equity terms it allows student support to be directed to the students most in need, and on a fair basis across the entire tertiary sector, rather than on a basis which varies by institution and with large differences between the public and private sector. It therefore reflects student needs, rather than the interests of the institutions. In efficiency terms it also allows students to make choices of programme on the basis of their quality relative to cost, rather than being driven by varying subsidy levels.

  In practice, moving towards a cost-sharing model will entail two main adjustments. There will need to be substantial increases in fees in the public universities to reduce dependence on public funds. Such fee increases need to be regulated, but they would also allow public universities to invest in the quality of their programmes. Costa Rica will also need to put in place a system of financial support for students to help them to pay their tuition fees, as well as assisting their maintenance.

- *Establishing a comprehensive student support system*. Costa Rica therefore needs, over the medium term, to develop a national loan and scholarship system, covering both public and private tertiary institutions, as the prime means of financial support for students entering tertiary education. The loans and scholarships would help students to pay their tuition fees as well as help with their maintenance, with limitations in terms of the number of years for which students can benefit from financial assistance. This scheme would supplant the financial support and the subsidised tuition offered by individual public institutions, and this would also become the main means by which government channels financial support to tertiary institutions in order to teach students (as opposed to undertaking research). Specifically:

  Scholarships would be allocated based on an assessment of need. In addition to financial need and socio-economic disadvantage (low-income family, parents with low education levels, poor understanding of benefits of tertiary education), scholarships could be targeted to serve wider policy interests. For example, scholarships could be used to promote access to tertiaryeducation for specific underserved population groups (e.g. indigenous people, those with disabilities, and those from rural areas). For these groups, the size of the scholarship should be large enough to cover both the increased cost of tuition fees and the

associated costs (board, transport, learning materials) of university attendance, which can be prohibitive for students from poor families and are not covered adequately in the current system. The revised scholarship scheme might also be used to support priority economic and labour market objectives – for example, to attract more students to STEM fields or talented students to key areas (e.g. teaching).

- Loans need to be made more accessible. The small number of beneficiaries of the CONAPE government-backed system raises concerns as to the accessibility of the current loan terms. In 2016, CONAPE halved the interest rate from 8% to 4% to make loans more affordable. Further changes can also be made to the design of the loans to ensure that students who face credit constraints can access them. The stringent collateral requirements, which at present require a guarantor with commensurate assets or regular income, need to be relaxed for students from low income backgrounds. Additionally, loan repayment and forgiveness schemes should be revised to ensure that tertiary graduates would not face financial hardship because of taking out loans. OECD countries reveal a variety of approaches to the conditions and financing of student loans that Costa Rica might look to when devising an appropriate scheme (see Table 5.3). Commonly loan schemes are blended with scholarship arrangements, particularly where some social groups are especially averse to debt, as is the case in Costa Rica. Greater participation by students from families employed in the informal sector are likely to depend on some kind of combined loan and scholarship arrangement. In terms of financing an expanded loan scheme, it is unlikely that the current CONAPE model, primarily funded through a tax on bank profits and a transfer from the National Insurance Institute, would be able to support a much increased demand. A major expansion of lending in Costa Rica would appear to require new sources of capital to supporting borrowing, whether in the form of government borrowing, or private borrowing that is backed by the government.
- *Making public subsidy conditional on quality standards*. The good quality of a tertiary programme, typically demonstrated through accreditation, should be a condition for public subsidy. The scholarship and loan system should be accessible to all students enrolled in accredited programmes, regardless of whether the institutions are public or private. This arrangement would increase fairness in the relative treatment of students in the public and private sector, help to protect students from poor quality programmes, and encourage quality overall, by creating a strong incentive for programmes to pursue accreditation (see Policy Issue 5.1). This means that implementation of these reforms to tertiary finance will depend on the reforms, discussed earlier, in quality standards and accreditation, and the timing needs therefore to be linked.
- One implication of this principle is that the blanket subsidy for virtually all programmes in public universities, realised through the FEES transfer, should be overhauled. As suggested below, allocations to public universities should be made on the basis of agreed expectations in terms of input and outcomes and more closely related to performance in accordance to national priorities (see Policy Issue 5.3).

Table 5.3. Key features of loans for tertiary education students in selected OECD countries

	Proportion of students who have a loan, (ISCED levels 6-8)	Interest rate	Average debt in graduation (USD converted using PPPs)	Repayment system (annual minimum income threshold in USD)	Average years of amortisation	Proportion of beneficiaries and conditions for remission/forgiveness	Proportion loans that are not repaid (%)
Australia	79	2%	n.a.	Income contingent (USD 33 709)	8.5	0.56% (death, bankruptcy, graduation or employment in specific fields or locations)	Forgiveness: 17, Remission: 0.06
Denmark	35	4% during studies and 1% after studies	14 856	Mortgage style	7 to 15	Very few (low income)	1
Estonia	11	5%	n.a.	Mortgage style	8 to 10	6% (death, illness)	n.a.
Japan	38	No nominal interest rate during studies and maximum of 3% after studies	29 942	Mortgage style	15	0.63% (death, illness or academic merit)	n.a.
Korea	18.5	2.9%	n.a.	Income contingent and mortgage style (USD 21 755)	Up to 10 years (mortgage style loan)	Only elderly graduates with low income	n.a.
Netherlands	n.a.	0.12%	18 100	Income contingent (USD 19 516)	15	10%	10
New Zealand	n.a.	No nominal interest rate and 5.9% after studies if located overseas	14 347	Income contingent (USD 12 996)	7	Less than 0.2% (death, bankruptcy)	n.a.
Norway	68	2.52% (cost of government borrowing + 1.25% to cover defaulting costs) after studies	26 826	Mortgage style	20	5% (death, illness, low income or unemployment)	n.a.
Slovak Republic	n.a.	3.19% after studies	3 247	Mortgage style	7.1 (from 5 to 10)		1.08
Sweden	52	1%	22 789	Mortgage style	25	2% (death, illness, elderly graduates	7.3
Turkey	32	Domestic Producer Price index after studies	n.a.	Mortgage style	2 to 6	Death and illness	n.a.
United Kingdom	92	Retail price index plus 3% (5.5% for 2014-15) during studies, and based on earnings after studies (2.5% to 5.5% in 2014)	30 349	Income contingent (USD 30 062)	n.a.	Death, loans are written off 30 years after graduation	n.a.
United States	62 (bachelor's) 67 (master's), 32 (doctoral)	0 to 7.21% during studies and 4.66% to 7.21% after studies	n.a.	Income contingent and mortgage style	10 (mortgage style repayment), 20 to 25 (income based repayment)	Death, illness, and loan debt exceeding annual income. Teachers and public servants may have a portion of their loans forgiven	n.a.

Source: OECD (2016a), *Education at a Glance 2016: OECD Indicators*, http://dx.doi.org/10.1787/eag-2016-en.

Policy issue 5.3. Developing and implementing a long-term strategy for sector-wide improvement

Earlier parts of this chapter have set out the case for a major reform programme in tertiary education. Such reform, reaching widely across the public and private sectors, requires development over time, co-ordination between different parts of the tertiary system, and monitoring of developments and policy responses to emerging trends and issues. This demands a long-term strategy, and a mechanism to implement and develop that strategy across planning cycles and ensure that reforms are well sequenced and co-ordinated. Such coherence is important given the interdependence of reforms to tertiary funding and quality assurance.

Currently, Costa Rica lacks the necessary means to design and implement such a long-term reform agenda. The existing umbrella bodies in tertiary education are either in separate silos or weak. The government of Costa Rica, unlike its counterparts in OECD and other countries, maintains no directorate within any ministry, or government agency with overall responsibility for tertiary education. This is a striking omission. CONESUP is primarily concerned with the private university sector and its focus is very often on narrow operational concerns such as licensing rather than long term policy and planning, while CONARE is independent from the national government. There is no body with responsibility for the sector as a whole, no platform where all stakeholders can come together to ensure coherence across programmes and institutions, and no basis – in terms of system-wide goals, information or monitoring requirements – on which to meaningfully allocate public funds. This means that there is no way of developing and implementing new policies on issues like student finance, tertiary quality, or meeting the needs of a fast-changing economy, all of which are matters that concern both public and private universities, and are also very important to the whole of Costa Rican society. This arrangement is unsustainable, and cannot provide a sound foundation for the development of a competitive, high quality tertiary sector.

To meet the challenge, it would make sense for Costa Rica to establish a steering group, chaired by the minister of Education and including the public and private universities, as well as representatives of all other stakeholders in tertiary education, to lead a national consultation that would reach agreement on a national pact, for a shared long-term strategy for tertiary education. This strategy would then need to be translated into an action plan for the next five-year funding period, and a body established within the ministry to steer the implementation of that plan. Having a long-term vision for the tertiary sector is important for any country, but it is particularly important in contexts where there are very high levels of institutional autonomy. Clear, shared goals, and an agreed framework for funding and monitoring can help to ensure that autonomous institutions develop in ways that are complementary and achieve better outcomes for their students and society.

Developing a long-term strategy for the tertiary sector as a whole

The steering group, chaired by the minister, would lead a national consultation to develop the long term (10-15 years) strategy, which would cover the whole tertiary education system, including short professional programmes, and include clear goals that would guide the subsequent development of medium-term action plans at the national and institutional level. Such strategic planning would bring Cost Rica into line with many other countries within the OECD, for example the National Strategy for Higher Education to 2030 in Ireland (Department of Education and Skills, 2011) or in Latin America, with the Commitment for Excellence 2034 (*Acuerdo por lo Superior 2034*) in Colombia or the Higher Education Vision 2035 (*Agenda 2035 para la Educación Superior*) in Ecuador (Salmi, 2013).

The steering group would work as follows:

- It would include representatives of tertiary institutions, government and wider society, including employers and students, and provide a place where all stakeholders in tertiary education could come together to identify common goals, which is currently lacking in Costa Rica.
- Development of the strategy would involve public consultation, allowing all Costa Ricans to contribute to the development of the proposals. The mechanisms of consultation should be multiple, offering online consultation, but also direct outreach to key groups, such as the productive sector. Given the over-centralisation of the current system, it would be important to hold consultations in different regions and under-served rural parts of the country.
- The steering group would need to be supported by a secretariat from the Ministry of Public Education. This secretariat would become the focal point within the ministry for tertiary education issues beyond the lifetime of the steering group, not only filling a notable gap in government responsibility but also assisting articulation between secondary and tertiary education, and linkages with INA provision and other parts of the government with an interest in tertiary education (e.g. Ministry of National Development, Ministry of Science, Technology and Telecommunications).
- This strategy would aim to establish some principles and long term objectives for the tertiary sector, that would underpin practical policy development and implementation in several areas, including:
  - Reform of tertiary funding, including a response to the recommendations made in this report. This entails the necessary reform to student finance, but in the longer term, based on more reliable information on institutional performance, reforms to how direct allocations to institutions are determined.
  - Quality objectives for the system, including by responding to the recommendations on quality made above. It would also help to provide the system-wide quality performance objectives that will underpin the accreditation role of SINAES.
  - Alignment between the school and tertiary sector to support transitions and reduce drop-out.
  - Diversification of the tertiary offer, recognising both student and labour market needs, particularly for shorter tertiary programmes (as discussed in Chapter 4) and postgraduate programmes (which are relatively lacking in Costa Rica)
  - The provision of information on the working of the tertiary system and its component institutions in the interests of students and all other stakeholders (responding to the recommendations made here);
  - Articulation and credit transfer arrangements so that students can progress smoothly within the education and training system; this would involve co-ordination with INA to ensure the alignment of the Qualifications Framework for Costa Rican Higher Education (*Marco Nacional de Cualificaciones*, MNCESU) and the new National Qualifications Framework for Vocational Education and Training that is under development.

Initially, over a period of 12 to 18 months, the steering group would seek to agree a long-term strategy and establish a permanent body, based on its secretariat, to develop and implement the strategy through a medium-term action plan.

Translating the strategy into a medium-term action plan and budget

The permanent body could be an agency within the ministry, but with a degree of independence granting it a clear mandate, budget and authority to translate the strategy into a medium-term action plan for which different parts of the tertiary sector would be held accountable. The agency would have responsibility for developing policy objectives, determining the allocation of public resources taking into account these objectives, and monitoring the performance of the tertiary sector and its institutions against those objectives. This would mean that it might naturally oversee, or even include, the information unit for tertiary education proposed above (see Policy Issue 5.1). This process will allow the agency to inform future policy and funding choices. The steering group itself would meet from time to time to steer the work of the agency.

Setting clear targets and linking them to five-yearly budgets

The agency would need to establish targets for each five-year budgetary and planning period, building on experience with the PLANES plan, but covering the entire sector and in closer alignment with the National Development Plan. Such targets might include challenging issues like encouraging completion on-time, reducing drop out, and increasing the enrolment of students from the lowest income quartiles. The targets would need to be sufficiently clear to orient tertiary institutions towards addressing the key national goals laid out in the long-term strategy, but not be too prescriptive, giving each institution the space to translate them into more specific measures relevant to their own context. Each institution would be expected to report annually against the targets.

The agency would also need to establish a more effective methodology for allocating resources to individual institutions. The current approach, in which funding is based on historic levels of expenditure, should be gradually replaced with an approach which relies more accurately on the costs of provision whilst providing incentives for universities to achieve the national targets for the sector and improve their performance. The institutional improvement agreements drawn as part of the World Bank loan, which allocate resources based on specific targets for each individual university, are an important precedent in which the country can build in moving towards performance-based funding. Future negotiations of funding should be based on clear five-year targets for the sector as a whole and each individual institution. Performance-based funding is increasingly used by OECD countries to steer tertiary institutions towards better outcomes. Box 5.4 sets out the linkage between funding and objectives in respect of the highly autonomous universities in England.

Negotiating tertiary funding within the overall education budget

The strategy developed by the steering group will need to be affordable and justifiable – recognising many other demands on public expenditure, including other demands on education expenditure. An essential part of the tertiary education strategy will therefore be to reform student finance to make it much more equitable, and to outline how universities can work more closely with the school sector to support better preparation and transition into tertiary education for students from disadvantaged backgrounds. But in other respects also, the strategy and the five-year targets will need to be sufficiently convincing to justify the public expenditure involved, in competition with the compelling demands of basic schooling.

The tertiary education agency will therefore need to cost the strategy proposed by the steering group, and seek and secure funding for that strategy from the government – in particular for the next five-year plan in 2021-25. This budget will need to be agreed in relation to concrete targets and deliverables associated with the strategy. In practice this may

require some iteration, in that the strategy may have to be adjusted, in scale or in its characteristics, to fit the agreed budgetary envelope. This will require further negotiation, but it is also a means to focus attention on results and encourage competition to demonstrate public value.

Box 5.4. Higher education funding and strategic policy objectives in England

In England, universities are autonomous self-governing institutions. Universities receive income from different sources, but key sources include student fees, typically supported through income-contingent loans, and funding from the Higher Education Funding Council for England (HEFCE), an agency which has a limited degree of independence from government. The government provides funding to HEFCE, which HEFCE then passes on to institutions, but each year the government sets out, in a published document, the strategic and operational objectives of the higher education sector which it expects to see, realised through the HEFCE budget. The government's published guidance to HEFCE for 2016-17 sets out the budget for that period, and asks HEFCE to:

- protect funding for high-cost subjects including STEM
- give more focus to institutions with high proportions of students from disadvantaged backgrounds
- support the doubling of the number of disadvantaged students entering higher education
- take responsibility for implementing the Teaching Excellence Framework (quality assurance)
- review support arrangements for students with disabilities
- support the development of degree-level apprenticeships
- increase the proportion of female governors of higher education institutions from 33% to 40% by 2020
- further develop collaboration between universities and business
- encourage leaders in the higher education sector to demonstrate much greater salary restraint
- produce an annual report with indicators showing how the sector is driving efficiencies.

HEFCE, for its part, is expected by government to use a variety of funding incentives to ensure that individual autonomous higher education institutions act to realise these government policy goals.

Source: HEFCE (n.d), *Higher Education Funding for 2016-17*, The Higher Education Funding Council for England, www.hefce.ac.uk/media/HEFCE,2014/Content/News/2016/HEFCE_Grant_Letter_201617.pdf.

Conclusion and recommendations

These suggested reforms are wide-ranging, requiring a rethink of roles and responsibilities throughout the tertiary system in Costa Rica, and involving a much more systematic approach to tertiary education than hitherto pursued. It will take some time to implement all the necessary reforms, and they will need to be co-ordinated and sequenced. Some important reforms in quality assurance are already in train, developments which will help to support reforms in tertiary finance that will take longer to develop and bed down. While historically, in Costa Rica as in so many countries, universities were relatively small-scale, tertiary education is now a huge industry, playing a vital and central role in Costa Rican society and economy, as it does in other modern economies. This means that policy on tertiary education needs to be integrated into, rather than isolated from, public policy and the country's development goals.

Box 5.5. Recommendations

Developing quality assurance and improving transparency

5.1.1. **Strengthen minimum standards**. New legislation to strengthen the oversight role of the National Council of Private Higher Education (*Consejo Superior de Enseñanza Superior Universitaria Privada*, CONESUP) should go further. It should grant CONESUP the powers and resources to ensure that all private university programmes, including existing programmes, are of minimum quality. To this end, CONESUP will need to encourage accreditation, ensure that the mandated five-yearly reviews involve a full quality review, are of adequate standard and are open to public scrutiny. CONESUP should underpin these measures with a programme of risk-based inspections and be given the powers to close programmes that do not meet minimum standards.

5.1.2. **Extend the coverage and impact of accreditation**. Coverage of the SINAES accreditation system should be extended by progressively making public funding, including student finance, conditional on the accreditation of programmes in which students are enrolled. The accreditation process should be strengthened by involving a wider group of stakeholders, linking the process to performance indicators, and by publishing the accreditation reports.

5.1.3. **Develop a national information system**. An independent body should be established with a dedicated budget to collect, analyse, and disseminate information about the performance of the tertiary education sector and its component institutions. Tertiary institutions should provide data to this body in a common format. A user-friendly information site should offer detailed information on the costs and estimated returns to programmes of study at all the country's public and private tertiary institutions.

Reforming student finance and the funding of tertiary education

5.2.1. **Make equitable cost-sharing the key principle of reform**. The current arrangements for tertiary funding are unsustainable, inequitable and do not respond to labour market needs. A new tertiary funding and student support system therefore needs to be developed to allow for more effective and fair cost sharing between government and the students who benefit from tertiary education. This new financing arrangement should target financial support to students, on the basis of need and their ability to benefit and offer assistance to pay fees and help with maintenance. Eligibility requirements for scholarships should be revised and the CONAPE programme should be replaced by a national government-backed loan system. Scholarships and loans should be offered to students pursuing quality programmes (typically implying accreditation) in either public or private universities, replacing the current arrangements which primarily channel subsidy to students via public universities through subsidised tuition and scholarships. There should be a regulated but substantial increase in the fees in public universities.

Developing and implementing a long-term strategy for sector-wide improvement

5.3.1. **Establish the policy infrastructure to steer reform**. Costa Rica needs to put in place stronger mechanisms to steer the development of tertiary education and ensure the sector contributes to national socio-economic goals. A first priority is to develop a long-term strategic vision for tertiary education and establish a body within government with responsibility for implementing its objectives. To take this forward, a steering group could be set up to manage a public consultation on the strategy; it should be chaired by the Minister of Education, and include broad representation from tertiary institutions and wider society. The strategy should aim to realise a tertiary education system which is equitable, high quality and meets the needs of both students and employers. A permanent body is needed within government to guide the implementation the strategy, charged with developing medium-term action plans and budgets, monitoring implementation and advising on further required policy development.

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Annex A. Composition of the review team

Simon Field is the lead author of the two main OECD publications on VET policy (*Skills beyond School* and *Learning for Jobs*) and a review of equity in education (*No More Failures: Ten Steps to Equity in Education*). He has conducted an exceptionally wide range of different country reviews for the OECD, and most recently has been leading the OECD review of education in the Netherlands. He holds a PhD in philosophy and social policy from the University of Cambridge and an MSc in Economics from Birkbeck College London. He was born and brought up in Belfast in Northern Ireland.

Elizabeth Fordham is the Senior Advisor for Global Relations in the OECD Directorate for Education and Skills since 2014. Elizabeth has worked on global education for over a decade, most recently as programme specialist in UNESCO's Education for All Partnerships team focused on co-operation with BRICS countries and the private sector. She has a breadth of experience in education outreach and policy dialogue, having served as Chief of Unit for Institutes and External Relations (2012), UNESCO Education Advisor to the United Nations Organisation (2009-2011) and Executive Officer for Education in the Office of the UNESCO Director-General (2006-2009). Elizabeth has a BA Hons and MPhil in history from the University of Cambridge, United Kingdom, and a PhD in Political Thought from the European University Institute in Florence, Italy. She has published widely on the impact of conflict on higher education in twentieth-century Europe. She oversees the accession process of Costa Rica and Lithuania to the OECD in the field of education.

Anaïs Loizillon is an independent consultant specializing in global education policy, with a focus on early childhood development and basic education. In her role as a Research Officer on the Education for All (EFA) Global Monitoring Report team at UNESCO between 2006 and 2010, Anaïs was responsible for monitoring international education trends and national programs and policies for all EFA goals. Anaïs is the author of a number of evidence and policy reports that examine education policy and practice in developing countries. She holds a Master's in Public Affairs and Urban and Regional Planning (MPA-URP) from the Woodrow Wilson School in Public and International Affairs at Princeton University and has completed coursework for a PhD in economics at the Paris School of Economics.

Mary Alice McCarthy is the Director of the Center on Education and Skills at New America, a non-partisan policy think tank located in Washington DC The Center's research examines the growing intersection between higher education, workforce development, and job training programs as policy makers struggle to meet the growing demand for skills and post-secondary education. Prior to joining New America, Mary Alice worked at both the US Departments of Education and Labour, where she led a variety of technical assistance initiatives in the areas of career pathways, credentialing, and competency-based education. She also co-ordinated the OECD *Skills Beyond School* review of post-secondary education and training in the United States and co-authored the *Skills Beyond School* review of Peru. Mary Alice has a PhD in political science from the University of North Carolina and a Masters of Public Administration from the Harvard Kennedy School of Government.

Anna Pons has co-ordinated the accession process of Costa Rica to the OECD in the area of education and skills. Anna has recently taken responsibility for the development of the OECD TALIS Video Study which will provide international insights on the most effective teaching practices based on classroom observation. Previously, Anna co-ordinated and contributed to in-depth reviews of the effectiveness and equity of nine education systems in Europe, Latin America and Asia. She also co-authored the OECD report Equity and Quality in Education which identified system and school-level policies to support disadvantaged schools and students. Prior to joining the OECD in 2010, Anna gained work experience in the Catalan government, a local government and the private sector. Anna holds a BA in Economics and a BA in Political Science from University Pompeu Fabra, and a Master in Economics and Public Policy from Sciences Po, ENSAE and École Polytechnique.

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